



CATALYST for a better HAWAI‘I



2016 Annual Report To Shareholders



OUR VISION

At HEI and our subsidiaries Hawaiian Electric Company (Hawaiian Electric) and American Savings Bank (American), we strive to be a catalyst for a better Hawai'i—for a stronger economy, a cleaner environment and a thriving community—while delivering long-term value for our shareholders.

By investing in renewable energy technologies, supporting electrification of transportation and creating new customer options such as time-of-use rates and demand response programs, we create local jobs and build customer value.

By helping to lower fossil fuel use, we increase Hawai'i's energy independence, keep more dollars in the state and lower our carbon footprint.

By making loans to Hawai'i's families and companies, we provide capital to help local businesses grow and families fulfill their dreams.

And through the active involvement of our employees in our communities and our corporate and employee charitable contributions, we promote a more resilient local community.

cat·a·lyst

an agent that causes or accelerates significant change or action

2016

ECONOMY

More than \$1.8 billion in loans to Hawai'i consumers and businesses

Over \$318 million invested in modernizing and improving Hawai'i's electric grids and in integrating more renewable energy

ENVIRONMENT

Approximately 26% of our customers' energy needs were powered by renewables, with 54% on Hawai'i Island and 37% for Maui County

Added 99 MW of renewable energy from solar

Avoided 2.2 million barrels of imported oil, which would have cost our state \$119 million

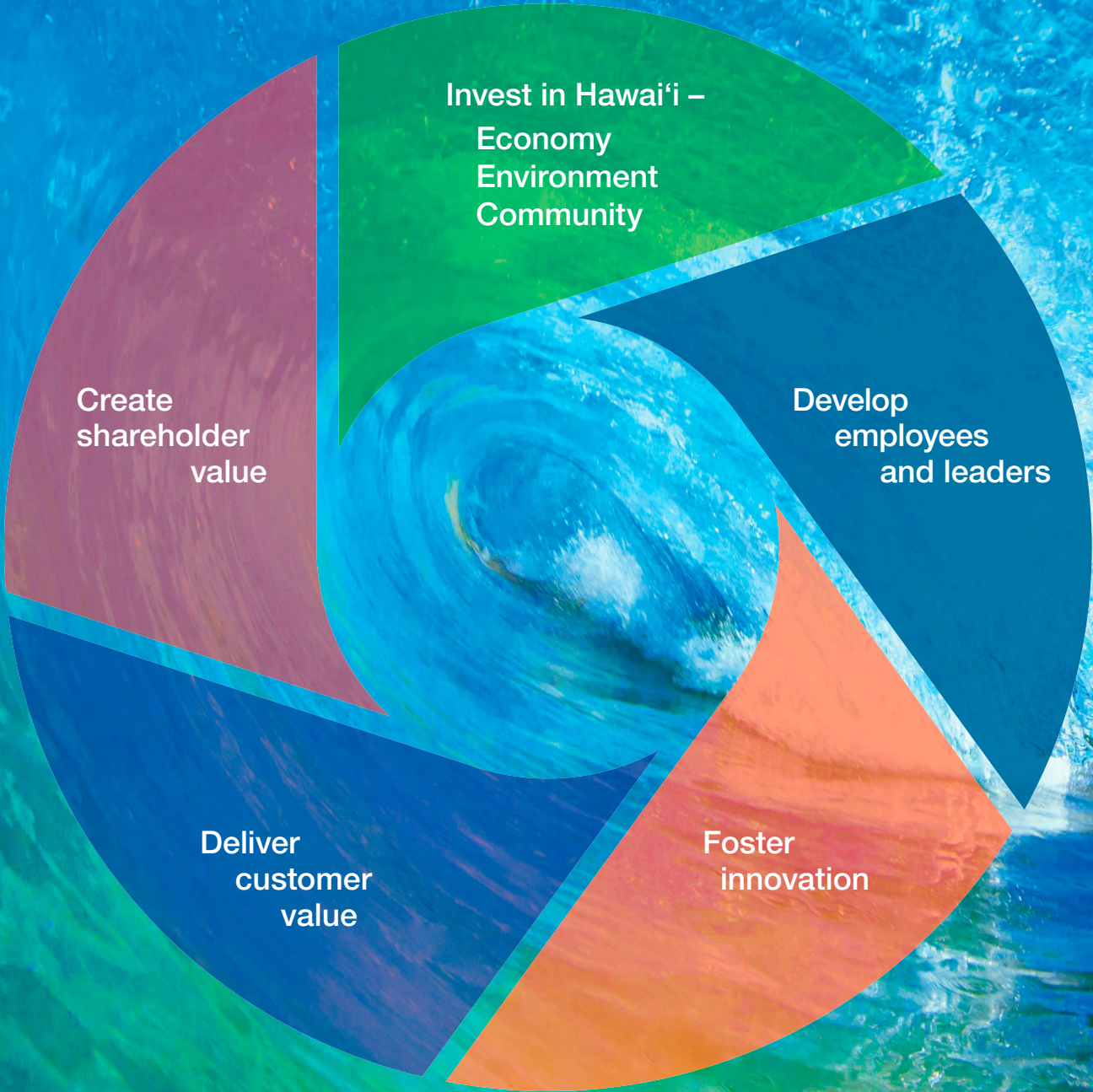
COMMUNITY

Over \$2.3 million in charitable contributions

More than 22,000 volunteer hours

20 electric vehicles donated to help nonprofits fulfill their mission while reducing their carbon footprint

**OUR INVESTMENTS IN HAWAI'I CATALYZE BENEFITS FOR
OUR CUSTOMERS, OUR EMPLOYEES, OUR ECONOMY
AND OUR STATE AND CREATE VALUE
FOR OUR SHAREHOLDERS.**





CATALYST FOR A BETTER ECONOMY

“WITH OUR UNIQUE COMBINATION OF COMPANIES WE WILL CONTINUE TO MOVE FORWARD AS AN INDEPENDENT ENTERPRISE PROVIDING LONG-TERM VALUE FOR OUR CUSTOMERS, COMMUNITIES, EMPLOYEES AND SHAREHOLDERS.”

DEAR FELLOW SHAREHOLDERS,

2016 was a memorable year for HEI. Following the termination of our proposed merger with NextEra Energy, Inc. and cancellation of the spin-off of American (together, the Transactions), HEI and its operating companies are moving forward as an independent consolidated enterprise providing essential electricity and banking services for Hawai'i and investing in the growth of our state's economy. As one of the largest public companies in Hawai'i, we are well-positioned to achieve our goals and create long-term value for our customers, community, employees and shareholders.

CONTINUED LEGACY OF CREATING SHAREHOLDER VALUE

In 2016, our consolidated companies generated \$248.3 million in net income and core net income

of \$190.1 million (after adjusting for income and expenses related to the Transactions), resulting in diluted earnings per share (EPS) of \$2.29 and core EPS of \$1.75. We also delivered a return on average common equity (ROE) for the year of 12.4%, with a core ROE of 9.5%. In addition, 2016 was our 116th year of paying uninterrupted dividends—one of the longest records for publicly traded companies. And we ended 2016 with an attractive dividend yield of 3.7%.

AMERICAN SAVINGS BANK

In 2016, American continued its focus on delivering profitable growth, managing risk and improving efficiency. American provided approximately \$1.8 billion of credit to consumers and businesses last year and originated more than 3,500 mortgages,



Hawaiian Electric
Maui Electric
Hawai'i Electric Light



AMERICAN
Savings Bank



Constance H. Lau
HEI President and Chief Executive Officer



At American Savings Bank, we see ourselves as more than just bankers—we help make people’s dreams possible. Our business has always focused on serving and investing in Hawai’i’s families, businesses and communities.

supporting the growth of Hawai’i businesses and enabling the dreams of Hawai’i households.

American also continued to drive innovation to make banking easy for customers. The first Hawai’i bank to introduce remote-deposit capture with a mobile banking application, American in 2016 launched a new e-Banking platform to bring additional best-in-class features to businesses and consumers.

American continues to garner local and national awards for its outstanding workplace culture. American was named one of the Best Places to Work in Hawai’i by Hawai’i Business magazine for the seventh consecutive year and one of the Best Banks to Work For in the country by American Banker for the fourth consecutive year. American continues to be the only Hawai’i bank to ever make the national list.

American broke ground on its new campus in February of 2017, catalyzing new development in Honolulu’s Chinatown neighborhood, promoting greater operational efficiency and opening up new opportunities for collaboration among employees and with customers and the community.



CUSTOMER FOCUS
Emphasis on making banking easy for customers

BEST PLACES TO WORK
Hawai’i Business Magazine’s “Best Places to Work” list in 2016 and has made the list 7 years in a row

INNOVATION
Investing in technology to enhance service and convenience

DIVERSITY
One of Fortune’s “50 Best Workplaces for Diversity in America”

CATALYST FOR A BETTER ENVIRONMENT



Hōkūle'a

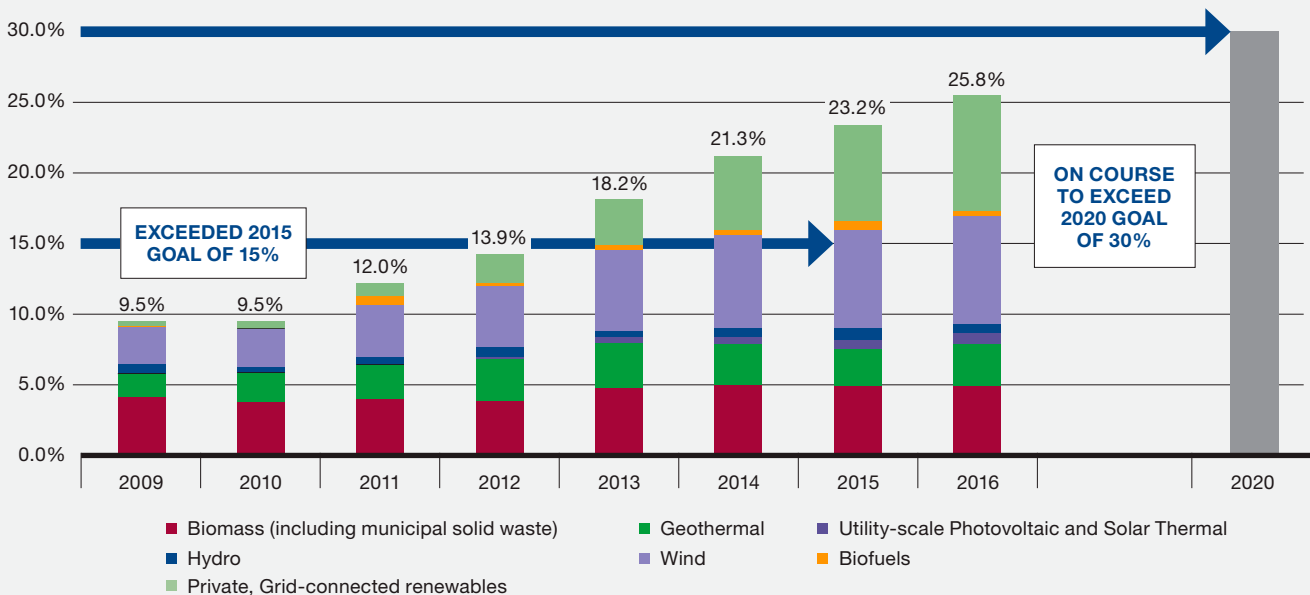
HAWAIIAN ELECTRIC COMPANY

Hawaiian Electric has made great strides toward achieving Hawai'i's 100% renewable portfolio goal targeted for 2045. In 2016, Hawaiian Electric and its subsidiaries invested more than \$318 million in infrastructure projects to modernize and improve Hawai'i's electric grid and to reliably integrate more renewable energy. We've partnered with start-ups and innovators across the energy ecosystem to seek out and test new technologies for energy storage, grid operations and other applications. And in collaboration with community stakeholders, we filed updated Power Supply Improvement Plans, presenting a proposed path to meet Hawai'i's 100% renewable goal ahead of the 2045 deadline.



Hawaiian Electric is collaborating with stakeholders throughout our state and partners around the world to advance electrification of transportation in Hawai'i. Along with renewable generation, transportation electrification is essential to achieving energy independence and a lower carbon footprint for Hawai'i.

HAWAIIAN ELECTRIC COMPANIES RENEWABLE PORTFOLIO STANDARD PROGRESS



HEI is a proud patron of the voyaging canoe Hōkūle‘a’s journey around the world. The voyage name, Malama Honua, means “to care for our Earth.” Hōkūle‘a is joined by Hikianalia, a solar and wind powered canoe—merging the wisdom of Hawai‘i’s voyaging ancestors with modern technology—as they traverse the planet in a mission of exploration, discovery and sustainability for our “island” earth.

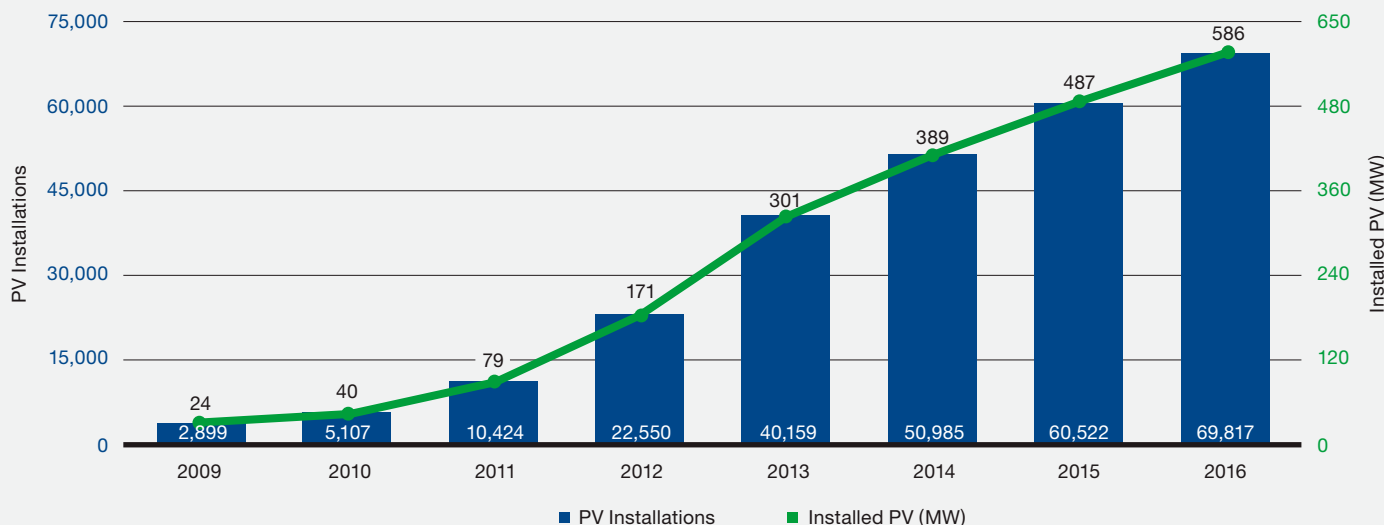


We’re seeing results from our hard work and investment in Hawai‘i’s energy infrastructure. In 2016, approximately 26% of our combined customers’ energy needs on all the islands we serve were powered by renewable sources, with higher percentages for Maui County and Hawai‘i Island of 37% and 54%, respectively. Our efforts this past year enabled us to avoid the equivalent of 2.2 million barrels of imported oil. We continue to lead the nation in the integration of customer-sited private solar, with the highest percentage of customers with solar of any utility in the country. More than 15% of our total customers—including an estimated 26% of single family homes—had private solar in place by the end of 2016, with an additional 3% of single family homes approved for installation.

While we work to bring new renewable energy online, we remain focused on delivering customer value at a reasonable cost. Toward that end, we are offering new customer options, such as time-of-use pricing and demand response programs, and rolling out new interactive customer tools. At the same time, we continue to seek ways to improve efficiency by the consolidation of tri-company utility functions.

Hawaiian Electric has also been leading the way toward the electrification of transportation in our state. Approximately two-thirds of fossil fuel brought to Hawai‘i is for transportation, so addressing the transportation sector is essential to reducing our state’s carbon footprint. Our Power Supply Improvement Plans include action plans for electrification of transportation, further reducing the use of fossil fuels in Hawai‘i.

HAWAIIAN ELECTRIC COMPANIES CUMULATIVE PRIVATE SOLAR GROWTH



CATALYST FOR A BETTER COMMUNITY

ENVIRONMENTAL STEWARDSHIP



Hawaiian Electric employees volunteer on many service projects that promote environmental stewardship, including restoring a native forest and lo'i kalo, reviving an ancient Hawaiian fishpond and restoring a native wetland bird habitat.

CURLING FUNDRAISER



This unique annual event by American affords participants the opportunity to experience the sport of curling alongside Olympic athletes while raising money for a local community partner. This year the beneficiary was Kupu's Hawai'i Youth Conservation Corps Community Program.

FOOD DRIVE



The spirit of giving this holiday season brought together our HEI and Hawaiian Electric employees to donate over 3,600 lbs. of food to the Hawai'i Food Bank.

SEEDS OF SERVICE



Seeds of Service is American's teammate volunteer program, which encourages support of community service to benefit schools and other nonprofit organizations in neighborhoods throughout Hawai'i.



In an effort to promote electric vehicle usage while supporting our community, the HEI Charitable Foundation donated 20 electric vehicles to local charities on O’ahu, Hawai’i Island and Maui, including University of Hawai’i campuses.

COMMITTED TO OUR COMMUNITIES

Our companies’ unwavering commitment to our local communities continued last year, with our contribution of more than \$2.3 million in charitable donations. I am proud of the compassion and energy of our employees, who collectively devoted more than 22,000 volunteer hours to community organizations in 2016.

One of our exciting community initiatives in 2016 was our donation of 20 electric vehicles to nonprofits in the three counties our utilities serve. We’re pleased that we could blend our focus on electrification of transportation with our support of local nonprofits.

MOVING FORWARD

We are well positioned for the future with the wise guidance of our board, the exemplary work of our executive team and the commitment of our talented employees. It is with deep gratitude that in 2016 we bade aloha to Maury Myers, who served on our

board for more than 20 years, and Chet Richardson, our Executive Vice President, General Counsel, Secretary & Chief Administrative Officer for over nine years. As we enter 2017, we welcome Richard Dahl to our board and prepare for the retirement of Jim Ajello, our Executive Vice President & Chief Financial Officer for eight years, who will be succeeded by Greg Hazelton. We are fortunate that we will continue to benefit from Jim’s counsel going forward, as he will join American’s board upon retiring from HEI.

With our unique combination of companies, we will continue to move forward as an independent enterprise providing long-term value for our customers, communities, employees and shareholders. On behalf of everyone at HEI, Hawaiian Electric and American, I offer a sincere mahalo to all of our shareholders for your continued support as we pursue a vibrant and sustainable future for our company and our state.

Aloha,

Constance H. Lau
 President and Chief Executive Officer
 Hawaiian Electric Industries, Inc.

FINANCIAL HIGHLIGHTS

YEARS ENDED DECEMBER 31 (dollars in millions, except per share amounts)	2016	2015	2014
Operating income	\$ 348	\$ 323	\$ 333
Net income (loss) for common stock by segment			
Electric utility	142	136	138
Bank	57	55	51
Other	49	(31)	(21)
Net income for common stock	248	160	168
Core ¹ net income for common stock	190	176	173
Diluted earnings per common share	2.29	1.50	1.63
Core ¹ diluted earnings per common share	1.75	1.65	1.68
Return on average common equity	12.4%	8.6%	9.6%
Core ¹ return on average common equity	9.5%	9.4%	9.8%
Dividends per common share	1.24	1.24	1.24
Annual dividend yield ²	3.7%	4.3%	3.7%
Common shares (millions)			
December 31	108.6	107.5	102.6
Weighted-average — basic	108.1	106.4	102.0
Weighted-average — diluted	108.3	106.7	102.9

TOTAL RETURN

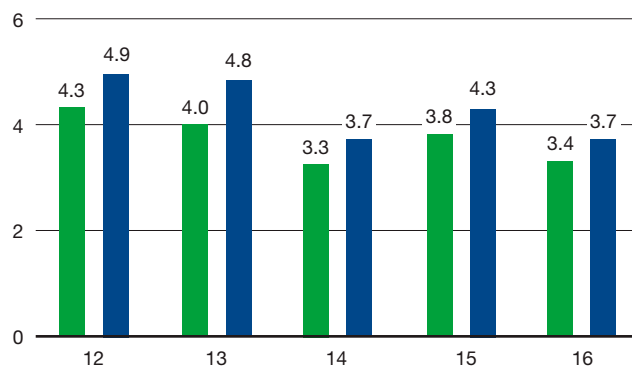
(percent)

	HEI	S&P 500 Index	Edison Electric Institute (EEI) Index	KBW Regional Banking Index
2016	18.7	12.0	17.4	39.0
3-Year	43.8	29.0	45.5	50.8
5-Year	55.5	98.2	67.8	150.8
10-Year	100.0	95.7	106.1	41.7

Source: S&P Global Inc. / HEI NYSE symbol: HE

DIVIDEND YIELD

(percent)



Sources: S&P Global Inc. and EEI

(1) Non-GAAP measure that excludes after-tax merger and spin-off related income and costs. See Appendix B to this 2016 Annual Report to Shareholders for the reconciliation of GAAP to non-GAAP measures.

HAWAIIAN ELECTRIC INDUSTRIES, INC.

2016 Annual Report to Shareholders

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549
FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
OR
[] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number	Registrant; State of Incorporation; Address; and Telephone Number	I.R.S. Employer Identification No.
1-8503	HAWAIIAN ELECTRIC INDUSTRIES, INC., a Hawaii corporation 1001 Bishop Street, Suite 2900, Honolulu, Hawaii 96813 Telephone (808) 543-5662	99-0208097
1-4955	HAWAIIAN ELECTRIC COMPANY, INC., a Hawaii corporation 900 Richards Street, Honolulu, Hawaii 96813 Telephone (808) 543-7771	99-0040500

Securities registered pursuant to Section 12(b) of the Act:

Registrant	Title of each class	Name of each exchange on which registered
Hawaiian Electric Industries, Inc.	Common Stock, Without Par Value	New York Stock Exchange
Hawaiian Electric Company, Inc.	Guarantee with respect to 6.50% Cumulative Quarterly Income Preferred Securities Series 2004 (QUIPS _{SM}) of HECO Capital Trust III	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

Registrant	Title of each class
Hawaiian Electric Industries, Inc.	None
Hawaiian Electric Company, Inc.	Cumulative Preferred Stock

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Hawaiian Electric Industries Inc. Yes No Hawaiian Electric Company, Inc. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Hawaiian Electric Industries Inc. Yes No Hawaiian Electric Company, Inc. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Hawaiian Electric Industries Inc. Yes No Hawaiian Electric Company, Inc. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Hawaiian Electric Industries Inc. Yes No Hawaiian Electric Company, Inc. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. []

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Hawaiian Electric Industries Inc. Large accelerated filer <input checked="" type="checkbox"/> Accelerated filer <input type="checkbox"/> Non-accelerated filer <input type="checkbox"/> (Do not check if a smaller reporting company) Smaller reporting company <input type="checkbox"/>	Hawaiian Electric Company, Inc. Large accelerated filer <input type="checkbox"/> Accelerated filer <input type="checkbox"/> Non-accelerated filer <input checked="" type="checkbox"/> (Do not check if a smaller reporting company) Smaller reporting company <input type="checkbox"/>
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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Hawaiian Electric Industries Inc. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hawaiian Electric Company, Inc. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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	Aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrants as of June 30, 2016	Number of shares of common stock outstanding of the registrants as of	
		June 30, 2016	February 13, 2017
Hawaiian Electric Industries, Inc. (HEI)	\$3,547,453,796	108,187,063 (Without par value)	108,745,265 (Without par value)
Hawaiian Electric Company, Inc. (Hawaiian Electric)	None	15,805,327 (\$6 2/3 par value)	16,019,785 (\$6 2/3 par value)

DOCUMENTS INCORPORATED BY REFERENCE

- Hawaiian Electric's Exhibit 99.1, consisting of:
- Hawaiian Electric's Directors, Executive Officers and Corporate Governance—Part III
 - Hawaiian Electric's Executive Compensation—Part III
 - Hawaiian Electric's Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters—Part III
 - Hawaiian Electric's Certain Relationships and Related Transactions, and Director Independence—Part III
 - Hawaiian Electric's Principal Accounting Fees and Services—Part III

Selected sections of Proxy Statement of HEI for the 2017 Annual Meeting of Shareholders to be filed-Part III

This combined Form 10-K represents separate filings by Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc. Information contained herein relating to any individual registrant is filed by each registrant on its own behalf. Hawaiian Electric makes no representations as to any information not relating to it or its subsidiaries.

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GLOSSARY OF TERMS

Defined below are certain terms used in this report:

<u>Terms</u>	<u>Definitions</u>
ABO	Accumulated benefit obligation
AES Hawaii	AES Hawaii, Inc.
AFUDC	Allowance for funds used during construction
AOCI	Accumulated other comprehensive income (loss)
AOS	Adequacy of supply
APBO	Accumulated postretirement benefit obligation
ARO	Asset retirement obligations
ASB	American Savings Bank, F.S.B., a wholly-owned subsidiary of ASB Hawaii Inc.
ASB Hawaii	ASB Hawaii, Inc. (formerly American Savings Holdings, Inc.), a wholly-owned subsidiary of Hawaiian Electric Industries, Inc. and the parent company of American Savings Bank, F.S.B.
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Btu	British thermal unit
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
Chevron	Chevron Products Company, which assigned their fuel oil supply contracts with the Utilities to Island Energy Services, LLC.
CIP	Campbell Industrial Park
CIS	Customer Information System
Company	When used in Hawaiian Electric Industries, Inc. sections and in the Notes to Consolidated Financial Statements, "Company" refers to Hawaiian Electric Industries, Inc. and its direct and indirect subsidiaries, including, without limitation, Hawaiian Electric Company, Inc. and its subsidiaries (listed under Hawaiian Electric); ASB Hawaii, Inc. and its subsidiary, American Savings Bank, F.S.B.; HEI Properties, Inc. (dissolved in 2015); Hawaiian Electric Industries Capital Trust II and Hawaiian Electric Industries Capital Trust III (inactive financing entities - dissolved and terminated in 2015); and The Old Oahu Tug Service, Inc. (formerly Hawaiian Tug & Barge Corp.). When used in Hawaiian Electric Company, Inc. sections, "Company" refers to Hawaiian Electric Company, Inc. and its direct subsidiaries.
Consolidated Financial Statements	HEI's and Hawaiian Electric's combined Consolidated Financial Statements, including notes, in Item 8 of this Form 10-K
Consumer Advocate	Division of Consumer Advocacy, Department of Commerce and Consumer Affairs of the State of Hawaii
CT-1	Combustion turbine No. 1
D&O	Decision and order from the PUC
DBEDT	State of Hawaii Department of Business Economic Development and Tourism
DBF	State of Hawaii Department of Budget and Finance
DG	Distributed generation
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010
DOH	Department of Health of the State of Hawaii
DRIP	HEI Dividend Reinvestment and Stock Purchase Plan
DSM	Demand-side management
ECAC	Energy cost adjustment clause
EEPS	Energy Efficiency Portfolio Standards
EGU	Electrical generating unit
EIP	2010 Executive Incentive Plan, as amended
EPA	Environmental Protection Agency - federal
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974, as amended
ERL	Environmental Response Law of the State of Hawaii
Exchange Act	Securities Exchange Act of 1934
FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
FDICIA	Federal Deposit Insurance Corporation Improvement Act of 1991

GLOSSARY OF TERMS *(continued)*

<u>Terms</u>	<u>Definitions</u>
federal	U.S. Government
FERC	Federal Energy Regulatory Commission
FHLB	Federal Home Loan Bank
FHLMC	Federal Home Loan Mortgage Corporation
FICO	Financing Corporation
Fitch	Fitch Ratings, Inc.
FNMA	Federal National Mortgage Association
FRB	Federal Reserve Board
GAAP	Accounting principles generally accepted in the United States of America
GHG	Greenhouse gas
GNMA	Government National Mortgage Association
Gramm Act	Gramm-Leach-Bliley Act of 1999
HC&S	Hawaiian Commercial & Sugar Company, a division of A&B-Hawaii, Inc.
Hawaii Electric Light	Hawaii Electric Light Company, Inc., an electric utility subsidiary of Hawaiian Electric Company, Inc.
Hawaiian Electric	Hawaiian Electric Company, Inc., an electric utility subsidiary of Hawaiian Electric Industries, Inc. and parent company of Hawaii Electric Light Company, Inc., Maui Electric Company, Limited, HECO Capital Trust III (unconsolidated financing subsidiary), Renewable Hawaii, Inc. and Uluwehiokama Biofuels Corp.
Hawaiian Electric's MD&A	Hawaiian Electric Company, Inc.'s Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K
HEI	Hawaiian Electric Industries, Inc., direct parent company of Hawaiian Electric Company, Inc., ASB Hawaii, Inc., HEI Properties, Inc. (dissolved in 2015), Hawaiian Electric Industries Capital Trust II (dissolved and terminated in 2015), Hawaiian Electric Industries Capital Trust III (dissolved and terminated in 2015) and The Old Oahu Tug Service, Inc. (formerly Hawaiian Tug & Barge Corp.).
HEI's 2017 Proxy Statement	Selected sections of Proxy Statement for the 2017 Annual Meeting of Shareholders of Hawaiian Electric Industries, Inc. to be filed after the date of this Form 10-K, which are incorporated in this Form 10-K by reference
HEI's MD&A	Hawaiian Electric Industries, Inc.'s Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K
HEIPI	HEI Properties, Inc. (dissolved in 2015), a wholly-owned subsidiary of Hawaiian Electric Industries, Inc.
HEIRSP	Hawaiian Electric Industries Retirement Savings Plan
HEP	Hamakua Energy Partners, L.P., successor in interest to Encogen Hawaii, L.P.
HTB	Hawaiian Tug & Barge Corp. On November 10, 1999, HTB sold substantially all of its operating assets and the stock of its subsidiary, Young Brothers, Limited, and changed its name to The Old Oahu Tug Services, Inc.
HPOWER	City and County of Honolulu with respect to a power purchase agreement for a refuse-fired plant
IPP	Independent power producer
IRP	Integrated resource plan
IRR	Interest rate risk
Island Energy	Island Energy Services, LLC (a fuel oil supplier and subsidiary of One Rock Capital Partners, L.P.), who purchased Chevron's Hawaii assets on November 1, 2016 and was assigned Chevron's fuel oil supply contracts with the Utilities.
Kalaeloa	Kalaeloa Partners, L.P.
kV	Kilovolt
kW	Kilowatt/s (as applicable)
KWH	Kilowatthour/s (as applicable)
LNG	Liquefied natural gas
LSFO	Low sulfur fuel oil
LTIP	Long-term incentive plan
MATS	Mercury and Air Toxics Standards
Maui Electric	Maui Electric Company, Limited, an electric utility subsidiary of Hawaiian Electric Company, Inc.
MBtu	Million British thermal unit
MD&A	Management's Discussion and Analysis of Financial Condition and Results of Operations
Merger	As provided in the Merger Agreement (see below), merger of NEE Acquisition Sub II, Inc. with and into HEI, with HEI surviving, and then merger of HEI with and into NEE Acquisition Sub I, LLC, with NEE Acquisition Sub I, LLC surviving as a wholly owned subsidiary of NextEra Energy, Inc.

GLOSSARY OF TERMS *(continued)*

<u>Terms</u>	<u>Definitions</u>
Merger Agreement	Agreement and Plan of Merger by and among HEI, NextEra Energy, Inc., NEE Acquisition Sub II, Inc. and NEE Acquisition Sub I, LLC, dated December 3, 2014 and terminated July 16, 2016
Moody's	Moody's Investors Service's
MSFO	Medium sulfur fuel oil
MOU	Memorandum of Understanding
MW	Megawatt/s (as applicable)
MWh	Megawatthour/s (as applicable)
NA	Not applicable
NAAQS	National Ambient Air Quality Standard
NEE	NextEra Energy, Inc.
NEM	Net energy metering
NII	Net interest income
NM	Not meaningful
NPBC	Net periodic benefits costs
NQSO	Nonqualified stock options
O&M	Other operation and maintenance
OCC	Office of the Comptroller of the Currency
OPEB	Postretirement benefits other than pensions
OTS	Office of Thrift Supervision, Department of Treasury
OTTI	Other-than-temporary impairment
PBO	Projected benefit obligation
PCB	Polychlorinated biphenyls
PGV	Puna Geothermal Venture
PPA	Power purchase agreement
PPAC	Purchased power adjustment clause
PSD	Prevention of Significant Deterioration
PSIPs	Power Supply Improvement Plans
PUC	Public Utilities Commission of the State of Hawaii
PURPA	Public Utility Regulatory Policies Act of 1978
QF	Qualifying Facility under the Public Utility Regulatory Policies Act of 1978
QTL	Qualified Thrift Lender
RAM	Rate adjustment mechanism
RBA	Revenue balancing account
Registrant	Each of Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc.
REIP	Renewable Energy Infrastructure Program
RFP	Request for proposals
RHI	Renewable Hawaii, Inc., a wholly-owned nonregulated subsidiary of Hawaiian Electric Company, Inc.
ROA	Return on assets
ROACE	Return on average common equity
RORB	Return on rate base
RPS	Renewable portfolio standards
S&P	Standard & Poor's
SAR	Stock appreciation right
SEC	Securities and Exchange Commission
See	Means the referenced material is incorporated by reference (or means refer to the referenced section in this document or the referenced exhibit or other document)
SLHCs	Savings & Loan Holding Companies
SOIP	1987 Stock Option and Incentive Plan, as amended. Shares of HEI common stock reserved for issuance under the SOIP were deregistered and delisted in 2015.
Spin-Off	The previously planned distribution to HEI shareholders of all of the common stock of ASB Hawaii immediately prior to the Merger, which was terminated
SPRBs	Special Purpose Revenue Bonds
ST	Steam turbine
state	State of Hawaii

GLOSSARY OF TERMS *(continued)*

Terms

Definitions

TDR	Troubled debt restructuring
Tesoro	Tesoro Hawaii Corporation dba BHP Petroleum Americas Refining Inc., a fuel oil supplier
TOOTS	The Old Oahu Tug Service, Inc., a wholly-owned subsidiary of Hawaiian Electric Industries, Inc.
Trust III	HECO Capital Trust III
UBC	Uluwehiokama Biofuels Corp., a wholly-owned nonregulated subsidiary of Hawaiian Electric Company, Inc.
Utilities	Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited
VIE	Variable interest entity

Cautionary Note Regarding Forward-Looking Statements

This report and other presentations made by Hawaiian Electric Industries, Inc. (HEI) and Hawaiian Electric Company, Inc. (Hawaiian Electric) and their subsidiaries contain “forward-looking statements,” which include statements that are predictive in nature, depend upon or refer to future events or conditions and usually include words such as “will,” “expects,” “anticipates,” “intends,” “plans,” “believes,” “predicts,” “estimates” or similar expressions. In addition, any statements concerning future financial performance, ongoing business strategies or prospects or possible future actions are also forward-looking statements. Forward-looking statements are based on current expectations and projections about future events and are subject to risks, uncertainties and the accuracy of assumptions concerning HEI and its subsidiaries (collectively, the Company), the performance of the industries in which they do business and economic and market factors, among other things. These forward-looking statements are not guarantees of future performance.

Risks, uncertainties and other important factors that could cause actual results to differ materially from those described in forward-looking statements and from historical results include, but are not limited to, the following:

- international, national and local economic conditions, including the state of the Hawaii tourism, defense and construction industries, the strength or weakness of the Hawaii and continental U.S. real estate markets (including the fair value and/or the actual performance of collateral underlying loans held by ASB, which could result in higher loan loss provisions and write-offs), decisions concerning the extent of the presence of the federal government and military in Hawaii, the implications and potential impacts of U.S. and foreign capital and credit market conditions and federal, state and international responses to those conditions, and the potential impacts of global developments (including global economic conditions and uncertainties, the effects of the United Kingdom’s referendum to withdraw from the European Union, unrest, the conflict in Syria, terrorist acts by ISIS or others, potential conflict or crisis with North Korea and potential pandemics);
- the effects of future actions or inaction of the U.S. government or related agencies, including those related to the U.S. debt ceiling, monetary policy and policy and regulation changes advanced or proposed by President Trump and his administration;
- weather and natural disasters (e.g., hurricanes, earthquakes, tsunamis, lightning strikes, lava flows and the potential effects of climate change, such as more severe storms and rising sea levels), including their impact on the Company’s and Utilities’ operations and the economy;
- the timing and extent of changes in interest rates and the shape of the yield curve;
- the ability of the Company and the Utilities to access the credit and capital markets (e.g., to obtain commercial paper and other short-term and long-term debt financing, including lines of credit, and, in the case of HEI, to issue common stock) under volatile and challenging market conditions, and the cost of such financings, if available;
- the risks inherent in changes in the value of the Company’s pension and other retirement plan assets and ASB’s securities available for sale;
- changes in laws, regulations, market conditions and other factors that result in changes in assumptions used to calculate retirement benefits costs and funding requirements;
- the impact of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) and of the rules and regulations that the Dodd-Frank Act requires to be promulgated;
- increasing competition in the banking industry (e.g., increased price competition for deposits, or an outflow of deposits to alternative investments, which may have an adverse impact on ASB’s cost of funds);
- the impacts of the termination of the Merger with NextEra Energy, Inc. (NEE) and the resulting loss of NEE’s resources, expertise and support (e.g., financial and technological), including potentially higher costs and longer lead times to increase levels of renewable energy and to complete projects like Enterprise Resource Planning/Enterprise Asset Management (ERP/ERM) and smart grids, and a higher cost of capital;
- the potential delay by the Public Utilities Commission of the State of Hawaii (PUC) in considering (and potential disapproval of actual or proposed) renewable energy proposals and related costs; reliance by the Utilities on outside parties such as the state, independent power producers (IPPs) and developers; and uncertainties surrounding technologies, solar power, wind power, proposed undersea cables, biofuels, environmental assessments required to meet renewable portfolio standards (RPS) goals and the impacts of implementation of the renewable energy proposals on future costs of electricity;
- the ability of the Utilities to develop, implement and recover the costs of implementing the Utilities’ action plans and business model changes proposed and being developed in response to the four orders that the PUC issued in April 2014, in which the PUC: directed the Utilities to develop, among other things, Power Supply Improvement Plans, a Demand Response Portfolio Plan and a Distributed Generation Interconnection Plan; described the PUC’s inclinations on the future of Hawaii’s electric utilities and the vision, business strategies and regulatory policy changes required to align the Utilities’ business model with customer interests and the state’s public policy goals; and emphasized the need to “leap ahead” of other states in creating a 21st century generation system and modern transmission and distribution grids;
- capacity and supply constraints or difficulties, especially if generating units (utility-owned or IPP-owned) fail or measures such as demand-side management (DSM), distributed generation (DG), combined heat and power or other firm capacity supply-side resources fall short of achieving their forecasted benefits or are otherwise insufficient to reduce or meet peak demand;
- fuel oil price changes, delivery of adequate fuel by suppliers and the continued availability to the electric utilities of their energy cost adjustment clauses (ECACs);
- the continued availability to the electric utilities or modifications of other cost recovery mechanisms, including the purchased power adjustment clauses (PPACs), rate adjustment mechanisms (RAMs) and pension and postretirement benefits other than pensions (OPEB) tracking mechanisms, and the continued decoupling of revenues from sales to mitigate the effects of declining kilowatt-hour sales;

- the impact of fuel price volatility on customer satisfaction and political and regulatory support for the Utilities;
- the risks associated with increasing reliance on renewable energy, including the availability and cost of non-fossil fuel supplies for renewable energy generation and the operational impacts of adding intermittent sources of renewable energy to the electric grid;
- the growing risk that energy production from renewable generating resources may be curtailed and the interconnection of additional resources will be constrained as more generating resources are added to the Utilities' electric systems and as customers reduce their energy usage;
- the ability of IPPs to deliver the firm capacity anticipated in their power purchase agreements (PPAs);
- the potential that, as IPP contracts near the end of their terms, there may be less economic incentive for the IPPs to make investments in their units to ensure the availability of their units;
- the ability of the Utilities to negotiate, periodically, favorable agreements for significant resources such as fuel supply contracts and collective bargaining agreements;
- new technological developments that could affect the operations and prospects of the Utilities and ASB or their competitors;
- new technological developments, such as the commercial development of energy storage and microgrids, that could affect the operations of the Utilities;
- cyber security risks and the potential for cyber incidents, including potential incidents at HEI, ASB and the Utilities (including at ASB branches and electric utility plants) and incidents at data processing centers they use, to the extent not prevented by intrusion detection and prevention systems, anti-virus software, firewalls and other general information technology controls;
- federal, state, county and international governmental and regulatory actions, such as existing, new and changes in laws, rules and regulations applicable to HEI, the Utilities and ASB (including changes in taxation, increases in capital requirements, regulatory policy changes, environmental laws and regulations (including resulting compliance costs and risks of fines and penalties and/or liabilities), the regulation of greenhouse gas (GHG) emissions, governmental fees and assessments (such as Federal Deposit Insurance Corporation assessments), and potential carbon “cap and trade” legislation that may fundamentally alter costs to produce electricity and accelerate the move to renewable generation);
- developments in laws, regulations and policies governing protections for historic, archaeological and cultural sites, and plant and animal species and habitats, as well as developments in the implementation and enforcement of such laws, regulations and policies;
- discovery of conditions that may be attributable to historical chemical releases, including any necessary investigation and remediation, and any associated enforcement, litigation or regulatory oversight;
- decisions by the PUC in rate cases and other proceedings (including the risks of delays in the timing of decisions, adverse changes in final decisions from interim decisions and the disallowance of project costs as a result of adverse regulatory audit reports or otherwise);
- decisions by the PUC and by other agencies and courts on land use, environmental and other permitting issues (such as required corrective actions, restrictions and penalties that may arise, such as with respect to environmental conditions or RPS);
- potential enforcement actions by the Office of the Comptroller of the Currency (OCC), the Federal Reserve Board (FRB), the Federal Deposit Insurance Corporation (FDIC) and/or other governmental authorities (such as consent orders, required corrective actions, restrictions and penalties that may arise, for example, with respect to compliance deficiencies under existing or new banking and consumer protection laws and regulations or with respect to capital adequacy);
- the ability of the Utilities to recover increasing costs and earn a reasonable return on capital investments not covered by RAMs;
- the risks associated with the geographic concentration of HEI's businesses and ASB's loans, ASB's concentration in a single product type (i.e., first mortgages) and ASB's significant credit relationships (i.e., concentrations of large loans and/or credit lines with certain customers);
- changes in accounting principles applicable to HEI, the Utilities and ASB, including the adoption of new U.S. accounting standards, the potential discontinuance of regulatory accounting and the effects of potentially required consolidation of variable interest entities (VIEs) or required capital lease accounting for PPAs with IPPs;
- changes by securities rating agencies in their ratings of the securities of HEI and Hawaiian Electric and the results of financing efforts;
- faster than expected loan prepayments that can cause an acceleration of the amortization of premiums on loans and investments and the impairment of mortgage-servicing assets of ASB;
- changes in ASB's loan portfolio credit profile and asset quality which may increase or decrease the required level of provision for loan losses, allowance for loan losses and charge-offs;
- changes in ASB's deposit cost or mix which may have an adverse impact on ASB's cost of funds;
- the final outcome of tax positions taken by HEI, the Utilities and ASB;
- the risks of suffering losses and incurring liabilities that are uninsured (e.g., damages to the Utilities' transmission and distribution system and losses from business interruption) or underinsured (e.g., losses not covered as a result of insurance deductibles or other exclusions or exceeding policy limits); and
- other risks or uncertainties described elsewhere in this report (e.g., Item 1A. Risk Factors) and in other reports previously and subsequently filed by HEI and/or Hawaiian Electric with the Securities and Exchange Commission (SEC).

Forward-looking statements speak only as of the date of the report, presentation or filing in which they are made. Except to the extent required by the federal securities laws, HEI, Hawaiian Electric, ASB and their subsidiaries undertake no obligation to publicly update or revise any forward-looking statements, whether written or oral and whether as a result of new information, future events or otherwise.

PART I

ITEM 1. BUSINESS

HEI Consolidated

HEI and subsidiaries and lines of business. HEI was incorporated in 1981 under the laws of the State of Hawaii and is a holding company with its principal subsidiaries engaged in electric utility and banking businesses operating primarily in the State of Hawaii. HEI's predecessor, Hawaiian Electric, was incorporated under the laws of the Kingdom of Hawaii (now the State of Hawaii) on October 13, 1891. As a result of a 1983 corporate reorganization, Hawaiian Electric became an HEI subsidiary and common shareholders of Hawaiian Electric became common shareholders of HEI.

Hawaiian Electric and its operating utility subsidiaries, Hawaii Electric Light Company, Inc. (Hawaii Electric Light) and Maui Electric Company, Limited (Maui Electric), are regulated electric public utilities. Hawaiian Electric also owns all the common securities of HECO Capital Trust III (a Delaware statutory trust), which was formed to effect the issuance of \$50 million of cumulative quarterly income preferred securities in 2004, for the benefit of Hawaiian Electric, Hawaii Electric Light and Maui Electric. In December 2002, Hawaiian Electric formed a subsidiary, Renewable Hawaii, Inc., to invest in renewable energy projects, but it has made no investments and currently is inactive. In September 2007, Hawaiian Electric formed another subsidiary, Uluwehiokama Biofuels Corp. (UBC), to invest in a biodiesel refining plant to be built on the island of Maui, which project has been terminated.

Besides Hawaiian Electric and its subsidiaries, HEI also currently owns directly or indirectly the following subsidiaries: ASB Hawaii, Inc. (ASB Hawaii) (a holding company, formerly known as American Savings Holdings, Inc.) and its subsidiary, American Savings Bank, F.S.B. (ASB); HEI Properties, Inc. (HEIPI), which was dissolved on December 11, 2015; Hawaiian Electric Industries Capital Trusts II and III (both formed in 1997 to be available for trust securities financings, but both were dissolved and terminated on December 14, 2015); and The Old Oahu Tug Service, Inc. (TOOTS).

ASB, acquired by HEI in 1988, is one of the largest financial institutions in the State of Hawaii with assets of \$6.4 billion as of December 31, 2016.

HEIPI, whose predecessor company was formed in February 1998, held venture capital investments. HEIPI was dissolved on December 11, 2015.

TOOTS administers certain employee and retiree-related benefit programs and monitors matters related to its predecessor's former maritime freight transportation operations.

Termination of proposed Merger. For information concerning the termination of HEI's Merger Agreement with NextEra Energy, Inc., see Note 2 of the Consolidated Financial Statements.

Additional information. The Company's website address is www.hei.com. The information on the Company's website is not incorporated by reference in this annual report on Form 10-K unless, and except to the extent, specifically incorporated herein by reference. HEI and Hawaiian Electric currently make available free of charge through this website their annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports (since 1994) as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. HEI and Hawaiian Electric intend to continue to use HEI's website as a means of disclosing additional information. Such disclosures will be included on HEI's website in the Investor Relations section. Accordingly, investors should routinely monitor such portions of HEI's website, in addition to following HEI's, Hawaiian Electric's and ASB's press releases, SEC filings and public conference calls and webcasts. Investors may also wish to refer to the PUC website at dms.puc.hawaii.gov/dms in order to review documents filed with and issued by the PUC. No information at the PUC website is incorporated herein by reference.

Commitments and contingencies. See "HEI Consolidated—Liquidity and capital resources—Selected contractual obligations and commitments" in HEI's MD&A, Hawaiian Electric's "Commitments and contingencies" below and Note 5 of the Consolidated Financial Statements.

Regulation. HEI and Hawaiian Electric are each holding companies within the meaning of the Public Utility Holding Company Act of 2005 and implementing regulations, which requires holding companies and their subsidiaries to grant the Federal Energy Regulatory Commission (FERC) access to books and records relating to FERC's jurisdictional rates. FERC granted HEI and Hawaiian Electric a waiver from its record retention, accounting and reporting requirements, effective May 2006.

HEI is subject to an agreement entered into with the PUC (the PUC Agreement) which, among other things, requires PUC approval of any change in control of HEI. The PUC Agreement also requires HEI to provide the PUC with periodic financial

information and other reports concerning intercompany transactions and other matters. It also prohibits the electric utilities from loaning funds to HEI or its nonutility subsidiaries and from redeeming common stock of the electric utility subsidiaries without PUC approval. Further, the PUC could limit the ability of the electric utility subsidiaries to pay dividends on their common stock. See “Restrictions on dividends and other distributions” and “Electric utility—Regulation” below.

HEI and ASB Hawaii are subject to Federal Reserve Board (FRB) registration, supervision and reporting requirements as savings and loan holding companies. As a result of the enactment of the Dodd-Frank Act, supervision and regulation of HEI and ASB Hawaii, as thrift holding companies, moved to the FRB, and supervision and regulation of ASB, as a federally chartered savings bank, moved to the Office of the Comptroller of the Currency (OCC) in July 2011. In the event the OCC has reasonable cause to believe that any activity of HEI or ASB Hawaii constitutes a serious risk to the financial safety, soundness or stability of ASB, the OCC is authorized to impose certain restrictions on HEI, ASB Hawaii and/or any of their subsidiaries. Possible restrictions include precluding or limiting: (i) the payment of dividends by ASB; (ii) transactions between ASB, HEI or ASB Hawaii, and their subsidiaries or affiliates; and (iii) any activities of ASB that might expose ASB to the liabilities of HEI and/or ASB Hawaii and their other affiliates. See “Restrictions on dividends and other distributions” below.

Bank regulations generally prohibit savings and loan holding companies and their nonthrift subsidiaries from engaging in activities other than those which are specifically enumerated in the regulations. However, the unitary savings and loan holding company relationship among HEI, ASB Hawaii and ASB is “grandfathered” under the Gramm-Leach-Bliley Act of 1999 (Gramm Act) so that HEI and its subsidiaries are able to continue to engage in their current activities so long as ASB satisfies the qualified thrift lender (QTL) test discussed under “Bank—Regulation—Qualified thrift lender test.” ASB met the QTL test at all times during 2016; however, the failure of ASB to satisfy the QTL test in the future could result in a need for HEI to divest ASB.

HEI is also affected by provisions of the Dodd-Frank Act relating to corporate governance and executive compensation, including provisions requiring shareholder “say on pay” and “say on pay frequency” votes, mandating additional disclosures concerning executive compensation and compensation consultants and advisors and further restricting proxy voting by brokers in the absence of instructions. See “Bank—Legislation and regulation” in HEI’s MD&A for a discussion of effects of the Dodd-Frank Act on HEI and ASB.

Restrictions on dividends and other distributions. HEI is a legal entity separate and distinct from its various subsidiaries. As a holding company with no significant operations of its own, HEI’s principal sources of funds are dividends or other distributions from its operating subsidiaries, borrowings and sales of equity. The rights of HEI and, consequently, its creditors and shareholders, to participate in any distribution of the assets of any of its subsidiaries are subject to the prior claims of the creditors and preferred shareholders of such subsidiary, except to the extent that claims of HEI in its capacity as a creditor are recognized as primary.

The abilities of certain of HEI’s subsidiaries to pay dividends or make other distributions to HEI are subject to contractual and regulatory restrictions. Under the PUC Agreement, in the event that the consolidated common stock equity of the electric utility subsidiaries falls below 35% of the total capitalization of the electric utilities (including the current maturities of long-term debt, but excluding short-term borrowings), the electric utility subsidiaries would, absent PUC approval, be restricted in their payment of cash dividends to 80% of the earnings available for the payment of dividends in the current fiscal year and preceding five years, less the amount of dividends paid during that period. The PUC Agreement also provides that the foregoing dividend restriction shall not be construed as relinquishing any right the PUC may have to review the dividend policies of the electric utility subsidiaries. As of December 31, 2016, the consolidated common stock equity of HEI’s electric utility subsidiaries was 57% of their total capitalization (as calculated for purposes of the PUC Agreement). As of December 31, 2016, Hawaiian Electric and its subsidiaries had common stock equity of \$1.8 billion of which approximately \$729 million was not available for transfer to HEI without regulatory approval.

The ability of ASB to make capital distributions to HEI and other affiliates is restricted under federal law. Subject to a limited exception for stock redemptions that do not result in any decrease in ASB’s capital and would improve ASB’s financial condition, ASB is prohibited from declaring any dividends, making any other capital distributions, or paying a management fee to a controlling person if, following the distribution or payment, ASB would be deemed to be undercapitalized, significantly undercapitalized or critically undercapitalized. See “Bank—Regulation—Prompt corrective action.” All dividends are subject to review by the OCC and FRB and receipt of a letter from the FRB communicating the agencies’ non-objection to the payment of any dividend ASB proposes to declare and pay to ASB Hawaii and HEI.

Also see Note 14 to the Consolidated Financial Statements.

HEI and its subsidiaries are also subject to debt covenants, preferred stock resolutions and the terms of guarantees that could limit their respective abilities to pay dividends. The Company does not expect that the regulatory and contractual

restrictions applicable to HEI and/or its subsidiaries will significantly affect the operations of HEI or its ability to pay dividends on its common stock.

Environmental regulation. HEI and its subsidiaries are subject to federal and state statutes and governmental regulations pertaining to water quality, air quality and other environmental factors. See the “Environmental regulation” discussions in the “Electric utility” and “Bank” sections below.

Securities ratings. See the Fitch Ratings, Inc. (Fitch), Moody’s Investors Service’s (Moody’s) and Standard & Poor’s (S&P) ratings of HEI’s and Hawaiian Electric’s securities and discussion under “Liquidity and capital resources” (both “HEI Consolidated” and “Electric utility”) in HEI’s MD&A. These ratings reflect only the view, at the time the ratings are issued, of the applicable rating agency from whom an explanation of the significance of such ratings may be obtained. There is no assurance that any such credit rating will remain in effect for any given period of time or that such rating will not be lowered, suspended or withdrawn entirely by the applicable rating agency if, in such rating agency’s judgment, circumstances so warrant. Any such lowering, suspension or withdrawal of any rating may have an adverse effect on the market price or marketability of HEI’s and/or Hawaiian Electric’s securities, which could increase the cost of capital of HEI and Hawaiian Electric, and could affect costs, including interest charges, under HEI’s and/or Hawaiian Electric’s debt securities and credit facilities. Neither HEI nor Hawaiian Electric management can predict future rating agency actions or their effects on the future cost of capital of HEI or Hawaiian Electric.

Revenue bonds have been issued by the Department of Budget and Finance of the State of Hawaii for the benefit of Hawaiian Electric and its subsidiaries, but the source of their repayment are the unsecured obligations of Hawaiian Electric and its subsidiaries under loan agreements and notes issued to the Department, including Hawaiian Electric’s guarantees of its subsidiaries’ obligations. The payment of principal and interest due on revenue bonds currently outstanding and issued prior to 2009 are insured, but the ratings of these insurers have been withdrawn—see “Electric Utility—Liquidity and capital resources” in HEI’s MD&A.

Employees. The Company had full-time employees as follows:

December 31	2016	2015	2014	2013	2012
HEI	41	39	44	43	42
Hawaiian Electric and its subsidiaries	2,662	2,727	2,759	2,764	2,658
ASB and its subsidiaries	1,093	1,152	1,162	1,159	1,170
	3,796	3,918	3,965	3,966	3,870

The employees of HEI and its direct and indirect subsidiaries, other than the electric utilities, are not covered by any collective bargaining agreement. The International Brotherhood of Electrical Workers Local 1260 represents roughly half of the Utilities’ workforce covered by a collective bargaining agreement that expires on October 31, 2018.

Properties. HEI leases office space from nonaffiliated lessors in downtown Honolulu under leases that expire in December 2017. See the discussions under “Electric Utility” and “Bank” below for a description of properties owned by HEI subsidiaries.

Electric utility

Hawaiian Electric and subsidiaries and service areas. Hawaiian Electric, Hawaii Electric Light and Maui Electric (Utilities) are regulated operating electric public utilities engaged in the production, purchase, transmission, distribution and sale of electricity on the islands of Oahu; Hawaii; and Maui, Lanai and Molokai, respectively. Hawaiian Electric acquired Maui Electric in 1968 and Hawaii Electric Light in 1970. In 2016, the electric utilities’ revenues and net income amounted to approximately 88% and 58% (impacted by merger termination fee and other impacts at corporate), respectively, of HEI’s consolidated revenues and net income, compared to approximately 90% and 85% in 2015 and approximately 92% and 82% in 2014, respectively.

The islands of Oahu, Hawaii, Maui, Lanai and Molokai have a combined population estimated at 1.4 million, or approximately 95% of the total population of the State of Hawaii, and comprise a service area of 5,815 square miles. The principal communities served include Honolulu (on Oahu), Hilo and Kona (on Hawaii) and Wailuku and Kahului (on Maui). The service areas also include numerous suburban communities, resorts, U.S. Armed Forces installations and agricultural operations. The state has granted Hawaiian Electric, Hawaii Electric Light and Maui Electric nonexclusive franchises, which authorize the Utilities to construct, operate and maintain facilities over and under public streets and sidewalks. Each of these franchises will continue in effect for an indefinite period of time until forfeited, altered, amended or repealed.

Sales of electricity.

Years ended December 31 (dollars in thousands)	2016		2015		2014	
	Customer accounts*	Electric sales revenues	Customer accounts*	Electric sales revenues	Customer accounts*	Electric sales revenues
Hawaiian Electric	304,261	\$ 1,466,225	302,958	\$ 1,636,245	301,953	\$ 2,134,094
Hawaii Electric Light	85,029	309,521	84,309	343,843	83,421	420,647
Maui Electric	70,872	306,767	70,533	343,722	70,042	420,734
	460,162	\$ 2,082,513	457,800	\$ 2,323,810	455,416	\$ 2,975,475

* As of December 31.

Seasonality. Kilowatthour (KWH) sales of the Utilities follow a seasonal pattern, but they do not experience extreme seasonal variations due to extreme weather variations experienced by some electric utilities on the U.S. mainland. KWH sales in Hawaii tend to increase in the warmer, more humid months as a result of increased demand for air conditioning.

Significant customers. The Utilities derived approximately 11%, 11% and 12% of their operating revenues in 2016, 2015 and 2014 respectively, from the sale of electricity to various federal government agencies.

Under the Energy Policy Act of 2005, the Energy Independence and Security Act of 2007 and/or executive orders: (1) federal agencies must establish energy conservation goals for federally funded programs, (2) goals were set to reduce federal agencies' energy consumption by 3% per year up to 30% by fiscal year 2015 relative to fiscal year 2003, and (3) renewable energy goals were established for electricity consumed by federal agencies. Hawaiian Electric continues to work with various federal agencies to implement measures that will help them achieve their energy reduction and renewable energy objectives.

State of Hawaii and U.S. Department of Energy MOU. On September 15, 2014, the State of Hawaii and the U.S. Department of Energy executed a Memorandum of Understanding (MOU) recognizing that Hawaii is embarking on the next phase of its clean energy future. The MOU provides the framework for a comprehensive, sustained effort to better realize its vast renewable energy potential and allow Hawaii to push forward in three main areas: the power sector, transportation and energy efficiency. This next phase will focus on stimulating deployment of clean energy infrastructure as a catalyst for economic growth, energy system innovation and test bed investments.

The PUC issued a decision and order (D&O) on January 3, 2012 approving a framework for Energy Efficiency Portfolio Standards (EEPS) that set 2008 as the initial base year for evaluation and linearly allocated the 2030 goal to interim incremental reduction goals of 1,375 GWH by 2015 and 975 GWH by each of the years 2020, 2025 and 2030. These goals may be revised through goal evaluations scheduled every five years or as the result of recommendations by an EEPS technical working group (TWG) for consideration by the PUC. The interim and final reduction goals will be allocated among contributing entities by the EEPS TWG. The PUC may establish penalties in the future for failure to meet the goals. Another of the initiatives under the Energy Agreement was advanced when the PUC approved the implementation of revenue decoupling for the Utilities under which they are allowed to recover PUC-approved revenue requirements that are not based on the amount of electricity sold. Both the EEPS and the implementation of revenue decoupling could have an impact on sales.

The statewide Energy Efficiency Potential Study issued in December 2013 indicated that Hawaii was on track to meet the 2015 interim EEPS target, and that available untapped energy efficiency resources in Hawaii exceed the EEPS goal of 4,300 GWH. However, no changes have been made to the goals or Framework that govern the achievement of EEPS. The Division of Consumer Advocacy's 2016 Compliance Resolution Fund Report states that it appears Hawaii is progressing towards meeting its 2020 goals. Neither HEI nor Hawaiian Electric management can predict with certainty the impact of these or other governmental mandates or the September 2014 MOU on HEI's or Hawaiian Electric's future results of operations, financial condition or liquidity.

Selected consolidated electric utility operating statistics.

Years ended December 31	2016	2015	2014	2013	2012
KWH sales (millions)					
Residential	2,332.7	2,396.5	2,379.7	2,450.9	2,582.0
Commercial	2,911.5	2,977.8	3,022.0	3,105.9	3,074.4
Large light and power	3,555.1	3,532.9	3,524.5	3,462.7	3,499.8
Other	46.0	49.3	50.0	50.0	49.8
	8,845.3	8,956.5	8,976.2	9,069.5	9,206.0
KWH net generated and purchased (millions)					
Net generated	4,940.4	5,124.5	5,131.3	5,352.0	5,601.7
Purchased	4,349.1	4,308.3	4,306.7	4,195.2	4,093.2
	9,289.5	9,432.8	9,438.0	9,547.2	9,694.9
Losses and system uses (%)	4.6	4.8	4.7	4.8	4.8
Energy supply (December 31)					
Net generating capability—MW	1,669	1,669	1,787	1,787	1,787
Firm and other purchased capability—MW	551	555	575	567	545
	2,220	2,224	2,362	2,354	2,332
Net peak demand—MW ¹	1,593	1,610	1,554	1,535	1,535
Btu per net KWH generated	10,710	10,632	10,613	10,570	10,533
Average fuel oil cost per Mbtu (cents)	862.3	1,206.5	2,087.6	2,103.2	2,210.4
Customer accounts (December 31)					
Residential	402,818	400,655	398,256	394,910	392,025
Commercial	55,089	54,878	54,924	54,616	54,005
Large light and power	670	659	596	556	577
Other	1,585	1,608	1,640	1,660	1,636
	460,162	457,800	455,416	451,742	448,243
Electric revenues (thousands)					
Residential	\$ 638,776	\$ 709,886	\$ 879,605	\$ 892,438	\$ 952,159
Commercial	711,553	798,202	1,027,588	1,044,166	1,060,983
Large light and power	720,878	802,366	1,051,119	1,015,079	1,062,226
Other	11,306	13,356	17,163	17,008	17,392
	\$ 2,082,513	\$ 2,323,810	\$ 2,975,475	\$ 2,968,691	\$ 3,092,760
Average revenue per KWH sold (cents)					
Residential	23.54	25.90	33.15	32.73	33.60
Commercial	27.38	29.62	36.96	36.41	36.88
Large light and power	24.44	26.81	34.00	33.62	34.51
Other	20.28	22.71	29.82	29.31	30.35
Other	24.61	27.05	34.36	34.02	34.93
Residential statistics					
Average annual use per customer account (KWH)	5,806	5,996	6,000	6,220	6,596
Average annual revenue per customer account	\$ 1,590	\$ 1,776	\$ 2,218	\$ 2,265	\$ 2,432
Average number of customer accounts	401,796	399,674	396,640	394,024	391,437

¹ Sum of the net peak demands on all islands served, noncoincident and nonintegrated.

Generation statistics. The following table contains certain generation statistics as of and for the year ended December 31, 2016. The net generating and firm purchased capability available for operation at any given time may be more or less than shown because of capability restrictions or temporary outages for inspection, maintenance, repairs or unforeseen circumstances.

	Hawaiian Electric	Hawaii Electric Light	Maui Electric			Total
	Island of Oahu	Island of Hawaii	Island of Maui	Island of Lanai	Island of Molokai	
Net generating and firm purchased capability (MW) as of December 31, 2016 ¹						
Conventional oil-fired steam units	999.5	49.4	35.9	—	—	1,084.8
Diesel	—	27.0	96.8	9.3	9.6	142.7
Combustion turbines (peaking units)	101.8	—	—	—	—	101.8
Other combustion turbines	—	46.3	—	—	2.2	48.5
Combined-cycle unit	—	56.3	113.6	—	—	169.9
Biodiesel	121.0	—	—	—	—	121.0
Firm contract power ²	456.5	94.6	—	—	—	551.1
	1,678.8	273.6	246.3	9.3	11.8	2,219.8
Net peak demand (MW) ³	1,192.0	188.5	201.0	5.7	5.7	1,592.9
Reserve margin	40.2%	45.1%	23.2%	63.2%	107.0%	40.8%
Annual load factor	66.7%	69.4%	63.5%	62.9%	62.3%	66.6%
KWH net generated and purchased (millions)	6,963.1	1,145.7	1,118.2	31.4	31.1	9,289.5

¹ Hawaiian Electric units at normal ratings; Hawaii Electric Light and Maui Electric units at reserve ratings.

² Nonutility generators - Hawaiian Electric: 208 MW (Kalaeloa Partners, L.P., oil-fired), 180 MW (AES Hawaii, Inc., coal-fired) and 68.5 MW (HPOWER, refuse-fired); Hawaii Electric Light: 34.6 MW (Puna Geothermal venture, geothermal) and 60 MW (Hamakua Energy Partners, L.P., oil-fired).

³ Noncoincident and nonintegrated.

Generating reliability and reserve margin. Hawaiian Electric serves the island of Oahu and Hawaii Electric Light serves the island of Hawaii. Maui Electric has three separate electrical systems—one each on the islands of Maui, Molokai and Lanai. Hawaiian Electric, Hawaii Electric Light and Maui Electric have isolated electrical systems that are not currently interconnected to each other or to any other electrical grid and, thus, each maintains a higher level of reserve generation than is typically carried by interconnected mainland U.S. utilities, which are able to share reserve capacity. These higher levels of reserve margins are required to meet peak electric demands, to provide for scheduled maintenance of generating units (including the units operated by IPPs relied upon for firm capacity) and to allow for the forced outage of the largest generating unit in the system.

See “Adequacy of supply” in HEI’s MD&A under “Electric utility.”

Nonutility generation. The Utilities have supported state and federal energy policies which encourage the development of renewable energy sources that reduce the use of fuel oil as well as the development of qualifying facilities. The Utilities’ renewable energy sources and potential sources range from wind, solar, photovoltaic, geothermal, wave and hydroelectric power to energy produced by the burning of bagasse (sugarcane waste), municipal waste and other biofuels.

The rate schedules of the electric utilities contain ECACs and PPACs that allow them to recover costs of fuel and purchase power expenses. The PUC approved the PPACs for the first time for Hawaiian Electric, Hawaii Electric Light and Maui Electric in March 2011, February 2012 and May 2012, respectively.

In addition to the firm capacity PPAs described below, the electric utilities also purchase energy on an as-available basis directly from nonutility generators and through its Feed-In Tariff programs. The electric utilities also receive renewable energy from customers under its Net Energy Metering, and Customer Grid Supply programs.

The PUC has allowed rate recovery for the firm capacity and purchased energy costs for the electric utilities’ approved firm capacity and as-available energy PPAs.

Hawaiian Electric firm capacity PPAs. Hawaiian Electric currently has three major PPAs that provide a total of 456.5 MW of firm capacity, representing 28% of Hawaiian Electric's total net generating and firm purchased capacity on Oahu as of December 31, 2016.

In March 1988, Hawaiian Electric entered into a PPA with AES Barbers Point, Inc. (now known as AES Hawaii, Inc. (AES Hawaii)), a Hawaii-based, indirect subsidiary of The AES Corporation. The agreement with AES Hawaii, as amended (through Amendment No. 2), provides that, for a period of 30 years beginning September 1992, Hawaiian Electric will purchase 180 megawatts (MW) of firm capacity. The AES Hawaii coal-fired cogeneration plant utilizes a "clean coal" technology and is designed to sell sufficient steam to be a "Qualifying Facility" (QF) under the Public Utility Regulatory Policies Act of 1978 (PURPA). See "Commitments and contingencies—Power purchase agreements—AES Hawaii, Inc." in Note 4 to the Consolidated Financial Statements for an update regarding this PPA.

In October 1988, Hawaiian Electric entered into an agreement with Kalaeloa Partners, L.P. (Kalaeloa), a limited partnership, which, through affiliates, contracted to design, build, operate and maintain a QF. The agreement with Kalaeloa, as amended, provided that Hawaiian Electric would purchase 180 MW of firm capacity for a period of 25 years beginning in May 1991 and terminating in May 2016. The Kalaeloa facility is a combined-cycle operation, consisting of two oil-fired combustion turbines burning low sulfur fuel oil (LSFO) and a steam turbine that utilizes waste heat from the combustion turbines. Following two additional amendments, effective in 2005, Kalaeloa currently supplies Hawaiian Electric with 208 MW of firm capacity. In January 2011, Hawaiian Electric initiated renegotiation of the agreement with Kalaeloa (exempt from the PUC's Competitive Bidding Framework). The PPA, as amended, automatically extends on a month-to-month basis as long as the parties are still negotiating in good faith. On August 1, 2016, the parties entered into an agreement that neither party will give written notice of termination of the PPA prior to October 31, 2017. This agreement complements continued negotiations between the parties and accounts for time needed for PUC approval of a negotiated resolution.

Hawaiian Electric also entered into a PPA in March 1986 and a firm capacity amendment in April 1991 with the City and County of Honolulu with respect to a refuse-fired plant (HPOWER). Under the amended PPA, the HPOWER facility supplied Hawaiian Electric with 46 MW of firm capacity. In May 2012, Hawaiian Electric entered into an amended and restated PPA with the City and County of Honolulu to purchase additional firm capacity (including the then existing 46 MW) from the expanded HPOWER facility for a term of 20 years from the commercial operation date (April 2, 2013). Under the amended and restated PPA, which the PUC approved, Hawaiian Electric purchases 68.5 MW of firm capacity.

Hawaii Electric Light and Maui Electric firm capacity PPAs. As of December 31, 2016, Hawaii Electric Light has PPAs for 94.6 MW.

Hawaii Electric Light has a 35-year PPA with Puna Geothermal Venture (PGV) for 30 MW of firm capacity from its geothermal steam facility, which will expire on December 31, 2027. In February 2011, Hawaii Electric Light and PGV amended the PPA for the pricing on a portion of the energy payments and entered into a new PPA for Hawaii Electric Light to acquire an additional 8 MW of firm, dispatchable capacity. The PUC approved the amendment and the new PPA in December 2011. PGV's expansion became commercially operational in March 2012 for a total facility capacity of 34.6 MW.

In October 1997, Hawaii Electric Light entered into an agreement with Encogen, which has been succeeded by Hamakua Energy Partners, L. P. (HEP). The agreement requires Hawaii Electric Light to purchase up to 60 MW (net) of firm capacity for a period of 30 years, expiring on December 31, 2030. The dual-train combined-cycle (DTCC) facility, which primarily burns naphtha (a mixture of liquid hydrocarbons), consists of two oil-fired combustion turbines and a steam turbine that utilizes waste heat from the combustion turbines. In December 2015, Hawaii Electric Light signed an agreement to purchase the 60 MW HEP generating plant, subject to PUC approval. In February 2016, Hawaii Electric Light and Hawaiian Electric filed an application with the PUC requesting approval of Hawaii Electric Light's purchase of the HEP Facility, the parties' proposed financing plan, the recovery of revenue requirements for the plant additions associated with the purchase through Hawaii Electric Light's Decoupling Rate Adjustment Mechanism above the RAM Cap, the inclusion of the costs under certain fuel contracts through Hawaii Electric Light's ECAC and termination of the existing PPA. A decision on the application requesting PUC approval is pending.

Maui Electric had a PPA with HC&S for 16 MW of firm capacity. Subsequently, HC&S decreased firm capacity to 8 MW effective January 1, 2015. In October 2015, following PUC approval, an amended PPA between Maui Electric and HC&S became effective, which changed the pricing structure and rates for energy sold to Maui Electric, eliminated the capacity payment to HC&S and Maui Electric's minimum purchase obligation, provided that Maui Electric may request up to 4 MW of scheduled energy during certain months and be provided up to 16 MW of emergency power and extended the term of the PPA from 2014 to 2017. The HC&S generating units primarily burn bagasse (sugar cane waste) along with secondary fuels of diesel oil or coal. In January 2016, HC&S announced it will discontinue the growing and harvesting of sugar cane, and provided Maui Electric with a notice of termination of the amended PPA. Effective December 23, 2016, Maui Electric and HC&S mutually terminated the PPA to coincide with the end of HC&S' harvesting operations.

Fuel oil usage and supply. The rate schedules of the Utilities include ECACs under which electric rates (and consequently the revenues of the electric utility subsidiaries generally) are adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated power and purchased power. See discussion of rates and issues relating to the ECAC below under “Rates,” and “Electric utility—Certain factors that may affect future results and financial condition—Regulation of electric utility rates” and “Electric utility—Material estimates and critical accounting policies—Revenues” in HEI’s MD&A.

Hawaiian Electric’s steam generating units consume low sulfur fuel oil (LSFO) and Hawaiian Electric’s combustion turbine peaking units consume diesel, except for Hawaiian Electric’s Campbell Industrial Park generating facility which operates exclusively on B99 grade biodiesel.

Hawaii Electric Light’s and Maui Electric’s steam generating units burn industrial fuel oil (IFO) and Hawaii Electric Light’s and Maui Electric’s Maui combustion turbine generating units burn diesel. Hawaii Electric Light’s and Maui Electric’s Maui, Molokai, and Lanai diesel engine generating units burn ultra-low-sulfur diesel. All of the fuel purchased for the Utilities (except for fuel purchased for Lanai) is purchased under the new fuel supply contracts with Island Energy Services, LLC (previously with Chevron Products Company), which began on January 1, 2017 and will terminate at the end of 2019.

See the fuel oil commitments information set forth in the “Fuel contracts” section in Note 4 of the Consolidated Financial Statements.

The following table sets forth the average cost of fuel oil used by Hawaiian Electric, Hawaii Electric Light and Maui Electric to generate electricity in 2016, 2015 and 2014:

	Hawaiian Electric		Hawaii Electric Light		Maui Electric		Consolidated	
	\$/Barrel	¢/MBtu	\$/Barrel	¢/MBtu	\$/Barrel	¢/MBtu	\$/Barrel	¢/MBtu
2016	51.30	815.2	53.27	876.9	62.21	1,048.6	53.49	862.3
2015	71.86	1,144.8	79.03	1,307.3	84.38	1,425.7	74.71	1,206.5
2014	130.71	2,075.4	121.49	2,002.5	130.51	2,198.9	129.65	2,087.6

The average per-unit cost of fuel oil consumed to generate electricity for Hawaiian Electric, Hawaii Electric Light and Maui Electric reflects a different volume mix of fuel types and grades as follows:

	Hawaiian Electric		Hawaii Electric Light		Maui Electric	
	% LSFO	% Biodiesel/Diesel	% IFO	% Diesel	% MSFO	% Diesel
2016	97	3	49	51	19	81
2015	96	4	43	57	16	84
2014	97	3	47	53	20	80

In December 2000, Hawaii Electric Light and Maui Electric executed contracts of private carriage with Hawaiian Interisland Towing, Inc. for the employment of a double-hull tank barge for the shipment of medium sulfur fuel oil (MSFO) and diesel supplies from their fuel suppliers’ facilities on Oahu to storage locations on the islands of Hawaii and Maui, respectively, commencing January 1, 2002. The contracts have been extended through December 31, 2021. In July 2011, the carriage contracts were assigned to Kirby Corporation (Kirby), which provides refined petroleum and other products for marine transportation, distribution and logistics services in the U.S. domestic marine transportation industry.

Kirby never takes title to the fuel oil or diesel fuel, but does have custody and control while the fuel is in transit from Oahu. If there were an oil spill in transit, Kirby is generally contractually obligated to indemnify Hawaii Electric Light and/or Maui Electric for resulting clean-up costs, fines and damages. Kirby maintains liability insurance coverage for an amount in excess of \$1 billion for oil spill related damage. State law provides a cap of \$700 million on liability for releases of heavy fuel oil transported interisland by tank barge. In the event of a release, Hawaii Electric Light and/or Maui Electric may be responsible for any clean-up, damages, and/or fines that Kirby and its insurance carrier do not cover.

The prices that Hawaiian Electric, Hawaii Electric Light and Maui Electric pay for purchased energy from certain older nonutility generators are generally linked to the price of oil. The AES Hawaii energy prices vary primarily with an inflation index. The energy prices for Kalaeloa, which purchases LSFO from Par Hawaii Refining, LLC (PAR), vary primarily with the price of Asian crude oil. A portion of PGV energy prices are based on the electric utilities’ respective short-run avoided energy cost rates (which vary with their composite fuel costs), subject to minimum floor rates specified in their approved PPA. HEP energy prices vary primarily with Hawaii Electric Light’s diesel costs.

The Utilities estimate that 65% of the net energy they generate or purchase will come from fossil fuel oil in 2017 compared to 67% in 2016. Hawaiian Electric generally maintains an average system fuel inventory level equivalent to 47 days of forward consumption. Hawaii Electric Light and Maui Electric generally maintain an average system fuel inventory level equivalent to approximately one month's supply of both MSFO and diesel. The PPAs with AES Hawaii and HEP require that they maintain certain minimum fuel inventory levels.

Rates. Hawaiian Electric, Hawaii Electric Light and Maui Electric are subject to the regulatory jurisdiction of the PUC with respect to rates, issuance of securities, accounting and certain other matters. See "Regulation" below.

General rate increases require the prior approval of the PUC after public and contested case hearings. Rates for Hawaiian Electric and its subsidiaries include ECACs and PPACs. Under current law and practices, specific and separate PUC approval is not required for each rate change pursuant to automatic rate adjustment clauses previously approved by the PUC. PURPA requires the PUC to periodically review the ECACs of electric and gas utilities in the state, and such clauses, as well as the rates charged by the utilities generally, are subject to change. PUC approval is also required for all surcharges and adjustments before they are reflected in rates.

See "Electric utility—Most recent rate proceedings," "Electric utility—Certain factors that may affect future results and financial condition—Regulation of electric utility rates" and "Electric utility—Material estimates and critical accounting policies—Revenues" in HEI's MD&A and "Interim increases" and "Utility projects" under "Commitments and contingencies" in Note 4 of the Consolidated Financial Statements.

Public Utilities Commission and Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs of the State of Hawaii. Randall Y. Iwase is the Chair of the PUC (for a term that will expire in June 2020) and was formerly a state legislator, Honolulu city council member, supervising deputy attorney general, and Chair of the Hawaii State Tax Review Commission. The other commissioners are Lorraine H. Akiba (for a term that will expire in June 2018), who previously was an attorney in private practice who earlier served as the Director of the State Department of Labor and Industrial Relations, and Thomas C. Gorak (appointed on an interim basis beginning July 2016), who was also an attorney in private practice before serving as the PUC's chief legal and regulatory advisor.

The Division of Consumer Advocacy is led by its newly appointed Executive Director, Dean Nishina, who most recently served as the division's Public Utilities Administrator.

Competition. See "Electric utility—Certain factors that may affect future results and financial condition—Competition" in HEI's MD&A.

Electric and magnetic fields. The generation, transmission and use of electricity produces low-frequency (50Hz-60Hz) electrical and magnetic fields (EMF). While EMF has been classified as a possible human carcinogen by more than one public health organization and remains the subject of ongoing studies and evaluations, no definite causal relationship between EMF and health risks has been clearly demonstrated to date and there are no federal standards in the U.S. limiting occupational or residential exposure to 50Hz-60Hz EMF. The Utilities are continuing to monitor the ongoing research and continue to participate in utility industry funded studies on EMF and, where technically feasible and economically reasonable, continue to pursue a policy of prudent avoidance in the design and installation of new transmission and distribution facilities. Management cannot predict the impact, if any, the EMF issue may have on the Utilities in the future.

Global climate change and greenhouse gas (GHG) emissions reduction. The Utilities shares the concerns of many regarding the potential effects of global climate changes and the human contributions to this phenomenon, including burning of fossil fuels for electricity production, transportation, manufacturing and agricultural activities, as well as deforestation. Recognizing that effectively addressing global climate changes requires commitment by the private sector, all levels of government, and the public, the Utilities are committed to taking direct action to mitigate GHG emissions from its operations. See "Environmental regulation—Global climate change and greenhouse gas emissions reduction" under "Commitments and contingencies" in Note 4 of the Consolidated Financial Statements.

Legislation. See "Electric utility—Legislation and regulation" in HEI's MD&A.

Commitments and contingencies. See "Selected contractual obligations and commitments" in Hawaiian Electric's MD&A and "Electric utility—Certain factors that may affect future results and financial condition—Other regulatory and permitting contingencies" in HEI's MD&A, Item 1A. Risk Factors, and Note 4 of the Consolidated Financial Statements for a discussion of important commitments and contingencies.

Regulation. The PUC regulates the rates, issuance of securities, accounting and certain other aspects of the operations of Hawaiian Electric and its electric utility subsidiaries. See the previous discussion under "Rates" and the discussions under

“Electric utility—Results of operations—Most recent rate proceedings” and “Electric utility—Certain factors that may affect future results and financial condition—Regulation of electric utility rates” in HEI’s MD&A.

Any adverse decision or policy made or adopted by the PUC, or any prolonged delay in rendering a decision, could have a material adverse effect on consolidated Hawaiian Electric’s and the Company’s results of operations, financial condition or liquidity.

On September 15, 2014, the State of Hawaii and the U.S. Department of Energy executed a MOU recognizing that Hawaii is embarking on the next phase of its clean energy future. The MOU provides the framework for a comprehensive, sustained effort to better realize Hawaii’s vast renewable energy potential and allow it to push forward in three main areas: the power sector, transportation and energy efficiency. This next phase will focus on stimulating deployment of clean energy infrastructure as a catalyst for economic growth, energy system innovation and test bed investments.

In 2015, Hawaii’s RPS law was amended to require electric utilities to meet an RPS of 15%, 30%, 40%, 70% and 100% by December 31, 2015, 2020, 2030, 2040 and 2045 respectively. Energy savings resulting from energy efficiency programs do not count toward the RPS since 2014 (only electrical generation using renewable energy as a source counts).

Certain transactions between HEI’s electric public utility subsidiaries (Hawaiian Electric, Hawaii Electric Light and Maui Electric) and HEI and affiliated interests (as defined by statute) are subject to regulation by the PUC. All contracts of \$300,000 or more in a calendar year for management, supervisory, construction, engineering, accounting, legal, financial and similar services and for the sale, lease or transfer of property between a public utility and affiliated interests must be filed with the PUC to be effective, and the PUC may issue cease and desist orders if such contracts are not filed. All such “affiliated contracts” for capital expenditures (except for real property) must be accompanied by comparative price quotations from two nonaffiliates, unless the quotations cannot be obtained without substantial expense. Moreover, all transfers of \$300,000 or more of real property between a public utility and affiliated interests require the prior approval of the PUC and proof that the transfer is in the best interest of the public utility and its customers. If the PUC, in its discretion, determines that an affiliated contract is unreasonable or otherwise contrary to the public interest, the utility must either revise the contract or risk disallowance of payments under the contract for rate-making purposes. In rate-making proceedings, a utility must also prove the reasonableness of payments made to affiliated interests under any affiliated contract of \$300,000 or more by clear and convincing evidence.

In December 1996, the PUC issued an order in a docket that had been opened to review the relationship between HEI and Hawaiian Electric and the effects of that relationship on the operations of Hawaiian Electric. The order adopted the report of the consultant the PUC had retained and ordered Hawaiian Electric to continue to provide the PUC with periodic status reports on its compliance with the PUC Agreement (pursuant to which HEI became the holding company of Hawaiian Electric). Hawaiian Electric files such status reports annually. In the order, the PUC also required the Utilities to present a comprehensive analysis of the impact that the holding company structure and investments in nonutility subsidiaries have on a case-by-case basis on the cost of capital to each utility in future rate cases and remove any such effects from the cost of capital. The Utilities have made presentations in their subsequent rate cases to support their positions that there was no evidence that would modify the PUC’s finding that Hawaiian Electric’s access to capital did not suffer as a result of HEI’s involvement in nonutility activities and that HEI’s diversification did not permanently raise or lower the cost of capital incorporated into the rates paid by Hawaiian Electric’s utility customers.

The Utilities are not subject to regulation by the FERC under the Federal Power Act, except under Sections 210 through 212 (added by Title II of PURPA and amended by the Energy Policy Act of 1992), which permit the FERC to order electric utilities to interconnect with qualifying cogenerators and small power producers, and to wheel power to other electric utilities. Title I of PURPA, which relates to retail regulatory policies for electric utilities, and Title VII of the Energy Policy Act of 1992, which addresses transmission access, also apply to the Utilities. The Utilities are also required to file various operational reports with the FERC.

Because they are located in the State of Hawaii, Hawaiian Electric and its subsidiaries are exempt by statute from limitations set forth in the Powerplant and Industrial Fuel Use Act of 1978 on the use of petroleum as a primary energy source.

See also “HEI—Regulation” above.

Environmental regulation. Hawaiian Electric, Hawaii Electric Light and Maui Electric, like other utilities, are subject to periodic inspections by federal, state and, in some cases, local environmental regulatory agencies, including agencies responsible for the regulation of water quality, air quality, hazardous and other waste and hazardous materials. These inspections may result in the identification of items needing corrective or other action. Except as otherwise disclosed in this report (see “Certain factors that may affect future results and financial condition—Environmental matters” for HEI Consolidated, the Electric utility and the Bank sections in HEI’s MD&A and Note 4 of the Consolidated Financial Statements, which are incorporated herein by reference), the Company believes that each subsidiary has appropriately responded to environmental

conditions requiring action and that, as a result of such actions, such environmental conditions will not have a material adverse effect on the Company or Hawaiian Electric.

Water quality controls. The generating stations, substations and other utility facilities operate under federal and state water quality regulations and permits, including but not limited to the Clean Water Act National Pollution Discharge Elimination System (governing point source discharges, including wastewater and storm water discharges), Underground Injection Control (regulating disposal of wastewater into the subsurface), the Spill Prevention, Control and Countermeasure (SPCC) program, the Oil Pollution Act of 1990 (OPA) (governing actual or threatened oil releases and imposing strict liability on responsible parties for clean-up costs and damages to natural resources and property), and other regulations associated with discharges of oil and other substances to surface water. The federal Environmental Protection Agency (EPA) regulations under OPA also require certain facilities that use or store petroleum to prepare and implement SPCC Plans in order to prevent releases of petroleum to navigable waters of the U.S. The Utilities' facilities that are subject to SPCC Plan requirements, including most power plants, base yards, and certain substations, have prepared and are implementing SPCC Plans.

The Company believes that each subsidiary's costs of responding to petroleum releases to date will not have a material adverse effect on the respective subsidiary or the Company.

Air quality controls. The Clean Air Act (CAA) establishes permitting programs to reduce air pollution. The CAA amendments of 1990, established the federal Title V Operating Permit Program (in Hawaii known as the Covered Source Permit program) to ensure compliance with all applicable federal and state air pollution control requirements. The 1977 CAA Amendments established the New Source Review (NSR) permitting program which affect new or modified generating units by requiring a permit to construct under the CAA and the controls necessary to meet the National Ambient Air Quality Standards (NAAQS).

Title V operating permits have been issued for all of the Utilities' affected generating units.

Hazardous waste and toxic substances controls. The operations of the electric utility and former freight transportation subsidiaries of HEI are subject to EPA regulations that implement provisions of the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund), the Superfund Amendments and Reauthorization Act (SARA), and the Toxic Substances Control Act (TSCA).

RCRA underground storage tank (UST) regulations require all facilities that use USTs for storing petroleum products to comply with established leak detection, spill prevention, standards for tank design and retrofits, financial assurance, and tank decommissioning and closure requirements. All of the Utilities' USTs currently meet the applicable requirements.

The Emergency Planning and Community Right-to-Know Act under SARA Title III requires the Utilities to report potentially hazardous chemicals present in their facilities in order to provide the public with information so that emergency procedures can be established to protect the public in the event of hazardous chemical releases. Since January 1, 1998, the steam electric industry category has been subject to Toxics Release Inventory (TRI) reporting requirements.

The TSCA regulations specify procedures for the handling and disposal of polychlorinated biphenyls (PCBs), a compound found in some transformer and capacitor dielectric fluids. The TSCA regulations also apply to responses to releases of PCBs to the environment. The Utilities have instituted procedures to monitor compliance with these regulations and have implemented a program to identify and replace PCB transformers and capacitors in their systems. In April 2010, the EPA issued an Advance Notice of Proposed Rule Making announcing its intent to reassess PCB regulations. The EPA projects that it will publish a notice of proposed rulemaking in November 2017.

Hawaii's Environmental Response Law (ERL), as amended, governs releases of hazardous substances, including oil, to the environment in areas within the state's jurisdiction. Responsible parties under the ERL are jointly, severally, and strictly liable for a release of a hazardous substance. Responsible parties include owners or operators of a facility where a hazardous substance is located and any person who at the time of disposal of the hazardous substance owned or operated any facility at which such hazardous substance was disposed.

The Utilities periodically discover leaking petroleum-containing equipment such as USTs, piping, and transformers. Each subsidiary reports releases from such equipment when and as required by applicable law and addresses the releases in compliance with applicable regulatory requirements.

Research and development. The Utilities expensed approximately \$4.2 million, \$3.3 million and \$2.9 million in 2016, 2015 and 2014, respectively, for research and development (R&D). In 2016, 2015 and 2014, the electric utilities' contributions to the Electric Power Research Institute (EPRI) accounted for approximately 52%, 67% and 76% of R&D expenses, respectively. The Utilities continue to collaborate with EPRI, Energy Excelsior, other utilities, national testing labs, leading edge companies and various stakeholders to learn what new technologies and solutions are being developed, tested, and implemented elsewhere

and can be applied to helping the State achieve a 100% clean energy future. The Utilities utilize an expanded reference of R&D to highlight the demonstration of technologies. Included in the R&D expenses were amounts related to evaluating, testing, and demonstrating new and emerging technologies, biofuels, energy storage, demand response, environmental compliance, power quality, electric and hybrid plug in vehicles and other renewables (e.g., integration of distributed energy resources onto the utility grid, grid modernization, solar resource evaluation, advanced inverter testing, and modeling of high PV penetration circuits).

Additional information. For additional information about Hawaiian Electric, see Hawaiian Electric's MD&A, Hawaiian Electric's "Quantitative and Qualitative Disclosures about Market Risk" and Hawaiian Electric's Consolidated Financial Statements.

Properties. Hawaiian Electric owns four generating plants on the island of Oahu at Waiiau, Kahe, Campbell Industrial Park (CIP) and Honolulu. Hawaiian Electric currently operates three of the four generation plants; the fourth, in downtown Honolulu, was deactivated in 2014. These plants have an aggregate net generating capability of 1,214 MW as of December 31, 2016. The City and County of Honolulu is seeking to condemn a portion of the Honolulu plant site for its rail project. The four plants are situated on Hawaiian Electric-owned land having a combined area of 535 acres and three parcels of land totaling 5.5 acres under leases expiring between December 31, 2018 and June 30, 2021, with options to extend to June 30, 2026. Additionally, Hawaiian Electric has negotiated two leases: 1) a 35 year lease, effective September 1, 2016 with an option to extend an additional 10 years with the Department of the Army to install, operate, and maintain a 50 MW power generation plant on 8.13 acres, and 2) a 37 year lease, effective July 1, 2017 or upon PUC approval (whichever is sooner) with the Secretary of the Navy to install, operate and maintain a 28 MW renewable generation site on 102 acres. In addition, Hawaiian Electric owns a total of 132 acres of land on which substations, transformer vaults, distribution baseyards and the Kalaeloa cogeneration facility are located.

Hawaiian Electric owns buildings and approximately 11.6 acres of land located in Honolulu which house its operating and engineering departments. It also leases an office building and certain office spaces in Honolulu, and a warehousing center in Kapolei. The lease for the office building expires in November 2021, with an option to extend through November 2024. Leases for certain office and warehouse spaces expire on various dates from May 31, 2017 through July 31, 2025, some with options to extend to various dates through December 31, 2034.

Hawaiian Electric's Barbers Point Tank Farm (BPTF) has three storage tanks with an aggregate of 1 million barrels of storage for low sulfur fuel oil (LSFO). The BPTF is located in Campbell Industrial Park, on the same property as the CIP Generating Station, and is the central fuel storage facility where LSFO purchased by Hawaiian Electric is received and stored. From the BPTF, LSFO is transported via Hawaiian Electric owned underground pipelines to the Kahe and Waiiau Power Plants. Hawaiian Electric also has fuel storage facilities at each of its plant sites with a nominal aggregate capacity of 770,000 barrels for LSFO storage, 44,000 barrels for diesel storage, and 88,000 barrels for biodiesel storage. Hawaiian Electric also owns a fuel storage facility at Iwilei that was used to provide fuel to the Honolulu Power Plant. The Honolulu Power Plant was deactivated on January 31, 2014 and any future fuel supplies will be delivered directly to the plant by truck. The Iwilei fuel storage facility's tanks and pumping infrastructure are being removed, and the facility is being reconfigured for other purposes.

Hawaii Electric Light owns and operates four generating plants on the island of Hawaii in Hilo, Waimea, Keahole and Puna, along with distributed generators at substation sites. These plants have an aggregate net generating capability of 179 MW as of December 31, 2016 (excluding several small run-of-river hydro units). Hawaii Electric Light's Shipman plant in Hilo was deactivated in 2014 and retired in 2015. The plants (including a baseyard on the same parcel as the Hilo plant) are situated on Hawaii Electric Light-owned land having a combined area of approximately 44 acres. The distributed generators are located within Hawaii Electric Light-owned substation sites having a combined area of approximately 4 acres. Hawaii Electric Light also owns fuel storage facilities at these sites with a usable storage capacity of 48,000 barrels of medium sulfur fuel oil (MSFO) and 81,802 barrels of diesel. There are an additional 19,200 barrels of diesel and 22,770 barrels of MSFO storage capacity for Hawaii Electric Light-owned fuel off-site at Island Energy Services, LLC (Island Energy)-owned terminalling facilities (previously Chevron-owned). Hawaii Electric Light pays a storage fee to Island Energy and has no other interest in the property, tanks or other infrastructure situated on their property. Hawaii Electric Light also owns 6 acres of land in Kona, which is used for a baseyard, and one acre of land in Hilo, which houses its accounting, customer services and administrative offices. Hawaii Electric Light also leases 3.7 acres of land for its baseyard in Hilo under a lease expiring in 2030. In addition, Hawaii Electric Light owns a total of approximately 100 acres of land, and leases a total of approximately 8.5 acres of land, on which hydro facilities, substations and switching stations, microwave facilities, and transmission lines are located. The deeds to the sites located in Hilo contain certain restrictions, but the restrictions do not materially interfere with the use of the sites for public utility purposes.

On 37.7 acres of its land, Maui Electric: (1) owns and operates two generating plants on the island of Maui, at Kahului and Maalaea, with an aggregate net generating capability of 246.3 MW as of December 31, 2016, (2) has offices (administrative, engineering and distribution departments) in Kahului, and (3) owns fuel oil storage facilities with a total maximum usable

capacity of 81,272 barrels of MSFO and 94,586 barrels of diesel. There are an additional 56,358 barrels of diesel oil storage capacity off-site at Aloha Petroleum, Ltd. (Aloha Petroleum)-owned terminalling facilities, for which Maui Electric pays storage fees. Maui Electric also owns two, 1 MW stand-by diesel generators and a 6,000 gallon fuel storage tank in Hana and 65.7 acres of undeveloped land at Waena.

Maui Electric also owns and operates smaller distribution systems, generation systems (with an aggregate net capability of 21.1 MW as of December 31, 2016) and fuel storage facilities on the islands of Lanai and Molokai, primarily on its own land.

Other properties. The Utilities own overhead transmission and distribution lines, underground cables, poles (some jointly) and metal high voltage towers. Electric lines are located over or under public and nonpublic properties. Lines are added when needed to serve increased loads and/or for reliability reasons. In some design districts on Oahu, lines must be placed underground. Under Hawaii law, the PUC generally must determine whether new 46 kilovolt (kV), 69 kV or 138 kV lines can be constructed overhead or must be placed underground.

See “Hawaiian Electric and subsidiaries and service areas” above for a discussion of the nonexclusive franchises of Hawaiian Electric and subsidiaries. Most of the leases, easements and licenses for Hawaiian Electric’s, Hawaii Electric Light’s and Maui Electric’s lines have been recorded.

See “Generation statistics” above and “Limited insurance” in HEI’s MD&A for a further discussion of some of the electric utility properties.

Bank

General. ASB was granted a federal savings bank charter in January 1987. Prior to that time, ASB had operated since 1925 as the Hawaii division of American Savings & Loan Association of Salt Lake City, Utah. As of December 31, 2016, ASB was one of the largest financial institutions in the State of Hawaii based on total assets of \$6.4 billion and deposits of \$5.5 billion. In 2016, ASB’s revenues and net income amounted to approximately 12% and 23% (impacted by the merger termination fee and other impacts at corporate) of HEI’s consolidated revenues and net income, respectively, compared to approximately 10% and 34% in 2015 and approximately 8% and 31% in 2014, respectively.

At the time of HEI’s acquisition of ASB in 1988, HEI agreed with the OTS’ predecessor regulatory agency that ASB’s regulatory capital would be maintained at a level of at least 6% of ASB’s total liabilities, or at such greater amount as may be required from time to time by regulation. Under the agreement, HEI’s obligation to contribute additional capital to ensure that ASB would have the capital level required by the OTS was limited to a maximum aggregate amount of approximately \$65.1 million. As of December 31, 2016, as a result of certain HEI contributions of capital to ASB, HEI’s maximum obligation under the agreement to contribute additional capital has been reduced to approximately \$28.3 million. ASB is subject to OCC regulations on dividends and other distributions and ASB must receive a letter of non-objection from the OCC and FRB before it can declare and pay a dividend to HEI.

The following table sets forth selected data for ASB (average balances calculated using the average daily balances):

Years ended December 31	2016	2015	2014
Common equity to assets ratio			
Average common equity divided by average total assets	9.34%	9.53%	9.87%
Return on assets			
Net income for common stock divided by average total assets	0.92	0.95	0.95
Return on common equity			
Net income for common stock divided by average common equity	9.90	9.93	9.60

Asset/liability management. See HEI’s “Quantitative and Qualitative Disclosures about Market Risk.”

Consolidated average balance sheet and interest income and interest expense. See “Bank—Results of operations—Average balance sheet and net interest margin” in HEI’s MD&A.

The following table shows the effect on net interest income of (1) changes in interest rates (change in weighted-average interest rate multiplied by prior year average balance) and (2) changes in volume (change in average balance multiplied by prior period weighted-average interest rate). Any remaining change is allocated to the above two categories on a prorata basis.

(in thousands)	2016 vs. 2015			2015 vs. 2014		
	Rate	Volume	Total	Rate	Volume	Total
Interest income						
Interest-earning deposits	\$ 228	\$ (169)	\$ 59	\$ 9	\$ 92	\$ 101
FHLB stock	192	(148)	44	144	(84)	60
Securities purchased under resale agreements	—	—	—	(10)	(10)	(20)
Available-for-sale investment securities						
Taxable	(1,018)	4,961	3,943	(158)	3,471	3,313
Non-taxable	14	14	28	(214)	(215)	(429)
Total available-for-sale investment securities	(1,004)	4,975	3,971	(372)	3,256	2,884
Loans						
Residential 1-4 family	(2,103)	444	(1,659)	(2,451)	1,793	(658)
Commercial real estate	1,037	8,345	9,382	(1,831)	4,485	2,654
Home equity line of credit	686	1,052	1,738	(402)	1,197	795
Residential land	(77)	94	17	(73)	68	(5)
Commercial	2,538	(2,077)	461	(552)	540	(12)
Consumer	1,908	3,145	5,053	1,933	734	2,667
Total loans	3,989	11,003	14,992	(3,376)	8,817	5,441
Total increase (decrease) in interest income	3,405	15,661	19,066	(3,605)	12,071	8,466
Interest expense						
Savings	(103)	(42)	(145)	—	(123)	(123)
Interest-bearing checking	—	(34)	(34)	—	(13)	(13)
Money market	(5)	8	3	—	9	9
Time certificates	(589)	(1,054)	(1,643)	—	(144)	(144)
Advances from Federal Home Loan Bank	21	(35)	(14)	—	—	—
Securities sold under agreements to repurchase	(285)	689	404	672	(919)	(247)
Total (increase) decrease in interest expense	(961)	(468)	(1,429)	672	(1,190)	(518)
Increase (decrease) in net interest income	\$ 2,444	\$ 15,193	\$ 17,637	\$ (2,933)	\$ 10,881	\$ 7,948

See “Bank—Results of operations” in HEI’s MD&A for an explanation of significant changes in earning assets and costing liabilities.

Noninterest income. In addition to net interest income, ASB has various sources of noninterest income, including fee income from credit and debit cards, fee income from deposit liabilities, mortgage banking income and other financial products and services. See “Bank—Results of operations” in HEI’s MD&A for an explanation of significant changes in noninterest income.

Lending activities.

General. The following table sets forth the composition of ASB’s loans receivable held for investment:

December 31	2016		2015		2014		2013		2012	
(dollars in thousands)	Balance	% of total	Balance	% of total	Balance	% of total	Balance	% of total	Balance	% of total
Real estate: ¹										
Residential 1-4 family	\$ 2,048,051	43.2	\$ 2,069,665	44.8	\$ 2,044,205	46.0	\$ 2,006,007	48.2	\$ 1,866,450	49.2
Commercial real estate	800,395	16.9	690,561	14.9	531,917	12.0	440,443	10.6	375,677	9.9
Home equity line of credit	863,163	18.2	846,294	18.3	818,815	18.4	739,331	17.8	630,175	16.6
Residential land	18,889	0.4	18,229	0.4	16,240	0.4	16,176	0.4	25,815	0.7
Commercial construction	126,768	2.7	100,796	2.2	96,438	2.2	52,112	1.3	43,988	1.2
Residential construction	16,080	0.3	14,089	0.3	18,961	0.4	12,774	0.3	6,171	0.2
Total real estate	3,873,346	81.7	3,739,634	80.9	3,526,576	79.4	3,266,843	78.6	2,948,276	77.8
Commercial	692,051	14.6	758,659	16.4	791,757	17.8	783,388	18.8	721,349	19.0
Consumer	178,222	3.7	123,775	2.7	122,656	2.8	108,722	2.6	121,231	3.2
Total loans	4,743,619	100.0	4,622,068	100.0	4,440,989	100.0	4,158,953	100.0	3,790,856	100.0
Less: Deferred fees and discounts	(4,926)		(6,249)		(6,338)		(8,724)		(11,638)	
Allowance for loan losses	(55,533)		(50,038)		(45,618)		(40,116)		(41,985)	
Total loans, net	\$ 4,683,160		\$ 4,565,781		\$ 4,389,033		\$ 4,110,113		\$ 3,737,233	

¹ Includes renegotiated loans.

The increase in the loans receivable balance in 2016 was primarily due to growth in the commercial real estate, consumer, commercial construction and home equity lines of credit (HELOC) loan portfolios as a result of demand for these loan types, partly offset by a decrease in the commercial and residential 1-4 family loan portfolios. The growth in the commercial real estate, consumer, commercial construction and HELOC loan portfolios was consistent with ASB's loan growth strategy. The decrease in the commercial loan portfolio was due to the strategic reduction of ASB's nationally syndicated loan portfolio by \$93 million. The decrease in the residential loan portfolio was due to ASB's decision to sell a portion of its loan production with low interest rates to control its interest rate risk.

The increase in the loans receivable balance in 2015 was primarily due to growth in commercial real estate, HELOC and residential 1-4 family loan portfolios, partly offset by a decrease in the commercial loan portfolio. The growth in the commercial real estate, HELOC and residential loan portfolios was driven by demand for this loan type and was consistent with ASB's loan growth strategy.

The increase in the loans receivable balance in 2014 was primarily due to growth in commercial real estate, HELOC, commercial construction and residential 1-4 family loan portfolios. The growth in the commercial real estate and commercial construction loan portfolios were driven by demand for these loan types as the Hawaii economy continues to improve. The growth in the HELOC and residential loan portfolios were consistent with ASB's mix target and loan growth strategy.

The increase in the loans receivable balance in 2013 was primarily due to growth in the residential, HELOC, commercial and commercial real estate loan portfolios. The growth in these portfolios was consistent with ASB's mix target and loan growth strategy.

The increase in the loans receivable balance in 2012 was primarily due to growth in commercial, commercial real estate, consumer and HELOC loans as ASB targeted these portfolios because of their shorter duration and/or variable rates. Offsetting these 2012 loan portfolio increases was a decrease in the residential loan portfolio. Although ASB produced nearly \$1.0 billion of new, long-term residential loans in 2012, nearly double the level for 2011, it sold more than half those loans to control interest rate risk and repayments were also higher than in 2011.

The following table summarizes our loans receivable held for investment based upon contractually scheduled principal payments allocated to the indicated maturity categories:

December 31	2016			
Due	In 1 year or less	After 1 year through 5 years	After 5 years	Total
(in millions)				
Commercial – Fixed	\$ 51	\$ 129	\$ 22	\$ 202
Commercial – Adjustable	209	241	40	490
Total commercial	260	370	62	692
Commercial construction – Fixed	—	—	—	—
Commercial construction – Adjustable	31	96	—	127
Total commercial construction	31	96	—	127
Residential construction – Fixed	16	—	—	16
Residential construction – Adjustable	—	—	—	—
Total residential construction	16	—	—	16
Total loans – Fixed	67	129	22	218
Total loans – Adjustable	240	337	40	617
Total loans	\$ 307	\$ 466	\$ 62	\$ 835

Origination, purchase and sale of loans. Generally, residential and commercial real estate loans originated by ASB are collateralized by real estate located in Hawaii. For additional information, including information concerning the geographic distribution of ASB’s mortgage-related securities portfolio and the geographic concentration of credit risk, see Note 15 to the Consolidated Financial Statements. The demand for loans is primarily dependent on the Hawaii real estate market, business conditions, interest rates and loan refinancing activity.

Residential mortgage lending. ASB originates fixed rate and adjustable rate loans secured by single family residential property, including investor-owned properties, with maturities of up to 30 years. ASB’s general policy is to require private mortgage insurance when the loan-to-value ratio of the property exceeds 80% of the lower of the appraised value or purchase price at origination. For non-owner-occupied residential properties, the loan-to-value ratio may not exceed 80% of the lower of the appraised value or purchase price at origination.

Construction and development lending. ASB provides fixed rate loans for the construction of one-to-four unit residential and commercial properties. Construction loan projects are typically short term in nature. Construction and development financing generally involves a higher degree of credit risk than long-term financing on improved, occupied real estate. Accordingly, construction and development loans are generally priced higher than loans collateralized by completed structures. ASB’s underwriting, monitoring and disbursement practices with respect to construction and development financing are designed to ensure sufficient funds are available to complete construction projects. See “Loan portfolio risk elements” and “Multifamily residential and commercial real estate lending” below.

Multifamily residential and commercial real estate lending. ASB provides permanent financing and construction and development financing collateralized by multifamily residential properties (including apartment buildings) and collateralized by commercial and industrial properties (including office buildings, shopping centers and warehouses) for its own portfolio as well as for participation with other lenders. Commercial real estate lending typically involves long lead times to originate and fund. As a result, production results can vary significantly from period to period.

Consumer lending. ASB offers a variety of secured and unsecured consumer loans. Loans collateralized by deposits are limited to 90% of the available account balance. ASB offers home equity lines of credit, clean energy loans, secured and unsecured VISA cards (through a third party issuer), checking account overdraft protection and other general purpose consumer loans.

Commercial lending. ASB provides both secured and unsecured commercial loans to business entities. This lending activity is designed to diversify ASB’s asset structure, shorten maturities, improve rate sensitivity of the loan portfolio and attract commercial checking deposits. ASB offers commercial loans with terms up to ten years.

Loan origination fee and servicing income. In addition to interest earned on residential mortgage loans, ASB receives income from servicing loans, for late payments and from other related services. Servicing fees are received on loans originated and subsequently sold by ASB where ASB acts as collection agent on behalf of third-party purchasers.

ASB charges the borrower at loan settlement a loan origination fee. See “Loans receivable” in Note 1 of the Consolidated Financial Statements.

Loan portfolio risk elements. When a borrower fails to make a required payment on a loan and does not cure the delinquency promptly, the loan is classified as delinquent. If delinquencies are not cured promptly, ASB normally commences a collection action, including foreclosure proceedings in the case of real estate secured loans. In a foreclosure action, the property collateralizing the delinquent debt is sold at a public auction in which ASB may participate as a bidder to protect its interest. If ASB is the successful bidder, the property is classified as real estate owned until it is sold. As of December 31, 2016, 2015 and 2014, ASB had \$1.2 million, \$1.0 million and \$0.9 million, respectively, of real estate acquired in settlement of loans.

In addition to delinquent loans, other significant lending risk elements include: (1) loans which accrue interest and are 90 days or more past due as to principal or interest, (2) loans accounted for on a nonaccrual basis (nonaccrual loans), and (3) loans on which various concessions are made with respect to interest rate, maturity, or other terms due to the inability of the borrower to service the obligation under the original terms of the agreement (troubled debt restructured loans). ASB loans that were 90 days or more past due on which interest was being accrued as of December 31, 2016, 2015, 2014, 2013 and 2012 were immaterial or nil. The following table sets forth certain information with respect to nonaccrual and troubled debt restructured loans:

December 31	2016	2015	2014	2013	2012
(dollars in thousands)					
Nonaccrual loans—					
Real estate					
Residential 1-4 family	\$ 11,154	\$ 20,554	\$ 19,253	\$ 19,679	\$ 26,721
Commercial real estate	223	1,188	5,112	4,439	6,750
Home equity line of credit	3,080	2,254	1,087	2,060	2,349
Residential land	878	970	720	3,161	8,561
Residential construction	—	—	—	—	—
Total real estate	15,335	24,966	26,172	29,339	44,381
Commercial	6,708	20,174	10,053	18,781	20,222
Consumer	1,282	895	661	401	284
Total nonaccrual loans	\$ 23,325	\$ 46,035	\$ 36,886	\$ 48,521	\$ 64,887
Troubled debt restructured loans not included above—					
Real estate					
Residential 1-4 family	\$ 14,450	\$ 13,962	\$ 13,525	\$ 9,744	\$ 6,759
Commercial real estate	1,346	—	—	—	—
Home equity line of credit	4,934	2,467	480	171	—
Residential land	2,751	4,713	7,130	7,476	11,090
Total real estate	23,481	21,142	21,135	17,391	17,849
Commercial	14,146	1,104	2,972	1,649	43
Consumer	10	—	—	—	—
Total troubled debt restructured loans	\$ 37,637	\$ 22,246	\$ 24,107	\$ 19,040	\$ 17,892

In 2016, nonaccrual loans decreased \$22.7 million primarily due to upgrades of specific commercial and commercial real estate loans, payoff of a troubled commercial loan and a segment of residential mortgages transferred to held-for-sale. Nonaccrual commercial and residential loans decreased by \$13.5 million and \$9.4 million, respectively. ASB evaluates a restructured loan transaction to determine if the borrower is in financial difficulty and if the restructured terms are considered concessions—typically terms that are out of market, beyond normal or reasonable standards, or otherwise not available to a non-troubled borrower in the normal marketplace. A loan classified as TDR must meet both criteria of financial difficulty and concession. Accruing TDR loans increased \$15.4 million in 2016 primarily due to increases of \$13.0 million and \$2.5 million of commercial and HELOC loans, respectively, classified as TDR. The increase in commercial loans classified as TDR was primarily due to two commercial credits being classified as TDR.

In 2015, nonaccrual loans increased \$9.1 million primarily due to higher nonaccrual commercial loans of \$10.1 million. TDR loans decreased \$1.9 million in 2015 primarily due to decreases of \$2.4 million and \$1.9 million of residential land and commercial loans, respectively, classified as TDR. HELOC loans classified as TDR increased by \$2.0 million.

In 2014, nonaccrual loans decreased \$11.6 million primarily due to the payoff of commercial loans that were on nonaccrual status and repayments in the residential land portfolio. TDR loans increased \$5.1 million in 2014 primarily due to increases of \$3.8 million and \$1.3 million of residential 1-4 and commercial loans, respectively, classified as TDR.

In 2013, nonaccrual loans decreased \$16.4 million due to improved credit quality in the residential 1-4 family, commercial real estate and commercial loans, and repayments in the residential land portfolio. The improvement is attributed to the continued stabilization or increase of property values, more financial flexibility of borrowers, and overall general economic improvement in the State of Hawaii. TDR loans increased \$1.1 million in 2013 primarily due to increases of \$3.0 million and \$1.6 million of residential 1-4 and commercial loans, respectively, classified as TDR, partly offset by a \$3.6 million decrease in residential land loans classified as TDR.

Impact of nonperforming loans on interest income. The following table presents the gross interest income for both nonaccrual and restructured loans that would have been recognized if such loans had been current in accordance with their original contractual terms, and had been outstanding throughout the period or since origination if held for only part of the period. The table also presents the interest income related to these loans that was actually recognized for the period.

(dollars in millions)	Year ended December 31, 2016
Gross amount of interest income that would have been recorded in accordance with original contractual terms, and had been outstanding throughout the period or since origination, if held for only part of the period ¹	\$ 3
Interest income actually recognized	2
Total interest income foregone	\$ 1

¹ Based on the contractual rate that was being charged at the time the loan was restructured or placed on nonaccrual status.

Allowance for loan losses. See “Allowance for loan losses” in Note 1 of the Consolidated Financial Statements.

The following table presents the changes in the allowance for loan losses:

(dollars in thousands)	2016	2015	2014	2013	2012
Allowance for loan losses, January 1	\$ 50,038	\$ 45,618	\$ 40,116	\$ 41,985	\$ 37,906
Provision for loan losses	16,763	6,275	6,126	1,507	12,883
Charge-offs					
Residential 1-4 family	639	356	987	1,162	3,183
Home equity line of credit	112	205	196	782	716
Residential land	138	—	81	485	2,808
Total real estate	889	561	1,264	2,429	6,707
Commercial	5,943	1,074	1,872	3,056	3,606
Consumer	7,413	4,791	2,414	2,717	2,517
Total charge-offs	14,245	6,426	5,550	8,202	12,830
Recoveries					
Residential 1-4 family	421	226	1,180	1,881	1,328
Home equity line of credit	59	80	752	358	108
Residential land	461	507	469	868	1,443
Total real estate	941	813	2,401	3,107	2,879
Commercial	1,093	2,773	1,636	1,089	649
Consumer	943	985	889	630	498
Total recoveries	2,977	4,571	4,926	4,826	4,026
Allowance for loan losses, December 31	\$ 55,533	\$ 50,038	\$ 45,618	\$ 40,116	\$ 41,985
Ratio of allowance for loan losses to loans receivable held for investment	1.17%	1.08%	1.03%	0.97%	1.11%
Ratio of provision for loan losses during the year to average total loans	0.36%	0.14%	0.14%	0.04%	0.35%
Ratio of net charge-offs during the year to average total loans	0.24%	0.04%	0.01%	0.09%	0.24%

The following table sets forth the allocation of ASB's allowance for loan losses and the percentage of loans in each category to total loans:

December 31 (dollars in thousands)	2016			2015			2014		
	Allowance balance	Allowance to loan receivable %	Loan receivable % of total	Allowance balance	Allowance to loan receivable %	Loan receivable % of total	Allowance balance	Allowance to loan receivable %	Loan receivable % of total
Real estate									
Residential 1-4 family	\$ 2,873	0.14	43.2	\$ 4,186	0.20	44.8	\$ 4,662	0.23	46.0
Commercial real estate	16,004	2.00	16.9	11,342	1.64	14.9	8,954	1.68	12.0
Home equity line of credit	5,039	0.58	18.2	7,260	0.86	18.3	6,982	0.85	18.4
Residential land	1,738	9.20	0.4	1,671	9.17	0.4	1,875	11.55	0.4
Commercial construction	6,449	5.09	2.7	4,461	4.43	2.2	5,471	5.67	2.2
Residential construction	12	0.07	0.3	13	0.09	0.3	28	0.15	0.4
Total real estate	32,115	0.83	81.7	28,933	0.77	80.9	27,972	0.79	79.4
Commercial	16,618	2.40	14.6	17,208	2.27	16.4	14,017	1.77	17.8
Consumer	6,800	3.82	3.7	3,897	3.15	2.7	3,629	2.96	2.8
	55,533	1.17	100.0	50,038	1.08	100.0	45,618	1.03	100.0
Unallocated	—			—			—		
Total allowance for loan losses	\$ 55,533			\$ 50,038			\$ 45,618		

December 31 (dollars in thousands)	2013			2012		
	Allowance balance	Allowance to loan receivable %	Loan receivable % of total	Allowance balance	Allowance to loan receivable %	Loan receivable % of total
Real estate						
Residential 1-4 family	\$ 5,534	0.28	48.2	\$ 6,068	0.33	49.2
Commercial real estate	5,059	1.15	10.6	2,965	0.79	9.9
Home equity line of credit	5,229	0.71	17.8	4,493	0.71	16.6
Residential land	1,817	11.23	0.4	4,275	16.56	0.7
Commercial construction	2,397	4.60	1.3	2,023	4.60	1.2
Residential construction	19	0.15	0.3	9	0.15	0.2
Total real estate	20,055	0.61	78.6	19,833	0.67	77.8
Commercial	15,803	2.02	18.8	15,931	2.21	19.0
Consumer	2,367	2.18	2.6	4,019	3.32	3.2
	38,225	0.92	100.0	39,783	1.05	100.0
Unallocated	1,891			2,202		
Total allowance for loan losses	\$ 40,116			\$ 41,985		

In 2016, ASB's allowance for loan losses increased by \$5.5 million primarily due to growth in the commercial real estate and consumer loan portfolios and increases in reserves for the commercial real estate and unsecured consumer loan portfolios. Total delinquencies of \$23.1 million at December 31, 2016 was \$3.0 million lower than total delinquencies of \$26.1 million at December 31, 2015 primarily due to the movement of \$6 million of residential loans to held-for-sale. The ratio of delinquent loans to total loans decreased from 0.57% of total loans outstanding at December 31, 2015 to 0.49% of total loans outstanding at December 31, 2016. Net charge-offs for 2016 were \$11.3 million, an increase of \$9.4 million compared to \$1.9 million for 2015 primarily due to charge-offs of specific commercial loans and an increase in consumer loan charge-offs as a result of the strategic expansion of ASB's unsecured consumer loan product offering with risk-based pricing. ASB's provision for loan losses was \$16.8 million for 2016, an increase of \$10.5 million compared to the provision for loan losses of \$6.3 million for 2015. The increase in provision for loan losses was driven by growth in the commercial real estate and consumer loan portfolios as well as specific reserves for a few commercial loans.

In 2015, ASB's allowance for loan losses increased by \$4.4 million primarily due to growth in the commercial real estate loan portfolio (\$159 million or 29.8% growth in outstanding balances) and increases in reserves for commercial loans. Overall loan quality remained strong as total delinquencies of \$26.1 million at December 31, 2015 was a slight increase of \$0.6 million

compared to total delinquencies of \$25.5 million at December 31, 2014 primarily due to an increase in delinquent consumer loans. The ratio of delinquent loans to total loans decreased slightly from 0.58% of total loans outstanding at December 31, 2014 to 0.57% of total loans outstanding at December 31, 2015. Net charge-offs for 2015 were \$1.9 million, an increase of \$1.3 million compared to \$0.6 million for 2014 primarily due to an increase in consumer loan charge-offs as result of the strategic expansion of ASB's unsecured consumer loan product offering with risk-based pricing. ASB's provision for loan losses was \$6.3 million for 2015, an increase of \$0.2 million compared to the provision for loan losses of \$6.1 million for 2014.

In 2014, ASB's allowance for loan losses increased by \$5.5 million primarily due to growth in the loan portfolio (\$282 million or 6.8% growth in outstanding balances) and increases in the loss rates of loan portfolios with higher risk such as commercial real estate and unsecured personal loans. Overall loan quality continued to improve as total delinquencies of \$25.5 million at December 31, 2014 was a decrease of \$8.3 million compared to total delinquencies of \$33.8 million at December 31, 2013 due to a decrease in delinquent commercial, commercial real estate and residential land loans. The ratio of delinquent loans to total loans decreased from 0.81% of total loans outstanding at December 31, 2013 to 0.58% of total loans outstanding at December 31, 2014. Net charge-offs for 2014 were \$0.6 million, a decrease of \$2.8 million compared to \$3.4 million for 2013 primarily due to a decrease in commercial, HELOC and residential land loan charge-offs as a result of the strong economic growth in Hawaii and partially due to the sale of the credit card portfolio in 2013. ASB's provision for loan losses was \$6.1 million for 2014, an increase of \$4.6 million compared to provision for loan losses of \$1.5 million for 2013 primarily due to growth in the loan portfolio.

In 2013, ASB's allowance for loan losses decreased by \$1.9 million, despite the increase in the loan portfolios (9.7% growth or \$368.1 million increase in outstanding balances) primarily due to the release of reserves as a result of repayments in the higher risk purchased loan and residential land loan portfolios and the sale of the credit card portfolio. Overall loan quality has improved as delinquencies decreased significantly in 2013, primarily in the residential 1-4 family, residential land and commercial real estate portfolios. Net loan charge-offs for 2013 were \$3.4 million compared to \$8.8 million in 2012 as the Hawaii economy in general and the housing market in particular continued to improve. ASB's provision for loan losses was \$1.5 million in 2013, compared to \$12.9 million in 2012.

Investment activities. Currently, ASB's investment portfolio consists of U.S. Treasury and federal agency obligations, mortgage-related securities, stock of the FHLB of Des Moines and a mortgage revenue bond. ASB owns mortgage-related securities issued by the Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC) and Government National Mortgage Association (GNMA). The weighted-average yield on investments during 2016, 2015 and 2014 was 1.99%, 2.06% and 1.91%, respectively. ASB did not maintain a portfolio of securities held for trading during 2016, 2015 and 2014.

As of December 31, 2016, 2015 and 2014, ASB's stock in FHLB amounted to \$11 million, \$11 million and \$69 million, respectively. The amount that ASB is required to invest in FHLB stock is determined by FHLB requirements. With the merger of the FHLB of Seattle and the FHLB of Des Moines in the second quarter of 2015, all of ASB's excess stock was repurchased. The amount of stock repurchased in 2016, 2015 and 2014 was nil, \$59 million and \$23 million, respectively. See "Stock in FHLB" in HEI's MD&A. Also, see "Regulation—Federal Home Loan Bank System" below.

ASB does not have any exposure to securities backed by subprime mortgages. See "Investment securities" in Note 5 of the Consolidated Financial Statements for a discussion of other-than-temporarily impaired securities.

The following table summarizes the current amortized cost of ASB's investment portfolio (excluding stock of the FHLB of Des Moines, which has no contractual maturity) and weighted average yields as of December 31, 2016. Mortgage-related securities are shown separately because they are typically paid in monthly installments over a number of years.

	In 1 year or less	After 1 year through 5 years	After 5 years through 10 years	After 10 years	Mortgage- Related Securities	Total ¹
(dollars in millions)						
U.S. Treasury and federal agency obligations	\$ 10	\$ 77	\$ 82	\$ 25	\$ —	\$ 194
Mortgage-related securities - FNMA, FHLMC and GNMA	—	—	—	—	909	909
Mortgage revenue bond ²	—	—	—	15	—	15
	\$ 10	\$ 77	\$ 82	\$ 40	\$ 909	\$ 1,118
Weighted average yield	1.13%	1.78%	2.32%	2.77%	1.99%	2.02%

¹ As of December 31, 2016, no investment exceeded 10% of shareholder's equity.

² Weighted average yield on the mortgage revenue bond is computed on a tax equivalent basis using a federal statutory tax rate of 35%.

Deposits and other sources of funds.

General. Deposits traditionally have been the principal source of ASB's funds for use in lending, meeting liquidity requirements and making investments. ASB also derives funds from the receipt of interest and principal on outstanding loans receivable and mortgage-related securities, borrowings from the FHLB of Des Moines, securities sold under agreements to repurchase and other sources. ASB borrows on a short-term basis to compensate for seasonal or other reductions in deposit flows. ASB also may borrow on a longer-term basis to support expanded lending or investment activities. Advances from the FHLB and securities sold under agreements to repurchase continue to be a source of funds, but they are a higher cost source than deposits.

Deposits. ASB's deposits are obtained primarily from residents of Hawaii. Net deposit inflow or outflow, measured as the year-over-year difference in year-end deposits, was an inflow of \$524 million in 2016, compared to an inflow of \$402 million in 2015 and \$251 million in 2014.

The following table presents the average deposits and average rates by type of deposit. Average balances have been calculated using the average daily balances.

Years ended December 31 (dollars in thousands)	2016			2015			2014		
	Average balance	% of total deposits	Weighted average rate %	Average balance	% of total deposits	Weighted average rate %	Average balance	% of total deposits	Weighted average rate %
Interest-bearing deposit liabilities									
Savings	\$ 2,117,186	57.5%	0.07%	\$ 1,980,151	58.6%	0.06%	\$ 1,879,373	58.3%	0.06%
Checking	839,339	22.8	0.02	782,811	23.2	0.02	738,651	22.9	0.02
Money market	160,700	4.4	0.13	164,568	4.9	0.12	171,889	5.3	0.12
Certificate	565,135	15.3	0.95	449,179	13.3	0.83	434,934	13.5	0.83
Total interest-bearing deposit liabilities	\$ 3,682,360	100.0%	0.19%	\$ 3,376,709	100.0%	0.16%	\$ 3,224,847	100.0%	0.16%
Total noninterest-bearing demand deposit liabilities	1,559,132			1,426,962			1,285,964		
Total deposit liabilities	\$ 5,241,492			\$ 4,803,671			\$ 4,510,811		

The following table presents the amount of time certificates of deposit of \$100,000 or more, segregated by time remaining until maturity:

(in thousands)	Amount
Three months or less	\$ 99,452
Greater than three months through six months	54,795
Greater than six months through twelve months	37,888
Greater than twelve months	136,002
	\$ 328,137

Deposit-insurance premiums and regulatory developments. For a discussion of changes to the deposit insurance system, premiums and Financing Corporation (FICO) assessments, see "Regulation—Deposit insurance coverage" below.

Other borrowings. See "Other borrowings" in Note 5 of the Consolidated Financial Statements. ASB may obtain advances from the FHLB of Des Moines provided that certain standards related to creditworthiness have been met. Advances are collateralized by a blanket pledge of certain notes held by ASB and the mortgages securing them. To the extent that advances exceed the amount of mortgage loan collateral pledged to the FHLB of Des Moines, the excess must be covered by qualified marketable securities held under the control of and at the FHLB of Des Moines or at an approved third-party custodian. FHLB advances generally are available to meet seasonal and other withdrawals of deposit accounts, to expand lending and to assist in the effort to improve asset and liability management. FHLB advances are made pursuant to several different credit programs offered from time to time by the FHLB of Des Moines.

The decrease in other borrowings in 2016 was due to a decrease in public and business repurchase agreements and the maturity of a repurchase agreement with a broker/dealer. The increase in other borrowings in 2015 compared to 2014 was due to an increase in public repurchase agreements. The increase in other borrowings in 2014 compared to 2013 was due to an increase in repurchase agreements with the State of Hawaii. The increase in other borrowings in 2013 compared to 2012 was due to \$50 million of additional FHLB advances taken out in 2013.

Competition. See “Bank—Executive overview and strategy” and “Bank—Certain factors that may affect future results and financial condition—Competition” in HEI’s MD&A.

The banking industry in Hawaii is highly competitive. At December 31, 2016, there were 8 financial institutions insured by the FDIC headquartered in the State of Hawaii. While ASB is one of the largest financial institutions in Hawaii, based on total assets, ASB faces vigorous competition for deposits and loans from two larger banking institutions based in Hawaii and from smaller institutions that heavily promote their services in niche areas, such as providing financial services to small and medium-sized businesses, as well as national financial services organizations. Competition for loans and deposits comes primarily from other savings institutions, commercial banks, credit unions, securities brokerage firms, money market and mutual funds and other investment alternatives. ASB faces additional competition in seeking deposit funds from various types of corporate and government borrowers, including insurance companies. Competition for origination of mortgage loans comes primarily from mortgage banking and brokerage firms, commercial banks, other savings institutions, insurance companies and real estate investment trusts.

To remain competitive and continue building core franchise value, ASB continues to develop and introduce new products and services to meet the needs of its consumer and commercial customers. Additionally, the banking industry is constantly changing and ASB is making the investment in its people and technology necessary to adapt and remain competitive. ASB competes for deposits primarily on the basis of the variety of types of savings and checking accounts it offers at competitive rates, the quality of the services it provides, the convenience of its branch locations and business hours, and convenient automated teller machines. The primary factors in ASB’s competition for mortgage and other loans are the competitive interest rates and loan origination fees it charges, the wide variety of loan programs it offers and the quality and efficiency of the services it provides to borrowers and the business community.

Regulation. ASB, a federally chartered savings bank, and its holding companies are subject to the regulatory supervision of the OCC and FRB, respectively, and in certain respects, the FDIC. See “HEI—Regulation” above and “Bank—Certain factors that may affect future results and financial condition—Regulation” in HEI’s MD&A. In addition, ASB must comply with FRB reserve requirements.

Deposit insurance coverage. The Federal Deposit Insurance Act, as amended, and regulations promulgated by the FDIC, governs insurance coverage of deposit accounts. In July 2010, the Dodd-Frank Act permanently raised the current standard maximum deposit insurance amount to \$250,000. Generally, the amount of all deposits held by a depositor in the same capacity (even if held in separate accounts) is aggregated for purposes of applying the insurance limit.

See “Federal Deposit Insurance Corporation assessment” in Note 5 of the Consolidated Financial Statements for a discussion of FDIC deposit insurance assessment rates. FICO will continue to impose an assessment on average total assets minus average tangible equity to service the interest on FICO bond obligations. As of December 31, 2016, ASB’s annual FICO assessment was 0.56 cents per \$100 of average total assets minus average tangible equity.

Federal thrift charter. See “Bank—Certain factors that may affect future results and financial condition—Regulation—Unitary savings and loan holding company” in HEI’s MD&A, including the discussion of previously proposed legislation that would abolish the charter.

Recent legislation and issuances. See “Bank—Legislation and regulation” in HEI’s MD&A.

Capital requirements. The OCC has set four capital requirements for financial institutions. As of December 31, 2016, ASB was in compliance with all of the minimum capital requirements with a Tier 1 leverage ratio of 8.6% (compared to a 4.0% requirement), a common equity Tier 1 ratio of 12.2% (compared to a 4.5% requirement), a Tier 1 capital ratio of 12.2% (compared to a 6.0% requirement) and a total capital ratio of 13.4% (compared to a 8.0% requirement).

In order to avoid restrictions on capital distributions and discretionary bonus payments to executive officers, a financial institution must hold a buffer of common equity tier 1 capital above its minimum capital requirements in an amount greater than 2.5% of total risk-weighted assets (capital conservation buffer) which is phased-in through 2019. As of December 31, 2016, ASB met the applicable capital requirements, including the fully phased-in capital conservation buffer.

See “Bank—Legislation and regulation” in HEI’s MD&A for the final capital rules under the Basel III regulatory capital framework.

Affiliate transactions. Significant restrictions apply to certain transactions between ASB and its affiliates, including HEI and its direct and indirect subsidiaries. For example, ASB is prohibited from making any loan or other extension of credit to an entity affiliated with ASB unless the affiliate is engaged exclusively in activities which the FRB has determined to be permissible for bank holding companies. There are also various other restrictions which apply to certain transactions between

ASB and certain executive officers, directors and insiders of ASB. ASB is also barred from making a purchase of or any investment in securities issued by an affiliate, other than with respect to shares of a subsidiary of ASB.

Financial Derivatives and Interest Rate Risk. ASB is subject to OCC rules relating to derivatives activities, such as interest rate swaps, interest rate lock commitments and forward commitments. See “Derivative financial instruments” in Note 5 of the Consolidated Financial Statements for a description of interest rate lock commitments and forward commitments used by ASB. Currently ASB does not use interest rate swaps to manage interest rate risk (IRR), but may do so in the future. Generally speaking, the OCC rules permit financial institutions to engage in transactions involving financial derivatives to the extent these transactions are otherwise authorized under applicable law and are safe and sound. The rules require ASB to have certain internal procedures for handling financial derivative transactions, including involvement of the ASB Board of Directors.

With the transfer of the regulatory jurisdiction from the OTS to the OCC, ASB has adopted terminology and IRR assessment, measurement and management practices consistent with OCC guidelines. Management believes ASB’s IRR processes are aligned with the Interagency Advisory on Interest Rate Risk Management and appropriate with earnings and capital levels, balance sheet complexity, business model and risk tolerance.

Liquidity. OCC regulations require ASB to maintain sufficient liquidity to ensure safe and sound operations. ASB’s principal sources of liquidity are customer deposits, borrowings, the maturity and repayment of portfolio loans and securities and the sale of loans into secondary market channels. ASB’s principal sources of borrowings are advances from the FHLB of Des Moines and securities sold under agreements to repurchase from broker/dealers. ASB is approved by the FHLB of Des Moines to borrow an amount of up to 35% of assets to the extent it provides qualifying collateral and holds sufficient FHLB of Des Moines stock. As of December 31, 2016, ASB’s unused FHLB of Des Moines borrowing capacity was approximately \$1.8 billion. ASB utilizes growth in deposits, advances from the FHLB of Des Moines and securities sold under agreements to repurchase to fund maturing and withdrawable deposits, repay maturing borrowings, fund existing and future loans and make investments. As of December 31, 2016, ASB had loan commitments, undisbursed loan funds and unused lines and letters of credit of \$1.8 billion. Management believes ASB’s current sources of funds will enable it to meet these obligations while maintaining liquidity at satisfactory levels.

Supervision. Pursuant to the Federal Deposit Insurance Corporation Improvement Act of 1991 (the FDICIA), the federal banking agencies promulgated regulations which apply to the operations of ASB and its holding companies. Such regulations address, for example, standards for safety and soundness, real estate lending, accounting and reporting, transactions with affiliates and loans to insiders.

Prompt corrective action. The FDICIA establishes a statutory framework that is triggered by the capital level of a financial institution and subjects it to progressively more stringent restrictions and supervision as capital levels decline. The OCC rules implement the system of prompt corrective action. In particular, the rules define the relevant capital measures for the categories of “well capitalized”, “adequately capitalized”, “undercapitalized”, “significantly undercapitalized” and “critically undercapitalized.”

A financial institution that is “undercapitalized” or “significantly undercapitalized” is subject to additional mandatory supervisory actions and a number of discretionary actions if the OCC determines that any of the actions is necessary to resolve the problems of the association at the least possible long-term cost to the Deposit Insurance Fund. A financial institution that is “critically undercapitalized” must be placed in conservatorship or receivership within 90 days, unless the OCC and the FDIC concur that other action would be more appropriate. As of December 31, 2016, ASB was “well-capitalized.”

Interest rates. FDIC regulations restrict the ability of financial institutions that are undercapitalized to offer interest rates on deposits that are significantly higher than the rates offered by competing institutions. As of December 31, 2016, ASB was “well capitalized” and thus not subject to these interest rate restrictions.

Qualified thrift lender test. In order to satisfy the QTL test, ASB must maintain 65% of its assets in “qualified thrift investments” on a monthly average basis in 9 out of the previous 12 months. Failure to satisfy the QTL test would subject ASB to various penalties, including limitations on its activities, and would also bring into operation restrictions on the activities that may be engaged in by HEI, ASB Hawaii and their other subsidiaries, which could effectively result in the required divestiture of ASB. At all times during 2016, ASB was in compliance with the QTL test. See “HEI Consolidated–Regulation.”

Federal Home Loan Bank System. ASB is a member of the FHLB System, which consists of 11 regional FHLBs, and ASB’s regional bank is the FHLB of Des Moines. The FHLB System provides a central credit facility for member institutions. Historically, the FHLBs have served as the central liquidity facilities for savings associations and sources of long-term funds for financing housing. At such time as an advance is made to ASB or renewed, it must be collateralized by collateral from one of the following categories: (1) fully disbursed, whole first mortgages on improved residential property, or securities representing a whole interest in such mortgages; (2) securities issued, insured or guaranteed by the U.S. Government or any agency thereof; (3) FHLB deposits; and (4) other real estate-related collateral that has a readily ascertainable value and with respect to which a

security interest can be perfected. The aggregate amount of outstanding advances collateralized by such other real estate-related collateral may not exceed 300% of ASB's capital.

As mandated by the Gramm Act, the Federal Housing Finance Board (Board) regulations require each FHLB to maintain three capital ratios: (1) risk-based capital greater than or equal to the sum of its credit, market and operational risk capital requirements; (2) a minimum capital-to-assets ratio of 4%; and (3) a minimum total capital leverage ratio of 5% of total assets. At September 30, 2016, the FHLB of Des Moines was in compliance with all three of the regulatory capital requirements. ASB's required holding in the stock of the FHLB is both membership and activity-based. Membership is based on a percentage of total assets (0.12%) while the portion related to activity is based on a percentage of outstanding activity, mainly advances (4%). As of December 31, 2016, ASB was required and owned capital stock in the FHLB of Des Moines in the amount of \$11 million. See "Stock in FHLB" in HEI's MD&A section for recent developments regarding the FHLB of Des Moines.

Community Reinvestment. The Community Reinvestment Act (CRA) requires financial institutions to help meet the credit needs of their communities, including low- and moderate-income areas, consistent with safe and sound lending practices. The OCC will consider ASB's CRA record in evaluating an application for a new deposit facility, including the establishment of a branch, the relocation of a branch or office, or the acquisition of an interest in another bank. ASB currently holds an "outstanding" CRA rating.

Other laws. ASB is subject to federal and state consumer protection laws which affect deposit and lending activities, such as the Truth in Lending Act (TILA), the Truth in Savings Act, the Equal Credit Opportunity Act, the Real Estate Settlement Procedures Act (RESPA), the Home Mortgage Disclosure Act and several federal and state financial privacy acts intended to protect consumers' personal information and prevent identity theft, such as the Gramm Act and the Fair and Accurate Transactions Act. ASB is also subject to federal laws regulating certain of its lending practices, such as the Flood Disaster Protection Act, and laws requiring reports to regulators of certain customer transactions, such as the Currency and Foreign Transactions Reporting Act and the International Money Laundering Abatement and Anti-Terrorist Financing Act. ASB's relationship with LPL Financial LLP is also governed by regulations adopted by the FRB under the Gramm Act, which regulate "networking" relationships under which a financial institution refers customers to a broker-dealer for securities services and employees of the financial institution are permitted to receive a nominal fee for the referrals. These laws may provide for substantial penalties in the event of noncompliance.

The TILA-RESPA Integrated Disclosure rule became effective on October 3, 2015. The rule requires easier-to-use mortgage disclosure forms that clearly lay out the terms of a mortgage for a homebuyer. The Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd Frank Act) mandated that the Bureau of Consumer Financial Protection (the Bureau) establish a single disclosure scheme for use by lenders and creditors in complying with the disclosure requirements of both RESPA and TILA. The Dodd-Frank Act amended RESPA to require that the Bureau publish a single, integrated disclosure for mortgage loan transactions. The first new form - the Loan Estimate - is designed to provide disclosures that will be helpful to consumers in understanding the key features, costs, and risks of the mortgage for which they are applying. This form is provided to consumers within three business days after they submit a loan application. The second form - the Closing Disclosure - is designed to provide disclosures that will be helpful to consumers in understanding all of the costs of the transaction. This form is provided to consumers three business days before they close on the loan. The rule applies to most closed-end consumer mortgages.

ASB believes that it currently is in compliance with these laws and regulations in all material respects.

Proposed legislation. See the discussion of proposed legislation in "Bank-Legislation and regulation" in HEI's MD&A.

Environmental regulation. ASB may be subject to the provisions of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Hawaii Environmental Response Law (ERL) and regulations promulgated thereunder, which impose liability for environmental cleanup costs on certain categories of responsible parties. CERCLA and ERL exempt persons whose ownership in a facility is held primarily to protect a security interest, provided that they do not participate in the management of the facility. Although there may be some risk of liability for ASB for environmental cleanup costs in the event ASB forecloses on, and becomes the owner of, property with environmental problems, the Company believes the risk is not as great for ASB as it may be for other depository institutions that have a larger portfolio of commercial loans.

Additional information. For additional information about ASB, see the sections under "Bank" in HEI's MD&A, HEI's "Quantitative and Qualitative Disclosures about Market Risk" and Note 5 of the Consolidated Financial Statements.

Properties. ASB owns or leases several office buildings in downtown Honolulu, owns land and an operations center in the Mililani Technology Park on the island of Oahu and owns land on which a number of its branches are located.

The following table sets forth the number of bank branches owned and leased by ASB by island:

December 31, 2016	Number of branches		
	Owned	Leased	Total ¹
Oahu	7	29	36
Maui	3	4	7
Hawaii	3	2	5
Kauai	2	1	3
Molokai	—	1	1
	15	37	52

¹ In January 2017, a branch on the island of Maui was closed, reducing the total number of Maui branches to 6 and the total branch count to 51.

During 2016, three branches were closed on Oahu and one branch on Kauai. ASB had other branches in close proximity to the closed branches and customer accounts were consolidated into those branches.

As of December 31, 2016, the net book value (NBV) of branches and office facilities was \$68 million (\$62 million NBV of the land and improvements for the branches and office facilities owned by ASB and \$6 million represents the NBV of ASB's leasehold improvements) compared to the NBV of branches and office facilities of \$68 million (\$61 million NBV of the land and improvements for the branches and office facilities owned by ASB and \$7 million represents the NBV of ASB's leasehold improvements) as of December 31, 2015. The leases expire on various dates through February 2033, but many of the leases have extension provisions.

As of December 31, 2016, ASB owned 114 automated teller machines.

Construction of New Headquarters. In the first quarter of 2017, ASB will begin construction of its new headquarters in downtown Honolulu. The project will cost an estimated \$100 million and is expected to take twenty months to complete. The headquarters will have approximately 370,000 square feet of space on eleven floors and consolidate five separate offices into one building where approximately 600 employees will work.

ITEM 1A. RISK FACTORS

The businesses of HEI and its subsidiaries involve numerous risks which, if realized, could have a material and adverse effect on the Company's financial statements. For additional information for certain risk factors enumerated below and other risks of the Company and its operations, see "Cautionary Note Regarding Forward-Looking Statements" above and HEI's MD&A, HEI's "Quantitative and Qualitative Disclosures about Market Risk", the Notes to the Consolidated Financial Statements, Hawaiian Electric's MD&A, Hawaiian Electric's "Quantitative and Qualitative Disclosures About Market Risk."

Holding Company and Company-Wide Risks.

HEI is a holding company that derives its income from its operating subsidiaries and depends on the ability of those subsidiaries to pay dividends or make other distributions to HEI and on its own ability to raise capital. HEI is a legal entity separate and distinct from its various subsidiaries. As a holding company with no significant operations of its own, HEI's cash flows and consequent ability to service its obligations and pay dividends on its common stock is dependent upon its receipt of dividends or other distributions from its operating subsidiaries and its ability to issue common stock or other equity securities and to incur additional debt. The ability of HEI's subsidiaries to pay dividends or make other distributions to HEI, in turn, is subject to the risks associated with their operations and to contractual and regulatory restrictions, including:

- the provisions of an HEI agreement with the PUC, which could limit the ability of HEI's principal electric public utility subsidiary, Hawaiian Electric, to pay dividends to HEI in the event that the consolidated common stock equity of the Utilities falls below 35% of total capitalization of the electric utilities;
- the provisions of an HEI agreement entered into with federal bank regulators in connection with its acquisition of its bank subsidiary, ASB, which require HEI to contribute additional capital to ASB (up to a maximum amount of additional capital of \$28.3 million as of December 31, 2016) upon request of the regulators in order to maintain ASB's regulatory capital at the level required by regulation;
- the minimum capital and capital distribution regulations of the OCC that are applicable to ASB and capital regulations that become applicable to HEI and ASB Hawaii;
- the receipt of a letter from the FRB communicating to the OCC and FRB's non-objection to the payment of any dividend ASB proposes to declare and pay to ASB Hawaii and HEI; and
- the provisions of preferred stock resolutions and debt instruments of HEI and its subsidiaries.

The Company is subject to risks associated with the Hawaii economy (in the aggregate and on an individual island basis), volatile U.S. capital markets and changes in the interest rate and credit market environment that have and/or could result in

higher retirement benefit plan funding requirements, declines in ASB's interest rate margins and investment values, higher delinquencies and charge-offs in ASB's loan portfolio and restrictions on the ability of HEI or its subsidiaries to borrow money or issue securities. The two largest components of Hawaii's economy are tourism and the federal government (including the military). Because the core businesses of HEI's subsidiaries are providing local public electric utility services (through Hawaiian Electric and its subsidiaries) and banking services (through ASB) in Hawaii, the Company's operating results are significantly influenced by Hawaii's economy, which in turn is influenced by economic conditions in the mainland U.S. (particularly California) and Asia (particularly Japan) as a result of the impact of those conditions on tourism, by the impact of interest rates on the construction and real estate industries and by the impact of world conditions (e.g., U.S. withdrawal of troops from Afghanistan) on federal government spending in Hawaii. For example, the turmoil in the financial markets and declines in the national and global economies had a negative effect on the Hawaii economy in 2009. In 2009, declines in the Hawaii, U.S. and Asian economies in part led to declines in HEI's share price, an increase in uncollected billings of the Utilities, higher delinquencies in ASB's loan portfolio, declines in the Company's pension plan asset values and other adverse effects on HEI's businesses.

If Fitch, Moody's or S&P were to downgrade HEI's or Hawaiian Electric's long-term debt ratings because of past adverse effects, or if future events were to adversely affect the availability of capital to the Company, HEI's and Hawaiian Electric's ability to borrow and raise capital could be constrained and their future borrowing costs would likely increase with resulting reductions in HEI's consolidated net income in future periods. Further, if HEI's or Hawaiian Electric's commercial paper ratings were to be downgraded, HEI and Hawaiian Electric might not be able to sell commercial paper and might be required to draw on more expensive bank lines of credit or to defer capital or other expenditures.

Changes in the U.S. capital markets can also have significant effects on the Company. For example, pension funding requirements are affected by the market performance of the assets in the master pension trust maintained for pension plans, and by the discount rate used to estimate the service and interest cost components of net periodic pension cost and value obligations. The Utilities' pension tracking mechanisms help moderate pension expense; however, the significant decline in 2008 in the value of the Company's defined benefit pension plan assets resulted in a substantial gap between the projected benefit obligations under the plans and the value of plan assets, resulting in increases in funding requirements. The increases have moderated in recent years as investment performance has improved.

Because the earnings of ASB depend primarily on net interest income, interest rate risk is a significant risk of ASB's operations. HEI and the Utilities are also exposed to interest rate risk primarily due to their periodic borrowing requirements, the discount rate used to determine pension funding requirements and the possible effect of interest rates on the electric utilities' rates of return. Interest rates are sensitive to many factors, including general economic conditions and the policies of government and regulatory authorities. HEI cannot predict future changes in interest rates, nor be certain that interest rate risk management strategies it or its subsidiaries have implemented will be successful in managing interest rate risk.

Interest rate risk also represents a market risk factor affecting the fair value of ASB's investment securities. Increases and decreases in prevailing interest rates generally translate into decreases and increases in the fair values of those instruments, respectively. Disruptions in the credit markets, a liquidity crisis in the banking industry or increased levels of residential mortgage delinquencies and defaults may result in decreases in the fair value of ASB's investment securities and an impairment that is other-than-temporary, requiring ASB to write down its investment securities. As of December 31, 2016, ASB's investment in U.S. Treasury, federal agency obligations, and mortgage-related securities have an implicit guarantee from the U.S. government.

HEI and Hawaiian Electric and their subsidiaries may incur higher retirement benefits expenses and have and will likely continue to recognize substantial liabilities for retirement benefits. Retirement benefits expenses and cash funding requirements could increase in future years depending on numerous factors, including the performance of the U.S. equity markets, trends in interest rates and health care costs, plan amendments, new laws relating to pension funding and changes in accounting principles. For the Utilities, however, retirement benefits expenses, as adjusted by the pension and postretirement benefits other than pensions (OPEB) tracking mechanisms, have been an allowable expense for rate-making purposes.

The Company is subject to the risks associated with the geographic concentration of its businesses and current lack of interconnections that could result in service interruptions at the Utilities or higher default rates on loans held by ASB. The business of the Utilities is concentrated on the individual islands they serve in the State of Hawaii. Their operations are more vulnerable to service interruptions than are many U.S. mainland utilities because none of the systems of the Utilities are interconnected with the systems on the other islands they serve. Because of this lack of interconnections, it is necessary to maintain higher generation reserve margins than are typical for U.S. mainland utilities to help ensure reliable service. Service interruptions, including in particular extended interruptions that could result from a natural disaster or terrorist activity, could adversely impact the KWH sales of some or all of the Utilities.

Substantially all of ASB's consumer loan customers are Hawaii residents. A significant portion of the commercial loan customers are located in Hawaii. While a majority of customers are on Oahu, ASB also has customers on the neighbor islands (whose economies have been weaker than Oahu during the recent economic downturn). Substantially all of the real estate underlying ASB's residential and commercial real estate loans are located in Hawaii. These assets may be subject to a greater risk of default than other comparable assets held by financial institutions with other geographic concentrations in the event of adverse economic, political or business developments or natural disasters affecting Hawaii and the ability of ASB's customers to make payments of principal and interest on their loans.

Increasing competition and technological advances could cause HEI's businesses to lose customers or render their operations obsolete. The banking industry in Hawaii, and certain aspects of the electric utility industry, are competitive. The success of HEI's subsidiaries in meeting competition and responding to technological advances will continue to have a direct impact on HEI's consolidated financial performance. For example:

- ASB, one of the largest financial institutions in the state, is in direct competition for deposits and loans not only with two larger institutions that have substantial capital, technology and marketing resources, but also with smaller Hawaii institutions and other U.S. institutions, including credit unions, mutual funds, mortgage brokers, finance companies and investment banking firms. Larger financial institutions may have greater access to capital at lower costs, which could impair ASB's ability to compete effectively. Significant advances in technology could render the operations of ASB less competitive or obsolete.
- The Utilities face competition from IPPs; customer self-generation, with or without cogeneration; customer energy storage; and the potential formation of community-based, cooperative ownership or municipality structures for electrical service on all islands it serves. With the exception of certain identified projects, the Utilities are required to use competitive bidding to acquire a future generation resource unless the PUC finds competitive bidding to be unsuitable. The PUC set policies for distributed generation (DG) interconnection agreements and standby rates. The results of competitive bidding, competition from IPPs, customer self-generation, and potential cooperative ownership or municipality structures for electric utility service, and the rate at which technological developments facilitating nonutility generation of electricity, combined heat and power technology, off-grid microgrids, and customer energy storage may adversely affect the Utilities and the results of their operations.
- New technological developments, such as the commercial development of energy storage and microgrids, may render the operations of the Utilities less competitive or outdated.

The Company may be subject to information technology system failures, network disruptions, cyber attacks and breaches in data security that could adversely affect its businesses and reputation.

Utilities. The Utilities rely on networks, information systems and other technologies, including the Internet and third-party hosted services to support a variety of business processes and activities, including procurement and supply chain, invoicing and collection of payments, customer relationship management, human resource management, the acquisition, generation and delivery of electrical service to customers, and to process financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting and legal and tax requirements. The Utilities use their systems and infrastructure to create, collect, store, and process sensitive information, including personal information regarding customers, employees and their dependents, retirees, and other individuals. In addition, the Utilities are pursuing complex business transformation initiatives, which include establishing common processes across Hawaiian Electric, Hawaii Electric Light and Maui Electric and the upgrade or replacement of existing systems. Significant system changes increase the risk of system interruptions. Although the Utilities maintain change management processes to mitigate this risk, system interruptions may occur. Further, delay or failure to complete the integration of information systems and processes may result in delays in regulatory cost recovery, increased service interruptions of aging legacy systems, or the failure to realize the cost savings anticipated to be derived from these initiatives.

As noted by the U.S. Department of Homeland Security, the utility industry is continuing to experience an increase in the frequency and sophistication of cyber security incidents. The Utilities' systems have been, and will likely continue to be, a target of attacks. Although the Utilities have not experienced a material cyber security breach to date, such incidents may occur and may have a material adverse effect on the Company in the future. In order to address cyber security risks to their information systems, the Utilities maintain security measures designed to protect their information technology systems, network infrastructure and other assets. The Utilities actively monitor developments in the area of cyber security and are involved in various related government and industry groups. Although the Utilities continue to make investments in their cyber security program, including personnel, technologies, cyber insurance and training of Utilities personnel, there can be no assurance that these systems or their expected functionality will be implemented, maintained, or expanded effectively; nor can security measures completely eliminate the possibility of a cyber security breach. If the Utilities' cyber security measures were to be breached, the Utilities could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to their reputation.

The Utilities are in the process of replacing their existing ERP system. Although the Utilities have in place measures, including redundant systems and recovery capabilities to mitigate system interruptions to their systems, until the new system is put into service the Utilities face elevated operational risk from reliance on old and no longer fully supported software, including the possibility of increased frequency, duration and impact of interruptions.

The Utilities have disaster recovery plans in place to protect their businesses from information technology service interruptions caused by natural disasters, security breaches, user error, unintentional defects created by system changes, military or terrorist actions, power or communication failures or similar events. The disaster recovery plans, however, may not be successful in preventing the loss of customer data, service interruptions and disruptions to operations or damage to important facilities. If any of these systems fail to operate properly or becomes disabled and the Utilities' disaster recovery plans do not effectively resolve the issues in a timely manner, the Utilities could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to their reputations.

ASB. ASB is highly dependent on its ability to process, on a daily basis, a large number of transactions and relies heavily on communication and information systems, including those of third party vendors and other service providers. Communication and information system failures can result from a variety of risks including, but not limited to, events that are wholly or partially out of ASB's control, such as communication line integrity, weather, terrorist acts, natural disasters, accidental disasters, unauthorized breaches of security systems, energy delivery systems, cyber-attacks and other events.

ASB is under continuous threat of loss due to cyber-attacks, especially as the Bank continues to expand customer capabilities to utilize the Internet and other remote channels to transact business. Two of the most significant cyber-attack risks that ASB faces are e-fraud and loss of sensitive customer data. Loss from e-fraud occurs when cybercriminals extract funds directly from customers' or ASB's accounts using fraudulent schemes that may include Internet-based funds transfers. The Bank has been subject to e-fraud incidents historically. Loss of sensitive customer data are attempts to steal sensitive customer data, such as account numbers and social security numbers, through unauthorized access to our computer systems, including computer hacking. Such attacks are less frequent, but could present significant reputational, legal and regulatory costs if successful. Intrusion detection and prevention systems, anti-virus software, firewalls and other general information technology controls have been put in place to detect and prevent cyber-attacks or information system breaches. A disaster recovery plan has been developed in the event of a natural disaster, security breach, military or terrorist action, power or communication failure or similar event. The disaster recovery plan, however, may not be successful in preventing the loss of customer data, service interruptions, disruptions to operations or damage to important facilities. Although ASB devotes significant resources to maintain and regularly upgrade its systems and processes that are designed to protect the security of the Bank's computer systems, software, networks and other technology assets and the confidentiality, integrity and availability of information belonging to the Bank and its customers, there can be no assurance that such failures, interruptions or security breaches will not occur or, if they do occur, that they will be adequately corrected by ASB or its vendors.

To date, ASB has not experienced any material losses relating to cyber-attacks or other information security breaches, but there can be no assurance that the Bank will not suffer such losses in the future. If any of these systems fail to operate properly or become disabled even for a brief period of time, ASB could suffer financial loss, business disruptions, liability to customers, regulatory intervention or damage to its reputation, any of which could have a material adverse effect on ASB's financial condition and results of operations.

HEI's businesses could suffer losses that are uninsured due to a lack of affordable insurance coverage, unavailability of insurance coverage or limitations on the insurance coverage the Company does have. In the ordinary course of business, HEI and its subsidiaries purchase insurance coverages (e.g., property and liability coverages) to protect against loss of, or damage to, their properties and against claims made by third parties and employees for property damage or personal injuries. However, the protection provided by such insurance is limited in significant respects and, in some instances, there is no coverage. Certain of the insurance has substantial deductibles or has limits on the maximum amounts that may be recovered. For example, the Utilities' overhead and underground transmission and distribution systems (with the exception of substation buildings and contents) have a replacement value roughly estimated at \$7 billion and are largely not insured against loss or damage because the amount of transmission and distribution system insurance available is limited and the premiums are cost prohibitive. Similarly, the Utilities have no business interruption insurance as the premiums for such insurance would be cost prohibitive, particularly since the Utilities are not interconnected to other systems. If a hurricane or other uninsured catastrophic natural disaster were to occur, and if the PUC were not to allow the affected Utilities to recover from ratepayers restoration costs and revenues lost from business interruption, the lost revenues and repair expenses could result in a significant decrease in HEI's consolidated net income or in significant net losses for the affected periods.

ASB generally does not obtain credit enhancements, such as mortgagor bankruptcy insurance, but does require standard hazard and hurricane insurance and may require flood insurance for certain properties. ASB is subject to the risks of borrower defaults and bankruptcies, special hazard losses not covered by the required insurance and the insurance company's inability to pay claims on existing policies.

Increased federal and state environmental regulation will require an increasing commitment of resources and funds and could result in construction delays or penalties and fines for non-compliance. HEI and its subsidiaries are subject to federal, state and local environmental laws and regulations relating to air quality, water quality, hazardous substances, waste management, natural resources and health and safety, which regulate, among other matters, the operation of existing facilities, the construction and operation of new facilities and the proper cleanup and disposal of hazardous and toxic wastes and substances. HEI or its subsidiaries are currently involved in investigatory or remedial actions at current, former or third-party sites and there is no assurance that the Company will not incur material costs relating to these sites. In addition, compliance with these legal requirements requires the Utilities to commit significant resources and funds toward, among other things, environmental monitoring, installation of pollution control equipment and payment of emission fees. These laws and regulations, among other things, require that certain environmental permits be obtained in order to construct or operate certain facilities, and obtaining such permits can entail significant expense and cause substantial construction delays. Also, these laws and regulations may be amended from time to time, including amendments that increase the burden and expense of compliance. For example, emission and/or discharge limits may be tightened, more extensive permitting requirements may be imposed and additional substances may become regulated. In addition, significant regulatory uncertainty exists regarding the impact of federal or state greenhouse gas (GHG) emission limits and reductions.

If HEI or its subsidiaries fail to comply with environmental laws and regulations, even if caused by factors beyond their control, that failure may result in civil or criminal penalties and fines or the cessation of operations.

Adverse tax rulings or developments could result in significant increases in tax payments and/or expense. Governmental taxing authorities could challenge a tax return position taken by HEI or its subsidiaries and, if the taxing authorities prevail, HEI's consolidated tax payments and/or expense, including applicable penalties and interest, could increase significantly.

The Company could be subject to the risk of uninsured losses in excess of its accruals for litigation matters. HEI and its subsidiaries are involved in routine litigation in the ordinary course of their businesses, most of which is covered by insurance (subject to policy limits and deductibles). However, other litigation may arise that is not routine or involves claims that may not be covered by insurance. Because of the uncertainties associated with litigation, there is a risk that litigation against HEI or its subsidiaries, even if vigorously defended, could result in costs of defense and judgment or settlement amounts not covered by insurance and in excess of reserves established in HEI's consolidated financial statements.

Changes in accounting principles and estimates could affect the reported amounts of the Company's assets and liabilities or revenues and expenses. HEI's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S. Changes in accounting principles (including the possible adoption of International Financial Reporting Standards or new U.S. accounting standards), or changes in the Company's application of existing accounting principles, could materially affect the financial statement presentation of HEI's or the Utilities' consolidated results of operations and/or financial condition. Further, in preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates. Material estimates that are particularly susceptible to significant change include the amounts reported for electric utility revenues; allowance for loan losses; income taxes; investment securities, property, plant and equipment; regulatory assets and liabilities; derivatives; goodwill; pension and other postretirement benefit obligations; contingencies; and litigation.

The Utilities' financial statements reflect assets and costs based on cost-based rate-making regulations. Continued accounting in this manner requires that certain criteria relating to the recoverability of such costs through rates be met. If events or circumstances should change so that the criteria are no longer satisfied, the Utilities' expect that their regulatory assets (amounting to \$957 million as of December 31, 2016), net of regulatory liabilities (amounting to \$411 million as of December 31, 2016), would be charged to the statement of income in the period of discontinuance.

Changes in accounting principles can also impact HEI's consolidated financial statements. For example, if management determines that a PPA requires the consolidation of the IPP in the Consolidated Financial Statements, the consolidation could have a material effect on Hawaiian Electric's and HEI's consolidated financial statements, including the recognition of a significant amount of assets and liabilities and, if such a consolidated IPP were operating at a loss and had insufficient equity, the potential recognition of such losses. Also, if management determines that a PPA requires the classification of the agreement as a capital lease, a material effect on HEI's consolidated balance sheet may result, including the recognition of significant capital assets and lease obligations.

Changes in the accounting principles for expected credit losses were issued by the FASB to replace existing impairment models, including replacing an "incurred loss" model for loans with a "current expected credit loss" model based on historical experience, current conditions and reasonable and supportable forecasts. The changes also require enhanced disclosures to help financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization's portfolio. The Company plans to adopt the accounting principle

changes in the first quarter of 2020 and has not yet determined the impact of the adoption. The new impairment model could have a material adverse impact on ASB's results of operations.

Standards on accounting for revenues from contracts with customers were issued by the FASB in 2014 and 2016. The core principle of the guidance in Accounting Standards Update (ASU) No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. As of December 31, 2016, the Company has identified its revenue streams from, and performance obligations to, customers, and is currently evaluating the impacts of the new guidance on its ability to recognize revenue for certain contracts where there is uncertainty regarding collection and accounting for contributions in aid of construction. In addition, the Company will separately present sales from electricity and revenues from decoupling either on the financial statements or in the notes. The Company plans to adopt ASU No. 2014-09 (and subsequently issued revenue-related ASUs, as applicable) in the first quarter of 2018, but has not determined the method of adoption (full or modified retrospective application). The Company expects to present more revenue disclosures, but the full impact of adoption of ASU No. 2014-09 on its results of operations, financial condition and liquidity cannot be determined until its evaluation process is complete.

Electric Utility Risks.

Actions of the PUC are outside the control of the Utilities and could result in inadequate or untimely rate increases, in rate reductions or refunds or in unanticipated delays, expenses or writedowns in connection with the construction of new projects.

The rates the Utilities are allowed to charge for their services and the timeliness of permitted rate increases are among the most important items influencing the Utilities' results of operations, financial condition and liquidity. The PUC has broad discretion over the rates that the Utilities charge their customers. As part of the decoupling mechanism that the Utilities have implemented, each of the Utilities will file a rate case once every three years. Any adverse decision by the PUC concerning the level or method of determining electric utility rates, the items and amounts that may be included in rate base, the returns on equity or rate base found to be reasonable, the potential consequences of exceeding or not meeting such returns, or any prolonged delay in rendering a decision in a rate or other proceeding could have a material adverse effect on Hawaiian Electric's consolidated results of operations, financial condition and liquidity.

To improve the timing and certainty of the recovery of their costs, the Utilities have proposed and received approval of various cost recovery mechanisms including an ECAC and pension and OPEB tracking mechanisms, as well as a decoupling mechanism, a PPAC, and a renewable energy infrastructure program (REIP) surcharge. A change in, or the elimination of, any of these cost recovery mechanisms, including in the current proceeding in which the PUC is examining the decoupling mechanism, could have a material adverse effect on the Utilities.

The Utilities could be required to refund to their customers, with interest, revenues that have been or may be received under interim rate orders in their rate case proceedings, integrated resource plan cost recovery dockets and other proceedings, if and to the extent they exceed the amounts allowed in final orders.

Many public utility projects require PUC approval and various permits (e.g., environmental and land use permits) from other governmental agencies. Difficulties in obtaining, or the inability to obtain, the necessary approvals or permits, or any adverse decision or policy made or adopted, or any prolonged delay in rendering a decision, by an agency with respect to such approvals and permits, can result in significantly increased project costs or even cancellation of projects. In the event a project does not proceed, or if the PUC disallows cost recovery for all or part of a project, or if project costs exceed caps imposed by the PUC in its approval of the project, project costs may need to be written off in amounts that could result in significant reductions in Hawaiian Electric's consolidated net income. For example, in January 2013, the Utilities and the Consumer Advocate signed a settlement agreement to write off \$40 million of costs in lieu of conducting PUC-ordered regulatory audits of the CIP CT-1 and the CIS projects.

Energy cost adjustment clauses. The rate schedules of each of the Utilities include ECACs under which electric rates charged to customers are automatically adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated power and purchased power.

ECACs are subject to periodic review by the PUC. In the most recent rate cases, the PUC allowed the current ECAC to continue. However, in the decoupling reexamination proceeding, certain parties recommended modifying the ECAC to allow only partial pass-through of fuel costs and eventual phasing out of the ECAC. On March 31, 2015, the PUC issued an Order (the March Order) related to the Schedule B portion of the proceeding. As required by the March Order, the parties filed initial and reply briefs related to the following issue: What are the appropriate steps, processes and timing to further consider the merits of the proposed changes to the ECAC identified in this proceeding. In identifying the issue on possible changes to the ECAC, the PUC stated that changes to the ECAC should be made with great care to avoid unintended consequences. In its briefs, the Consumer Advocate stated that there should be no significant change to the existing ECAC without first undertaking

a new regulatory proceeding that would provide time and resources for the careful study of the potential effects of each ECAC change considered, but that there should be significantly greater ECAC audit and regulatory review of the Utilities' incurred fuel costs should be implemented to encourage cost control and to identify and deny recovery of any imprudently incurred energy costs through the ECAC. In their briefs, the Utilities suggested ways of improving the ECAC but stated that permitting only the partial pass through of fuel costs would not be proper regulatory policy since the Utilities have no control over world oil markets, 42 of the 50 states provide dollar-for-dollar pass through of market-driven changes in fuel or purchase power costs and modifying the ECAC to allow only partial pass-through of fuel costs could severely impact the Utilities' credit rating.

In approving Hawaii Electric Light's request to file a rate case by the end of December 30, 2016, the PUC required Hawaii Electric Light to propose for PUC consideration potential modifications to its ECAC mechanism in order to provide appropriate economic incentives to accelerate reductions in fuel and purchased power expenses.

Hawaii Electric Light and Hawaiian Electric proposed modifications to their ECAC provisions in their rate cases filed in 2016. The two utilities proposed an expansion of the range of fuel usage efficiencies under which fuel costs would be fully passed through to customers, and an additional trigger that would allow a re-establishment of fuel usage efficiency targets under certain conditions. In addition, Hawaii Electric Light proposed an equal sharing of fuel expenses outside the fuel usage efficiency target range.

A change in, or the elimination of, the ECAC could have a material adverse effect on the Utilities.

Electric utility operations are significantly influenced by weather conditions. The Utilities' results of operations can be affected by the weather. Weather conditions, particularly temperature and humidity, directly influence the demand for electricity. In addition, severe weather and natural disasters, such as hurricanes, earthquakes, tsunamis and lightning storms, which may become more severe or frequent as a result of global climate changes, can cause outages and property damage and require the Utilities to incur significant additional expenses that may not be recoverable.

Electric utility operations depend heavily on third-party suppliers of fuel and purchased power. The Utilities rely on fuel oil suppliers and shippers and IPPs to deliver fuel oil and power, respectively, in accordance with contractual agreements. Approximately 68% of the net energy generated or purchased by the Utilities in 2016 was generated from the burning of fossil fuel oil, and purchases of power by the Utilities provided about 47% of their total net energy generated and purchased for the same period. Failure or delay by oil suppliers and shippers to provide fuel pursuant to existing contracts, or failure by a major IPP to deliver the firm capacity anticipated in its PPA, could disrupt the ability of the Utilities to deliver electricity and require the Utilities to incur additional expenses to meet the needs of their customers that may not be recoverable. In addition, as the IPP contracts near the end of their terms, there may be less economic incentive for the IPPs to make investments in their units to ensure the availability of their units. Also, as these contractual agreements end, the Utilities may not be able to purchase fuel and power on terms equivalent to the current contractual agreements.

Electric utility generating facilities are subject to operational risks that could result in unscheduled plant outages, unanticipated and/or increased operation and maintenance expenses and increased power purchase costs. Operation of electric generating facilities involves certain risks which can adversely affect energy output and efficiency levels. Included among these risks are facility shutdowns or power interruptions due to insufficient generation or a breakdown or failure of equipment or processes. In addition, operations could be negatively impacted by interruptions in fuel supply, inability to negotiate satisfactory collective bargaining agreements when existing agreements expire or other labor disputes, inability to comply with regulatory or permit requirements, disruptions in delivery of electricity, operator error and catastrophic events such as earthquakes, tsunamis, hurricanes, fires, explosions, floods or other similar occurrences affecting the Utilities' generating facilities or transmission and distribution systems.

The Utilities may be adversely affected by new legislation or administrative actions. Congress, the Hawaii legislature and governmental agencies periodically consider legislation and other initiatives that could have uncertain or negative effects on the Utilities and their customers. Congress, the Hawaii legislature and governmental agencies have adopted, or are considering adopting, a number of measures that will significantly affect the Utilities, as described below.

Renewable Portfolio Standards law. In 2015, Hawaii's RPS law was amended to require electric utilities to meet an RPS of 15%, 30%, 40%, 70% and 100% by December 31, 2015, 2020, 2030, 2040 and 2045 respectively. Energy savings resulting from energy efficiency programs do not count toward the RPS after 2014. The Utilities are committed to achieving these goals and met the 2015 RPS; however, due to the exclusion of energy savings in calculating RPS after 2014 and risks such as potential delays in IPPs being able to deliver contracted renewable energy, it is possible the Utilities may not attain the required renewable percentages in the future, and management cannot predict the future consequences of failure to do so (including potential penalties to be assessed by the PUC). On December 19, 2008, the PUC approved a penalty of \$20 for every MWh that an electric utility is deficient under Hawaii's RPS law. The PUC noted, however, that this penalty may be reduced, in the PUC's discretion, due to events or circumstances that are outside an electric utility's reasonable control, to the extent the

event or circumstance could not be reasonably foreseen and ameliorated, as described in the RPS law and in an RPS framework adopted by the PUC. In addition, the PUC ordered that the Utilities will be prohibited from recovering any RPS penalty costs through rates.

Renewable energy. In 2007, a measure was passed by the Hawaii legislature stating that the PUC may consider the need for increased renewable energy in rendering decisions on utility matters. Due to this measure, it is possible that, if energy from a renewable source is more expensive than energy from fossil fuel, the PUC may still approve the purchase of energy from the renewable source, resulting in higher costs.

Global climate change and greenhouse gas emissions reduction. National and international concern about climate change and the contribution of GHG emissions (including carbon dioxide emissions from the combustion of fossil fuels) to climate change have led to federal legislative and regulatory proposals and action by the state of Hawaii to reduce GHG emissions.

In July 2007, the State Legislature passed Act 234, which requires a statewide reduction of GHG emissions by January 1, 2020 to levels at or below the statewide GHG emission levels in 1990. On June 20, 2014, the Governor signed the final rules required to implement Act 234 and these rules went into effect on June 30, 2014. In general, Act 234 and the GHG rule require affected sources that have the potential to emit GHGs in excess of established thresholds to reduce their GHG emissions by 16% below 2010 emission levels by 2020. In accordance with State requirements, the Utilities submitted an Emissions Reduction Plan (EmRP) to the DOH on June 30, 2015. Hawaiian Electric, Maui Electric, and Hawaii Electric Light have a total of 11 facilities affected by the state GHG rule. Hawaiian Electric made use of the partnering provisions in the GHG rule to prepare one EmRP for all 11 of the Utilities' affected facilities. In this plan, the Utilities have committed to a 16% reduction in GHG emissions company-wide. Pursuant to the State's GHG rule, the DOH will incorporate the proposed facility-specific GHG emission limits into each facility's covered source permit based on the 2020 levels specified in Hawaiian Electric's EmRP. The State GHG rule requires affected sources to pay an annual fee that is based on tons per year of GHG emissions. The Utilities' GHG emissions fee is approximately \$0.5 million annually. The latest assessment of the proposed federal and final state GHG rules is that the continued growth in renewable power generation will significantly reduce the compliance costs and risk for the Utilities.

On June 3, 2010, the EPA's final GHG Tailoring Rule was published. It created a new threshold for GHG emissions from new and existing facilities and required certain facilities to obtain Prevention of Significant Deterioration (PSD) and Title V operating permits. The U.S. Supreme Court upheld that the EPA can apply the Best Available Control Technology (BACT) requirement to GHG for new or modified sources that trigger PSD permitting for air pollutants other than GHG. Any Hawaiian Electric, Hawaii Electric Light, and Maui Electric new or modified emission sources that trigger PSD permitting will be required to comply with BACT requirements. On August 26, 2016, the EPA proposed revisions to the PSD and Title V permitting regulations to fully implement the 2014 U.S. Supreme Court decision including the establishment of a threshold below which BACT is not required for GHG emissions for new or modified emission sources that trigger PSD permitting.

As part of President Obama's Climate Action Plan, the EPA issued the final federal rule for GHG emission reductions from existing EGUs on August 3, 2015. This rule is also known as the Clean Power Plan. This rule sets interim state-wide emissions limits for existing EGUs operating in the 48 contiguous states that must be met on average from 2022 through 2029; final limits will apply from 2030. The EPA did not issue final guidelines for Alaska, Hawaii, Puerto Rico, or Guam because the Best System of Emission Reduction established for the contiguous states is not appropriate for these locations. The EPA has said it will work with the state and territorial governments for Alaska, Hawaii, Puerto Rico, and Guam and other stakeholders to gather additional information regarding the emissions reduction measures available in these jurisdictions, particularly with respect to renewable generation. Hawaiian Electric plans to participate in this process. The Utilities' latest assessment of the Clean Power Plan is that the continued growth of renewable power generation in the future will significantly reduce the compliance costs and risk for the Utilities. To date, no timetable has been established by the EPA to develop GHG emission limits for Alaska, Hawaii, Puerto Rico, or Guam.

While the timing, extent and ultimate effects of climate change cannot be determined with any certainty, climate change is predicted to result in sea level rise, which could potentially impact coastal and other low-lying areas (where much of the Utilities' electric infrastructure is sited), and could cause erosion of beaches, saltwater intrusion into aquifers and surface ecosystems, higher water tables and increased flooding and storm damage due to heavy rainfall. The effects of climate change on the weather (for example, floods or hurricanes), sea levels, and water availability and quality have the potential to materially adversely affect the results of operations, financial condition and liquidity of the Utilities. For example, severe weather could cause significant harm to the Utilities' physical facilities.

The Utilities have taken, and continue to identify opportunities to take, direct action to reduce GHG emissions from their operations, including, but not limited to, supporting DSM programs that foster energy efficiency, using renewable resources for energy production and purchasing power from IPPs generated by renewable resources, burning renewable biodiesel in

Hawaiian Electric's CIP CT-1, using biodiesel for startup and shutdown of selected Maui Electric generating units, and testing biofuel blends in other Hawaiian Electric and Maui Electric generating units. Management is unable to evaluate the ultimate impact on the Utilities of these various measures to reduce GHG emissions.

The foregoing legislation or legislation that now is, or may in the future be, proposed present risks and uncertainties for the Utilities.

The Utilities may be subject to increased operational challenges and their results of operations, financial condition and liquidity may be adversely impacted in meeting the commitments and objectives of clean energy initiatives and Renewable Portfolio Standards (RPS). The far-reaching nature of the Utilities' renewable energy commitments and the RPS goals present risks to the Company. Among such risks are: (1) the dependence on third party suppliers of renewable purchased energy, which if the Utilities are unsuccessful in negotiating purchased power agreements with such IPPs or if a major IPP fails to deliver the anticipated capacity in its purchased power agreement, could impact the Utilities' achievement of their commitments to RPS goals and/or the Utilities' ability to deliver reliable service; (2) delays in acquiring or unavailability of non-fossil fuel supplies for renewable generation; (3) the impact of intermittent power to the electrical grid and reliability of service if appropriate supporting infrastructure is not installed or does not operate effectively; (4) the likelihood that the Utilities may need to make substantial investments in related infrastructure, which could result in increased borrowings and, therefore, materially impact the financial condition and liquidity of the Utilities; and (5) the commitment to support a variety of initiatives, which, if approved by the PUC, may have a material impact on the results of operations and financial condition of the Utilities depending on their design and implementation.

Bank Risks.

Fluctuations in interest rates could result in lower net interest income, impair ASB's ability to originate new loans or impair the ability of ASB's adjustable-rate borrowers to make increased payments. Interest rate risk is a significant risk of ASB's operations. ASB's net interest income consists primarily of interest income received on fixed-rate and adjustable-rate loans, mortgage-related securities and investments and interest expense consisting primarily of interest paid on deposits and other borrowings. Interest rate risk arises when earning assets mature or when their interest rates change in a time frame different from that of the costing liabilities. Changes in market interest rates, including changes in the relationship between short-term and long-term market interest rates or between different interest rate indices, can impact ASB's net interest margin.

Although ASB pursues an asset-liability management strategy designed to mitigate its risk from changes in market interest rates, unfavorable movements in interest rates could result in lower net interest income. Residential 1-4 family fixed-rate mortgage loans comprised about 40% of ASB's loan portfolio as of December 31, 2016 and do not re-price with movements in interest rates. ASB continues to face a challenging interest rate environment. Although the Federal Open Market Committee increased the federal funds rate at its meetings in December 2015 and 2016, the interest rate environment remained relatively low in 2016 and new loan production rates remained at low levels and generally below ASB's loan portfolio yields. This placed additional pressure on ASB's asset yields and net interest margin. The degree to which compression of ASB's margin continues is uncertain if interest rates rise.

Increases in market interest rates could have an adverse impact on ASB's cost of funds. Higher market interest rates could lead to higher interest rates paid on deposits and other borrowings. Significant increases in market interest rates, or the perception that an increase may occur, could adversely affect ASB's ability to originate new loans and grow. An increase in market interest rates, especially a sudden increase, could also adversely affect the ability of ASB's adjustable-rate borrowers to meet their higher payment obligations. If this occurred, it could cause an increase in nonperforming assets and charge-offs. Conversely, a decrease in interest rates or a mismatching of maturities of interest sensitive financial instruments could result in an acceleration in the prepayment of loans and mortgage-related securities and impact ASB's ability to reinvest its liquidity in similar yielding assets.

ASB's operations are affected by factors that are beyond its control, that could result in lower revenues, higher expenses or decreased demand for its products and services. ASB's results of operations depend primarily on the income generated by the supply of and demand for its products and services, which primarily consist of loans and deposit services. ASB's revenues and expenses may be adversely affected by various factors, including:

- local, regional, national and other economic and political conditions that could result in declines in employment and real estate values, which in turn could adversely affect the ability of borrowers to make loan payments and the ability of ASB to recover the full amounts owing to it under defaulted loans;
- the ability of borrowers to obtain insurance and the ability of ASB to place insurance where borrowers fail to do so, particularly in the event of catastrophic damage to collateral securing loans made by ASB;
- faster than expected loan prepayments that can cause an acceleration of the amortization of premiums on loans and investments and the impairment of mortgage servicing assets of ASB;

- changes in ASB’s loan portfolio credit profiles and asset quality, which may increase or decrease the required level of allowance for loan losses;
- technological disruptions affecting ASB’s operations or financial or operational difficulties experienced by any outside vendor on whom ASB relies to provide key components of its business operations, such as business processing, network access or internet connections;
- the impact of legislative and regulatory changes, including changes affecting capital requirements, increasing oversight of and reporting by banks, or affecting the lending programs or other business activities of ASB;
- additional legislative changes regulating the assessment of overdraft, interchange and credit card fees, which can have a negative impact on noninterest income;
- public opinion about ASB and financial institutions in general, which, if negative, could impact the public’s trust and confidence in ASB and adversely affect ASB’s ability to attract and retain customers and expose ASB to adverse legal and regulatory consequences;
- increases in operating costs (including employee compensation expense and benefits and regulatory compliance costs), inflation and other factors, that exceed increases in ASB’s net interest, fee and other income; and
- the ability of ASB to maintain or increase the level of deposits, ASB’s lowest costing funds.

Banking and related regulations could result in significant restrictions being imposed on ASB’s business or in a requirement that HEI divest ASB. ASB is subject to examination and comprehensive regulation by the Department of Treasury, the OCC and the FDIC, and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System. In addition, the FRB is responsible for regulating ASB’s holding companies, HEI and ASB Hawaii. The regulatory authorities have extensive discretion in connection with their supervisory and enforcement activities and examination policies to address not only ASB’s compliance with applicable banking laws and regulations, but also capital adequacy, asset quality, management ability and performance, earnings, liquidity and various other factors.

Under certain circumstances, including any determination that ASB’s relationship with HEI results in an unsafe and unsound banking practice, these regulatory authorities have the authority to restrict the ability of ASB to transfer assets and to make distributions to its shareholders (including payment of dividends to HEI), or they could seek to require HEI to sever its relationship with or divest its ownership of ASB. Payment by ASB of dividends to HEI may also be restricted by the OCC and FRB under its prompt corrective action regulations or its capital distribution regulations if ASB’s capital position deteriorates. In order to maintain its status as a QTL, ASB is required to maintain at least 65% of its assets in “qualified thrift investments.” Institutions that fail to maintain QTL status are subject to various penalties, including limitations on their activities. In ASB’s case, the activities of HEI and HEI’s other subsidiaries would also be subject to restrictions, and a failure or inability to comply with those restrictions could effectively result in the required divestiture of ASB. Federal legislation has also been proposed in the past that could result in a required divestiture of ASB. In the event of a required divestiture, federal law substantially limits the types of entities that could potentially acquire ASB.

Recent legislative and regulatory initiatives could have an adverse effect on ASB’s business. The Dodd-Frank Act, which became law in July 2010, has had a substantial impact on the financial services industry. The Dodd-Frank Act establishes a framework through which regulatory reform will be written and changes to statutes, regulations or regulatory policies could affect HEI and ASB in substantial and unpredictable ways. A major component of the Dodd-Frank Act is the creation of the Consumer Financial Protection Bureau that has the responsibility for setting and enforcing clear, consistent rules relating to consumer financial products and services and has the authority to prohibit practices it finds to be unfair, deceptive or abusive. Compliance with any such directives could have adverse effects on ASB’s revenues or operating costs. Failure to comply with laws, regulations or policies could result in sanctions by regulatory agencies, civil money penalties and/or reputation damage, which could have a material adverse effect on ASB’s business, results of operations, financial condition and liquidity.

A large percentage of ASB’s loans and securities are collateralized by real estate, and adverse changes in the real estate market and/or general economic or other conditions may result in loan losses and adversely affect the Company’s profitability. As of December 31, 2016 approximately 82% of ASB’s loan portfolio was comprised of loans primarily collateralized by real estate, most of which was concentrated in the State of Hawaii. Growth has been in the commercial real estate and commercial construction loan portfolios which now comprise approximately 24% of total real estate loans. ASB’s financial results may be adversely affected by changes in prevailing economic conditions, either nationally or in the state of Hawaii, including decreases in real estate values, adverse employment conditions, the monetary and fiscal policies of the federal and state government and other significant external events. Adverse changes in the economy may have a negative effect on the ability of borrowers to make timely repayments of their loans. A deterioration of the economic environment in Hawaii, including a material decline in the real estate market, further declines in home resales, or a material external shock, or any environmental clean-up obligation, may also significantly impair the value of ASB’s collateral and ASB’s ability to sell the collateral upon foreclosure. In the event of a default, amounts received upon sale of the collateral may be insufficient to recover outstanding principal and interest. In addition, if poor economic conditions result in decreased demand for real estate loans, ASB’s profits may decrease if its alternative investments earn less income than real estate loans.

ASB's strategy to expand its commercial, commercial real estate and consumer lending activities may result in higher costs and greater credit risk than residential lending activities due to the unique characteristics of these markets. ASB has been aggressively pursuing a strategy that includes expanding its commercial, commercial real estate and consumer lines of business. ASB's commercial real estate and commercial construction loan portfolios grew by 16% and 26%, respectively, during 2016 and now comprise 20% of total loans. The commercial loan portfolio, after several years of growth, decreased by 9% during 2016 and now comprises 15% of total loans. The decrease was primarily due to the sale of a portion of ASB's syndicated national credit loan portfolio. Commercial and commercial real estate loans generally entail higher underwriting and other service costs and present greater credit risks than traditional residential mortgages. The growth in the consumer loan portfolio was primarily due to growth in personal loans as ASB began offering a personal loan product with risk-based pricing. This loan product is unsecured and repayment is based on the borrower's financial stability. Personal loans are charged off when they become 120 days delinquent.

Generally, both commercial and commercial real estate loans have shorter terms to maturity and earn higher spreads than residential mortgage loans. Only the assets of the business typically secure commercial loans. In such cases, upon default, any collateral repossessed may not be sufficient to repay the outstanding loan balance. In addition, loan collections are dependent on the borrower's continuing financial stability and, thus, are more likely to be affected by current economic conditions and adverse business developments.

ASB has a national syndicated lending portfolio where ASB is a participant in credit facilities agented by established and reputable national lenders. Management selectively chooses each deal based on conservative credit criteria to ensure a high quality, well diversified portfolio. In the event the borrower encounters financial difficulties and ASB is unable to sell its participation interest in the loan in the secondary market, the bank is typically reliant on the originating lender for managing any loan workout or foreclosure proceedings that may become necessary. Accordingly, ASB has less control over such proceedings than loans it originates and may be required to accommodate the interests of other participating lenders in resolving delinquencies or defaults on participated loans, which could result in outcomes that are not fully consistent with ASB's preferred strategies. In addition, a significant proportion of ASB's syndicated loans are originated in states other than Hawaii, and are subject to the local regional and regulatory risks specific to those states.

Similar to the national syndicated lending portfolio, ASB does not service commercial loans in which it has participation interests rather than being the lead or agent lender and is subject to the policies and practices of the agent lender, who is the loan servicer, in resolving delinquencies or defaults on participated loans.

Commercial real estate properties tend to be unique and are more difficult to value than residential real estate properties. Commercial real estate loans may not be fully amortizing, meaning that they may have a significant principal balance or "balloon" payment due at maturity. In addition, commercial real estate properties, particularly industrial and warehouse properties, are generally subject to relatively greater environmental risks than noncommercial properties and to the corresponding burdens and costs of compliance with environmental laws and regulations. Also, there may be costs and delays involved in enforcing rights of a property owner against tenants in default under the terms of leases with respect to commercial properties. For example, a tenant may seek the protection of bankruptcy laws, which could result in termination of the tenant's lease.

ASB's allowance for loan losses may not cover actual loan losses. ASB's allowance for loan losses is the bank's estimate of probable losses inherent in its loan portfolio and is based on a continuing assessment of:

- existing risks in the loan portfolio;
- historical loss experience with ASB's loans;
- changes in collateral value; and
- current conditions (for example, economic conditions, real estate market conditions and interest rate environment).

If ASB's actual loan losses exceed its allowance for loan losses, it may incur losses, its financial condition may be materially and adversely affected and additional capital may be required to enhance its capital position. In addition, various regulatory agencies, as an integral part of their examination process, regularly review the adequacy of ASB's allowance. These agencies may require ASB to establish additional allowances based on their judgment of the information available at the time of their examinations. No assurance can be given that ASB will not sustain loan losses in excess of present or future levels of its allowance for loan losses.

ITEM 1B. UNRESOLVED STAFF COMMENTS

HEI: None.

Hawaiian Electric: Not applicable.

ITEM 2. PROPERTIES

HEI and Hawaiian Electric: See the “Properties” sections under “HEI,” “Electric utility” and “Bank” in Item 1. Business above.

ITEM 3. LEGAL PROCEEDINGS

HEI and Hawaiian Electric: HEI subsidiaries (including Hawaiian Electric and its subsidiaries and ASB) may be involved in ordinary routine PUC proceedings, environmental proceedings and/or litigation incidental to their respective businesses. See the descriptions of legal proceedings (including judicial proceedings and proceedings before the PUC and environmental and other administrative agencies) in “Item 1. Business,” in HEI’s MD&A and in the Notes 4 and 5 of the Consolidated Financial Statements. The outcomes of litigation and administrative proceedings are necessarily uncertain and there is a risk that the outcome of such matters could have a material adverse effect on the financial position, results of operations or liquidity of HEI or one or more of its subsidiaries for a particular period in the future.

ITEM 4. MINE SAFETY DISCLOSURES

HEI and Hawaiian Electric: Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT (HEI)

The executive officers of HEI are listed below. Messrs. Oshima and Wacker are officers of HEI subsidiaries rather than of HEI, but are deemed to be executive officers of HEI under SEC Rule 3b-7 promulgated under the 1934 Exchange Act. HEI executive officers serve from the date of their initial appointment until the annual meeting of the HEI Board at which officers are appointed (or the next annual appointment of officers by the applicable HEI subsidiary board), and thereafter are appointed for one-year terms or until their successors have been duly appointed and qualified or until their earlier resignation or removal. HEI executive officers may also hold offices with HEI subsidiaries and affiliates in addition to their current positions listed below.

Name	Age	Business experience for last 5 years and prior positions with the Company
Constance H. Lau	64	HEI President and Chief Executive Officer since 5/06 HEI Director, 6/01 to 12/04 and since 5/06 Hawaiian Electric Chairman of the Board since 5/06 ASB Hawaii Director since 5/06 ASB Chairman of the Board since 5/06, Risk Committee member since 2012 and Director since 1999 <ul style="list-style-type: none">· ASB Chief Executive Officer, 6/01 to 11/10, and President, 6/01 to 1/08· ASB Senior Executive Vice President and Chief Operating Officer and Director, 12/99 to 5/01· HEI Power Corp. Financial Vice President and Treasurer, 5/97 to 8/99· HEI Treasurer, 4/89 to 10/99, and HEI Assistant Treasurer, 12/87 to 4/89· Hawaiian Electric Treasurer 12/87 to 4/89 and Assistant Corporate Counsel, 9/84 to 12/87
James A. Ajello*	63	HEI Executive Vice President and Chief Financial Officer since 8/13 ASB Hawaii Director since 8/09 <ul style="list-style-type: none">· HEI Executive Vice President, Chief Financial Officer and Treasurer, 5/11 to 8/13· HEI Senior Financial Vice President, Treasurer and Chief Financial Officer, 1/09 to 5/11
Gregory C. Hazelton*	52	HEI Senior Vice President, Finance since 10/16 <ul style="list-style-type: none">· Prior to rejoining the Company in 2016: Northwest Natural Gas Company, Senior Vice President, Chief Financial Officer and Treasurer, 2/16 to 9/16, and Northwest Natural Gas Company, Senior Vice President and Chief Financial Officer, 6/15 to 2/16· HEI Vice President, Finance, Treasurer and Controller, 8/13 to 6/15<ul style="list-style-type: none">· Prior to joining the Company in 2013: UBS Investment Bank, Managing Director, Global Power & Utilities Group 3/11 to 5/13
Alan M. Oshima	69	Hawaiian Electric President and Chief Executive Officer since 10/14 Hawaiian Electric Director, 2008 to 10/11 and since 10/14 HEI Charitable Foundation President since 10/11 <ul style="list-style-type: none">· Hawaiian Electric Senior Executive Officer on loan from HEI, 5/14 to 9/14· HEI Executive Vice President, Corporate and Community Advancement, 10/11 to 5/14
Richard F. Wacker	54	ASB President and Chief Executive Officer since 11/10 ASB Director since 11/10

*As disclosed in HEI's Form 8-K dated February 13, 2017, Mr. Ajello plans to retire from HEI effective April 2, 2017 and upon such retirement Mr. Hazelton will succeed Mr. Ajello as HEI's Executive Vice President and Chief Financial Officer.

Family relationships; executive arrangements

There are no family relationships between any HEI executive officer and any other HEI executive officer or any HEI director or director nominee. There are no arrangements or understandings between any HEI executive officer and any other person pursuant to which such executive officer was selected.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

HEI:

Certain of the information required by this item is incorporated herein by reference to Note 14, "Regulatory restrictions on net assets" and Note 18, "Quarterly information (unaudited)" of the Consolidated Financial Statements and "Item 6. Selected Financial Data" and "Equity compensation plan information" under "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" of this Form 10-K. Certain restrictions on dividends and other distributions of HEI are described in this report under "Item 1. Business—HEI—Regulation—Restrictions on dividends and other distributions" and that description is incorporated herein by reference. HEI's common stock is traded on the New York Stock Exchange and the total number of holders of record of HEI common stock (i.e., registered shareholders) as of February 13, 2017, was 6,429.

Purchases of HEI common shares were made during the fourth quarter to satisfy the requirements of certain plans as follows:

ISSUER PURCHASES OF EQUITY SECURITIES

Period*	(a) Total Number of Shares Purchased **	(b) Average Price Paid per Share **	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 to 31, 2016	—	\$ —	—	NA
November 1 to 30, 2016	—	\$ —	—	NA
December 1 to 31, 2016	207,373	\$ 32.28	—	NA

NA Not applicable.

* Trades (total number of shares purchased) are reflected in the month in which the order is placed.

** The purchases were made to satisfy the requirements of the DRIP, the HEIRSP and the ASB 401(k) Plan for shares purchased for cash or by the reinvestment of dividends by participants under those plans and none of the purchases were made under publicly announced repurchase plans or programs. Average prices per share are calculated exclusive of any commissions payable to the brokers making the purchases for the DRIP, the HEIRSP and the ASB 401(k) Plan. Of the shares listed in column (a), 184,673 of the 207,373 shares were purchased for the DRIP; 19,100 of the 207,373 shares were purchased for the HEIRSP; and 3,600 of the 207,373 shares were purchased for the ASB 401(k) Plan. The repurchased shares were issued for the accounts of the participants under registration statements registering the shares issued under these plans.

The dividends declared and paid on HEI's common stock for the quarters of 2016 and 2015 were as follows:

Quarters ended	2016	2015
(in thousands)		
March 31	\$ 33,367	\$ 31,840
June 30	33,481	33,300
September 30	33,550	33,312
December 31	33,652	33,313

Also see Note 18, “Quarterly information (unaudited)” of the Consolidated Financial Statements.

Hawaiian Electric:

Since a corporate restructuring on July 1, 1983, all the common stock of Hawaiian Electric has been held solely by its parent, HEI, and is not publicly traded. Accordingly, information required with respect to “Market information” and “holders” is not applicable to Hawaiian Electric.

The dividends declared and paid on Hawaiian Electric’s common stock for the quarters of 2016 and 2015 were as follows:

Quarters ended	2016	2015
(in thousands)		
March 31	\$ 23,400	\$ 22,601
June 30	23,400	22,602
September 30	23,399	22,601
December 31	23,400	22,601

Also, see “Liquidity and capital resources” in HEI’s MD&A.

See the discussion of regulatory and other restrictions on dividends or other distributions under “Item 1. Business—HEI—Regulation—Restrictions on dividends and other distributions” and in Note 14 of the Consolidated Financial Statements.

ITEM 6. SELECTED FINANCIAL DATA

HEI:

Selected Financial Data

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2016	2015	2014	2013	2012
(dollars in thousands, except per share amounts)					
Results of operations					
Revenues	\$ 2,380,654	\$ 2,602,982	\$ 3,239,542	\$ 3,238,470	\$ 3,374,995
Net income for common stock	\$ 248,256	\$ 159,877	\$ 168,129	\$ 161,709	\$ 138,705
Basic earnings per common share	\$ 2.30	\$ 1.50	\$ 1.65	\$ 1.63	\$ 1.43
Diluted earnings per common share	\$ 2.29	\$ 1.50	\$ 1.63	\$ 1.62	\$ 1.42
Return on average common equity	12.4%	8.6%	9.6%	9.7%	8.9%
Financial position *					
Total assets	\$ 12,425,506	\$ 11,782,018	\$ 11,177,143	\$ 10,331,921	\$ 10,139,569
Deposit liabilities	5,548,929	5,025,254	4,623,415	4,372,477	4,229,916
Other bank borrowings	192,618	328,582	290,656	244,514	195,926
Long-term debt, net	1,619,019	1,578,368	1,498,547	1,483,960	1,412,386
Preferred stock of subsidiaries – not subject to mandatory redemption	34,293	34,293	34,293	34,293	34,293
Common stock equity	2,066,753	1,927,640	1,790,573	1,726,406	1,593,008
Common stock					
Book value per common share *	\$ 19.05	\$ 17.94	\$ 17.46	\$ 17.05	\$ 16.27
Market price per common share					
High	34.98	34.86	35.00	28.30	29.24
Low	27.30	27.02	22.71	23.84	23.65
December 31	33.07	28.95	33.48	26.06	25.14
Dividends per common share	1.24	1.24	1.24	1.24	1.24
Dividend payout ratio	54%	82%	75%	76%	87%
Market price to book value per common share *	174%	161%	192%	153%	155%
Price earnings ratio **	14.4x	19.3x	20.3x	16.0x	17.6x
Common shares outstanding (thousands) *	108,583	107,460	102,565	101,260	97,928
Weighted-average	108,102	106,418	101,968	98,968	96,908
Shareholders ***	26,831	27,927	29,415	30,653	31,349
Employees *	3,796	3,918	3,965	3,966	3,870

* At December 31.

** Calculated using December 31 market price per common share divided by basic earnings per common share. The principal trading market for HEI's common stock is the New York Stock Exchange (NYSE).

*** At December 31. Represents registered shareholders plus participants in the HEI Dividend Reinvestment and Stock Purchase Plan (DRIP) who are not registered shareholders. As of February 13, 2017, HEI had 6,429 registered shareholders (i.e., holders of record of HEI common stock), 23,723 DRIP participants and total shareholders of 26,753.

Results for 2016, 2015 and 2014 include merger- and spin-off-related income/(expenses), net of tax impacts, of \$60 million, (\$16 million), and (\$2 million), respectively (see Note 2 of the Consolidated Financial Statements).

Financial data for prior periods has been updated to reflect the retrospective application of Accounting Standards Update (ASU) No. 2015-03 (Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs). See "Commitments and contingencies" in Note 4 of the Consolidated Financial Statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations" for discussions of certain contingencies that could adversely affect future results of operations and factors that affected reported results of operations.

For 2014, 2013 and 2012, under the two-class method of computing basic earnings per share, distributed earnings were \$1.24 per share each year and undistributed earnings (loss) were \$0.41, \$0.39 and \$0.19 per share, respectively, for both unvested restricted stock awards and unrestricted common stock. For 2014, 2013 and 2012, under the two-class method of computing diluted earnings per share, distributed earnings were \$1.24 per share each year and undistributed earnings (loss) were \$0.40, \$0.38 and \$0.18 per share, respectively, for both unvested restricted stock awards and unrestricted common stock. There were no restricted stock awards outstanding during 2015 and 2016.

Hawaiian Electric:**Selected Financial Data****Hawaiian Electric Company, Inc. and Subsidiaries**

Years ended December 31 (in thousands)	2016	2015	2014	2013	2012
Results of operations					
Revenues	\$ 2,094,368	\$ 2,335,166	\$ 2,987,323	\$ 2,980,172	\$ 3,109,439
Net income for common stock	142,317	135,714	137,641	122,929	99,276
Financial position *					
Utility plant	\$ 6,870,627	\$ 6,543,799	\$ 6,220,397	\$ 5,896,991	\$ 5,567,346
Accumulated depreciation	(2,369,282)	(2,266,004)	(2,175,510)	(2,111,229)	(2,040,789)
Net utility plant	\$ 4,501,345	\$ 4,277,795	\$ 4,044,887	\$ 3,785,762	\$ 3,526,557
Total assets	\$ 5,975,428	\$ 5,672,210	\$ 5,550,021	\$ 5,058,065	\$ 5,099,101
Current portion of long-term debt	\$ —	\$ —	\$ —	\$ 11,383	\$ —
Long-term debt, net	1,319,260	1,278,702	1,199,025	1,198,200	1,138,180
Common stock equity	1,799,787	1,728,325	1,682,144	1,593,564	1,472,136
Cumulative preferred stock-not subject to mandatory redemption	34,293	34,293	34,293	34,293	34,293
Capital structure	\$ 3,153,340	\$ 3,041,320	\$ 2,915,462	\$ 2,837,440	\$ 2,644,609
Capital structure ratios (%)					
Debt (short-term debt, which is nil, and long-term debt, net, including current portion)	41.8	42.1	41.1	42.6	43.0
Cumulative preferred stock	1.1	1.1	1.2	1.2	1.3
Common stock equity	57.1	56.8	57.7	56.2	55.7

* At December 31.

HEI owns all of Hawaiian Electric's common stock. Therefore, per share data is not meaningful.

Financial data for prior periods has been updated to reflect the retrospective application of ASU No. 2015-03 (Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs).

See "Cautionary Note Regarding Forward-Looking Statements" above, the "electric utility" sections and all information related to, or including, Hawaiian Electric and its subsidiaries in HEI's MD&A and "Commitments and contingencies" in Note 4 of the Consolidated Financial Statements for discussions of certain contingencies that could adversely affect future results of operations, financial condition and cash flows.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

HEI and Hawaiian Electric (in the case of Hawaiian Electric, only the information related to Hawaiian Electric and its subsidiaries):

The following discussion should be read in conjunction with the Consolidated Financial Statements. The general discussion of HEI's consolidated results should be read in conjunction with the electric utility and bank segment discussions that follow.

HEI Consolidated

Executive overview and strategy. HEI is a holding company overseeing operating subsidiaries in Hawaii's electric utility and banking sectors. A primary focus of HEI's strategy is to grow core earnings and profitability of its Utilities and Bank in a controlled risk manner and improve operating, capital and tax efficiencies in order to support its dividend and deliver shareholder value. In addition, HEI and its subsidiaries from time to time consider various strategies designed to enhance their competitive positions and maximize shareholder value.

HEI, through its electric utility subsidiaries (Hawaiian Electric and its subsidiaries, Hawaii Electric Light and Maui Electric), provides the only electric public utility service to approximately 95% of Hawaii's population. HEI also provides a wide array of banking and other financial services to consumers and businesses through its bank subsidiary, ASB, one of Hawaii's largest financial institutions based on total assets. Together, HEI's unique combination of electric utilities and a bank continues to provide the Company with a strong balance sheet and the financial resources to invest in the strategic growth of its subsidiaries while providing an attractive dividend for investors.

In 2016, net income for HEI common stock was \$248 million, up 55% from \$160 million in 2015 primarily due to the merger termination fee from NEE (and related lower merger-related costs and tax benefits on previously non-deductible merger and spin-off expenses) and both the Utilities' and ASB's 5% higher net incomes. Basic earnings per share were \$2.30 per share in 2016, up 53% from \$1.50 per share in 2015. Excluding merger and spin-off-related income and costs (\$60 million after-tax, see "Other" segment results below) and costs related to the terminated LNG contract, which required PUC approval of the merger with NEE, net income for HEI common stock would have been \$190 million, up 8% from \$176 million in 2015 primarily due to the Utilities' 6% higher net income and ASB's 5% higher net income and lower losses at HEI corporate.

The Utilities' strategic focus has been to meet Hawaii's energy needs by modernizing and adding needed infrastructure through capital investment, placing emphasis on energy efficiency and conservation, pursuing renewable energy generation and taking the necessary steps to secure regulatory support for their plans. Electric utility net income for common stock in 2016 of \$142 million, increased from the prior year by 5% due to the recovery of additional investments for clean energy and reliability and lower O&M expenses compared to 2015 (which included higher O&M expenses from the write off of ERP software costs, additional reserves for environmental costs and higher storm weather repair expenses) partially offset by higher depreciation expense (as a result of increasing investments for the integration of more renewable energy, improved service reliability and greater system efficiency) and higher consulting expenses related to LNG and PSIPs.

ASB continues to develop and introduce new products and services in order to meet the needs of both consumer and commercial customers. Additionally, ASB has made investments in electronic banking platforms, data and risk management capabilities and process improvements to deliver a continuously better experience for its customers, healthy growth and a more efficient bank. ASB's earnings in 2016 of \$57 million increased \$2 million compared to prior year net income due primarily to higher net interest income, partly offset by a higher provision for loan losses, higher noninterest expenses and lower noninterest income. In 2016, ASB earnings benefited from higher net interest income as interest income from loan and investment growth were funded primarily by low cost deposit liabilities. These increases were partly offset by a higher provision for loan losses which was primarily due to growth in the commercial real estate and consumer loan portfolios and additional reserves for specific commercial credits, as well as higher noninterest expenses due primarily to costs related to replacement and upgrade of ASB's electronic banking platform. ASB's future financial results will continue to be impacted by the interest rate environment and the quality of ASB's loan portfolio.

HEI's "other" segment had net income in 2016 of \$49 million, compared to a net loss of \$31 million in 2015. In 2016, HEI's "other" segment included \$60 million of net income related to the merger- and spin-off [comprised of the termination fee (\$55 million), reimbursements of expenses from NEE and insurance (\$3 million), additional tax benefits on the previously non-tax-deductible merger- and spin-off-related expenses incurred through June 30, 2016 (\$8 million), partly offset by merger- and spin-off-related expenses (\$6 million) (all net of tax impacts)]. In 2015, HEI's "other" segment included \$15 million of expenses related to the merger- and spin-off (net of taxes). Excluding these merger- and spin-off-related income items and

expenses (after-tax), HEI's "other" segment net loss was 24% lower (\$12 million in 2016 and \$15 million in 2015) primarily due to lower interest and other tax benefits recognized as a result of moving out of a federal net operating loss position.

Shareholder dividends are declared and paid quarterly by HEI at the discretion of HEI's Board of Directors. HEI and its predecessor company, Hawaiian Electric, have paid dividends continuously since 1901. The dividend has been stable at \$1.24 per share annually since 1998. The indicated dividend yield as of December 31, 2016 was 3.7%. The dividend payout ratios based on net income for common stock for 2016, 2015 and 2014 were 54%, 82% and 75%, respectively. The HEI Board of Directors considers many factors in determining the dividend quarterly, including but not limited to the Company's results of operations, the long-term prospects for the Company, and current and expected future economic conditions.

Economic conditions.

Note: The statistical data in this section is from public third-party sources that management believes to be reliable (e.g., Department of Business, Economic Development and Tourism (DBEDT); University of Hawaii Economic Research Organization; U.S. Bureau of Labor Statistics; Department of Labor and Industrial Relations (DLIR); Hawaii Tourism Authority (HTA); Honolulu Board of REALTORS® and national and local newspapers).

Hawaii's tourism industry, a significant driver of Hawaii's economy, ended 2016 with record highs in both visitor spending and arrivals for the fourth consecutive year. Visitor expenditures increased 5.1% and arrivals increased 3.6% compared to 2015. Looking ahead, the Hawaii Tourism Authority expects scheduled nonstop seats to Hawaii for the first quarter of 2017 to decrease by 1.2% over the first quarter of 2016 driven primarily by a 4.1% decrease in domestic seats from the West coast.

Hawaii's unemployment rate continued to decline to 2.9% in December 2016, lower than the state's 3.3% rate in December 2015 and the December 2016 national unemployment rate of 4.7%.

Hawaii real estate activity, as indicated by the home resale market, experienced growth in median sales prices in 2016. Median sales prices for single family residential homes and condominiums on Oahu increased 5.0% and 8.3%, respectively, over 2015. The number of closed sales also increased from 2015. Closed sales for both single family residential homes and condominiums were up compared to 2015, 6.5% and 8.4% respectively.

Hawaii's petroleum product prices reflect supply and demand in the Asia-Pacific region and the price of crude oil in international markets. In the first quarter of 2016, the price of crude oil continued its decline to levels not seen for over ten years. The price of crude oil slightly recovered and stabilized in the second and third quarters, while continuing to marginally increase in the fourth quarter.

At its December 2016 meeting, the Federal Open Market Committee (FOMC) increased the federal funds rate target for the second time in a decade. The FOMC raised the target range of "0.25% to 0.5%" to "0.5% to 0.75%". Overall, Hawaii's economy is expected to see positive growth in 2017. Tourism had another record year in 2016. Forecasts continue visitor arrivals and visitor expenditure growth in 2017 of 1.8% and 4.0% respectively. Military troop reductions in Hawaii could negatively impact the economy. Reductions in the military are planned in 2017 and 2018, but it is not yet known if those reductions will negatively impact Hawaii bases. Any impacts on the economy by troop reductions may be offset by the large military construction projects recently funded in the 2017 National Defense Authorization Act (NDAA).

Additional risks to local economic growth include volatility to global economies and their impact on the local real estate and construction markets.

Results of operations.

(dollars in millions, except per share amounts)	2016	% change	2015	% change	2014
Revenues	\$ 2,381	(9)	\$ 2,603	(20)	\$ 3,240
Operating income	349	8	323	(3)	333
Merger termination fee	90	NM	—	—	—
Net income for common stock	248	55	160	(5)	168
Net income (loss) by segment:					
Electric utility	\$ 142	5	\$ 136	(1)	\$ 138
Bank	57	5	55	7	51
Other	49	NM	(31)	NM	(21)
Net income for common stock	\$ 248	55	\$ 160	(5)	\$ 168
Basic earnings per share	\$ 2.30	53	\$ 1.50	(9)	\$ 1.65
Diluted earnings per share	\$ 2.29	53	\$ 1.50	(8)	\$ 1.63
Dividends per share	\$ 1.24	—	\$ 1.24	—	\$ 1.24
Weighted-average number of common shares outstanding (millions)	108.1	2	106.4	4	102.0
Dividend payout ratio	54%		82%		75%

NM Not meaningful.

See “Executive overview and strategy” above and the “Other segment,” “Electric utility” and “Bank” sections below for discussions of results of operations.

Other segment. HEI corporate-level operating, general and administrative expenses were \$19 million in 2016 compared to \$34 million in 2015 and \$21 million in 2014. In 2016, 2015 and 2014, HEI had approximately \$1 million (expenses, net of reimbursements of expenses from NEE and insurance), \$17 million and \$5 million, respectively, of expenses related to the previously proposed merger with NEE.

The “other” segment’s interest expenses were \$9 million in 2016, \$11 million in 2015 and \$12 million in 2014. In each of 2016, 2015 and 2014, HEI had lower average interest rates and borrowings when compared to the prior year. In 2016, a 4.41% senior note was refinanced to a lower rate Eurodollar term loan. In 2015, a \$125 million Eurodollar term loan was amended at improved pricing.

The “other” segment’s income (taxes) benefits were \$(9 million) in 2016, \$16 million in 2015 and \$13 million in 2014. In 2016, HEI’s other segment included \$25 million of tax expense relating to merger- and spin-off (net of taxes) [comprised of taxes on merger termination fee and reimbursements of expenses from NEE and insurance (\$34 million), partly offset by additional tax benefits on the previously non-tax-deductible merger- and spin-off-related expenses incurred in previous years (\$6 million) and tax on 2016 merger-related expenses (\$3 million)]. In 2016, HEI’s results also included other tax benefits recognized as a result of moving out of a federal net operating loss position.

Liquidity and capital resources. The Company believes that its ability to generate cash, both internally from electric utility and banking operations and externally from issuances of equity and debt securities, commercial paper and bank borrowings, is adequate to maintain sufficient liquidity to fund its contractual obligations and commercial commitments, its forecasted capital expenditures and investments, its expected retirement benefit plan contributions and other cash requirements for the foreseeable future.

The consolidated capital structure of HEI (excluding deposit liabilities and other bank borrowings) was as follows:

December 31	2016		2015	
(dollars in millions)				
Short-term borrowings—other than bank	\$ —	—%	\$ 103	3%
Long-term debt, net—other than bank	1,619	43	1,578	43
Preferred stock of subsidiaries	34	1	34	1
Common stock equity	2,067	56	1,928	53
	\$ 3,720	100%	\$ 3,643	100%

HEI's short-term borrowings and HEI's line of credit facility were as follows:

(in millions)	Year ended December 31, 2016		
	Average balance	End-of-period balance	December 31, 2015
Short-term borrowings ¹			
Commercial paper	\$ 43	\$ —	\$ 103
Line of credit draws	—	—	—
Undrawn capacity under HEI's line of credit facility	150	150	150

¹ This table does not include Hawaiian Electric's separate commercial paper issuances and line of credit facilities and draws, which are disclosed below under "Electric utility—Financial Condition—Liquidity and capital resources." At February 13, 2017, HEI had no outstanding commercial paper and its line of credit facility was undrawn. The maximum amount of HEI's short-term borrowings in 2016 was \$103 million.

HEI utilizes short-term debt, typically commercial paper, to support normal operations, to refinance commercial paper, to retire long-term debt, to pay dividends and for other temporary requirements. HEI also periodically makes short-term loans to Hawaiian Electric to meet Hawaiian Electric's cash requirements, including the funding of loans by Hawaiian Electric to Hawaii Electric Light and Maui Electric, but no such short-term loans to Hawaiian Electric were outstanding as of December 31, 2016. HEI periodically utilizes long-term debt, historically consisting of medium-term notes and other unsecured indebtedness, to fund investments in and loans to its subsidiaries to support their capital improvement or other requirements, to repay long-term and short-term indebtedness and for other corporate purposes.

In March 2013, HEI entered into equity forward transactions in which a forward counterparty borrowed 7 million shares of HEI's common stock from third parties and such borrowed shares were sold pursuant to an HEI registered public offering. See Note 9 of the Consolidated Financial Statements. In March 2015, HEI issued the 4.7 million shares remaining under the equity forward transaction for proceeds of \$104.5 million.

In October 2015, HEI amended and extended a two-year \$125 million term loan agreement that it entered into on May 2, 2014, which extended term loan now matures on October 6, 2017. In March 2016, HEI entered into a \$75 million term loan agreement with Bank of America, N.A., which matures on March 23, 2018. See Note 8 of the Consolidated Financial Statements for a brief description of the loan agreements.

In December 2014, HEI filed an omnibus registration statement to register an indeterminate amount of debt and equity securities.

HEI has a line of credit facility, as amended and restated on April 2, 2014, of \$150 million. See Note 7 of the Consolidated Financial Statements.

The rating of HEI's commercial paper and debt securities could significantly impact the ability of HEI to sell its commercial paper and issue debt securities and/or the cost of such debt. The rating agencies use a combination of qualitative measures (i.e., assessment of business risk that incorporates an analysis of the qualitative factors such as management, competitive positioning, operations, markets and regulation) as well as quantitative measures (e.g., cash flow, debt, interest coverage and liquidity ratios) in determining the ratings of HEI securities.

In August 2016, Moody's downgraded HEI's short-term commercial paper rating to P-3 from P-2 and revised HEI's outlook to stable. In December 2016, S&P affirmed HEI's long-term and short-term issuer credit rating of BBB- and A-3, respectively, with a stable outlook. In January 2017, Fitch affirmed HEI's long-term issuer default rating at BBB with a stable outlook.

As of February 13, 2017, the Fitch, Moody's and S&P ratings of HEI were as follows:

	Fitch	Moody's	S&P
Long-term issuer default and senior unsecured; senior unsecured*; and long-term issuer credit; respectively	BBB	*	BBB-
Commercial paper	F3	P-3	A-3
Outlook	Stable	Stable	Stable

* Not rated.

The above ratings reflect only the view, at the time the ratings are issued or affirmed, of the applicable rating agency, from whom an explanation of the significance of such ratings may be obtained. Such ratings are not recommendations to buy, sell or hold any securities; such ratings may be subject to revision or withdrawal at any time by the rating agencies; and each rating should be evaluated independently of any other rating.

Management believes that, if HEI's commercial paper ratings were to be downgraded, or if credit markets for commercial paper with HEI's ratings or in general were to tighten, it could be more difficult and/or expensive for HEI to sell commercial paper or HEI might not be able to sell commercial paper in the future. Such limitations could cause HEI to draw on its syndicated credit facility instead, and the costs of such borrowings could increase under the terms of the credit agreement as a result of any such ratings downgrades. Similarly, if HEI's long-term debt ratings were to be downgraded, it could be more difficult and/or expensive for HEI to issue long-term debt. Such limitations and/or increased costs could materially adversely affect the results of operations, financial condition and liquidity of HEI and its subsidiaries.

From March 6, 2014 through January 5, 2016, HEI satisfied the share purchase requirements of the Hawaiian Electric Industries, Inc. Dividend Reinvestment and Stock Purchase Plan (DRIP), Hawaiian Electric Industries Retirement Savings Plan (HEIRSP) and ASB 401(k) Plan through open market purchases of its common stock rather than through new issuances. From January 6, 2016 through December 6, 2016, HEI satisfied its share purchase requirements for the plans through new issuances, except that from June 2, 2016 through August 9, 2016, HEI satisfied the share purchase requirements of the HEIRSP and ASB 401(k) Plan through open market purchases of its common stock. From December 7, 2016 to date, HEI satisfied the share purchase requirements of these three plans through open market purchases of its common stock rather than through new issuances. In 2016, the Company raised \$30 million through the new issuances of approximately 1 million shares of common stock under the DRIP, HEIRSP and ASB 401(k) Plan. In 2014, the Company raised \$3 million through the new issuances of approximately 0.1 million shares of common stock under the DRIP, HEIRSP and ASB 401(k) Plan.

Operating activities provided net cash of \$495 million in 2016, \$356 million in 2015 and \$325 million in 2014. Investing activities used net cash of \$736 million in 2016, \$706 million in 2015 and \$592 million in 2014. In 2016, net cash used in investing activities was primarily due to a Hawaiian Electric's consolidated capital expenditures (net of contributions in aid of construction) and ASB's net increase in loans held for investment and purchases of investment securities, partly offset by the repayments of investment securities and proceeds from sale of commercial loans and investment securities. Financing activities provided net cash of \$219 million in 2016, \$475 million in 2015 and \$223 million in 2014. In 2016, net cash provided by financing activities included net increases in deposits and long-term debt and net proceeds from the issuance of common stock, partly offset by a net decreases in short-term borrowings, ASB's retail repurchase agreements and other borrowings and payment of common and preferred stock dividends. Other than capital contributions from their parent company, intercompany services (and related intercompany payables and receivables), Hawaiian Electric's periodic short-term borrowings from HEI (and related interest) and the payment of dividends to HEI, the electric utility and bank segments are largely autonomous in their operating, investing and financing activities. (See the electric utility and bank segments' discussions of their cash flows in their respective "Financial condition-Liquidity and capital resources" sections below.) During 2016, Hawaiian Electric and ASB (through ASB Hawaii) paid cash dividends to HEI of \$94 million and \$36 million, respectively.

A portion of the net assets of Hawaiian Electric and ASB is not available for transfer to HEI in the form of dividends, loans or advances without regulatory approval. One of the conditions to the PUC's approval of the corporate restructuring of Hawaiian Electric and HEI requires that Hawaiian Electric maintain a consolidated common equity to total capitalization ratio of not less than 35% (actual ratio of 57% at December 31, 2016), and restricts Hawaiian Electric from making distributions to HEI to the extent it would result in that ratio being less than 35%. In the absence of an unexpected material adverse change in the financial condition of the electric utilities or ASB, such restrictions are not expected to significantly affect the operations of HEI, its ability to pay dividends on its common stock or its ability to meet its debt or other cash obligations. See Note 14 of the Consolidated Financial Statements.

Forecasted HEI consolidated "net cash used in investing activities" (excluding "investing" cash flows from ASB) for 2017 through 2019 consists primarily of the net capital expenditures of the Utilities. In addition to the funds required for the Utilities' construction programs (see "Electric utility-Liquidity and capital resources"), approximately \$200 million will be required

during 2017 through 2019 to repay HEI's \$125 million and \$75 million two-year term loans maturing in October 2017 and March 2018, respectively, which are expected to be repaid with the proceeds from the issuance of commercial paper, bank borrowings, other medium- or long-term debt, common stock and/or dividends from subsidiaries. Additional debt and/or equity financing may be utilized to invest in the Utilities and bank; to pay down commercial paper or other short-term borrowings; or to fund unanticipated expenditures not included in the 2017 through 2019 forecast, such as increases in the costs of or an acceleration of the construction of capital projects of the Utilities, unanticipated utility capital expenditures that may be required by the HCEI or new environmental laws and regulations, unbudgeted acquisitions or investments in new businesses, significant increases in retirement benefit funding requirements and higher tax payments that would result if certain tax positions taken by the Company do not prevail or if taxes are increased by federal or state legislation. In addition, existing debt may be refinanced prior to maturity with additional debt or equity financing (or both).

Selected contractual obligations and commitments. Information about payments under the specified contractual obligations and commercial commitments of HEI and its subsidiaries was as follows:

December 31, 2016

(in millions)	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Contractual obligations					
Investment in qualifying affordable housing projects	\$ 13	\$ —	\$ —	\$ 1	\$ 14
Time certificates	323	176	156	3	658
Other bank borrowings	143	50	—	—	193
Long-term debt	125	125	146	1,231	1,627
Interest on certificates of deposit, other bank borrowings and long-term debt	82	151	140	800	1,173
Operating leases, service bureau contract, maintenance and ASB construction-related agreements	35	40	27	18	120
Hawaiian Electric open purchase order obligations ¹	56	114	—	—	170
Hawaiian Electric fuel oil purchase obligations (estimate based on December 31, 2016 fuel oil prices)	125	238	—	—	363
Hawaiian Electric power purchase obligations—minimum fixed capacity charges	121	188	189	388	886
Liabilities for uncertain tax positions	—	4	—	—	4
Total (estimated)	\$ 1,023	\$ 1,086	\$ 658	\$ 2,441	\$ 5,208

¹ Includes contractual obligations and commitments for capital expenditures and expense amounts.

The tables above do not include other categories of obligations and commitments, such as deferred taxes, trade payables, amounts that will become payable in future periods under collective bargaining and other employment agreements and employee benefit plans, obligations that may arise under indemnities provided to purchasers of discontinued operations, potential refunds of amounts collected from ratepayers (e.g., under the earnings sharing mechanism) and as of December 31, 2016, the fair value of the assets held in trusts to satisfy the obligations of the Company's retirement benefit plans did not exceed the retirement benefit plans' benefit obligation. Minimum funding requirements for retirement benefit plans have not been included in the tables above; however, see Note 10 to the Consolidated Financial Statements for estimated contributions for 2017.

See Note 4 of the Consolidated Financial Statements for a discussion of fuel and power purchase commitments. See Note 5 of the Consolidated Financial Statements for a further discussion of ASB's commitments.

Off-balance sheet arrangements. Although the Company and the Utilities have off-balance sheet arrangements, management has determined that it has no off-balance sheet arrangements that either have, or are reasonably likely to have, a current or future effect on the Company's and the Utilities' financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors, including the following types of off-balance sheet arrangements:

1. obligations under guarantee contracts,
2. retained or contingent interests in assets transferred to an unconsolidated entity or similar arrangements that serve as credit, liquidity or market risk support to that entity for such assets,
3. obligations under derivative instruments, and

- obligations under a material variable interest held by the Company or the Utilities in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to the Company or the Utilities, or engages in leasing, hedging or research and development services with the Company or the Utilities.

Certain factors that may affect future results and financial condition. The Company's results of operations and financial condition can be affected by numerous factors, many of which are beyond its control and could cause future results of operations to differ materially from historical results. The following is a discussion of certain of these factors. Also see "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" above and "Certain factors that may affect future results and financial condition" in each of the electric utility and bank segment discussions below.

Economic conditions, U.S. capital markets and credit and interest rate environment. Because the core businesses of HEI's subsidiaries are providing local electric public utility services and banking services in Hawaii, the Company's operating results are significantly influenced by Hawaii's economy, which in turn is influenced by economic conditions in the mainland U.S. (particularly California) and Asia (particularly Japan) as a result of the impact of those conditions on tourism, by the impact of interest rates, particularly on the construction and real estate industries and by the impact of world conditions on federal government spending in Hawaii. The two largest components of Hawaii's economy are tourism and the federal government (including the military).

If Fitch, Moody's or S&P were to downgrade HEI's or Hawaiian Electric's debt ratings or if future events were to adversely affect the availability of capital to the Company, HEI's and Hawaiian Electric's ability to borrow and raise capital could be constrained and their future borrowing costs would likely increase.

Changes in the U.S. capital markets can also have significant effects on the Company. For example, pension funding requirements are affected by the market performance of the assets in the master pension trust and by the discount rate used to estimate the service and interest cost components of net periodic pension cost and value obligations. The Utilities' pension tracking mechanisms help moderate pension expense; however, a decline in the value of the Company's defined benefit pension plan assets may increase the unfunded status of the Company's pension plans and result in increases in future funding requirements.

Because the earnings of ASB depend primarily on net interest income, interest rate risk is a significant risk of ASB's operations. Changes in interest rates and credit spreads also affect the fair value of ASB's investment securities. HEI and its electric utility subsidiaries are also exposed to interest rate risk primarily due to their periodic borrowing requirements, the discount rate used to determine pension funding requirements and the possible effect of interest rates on the electric utilities' rates of return and overall economic activity. Interest rates are sensitive to many factors, including general economic conditions and the policies of government and regulatory authorities. HEI cannot predict future changes in interest rates, nor be certain that interest rate risk management strategies it or its subsidiaries have implemented will be successful in managing interest rate risk.

Limited insurance. In the ordinary course of business, the Company purchases insurance coverages (e.g., property and liability coverages) to protect itself against loss of or damage to its properties and against claims made by third-parties and employees for property damage or personal injuries. However, the protection provided by such insurance is limited in significant respects and, in some instances, the Company has no coverage. The Utilities' transmission and distribution systems (excluding substation buildings and contents) have a replacement value roughly estimated at \$7 billion and are largely uninsured. Similarly, the Utilities have no business interruption insurance. If a hurricane or other uninsured catastrophic natural disaster were to occur, and if the PUC were not to allow the Utilities to recover from ratepayers restoration costs and revenues lost from business interruption, their results of operations, financial condition and liquidity could be materially adversely impacted. Certain of the Company's insurance has substantial "deductibles" or has limits on the maximum amounts that may be recovered. Insurers also have exclusions or limitations of coverage for claims related to certain perils. If a series of losses occurred, such as from a series of lawsuits in the ordinary course of business each of which were subject to an insurance deductible amount, or if the maximum limit of the available insurance were substantially exceeded, the Company could incur uninsured losses in amounts that would have a material adverse effect on the Company's results of operations, financial condition and liquidity.

Environmental matters. HEI and its subsidiaries are subject to environmental laws and regulations that regulate the operation of existing facilities, the construction and operation of new facilities and the proper cleanup and disposal of hazardous waste and toxic substances. These laws and regulations, among other things, may require that certain environmental permits be obtained and maintained as a condition to constructing or operating certain facilities. Obtaining such permits can entail significant expense and cause substantial construction delays. Also, these laws and regulations may be amended from time to time, including amendments that increase the burden and expense of compliance.

Material estimates and critical accounting policies. In preparing financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates.

Material estimates that are particularly susceptible to significant change include the amounts reported for pension and other postretirement benefit obligations; contingencies and litigation; income taxes; property, plant and equipment; regulatory assets and liabilities; electric utility revenues; allowance for loan losses; nonperforming loans; troubled debt restructurings; and fair value. Management considers an accounting estimate to be material if it requires assumptions to be made that were uncertain at the time the estimate was made and changes in the assumptions selected could have a material impact on the estimate and on the Company's results of operations or financial condition.

In accordance with SEC Release No. 33-8040, "Cautionary Advice Regarding Disclosure About Critical Accounting Policies," management has identified the accounting policies it believes to be the most critical to the Company's financial statements--that is, management believes that the policies discussed below are both the most important to the portrayal of the Company's results of operations and financial condition, and currently require management's most difficult, subjective or complex judgments. The policies affecting both of the Company's two principal segments are discussed below and the policies affecting just one segment are discussed in the respective segment's section of "Material estimates and critical accounting policies." Management has reviewed the material estimates and critical accounting policies with the HEI Audit Committee and, as applicable, the Hawaiian Electric Audit Committee.

For additional discussion of the Company's accounting policies, see Note 1 of the Consolidated Financial Statements and for additional discussion of material estimates and critical accounting policies, see the electric utility and bank segment discussions below under the same heading.

Pension and other postretirement benefits obligations. The Company's reported costs of providing retirement benefits are dependent upon numerous factors resulting from actual plan experience and assumptions about future experience. For example, retirement benefits costs are impacted by actual employee demographics (including age and compensation levels), the level of contributions to the plans, plus earnings and realized and unrealized gains and losses on plan assets, and changes made to the provisions of the plans. Costs may also be significantly affected by changes in key actuarial assumptions, including the expected return on plan assets, the discount rate and mortality. The Company's accounting for retirement benefits under the plans in which the employees of the Utilities participate is also adjusted to account for the impact of decisions by the Public Utilities Commission of the State of Hawaii (PUC). Changes in obligations associated with the factors noted above may not be immediately recognized as costs on the income statement, but generally are recognized in future years over the remaining average service period of plan participants.

Based on various assumptions in Note 10 of the Consolidated Financial Statements, sensitivities of the projected benefit obligation (PBO) and accumulated postretirement benefit obligation (APBO) as of December 31, 2016, associated with a change in certain actuarial assumptions, were as follows and constitute "forward-looking statements":

Actuarial assumption (dollars in millions)	Change in assumption in basis points	Impact on HEI Consolidated PBO or APBO	Impact on Consolidated Hawaiian Electric PBO or APBO
Pension benefits			
Discount rate	+/- 50	\$(140)/\$158	\$(130)/\$148
Other benefits			
Discount rate	+/- 50	(15)/17	(14)/16
Health care cost trend rate	+/- 100	4/(4)	3/(4)

Also, see Notes 1 and 10 of the Consolidated Financial Statements.

Contingencies and litigation. The Company is subject to proceedings (including PUC proceedings), lawsuits and other claims. Management assesses the likelihood of any adverse judgments in or outcomes of these matters as well as potential ranges of probable losses, including costs of investigation. A determination of the amount of reserves required, if any, for these contingencies is based on an analysis of each individual case or proceeding often with the assistance of outside counsel. The required reserves may change in the future due to new developments in each matter or changes in approach in dealing with these matters, such as a change in settlement strategy.

In general, environmental contamination treatment costs are charged to expense, unless it is probable that the PUC would allow such costs to be recovered through future rates, in which case such costs would be capitalized as regulatory assets. Also,

environmental costs are capitalized if the costs extend the life, increase the capacity, or improve the safety or efficiency of property; the costs mitigate or prevent future environmental contamination; or the costs are incurred in preparing the property for sale.

See Notes 4 and 5 of the Consolidated Financial Statements.

Income taxes. Deferred income tax assets and liabilities are established for the temporary differences between the financial reporting bases and the tax bases of the Company's assets and liabilities using tax rates expected to be in effect when such deferred tax assets or liabilities are realized or settled. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

Management evaluates its potential exposures from tax positions taken that have or could be challenged by taxing authorities. These potential exposures result because taxing authorities may take positions that differ from those taken by management in the interpretation and application of statutes, regulations and rules. Management considers the possibility of alternative outcomes based upon past experience, previous actions by taxing authorities (e.g., actions taken in other jurisdictions) and advice from its tax advisors. Management believes that the Company's provision for tax contingencies is reasonable. However, the ultimate resolution of tax treatments disputed by governmental authorities may adversely affect the Company's current and deferred income tax amounts.

See Note 12 of the Consolidated Financial Statements.

Following are discussions of the electric utility and bank segments. Additional segment information is shown in Note 3 of the Consolidated Financial Statements. The discussion concerning Hawaiian Electric should be read in conjunction with its consolidated financial statements and accompanying notes.

Executive overview and strategy. The Utilities provide electricity on all the principal islands in the state other than Kauai and operate five separate grids. The Utilities' mission is to provide innovative energy leadership for Hawaii, to meet the needs and expectations of customers and communities, and to empower them with affordable, reliable, clean energy. The goal is to create a modern, flexible, and dynamic electric grid that enables an optimal mix of distributed energy resources (such as private rooftop solar), demand response, and grid-scale resources to achieve the statutory goal of 100% renewable energy by 2045.

Transition to renewable energy. The Utilities are committed to assisting the State of Hawaii in achieving its Renewable Portfolio Standard goal of 100% renewable energy by 2045. Hawaii's RPS law was revised in the 2015 Legislature and requires electric utilities to meet an RPS of 15%, 30%, 40%, 70% and 100% by December 31, 2015, 2020, 2030, 2040 and 2045, respectively. Energy savings resulting from DSM energy efficiency programs and solar water heating do not count toward these RPS. The Utilities have been successful in adding significant amounts of renewable energy resources to their electric systems and exceeded the 2015 RPS goal. The Utilities' RPS for 2016 was about 25%, continuing to exceed the 2015 RPS goal on its way to achieving the 2020 RPS goal of 30%, and the Utilities led the nation in 2015 in the percentage of its customers who have installed PV systems. (See "Developments in renewable energy efforts" below).

In 2014, Hawaiian Electric, Hawaii Electric Light and Maui Electric filed proposed Power Supply Improvement Plans (PSIPs) with the PUC, as required by PUC orders issued in April 2014 (see "April 2014 regulatory orders" in Note 4 of the Consolidated Financial Statements). Updated PSIPs were filed in April 2016 providing plans to achieve 100% renewable energy using a diverse mix of energy resources by 2045. Under these plans, the Utilities will support sustainable growth of private rooftop solar, expand use of energy storage systems, empower customers by developing smart grids, and offer new products and services to customers (e.g., community solar, microgrids and voluntary "demand response" programs). In December 2016, the Utilities filed a PSIP Update Report as ordered by the PUC. The updated plans describe greater and faster expansion of the Utilities' renewable energy portfolio than in the plans filed in April 2016, and emphasize work that is in progress or planned over the next five years on each of the five islands the Utilities serve. The plans include the continued growth of private rooftop solar and describe the grid and generation modernization work needed to reliably integrate an estimated total of 165,000 private systems by 2030, more than double today's total of 79,000, and additional grid-scale renewable energy resources. The Utilities already have the highest percentage of customers using private rooftop solar of any utility in the U.S. and customer-sited resources are seen as a key contributor to the growth of the renewable portfolio on every island. In addition, the plans forecast the addition of 360 MW of grid scale solar and 157 MW of grid scale wind, with 32 MW derived from community-based renewable energy (CBRE). The plans also include 115 MW from Demand Response (DR) programs, which can shift customer use of electricity to times when more renewable energy is available, potentially making room to add even more renewable resources. Unlike the April 2016 updated PSIPs, this update does not include the use of liquefied natural gas (LNG) to generate power in the near-term or the Kahe 3x1 Combined Cycle Plant. While LNG remains a potential lower-cost bridge fuel to be evaluated, the Utilities' priority is to continue replacing fossil fuel generation with renewables over the next five years as federal tax incentives for renewables begin to phase out. An interisland cable is not in the near-term plan, which states that its costs and benefits should continue to be evaluated.

On October 1, 2015, Hawaiian Electric, Hawaii Electric Light and Maui Electric filed a proposed community-based renewable energy (CBRE) program and tariff with the PUC that will allow customers who cannot, or chose not to, take advantage of private rooftop solar to receive the benefits of renewable energy to help offset their monthly electric bills and support clean energy for Hawaii. The program, if approved by the PUC, would allow customers to buy an interest in electricity generated by community renewable projects on their island without installing systems on their own roofs or property. In November 2015, the PUC suspended the tariff submittal and opened an investigatory docket. In February 2017, the PUC issued a proposed CBRE Program Framework, a Proposed Model Tariff Language, and requested comments and feedback from the parties by March 1, 2017. Under the proposed CBRE Program Framework, the CBRE program will utilize a phased approach. The Program Framework proposes a Phase 1 with an 80 MW capacity statewide with 73 MW allocated to the Utilities' service territories. During the two year initial phase, the Utilities' primary role is to serve as the program administrator. In addition, the Framework requires a minimum allocation of 7.5 MW to develop CBRE targeting low-to-moderate income subscribers with 6.75 MW allocated to the Utilities' service territories.

After launching a smart grid customer engagement plan during the second quarter of 2014, Hawaiian Electric replaced approximately 5,200 residential and commercial meters with smart meters, 160 direct load control switches, fault circuit indicators and remote controlled switches in selected areas across Oahu as part of the Smart Grid Initial Phase implementation. Also under the Initial Phase a grid efficiency measure called Volt/Var Optimization (or Conservation Voltage Reduction) was enabled, customer energy portals were launched and are available for customer use and a PrePay Application was launched. The Initial Phase implementation was completed in 2015. The smart grid provides benefits such as customer tools to manage their electric bills, potentially shortening outages and enabling the Utilities to integrate more low-cost renewable energy, like wind and solar, which will reduce Hawaii's dependence on imported oil. In March 2016, the Utilities sought PUC approval to commit

funds for an expansion of the smart grid project. The proposed smart grid project was estimated to cost \$340 million and be implemented over 5 years (beginning in 2017 for Oahu and 2018 for Hawaii Island and Maui County). On January 4, 2017, the PUC issued an order dismissing the application without prejudice and directing the Utilities to submit a Grid Modernization Strategy.

Decoupling. In 2010, the PUC issued an order approving decoupling, which was implemented by the Utilities in 2011 and 2012. The decoupling model implemented delinks revenues from sales and includes annual rate adjustments for certain O&M expenses and rate base changes. On May 31, 2013, as provided for in its original order issued in 2010 approving decoupling, the PUC opened an investigative docket to review whether the decoupling mechanisms are functioning as intended, are fair to the Utilities and their ratepayers and are in the public interest. On February 7, 2014 and March 31, 2015, the PUC issued orders to make certain modifications to the decoupling mechanism. See "Decoupling" in Note 4 of the Consolidated Financial Statements for a discussion of changes to the RAM mechanism.

As part of decoupling, the Utilities also track their rate-making ROACEs as calculated under the earnings sharing mechanism, which includes only items considered in establishing rates. At year-end, each utility's rate-making ROACE is compared against its ROACE allowed by the PUC to determine whether earnings sharing has been triggered. Annual earnings of a utility over and above the ROACE allowed by the PUC are shared between the utility and its ratepayers on a tiered basis. The earnings sharing mechanism was not triggered for any of the utilities in 2016 or 2015. For 2014, the earnings sharing mechanism was triggered for Maui Electric, and Maui Electric credited \$0.5 million to its customers for their portion of the earnings sharing during the period between June 2015 to May 2016. Earnings sharing credits are included in the annual decoupling filing for the following year.

Annual decoupling filings. See "Decoupling" in Note 4 of the Consolidated Financial Statements for a discussion of the 2016 annual decoupling filings.

Regulated Returns. Actual and PUC-allowed (as of December 31, 2016) returns were as follows:

%	Return on rate base (RORB)*			ROACE**			Rate-making ROACE***		
	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Hawaiian Electric	Hawaii Electric Light	Maui Electric
Year ended December 31, 2016									
Utility returns	7.48	6.73	6.99	8.26	7.28	8.08	9.46	7.61	8.34
PUC-allowed returns	8.11	8.31	7.34	10.00	10.00	9.00	10.00	10.00	9.00
Difference	(0.63)	(1.58)	(0.35)	(1.74)	(2.72)	(0.92)	(0.54)	(2.39)	(0.66)

* Based on recorded operating income and average rate base, both adjusted for items not included in determining electric rates.

** Recorded net income divided by average common equity.

*** ROACE adjusted to remove items not included by the PUC in establishing rates, such as incentive compensation and certain advertising.

The 2016 gap between PUC-allowed ROACEs and the ROACEs actually achieved is primarily due to: the consistent exclusion of certain expenses from rates, the low RBA interest rate (currently a short-term debt rate rather than the actual cost of capital), O&M increases and return on capital additions since the last rate case in excess of indexed escalations, and the portion of the pension regulatory asset not earning a return due to pension contributions and pension costs in excess of the pension amount in rates.

Results of operations.

- 2016 vs. 2015

2016	2015	Increase (decrease)	(dollars in millions, except per barrel amounts)
\$ 2,094	\$ 2,335	\$ (241)	Revenues. Net decrease largely due to:
		\$ (198)	lower fuel prices ¹
		(33)	lower purchased power expense ²
		(25)	lower KWH generated
		15	higher RAM revenues
455	655	(200)	Fuel oil expense. Decrease due to lower fuel cost and lower KWH generated
563	594	(31)	Purchased power expense. Decrease due to lower purchased power energy prices, largely due to lower fuel prices ²
406	413	(7)	Operation and maintenance expense. Net decrease due to:
		(5)	write off of ERP software costs in 2015, as a result of a PUC ERP/EAM decision
		(4)	additional reserve for environmental costs in 2015 ³
		(1)	lower storm weather repairs
		3	higher PSIP consulting costs incurred in 2016, in order to complete the PSIP update in April 2016 and December 2016
		1	higher LNG consulting costs to negotiate LNG contract, which was subsequently terminated following HEI/Nextera merger termination
387	399	(12)	Other expenses. Decrease in revenue taxes due to lower revenue, partly offset by higher depreciation expense for plant investments
284	274	10	Operating income. Increase due to an overall decrease in expenses
142	136	6	Net income for common stock. Increase due to higher operating income
8.1%	8.0%	0.1%	Return on average common equity
53.49	74.71	(21.22)	Average fuel oil cost per barrel ¹
8,845	8,957	(112)	Kilowatthour sales (millions) ⁴
4,788	5,082	(294)	Cooling degree days (Oahu)
2,662	2,727	(65)	Number of employees (at December 31)

¹ The rate schedules of the electric utilities currently contain energy cost adjustment clauses (ECACs) through which changes in fuel oil prices and certain components of purchased energy costs are passed on to customers.

² The rate schedule of the electric utilities currently contain purchase power adjustment clauses (PPAC) through which changes in purchase power expenses (except purchased energy costs) are passed on to customers.

³ Costs to complete Waiiau Power Plant's onshore and offshore investigations and the remediation of PCB contamination in the offshore sediment in 2015.

⁴ KWH sales were lower in 2016 when compared to the prior year due largely to continued energy efficiency and conservation efforts by customers and increasing levels of private customer-sited renewable generation.

• 2015 vs. 2014

2015	2014	Increase (decrease)	(dollars in millions, except per barrel amounts)
\$ 2,335	\$ 2,987	\$ (652)	Revenues. Decrease largely due to:
		\$ (520)	lower fuel prices ¹
		(134)	lower purchased power energy costs ²
		2	higher KWH purchased
655	1,132	(477)	Fuel oil expense. Decrease largely due to lower fuel costs and lower KWH generated
594	722	(128)	Purchased power expense. Decrease due to lower purchased power energy prices, largely due to lower fuel prices, offset by higher KWH purchased
413	411	2	Operation and maintenance expense. Net increase due to:
		5	ERP software costs write off resulting from PUC ERP/EAM decision in 2015
		4	additional reserves for environmental costs ³
		3	higher employee benefit costs due to affordable care act costs and higher health insurance premiums
		(9)	higher 2014 smart grid initial phase costs
399	447	(48)	Other expenses. Decrease in revenue taxes due to lower revenue, offset by higher depreciation expense for plant investments
274	276	(2)	Operating income. Decrease due to lower revenues
136	138	(2)	Net income for common stock. Decrease due to lower operating income
8.0%	8.4%	(0.4)%	Return on average common equity
74.71	129.65	(54.94)	Average fuel oil cost per barrel ¹
8,957	8,976	(19)	Kilowatthour sales (millions) ⁴
5,082	4,909	173	Cooling degree days (Oahu)
2,727	2,759	(32)	Number of employees (at December 31)

¹ The rate schedules of the electric utilities currently contain energy cost adjustment clauses (ECACs) through which changes in fuel oil prices and certain components of purchased energy costs are passed on to customers.

² The rate schedule of the electric utilities currently contain purchase power adjustment clauses (PPAC) through which changes in purchase power expenses (except purchased energy costs) are passed on to customers.

³ Costs to complete Waiiau Power Plant's onshore and offshore investigations and the remediation of PCB contamination in the offshore sediment in 2015.

⁴ KWH sales were lower in 2015 when compared to the prior year due largely to continued energy efficiency and conservation efforts by customers and increasing levels of private customer-sited renewable generation.

Most recent rate proceedings. Unless otherwise agreed or ordered, each electric utility is currently required by PUC order to initiate a rate proceeding every third year (on a staggered basis) to allow the PUC and the Consumer Advocate to regularly evaluate decoupling and to allow the utility to request electric rate increases to cover rising operating costs and the cost of plant and equipment, including the cost of new capital projects to maintain and improve service reliability. The PUC may grant an interim increase within 10 to 11 months following the filing of an application, but there is no guarantee of such an interim increase and interim amounts collected are refundable, with interest, to the extent they exceed the amount approved in the PUC's final D&O. The timing and amount of any final increase is determined at the discretion of the PUC. The adoption of revenue, expense, rate base and cost of capital amounts (including the ROACE and RORB) for purposes of an interim rate increase does not commit the PUC to accept any such amounts in its final D&O.

Test year (dollars in millions)	Date (filed/ implemented)	Amount	% over rates in effect	ROACE (%)	RORB (%)	Rate base	Common equity %	Stipulated agreement reached with Consumer Advocate
Hawaiian Electric								
2011 (1)								
Request	7/30/10	\$ 113.5	6.6	10.75	8.54	\$ 1,569	56.29	Yes
Interim increase	7/26/11	53.2	3.1	10.00	8.11	1,354	56.29	
Interim increase (adjusted)	4/2/12	58.2	3.4	10.00	8.11	1,385	56.29	
Interim increase (adjusted)	5/21/12	58.8	3.4	10.00	8.11	1,386	56.29	
Final increase	9/1/12	58.1	3.4	10.00	8.11	1,386	56.29	
2014 (2)								
Request	6/27/14							
2017 (3)								
Request	12/16/16	\$ 106.4	6.9	10.60	8.28	2,002	57.36	
Hawaii Electric Light								
2010 (4)								
Request	12/9/09	\$ 20.9	6.0	10.75	8.73	\$ 487	55.91	Yes
Interim increase	1/14/11	6.0	1.7	10.50	8.59	465	55.91	
Interim increase (adjusted)	1/1/12	5.2	1.5	10.50	8.59	465	55.91	
Final increase	4/9/12	4.5	1.3	10.00	8.31	465	55.91	
2013 (5)								
Request	8/16/12	\$ 19.8	4.2	10.25	8.30	\$ 455	57.05	
Closed	3/27/13							
2016 (6)								
Request	9/19/16	\$ 19.3	6.5	10.60	8.44	\$ 479	57.12	
Maui Electric								
2012 (7)								
Request	7/22/11	\$ 27.5	6.7	11.00	8.72	\$ 393	56.85	Yes
Interim increase	6/1/12	13.1	3.2	10.00	7.91	393	56.86	
Final increase	8/1/13	5.3	1.3	9.00	7.34	393	56.86	
2015 (8)								
Request	12/30/14							

Note: The “Request Date” reflects the application filing date for the rate proceeding. All other line items reflect the effective dates of the revised schedules and tariffs as a result of PUC-approved increases.

- (1) Hawaiian Electric filed a request with the PUC for a general rate increase of \$113.5 million, based on depreciation rates and methodology as proposed by Hawaiian Electric in a separate depreciation proceeding. Hawaiian Electric’s request was primarily to pay for major capital projects and higher O&M costs to maintain and improve service reliability and to recover the costs for several proposed programs to help reduce Hawaii’s dependence on imported oil, and to further increase reliability and fuel security.
The \$53.2 million, \$58.2 million and \$58.8 million interim increases, and the \$58.1 million final increase, include the \$15 million in annual revenues that were being recovered through the decoupling RAM prior to the first interim increase.
- (2) See “Hawaiian Electric 2014 test year rate case” below.
- (3) See “Hawaiian Electric 2017 test year rate case” below.
- (4) Hawaii Electric Light’s request was primarily to cover investments for system upgrade projects, two major transmission line upgrades and increasing O&M expenses. On February 8, 2012, the PUC issued a final D&O, which reflected the approval of decoupling and cost-recovery mechanisms, and on February 21, 2012, Hawaii Electric Light filed its revised tariffs to reflect the increase in rates. On April 4, 2012, the PUC issued an order approving the revised tariffs, which became effective April 9, 2012. Hawaii Electric Light implemented the decoupling mechanism and began tracking the target revenues and actual recorded revenues via a revenue balancing account. Hawaii Electric Light also reset the heat rates and implemented heat rate deadbands and the PPAC, which provides a surcharge mechanism that more closely aligns cost recovery with costs incurred. The revised tariffs reflect a lower increase in annual revenue requirement compared to the interim increase due to factors that became effective concurrently with the revised tariffs (lower depreciation rates and lower ROACE) and therefore, no refund to customers was required.

- (5) Hawaii Electric Light's request was to pay for O&M expenses and additional investments in plant and equipment required to maintain and improve system reliability and to cover the increased costs to support the integration of more renewable energy generation. As a result of a 2013 agreement with the Consumer Advocate, which was approved by the PUC in March 2013, the rate case was withdrawn and the docket was closed.
- (6) See "Hawaii Electric Light 2016 test year rate case" below.
- (7) Maui Electric's request was to pay for O&M expenses and additional investments in plant and equipment required to maintain and improve system reliability and to cover the increased costs to support the integration of more renewable energy generation. See discussion on final D&O, including the refund to customers in September and October 2013 required as a result of the final D&O, in Note 4 of the Consolidated Financial Statements.
- (8) See "Maui Electric 2015 test year rate case" below.

Hawaiian Electric 2014 test year rate case. On October 30, 2013 Hawaiian Electric filed with the PUC a Notice of Intent to file an application for a general rate case (on or after January 2, 2014, but before June 30, 2014, using a 2014 test year) and a motion, which was subsequently recommended by the Consumer Advocate, for approval of test period waiver. Hawaiian Electric's filing of a 2014 rate case would be in accordance with a PUC order which calls for a mandatory triennial rate case cycle. On March 7, 2014, the PUC issued an order granting Hawaiian Electric's motion to waive the requirement to utilize a split test year, and authorized a 2014 test year.

On June 27, 2014, Hawaiian Electric submitted an abbreviated rate case filing (abbreviated filing), stating that it intends to forgo the opportunity to seek a general rate increase in base rates, and if approved, this filing would result in no change in base rates. Hawaiian Electric stated that it is foregoing a rate increase request in recognition that its customers are already in a challenging high electricity bill environment, and further explained its view that the abbreviated filing satisfies the obligation to file a general rate case under the three-year cycle established by the PUC in the decoupling final D&O.

On December 27, 2016, the PUC issued an order consolidating the filings for this rate case with the Hawaiian Electric 2017 test year rate case and closed the docket.

Maui Electric 2015 test year rate case. On December 30, 2014, Maui Electric filed its abbreviated 2015 test year rate case filing. In recognition that its customers have been enduring a high bill environment, Maui Electric proposed no change to its base rates, thereby foregoing the opportunity to seek a general rate increase. If Maui Electric were to seek an increase in base rates, its requested increase in revenue, based on its revenue requirement for a normalized 2015 test year, would have been \$11.6 million, or 2.8%, over revenues at current effective rates with estimated 2015 RAM revenues. The normalized 2015 test year revenue requirement is based on an estimated cost of common equity of 10.75%. Management cannot predict any actions by the PUC as a result of this filing.

Management cannot predict whether the PUC will accept this abbreviated filing to satisfy Maui Electric's obligation to file a rate case in 2015, whether additional material will be required or whether Maui Electric will be required to proceed with a traditional rate proceeding.

Hawaii Electric Light 2016 test year rate case. On September 19, 2016, Hawaii Electric Light filed an application with the PUC for a general rate increase of \$19.3 million over revenues at current effective rates (for a 6.5% increase in revenues), based on an 8.44% rate of return (which incorporates a return on equity of 10.60%). The last rate increase in base rates for Hawaii Electric Light was in January 2011. The \$19.3 million requested is to cover higher operating costs (including expanded vegetation management focusing on albizia tree removal and increased pension costs) and system upgrades to increase reliability, improve customer service and integrate more renewable energy. As part of this case, Hawaii Electric Light is also taking steps towards innovative ratemaking by proposing implementation of performance based regulation (PBR) mechanisms to measure and link certain revenues to its performance in areas of customer service, reliability and communication relating to the private rooftop solar interconnection process. Hawaii Electric Light pointed out that it has increased its use of renewables from 34.6% Renewable Portfolio Standards (RPS) in 2010 to 48.7% RPS in 2015, using wind, hydroelectricity, solar and geothermal resources to generate electricity. Hawaii Electric Light also proposed revenue adjustments to recover costs associated with the acquisition and operation of the power plant currently owned by Hamakua Energy Partners, L.P. Hawaii Electric Light requested approval of the acquisition of this power plant in a separate application filed on February 12, 2016.

The PUC held public hearings for this rate case in December 2016. Four parties filed motions to intervene or participate. Decisions from the PUC on these motions are pending.

Hawaiian Electric 2017 test year rate case. On December 16, 2016, Hawaiian Electric filed an application with the PUC for a general rate increase of \$106.4 million over revenues at current effective rates (for a 6.9% increase in revenues), for a 2017 test year. The request is based on an 8.28% rate of return (which incorporates a return on equity of 10.6% and a capital structure that includes a 57.4% common equity capitalization) on a \$2.0 billion rate base. The \$106.4 million request is primarily to pay for operating costs and for system upgrades to increase reliability, improve customer service and integrate

more renewable energy. The application is also proposing a step adjustment to increase base rates by \$20.6 million when the Schofield Generation Station is placed in service, which is expected in the first quarter of 2018. Similar to the application in Hawaii Electric Light's rate increase application filed in September 2016, as part of the proceeding, Hawaiian Electric is taking steps toward innovative ratemaking by proposing implementation of performance based regulation (PBR) mechanisms related to its performance in areas of customer service, reliability and communication relating to the private rooftop solar interconnection process.

On December 27, 2016, the PUC issued an order consolidating the Hawaiian Electric filings for the 2014 test year abbreviated rate case and the 2017 test year rate case. The order also found and concluded that Hawaiian Electric's abbreviated 2014 rate case filing did not comply with: (1) the Mandatory Triennial Rate Case Cycle requirement that Hawaiian Electric file an application for a general rate case every three years, and (2) the requirement that Hawaiian Electric file its 2014 calendar test year rate case application by June 27, 2014. The order then stated that: "[T]he determination and disposition of any rates, accounts, adjustment mechanisms, and practices that would have been subject to review in the context of a 2014 test year rate case proceeding are subject to appropriate adjustment based on evidence and findings in the consolidated rate case proceeding." On January 4, 2017, Hawaiian Electric filed a motion for clarification and/or partial reconsideration, stating that the finding of violations without a hearing raises issues regarding the due process right to a hearing, and that it contests the findings of violation, stating that the abbreviated rate case filing was comprehensive and satisfied the applicable requirements of the PUC's rules. Hawaiian Electric requested clarification that it will be afforded the opportunity to a full and fair hearing on the violations and potential remedies alleged in the order. Hawaiian Electric also requested clarification that the PUC does not intend to make any retroactive or single issue rate adjustments to Hawaiian Electric's rates prior to 2017, but instead intended to reserve the right to use the information filed in the 2014 test year rate case to inform its decision about the reasonableness of Hawaiian Electric's 2017 test year rate increase prospectively.

Integrated resource planning and April 2014 regulatory orders. In April 2014, the PUC issued four orders that collectively provide certain key policy, resource planning, and operational directives to the Utilities. See "April 2014 regulatory orders" in Note 4 to the Consolidated Financial Statements.

Developments in renewable energy efforts. Developments in the Utilities' efforts to further their renewable energy strategy include the following:

- In August 2012, the PUC approved a waiver from the competitive bidding framework to allow Hawaiian Electric to negotiate with the U.S. Army for construction of a 50-MW utility-owned and operated firm, renewable and dispatchable generation facility at Schofield Barracks on the island of Oahu. In September 2015, the PUC approved Hawaiian Electric's application with conditions and limitations. See "Schofield Generating Station Project" in Note 4 of the Consolidated Financial Statements. Once online, biodiesel currently delivered to Hawaiian Electric's Campbell Industrial Park Combustion Turbine 1 (CIP CT-1) will be diverted to the Schofield Generating Station at no additional cost.
- In December 2013, Hawaiian Electric requested PUC approval for a waiver of the Na Pua Makani Power Partners, LLC's (NPM) proposed 24-MW wind farm located in the Kahuku area on Oahu from the competitive bidding process and the PPA for Renewable As-Available Energy dated October 3, 2013 between Hawaiian Electric and NPM for the proposed 24-MW wind farm. In December 2014, the PUC approved both the waiver request and the PPA. On September 15, 2016, Hawaiian Electric filed the Amended and Restated PPA, dated August 12, 2016, which reflects the completion of the interconnection requirements study, including, among other things, amendments related to the final design of the facility, scope of work, cost, schedule and reporting milestones. The PUC conducted a public hearing on February 2, 2017, regarding the request for PUC approval to construct an overhead 46 sub-transmission line to accommodate the interconnection of the NPM wind farm. This project is expected to be placed into service by August 31, 2019.
- In July 2015, the PUC approved the PPA for the 27.6 MW Waianae Solar project that is being developed by Eurus Energy America. The project achieved commercial operations in January 2017 and is now the largest solar project in Hawaii.
- In July 2015, Maui Electric signed two PPAs, with Kuia Solar and South Maui Renewable Resources (which subsequently assigned its PPA to SSA Solar of HI 3, LLC), each for a 2.87-MW solar facility. In February 2016, the PUC approved both PPAs, subject to certain conditions and modifications. The guaranteed commercial operations date for the facilities was December 31, 2016, however both projects are experiencing delays and are expected to be completed by mid-2017.
- In September 2015, the PUC approved Hawaiian Electric's 2-year biodiesel supply contract with Pacific Biodiesel Technologies, LLC to supply 2 million to 3 million gallons of biodiesel at CIP CT-1 and the Honolulu International

Airport Emergency Power Facility beginning in November 2015. The Pacific Biodiesel contract was set to expire on November 2, 2017 with possible 1 year extensions. Currently, the contract has been extended to November 2, 2018. Renewable Energy Group has a contingency supply contract with Hawaiian Electric to also supply biodiesel to CIP CT-1 in the event Pacific Biodiesel Technologies, LLC is not able to supply necessary quantities. This contingency contract was set to expire November 2016, but has been extended to November 2017, and will continue with no volume purchase requirements.

- In October 2015, the Utilities filed with the PUC a proposal for a Community-Based Renewable Energy program and tariff that would allow customers who cannot, or chose not to, take advantage of private rooftop solar to receive the benefits of renewable energy to help offset their monthly electric bills and support clean energy for Hawaii. In November 2015, the PUC suspended the filing and opened a docket to investigate the matter. In February 2017, the PUC issued a proposed CBRE Program Framework, a Proposed Model Tariff Language, and requested comments and feedback from the parties by March 1, 2017. Under the proposed CBRE Program Framework, the CBRE program will utilize a phased approach. The Program Framework proposes a Phase 1 with an 80 MW capacity statewide with 73 MW allocated to the Utilities' service territories. During the two year initial phase, the Utilities' primary role is to serve as the program administrator. In addition, the Framework requires a minimum allocation of 7.5 MW to develop CBRE targeting low-to-moderate income subscribers with 6.75 MW allocated to the Utilities' service territories.
- On May 5, 2016, Maui Electric filed a request for the PUC to open a docket and assign an Independent Observer to oversee the Maui Electric Dispatchable Firm Generation Request for Proposals. The solicitation intends to seek approximately 20 MW of new renewable generation capacity and approximately 20 MW of fuel flexible firm generation resources on the island of Maui by 2022, as proposed in the PSIP Update Report.
- On June 6, 2016, Hawaiian Electric filed a request for the PUC to open a docket and assign an Independent Observer to oversee the Hawaiian Electric Renewable Energy Request for Proposals. The solicitation intends to seek new renewable energy generation on the island of Oahu to be placed into service by the end of 2020, consistent with the Five-Year Action Plan proposed in the PSIP Update Report.
- In July 2016, Hawaiian Electric announced plans to build, own and operate a 20-MW solar facility in conjunction with the Department of the Navy at a Navy/Air Force joint base, subject to PUC approval. On October 3, 2016, Hawaiian Electric filed with the PUC a request to waive the \$67 million project from the Competitive Bidding Framework and to approve expenditures for the project. If approved by the PUC, the solar facility would generate renewable energy that will feed into Oahu's electrical grid at a very reasonable cost of 9.54 cents per KWH.
- The Utilities began accepting energy from feed-in tariff projects in 2011. As of December 31, 2016, there were 24 MW, 3 MW and 4 MW of installed feed-in tariff capacity from renewable energy technologies at Hawaiian Electric, Hawaii Electric Light and Maui Electric, respectively.
- As of December 31, 2016, there were approximately 305 MW, 71 MW and 81 MW of installed distributed renewable energy technologies (mainly PV) at Hawaiian Electric, Hawaii Electric Light and Maui Electric, respectively, for tariff-based private customer generation programs, namely NEM, Customer Grid Supply (CGS) and Customer Self Supply (CSS). As of December 31, 2016, an estimated 26% of single family homes on the islands the Utilities serve have installed private rooftop solar systems, and an estimated 29% of single family homes have installed private rooftop solar systems or have been approved to install systems. As of December 31, 2016, approximately 15% of the Utilities' total customers have solar systems.
- On January 5, 2017, Hawaiian Electric issued an Onshore Wind Expression of Interest requesting expressions of interest from independent power producers that are capable of developing utility scale onshore wind projects that are eligible to capture the federal Investment Tax Credit for Large Wind on the island of Oahu. Responses have been accepted and are being evaluated.
- On December 12, 2016, the Utilities issued a Request for Information asking interested landowners to provide information about properties on Oahu, Hawaii Island, Maui, Molokai, and Lanai, available for utility-scale renewable energy projects or for growing biofuel feedstock. Responses have been accepted and are being evaluated.
- Hawaiian Electric had PPAs to purchase solar energy with three affiliates of SunEdison—Waipio PV, LLC (formerly known as Waiawa PV, LLC), Lanikuhana Solar, LLC and Kawaihoa Solar, LLC. In February 2016, as a result of the project entities missing contract milestones, Hawaiian Electric terminated the original PPAs for the three projects. SunEdison filed Chapter 11 bankruptcy proceedings and during those proceedings the three SunEdison affiliates were acquired by an affiliate of NRG Energy, Inc. (NRG). Hawaiian Electric then negotiated with NRG and its newly acquired affiliates and has entered into amended and restated PPAs with two of the former SunEdison affiliates,

Waipio PV, LLC for 45.9 MW of solar energy on Oahu and Lanikuhana Solar, LLC for 14.7 MW of solar energy on Oahu. On January 31, 2017, Hawaiian Electric filed with the PUC requests for approvals of these amended and restated PPAs. Hawaiian Electric is continuing to negotiate an amended PPA with the third NRG affiliate, Kawaiiloa Solar, LLC, for a 49-MW solar facility, also on Oahu.

Other regulatory matters. In addition to the items below, also see Note 4 of the Consolidated Financial Statements.

Adequacy of supply.

Hawaiian Electric. In January 2017, Hawaiian Electric filed its 2017 Adequacy of Supply (AOS) letter, which indicated that based on its October 2016 sales and peak forecast for the 2017 - 2021 time period, Hawaiian Electric's generation capacity will be sufficient to meet reasonably expected demands for service and provide reasonable reserves for emergencies through 2018, but may have shortfalls in meeting the Utilities' generating system reliability guideline. The calculated reliability guideline shortfalls are relatively small and Hawaiian Electric can implement mitigation measures.

In accordance to its planning criteria, Hawaiian Electric deactivated two fossil fuel generating units from active service at its Honolulu Power Plant in January 2014 and anticipates deactivating two additional fossil fuel units at its Waiuu Power Plant in the 2022 timeframe. Hawaiian Electric is proceeding with future firm capacity additions in coordination with the State of Hawaii Department of Transportation in 2016, and with the U.S. Department of the Army for a utility owned and operated renewable, dispatchable, including black start capabilities, generation security project on federal lands, which is expected to be in service in the first quarter of 2018. Hawaiian Electric is continuing negotiations with firm capacity IPPs on Oahu. On August 1, 2016, Hawaiian Electric and Kalaeloa entered into an agreement that neither party will give written notice of termination of the PPA prior to October 31, 2017. This agreement complements continued negotiations between the parties and accounts for time needed for PUC approval of a negotiated resolution. The PPA with AES Hawaii, Inc. is scheduled to expire in 2022.

Hawaii Electric Light. In January 2017, Hawaii Electric Light filed its 2017 AOS letter, which indicated that Hawaii Electric Light's generation capacity through 2019 is sufficient to meet reasonably expected demands for service and provide for reasonable reserves for emergencies.

Additional generation from other renewable resources could be added in the 2020-2025 timeframe.

Maui Electric. In January 2017, Maui Electric filed its 2017 AOS letter, which indicated that Maui Electric's generation capacity for the islands of Lanai and Molokai for the next three years is sufficiently large to meet all reasonably expected demands for service and provide reasonable reserves for emergencies. The 2017 AOS letter also indicated that without the peak reduction benefits of demand response but with the equivalent firm capacity value of wind generation, Maui Electric expects to have a small reserve capacity shortfall from 2017 to 2022 on the island of Maui. Maui Electric is evaluating several measures to mitigate the anticipated reserve capacity shortfall. Maui Electric anticipates needing a significant amount of additional firm capacity on Maui in the 2022 timeframe after the planned retirement of Kahului Power Plant.

In February 2014, Maui Electric deactivated two fossil fuel generating units, with a combined rating of 11.4 MW-net, at its Kahului Power Plant. Due to various system conditions including lack of wind generation, approaching storms and scheduled and unscheduled outages of generating units, transmission lines and independent power producers, the two deactivated units at Kahului Power Plant were reactivated for several days in 2015 and 2016. Due to the recent frequency of reactivations of Kahului Units 1 and 2 to meet system requirements, these units were removed from deactivated status and designated as reactivated in September 2016. Considering the time needed to acquire replacement firm generating capacity, Maui Electric now anticipates the retirement of all generating units at the Kahului Power Plant, which have a combined rating of 32.3 MW, in the 2022 timeframe. A capacity planning analysis is in progress to better define needs and timing. Maui Electric plans to issue one or more RFPs for energy storage, demand response and firm generating capacity, and to make system improvements needed to ensure reliability and voltage support in this timeframe. In May 2016, Maui Electric requested that the PUC open a new docket for Maui Electric's competitive bidding process for additional firm capacity resources. In September 2016, Maui Electric submitted an application to purchase and install three temporary mobile distributed generation diesel engines to address increasing reserve capacity shortfalls on the island of Maui. In February 2017, Maui Electric requested the PUC suspend the proceeding until the progress in the demand response programs and the DR portfolio proceeding can be further evaluated.

Legislation and regulation. Congress and the Hawaii legislature periodically consider legislation that could have positive or negative effects on the Utilities and their customers. Also see "Environmental regulation" in Note 4 and "Recent tax developments" in Note 12 of the Consolidated Financial Statements.

Renewable energy. In 2011, a Hawaii law was enacted that gives the PUC the authority to allow those electric utilities (including the Utilities) that aggregate their renewable portfolios in measuring whether they achieve the renewable portfolio

standards under the Hawaii RPS law discussed above under "Renewable energy strategy" to distribute the costs and expenses of renewable energy projects among those utilities. The bill also allows the PUC to establish a surcharge for such costs and expenses without a rate case filing. Also passed in 2011, Act 10 provides for continued inclusion of customer-sited, grid-connected renewable energy generation in the RPS calculations after 2015. This is the current practice in calculating RPS levels, which provides electric utility ratepayers with a clear value from a program such as net energy metering.

Liquidity and capital resources. Management believes that Hawaiian Electric's ability, and that of its subsidiaries, to generate cash, both internally from operations and externally from issuances of equity and debt securities and commercial paper and draws on lines of credit, is adequate to maintain sufficient liquidity to fund their respective capital expenditures and investments and to cover debt, retirement benefits and other cash requirements in the foreseeable future.

Hawaiian Electric's consolidated capital structure was as follows:

December 31	2016		2015	
(dollars in millions)				
Long-term debt, net	\$ 1,319	42%	\$ 1,279	42%
Preferred stock	34	1	34	1
Common stock equity	1,800	57	1,728	57
	\$ 3,153	100%	\$ 3,041	100%

Information about Hawaiian Electric's short-term borrowings (other than from Hawaii Electric Light and Maui Electric) and Hawaiian Electric's line of credit facility were as follows:

(in millions)	Year ended December 31, 2016		
	Average balance	End-of-period balance	December 31, 2015
Short-term borrowings ¹			
Commercial paper	\$ 13	\$ —	\$ —
Line of credit draws	—	—	—
Borrowings from HEI	4	—	—
Undrawn capacity under line of credit facility	200	200	200

¹ The maximum amount of external short-term borrowings in 2016 was \$61 million. At December 31, 2016, Hawaiian Electric had short-term borrowings from Hawaii Electric Light and Maui Electric of \$3.5 million and \$10 million, respectively, which intercompany borrowings are eliminated in consolidation. At February 13, 2017, Hawaiian Electric had no outstanding commercial paper, its line of credit facility was undrawn, it had no borrowings from HEI and it had short-term borrowings from Hawaii Electric Light and Maui Electric of \$3.5 million and \$3 million, respectively.

Hawaiian Electric utilizes short-term debt, typically commercial paper, to support normal operations, to refinance short-term debt and for other temporary requirements. Hawaiian Electric also borrows short-term from HEI for itself and on behalf of Hawaii Electric Light and Maui Electric, and Hawaiian Electric may borrow from or loan to Hawaii Electric Light and Maui Electric short-term. The intercompany borrowings among the Utilities, but not the borrowings from HEI, are eliminated in the consolidation of Hawaiian Electric's financial statements. The Utilities periodically utilize long-term debt, borrowings of the proceeds of special purpose revenue bonds (SPRBs) issued by the Department of Budget and Finance of the State of Hawaii (DBF) and the issuance of privately placed unsecured senior notes bearing taxable interest, to finance the Utilities' capital improvement projects, or to repay short-term borrowings used to finance such projects. The PUC must approve issuances, if any, of equity and long-term debt securities by the Utilities.

Hawaiian Electric has a line of credit facility, as amended and restated on April 2, 2014, of \$200 million. In January 2015, the PUC approved Hawaiian Electric's request to extend the term of the credit facility to April 2, 2019. See Note 7 of the Consolidated Financial Statements.

The ratings of Hawaiian Electric's commercial paper and debt securities could significantly impact the ability of Hawaiian Electric to sell its commercial paper and issue debt securities and/or the cost of such debt. The rating agencies use a combination of qualitative measures (e.g., assessment of business risk that incorporates an analysis of the qualitative factors such as management, competitive positioning, operations, markets and regulation) as well as quantitative measures (e.g., cash flow, debt, interest coverage and liquidity ratios) in determining the ratings of Hawaiian Electric securities.

In August 2016, Moody's downgraded Hawaiian Electric's senior unsecured debt rating from Baa1 to Baa2, downgraded other ratings and revised Hawaiian Electric's outlook to stable. In December 2016, S&P affirmed Hawaiian Electric's BBB-

corporate credit rating and stable outlook. In January 2017, Fitch affirmed Hawaiian Electric’s long-term issuer default rating at BBB+ with a stable outlook.

As of February 13, 2017, the Fitch, Moody’s and S&P ratings of Hawaiian Electric were as follows:

	Fitch	Moody’s	S&P
Long-term issuer default, long-term issuer and corporate credit, respectively	BBB+	Baa2	BBB-
Commercial paper	F2	P-2	A-3
Senior unsecured debt/special purpose revenue bonds	A-	Baa2	BBB-
Hawaiian Electric-obligated preferred securities of trust subsidiary	*	Baa3	BB
Cumulative preferred stock (selected series)	*	Ba1	*
Subordinated debt	BBB	*	*
Outlook	Stable	Stable	Stable

* Not rated.

The above ratings reflect only the view, at the time the ratings are issued or affirmed, of the applicable rating agency, from whom an explanation of the significance of such ratings may be obtained. Such ratings are not recommendations to buy, sell or hold any securities; such ratings may be subject to revision or withdrawal at any time by the rating agencies; and each rating should be evaluated independently of any other rating.

Management believes that, if Hawaiian Electric’s commercial paper ratings were to be downgraded or if credit markets were to further tighten, it could be more difficult and/or expensive to sell commercial paper or secure other short-term borrowings. Similarly, management believes that if Hawaiian Electric’s long-term credit ratings were to be downgraded or further downgraded, or if credit markets further tighten, it could be more difficult and/or expensive for DBF and/or the Utilities to sell SPRBs and other debt securities, respectively, for the benefit of the Utilities in the future. Such limitations and/or increased costs could materially adversely affect the results of operations, financial condition and liquidity of the Utilities.

SPRBs have been issued by the DBF to finance (and refinance) capital improvement projects of Hawaiian Electric and its subsidiaries, but the sources of their repayment are the non-collateralized obligations of Hawaiian Electric and its subsidiaries under loan agreements and notes issued to the DBF, including Hawaiian Electric’s guarantees of its subsidiaries’ obligations. The payment of principal and interest due on the Series 2007A and Refunding Series 2007B SPRBs are insured by Financial Guaranty Insurance Company (FGIC), which was placed in a rehabilitation proceeding in the State of New York in June 2012. On August 19, 2013 FGIC’s plan of rehabilitation became effective and the rehabilitation proceeding terminated. The S&P and Moody’s ratings of FGIC, which at the time the insured obligations were issued were higher than the ratings of the Utilities, have been withdrawn. Management believes that if Hawaiian Electric’s long-term credit ratings were to be downgraded, or if credit markets further tighten, it could be more difficult and/or expensive to sell bonds in the future.

In May 2015, up to \$80 million of SPRBs (\$70 million for Hawaiian Electric, \$2.5 million for Hawaii Electric Light and \$7.5 million for Maui Electric) were authorized by the Hawaii legislature for issuance, with PUC approval, prior to June 30, 2020 to finance the Utilities’ capital improvement programs.

In June 2015, Hawaiian Electric, Hawaii Electric Light and Maui Electric filed an application with the PUC for approval to issue and sell each utility’s common stock in one or more sales in 2016 (Hawaiian Electric’s sale to HEI of up to \$330 million and Hawaii Electric Light’s and Maui Electric’s sales to Hawaiian Electric of up to \$15 million and \$45 million, respectively), and the purchase of the Hawaii Electric Light and Maui Electric common stock by Hawaiian Electric in 2016. In June 2016, the PUC issued a D&O approving the issue and sale of each utility’s common stock in 2016 up to the amounts requested in the application. In December 2016, Hawaiian Electric sold \$24 million of its common stock to HEI, pursuant to this approval. Hawaii Electric Light and Maui Electric did not issue common stock in 2016.

In August 2016, Hawaiian Electric and Maui Electric obtained PUC approval to issue in 2016, unsecured obligations bearing taxable interest (Hawaiian Electric up to \$70 million and Maui Electric up to \$20 million). On December 15, 2016, Hawaiian Electric issued through a private placement, \$40 million of unsecured senior notes bearing taxable interest. See Note 8 of the Consolidated Financial Statements.

On November 2, 2016, Hawaiian Electric, Hawaii Electric Light and Maui Electric filed an application with the PUC for approval to issue unsecured obligations bearing taxable interest and/or refunding SPRBs prior to December 31, 2020 to refinance three series of outstanding revenue bonds up to \$252 million, \$88 million and \$75 million, respectively.

On January 26, 2017, Hawaiian Electric, Hawaii Electric Light and Maui Electric obtained PUC approval to issue, on or before December 31, 2017, unsecured obligations bearing taxable interest (Hawaiian Electric up to \$100 million, Hawaii

Electric Light up to \$10 million and Maui Electric up to \$30 million), with the proceeds expected to be used, as applicable, to finance capital expenditures, repay long-term and/or short term debt used to finance or refinance capital expenditures and/or to reimburse funds used for payment of capital expenditures.

Cash flows.

(in thousands)	Years ended December 31				
	2016	Change	2015	Change	2014
Net cash provided by operating activities	\$ 369,917	\$ 36,511	\$ 333,406	\$ 26,411	\$ 306,995
Net cash used in investing activities	(288,199)	20,583	(308,782)	(15,073)	(293,709)
Net cash used in financing activities	(31,881)	(17,944)	(13,937)	48,412	(62,349)

2016 Cash Flows Compared to 2015:

Net cash provided by operating activities: Cash flows from operating activities generally relate to the amount and timing of cash received from customers and payments made to third parties. Using the indirect method of determining cash flows from operating activities, noncash expense items such as depreciation and amortization, as well as changes in certain assets and liabilities, are added to (or deducted from) net income.

The increase in net cash provided by operating activities in 2016 over 2015 was impacted by the following:

- Higher cash from a refund of federal income taxes in 2016 due to the extension of bonus depreciation enacted in the fourth quarter of 2015 and lower revenue taxes paid resulting from lower revenues due largely to lower fuel prices.
- Lower unbilled revenues due to timing and lower fuel prices.

Net cash used in investing activities: The decrease in net cash used in investing activities in 2016 from 2015 was driven primarily by decreased capital expenditures, offset by lower proceeds from contributions in aid of construction.

Net cash used in financing activities: The increase in net cash used in financing activities was driven primarily by decreased proceeds from issuance of long-term debt, partially offset by proceeds from issuance of common stock.

2015 Cash Flows Compared to 2014:

Net cash provided by operating activities: Cash flows from operating activities generally relate to the amount and timing of cash received from customers and payments made to third parties. Using the indirect method of determining cash flows from operating activities, noncash expense items such as depreciation and amortization, as well as changes in certain assets and liabilities, are added to (or deducted from) net income.

The increase in net cash provided by operating activities in 2015 over 2014 was impacted by the following:

- Higher unbilled revenues due to timing and lower fuel prices.
- Lower revenue taxes paid resulting from lower revenues due largely to lower fuel prices.

Net cash used in investing activities: The increase in net cash used in investing activities in 2015 over 2014 was driven primarily by increased capital expenditures.

Net cash used in financing activities: The decrease in net cash used in financing activities was driven primarily by proceeds from issuance of long-term debt.

For 2017, the Utilities forecast \$470 million of net capital expenditures (including the purchase of HEP), which could change over time based upon external factors such as the timing and scope of environmental regulations, unforeseen delays in permitting and timing of PUC decisions. Proceeds from the issuance of equity and long-term debt, cash flows from operating activities, temporary increases in short-term borrowings and existing cash and cash equivalents are expected to provide the forecasted \$470 million needed for the net capital expenditures in 2017 as well as to pay down commercial paper or other short-term borrowings, fund any unanticipated expenditures not included in the 2017 forecast such as increases in the costs or acceleration of the construction of capital projects, unanticipated capital expenditures that may be required by new environmental laws and regulations, unbudgeted acquisitions or investments in new businesses and significant increases in retirement benefit funding requirements.

Management periodically reviews capital expenditure estimates and the timing of construction projects. These estimates may change significantly as a result of many considerations, including changes in economic conditions, changes in forecasts of KWH sales and peak load, the availability of purchased power and changes in expectations concerning the construction and

ownership of future generation units, the availability of generating sites and transmission and distribution corridors, the need for fuel infrastructure investments, the ability to obtain adequate and timely rate increases, escalation in construction costs, the effects of opposition to proposed construction projects and requirements of environmental and other regulatory and permitting authorities.

Selected contractual obligations and commitments. The following table presents aggregated information about total payments due from the Utilities during the indicated periods under the specified contractual obligations and commitments:

December 31, 2016 (in millions)	Payments due by period				
	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Long-term debt	\$ —	\$ 50	\$ 96	\$ 1,181	\$ 1,327
Interest on long-term debt	66	132	130	797	1,125
Operating leases	9	11	9	7	36
Open purchase order obligations ¹	56	114	—	—	170
Fuel oil purchase obligations (estimate based on December 31, 2016 fuel oil prices)	125	238	—	—	363
Purchase power obligations—minimum fixed capacity charges	121	188	189	388	886
Liabilities for uncertain tax positions	—	4	—	—	4
Total (estimated)	\$ 377	\$ 737	\$ 424	\$ 2,373	\$ 3,911

¹ Includes contractual obligations and commitments for capital expenditures and expense amounts.

The table above does not include other categories of obligations and commitments, such as deferred taxes, trade payables, amounts that will become payable in future periods under collective bargaining and other employment agreements and employee benefit plans and potential refunds of amounts collected from ratepayers (e.g., under the earnings sharing mechanism). As of December 31, 2016, the fair value of the assets held in trusts to satisfy the obligations of the Utilities' retirement benefit plans did not exceed the retirement benefit plans' benefit obligation. Minimum funding requirements for retirement benefit plans have not been included in the table above. See Note 10 of the Consolidated Financial Statements for retirement benefit plan obligations and estimated contributions for 2017.

See Note 4 of the Consolidated Financial Statements for a discussion of fuel and power purchase commitments.

Certain factors that may affect future results and financial condition. Also see “Cautionary Note Regarding Forward-Looking Statements” and “Certain factors that may affect future results and financial condition” for Consolidated HEI above.

Clean energy initiatives and Renewable Portfolio Standards (RPS). The far-reaching nature of the Utilities' renewable energy commitments and the RPS goals presents risks to the Utilities. Among such risks are: (1) the dependence on third party suppliers of renewable purchased energy, which if the Utilities are unsuccessful in negotiating purchased power agreements with such IPPs or if a major IPP fails to deliver the anticipated capacity in its purchased power agreement, could impact the Utilities' achievement of their commitments to RPS goals and/or the Utilities' ability to deliver reliable service; (2) delays in acquiring or unavailability of non-fossil fuel supplies for renewable generation; (3) the impact of intermittent power to the electrical grid and reliability of service if appropriate supporting infrastructure is not installed or does not operate effectively; (4) the likelihood that the Utilities may need to make substantial investments in related infrastructure, which could result in increased borrowings and, therefore, materially impact the financial condition and liquidity of the Utilities; and (5) the commitment to support a variety of initiatives, which, if approved by the PUC, may have a material impact on the results of operations and financial condition of the Utilities depending on their design and implementation. These initiatives include, but are not limited to, removing the system-wide caps on net energy metering (but studying distributed generation interconnections on a per-circuit basis); and developing an Energy Efficiency Portfolio Standard. The implementation of these or other programs may adversely impact the results of operations, financial condition and liquidity of the Utilities.

Regulation of electric utility rates. The rates the electric utilities are allowed to charge for their services, and the timeliness of permitted rate increases, are among the most important items influencing their results of operations, financial condition and liquidity. The PUC has broad discretion over the rates the electric utilities charge and other matters. Any adverse decision by the PUC concerning the level or method of determining electric utility rates, the items and amounts permitted to be included in rate base, the authorized returns on equity or rate base found to be reasonable, the potential consequences of exceeding or not meeting such returns, or any prolonged delay in rendering a decision in a rate or other proceeding could have a material adverse effect on the Company's and Hawaiian Electric's consolidated results of operations, financial condition and liquidity. Upon a showing of probable entitlement, the PUC is required to issue an interim D&O in a rate case within 10 months from the date of filing a completed application if the evidentiary hearing is completed (subject to extension for 30 days if the evidentiary hearing

is not completed). There is no time limit for rendering a final D&O and interim rate increases are subject to refund with interest if the interim increase is greater than the increase approved in the final D&O.

Fuel oil and purchased power. The electric utilities rely on fuel oil suppliers and IPPs to deliver fuel oil and power, respectively. See “Fuel contracts” and “Power purchase agreements” in Note 4 of the Consolidated Financial Statements. The Utilities estimate that 65% of the net energy the Utilities generate and purchase in 2017 will be from the burning of fossil fuel oil as compared to 67% in 2016. Purchased KWHs provided approximately 47%, 46% and 46% of the total net energy generated and purchased in 2016, 2015 and 2014, respectively.

Failure or delay by the electric utilities’ oil suppliers and shippers to provide fuel pursuant to existing supply contracts, or failure by a major IPP to deliver the firm capacity anticipated in its PPA, could interrupt the ability of the electric utilities to deliver electricity, thereby materially adversely affecting the Company’s and the Utilities’ results of operations and financial condition. Hawaiian Electric generally maintains an average system fuel inventory level equivalent to 47 days of forward consumption. Hawaii Electric Light and Maui Electric generally maintain an inventory level equivalent to one month’s supply of both medium sulfur fuel oil and diesel fuel. Some, but not all, of the Utilities’ PPAs require that the IPPs maintain minimum fuel inventory levels and all of the firm capacity PPAs include provisions imposing substantial penalties for failure to produce the firm capacity anticipated by those agreements.

Other regulatory and permitting contingencies. Many public utility projects require PUC approval and various permits (e.g., environmental and land use permits) from other agencies. Delays in obtaining PUC approval or permits can result in increased costs. If a project does not proceed or if the PUC disallows costs of the project, the project costs may need to be written off in amounts that could have a material adverse effect on the Company and the Utilities. Significant write-offs of this type were made in 2007, 2011 and 2012. See Note 4 of the Consolidated Financial Statements for a discussion of additional regulatory contingencies.

Competition. Although competition in the generation sector in Hawaii is moderated by the scarcity of generation sites, various permitting processes and lack of interconnections to other electric utilities, the PUC has promoted a more competitive electric industry environment through its decisions concerning competitive bidding and distributed generation (DG). An increasing amount of generation is provided by IPPs and customer distributed generation.

Competitive bidding. In December 2006, the PUC issued a decision that included a final competitive bidding framework, which became effective immediately. The final framework states, among other things, that: (1) a utility is required to use competitive bidding to acquire a future generation resource or a block of generation resources unless the PUC finds bidding to be unsuitable; (2) the framework does not apply in certain situations identified in the framework; (3) waivers from competitive bidding for certain circumstances will be considered; (4) the utility is required to select an independent observer from a list approved by the PUC whenever the utility or its affiliate seeks to advance a project proposal (i.e., in competition with those offered by bidders); (5) the utility may consider its own self-bid proposals in response to generation needs identified in its RFP; and (6) for any resource to which competitive bidding does not apply (due to waiver or exemption), the utility retains its traditional obligation to offer to purchase capacity and energy from a Qualifying Facility (QF) at avoided cost upon reasonable terms and conditions approved by the PUC.

Environmental matters. The Utilities’ generating stations operate under air pollution control permits issued by the Hawaii Department of Health (DOH) and, in a limited number of cases, by the federal Environmental Protection Agency (EPA). Hawaii law requires an environmental assessment for proposed waste-to-energy facilities, landfills, oil refineries, power-generating facilities greater than 5 MW and wastewater facilities, except individual wastewater systems. Meeting this requirement for environmental assessments results in increased project costs.

The 1990 amendments to the Clean Air Act (CAA), changes to the National Ambient Air Quality Standard (NAAQS) for ozone and adoption of a NAAQS for fine particulate matter resulted in substantial changes for the electric utility industry such as the installation of additional emissions controls, retirements of older generating units and switches to lower-emissions fuels. Further, significant impacts may occur under newly adopted rules (e.g., one-hour NAAQS for sulfur dioxide and nitrogen dioxide; control of GHGs under the PSD and Title V permitting rules; under rules deemed applicable to the Utilities’ facilities (e.g., the Regional Haze Rule); or if new legislation, rules or standards are adopted in the future. Similarly, the rules governing cooling water intakes may significantly impact Hawaiian Electric’s steam generating facilities on Oahu.

Management believes that the recovery through rates of most, if not all, of any costs incurred by the Utilities in complying with environmental requirements would be allowed by the PUC, but no assurance can be given that this will in fact be the case. In addition, there can be no assurance that a significant environmental liability will not be incurred by the Utilities or that the related costs will be recoverable through rates. See “Environmental regulation” in Note 4 of the Consolidated Financial Statements.

Technological developments. New emerging and breakthrough technological developments (e.g., the commercial development of energy storage, fuel cells, DG, grid modernization, and generation from renewable sources) may impact the Utilities' future competitive position, results of operations, financial condition and liquidity.

Material estimates and critical accounting policies. Also see "Material estimates and critical accounting policies" for Consolidated HEI above.

Property, plant and equipment. The Utilities have significant investments in electric generation, transmission and distribution assets. For financial reporting purposes, the depreciation of these assets is calculated using the straight-line, remaining life method, which applies a depreciation rate to the depreciable base of each asset account. The Utilities perform depreciation studies to determine the depreciation rates, which are based on historical data (e.g., retired asset lives and past removal costs), plans for the future and other factors. These depreciation studies are performed periodically, but a new study must be filed with the PUC within five years from the date of the last PUC-approved study. Changes to the estimated remaining service lives could have a significant impact on the amount of depreciation expense recorded.

Property, plant and equipment are reported at cost. Self-constructed electric utility plant includes engineering, supervision, and administrative and general costs, and an allowance for the cost of funds used during the construction period. These costs are recorded in construction in progress and are transferred to property, plant and equipment when construction is completed and the facilities are either placed in service or become useful for public utility purposes. Upon the retirement or sale of electric utility plant, no gain or loss is recognized. The cost of the plant retired is charged to accumulated depreciation. Amounts collected from customers for cost of removal (expected to exceed salvage value in the future) are included in regulatory liabilities.

The Utilities evaluate the impact of applying lease accounting standards to their new PPAs, PPA amendments and other arrangements they enter into. A possible outcome of the evaluation is that an arrangement results in its classification as a capital lease, which could have a material effect on Hawaiian Electric's consolidated balance sheet if a significant amount of capital assets of the IPP and lease obligations needed to be recorded.

Management believes that the PUC will allow recovery of property, plant and equipment in its electric rates. If the PUC does not allow recovery of any such costs, the electric utility would be required to write off the disallowed costs at that time. See the discussion under "Utility projects" in Note 4 of the Consolidated Financial Statements concerning costs of major projects that have not yet been approved for inclusion in the applicable utility's rate base.

Regulatory assets and liabilities. The Utilities are regulated by the PUC. In accordance with accounting standards for regulatory operations, the Company's and the Utilities' financial statements reflect assets, liabilities, revenues and costs of the Utilities based on current cost-based rate-making regulations. The actions of regulators can affect the timing of recognition of revenues, expenses, assets and liabilities.

Regulatory liabilities represent amounts collected from customers for costs that are expected to be incurred in the future. Regulatory assets represent incurred costs that have been deferred because their recovery in future customer rates is probable. As of December 31, 2016, the consolidated regulatory liabilities and regulatory assets of the Utilities amounted to \$411 million and \$957 million, respectively, compared to \$372 million and \$897 million as of December 31, 2015, respectively. Regulatory liabilities and regulatory assets are itemized in Note 4 of the Consolidated Financial Statements. Management continually assesses whether the regulatory assets are probable of future recovery by considering factors such as changes in the applicable regulatory environment. Because current rates include the recovery of regulatory assets existing as of the last rate case and rates in effect allow the Utilities to earn a reasonable rate of return, management believes that the recovery of the regulatory assets as of December 31, 2016 is probable. This determination assumes continuation of the current political and regulatory climate in Hawaii, and is subject to change in the future.

Management believes that the operations of the Utilities currently satisfy the criteria for regulatory accounting. If events or circumstances should change so that those criteria are no longer satisfied, the Utilities expect that their regulatory assets, net of regulatory liabilities, would be charged to the statement of income in the period of discontinuance, which may result in a material adverse effect on the Company's and the Utilities' results of operations, financial condition and liquidity.

Revenues. Electric utility revenues are based on rates authorized by the PUC and include revenues applicable to energy consumed in the accounting period, but not yet billed to customers, and RBA revenues or refunds for the difference between PUC-approved target revenues and recorded adjusted revenues, which delinks revenues from kilowatt-hour sales. As of December 31, 2016, revenues applicable to energy consumed, but not yet billed to customers, amounted to \$92 million and the RBA revenues recognized in 2016 amounted to \$63 million.

The rate schedules of the Utilities include ECACs under which electric rates are adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated

power and purchased power. The rate schedules of the Utilities also include PPACs under which electric rates are more closely aligned with purchase power costs incurred. Management believes that a material adverse effect on the Company's and the Utilities' results of operations, financial condition and liquidity may result if the ECACs, PPACs or RBAs were lost or adversely modified.

Consolidation of variable interest entities. A business enterprise must evaluate whether it should consolidate a variable interest entity (VIE). The Utilities evaluate the impact of applying accounting standards for consolidation to its relationships with IPPs with whom the Utilities execute new PPAs or execute amendments of existing PPAs. A possible outcome of the analysis is that Hawaiian Electric or its subsidiaries may be found to meet the definition of a primary beneficiary of a VIE which finding may result in the consolidation of the IPP in the Consolidated Financial Statements. The consolidation of IPPs could have a material effect on the Consolidated Financial Statements, including the recognition of a significant amount of assets and liabilities, and, if such a consolidated IPP were operating at a loss and had insufficient equity, the potential recognition of such losses. The Utilities do not know how the consolidation of IPPs would be treated for regulatory or credit ratings purposes. See Notes 1 and 6 of the Consolidated Financial Statements.

Bank

Executive overview and strategy. When ASB was acquired by HEI in 1988, it was a traditional thrift with assets of \$1 billion and net income of about \$13 million. Since then, ASB has grown by both acquisition and internal growth. Over the last several years the focus has been on efficient growth to maximize profitability and capital efficiency. ASB ended 2016 with assets of \$6.4 billion and net income of \$57 million, compared to assets of \$6.0 billion as of December 31, 2015 and net income of \$55 million in 2015.

ASB is a full-service community bank serving both consumer and commercial customers. In order to remain competitive and continue building core franchise value, ASB continues to develop and introduce new products and services in order to meet the needs of those markets such as mobile banking. Additionally, the banking industry is constantly changing and ASB is making the investments in people and technology necessary to adapt and remain competitive. ASB's ongoing challenge is to continue to increase revenues and control expenses.

The interest rate environment and the quality of ASB's assets will continue to impact its financial results.

ASB continues to face a challenging interest rate environment. The relatively low level of interest rates and excess liquidity in the financial system have impacted new loan production rates and made it challenging to find investments with adequate risk-adjusted returns, which resulted in downward pressure on ASB's asset yields and net interest margin. The potential for compression of ASB's margin when interest rates rise is a risk that is actively managed.

As part of its interest rate risk management process, ASB uses simulation analysis to measure net interest income sensitivity to changes in interest rates (see "Quantitative and Qualitative Disclosures about Market Risk"). ASB then employs strategies to limit the impact of changes in interest rates on net interest income. ASB's key strategies include:

1. attracting and retaining low-cost, core deposits, particularly those in non-interest bearing transaction accounts;
2. reducing the overall exposure to fixed-rate residential mortgage loans and diversifying the loan portfolio with higher-spread, shorter-maturity loans and/or variable-rate loans such as commercial real estate and consumer loans;
3. managing interest-bearing liabilities to optimize cost of funds and managing interest rate sensitivity; and
4. focusing new investments on shorter duration or variable rate securities.

ASB's loan quality benefited in 2016 from stabilized or increasing property values, more financial flexibility of borrowers, and overall general economic improvement in the state of Hawaii. ASB's annualized net charge-offs as a percentage of total average loans was 0.24% for 2016 compared to 0.04% for 2015. The higher net charge-off ratio was primarily due to charge offs of specific commercial credits and unsecured consumer loans. ASB's provision for loan losses increased from \$6.3 million for 2015 to \$16.8 million for 2016, primarily due to loan loss reserves needed for growth in the commercial real estate and consumer loan portfolios as well as reserves for specific commercial credits.

Effective July 2013, ASB became non-exempt from the Durbin Amendment to the Dodd-Frank Act which resulted in lower debit card interchange fees. For 2016, 2015 and 2014, the estimated net income impact of the lower debit card interchange fees was \$6 million per year.

Results of operations.

- 2016 vs. 2015

(in millions)	2016	2015	Increase (decrease)	Primary reason(s)
Interest income	\$ 219	\$ 200	\$ 19	Higher interest income was due to higher average earning asset balances and higher loan yields. ASB's average loan portfolio balance for 2016 was \$223 million higher than 2015 as the average commercial real estate, HELOC and consumer loan balances increased by \$204 million, \$32 million and \$30 million, respectively. The growth in these loan portfolios was consistent with ASB's portfolio mix targets and loan growth strategy. The commercial loan average balance decreased \$55 million due to the strategic reduction of the nationally syndicated loan portfolio. The loan portfolio yield benefited from a shift in the mix of the loan portfolio and the repricing of the adjustable rate loans with the increase in the prime rate. The average investment and mortgage-related securities portfolio balance increased by \$248 million as ASB purchased investments with liquidity in excess of loan growth funding.
Noninterest income	67	67	—	Noninterest income was flat as higher gains on sale of investment securities and insurance proceeds in 2016 were offset by lower gains on sales of real estate and mortgage servicing rights.
Revenues	286	267	19	
Interest expense	13	12	1	Higher interest expense was due to an increase in average interest-bearing liabilities. Average deposit balances for 2016 increased by \$438 million compared to 2015 due to an increase in core deposits and term certificates of \$322 million and \$116 million, respectively. The other borrowings average balance decreased by \$48 million due to a decrease in repurchase agreements.
Provision for loan losses	17	6	11	Higher provision for loan losses for 2016 was primarily due to growth in the commercial real estate and consumer loan portfolios and additional reserves for specific commercial credits. The provision for loan losses in 2015 were used primarily to establish loan loss reserves for the growth in the loan portfolio and additional reserve levels for the commercial and unsecured consumer loan portfolios.
Noninterest expense	169	166	3	Higher noninterest expense was primarily due to costs related to replacement and upgrade of ASB's electronic banking platform in mid 2016 to enhance the Bank's online and mobile banking services to consumer and business customers as well as expand its distribution channels.
Expenses	199	184	15	
Operating income	87	83	4	Higher interest income, partly offset by higher provision for loan losses and noninterest expenses.
Net income	57	55	2	Higher operating income, partly offset by higher taxes.
Return on average common equity ¹	9.9%	9.9%	—%	

• 2015 vs. 2014

(in millions)	2015	2014	Increase (decrease)	Primary reason(s)
Interest income	\$ 200	\$ 191	\$ 9	The impact of higher average earning asset balances was partly offset by lower yields on earning assets. ASB's average loan portfolio balance for 2015 was \$213 million higher than 2014 as the average commercial real estate, residential, HELOC and commercial loan balances increased by \$111 million, \$40 million, \$37 million and \$15 million, respectively. The growth in these loan portfolios was consistent with ASB's portfolio mix targets and loan growth strategy. The loan portfolio yield continued to be impacted by the interest rate environment as new loan production yields were lower than the average portfolio yield. The average investment and mortgage-related securities portfolio balance increased by \$150 million as ASB purchased investments with liquidity in excess of loan growth funding.
Noninterest income	67	61	6	Higher noninterest income was due to an increase in gain on sale of loans as loan sales increased by \$119 million as a result of ASB's decision to sell a larger portion of its low rate residential loan production, higher deposit related fee initiatives and gains on sales of real estate and mortgage servicing rights. 2014 noninterest income included the gain on sale of the municipal bond portfolio with no similar security sales in 2015.
Revenues	267	252	15	
Interest expense	12	11	1	Higher interest expense was due to an increase in average interest-bearing liabilities. Average deposit balances for 2015 increased by \$293 million compared to 2014 due to an increase in core deposits and term certificates of \$279 million and \$14 million, respectively. The other borrowings average balance increased by \$64 million due to an increase in public repurchase agreements.
Provision for loan losses	6	6	—	The provision for loan losses for 2015 and 2014 were used primarily to establish loan loss reserves for the growth in the loan portfolio and cover net loan charge-offs. The provision for loan losses in 2015 also included higher reserve levels for the commercial loan portfolio.
Noninterest expense	166	156	10	Higher noninterest expense was primarily due to higher compensation and benefits expense as a result of an increase in retail delivery compensation cost, higher performance-based incentive cost and higher benefits expenses related to the frozen defined benefit plan and medical insurance premium costs.
Expenses	184	173	11	
Operating income	83	79	4	Higher interest and noninterest income, partly offset by higher noninterest expenses.
Net income	55	51	4	Higher operating income, partly offset by higher taxes.
Return on average common equity ¹	9.9%	9.6%	0.3%	

¹ Calculated using the average daily balances.

See Note 5 of the Consolidated Financial Statements for a discussion of guarantees and further information about ASB.

Average balance sheet and net interest margin. The following table provides a summary of our consolidated average balances including major categories of interest-earning assets and interest-bearing liabilities:

(dollars in thousands)	2016			2015			2014		
	Average balance	Interest ¹ income/expense	Yield/rate (%)	Average balance	Interest ¹ income/expense	Yield/rate (%)	Average balance	Interest ¹ income/expense	Yield/rate (%)
Assets:									
Interest-earning deposits	\$ 75,092	\$ 383	0.51	\$ 124,874	\$ 323	0.26	\$ 88,089	\$ 222	0.25
FHLB stock	11,153	191	1.72	32,140	148	0.46	83,053	88	0.11
Securities purchased under resale agreements	—	—	—	—	—	—	5,096	20	0.39
Available-for-sale investment securities									
Taxable	934,469	18,592	1.99	687,215	14,649	2.13	525,949	11,336	2.16
Non-taxable	717	28	3.87	—	—	—	11,600	429	3.69
Total available-for-sale investment securities	935,186	18,620	1.99	687,215	14,649	2.13	537,549	11,765	2.19
Loans									
Residential 1-4 family	2,074,564	88,274	4.26	2,064,170	89,933	4.36	2,023,816	90,591	4.48
Commercial real estate	872,694	35,940	4.12	669,184	26,558	3.97	557,924	23,904	4.28
Home equity line of credit	859,955	28,249	3.28	828,129	26,511	3.20	790,701	25,716	3.25
Residential land	18,850	1,118	5.93	17,304	1,101	6.36	16,276	1,106	6.79
Commercial	743,586	29,743	4.00	798,182	29,282	3.67	783,670	29,294	3.74
Consumer	149,287	16,450	11.02	119,267	11,397	9.56	110,440	8,730	7.90
Total loans ^{2,3}	4,718,936	199,774	4.23	4,496,236	184,782	4.11	4,282,827	179,341	4.19
Total interest-earning assets	5,740,367	218,968	3.81	5,340,465	199,902	3.74	4,996,614	191,436	3.83
Allowance for loan losses	(54,338)			(46,881)			(42,242)		
Non-interest-earning assets	507,850			490,187			459,513		
Total Assets	\$6,193,879			\$5,783,771			\$5,413,885		
Liabilities and Shareholder's Equity:									
Savings	\$2,117,186	1,402	0.07	\$1,980,151	1,257	0.06	\$1,879,373	1,134	0.06
Interest-bearing checking	839,339	173	0.02	782,811	139	0.02	738,651	126	0.02
Money market	160,700	202	0.13	164,568	205	0.12	171,889	214	0.12
Time certificates	565,135	5,390	0.95	449,179	3,747	0.83	434,934	3,603	0.83
Total interest-bearing deposits	3,682,360	7,167	0.19	3,376,709	5,348	0.16	3,224,847	5,077	0.16
Advances from Federal Home Loan Bank	101,597	3,160	3.11	100,438	3,146	3.13	100,389	3,146	3.13
Securities sold under agreements to repurchase	169,730	2,428	1.43	219,351	2,832	1.29	155,012	2,585	1.67
Total interest-bearing liabilities	3,953,687	12,755	0.32	3,696,498	11,326	0.31	3,480,248	10,808	0.31
Non-interest bearing liabilities:									
Deposits	1,559,132			1,426,962			1,285,964		
Other	102,302			109,386			113,401		
Shareholder's equity	578,758			550,925			534,272		
Total Liabilities and Shareholder's Equity	\$6,193,879			\$5,783,771			\$5,413,885		
Net interest income		\$206,213			\$188,576			\$180,628	
Net interest margin (%) ⁴			3.59			3.53			3.62

¹ Interest income includes taxable equivalent basis adjustments, based upon a federal statutory tax rate of 35%, of \$0.01 million, nil and \$0.2 million for 2016, 2015 and 2014, respectively.

² Includes loans held for sale, at lower of cost or fair value, of \$5.4 million, \$5.6 million and \$3.1 million as of December 31, 2016, 2015 and 2014, respectively.

³ Includes recognition of net deferred loan fees of \$2.8 million, \$2.7 million and \$3.7 million for 2016, 2015 and 2014, respectively, together with interest accrued prior to suspension of interest accrual on nonaccrual loans.

⁴ Defined as net interest income, on a fully taxable equivalent basis, as a percentage of average total interest-earning assets.

Earning assets, costing liabilities and other factors. Earnings of ASB depend primarily on net interest income, which is the difference between interest earned on earning assets and interest paid on costing liabilities. The interest rate environment

has been impacted by disruptions in the financial markets over a period of several years and these conditions are beginning to moderate with the interest rate increases in the past year which resulted in an increase in net interest income and net interest margin.

Loan originations and mortgage-related securities are ASB's primary earning assets.

Loan portfolio. ASB's loan volumes and yields are affected by market interest rates, competition, demand for financing, availability of funds and management's responses to these factors. See Note 5 of the Consolidated Financial Statements for the composition of ASB's loans receivable.

The increase in the total loan portfolio from \$4.6 billion at the end of 2015 to \$4.7 billion at the end of 2016 was primarily due to growth in the commercial real estate, home equity line of credit (HELOC), commercial construction and consumer loan portfolios, which was consistent with ASB's portfolio mix targets and loan growth strategy.

Home equity — key credit statistics.

December 31	2016	2015
Outstanding balance (in thousands)	\$ 863,163	\$ 846,294
Percent of portfolio in first lien position	45.1%	42.9%
Net charge-off ratio	0.01%	0.02%
Delinquency ratio	0.35%	0.25%

December 31, 2016	Total	Interest only	End of draw period – interest only			Current amortizing
			2017	2018-2020	Thereafter	
Outstanding balance (in thousands)	\$ 863,163	\$ 678,348	\$ 8,524	\$ 122,966	\$ 546,858	\$ 184,815
% of total	100%	79%	1%	14%	64%	21%

The HELOC portfolio makes up 18% of the total loan portfolio and is generally an interest-only revolving loan for a 10-year period, after which time the HELOC outstanding balance converts to a fully amortizing variable rate term loan with a 20-year amortization period. This product type comprises 78% of the total HELOC portfolio and is the current product offering. Borrowers also have a "Fixed Rate Loan Option" to convert a part of their available line of credit into a 5, 7 or 10-year fully amortizing fixed rate loan with level principal and interest payments. As of December 31, 2016, approximately 19% of the portfolio balances were amortizing loans under the Fixed Rate Loan Option.

Loan portfolio risk elements. When a borrower fails to make a required payment on a loan and does not cure the delinquency promptly, the loan is classified as delinquent. If delinquencies are not cured promptly, ASB normally commences a collection action, including foreclosure proceedings in the case of secured loans. In a foreclosure action, the property securing the delinquent debt is sold at a public auction in which ASB may participate as a bidder to protect its interest. If ASB is the successful bidder, the property is classified as real estate owned until it is sold.

See "Allowance for loan losses" in Note 5 of the Consolidated Financial Statements for information with respect to nonperforming assets. The level of nonperforming loans has continued to decrease with the improving Hawaii economy.

Allowance for loan losses. See "Allowance for loan losses" in Note 5 of the Consolidated Financial Statements for the tables which sets forth the allocation of ASB's allowance for loan losses. For 2016, the allowance for loan losses increased by \$5.5 million primarily due to loan loss reserves for the growth in the loan portfolio and increases in commercial and consumer loan loss reserves.

Available-for sale investment securities. ASB's investment portfolio was comprised as follows:

December 31 (dollars in thousands)	2016		2015	
	Balance	% of total	Balance	% of total
U.S. Treasury and federal agency obligations	\$ 192,281	18%	\$ 212,959	26%
Mortgage-related securities — FNMA, FHLMC and GNMA	897,474	81	607,689	74
Mortgage revenue bond	15,427	1	—	—
Total available-for-sale investment securities	\$ 1,105,182	100%	\$ 820,648	100%

Principal and interest on mortgage-related securities issued by Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC) and Government National Mortgage Association (GNMA) are guaranteed by the issuer and, in the case of GNMA, backed by the full faith and credit of the U.S. government. U.S. Treasury securities are also backed by the full faith of the U.S. government. The increase in investment securities was due to the purchase of agency mortgage-related securities and a mortgage revenue bond with excess liquidity.

The net unrealized losses on ASB's investment securities were primarily caused by movements in interest rates. All contractual cash flows of those investments are guaranteed by an agency of the U.S. government. Based upon ASB's evaluation at December 31, 2016 and 2015, there was no indicated impairment as the bank expects to collect the contractual cash flows for these investments. See "Investment securities" in Note 1 for a discussion of securities impairment assessment.

As of December 31, 2016, 2015 and 2014, ASB did not have any private-issue mortgage-related securities.

Deposits and other borrowings. Deposits continue to be the largest source of funds for ASB and are affected by market interest rates, competition and management's responses to these factors. Deposit retention and growth will remain challenging in the current environment due to competition for deposits and the low level of short-term interest rates. Advances from the FHLB of Des Moines and securities sold under agreements to repurchase continue to be additional sources of funds. As of December 31, 2016, ASB's costing liabilities consisted of 97% deposits and 3% other borrowings compared to costing liabilities of 94% deposits and 6% other borrowings as of December 31, 2015. See Note 5 of the Consolidated Financial Statements for the composition of ASB's deposit liabilities and other borrowings.

Federal Home Loan Bank of Des Moines. As of December 31, 2016 and 2015, ASB had \$100 million of advances outstanding at the FHLB of Des Moines. As of December 31, 2016, the unused borrowing capacity with the FHLB of Des Moines was \$1.8 billion. The FHLB of Des Moines will continue to be a source of liquidity for ASB.

Other factors. Interest rate risk is a significant risk of ASB's operations and also represents a market risk factor affecting the fair value of ASB's investment securities. Increases and decreases in prevailing interest rates generally translate into decreases and increases in the fair value of the investment securities, respectively. In addition, changes in credit spreads also impact the fair values of the investment securities.

As of December 31, 2016, ASB had an unrealized loss, net of taxes, on available-for-sale investment securities (including securities pledged for repurchase agreements) in AOCI of \$7.9 million compared to an unrealized loss, net of taxes, of \$1.9 million as of December 31, 2015. See "Quantitative and qualitative disclosures about market risk."

Legislation and regulation. ASB is subject to extensive regulation, principally by the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC). Depending on ASB's level of regulatory capital and other considerations, these regulations could restrict the ability of ASB to compete with other institutions and to pay dividends to its shareholder. See the discussion below under "Liquidity and capital resources." Also see "Federal Deposit Insurance Corporation Assessment" in Note 5 of the Consolidated Financial Statements.

Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). Regulation of the financial services industry, including regulation of HEI, ASB Hawaii and ASB, has changed and will continue to change as a result of the enactment of the Dodd-Frank Act, which became law in July 2010. Importantly for HEI, ASB Hawaii and ASB, under the Dodd-Frank Act, on July 21, 2011, all of the functions of the Office of Thrift Supervision (OTS) transferred to the OCC, the FDIC, the Federal Reserve Board (FRB) and the Consumer Financial Protection Bureau (Bureau). Supervision and regulation of HEI and ASB Hawaii, as thrift holding companies, moved to the FRB, and supervision and regulation of ASB, as a federally chartered savings bank, moved to the OCC. While the laws and regulations applicable to HEI and ASB did not generally change, the applicable laws and regulations are being interpreted, and new and amended regulations may be adopted, by the FRB, OCC and the Bureau. In addition, HEI will continue to be required to serve as a source of strength to ASB in the event of its financial distress. The Dodd-Frank Act also imposed new restrictions on the ability of a savings bank to pay dividends should it fail to remain a qualified thrift lender.

More stringent affiliate transaction rules now apply to ASB in the securities lending, repurchase agreement and derivatives areas. Standards were raised with respect to the ability of ASB to merge with or acquire another institution. In reviewing a potential merger or acquisition, the approving federal agency will need to consider the extent to which the proposed transaction will result in "greater or more concentrated risks to the stability of the U.S. banking or financial system."

The Dodd-Frank Act established the Bureau. It has authority to prohibit practices it finds to be unfair, deceptive or abusive, and it may also issue rules requiring specified disclosures and the use of new model forms. On January 10, 2013, the Bureau issued the Ability-to-Repay rule which closed for comment on February 25, 2013. For mortgages, under the proposed Ability-to-Repay rule, among other things, (i) potential borrowers will have to supply financial information, and lenders must verify it, (ii) to qualify for a particular loan, a consumer will have to have sufficient assets or income to pay back the loan, and

(iii) lenders will have to determine the consumer's ability to repay both the principal and the interest over the long term - not just during an introductory period when the rate may be lower.

ASB may also be subject to new state regulation because of a provision in the Dodd-Frank Act that acknowledges that a federal savings bank may be subject to state regulation and allows federal law to preempt a state consumer financial law on a "case by case" basis only when (1) the state law would have a discriminatory effect on the bank compared to that on a bank chartered in that state, (2) the state law prevents or significantly interferes with a bank's exercise of its power or (3) the state law is preempted by another federal law.

The Dodd-Frank Act also adopts a number of provisions that will impact the mortgage industry, including the imposition of new specific duties on the part of mortgage originators (such as ASB) to act in the best interests of consumers and to take steps to ensure that consumers will have the capability to repay loans they may obtain, as well as provisions imposing new disclosure requirements and requiring appraisal reforms.

Also, the Dodd-Frank Act directs the Bureau to publish rules and forms that combine certain disclosures that consumers receive in connection with applying for and closing on a mortgage loan under the Truth in Lending Act and the Real Estate Settlement Procedures Act. Consistent with this requirement, the Bureau amended Regulation X (Real Estate Settlement Procedures Act) and Regulation Z (Truth in Lending) to establish new disclosure requirements and forms in Regulation Z for most closed-end consumer credit transactions secured by real property. In addition to combining the existing disclosure requirements and implementing new requirements, the final rule provides extensive guidance regarding compliance with those requirements. This rule was effective October 3, 2015.

The "Durbin Amendment" to the Dodd-Frank Act required the FRB to issue rules to ensure that debit card interchange fees are "reasonable and proportional" to the processing costs incurred. In June 2011, the FRB issued a final rule establishing standards for debit card interchange fees and prohibiting network exclusivity arrangements and routing restrictions. Under the final rule, effective October 1, 2011, the maximum permissible interchange fee that an issuer may receive for an electronic debit transaction is 21-24 cents, depending on certain components. Financial institutions and their affiliates that have less than \$10 billion in assets are exempt from this Amendment; however, on July 1, 2013, ASB became non-exempt as the consolidated assets of HEI exceeded \$10 billion. The debit card interchange fees received by ASB have been lower as a result of the application of this Amendment.

Final Capital Rules. On July 2, 2013, the FRB finalized its rule implementing the Basel III regulatory capital framework. The final rule would apply to banking organizations of all sizes and types regulated by the FRB and the OCC, except bank holding companies subject to the FRB's Small Bank Holding Company Policy Statement and Savings & Loan Holding Companies (SLHCs) substantially engaged in insurance underwriting or commercial activities. HEI currently meets the requirements of the exemption as a top-tier grandfathered unitary SLHC that derived, as of June 30 of the previous calendar year, either 50% or more of its total consolidated assets or 50% or more of its total revenues on an enterprise-wide basis (calculated under GAAP) from activities that are not financial in nature pursuant to Section 4(k) of the Bank Holding Company Act. The FRB is temporarily excluding these SLHCs from the final rule while it considers a proposal relating to capital and other requirements for SLHC intermediate holding companies (such as ASB Hawaii). The FRB indicated that it would release a proposal on intermediate holding companies that would specify the criteria for establishing and transferring activities to intermediate holding companies and propose to apply the FRB's capital requirements to such intermediate holding companies. The FRB has not yet issued such a proposal, or a proposal on how to apply the Basel III capital rules to SLHCs that are substantially engaged in commercial or insurance underwriting activities, such as grandfathered unitary SLHCs like HEI.

Pursuant to the final rule and consistent with the proposals, all banking organizations, including covered holding companies, would initially be subject to the following minimum regulatory capital requirements: a common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6%, a total capital ratio of 8% of risk-weighted assets and a tier 1 leverage ratio of 4%, and these requirements would increase in subsequent years. In order to avoid restrictions on capital distributions and discretionary bonus payments to executive officers, the final rule requires a banking organization to hold a buffer of common equity tier 1 capital above its minimum capital requirements in an amount greater than 2.5% of total risk-weighted assets (capital conservation buffer). In addition, a countercyclical capital buffer would expand the capital conservation buffer by up to 2.5% of a banking organization's total risk-weighted assets for advanced approaches banking organizations. The final rule would establish qualification criteria for common equity, additional tier 1 and tier 2 capital instruments that help to ensure their ability to absorb losses. All banking organizations would be required to calculate risk-weighted assets under the standardized approach, which harmonizes the banking agencies' calculation of risk-weighted assets and address shortcomings in capital requirements identified by the agencies. The phased-in effective dates of the capital requirements under the final rule are:

Minimum Capital Requirements

Effective dates	1/1/2015	1/1/2016	1/1/2017	1/1/2018	1/1/2019
Capital conservation buffer		0.625%	1.25%	1.875%	2.50%
Common equity Tier 1 ratio + conservation buffer	4.50%	5.125%	5.75%	6.375%	7.00%
Tier 1 capital ratio + conservation buffer	6.00%	6.625%	7.25%	7.875%	8.50%
Total capital ratio + conservation buffer	8.00%	8.625%	9.25%	9.875%	10.50%
Tier 1 leverage ratio	4.00%	4.00%	4.00%	4.00%	4.00%
Countercyclical capital buffer — not applicable to ASB		0.625%	1.25%	1.875%	2.50%

The final rule was effective January 1, 2015 for ASB. As of December 31, 2016, ASB met the new capital requirements with a Common equity Tier-1 ratio of 12.2%, a Tier-1 capital ratio of 12.2%, a Total capital ratio of 13.4% and a Tier-1 leverage ratio of 8.6%.

Subject to the timing and final outcome of the FRB’s SLHC intermediate holding company proposal, HEI anticipates that the capital requirements in the final rule will eventually be effective for HEI or ASB Hawaii as well. If the fully phased-in capital requirements were currently applicable to HEI, management believes HEI would satisfy the capital requirements, including the fully phased-in capital conservation buffer. Management cannot predict what final rule the FRB may adopt concerning intermediate holding companies or their impact on ASB Hawaii, if any.

Military Lending Act. The Department of Defense (DOD) amended its regulation that implements the Military Lending Act (MLA), which became effective on October 3, 2016. The DOD amended its regulation primarily for the purpose of extending the protections of the MLA to a broader range of closed-end and open-end credit products. It initially applied to three narrowly-defined “consumer credit” products: closed-end payday loans; closed-end auto title loans; and closed-end tax refund anticipation loans. The DOD revised the scope of the definition of “consumer credit” to be generally consistent with the credit products that have been subject to the requirements of the Regulation Z, namely: credit offered or extended to a covered borrower primarily for personal, family, or household purposes and that is (i) subject to a finance charge or (ii) payable by a written agreement in more than four installments.

Additionally, the DOD elected to exercise its discretion by generally requiring any fees for credit insurance products or for credit-related ancillary products to be included in the Military Annual Percentage Rate. The DOD also modified the disclosures that a creditor must provide to a covered borrower and implemented the enforcement provisions of the MLA. ASB has modified certain products, practices and associated training to conform to these changes.

Overtime Rules. The Secretary of Labor updated the overtime regulations of the Fair Labor Standards Act to simplify and modernize them. The Department of Labor issued final rules that will raise the salary threshold indicating eligibility from \$455/week to \$913/week (\$47,476 per year), and update automatically the salary threshold every three years, based on wage growth over time, increasing predictability. The final rule was to become effective on December 1, 2016. In late-November 2016 however, the U.S. District Court in the Eastern District of Texas granted a nationwide preliminary injunction that blocked the final rule, saying the Department of Labor’s rule exceeds the authority the agency was delegated by Congress. Despite this block, ASB modified its salaries in the fourth quarter of 2016 such that it is in voluntary compliance with the final rule.

Stock in FHLB. In the second quarter of 2015, the FHLB of Des Moines and the FHLB of Seattle successfully completed the merger of the two banks and operated as one under the name FHLB of Des Moines as of June 1, 2015. The FHLB of Des Moines will continue to be a source of liquidity for ASB.

As of December 31, 2016, ASB’s stock in FHLB of Des Moines of \$11.2 million was carried at cost because it can only be redeemed at par. There is a minimum required investment in such stock based on measurements of ASB’s capital, assets and/or borrowing levels. In 2016, 2015 and 2014, ASB received cash dividends of \$191,000, \$147,000 and \$88,000, respectively, on its FHLB Stock.

Mortgage Servicing Rights. As of December 31, 2016 and 2015, ASB’s mortgage servicing rights had a net carrying amount of \$9.4 million and \$8.9 million, respectively. The increase in the net carrying amount was due to the servicing rights retained from the residential loan sales during the year.

Liquidity and capital resources.

December 31 (dollars in millions)	2016	% change	2015	% change
Total assets	\$ 6,421	7	\$ 6,015	8
Available-for-sale investment securities	1,105	35	821	49
Loans receivable held for investment, net	4,683	3	4,566	4
Deposit liabilities	5,549	10	5,025	9
Other bank borrowings	193	(41)	329	13

As of December 31, 2016, ASB was one of Hawaii's largest financial institutions based on assets of \$6.4 billion and deposits of \$5.5 billion.

ASB's principal sources of liquidity are customer deposits, borrowings and the maturity and repayment of portfolio loans and securities. ASB's deposits as of December 31, 2016 were \$524 million higher than December 31, 2015. ASB's principal sources of borrowings are advances from the FHLB and securities sold under agreements to repurchase from broker/dealers and commercial account holders. As of December 31, 2016, FHLB borrowings totaled \$100 million, representing 1.6% of assets. ASB is approved to borrow from the FHLB up to 35% of ASB's assets to the extent it provides qualifying collateral and holds sufficient FHLB stock. As of December 31, 2016, ASB's unused FHLB borrowing capacity was approximately \$1.8 billion. As of December 31, 2016, securities sold under agreements to repurchase totaled \$93 million, representing 1.4% of assets. ASB utilizes deposits, advances from the FHLB and securities sold under agreements to repurchase to fund maturing and withdrawn deposits, repay maturing borrowings, fund existing and future loans and purchase investment and mortgage-related securities. As of December 31, 2016, ASB had commitments to borrowers for loans and unused lines and letters of credit of \$1.8 billion, including commitments to lend \$2.6 million to borrowers whose loan terms have been modified in troubled debt restructurings. Management believes ASB's current sources of funds will enable it to meet these obligations while maintaining liquidity at satisfactory levels.

As of December 31, 2016 and 2015, ASB had \$23.3 million and \$46.0 million of loans on nonaccrual status, respectively, or 0.5% and 1.0% of net loans outstanding, respectively. As of December 31, 2016 and 2015, ASB had \$1.2 million and \$1.0 million, respectively, of real estate acquired in settlement of loans

In 2016, operating activities provided cash of \$64 million. Net cash of \$448 million was used by investing activities primarily due to purchases of investment securities of \$534 million, a net increase in loans held for investment of \$194 million, capital expenditures of \$9 million and the purchase of bank owned life insurance of \$3 million, partly offset by repayments of investment securities of \$220 million, proceeds from the sale of commercial loans of \$52 million, proceeds from the sale of mortgage-related securities of \$16 million, proceeds from the redemption of bank owned life insurance of \$3 million and proceeds from the sale of real estate held for sale of \$2 million. Financing activities provided net cash of \$352 million primarily due to a net increase in deposits of \$524 million, partly offset by repayments of securities sold under agreements to repurchase of \$92 million, a net decrease in retail repurchase agreements of \$44 million and the payment of common stock dividends of \$36 million.

ASB believes that maintaining a satisfactory regulatory capital position provides a basis for public confidence, affords protection to depositors, helps to ensure continued access to capital markets on favorable terms and provides a foundation for growth. FDIC regulations restrict the ability of financial institutions that are not well-capitalized to compete on the same terms as well-capitalized institutions, such as by offering interest rates on deposits that are significantly higher than the rates offered by competing institutions. As of December 31, 2016, ASB was well-capitalized (see "Regulation—Capital requirements" below for ASB's capital ratios).

For a discussion of ASB dividends, see "Common stock equity" in Note 5 of the Consolidated Financial Statements.

Certain factors that may affect future results and financial condition. Also see "Cautionary Note Regarding Forward-Looking Statements" and "Certain factors that may affect future results and financial condition" for Consolidated HEI above.

Competition. The banking industry in Hawaii is highly competitive. ASB is one of Hawaii's largest financial institutions, based on total assets, and is in direct competition for deposits and loans, not only with larger institutions, but also with smaller institutions that are heavily promoting their services in certain niche areas, such as providing financial services to small- and medium-sized businesses, and national organizations offering financial services. ASB's main competitors are banks, savings associations, credit unions, mortgage brokers, finance companies and securities brokerage firms. These competitors offer a variety of lending, deposit and investment products to retail and business customers.

The primary factors in competing for deposits are interest rates, the quality and range of services offered, marketing, convenience of locations, hours of operation, other non-branch channels such as online and mobile banking and perceptions of the institution's financial soundness and safety. To meet competition, ASB offers a variety of savings and checking accounts at competitive rates, convenient business hours, convenient branch locations with interbranch deposit and withdrawal privileges at each branch, convenient automated teller machines and an upgrade of the Bank's electronic banking platform. ASB also conducts advertising and promotional campaigns.

The primary factors in competing for first mortgage and other loans are interest rates, loan origination fees and the quality and range of lending and other services offered. ASB believes that it is able to compete for such loans primarily through the competitive interest rates and loan fees it charges, the type of mortgage loan programs it offers and the efficiency and quality of the services it provides to individual borrowers and the business community.

ASB is a full-service community bank serving both consumer and commercial customers and has been diversifying its loan portfolio from single-family home mortgages to higher-spread, shorter-duration consumer, commercial and commercial real estate loans. The origination of consumer, commercial and commercial real estate loans involves risks and other considerations different from those associated with originating residential real estate loans. For example, the sources and level of competition may be different and credit risk is generally higher than for residential mortgage loans. These different risk factors are considered in the underwriting and pricing standards and in the allowance for loan losses established by ASB for its consumer, commercial and commercial real estate loans.

U.S. capital markets and credit and interest rate environment. Volatility in U.S. capital markets may negatively impact the fair values of investment and mortgage-related securities held by ASB. As of December 31, 2016, the fair value and carrying value of the investment and mortgage-related securities held by ASB were \$1.1 billion.

Interest rate risk is a significant risk of ASB's operations. ASB actively manages this risk, including managing the relationship of its interest-sensitive assets to its interest-sensitive liabilities. Persistent low levels of interest rates have made it challenging to find investments with adequate risk-adjusted returns and had a negative impact on ASB's asset yields and net interest margin. If the current interest rate environment persists, the potential for compression of ASB's net interest margin will continue. ASB also manages the credit risk associated with its lending and securities portfolios, but a deep and prolonged recession led by a material decline in housing prices could materially impair the value of its portfolios. See "Quantitative and Qualitative Disclosures about Market Risk" below.

Technological developments. New technological developments (e.g., significant advances in internet banking) may impact ASB's future competitive position, results of operations and financial condition.

Environmental matters. Prior to extending a loan collateralized by real property, ASB conducts due diligence to assess whether or not the property may present environmental risks and potential cleanup liability. In the event of default and foreclosure of a loan, ASB may become the owner of the mortgaged property. For that reason, ASB seeks to avoid lending upon the security of, or acquiring through foreclosure, any property with significant potential environmental risks; however, there can be no assurance that ASB will successfully avoid all such environmental risks.

Regulation. ASB is subject to examination and comprehensive regulation by the Department of Treasury, OCC and the FDIC, and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System. Regulation by these agencies focuses in large measure on the adequacy of ASB's capital and the results of periodic "safety and soundness" examinations conducted by the OCC.

Capital requirements. The OCC, which is ASB's principal regulator, administers two sets of capital standards—minimum regulatory capital requirements and prompt corrective action requirements. The FDIC also has prompt corrective action capital requirements. As of December 31, 2016, ASB was in compliance with OCC minimum regulatory capital requirements and was "well-capitalized" within the meaning of OCC prompt corrective action regulations and FDIC capital regulations, as follows:

- ASB met applicable minimum regulatory capital requirements (noted in parentheses) as of December 31, 2016 with a Tier 1 leverage ratio of 8.6% (4.0%), a common equity Tier 1 capital ratio of 12.2% (4.5%), a Tier 1 capital ratio of 12.2% (6.0%) and a total capital ratio of 13.4% (8.0%).
- ASB met the capital requirements to be generally considered "well-capitalized" (noted in parentheses) as of December 31, 2016 with a Tier 1 leverage ratio of 8.6% (5.0%), a common equity Tier 1 capital ratio of 12.2% (6.5%), a Tier-1 capital ratio of 12.2% (8.0%) and a total capital ratio of 13.4% (10.0%).

The purpose of the prompt corrective action capital requirements is to establish thresholds for varying degrees of oversight and intervention by regulators. Declines in levels of capital, depending on their severity, will result in increasingly stringent

mandatory and discretionary regulatory consequences. Capital levels may decline for any number of reasons, including reductions that would result if there were losses from operations, deterioration in collateral values or the inability to dispose of real estate owned (typically acquired by foreclosure). The regulators have substantial discretion in the corrective actions they might direct and could include restrictions on dividends and other distributions that ASB may make to HEI (through ASB Hawaii) and the requirement that ASB develop and implement a plan to restore its capital. Under an agreement with regulators entered into by HEI when it acquired ASB, HEI currently could be required to contribute to ASB up to an additional \$28.3 million of capital, if necessary, to maintain ASB's capital position.

Examinations. ASB is subject to periodic "safety and soundness" examinations and other examinations by the OCC. In conducting its examinations, the OCC utilizes the Uniform Financial Institutions Rating System adopted by the Federal Financial Institutions Examination Council, which system utilizes the "CAMELS" criteria for rating financial institutions. The six components in the rating system are: Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to market risk. The OCC examines and rates each CAMELS component. An overall CAMELS rating is also given, after taking into account all of the component ratings. A financial institution may be subject to formal regulatory or administrative direction or supervision such as a "memorandum of understanding" or a "cease and desist" order following an examination if its CAMELS rating is not satisfactory. An institution is prohibited from disclosing the OCC's report of its safety and soundness examination or the component and overall CAMELS rating to any person or organization not officially connected with the institution as an officer, director, employee, attorney or auditor, except as provided by regulation. The OCC also regularly examines ASB's information technology practices and its performance under Community Reinvestment Act measurement criteria.

The Federal Deposit Insurance Act, as amended, addresses the safety and soundness of the deposit insurance system, supervision of depository institutions and improvement of accounting standards. Pursuant to this Act, federal banking agencies have promulgated regulations that affect the operations of ASB and its holding companies (e.g., standards for safety and soundness, real estate lending, accounting and reporting, transactions with affiliates and loans to insiders). FDIC regulations restrict the ability of financial institutions that fail to meet relevant capital measures to engage in certain activities, such as offering interest rates on deposits that are significantly higher than the rates offered by competing institutions. As of December 31, 2016, ASB was "well-capitalized" and thus not subject to these restrictions.

Qualified Thrift Lender status. ASB is a "qualified thrift lender" (QTL) under its federal thrift charter and, in order to maintain this status, ASB is required to maintain at least 65% of its assets in "qualified thrift investments," which include housing-related loans (including mortgage-related securities) as well as certain small business loans, education loans, loans made through credit card accounts and a basket (not exceeding 20% of total assets) of other consumer loans and other assets. Institutions that fail to maintain QTL status are subject to various penalties, including limitations on their activities. In ASB's case, the activities of HEI, ASB Hawaii and HEI's other subsidiaries would also be subject to restrictions if ASB failed to maintain its QTL status, and a failure or inability to comply with those restrictions could effectively result in the required divestiture of ASB. As of December 31, 2016, ASB was a qualified thrift lender.

Unitary savings and loan holding company. The Gramm-Leach-Bliley Act of 1999 (Gramm Act) permitted banks, insurance companies and investment firms to compete directly against each other, thereby allowing "one-stop shopping" for an array of financial services. Although the Gramm Act further restricted the creation of so-called "unitary savings and loan holding companies" (i.e., companies such as HEI whose subsidiaries include one or more savings associations and one or more nonfinancial subsidiaries), the unitary savings and loan holding company relationship among HEI, ASB Hawaii and ASB is "grandfathered" under the Gramm Act so that HEI and its subsidiaries will be able to continue to engage in their current activities so long as ASB maintains its QTL status. Under the Gramm Act, any proposed sale of ASB would have to satisfy applicable statutory and regulatory requirements and potential acquirers of ASB would most likely be limited to companies that are already qualified as, or capable of qualifying as, either a traditional savings and loan association holding company or a bank holding company, or as one of the authorized financial holding companies permitted under the Gramm Act. There have been legislative proposals in the past which would operate to eliminate the thrift charter or the grandfathered status of HEI as a unitary thrift holding company and effectively require the divestiture of ASB.

Material estimates and critical accounting policies. Also see "Material estimates and critical accounting policies" for Consolidated HEI above.

Allowance for loan losses. See Note 1 of the Consolidated Financial Statements and the discussion above under "Earning assets, costing liabilities and other factors." ASB maintains an allowance for loan losses believed to be adequate to absorb losses inherent in its loan portfolio. The level of allowance for loan losses is based on a continuing assessment of existing risks in the loan portfolio, historical loss experience, changes in collateral values and current conditions (for example, economic conditions, real estate market conditions and interest rate environment). The allowance for loan losses is allocated to loan types using both a formula-based approach applied to groups of loans and an analysis of certain individual loans for impairment. The formula-based approach emphasizes loss factors primarily derived from actual historical default and loss rates, which are

combined with an assessment of certain qualitative factors to determine the allowance amounts allocated to the various loan categories. Adverse changes in any of these factors could result in higher charge-offs and provision for loan losses.

ASB disaggregates the loan portfolio into loan segments for purposes of determining the allowance for loan losses. Commercial and commercial real estate loans are defined as non-homogeneous loans. ASB utilizes a risk rating system for evaluating the credit quality of such loans. Loans are rated based on the degree of risk at origination and periodically thereafter, as appropriate. Values are applied separately to the probability of default (borrower risk) and loss given default (transaction risk). ASB's credit review department performs an evaluation of these loan portfolios to ensure compliance with the internal risk rating system and timeliness of rating changes. Non-homogeneous loans are categorized into the regulatory asset quality classifications: Pass, Special Mention, Substandard, Doubtful, and Loss based on credit quality. For loans classified as substandard, an analysis is done to determine if the loan is impaired. A loan is deemed impaired when it is probable that ASB will be unable to collect all amounts due according to the contractual terms of the loan agreement. Once a loan is deemed impaired, ASB applies a valuation methodology to determine whether there is an impairment shortfall. The measurement of impairment may be based on (i) the present value of the expected future cash flows of the impaired loan discounted at the loan's original effective interest rate, (ii) the observable market price of the impaired loan, or (iii) the fair value of the collateral, net of costs to sell. For all loans collateralized by real estate whose repayment is dependent on the sale of the underlying collateral property, ASB measures impairment by utilizing the fair value of the collateral, net of costs to sell; for other loans that are not considered collateral dependent, generally the discounted cash flow method is used to measure impairment. For loans collateralized by real estate that are classified as troubled debt restructured (TDR) loans, the present value of the expected future cash flows of the loans may also be used to measure impairment as these loans are expected to perform according to their restructured terms. Impairment shortfalls are charged to the provision for loan losses and included in the allowance for loan losses. However, impairment shortfalls that are deemed to be confirmed losses (uncollectible) are charged off, with the loan written down by the amount of the confirmed loss.

Residential, consumer and credit scored business loans are considered homogeneous loans, which are typically underwritten based on common, uniform standards, and are generally classified as to the level of loss exposure based on delinquency status. The homogeneous loan portfolios are stratified into individual products with common risk characteristics and segmented into various secured and unsecured loan product types. For the homogeneous portfolio, the quality of the loan is best indicated by the repayment performance of an individual borrower. ASB supplements performance data with an 11-risk rating retail credit model that assigns a probability of default to each borrower based primarily on the borrower's current Fair Isaac Corporation (FICO) score and for HELOC and unsecured consumer products, the bankruptcy score. Current FICO and bankruptcy data is purchased and appended to all homogeneous loans on a quarterly basis and used to estimate the borrower's probability of default and the loss given default.

ASB's methodology for determining the allowance for loan losses was generally based on historic loss rates using various look-back periods. During the second quarter of 2014, ASB implemented enhancements to the loss rate calculation for estimating the allowance for loan losses that included several refinements to determining the probability of default and the loss given default for the various segments of the loan portfolio that are more statistically sound than those previously employed. The result is an estimated loss rate established for each loan. ASB believes that these enhancements improve the precision in estimating the allowance for loan losses. The enhancement did not have a material effect on the total allowance for loan losses or the provision for loan losses for 2014 and did result in the full allocation of the previously unallocated portion of the allowance for loan losses.

In conjunction with the above enhancement, management also adopted an enhanced risk rating system for monitoring and managing credit risk in the non-homogenous loan portfolios that measures general creditworthiness at the borrower level. The numerical-based, risk rating "PD Model" takes into consideration fiscal year-end financial information of the borrower and identified financial attributes including retained earnings, operating cash flows, interest coverage, liquidity and leverage that demonstrate a strong correlation with default to assign default probabilities at the borrower level. In addition, a loss given default value is assigned to each loan to measure loss in the event of default based on loan specific features such as collateral that mitigates the amount of loss in the event of default. Together the PD Model and loss given default construct provide a more quantitative, data driven and consistent framework for measuring risk within the portfolio, on a loan by loan basis and for the ultimate collectability of each loan. Additionally, qualitative factors may be included in the estimation process.

The reserve for unfunded commitments is maintained at a level believed by management to be sufficient to absorb estimated probable losses related to unfunded credit facilities and is included in accounts payable and other liabilities in the consolidated balance sheets. The determination of the adequacy of the reserve is based upon an evaluation of the unfunded credit facilities, including an assessment of historical commitment utilization experience, credit risk grading and historical loss rates. This process takes into consideration the same risk elements that are analyzed in the determination of the adequacy of the allowance for loan losses, as discussed above. Net adjustments to the reserve for unfunded commitments are included in other noninterest expense in the consolidated statements of income.

Management believes its allowance for loan losses adequately estimates actual loan losses that will ultimately be incurred. However, such estimates are based on currently available information and historical experience, and future adjustments may be required from time to time to the allowance for loan losses based on new information and changes that occur (e.g., due to changes in economic conditions, particularly in Hawaii). Actual losses could differ from management's estimates, and these differences and subsequent adjustments could be material.

Nonperforming loans. Loans are generally placed on nonaccrual status when contractually past due 90 days or more, or earlier if management believes that the probability of collection is insufficient to warrant further accrual. All interest that is accrued but not collected is reversed. A loan may be returned to accrual status if (i) principal and interest payments have been brought current and ASB expects repayment of the remaining contractual principal and interest, (ii) the loan has otherwise become well-secured and collection efforts are reasonably expected to result in repayment of the debt, or (iii) the borrower has been making regularly scheduled payments in full for the prior six months and it is reasonably assured that the loan will be brought fully current within a reasonable period. Cash receipts on nonaccruing loans are generally applied to reduce the unpaid principal balance.

Loans considered to be uncollectible are charged-off against the allowance. The amount and timing of charge-offs on loans includes consideration of the loan type, length of delinquency, insufficiency of collateral value, lien priority and the overall financial condition of the borrower. Recoveries on loans previously charged-off are credited back to the allowance. Loans that have been charged-off against the allowance are periodically monitored to evaluate whether further adjustments to the allowance are necessary.

Loans in the commercial and commercial real estate portfolio are charged-off when the loan is risk rated "doubtful" or "loss". The loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. A loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 90 days or more; (b) significant improvement in the borrower's repayment capacity is doubtful; and/or (c) collateral value is insufficient to cover outstanding indebtedness and no other viable assets exist.

Loans in the residential mortgage and home equity portfolios are charged-off when the loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. A loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 180 days or more; (b) it is probable that collateral value is insufficient to cover outstanding indebtedness and no other viable assets exist; (c) notification of the borrower's bankruptcy is received; or (d) in cases where ASB is in a subordinate position to other debt, the senior lien holder has foreclosed and extinguished the junior lien.

Other consumer loans are generally charged-off when the balance becomes 120 days delinquent.

See "Nonperforming loans" in Note 1 of the Consolidated Financial Statements for additional information regarding ASB's nonperforming loans.

Troubled debt restructurings. A loan modification is deemed to be a TDR when ASB grants a concession ASB would not otherwise consider if it were not for the borrower's financial difficulty. When a borrower experiencing financial difficulty fails to make a required payment on a loan or is in imminent default, ASB takes a number of steps to improve the collectability of the loan and maximize the likelihood of full repayment. At times, ASB may modify or restructure a loan to help a distressed borrower improve their financial position to eventually be able to repay the loan fully, provided the borrower has demonstrated both the willingness and the ability to fulfill the modified terms. TDR loans are considered an alternative to foreclosure or liquidation with the goal of minimizing losses and maximizing recovery.

ASB may consider various types of concessions in granting a TDR, including maturity date extensions, extended amortization of principal, temporary deferral of principal payments, and temporary interest rate reductions. ASB rarely grants principal forgiveness in TDR modifications. Residential loan modifications generally involve interest rate reduction, extending the amortization period or interest only payments for a period of time. Land loans at origination are typically structured as a three-year term, interest-only monthly payment with a balloon payment due at maturity. Land loan TDR modifications typically involve extending the maturity date up to five years and converting the payments from interest-only to principal and interest monthly payments. Commercial loan modifications generally involve extensions of maturity dates, extending the amortization period and temporary deferral of principal payments. ASB generally do not reduce the interest rate on commercial loan TDR modifications. Occasionally, additional collateral and/or guaranties are obtained.

Certain TDRs that are current in payment status are classified as nonaccrual in accordance with regulatory guidance. These nonaccruing TDRs can be returned to accrual status when principal and interest have been current for at least six months and a well-documented evaluation of the borrower's financial condition has been performed and indicates future payments are reasonably assured.

All TDR loans are classified as impaired and are segregated and reviewed separately when assessing the adequacy of the allowance for loan losses based on the appropriate method of measuring impairment. The financial impact of the calculated impairment amount is an increase to the allowance for loan losses associated with the modified loan. When available information confirms that specific loans or portions thereof are uncollectible (confirmed losses), these amounts are charged off against the allowance for loan losses.

Fair value. Fair value estimates are based on the price that would be received to sell an asset, or paid upon the transfer of a liability, in an orderly transaction between market participants at the measurement date. The fair value estimates are generally determined based on assumptions that market participants would use in pricing the asset or liability and are based on market data obtained from independent third party sources. However, in certain cases, ASB uses its own assumptions based on the best information available in certain circumstances. These valuations are estimates at a specific point in time, based on relevant market information, information about the financial instrument and judgments regarding future expected loss experience, economic conditions, risk characteristics of various financial instruments and other factors. These estimates do not reflect any premium or discount that could result if ASB were to sell its entire holdings of a particular financial instrument at one time. Because no active trading market exists for a portion of its financial instruments, fair value estimates cannot be determined with precision. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the estimates. In addition, the tax ramifications related to the realization of the unrealized gains and losses could have a significant effect on fair value estimates, but have not been considered in making such estimates.

ASB classifies its financial assets and liabilities that are measured at fair value in accordance with the three level valuation hierarchy outlined as follows:

- Level 1: Inputs to the valuation methodology are quoted prices, unadjusted, for identical assets or liabilities in active markets. A quoted price in an active market provides the most reliable evidence of fair value and is used to measure fair value whenever available.
- Level 2: Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets; inputs to the valuation methodology include quoted prices for identical or similar assets or liabilities in markets that are not active; or inputs to the valuation methodology that are derived principally from or can be corroborated by observable market data by correlation or other means.
- Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Level 3 assets and liabilities include financial instruments whose value is determined using discounted cash flow methodologies, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

Classification in the hierarchy is based upon the lowest level input that is significant to the fair value measurement of the asset or liability. For instruments classified in Level 1 and 2 where inputs are primarily based upon observable market data, there is less judgment applied in arriving at the fair value. For instruments classified in Level 3, management judgment is more significant due to the lack of observable market data.

Significant assets measured at fair value on a recurring basis include ASB's mortgage-related securities available for sale. These instruments are priced using an external pricing service and are classified as Level 2 within the fair value hierarchy. The third-party pricing services use a variety of methods to determine fair value including quoted prices for similar securities in an active market, yield spreads for similar trades, adjustments for liquidity, size, collateral characteristics, historic and generic prepayment speeds and other observable market factors. To enhance the robustness of the pricing process, ASB compares its standard third-party vendor's price with that of another third-party vendor. If the prices are within an acceptable tolerance range, the price of the standard vendor will be accepted. If the variance is beyond the tolerance range, an evaluation will be conducted by the investment manager and a challenge to the price may be made. Fair value in such cases will be based on the value that best reflects the data and observable characteristics of the security. In all cases, the fair value used will have been independently determined by a third-party pricing vendor or non-affiliated broker.

Fair value is also used on a nonrecurring basis to evaluate certain assets for impairment or for disclosure purposes. Examples of nonrecurring uses of fair value include mortgage servicing rights accounted for by the amortization method, loan impairments for certain loans, real estate owned and goodwill.

See "Investment securities" and "Derivative financial instruments" in Note 5 and Note 16 of the Consolidated Financial Statements for additional information regarding ASB's fair value measurements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

HEI and Hawaiian Electric (in the case of Hawaiian Electric, only the information related to Hawaiian Electric and its subsidiaries is applicable):

The Company manages various market risks in the ordinary course of business, including credit risk and liquidity risk. The Company believes the electric utility and the “other” segment’s exposures to these two risks were not material as of December 31, 2016.

Credit risk for ASB is the risk that borrowers or issuers of securities will not be able to repay their obligations to the bank. Credit risk associated with ASB’s lending portfolios is controlled through its underwriting standards, loan rating of commercial and commercial real estate loans, on-going monitoring by loan officers, credit review and quality control functions in these lending areas and adequate allowance for loan losses. Credit risk associated with the securities portfolio is mitigated through investment portfolio limits, experienced staff working with analytical tools, monthly fair value analysis and on-going monitoring and reporting such as investment watch reports and loss sensitivity analysis. See “Allowance for loan losses” above and in Note 5 of the Consolidated Financial Statements.

Liquidity risk for ASB is the risk that the bank will not meet its obligations when they become due. Liquidity risk is mitigated by ASB’s asset/liability management process, on-going analytical analysis, monitoring and reporting information such as weekly cash-flow analyses and maintenance of liquidity contingency plans.

The Utilities are exposed to some commodity price risk primarily related to their fuel supply and IPP contracts. The Utilities’ commodity price risk is substantially mitigated so long as they have their current ECACs in their rate schedules. The Utilities currently have no hedges against its commodity price risk.

The Company currently has no direct exposure to market risk from trading activities nor foreign currency exchange rate risk.

The Company considers interest rate risk to be a very significant market risk as it could potentially have a significant effect on the Company’s results of operations, financial condition and liquidity, especially as it relates to ASB, but also as it may affect the discount rate used to determine retirement benefit liabilities, the market value of retirement benefit plans’ assets and the Utilities’ allowed rates of return. Interest rate risk can be defined as the exposure of the Company’s earnings to adverse movements in interest rates.

Bank interest rate risk

The Company’s success is dependent, in part, upon ASB’s ability to manage interest rate risk (IRR). ASB’s interest-rate risk profile is strongly influenced by its primary business of making fixed-rate residential mortgage loans and taking in retail deposits. Large mismatches in the amounts or timing between the maturity or repricing of interest sensitive assets or liabilities could adversely affect ASB’s earnings and the market value of its interest-sensitive assets and liabilities in the event of significant changes in the level of interest rates. Many other factors also affect ASB’s exposure to changes in interest rates, such as general economic and financial conditions, customer preferences and competition for loans or deposits.

ASB’s Asset/Liability Management Committee (ALCO), whose voting members are officers and employees of ASB, is responsible for managing interest rate risk and carrying out the overall asset/liability management objectives and activities of ASB as approved by the ASB Board of Directors. ALCO establishes policies under which management monitors and coordinates ASB’s assets and liabilities.

See Note 5 of the Consolidated Financial Statements for a discussion of the use of rate lock commitments on loans held for sale and forward sale contracts to manage some interest rate risk associated with ASB’s residential loan sale program.

Management of ASB measures interest-rate risk using simulation analysis with an emphasis on measuring changes in net interest income (NII) and the market value of interest-sensitive assets and liabilities in different interest-rate environments. The simulation analysis is performed using a dedicated asset/liability management software system enhanced with a mortgage prepayment model and a collateralized mortgage obligation database. The simulation software is capable of generating scenario-specific cash flows for all instruments using the specified contractual information for each instrument and product specific prepayment assumptions for mortgage loans and mortgage-related securities.

NII sensitivity analysis measures the change in ASB’s twelve-month, pretax NII in alternate interest rate scenarios. NII sensitivity is measured as the change in NII in the alternate interest-rate scenarios as a percentage of the base case NII. The base case interest-rate scenario is established using the current yield curve and assumes interest rates remain constant over the next

twelve months. The alternate scenarios are created by assuming “rate ramps” or gradual interest changes and accomplished by moving the yield curve in a parallel fashion, over the next twelve month period, in increments of +/- 100 basis points. The simulation model forecasts scenario-specific principal and interest cash flows for the interest-bearing assets and liabilities, and the NII is calculated for each scenario. Key balance sheet modeling assumptions used in the NII sensitivity analysis include: the size of the balance sheet remains relatively constant over the simulation horizon and maturing assets or liabilities are reinvested in similar instruments in order to maintain the current mix of the balance sheet. In addition, assumptions are made about the prepayment behavior of mortgage-related assets, future pricing spreads for new assets and liabilities and the speed and magnitude with which deposit rates change in response to changes in the overall level of interest rates. Other NII sensitivity analysis may include scenarios such as yield curve twists or non-static balance sheet changes (such as changes to key balance sheet drivers).

Consistent with OCC guidelines, the market value or economic capitalization of ASB is measured as economic value of equity (EVE). EVE represents the theoretical market value of ASB’s net worth and is defined as the present value of expected net cash flows from existing assets minus the present value of expected cash flows from existing liabilities plus the present value of expected net cash flows from existing off-balance sheet contracts. Key assumptions used in the calculation of ASB’s EVE include the prepayment behavior of loans and investments, the possible distribution of future interest rates, pricing spreads for assets and liabilities in the alternate scenarios and the rate and balance behavior of deposit accounts with indeterminate maturities. EVE is calculated in multiple scenarios. As with the NII simulation, the base case is represented by the current yield curve. Alternate scenarios are created by assuming immediate parallel shifts in the yield curve in increments of +/- 100 basis points (bp) up to + 300 bp. The change in EVE is measured as the change in EVE in a given rate scenario from the base case and expressed as a percentage. To gain further insight into the IRR profile, additional analysis is periodically performed in alternate scenarios including rate shifts of greater magnitude and changes in key balance sheet drivers.

ASB’s interest-rate risk sensitivity measures as of December 31, 2016 and 2015 constitute “forward-looking statements” and were as follows:

Change in interest rates (basis points)	Change in NII (gradual change in interest rates)		Change in EVE (instantaneous change in interest rates)	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	+300	1.9%	1.6%	(8.0)%
+200	0.8	0.6	(4.6)	(5.3)
+100	—	(0.1)	(1.6)	(1.9)
-100	(0.5)	(0.5)	(1.6)	(1.2)

Management believes that ASB’s interest rate risk position as of December 31, 2016 represents a reasonable level of risk. The NII profile under the rising interest rate scenarios were more asset sensitive for all rate increases as of December 31, 2016 compared to December 31, 2015. The increase in asset sensitivity was primarily attributed to management updating its repricing assumptions of certain core deposits in the third quarter of 2016 and growth in shorter duration home equity and personal unsecured loan products. In addition, ASB reduced its exposure to repurchase agreements by \$136 million, resulting in a less interest rate sensitive funding base.

ASB’s base EVE increased to \$1.1 billion as of December 31, 2016 compared to \$974 million as of December 31, 2015 due to the growth and mix of the balance sheet. Assets increased by \$407 million with market valuation exceeding the growth and valuation of funding liabilities.

The change in EVE to rising rates became less sensitive as of December 31, 2016 compared to December 31, 2015 as the duration of liabilities lengthened more than the duration of assets. In the third quarter of 2016, management updated its core deposit average lives assumption, which positively improved the market value of portfolio equity. However, the recent shift in the yield curve has caused mortgage rates to increase, leading to slower prepayment expectations and lengthening in duration of the residential mortgage portfolio.

The computation of the prospective effects of hypothetical interest rate changes on the NII sensitivity and the percentage change in EVE is based on numerous assumptions, including relative levels of market interest rates, loan prepayments, balance changes and pricing strategies, and should not be relied upon as indicative of actual results. To the extent market conditions and other factors vary from the assumptions used in the simulation analysis, actual results may differ materially from the simulation results. Furthermore, NII sensitivity analysis measures the change in ASB’s twelve-month, pretax NII in alternate interest rate scenarios, and is intended to help management identify potential exposures in ASB’s current balance sheet and formulate appropriate strategies for managing interest rate risk. The simulation does not contemplate any actions that ASB management might undertake in response to changes in interest rates. Further, the changes in NII vary in the twelve-month simulation period

and are not necessarily evenly distributed over the period. These analyses are for analytical purposes only and do not represent management's views of future market movements, the level of future earnings, or the timing of any changes in earnings within the twelve month analysis horizon. The actual impact of changes in interest rates on NII will depend on the magnitude and speed with which rates change, actual changes in ASB's balance sheet, and management's responses to the changes in interest rates.

Other than bank interest rate risk

The Company's general policy is to manage "other than bank" interest rate risk through use of a combination of short-term debt, long-term debt and preferred securities. As of December 31, 2016, management believes the Company was exposed to "other than bank" interest rate risk because of its periodic borrowing requirements, the impact of interest rates on the discount rate and the market value of plan assets used to determine retirement benefits expenses and obligations (see "Pension and other postretirement benefits obligations" in HEI's MD&A and "Retirement benefits" in Notes 1 and 10 of the Consolidated Financial Statements) and the possible effect of interest rates on the electric utilities' allowed rates of return (see "Electric utility—Certain factors that may affect future results and financial condition—Regulation of electric utility rates"). Other than these exposures, management believes its exposure to "other than bank" interest rate risk is not material. The Company's long-term debt, in the form of borrowings of proceeds of revenue bonds, privately-placed senior notes and bank term loans, is predominately at fixed rates (see Note 16 of the Consolidated Financial Statements for the fair value of long-term debt, net-other than bank).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of
Hawaiian Electric Industries, Inc.

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Hawaiian Electric Industries, Inc. and its subsidiaries at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules listed in the index appearing under Item 15 (a)(2) present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedules, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedules, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Los Angeles, California
February 24, 2017

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholder
of Hawaiian Electric Company, Inc.

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Hawaiian Electric Company, Inc. and its subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Los Angeles, California
February 24, 2017

Consolidated Statements of Income

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2016	2015	2014
(in thousands, except per share amounts)			
Revenues			
Electric utility	\$ 2,094,368	\$ 2,335,166	\$ 2,987,323
Bank	285,924	267,733	252,497
Other	362	83	(278)
Total revenues	2,380,654	2,602,982	3,239,542
Expenses			
Electric utility	1,809,900	2,061,050	2,711,555
Bank	198,572	183,921	173,202
Other	24,007	35,458	22,185
Total expenses	2,032,479	2,280,429	2,906,942
Operating income (loss)			
Electric utility	284,468	274,116	275,768
Bank	87,352	83,812	79,295
Other	(23,645)	(35,375)	(22,463)
Total operating income	348,175	322,553	332,600
Merger termination fee	90,000	—	—
Interest expense, net – other than on deposit liabilities and other bank borrowings	(75,803)	(77,150)	(76,352)
Allowance for borrowed funds used during construction	3,144	2,457	2,579
Allowance for equity funds used during construction	8,325	6,928	6,771
Income before income taxes	373,841	254,788	265,598
Income taxes	123,695	93,021	95,579
Net income	250,146	161,767	170,019
Preferred stock dividends of subsidiaries	1,890	1,890	1,890
Net income for common stock	\$ 248,256	\$ 159,877	\$ 168,129
Basic earnings per common share	\$ 2.30	\$ 1.50	\$ 1.65
Diluted earnings per common share	\$ 2.29	\$ 1.50	\$ 1.63
Dividends per common share	\$ 1.24	\$ 1.24	\$ 1.24
Weighted-average number of common shares outstanding	108,102	106,418	101,968
Net effect of potentially dilutive shares	207	303	969
Adjusted weighted-average shares	108,309	106,721	102,937

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31 (in thousands)	2016	2015	2014
Net income for common stock	\$ 248,256	\$ 159,877	\$ 168,129
Other comprehensive income (loss), net of taxes:			
Net unrealized gains (losses) on available-for sale investment securities:			
Net unrealized gains (losses) on available-for sale investment securities arising during the period, net of (taxes) benefits of \$3,763, \$1,541 and \$(3,856) for 2016, 2015 and 2014, respectively	(5,699)	(2,334)	5,840
Less: reclassification adjustment for net realized gains included in net income, net of taxes of \$238, nil and \$1,132 for 2016, 2015 and 2014, respectively	(360)	—	(1,715)
Derivatives qualified as cash flow hedges:			
Effective portion of foreign currency hedge net unrealized losses arising during the period, net of tax benefits of \$179, nil and nil for 2016, 2015 and 2014, respectively	(281)	—	—
Less: reclassification adjustment to net income, net of (taxes) benefit of \$(76), \$150 and \$150 for 2016, 2015 and 2014, respectively	(119)	235	236
Retirement benefit plans:			
Net gains (losses) arising during the period, net of (taxes) benefits of \$27,703, \$(3,753) and \$149,364 for 2016, 2015 and 2014, respectively	(43,510)	5,889	(234,166)
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits of \$9,267, \$14,344 and \$7,245 for 2016, 2015 and 2014, respectively	14,518	22,465	11,344
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of (taxes) benefits of \$(18,206), \$16,011 and \$(132,373) for 2016, 2015 and 2014, respectively	28,584	(25,139)	207,833
Other comprehensive income (loss), net of taxes	(6,867)	1,116	(10,628)
Comprehensive income attributable to Hawaiian Electric Industries, Inc.	\$ 241,389	\$ 160,993	\$ 157,501

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Balance Sheets

Hawaiian Electric Industries, Inc. and Subsidiaries

December 31	2016		2015	
(dollars in thousands)				
ASSETS				
Cash and cash equivalents	\$	278,452	\$	300,478
Accounts receivable and unbilled revenues, net		237,950		242,766
Available-for-sale investment securities, at fair value		1,105,182		820,648
Stock in Federal Home Loan Bank, at cost		11,218		10,678
Loans receivable held for investment, net		4,683,160		4,565,781
Loans held for sale, at lower of cost or fair value		18,817		4,631
Property, plant and equipment, net				
Land	\$	97,423	\$	90,890
Plant and equipment		6,727,935		6,444,214
Construction in progress		222,455		181,873
		7,047,813		6,716,977
Less – accumulated depreciation		(2,444,348)		(2,339,319)
Regulatory assets		957,451		896,731
Other		447,621		480,457
Goodwill		82,190		82,190
Total assets	\$	12,425,506	\$	11,782,018
LIABILITIES AND SHAREHOLDERS' EQUITY				
Liabilities				
Accounts payable	\$	143,279	\$	138,523
Interest and dividends payable		25,225		26,042
Deposit liabilities		5,548,929		5,025,254
Short-term borrowings—other than bank		—		103,063
Other bank borrowings		192,618		328,582
Long-term debt, net—other than bank		1,619,019		1,578,368
Deferred income taxes		728,806		680,877
Regulatory liabilities		410,693		371,543
Contributions in aid of construction		543,525		506,087
Defined benefit pension and other postretirement benefit plans liability		638,854		589,918
Other		473,512		471,828
Total liabilities		10,324,460		9,820,085
Preferred stock of subsidiaries - not subject to mandatory redemption		34,293		34,293
Commitments and contingencies (Notes 4 and 5)				
Shareholders' equity				
Preferred stock, no par value, authorized 10,000,000 shares; issued: none		—		—
Common stock, no par value, authorized 200,000,000 shares; issued and outstanding: 108,583,413 shares and 107,460,406 shares at December 31, 2016 and 2015, respectively		1,660,910		1,629,136
Retained earnings		438,972		324,766
Accumulated other comprehensive loss, net of tax benefits				
Net unrealized losses on securities	\$	(7,931)	\$	(1,872)
Unrealized losses on derivatives		(454)		(54)
Retirement benefit plans		(24,744)		(33,129)
		(24,336)		(26,262)
Total shareholders' equity		2,066,753		1,927,640
Total liabilities and shareholders' equity	\$	12,425,506	\$	11,782,018

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Shareholders' Equity

Hawaiian Electric Industries, Inc. and Subsidiaries

(in thousands, except per share amounts)	Common stock		Retained earnings	Accumulated other comprehensive income (loss)	Total
	Shares	Amount			
Balance, December 31, 2013	101,260	\$ 1,488,126	\$ 255,030	\$ (16,750)	\$ 1,726,406
Net income for common stock	—	—	168,129	—	168,129
Other comprehensive loss, net of tax benefits	—	—	—	(10,628)	(10,628)
Issuance of common stock:					
Partial settlement of equity forward	1,000	24,873	—	—	24,873
Dividend reinvestment and stock purchase plan	95	2,461	—	—	2,461
Retirement savings and other plans	210	6,816	—	—	6,816
Expenses and other, net	—	(979)	—	—	(979)
Common stock dividends (\$1.24 per share)	—	—	(126,505)	—	(126,505)
Balance, December 31, 2014	102,565	1,521,297	296,654	(27,378)	1,790,573
Net income for common stock	—	—	159,877	—	159,877
Other comprehensive income, net of taxes	—	—	—	1,116	1,116
Issuance of common stock:					
Partial settlement of equity forward	4,700	109,183	—	—	109,183
Retirement savings and other plans	195	5,578	—	—	5,578
Expenses and other, net	—	(6,922)	—	—	(6,922)
Common stock dividends (\$1.24 per share)	—	—	(131,765)	—	(131,765)
Balance, December 31, 2015	107,460	1,629,136	324,766	(26,262)	1,927,640
Net income for common stock	—	—	248,256	—	248,256
Other comprehensive loss, net of tax benefits	—	—	—	(6,867)	(6,867)
Issuance of common stock:					
Dividend reinvestment and stock purchase plan	859	26,844	—	—	26,844
Retirement savings and other plans	264	9,298	—	—	9,298
Expenses and other, net	—	(4,368)	—	—	(4,368)
Common stock dividends (\$1.24 per share)	—	—	(134,050)	—	(134,050)
Balance, December 31, 2016	108,583	\$ 1,660,910	\$ 438,972	\$ (33,129)	\$ 2,066,753

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2016	2015	2014
(in thousands)			
Cash flows from operating activities			
Net income	\$ 250,146	\$ 161,767	\$ 170,019
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation of property, plant and equipment	194,273	183,966	172,762
Other amortization	10,473	11,619	10,282
Provision for loan losses	16,763	6,275	6,126
Impairment of utility assets	—	6,021	1,866
Loans receivable originated and purchased, held for sale	(236,769)	(268,279)	(155,755)
Proceeds from sale of loans receivable, held for sale	236,062	275,296	155,030
Deferred income taxes	47,118	41,432	104,225
Share-based compensation expense	4,789	6,542	9,287
Excess tax benefits from share-based payment arrangements	(404)	(978)	(277)
Allowance for equity funds used during construction	(8,325)	(6,928)	(6,771)
Other	(12,422)	1,672	(280)
Changes in assets and liabilities			
Decrease (increase) in accounts receivable and unbilled revenues, net	(898)	62,304	33,089
Decrease in fuel oil stock	4,786	34,830	28,041
Increase in regulatory assets	(18,273)	(24,182)	(17,000)
Decrease in accounts, interest and dividends payable	(9,643)	(52,663)	(67,189)
Change in prepaid and accrued income taxes, tax credits and utility revenue taxes	39,109	(42,596)	(39,091)
Increase in defined benefit pension and other postretirement benefit plans liability	1,587	852	22,251
Change in other assets and liabilities	(23,118)	(41,070)	(101,195)
Net cash provided by operating activities	495,254	355,880	325,420
Cash flows from investing activities			
Available-for-sale investment securities purchased	(533,956)	(429,262)	(183,778)
Principal repayments on available-for-sale investment securities	219,845	153,271	91,013
Proceeds from sale of available-for-sale investment securities	16,423	—	79,564
Purchase of stock from Federal Home Loan Bank	(7,773)	(1,600)	—
Redemption of stock from Federal Home Loan Bank	7,233	60,223	23,244
Net increase in loans held for investment	(194,042)	(181,343)	(283,810)
Proceeds from sale of commercial loans	52,299	—	—
Proceeds from sale of real estate acquired in settlement of loans	829	1,329	3,213
Proceeds from sale of real estate held for sale	1,764	7,283	—
Capital expenditures	(330,043)	(363,804)	(364,826)
Contributions in aid of construction	30,100	40,239	41,806
Other	856	7,940	1,125
Net cash used in investing activities	(736,465)	(705,724)	(592,449)

(continued)

Consolidated Statements of Cash Flows (continued)

Hawaiian Electric Industries, Inc. and Subsidiaries

Years ended December 31	2016	2015	2014
Cash flows from financing activities			
Net increase in deposit liabilities	523,675	401,839	250,938
Net increase (decrease) in short-term borrowings with original maturities of three months or less	(103,063)	(15,909)	13,490
Net increase (decrease) in retail repurchase agreements	(43,601)	37,925	(9,465)
Proceeds from other bank borrowings	180,835	50,000	130,601
Repayments of other bank borrowings	(272,902)	(50,000)	(75,000)
Proceeds from issuance of long-term debt	115,000	80,000	125,000
Repayment of long-term debt	(75,000)	—	(111,400)
Excess tax benefits from share-based payment arrangements	404	978	277
Net proceeds from issuance of common stock	13,220	104,435	26,898
Common stock dividends	(117,274)	(131,765)	(126,458)
Preferred stock dividends of subsidiaries	(1,890)	(1,890)	(1,890)
Other	(219)	(833)	(456)
Net cash provided by financing activities	219,185	474,780	222,535
Net increase (decrease) in cash and cash equivalents	(22,026)	124,936	(44,494)
Cash and cash equivalents, January 1	300,478	175,542	220,036
Cash and cash equivalents, December 31	\$ 278,452	\$ 300,478	\$ 175,542

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Income

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31 (in thousands)	2016	2015	2014
Revenues	\$ 2,094,368	\$ 2,335,166	\$ 2,987,323
Expenses			
Fuel oil	454,704	654,600	1,131,685
Purchased power	562,740	594,096	722,008
Other operation and maintenance	405,533	413,089	410,612
Depreciation	187,061	177,380	166,387
Taxes, other than income taxes	199,862	221,885	280,863
Total expenses	1,809,900	2,061,050	2,711,555
Operating income	284,468	274,116	275,768
Allowance for equity funds used during construction	8,325	6,928	6,771
Interest expense and other charges, net	(66,824)	(66,370)	(64,757)
Allowance for borrowed funds used during construction	3,144	2,457	2,579
Income before income taxes	229,113	217,131	220,361
Income taxes	84,801	79,422	80,725
Net income	144,312	137,709	139,636
Preferred stock dividends of subsidiaries	915	915	915
Net income attributable to Hawaiian Electric	143,397	136,794	138,721
Preferred stock dividends of Hawaiian Electric	1,080	1,080	1,080
Net income for common stock	\$ 142,317	\$ 135,714	\$ 137,641

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31 (in thousands)	2016	2015	2014
Net income for common stock	\$ 142,317	\$ 135,714	\$ 137,641
Other comprehensive income (loss), net of taxes:			
Derivatives qualified as cash flow hedges:			
Effective portion of foreign currency hedge net unrealized losses arising during the period, net of tax benefits of \$179, nil and nil for 2016, 2015 and 2014, respectively	(281)	—	—
Less: reclassification adjustment to net income, net of taxes of \$110, nil and nil for 2016, 2015 and 2014, respectively	(173)	—	—
Retirement benefit plans:			
Net gains (losses) arising during the period, net of (taxes) benefits of \$27,153, \$(3,590) and \$139,236 for 2016, 2015 and 2014, respectively	(42,631)	5,638	(218,608)
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits of \$8,442, \$12,981 and \$6,504 for 2016, 2015 and 2014, respectively	13,254	20,381	10,212
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of (taxes) benefits of \$(18,206), \$16,011 and \$(132,373) for 2016, 2015 and 2014, respectively	28,584	(25,139)	207,833
Other comprehensive income (loss), net of taxes	(1,247)	880	(563)
Comprehensive income attributable to Hawaiian Electric Company, Inc.	\$ 141,070	\$ 136,594	\$ 137,078

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Balance Sheets

Hawaiian Electric Company, Inc. and Subsidiaries

December 31 (in thousands)	2016	2015
Assets		
Property, plant and equipment		
Utility property, plant and equipment		
Land	\$ 53,153	\$ 52,792
Plant and equipment	6,605,732	6,315,698
Less accumulated depreciation	(2,369,282)	(2,266,004)
Construction in progress	211,742	175,309
Utility property, plant and equipment, net	4,501,345	4,277,795
Nonutility property, plant and equipment, less accumulated depreciation of \$1,232 as of December 31, 2016 and \$1,229 as of December 31, 2015	7,407	7,272
Total property, plant and equipment, net	4,508,752	4,285,067
Current assets		
Cash and cash equivalents	74,286	24,449
Customer accounts receivable, net	123,688	132,778
Accrued unbilled revenues, net	91,693	84,509
Other accounts receivable, net	5,233	10,408
Fuel oil stock, at average cost	66,430	71,216
Materials and supplies, at average cost	53,679	54,429
Prepayments and other	23,100	36,640
Regulatory assets	66,032	72,231
Total current assets	504,141	486,660
Other long-term assets		
Regulatory assets	891,419	824,500
Unamortized debt expense	208	497
Other	70,908	75,486
Total other long-term assets	962,535	900,483
Total assets	\$ 5,975,428	\$ 5,672,210
Capitalization and liabilities		
Capitalization (see Consolidated Statements of Capitalization)		
Common stock equity	\$ 1,799,787	\$ 1,728,325
Cumulative preferred stock – not subject to mandatory redemption	34,293	34,293
Commitments and contingencies (Note 4)		
Long-term debt, net	1,319,260	1,278,702
Total capitalization	3,153,340	3,041,320
Current liabilities		
Accounts payable	117,814	114,846
Interest and preferred dividends payable	22,838	23,111
Taxes accrued	172,730	191,084
Regulatory liabilities	3,762	2,204
Other	55,221	54,079
Total current liabilities	372,365	385,324
Deferred credits and other liabilities		
Deferred income taxes	733,659	654,806
Regulatory liabilities	406,931	369,339
Unamortized tax credits	88,961	84,214
Defined benefit pension and other postretirement benefit plans liability	599,726	552,974
Other	76,921	78,146
Total deferred credits and other liabilities	1,906,198	1,739,479
Contributions in aid of construction	543,525	506,087
Total capitalization and liabilities	\$ 5,975,428	\$ 5,672,210

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Capitalization

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2016	2015
(dollars in thousands, except par value)		
Common stock equity		
Common stock of \$6 2/3 par value		
Authorized: 50,000,000 shares. Outstanding: 16,019,785 shares and 15,805,327 shares at December 31, 2016 and 2015, respectively	\$ 106,818	\$ 105,388
Premium on capital stock	601,491	578,930
Retained earnings	1,091,800	1,043,082
Accumulated other comprehensive income (loss), net of taxes		
Unrealized losses on derivatives	(454)	—
Retirement benefit plans	132	(322)
Common stock equity	1,799,787	1,728,325

Cumulative preferred stock not subject to mandatory redemption

Authorized: 5,000,000 shares of \$20 par value and 7,000,000 shares of \$100 par value.

Series	Par Value	Par Value	Shares outstanding December 31, 2016 and 2015	2016	2015
(dollars in thousands, except par value and shares outstanding)					
C-4 1/4%	\$ 20	(Hawaiian Electric)	150,000	\$ 3,000	\$ 3,000
D-5%	20	(Hawaiian Electric)	50,000	1,000	1,000
E-5%	20	(Hawaiian Electric)	150,000	3,000	3,000
H-5 1/4%	20	(Hawaiian Electric)	250,000	5,000	5,000
I-5%	20	(Hawaiian Electric)	89,657	1,793	1,793
J-4 3/4%	20	(Hawaiian Electric)	250,000	5,000	5,000
K-4.65%	20	(Hawaiian Electric)	175,000	3,500	3,500
G-7 5/8%	100	(Hawaii Electric Light)	70,000	7,000	7,000
H-7 5/8%	100	(Maui Electric)	50,000	5,000	5,000
			1,234,657	34,293	34,293

(continued)

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Capitalization (continued)

Hawaiian Electric Company, Inc. and Subsidiaries

December 31	2016	2015
(in thousands)		
Long-term debt		
Obligations to the State of Hawaii for the repayment of Special Purpose Revenue Bonds (subsidiary obligations unconditionally guaranteed by Hawaiian Electric):		
Hawaiian Electric, 3.25%, refunding series 2015, due 2025	\$ 40,000	\$ 40,000
Hawaii Electric Light, 3.25%, refunding series 2015, due 2025	5,000	5,000
Maui Electric, 3.25%, refunding series 2015, due 2025	2,000	2,000
Hawaiian Electric, 6.50%, series 2009, due 2039	90,000	90,000
Hawaii Electric Light, 6.50%, series 2009, due 2039	60,000	60,000
Hawaiian Electric, 4.60%, refunding series 2007B, due 2026	62,000	62,000
Hawaii Electric Light, 4.60%, refunding series 2007B, due 2026	8,000	8,000
Maui Electric, 4.60%, refunding series 2007B, due 2026	55,000	55,000
Hawaiian Electric, 4.65%, series 2007A, due 2037	100,000	100,000
Hawaii Electric Light, 4.65%, series 2007A, due 2037	20,000	20,000
Maui Electric, 4.65%, series 2007A, due 2037	20,000	20,000
Total obligations to the State of Hawaii	462,000	462,000
Other long-term debt – unsecured:		
Taxable senior notes:		
Hawaiian Electric, 4.54%, Series 2016A, due 2046	40,000	—
Hawaiian Electric, 5.23%, Series 2015A, due 2045	50,000	50,000
Hawaii Electric Light, 5.23%, Series 2015A, due 2045	25,000	25,000
Maui Electric, 5.23%, Series 2015A, due 2045	5,000	5,000
Hawaii Electric Light, 3.83%, Series 2013A, due 2020	14,000	14,000
Hawaiian Electric, 4.45%, Series 2013A, due 2022	40,000	40,000
Hawaii Electric Light, 4.45%, Series 2013B, due 2022	12,000	12,000
Hawaiian Electric, 4.84%, Series 2013B, due 2027	50,000	50,000
Hawaii Electric Light, 4.84%, Series 2013C, due 2027	30,000	30,000
Maui Electric, 4.84%, Series 2013A, due 2027	20,000	20,000
Hawaiian Electric, 5.65%, Series 2013C, due 2043	50,000	50,000
Maui Electric, 5.65%, Series 2013B, due 2043	20,000	20,000
Hawaiian Electric, 3.79%, Series 2012A, due 2018	30,000	30,000
Hawaii Electric Light, 3.79%, Series 2012A, due 2018	11,000	11,000
Maui Electric, 3.79%, Series 2012A, due 2018	9,000	9,000
Hawaiian Electric, 4.03%, Series 2012B, due 2020	62,000	62,000
Maui Electric, 4.03%, Series 2012B, due 2020	20,000	20,000
Hawaiian Electric, 4.55%, Series 2012C, due 2023	50,000	50,000
Hawaii Electric Light, 4.55%, Series 2012B, due 2023	20,000	20,000
Maui Electric, 4.55%, Series 2012C, due 2023	30,000	30,000
Hawaiian Electric, 4.72%, Series 2012D, due 2029	35,000	35,000
Hawaiian Electric, 5.39%, Series 2012E, due 2042	150,000	150,000
Hawaiian Electric, 4.53%, Series 2012F, due 2032	40,000	40,000
Total taxable senior notes	813,000	773,000
6.50 %, series 2004, Junior subordinated deferrable interest debentures, due 2034	51,546	51,546
Total other long-term debt – unsecured	864,546	824,546
Total long-term debt	1,326,546	1,286,546
Less unamortized debt issuance costs	7,286	7,844
Long-term debt, net	1,319,260	1,278,702
Total capitalization	\$ 3,153,340	\$ 3,041,320

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Common Stock Equity

Hawaiian Electric Company, Inc. and Subsidiaries

(in thousands)	Common stock		Premium on capital stock	Retained earnings	Accumulated other comprehensive income (loss)	Total
	Shares	Amount				
Balance, December 31, 2013	15,429	\$ 102,880	\$ 541,452	\$ 948,624	\$ 608	\$ 1,593,564
Net income for common stock	—	—	—	137,641	—	137,641
Other comprehensive loss, net of tax benefits	—	—	—	—	(563)	(563)
Issuance of common stock, net of expenses	376	2,508	37,486	—	—	39,994
Common stock dividends	—	—	—	(88,492)	—	(88,492)
Balance, December 31, 2014	15,805	105,388	578,938	997,773	45	1,682,144
Net income for common stock	—	—	—	135,714	—	135,714
Other comprehensive income, net of taxes	—	—	—	—	880	880
Common stock issuance expenses	—	—	(8)	—	—	(8)
Common stock dividends	—	—	—	(90,405)	—	(90,405)
Balance, December 31, 2015	15,805	105,388	578,930	1,043,082	925	1,728,325
Net income for common stock	—	—	—	142,317	—	142,317
Other comprehensive loss, net of tax benefits	—	—	—	—	(1,247)	(1,247)
Issuance of common stock, net of expenses	215	1,430	22,561	—	—	23,991
Common stock dividends	—	—	—	(93,599)	—	(93,599)
Balance, December 31, 2016	16,020	\$ 106,818	\$ 601,491	\$ 1,091,800	\$ (322)	\$ 1,799,787

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

Hawaiian Electric Company, Inc. and Subsidiaries

Years ended December 31 (in thousands)	2016	2015	2014
Cash flows from operating activities			
Net income	\$ 144,312	\$ 137,709	\$ 139,636
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation of property, plant and equipment	187,061	177,380	166,387
Other amortization	6,935	8,939	9,897
Impairment of utility assets	—	6,021	1,866
Deferred income taxes	74,386	75,626	82,947
Income tax credits, net	231	4,844	6,062
Allowance for equity funds used during construction	(8,325)	(6,928)	(6,771)
Change in cash overdraft	—	—	(1,038)
Other	(3,931)	1,672	758
Changes in assets and liabilities			
Decrease in accounts receivable	8,551	23,727	26,743
Decrease (increase) in accrued unbilled revenues	(7,184)	40,093	6,750
Decrease in fuel oil stock	4,786	34,830	28,041
Decrease (increase) in materials and supplies	750	2,821	(72)
Increase in regulatory assets	(18,273)	(24,182)	(17,000)
Decrease in accounts payable	(10,614)	(54,555)	(65,527)
Change in prepaid and accrued income taxes, tax credits and revenue taxes	2,123	(63,096)	(4,036)
Increase (decrease) in defined benefit pension and other postretirement benefit plans liability	484	1,125	(961)
Change in other assets and liabilities	(11,375)	(32,620)	(66,687)
Net cash provided by operating activities	369,917	333,406	306,995
Cash flows from investing activities			
Capital expenditures	(320,437)	(350,161)	(336,679)
Contributions in aid of construction	30,100	40,239	41,806
Other	2,138	1,140	1,164
Net cash used in investing activities	(288,199)	(308,782)	(293,709)
Cash flows from financing activities			
Common stock dividends	(93,599)	(90,405)	(88,492)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,995)	(1,995)	(1,995)
Proceeds from issuance of common stock	24,000	—	40,000
Proceeds from issuance of long-term debt	40,000	80,000	—
Repayment of long-term debt	—	—	(11,400)
Other	(287)	(1,537)	(462)
Net cash used in financing activities	(31,881)	(13,937)	(62,349)
Net increase (decrease) in cash and cash equivalents	49,837	10,687	(49,063)
Cash and cash equivalents, January 1	24,449	13,762	62,825
Cash and cash equivalents, December 31	\$ 74,286	\$ 24,449	\$ 13,762

The accompanying notes are an integral part of these consolidated financial statements.

1 · Summary of significant accounting policies

General

Hawaiian Electric Industries, Inc. (HEI) is a holding company with direct and indirect subsidiaries principally engaged in electric utility and banking businesses, primarily in the State of Hawaii. HEI is the parent holding company of Hawaiian Electric Company, Inc. (Hawaiian Electric) and indirect parent holding company of American Savings Bank, F. S. B. (ASB). HEI's common stock is traded on the New York Stock Exchange.

Hawaiian Electric and its wholly-owned operating subsidiaries, Hawaii Electric Light Company, Inc. (Hawaii Electric Light) and Maui Electric Company, Limited (Maui Electric), are regulated public electric utilities (collectively, the Utilities) in the business of generating, purchasing, transmitting, distributing and selling electric energy on all major islands in Hawaii other than Kauai. Hawaiian Electric also owns Renewable Hawaii, Inc. (RHI), Uluwehiokama Biofuels Corp. (UBC) and HECO Capital Trust III. See Note 3.

ASB is a federally chartered savings bank providing a full range of banking services to individual and business customers through its branch system in Hawaii.

Basis of presentation. In preparing the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP), management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Actual results could differ significantly from those estimates.

Material estimates that are particularly susceptible to significant change for HEI and its subsidiaries (collectively, the Company) include the amounts reported for investment securities (ASB only); property, plant and equipment; pension and other postretirement benefit obligations; contingencies and litigation; income taxes; derivatives; regulatory assets and liabilities (Utilities only); electric utility revenues (Utilities only); allowance for loan losses (ASB only); and goodwill (ASB only).

Consolidation. The HEI consolidated financial statements include the accounts of the Company. The Hawaiian Electric consolidated financial statements include the accounts of Hawaiian Electric and its subsidiaries. The consolidated financial statements exclude subsidiaries which are variable interest entities (VIEs) when the Company or the Utilities are not the primary beneficiaries. Investments in companies over which the Company or the Utilities have the ability to exercise significant influence, but not control, are accounted for using the equity method. See Note 6 for information regarding unconsolidated VIEs.

Cash and cash equivalents. The Utilities consider cash on hand, deposits in banks, money market accounts, certificates of deposit, short-term commercial paper of non-affiliates and liquid investments (with original maturities of three months or less) to be cash and cash equivalents. The Company considers the same items to be cash and cash equivalents as well as ASB's deposits with the Federal Home Loan Bank (FHLB), federal funds sold (excess funds that ASB loans to other banks overnight at the federal funds rate) and securities purchased under resale agreements.

Equity method. Investments in up to 50%-owned affiliates over which the Company or the Utilities have the ability to exercise significant influence over the operating and financing policies and investments in unconsolidated subsidiaries (e.g. HECO Capital Trust III) are accounted for under the equity method, whereby the investment is carried at cost, plus (or minus) the equity in undistributed earnings (or losses) and minus distributions since acquisition. Equity in earnings or losses is reflected in operating revenues. Equity method investments are also evaluated for OTTI. Also see Note 6 below.

Property, plant and equipment. Property, plant and equipment are reported at cost. Self-constructed electric utility plant includes engineering, supervision, administrative and general costs and an allowance for the cost of funds used during the construction period. These costs are recorded in construction in progress and are transferred to utility plant when construction is completed and the facilities are either placed in service or become useful for public utility purposes. Costs for betterments that make utility plant more useful, more efficient, of greater durability or of greater capacity are also capitalized. Upon the retirement or sale of electric utility plant, generally no gain or loss is recognized. The cost of the plant retired is charged to accumulated depreciation. Amounts collected from customers for cost of removal (expected to exceed salvage value in the future) are included in regulatory liabilities.

Depreciation. Depreciation is computed primarily using the straight-line method over the estimated lives of the assets being depreciated. Electric utility plant additions in the current year are depreciated beginning January 1 of the following year in accordance with rate-making. Electric utility plant has lives ranging from 20 to 88 years for production plant, from 25 to 65 years for transmission and distribution plant and from 5 to 65 years for general plant. The Utilities' composite annual depreciation rate, which includes a component for cost of removal, was 3.2%, 3.2% and 3.1% in 2016, 2015 and 2014, respectively.

Leases. HEI, the Utilities and ASB have entered into lease agreements for the use of equipment and office space. The provisions of some of the lease agreements contain renewal options.

HEI's consolidated operating lease expense was \$19 million, \$18 million and \$19 million in 2016, 2015 and 2014, respectively. The Utilities' operating lease expense was \$10 million, \$9 million and \$9 million in 2016, 2015 and 2014, respectively. HEI's consolidated and the Utilities' future minimum lease payments are as follows:

(in millions)	HEI		Hawaiian Electric	
2017	\$	12	\$	6
2018		9		4
2019		7		4
2020		5		3
2021		4		3
Thereafter		8		4
	\$	45	\$	24

Retirement benefits. Pension and other postretirement benefit costs are charged primarily to expense and electric utility plant (in the case of the Utilities). Funding for the Company's qualified pension plans (Plans) is based on actuarial assumptions adopted by the Pension Investment Committee administering the Plans on the advice of an enrolled actuary. The participating employers contribute amounts to a master pension trust for the Plans in accordance with the funding requirements of the Employee Retirement Income Security Act of 1974, as amended (ERISA), including changes promulgated by the Pension Protection Act of 2006, and considering the deductibility of contributions under the Internal Revenue Code. The Company generally funds at least the net periodic pension cost during the year, subject to limits and targeted funded status as determined with the consulting actuary. Under a pension tracking mechanism approved by the Public Utilities Commission of the State of Hawaii (PUC), the Utilities generally will make contributions to the pension fund at the greater of the minimum level required under the law or net periodic pension cost.

Certain health care and/or life insurance benefits are provided to eligible retired employees and the employees' beneficiaries and covered dependents. The Company generally funds the net periodic postretirement benefit costs other than pensions (except for executive life) for postretirement benefits other than pensions (OPEB), while maximizing the use of the most tax advantaged funding vehicles, subject to cash flow requirements and reviews of the funded status with the consulting actuary. The Utilities must fund OPEB costs as specified in the OPEB tracking mechanisms, which were approved by the PUC. Future decisions in rate cases could further impact funding amounts.

The Company and the Utilities recognize on their respective balance sheets the funded status of their defined benefit pension and other postretirement benefit plans, as adjusted by the impact of decisions of the PUC.

Environmental expenditures. The Company and the Utilities are subject to numerous federal and state environmental statutes and regulations. In general, environmental contamination treatment costs are charged to expense. Environmental costs are capitalized if the costs extend the life, increase the capacity, or improve the safety or efficiency of property; the costs mitigate or prevent future environmental contamination; or the costs are incurred in preparing the property for sale. Environmental costs are either capitalized or charged to expense when environmental assessments and/or remedial efforts are probable and the cost can be reasonably estimated.

Financing costs. Financing costs related to the registration and sale of HEI common stock are recorded in shareholders' equity.

HEI uses the straight-line method, which approximates the effective interest method, to amortize the long-term debt financing costs of the holding company over the term of the related debt.

The Utilities use the straight-line method, which approximates the effective interest method, to amortize long-term debt financing costs and premiums or discounts over the term of the related debt. Unamortized financing costs and premiums or

discounts on the Utilities' long-term debt retired prior to maturity are classified as regulatory assets (costs and premiums) or liabilities (discounts) and are amortized on a straight-line basis over the remaining original term of the retired debt. The method and periods for amortizing financing costs, premiums and discounts, including the treatment of these items when long-term debt is retired prior to maturity, have been established by the PUC as part of the rate-making process.

HEI and the Utilities use the straight-line method to amortize the fees and related costs paid to secure a firm commitment under their line-of-credit arrangements.

Income taxes. Deferred income tax assets and liabilities are established for the temporary differences between the financial reporting bases and the tax bases of the Company's and the Utilities' assets and liabilities at federal and state tax rates expected to be in effect when such deferred tax assets or liabilities are realized or settled. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Valuation allowances are established when necessary to reduce deferred income tax assets to the amount expected to be realized.

The Company recognizes investment tax credits as a reduction of income tax expense in the period the assets giving rise to such credits are placed in service, except for the Utilities' investment tax credits, which are deferred and amortized over the estimated useful lives of the properties to which the credits relate, in accordance with Accounting Standards Codification (ASC) Topic 980, "Regulated Operations."

The Utilities are included in the consolidated income tax returns of HEI. However, income tax expense has been computed for financial statement purposes as if the Utilities filed separate consolidated Hawaiian Electric income tax returns.

Governmental tax authorities could challenge a tax return position taken by the Company. If the Company's position does not prevail, the Company's results of operations and financial condition may be adversely affected as the related deferred or current income tax asset might be impaired and charged to expense or an unanticipated tax liability might be incurred.

The Company and the Utilities use a "more-likely-than-not" recognition threshold and measurement standard for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Fair value measurements. Fair value estimates are estimates of the price that would be received to sell an asset, or paid upon the transfer of a liability, in an orderly transaction between market participants at the measurement date. The fair value estimates are generally determined based on assumptions that market participants would use in pricing the asset or liability and are based on market data obtained from independent sources. However, in certain cases, the Company and the Utilities use their own assumptions about market participant assumptions based on the best information available in the circumstances. These valuations are estimates at a specific point in time, based on relevant market information, information about the financial instrument and judgments regarding future expected loss experience, economic conditions, risk characteristics of various financial instruments and other factors. These estimates do not reflect any premium or discount that could result if the Company or the Utilities were to sell its entire holdings of a particular financial instrument at one time. Because no active trading market exists for a portion of the Company's and the Utilities' financial instruments, fair value estimates cannot be determined with precision. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the estimates. In addition, the tax ramifications related to the realization of the unrealized gains and losses could have a significant effect on fair value estimates, but have not been considered in making such estimates.

The Company and the Utilities group their financial assets measured at fair value in three levels outlined as follows:

Level 1: Inputs to the valuation methodology are quoted prices, unadjusted, for identical assets or liabilities in active markets. A quoted price in an active market provides the most reliable evidence of fair value and is used to measure fair value whenever available.

Level 2: Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets; inputs to the valuation methodology include quoted prices for identical or similar assets or liabilities in markets that are not active; or inputs to the valuation methodology that are derived principally from or can be corroborated by observable market data by correlation or other means.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Level 3 assets and liabilities include financial instruments whose value is determined using discounted cash flow methodologies, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

Classification in the hierarchy is based upon the lowest level input that is significant to the fair value measurement of the asset or liability. For instruments classified in Level 1 and 2 where inputs are primarily based upon observable market data,

there is less judgment applied in arriving at the fair value. For instruments classified in Level 3, management judgment is more significant due to the lack of observable market data.

The Company reviews and updates the fair value hierarchy classifications on a quarterly basis. Changes from one quarter to the next related to the observability of inputs in fair value measurements may result in a reclassification between the fair value hierarchy levels and are recognized based on period-end balances.

Fair value is also used on a nonrecurring basis to evaluate certain assets for impairment or for disclosure purposes. Examples of nonrecurring uses of fair value include mortgage servicing rights accounted for by the amortization method, loan impairments for certain loans, real estate owned, goodwill and asset retirement obligations (AROs).

Earnings per share (HEI only). Basic earnings per share (EPS) is computed by dividing net income for common stock by the weighted-average number of common shares outstanding for the period. Diluted EPS is computed similarly, except that dilutive common shares for stock compensation and the equity forward transactions are added to the denominator. For 2014, HEI used the two-class method of computing EPS as restricted stock grants included non-forfeitable rights to dividends and were participating securities.

Under the two-class method of computing EPS, HEI's EPS was comprised as follows for both participating securities (i.e., restricted shares that became fully vested in the fourth quarter of 2014) and unrestricted common stock:

	2014	
	Basic	Diluted
Distributed earnings	\$ 1.24	\$ 1.24
Undistributed earnings	0.41	0.39
	\$ 1.65	\$ 1.63

Impairment of long-lived assets and long-lived assets to be disposed of. The Company and the Utilities review long-lived assets and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less costs to sell.

Recent accounting pronouncements.

Revenues from contracts with customers. In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers: (Topic 606)." The core principle of the guidance in ASU No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, an entity should: (1) identify the contract/s with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when, or as, the entity satisfies a performance obligation. ASU No. 2014-09 also requires disclosure of the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

As of December 31, 2016, the Company has identified its revenue streams from, and performance obligations to, customers, and is currently evaluating the impacts of the new guidance on its ability to recognize revenue for certain contracts where there is uncertainty regarding collection and accounting for contributions in aid of construction.

The Company plans to adopt ASU No. 2014-09 (and subsequently issued revenue-related ASUs, as applicable) in the first quarter of 2018, but has not determined the method of adoption (full or modified retrospective application). The Company expects to present more revenue disclosures, but the full impact of adoption of ASU No. 2014-09 on its results of operations, financial condition and liquidity cannot be determined until its evaluation process is complete.

Going concern. In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements-Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern," which requires management to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued. Disclosure is required if there is substantial doubt about the entity's ability to continue as a going concern.

The Company adopted ASU No. 2014-15 for 2016 and interim periods going forward. Since management has concluded that there are no conditions or events that raise substantial doubt about HEI's or Hawaiian Electric's ability to continue as a going concern through February 24, 2018, there was no impact on HEI's and Hawaiian Electric's consolidated financial statements.

Extraordinary and unusual items. In January 2015, the FASB issued ASU No. 2015-01, "Income Statement - Extraordinary and Unusual Items (Subtopic 225-20): Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items," which removes the concept of extraordinary items from U.S. GAAP and eliminates the requirement for extraordinary items to be separately presented in the statement of income.

The Company adopted ASU 2015-01 prospectively on January 1, 2016 and the adoption did not have a material impact on the Company's and Hawaiian Electric's consolidated financial statements.

Consolidation. In February 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis," which modifies the requirements of consolidation with respect to limited partnerships, entities that are similar in nature to limited partnerships or are VIEs. The amended guidance (1) modifies the evaluation of whether limited partnerships and similar legal entities are VIEs or voting interest entities; (2) eliminates the presumption that a general partner should consolidate a limited partnership; (3) changes the analysis related to the evaluation of servicing fees and excludes servicing fees that are deemed commensurate with the level of service required from the determination of the primary beneficiary; (4) clarifies certain consideration related to the consolidation analysis when performing a related party assessment; and (5) provides a scope exception from consolidation guidance for reporting entities that are required to comply with or operate in accordance with requirements that are similar to those in Rule 2a-7 of the Investment Bank Act of 1940 for registered money market funds.

The Company retrospectively adopted ASU No. 2015-02 in the first quarter 2016 and the adoption did not have a material impact on HEI's and Hawaiian Electric's consolidated financial statements.

Debt issuance costs. In April 2015, the FASB issued ASU No. 2015-03, "Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs," which requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts.

The Company retrospectively adopted ASU No. 2015-03 in the first quarter 2016 and the adoption did not have a material impact on the Company's and Hawaiian Electric's consolidated financial statements.

The table below summarizes the impact to the prior period financial statements of the adoption of ASU No. 2015-03:

(in thousands)	As previously filed	Adjustment from adoption of ASU No. 2015-03	As currently reported
December 31, 2015			
HEI Consolidated Balance Sheet and Note 3 - Segment financial information			
(Total assets)			
Other assets	\$ 488,635	\$ (8,178)	\$ 480,457
Total assets and Total liabilities and shareholders' equity	11,790,196	(8,178)	11,782,018
Long-term debt, net-other than bank	1,586,546	(8,178)	1,578,368
Total liabilities	9,828,263	(8,178)	9,820,085
Hawaiian Electric Consolidated Balance Sheet and Note 3 - Segment financial information (Total assets)			
Unamortized debt expense	8,341	(7,844)	497
Total other long-term assets	908,327	(7,844)	900,483
Total assets and Total capitalization and liabilities	5,680,054	(7,844)	5,672,210
Long-term debt, net	1,286,546	(7,844)	1,278,702
Total capitalization	3,049,164	(7,844)	3,041,320
Note 4 - Hawaiian Electric Consolidating Balance Sheet			
<u>Hawaiian Electric (parent only)</u>			
Unamortized debt expense	5,742	(5,383)	359
Total other long-term assets	662,430	(5,383)	657,047
Total assets and Total capitalization and liabilities	4,481,558	(5,383)	4,476,175
Long-term debt, net	880,546	(5,383)	875,163
Total capitalization	2,631,164	(5,383)	2,625,781
<u>Hawaii Electric Light</u>			
Unamortized debt expense	1,494	(1,420)	74
Total other long-term assets	130,749	(1,420)	129,329
Total assets and Total capitalization and liabilities	955,935	(1,420)	954,515
Long-term debt, net	215,000	(1,420)	213,580
Total capitalization	514,702	(1,420)	513,282
<u>Maui Electric</u>			
Unamortized debt expense	1,105	(1,041)	64
Total other long-term assets	115,148	(1,041)	114,107
Total assets and Total capitalization and liabilities	831,201	(1,041)	830,160
Long-term debt, net	191,000	(1,041)	189,959
Total capitalization	459,725	(1,041)	458,684

Investments in certain entities that calculate net asset value per share. In May 2015, the FASB issued ASU No. 2015-07, "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)," which removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient and limits certain disclosures to those investments.

The Company retrospectively adopted ASU No. 2015-07 in the first quarter 2016; thus, the fair value disclosures for retirement benefit plan assets have been revised.

Financial instruments. In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities," which, among other things:

- Requires equity investments (except those accounted for under the equity method of accounting, or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income.
- Requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes.

- Requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (i.e., securities or loans and receivables).
- Eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost.

The Company plans to adopt ASU No. 2016-01 in the first quarter of 2018 and has not yet determined the impact of adoption.

Leases. In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842),” which requires that lessees recognize a liability to make lease payments (the lease liability) and a right-of-use asset, representing its right to use the underlying asset for the lease term, for all leases (except short-term leases) at the commencement date.

The Company plans to adopt ASU 2016-02 in the first quarter of 2019 (using a modified retrospective transition approach for leases existing at, or entered into after, January 1, 2017) and has not yet determined the impact of adoption.

Stock compensation. In March 2016, the FASB issued ASU No. 2016-09, “Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting,” which simplifies several aspects of the accounting for share-based payment transactions.

The Company adopted ASU 2016-09 in the first quarter of 2017. From January 1, 2017, all excess tax benefits and tax deficiencies are recognized as income tax expense or benefit in the income statement. Also from January 1, 2017, no excess tax benefits and deficiencies are included in determining the assumed proceeds under the treasury stock method of calculating diluted EPS. As of January 1, 2017, HEI adopted an accounting policy to account for forfeitures when they occur.

From January 1, 2017, HEI retrospectively applied the guidance for taxes paid (equivalent to the value of withheld shares for tax withholding purposes) and excess tax benefits. Excess tax benefits will be classified along with other income tax cash flows as an operating activity and the cash payments made to taxing authorities on the employees’ behalf for withheld shares will be classified as financing activities on the HEI Consolidated Statements of Cash Flows for all periods that are presented.

Credit Losses. In June 2016, the FASB issued ASU No. 2016-13, “Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments,” which is intended to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. ASU No. 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date (based on historical experience, current conditions and reasonable and supportable forecasts) and enhanced disclosures to help financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization’s portfolio. In addition, ASU No. 2016-13 amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. The other-than-temporary impairment model of accounting for credit losses on AFS debt securities will be replaced with an estimate of expected credit losses only when the fair value is below the amortized cost of the asset. The length of time the fair value of an AFS debt security has been below the amortized cost will no longer impact the determination of whether a credit loss exists. The AFS debt security model will also require the use of an allowance to record the estimated losses (and subsequent recoveries). The accounting for the initial recognition of the estimated expected credit losses for purchased financial assets with credit deterioration would be recognized through an allowance for loan losses with an offset to the cost basis of the related financial asset at acquisition (i.e., there is no impact to net income at initial recognition).

The Company plans to adopt ASU 2016-13 in the first quarter of 2020 and has not yet determined the impact of adoption.

Cash Flows. In August 2016, the FASB issued ASU No. 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,” which provides guidance on eight specific cash flow issues - debt prepayment or debt extinguishment costs, settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies), distributions received from equity method investees, beneficial interests in securitization transactions, and separately identifiable cash flows and application of the predominance principle.

The Company plans to adopt ASU 2016-15 in the first quarter of 2018 using a retrospective transition method and has not yet determined the impact of adoption.

Intra-entity transfers of assets other than inventory. In October 2016, the FASB issued ASU No. 2016-16, “Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory,” which changes current guidance that prohibits the

recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party by requiring the recognition of the income tax consequences of such transfer when it occurs.

The Company plans to adopt ASU 2016-16 in the first quarter of 2018 using a modified retrospective transition method and believes the impact of adoption will be immaterial to the Company's and Hawaiian Electric's consolidated financial statements.

Restricted cash. In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash," which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents.

The Company plans to adopt ASU 2016-18 in the first quarter of 2018 using a retrospective transition method and believes the impact of adoption will not be material to the Company's and Hawaiian Electric's consolidated statements of cash flows.

Reclassifications. Reclassifications made to prior years' financial statements to conform to the 2016 presentation did not affect previously reported results of operations and include additional detail of noncash items in operating activities on the Company's and Hawaiian Electric's Consolidated Statements of Cash Flows.

Electric utility

Regulation by the Public Utilities Commission of the State of Hawaii (PUC). The Utilities are regulated by the PUC and account for the effects of regulation under FASB ASC Topic 980, "Regulated Operations." As a result, the Utilities' financial statements reflect assets, liabilities, revenues and expenses based on current cost-based rate-making regulations. Their continued accounting under ASC Topic 980 generally requires that rates are established by an independent, third-party regulator; rates are designed to recover the costs of providing service; and it is reasonable to assume that rates can be charged to, and collected from, customers within 24 months. Management believes the Utilities' operations currently satisfy the ASC Topic 980 criteria. If events or circumstances should change so that those criteria are no longer satisfied, the Utilities expect that their regulatory assets, net of regulatory liabilities, would be charged to the statement of income in the period of discontinuance.

Accounts receivable. Accounts receivable are recorded at the invoiced amount. The Utilities generally assess a late payment charge on balances unpaid from the previous month. The allowance for doubtful accounts is the Utilities' best estimate of the amount of probable credit losses in the Utilities existing accounts receivable. At December 31, 2016 and 2015, the allowance for customer accounts receivable, accrued unbilled revenues and other accounts receivable was \$1.1 million and \$1.7 million, respectively.

Contributions in aid of construction. The Utilities receive contributions from customers for special construction requirements. As directed by the PUC, contributions are amortized on a straight-line basis over 30 to 55 years as an offset against depreciation expense.

Electric utility revenues. Electric utility revenues are based on rates authorized by the PUC. Revenues related to electric service are generally recorded when service is rendered and include revenues applicable to energy consumed in the accounting period but not yet billed to the customers. Under decoupling, electric utility revenues also incorporate: (1) monthly revenue balancing account (RBA) revenues or refunds for the difference between PUC-approved target revenues and recorded adjusted revenues, which delinks revenues from kilowatt-hour sales, (2) rate adjustment mechanism (RAM) revenues for escalation in certain operation and maintenance (O&M) expenses and rate base changes and (3) an earnings sharing mechanism, which reduces revenues between rate cases in the event the utility's ratemaking return on average common equity (ROACE) exceeds the ROACE allowed in its most recent rate case. Under the decoupling tariff approved in 2011, the prior year accrued RBA revenues (regulatory asset) and the annual RAM amount are billed from June 1 of each year through May 31 of the following year, which is within 24 months following the end of the year in which they are recorded as required by the accounting standard for alternative revenue programs. See "*Decoupling*" discussion in Note 4 Electric Utility segment.

The rate schedules of the Utilities include energy cost adjustment clauses (ECACs) under which electric rates are adjusted for changes in the weighted-average price paid for fuel oil and certain components of purchased power, and the relative amounts of company-generated power and purchased power. The rate schedules also include purchased power adjustment clauses (PPACs) under which the remaining purchase power expenses are recovered through surcharge mechanisms. The amounts collected through the ECACs and PPACs are required to be reconciled quarterly.

The Utilities' revenues include amounts for various Hawaii state revenue taxes. Revenue taxes are generally recorded as an expense in the year the related revenues are recognized. However, the Utilities' revenue tax payments to the taxing authorities are based on the prior year's billed revenues (in the case of public service company taxes and PUC fees) or on the current

year's cash collections from electric sales (in the case of franchise taxes). For 2016, 2015 and 2014, the Utilities included approximately \$187 million, \$209 million and \$267 million, respectively, of revenue taxes in "revenues" and in "taxes, other than income taxes" expense.

Power purchase agreements. If a power purchase agreement (PPA) falls within the scope of ASC Topic 840, "Leases," and results in the classification of the agreement as a capital lease, the Utilities would recognize a capital asset and a lease obligation. Currently, none of the PPAs are required to be recorded as a capital lease.

The Utilities evaluate PPAs to determine if the PPAs are VIEs, if the Utilities are primary beneficiaries and if consolidation is required. See Note 6.

Repairs and maintenance costs. Repairs and maintenance costs for overhauls of generating units are generally expensed as they are incurred.

Allowance for funds used during construction (AFUDC). AFUDC is an accounting practice whereby the costs of debt and equity funds used to finance plant construction are credited on the statement of income and charged to construction in progress on the balance sheet. If a project under construction is delayed for an extended period of time, AFUDC on the delayed project may be stopped after assessing the causes of the delay and probability of recovery.

The weighted-average AFUDC rate was 7.6% in 2016, 7.6% in 2015 and 7.7% in 2014, and reflected quarterly compounding.

Bank (HEI only)

Investment securities. Investments in debt and equity securities are classified as held-to-maturity (HTM), trading or available-for-sale (AFS). ASB determines the appropriate classification at the time of purchase. Debt securities that ASB intends to and has the ability to hold to maturity are classified as HTM securities and reported at cost. Marketable debt and equity securities that are bought and held principally for the purpose of selling them in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings. Marketable debt and equity securities not classified as either HTM or trading securities are classified as AFS and reported at fair value. Unrealized gains and losses for AFS securities are excluded from earnings and reported on a net basis in accumulated other comprehensive income (AOCI) until realized.

Interest income is recorded on an accrual basis. Discounts and premiums on securities are accreted or amortized into interest income using the interest method over the remaining contractual lives of the agency obligation securities and the estimated lives of the mortgage-related securities adjusted for anticipated prepayments. ASB uses actual prepayment experience and estimates of future prepayments to determine the constant effective yield necessary to apply the interest method of income recognition. The discounts and premiums on the agency obligations portfolio are accreted or amortized on a prospective basis using expected contractual cash flows. The discounts and premiums on the mortgage-related securities portfolio are accreted or amortized on a retrospective basis using changes in anticipated prepayments. This method requires a retrospective adjustment of the effective yield each time ASB changes the estimated life as if the new estimate had been known since the original acquisition date of the securities. Estimates of future prepayments are based on the underlying collateral characteristics and historic or projected prepayment behavior of each security. The specific identification method is used in determining realized gains and losses on the sales of securities.

For securities that are not trading securities, individual securities are assessed for impairment at least on a quarterly basis, and more frequently when economic or market conditions warrant. A security is impaired if the fair value of the security is less than its carrying value at the financial statement date. When a security is impaired, ASB determines whether this impairment is temporary or other-than-temporary. If ASB does not expect to recover the entire amortized cost basis of the security or there is a change in the expected cash flows, an OTTI exists. If ASB intends to sell the security, or will more likely than not be required to sell the security before recovery of its amortized cost, the OTTI must be recognized in earnings. If ASB does not intend to sell the security, and it is not more likely than not that ASB will be required to sell the security before recovery of its amortized cost, the OTTI must be separated into the amount representing the credit loss and the amount related to all other factors. The amount of OTTI related to the credit loss is recognized in earnings, while the remaining OTTI is recognized in AOCI. Based on ASB's evaluation as of December 31, 2016 and 2015, there was no indicated impairment as the bank expects to collect the contractual cash flows for these investments.

Stock in Federal Home Loan Bank (FHLB) is carried at cost and is reviewed at least periodically for impairment, with valuation adjustments recognized in noninterest income.

Loans receivable. ASB carries loans receivable at amortized cost less the allowance for loan losses, loan origination fees (net of direct loan origination costs), commitment fees and purchase premiums and discounts. Interest on loans is credited to income as it is earned. Discounts and premiums are accreted or amortized over the life of the loans using the interest method.

Loan origination fees (net of direct loan origination costs) are deferred and recognized as an adjustment in yield over periods not exceeding the contractual life of the loan using the interest method or taken into income when the loan is paid off or sold. Nonrefundable commitment fees (net of direct loan origination costs, if applicable) received for commitments to originate or purchase loans are deferred and, if the commitment is exercised, recognized as an adjustment of yield over the life of the loan using the interest method. Nonrefundable commitment fees received for which the commitment expires unexercised are recognized as income upon expiration of the commitment.

Loans held for sale are stated at the lower of cost or estimated fair value on an aggregate basis. Premiums, discounts and net deferred loan fees are not amortized while a loan is classified as held for sale. A sale is recognized only when the consideration received is other than beneficial interests in the assets sold and control over the assets is transferred irrevocably to the buyer. Gains or losses on sales of loans are recognized at the time of sale and are determined by the difference between the net sales proceeds and the allocated basis of the loans sold.

Allowance for loan losses. ASB maintains an allowance for loan losses that it believes is adequate to absorb losses inherent in its loan portfolio. The level of allowance for loan losses is based on a continuing assessment of existing risks in the loan portfolio, historical loss experience, changes in collateral values and current conditions (e.g., economic conditions, real estate market conditions and interest rate environment). The allowance for loan losses is allocated to loan types using both a formula-based approach applied to groups of loans and an analysis of certain individual loans for impairment. The formula-based approach emphasizes loss factors primarily derived from actual historical default and loss rates, which are combined with an assessment of certain qualitative factors to determine the allowance amounts allocated to the various loan categories. Adverse changes in any of these factors could result in higher charge-offs and provision for loan losses.

ASB disaggregates its portfolio loans into portfolio segments for purposes of determining the allowance for loan losses. Commercial and commercial real estate loans are defined as non-homogeneous loans and ASB utilizes a risk rating system for evaluating the credit quality of the loans. Loans are rated based on the degree of risk at origination and periodically thereafter, as appropriate. Values are applied separately to the probability of default (borrower risk) and loss given default (transaction risk). ASB's credit review department performs an evaluation of these loan portfolios to ensure compliance with the internal risk rating system and timeliness of rating changes. Non-homogeneous loans are categorized into the regulatory asset quality classifications—Pass, Special Mention, Substandard, Doubtful, and Loss based on credit quality. For loans classified as substandard, an analysis is done to determine if the loan is impaired. A loan is deemed impaired when it is probable that ASB will be unable to collect all amounts due according to the original contractual terms of the loan agreement. Once a loan is deemed impaired, ASB applies a valuation methodology to determine whether there is an impairment shortfall. The measurement of impairment may be based on (i) the present value of the expected future cash flows of the impaired loan discounted at the loan's original effective interest rate, (ii) the observable market price of the impaired loan, or (iii) the fair value of the collateral, net of costs to sell. For all loans collateralized by real estate whose repayment is dependent on the sale of the underlying collateral property, ASB measures impairment by utilizing the fair value of the collateral, net of costs to sell; for other loans that are not considered collateral dependent, generally the discounted cash flow method is used to measure impairment. For loans collateralized by real estate that are classified as troubled debt restructured loans, the present value of the expected future cash flows of the loans may also be used to measure impairment as these loans are expected to perform according to their restructured terms. Impairments are charged to the provision for loan losses and included in the allowance for loan losses. However, confirmed losses (uncollectible) are charged off, with the loan written down by the amount of the confirmed loss.

Residential, consumer and credit scored business loans are considered homogeneous loans, which are typically underwritten based on common, uniform standards, and are generally classified as to the level of loss exposure based on delinquency status. The homogeneous loan portfolios are stratified into individual products with common risk characteristics and segmented into various secured and unsecured loan product types. For the homogeneous portfolio, the quality of the loan is best indicated by the repayment performance of an individual borrower. ASB does supplement performance data with an 11-risk rating retail credit model that assigns a probability of default to each borrower based primarily on the borrower's current Fair Isaac Corporation (FICO) score and for the home equity line of credit (HELOC) and unsecured consumer products, the bankruptcy score (BK). Current FICO and BK data is purchased and appended to all homogeneous loans on a quarterly basis and used to estimate the borrower's probability of default and the loss given default.

ASB also considers the following qualitative factors for all loans in estimating the allowance for loan losses:

- changes in lending policies and procedures;
- changes in economic and business conditions and developments that affect the collectability of the portfolio;
- changes in the nature, volume and terms of the loan portfolio;
- changes in lending management and other relevant staff;
- changes in loan quality (past due, non-accrual, classified loans);

- changes in the quality of the loan review system;
- changes in the value of underlying collateral;
- effect of, and changes in the level of, any concentrations of credit; and
- effect of other external and internal factors.

ASB's methodology for determining the allowance for loan losses was generally based on historic loss rates using various look-back periods. During the second quarter of 2014, ASB implemented enhancements to the loss rate calculation for estimating the allowance for loan losses that included several refinements to determining the probability of default and the loss given default for the various segments of the loan portfolio that are more statistically sound than those previously employed. The result is an estimated loss rate established for each borrower. ASB also updated its measurement of the loss emergence period in the calculation of the allowance for loan losses. The loss emergence period is broadly defined as the period that it takes, on average, for the lender to identify the specific borrower and amount of loss incurred by the bank for a loan that has suffered from a loss-causing event. In most cases, as credit quality and conditions improve, management has observed that the loss emergence period has extended and has incorporated this observed change in the estimate of the allowance for loan losses. Management believes these enhancements will improve the precision in estimating the allowance for loan losses. The enhancements did not have a material effect on the total allowance for loan losses or the provision for loan losses for 2014. The enhancements did result in the full allocation of the previously unallocated portion of the allowance for loan losses.

In conjunction with the above enhancement, management also adopted an enhanced risk rating system for monitoring and managing credit risk in the non-homogenous loan portfolios, that measures general creditworthiness at the borrower level. The numerical-based, risk rating "PD Model" takes into consideration fiscal year-end financial information of the borrower and identified financial attributes including retained earnings, operating cash flows, interest coverage, liquidity and leverage that demonstrate a strong correlation with default to assign default probabilities at the borrower level. In addition, a loss given default (LGD) value is assigned to each loan to measure loss in the event of default based on loan specific features such as collateral that mitigates the amount of loss in the event of default. Together the PD Model and LGD construct provide a more quantitative, data driven and consistent framework for measuring risk within the portfolio, on a loan by loan basis and for the ultimate collectability of each loan.

The reserve for unfunded commitments is maintained at a level believed by management to be sufficient to absorb estimated probable losses related to unfunded credit facilities and is included in accounts payable and other liabilities in the consolidated balance sheets. The determination of the adequacy of the reserve is based upon an evaluation of the unfunded credit facilities, including an assessment of historical commitment utilization experience, credit risk grading and historical loss rates. This process takes into consideration the same risk elements that are analyzed in the determination of the adequacy of the allowance for loan losses, as discussed above. Net adjustments to the reserve for unfunded commitments are included in other noninterest expense in the consolidated statements of income.

Management believes its allowance for loan losses adequately estimates actual loan losses that will ultimately be incurred. However, such estimates are based on currently available information and historical experience, and future adjustments may be required from time to time to the allowance for loan losses based on new information and changes that occur (e.g., due to changes in economic conditions, particularly in Hawaii). Actual losses could differ from management's estimates, and these differences and subsequent adjustments could be material.

Nonperforming loans. Loans are generally placed on nonaccrual status when contractually past due 90 days or more, or earlier if management believes that the probability of collection is insufficient to warrant further accrual. All interest that is accrued but not collected is reversed. A loan may be returned to accrual status if (i) principal and interest payments have been brought current and repayment of the remaining contractual principal and interest is expected to be made, (ii) the loan has otherwise become well-secured and in the process of collection, or (iii) the borrower has been making regularly scheduled payments in full for the prior six months and it is reasonably assured that the loan will be brought fully current within a reasonable period. Cash receipts on nonaccruing loans are generally applied to reduce the unpaid principal balance.

Loans considered to be uncollectible are charged-off against the allowance for loan losses. The amount and timing of charge-offs on loans includes consideration of the loan type, length of delinquency, insufficiency of collateral value, lien priority and the overall financial condition of the borrower. Recoveries on loans previously charged-off are credited back to the allowance for loan losses. Loans that have been charged-off against the allowance for loan losses are periodically monitored to evaluate whether further adjustments to the allowance are necessary. Loans in the commercial and commercial real estate portfolio are charged-off when the loan is risk-rated "Doubtful" or "Loss". The loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. A loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 90 days or more; (b) significant improvement in the borrower's repayment capacity is doubtful; and/or (c) collateral value is insufficient to cover outstanding indebtedness and no other viable assets or repayment sources exist.

Loans in the residential mortgage and home equity portfolios are charged-off when the loan or a portion thereof is determined to be uncollectible after considering the borrower's overall financial condition and collateral deficiency. A loan is considered uncollectible when: (a) the borrower is delinquent in principal or interest 180 days or more; (b) it is probable that collateral value is insufficient to cover outstanding indebtedness and no other viable assets or repayment sources exist; (c) borrower's debt is discharged in bankruptcy and the loan is not reaffirmed; or (d) in cases where ASB is in a subordinate position to other debt, the senior lien holder has foreclosed and ASB's junior lien is extinguished.

Other consumer loans are generally charged-off when the balance becomes 120 days delinquent.

Loans modified in a troubled debt restructuring. Loans are considered to have been modified in a troubled debt restructuring (TDR) when, due to a borrower's financial difficulties, ASB makes concessions to the borrower that it would not otherwise consider for a non-troubled borrower. Modifications may include interest rate reductions, interest only payments for an extended period of time, protracted terms such as amortization and maturity beyond the customary length of time found in the normal market place, and other actions intended to minimize economic loss and to provide alternatives to foreclosure or repossession of collateral. Generally, a nonaccrual loan that has been modified in a TDR remains on nonaccrual status until the borrower has demonstrated sustained repayment performance for a period of six consecutive months. However, performance prior to the modification, or significant events that coincide with the modification, are included in assessing whether the borrower can meet the new terms and may result in the loan being returned to accrual status at the time of loan modification or after a shorter performance period. If the borrower's ability to meet the revised payment schedule is uncertain, or there is reasonable doubt over the full collectability of principal and interest, the loan remains on nonaccrual status.

Real estate acquired in settlement of loans. ASB records real estate acquired in settlement of loans at fair value, less estimated selling expenses. ASB obtains appraisals based on recent comparable sales to assist management in estimating the fair value of real estate acquired in settlement of loans. Subsequent declines in value are charged to expense through a valuation allowance. Costs related to holding real estate are charged to operations as incurred.

Goodwill. At December 31, 2016 and 2015, the amount of goodwill was \$82.2 million. The goodwill is with respect to ASB and is the Company's only intangible asset with an indefinite useful life and is tested for impairment annually at December 31 using data as of September 30.

To determine if there was any impairment to the book value of goodwill pertaining to ASB, the fair value of ASB was estimated using a valuation method based on a market approach and discounted cash flow method with each method having an equal weighting in determining the fair value of ASB. The market approach considers publicly traded financial institutions with assets of \$3.5 billion to \$8 billion and measures the institutions' market values as a multiple to (1) net income and (2) book equity. ASB used the median market value multiples for net income and book equity from its selection criteria and applied the multiples to its net income and book equity to calculate ASB's fair value using the market approach. In order to reflect a premium that a buyer would pay for a controlling interest in ASB, a control premium of 18.4% was included in determining the market approach fair value. The control premium was based on control premiums paid in 18 acquisitions with deal values over \$500 million which were completed in 2014-2016 where 100% interests were purchased and control premium information was available. The discounted cash flow method values a company on a going concern basis and is based on the concept that the future benefits derived from a particular company can be measured by its sustainable after-tax cash flows in the future. ASB's discounted cash flow analysis was based on its income statement forecasts and a discount rate of 8.9% was applied to present value the cash flows. ASB used a Capital Asset Pricing Model analysis to determine its discount rate. For the three years ended December 31, 2016, there has been no impairment of goodwill.

Mortgage banking. Mortgage loans held for sale are stated at the lower of cost or estimated fair value on an aggregate basis. Premiums, discounts and net deferred loan fees are not amortized while a loan is classified as held for sale. A sale is recognized only when the consideration received is other than beneficial interests in the assets sold and control over the assets is transferred irrevocably to the buyer. Gains or losses on sales of loans are recognized at the time of sale and are determined by the difference between the net sales proceeds and the allocated basis of the loans sold. ASB is obligated to subsequently repurchase a loan if the purchaser discovers a standard representation or warranty violation such as noncompliance with eligibility requirements, customer fraud or servicing violations. This primarily occurs during a loan file review. ASB considers and records a reserve for loan repurchases if appropriate.

ASB recognizes a mortgage servicing asset when a mortgage loan is sold with servicing rights retained. This mortgage servicing right (MSR) is initially capitalized at its presumed fair value based on market data at the time of sale and accounted for in subsequent periods at the lower of amortized cost or fair value. Mortgage servicing assets or liabilities are included as a component of gain on sale of loans. Under ASC Topic 860, "Transfers and Servicing," we amortize the MSRs in proportion to and over the period of estimated net servicing income and assess for impairment at each reporting date.

ASB's MSRs are stratified based on predominant risk characteristics of the underlying loans including loan type such as fixed-rate 15 and 30 year mortgages and note rate in bands primarily of 50 to 100 basis points. For each stratum, fair value is calculated by discounting expected net income streams using discount rates that reflect industry pricing for similar assets. Expected net income streams are estimated based on industry assumptions regarding prepayment expectations and income and expenses associated with servicing residential mortgage loans for others.

ASB uses a present value cash flow model using techniques described above to estimate the fair value of MSRs. Because observable market prices with exact terms and conditions may not be readily available, ASB compares the fair value of MSRs to an estimated value calculated by an independent third-party on a semi-annual basis. The third-party relies on both published and unpublished sources of market related assumptions and their own experience and expertise to arrive at a value. ASB uses the third-party value only to assess the reasonableness of fair value generated by the valuation model.

Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in "Other income, net" in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable.

Loan servicing fee income represents income earned for servicing mortgage loans owned by investors. It includes mortgage servicing fees and other ancillary servicing income, net of guaranty fees. Servicing fees are generally calculated on the outstanding principal balances of the loans serviced and are recorded as income when earned.

Tax Credit Investments. ASB invests in limited liability entities formed to operate qualifying affordable housing projects.

The affordable housing investments provide tax benefits to investors in the form of tax deductions from operating losses and tax credits. As a limited partner, ASB has no significant influence over the operations. These investments are initially recorded at the initial capital contribution with a liability recognized for the commitment to contribute additional capital over the term of the investment.

The Company uses the proportional amortization method of accounting for its investments. Under the proportional amortization method, the Company amortizes the cost of its investments in proportion to the tax credits and other tax benefits it receives. The amortization, tax credits and tax benefits are reported as a component of income tax expense. Cash contributions and payments made on commitments to low-income housing tax credit (LIHTC) investments are classified as operating activities in the Company's consolidated statements of cash flows.

For these limited liability entities, ASB assesses whether it is the primary beneficiary of the limited liability entity, which is a variable interest entity (VIE). The primary beneficiary of a VIE is determined to be the party that meets both of the following criteria: (i) has the power to make decisions that most significantly affect the economic performance of the VIE; and (ii) has the obligation to absorb losses or the right to receive benefits that in either case could potentially be significant to the VIE. Generally, ASB, as a limited partner, is not deemed to be the primary beneficiary as it does not meet the power criterion, i.e., no power to direct the activities of a VIE that most significantly impact the VIE's economic performance and no direct ability to unilaterally remove the general partner.

All tax credit investments are evaluated for potential impairment at least annually, or more frequently, when events or conditions indicate that it is deemed probable that ASB will not recover its investment. Potential indicators of impairment might arise when there is evidence that some or all tax credits previously claimed would be recaptured, or that expected remaining credits would no longer be available to the limited liability entities. If an investment is determined to be impaired, it is written down to its estimated fair value and the new cost basis of the investment is not adjusted for subsequent recoveries in value. As of December 31, 2016, ASB did not have any impairment losses resulting from forfeiture or ineligibility of tax credits or other circumstances related to its LIHTC investments.

At December 31, 2016 and 2015, the carrying amount of qualifying affordable housing investments was \$47.1 million and \$37.8 million, respectively, and included in other assets in the consolidated balance sheets.

ASB's unfunded commitments to fund to its qualifying affordable housing investments were \$14.0 million and \$10.1 million as of December 31, 2016 and 2015, respectively. These unfunded commitments are unconditional and legally binding and are recorded in accounts payable and other liabilities with an increase in other assets in the consolidated balance sheets.

The table below summarizes the amounts in income tax expense related to ASB's investments in qualifying affordable housing projects:

Years ended December 31	2016		2015		2014	
(in millions)						
Amounts in income taxes related to investments in qualifying affordable housing projects						
Amortization recognized in the provision for income taxes	\$	(5.8)	\$	(5.4)	\$	(3.6)
Tax credits and other tax benefits recognized in the provision for income taxes		8.4		8.0		5.4
Net benefit to income tax expense	\$	2.6	\$	2.6	\$	1.8

2 · Termination of proposed merger and other matters

On December 3, 2014, HEI, NextEra Energy, Inc. (NEE) and two subsidiaries of NEE entered into an Agreement and Plan of Merger (the Merger Agreement), under which Hawaiian Electric was to become a subsidiary of NEE. The Merger Agreement contemplated that, prior to the Merger, HEI would distribute to its shareholders all of the common stock of ASB Hawaii, Inc. (ASB Hawaii), the parent company of ASB (such distribution referred to as the Spin-Off).

The closing of the Merger was subject to various conditions, including receipt of regulatory approval from the PUC. In January 2015, NEE and Hawaiian Electric filed an application with the PUC requesting approval of the proposed Merger. On July 15, 2016, the PUC dismissed the application without prejudice.

On July 16, 2016, NEE terminated the Merger Agreement. Pursuant to the terms of the Merger Agreement, on July 19, 2016, NEE paid HEI a \$90 million termination fee and \$5 million for the reimbursement of expenses associated with the transaction. In 2016, the Company recognized \$60 million of net income (\$2 million of net loss in each of the first and second quarters and \$64 million of net income in the third quarter), comprised of the termination fee (\$55 million), reimbursements of expenses from NEE and insurance (\$3 million), and additional tax benefits on the previously non-tax-deductible merger- and spin-off-related expenses incurred through June 30, 2016 (\$8 million), less merger- and spin-off-related expenses incurred in 2016 (\$6 million) (all net of tax impacts). In 2015, the Company recognized \$16 million of merger- and spin-off-related expenses (\$5 million in the first quarter, \$7 million in the second quarter and \$2 million in each of the third and fourth quarters), net of tax impacts. In 2014, the Company recognized merger- and spin-off-related expenses of \$5 million, net of tax impacts, primarily in the fourth quarter. The Spin-Off of ASB Hawaii was cancelled as it was cross-conditioned on the merger consummation.

In May 2016, the Utilities had filed an application for approval of an LNG supply and transport agreement and LNG-related capital equipment and two related applications, which applications were conditioned on the PUC's approval of the proposed Merger. Subsequently, the Utilities terminated the agreement and withdrew the three applications. In 2016, Hawaiian Electric recognized expenses related to the terminated LNG agreement of \$1 million, net of tax benefits, in each of the first and second quarters.

Litigation. HEI and its subsidiaries are subject to various legal proceedings that arise from time to time. Some of these proceedings may seek relief or damages in amounts that may be substantial. Because these proceedings are complex, many years may pass before they are resolved, and it is not feasible to predict their outcomes. Some of these proceedings involve claims HEI and Hawaiian Electric believe may be covered by insurance, and HEI and Hawaiian Electric have advised their insurance carriers accordingly.

Since the December 3, 2014 announcement of the Merger Agreement with NEE, several purported class action complaints were filed by alleged stockholders of HEI against HEI, the individual directors of HEI, NEE and others. All of these lawsuits (seven of which were consolidated) have been dismissed, either with or without prejudice.

3 · Segment financial information

The electric utility and bank segments are strategic business units of the Company that offer different products and services and operate in different regulatory environments. The accounting policies of the segments are the same as those described for the Company in the summary of significant accounting policies, except as otherwise indicated and except that federal and state income taxes for each segment are calculated on a “stand-alone” basis. HEI evaluates segment performance based on net income. Each segment accounts for intersegment sales and transfers as if the sales and transfers were to third parties, that is, at current market prices. Intersegment revenues consist primarily of interest, rent and preferred stock dividends.

Electric utility

Hawaiian Electric and its wholly-owned operating subsidiaries, Hawaii Electric Light and Maui Electric, are public electric utilities in the business of generating, purchasing, transmitting, distributing and selling electric energy on all major islands in Hawaii other than Kauai, and are regulated by the PUC. The utility subsidiaries are aggregated within the electric utility segment because they: (1) are involved in the business of supplying electric energy in the same geographical location (i.e., the State of Hawaii), (2) have similar production processes that include electric generators (e.g., conventional oil-fired steam units and combustion turbines), (3) serve similar customers within their franchise territories (e.g., residential, commercial and industrial customers), (4) use similar electric grids to distribute the energy to their customers, (5) are regulated by the PUC and undergo similar rate-making processes, (6) have similar economic characteristics and (7) perform financial reporting oversight and management of the business at the consolidated level. Hawaiian Electric also owns the following nonregulated subsidiaries: Renewable Hawaii, Inc. (RHI), which was formed to invest in renewable energy projects; HECO Capital Trust III, which is a financing entity; and Uluwehiokama Biofuels Corp. (UBC), which was formed to own a new biodiesel refining plant to be built on the island of Maui, which project has been terminated.

Bank

ASB is a federally chartered savings bank providing a full range of banking services to individual and business customers through its branch system in Hawaii. ASB is subject to examination and comprehensive regulation by the Office of the Comptroller of the Currency (OCC) (previously by the Department of Treasury, Office of Thrift Supervision (OTS)) and the Federal Deposit Insurance Corporation (FDIC), and is subject to reserve requirements established by the Board of Governors of the Federal Reserve System.

Other

“Other” includes amounts for the holding companies (HEI and ASB Hawaii, Inc.), other subsidiaries not qualifying as reportable segments and intercompany eliminations.

Segment financial information was as follows:

(in thousands)	Electric utility		Bank		Other		Total
2016							
Revenues from external customers	\$	2,094,224	\$	285,924	\$	506	\$ 2,380,654
Intersegment revenues (eliminations)		144		—		(144)	—
Revenues		2,094,368		285,924		362	2,380,654
Depreciation and amortization		193,996		9,813		937	204,746
Interest expense, net		66,824		12,755		8,979	88,558
Income before income taxes		229,113		87,352		57,376	373,841
Income taxes		84,801		30,073		8,821	123,695
Net income		144,312		57,279		48,555	250,146
Preferred stock dividends of subsidiaries		1,995		—		(105)	1,890
Net income for common stock		142,317		57,279		48,660	248,256
Capital expenditures		320,437		9,394		212	330,043
Assets (at December 31, 2016)		5,975,428		6,421,357		28,721	12,425,506
2015							
Revenues from external customers	\$	2,335,135	\$	267,733	\$	114	\$ 2,602,982
Intersegment revenues (eliminations)		31		—		(31)	—
Revenues		2,335,166		267,733		83	2,602,982
Depreciation and amortization		186,319		7,928		1,338	195,585
Interest expense, net		66,370		11,326		10,780	88,476
Income (loss) before income taxes		217,131		83,812		(46,155)	254,788
Income taxes (benefit)		79,422		29,082		(15,483)	93,021
Net income (loss)		137,709		54,730		(30,672)	161,767
Preferred stock dividends of subsidiaries		1,995		—		(105)	1,890
Net income (loss) for common stock		135,714		54,730		(30,567)	159,877
Capital expenditures		350,161		13,470		173	363,804
Assets (at December 31, 2015)		5,672,210		6,014,755		95,053	11,782,018
2014							
Revenues from external customers	\$	2,987,299	\$	252,497	\$	(254)	\$ 3,239,542
Intersegment revenues (eliminations)		24		—		(24)	—
Revenues		2,987,323		252,497		(278)	3,239,542
Depreciation and amortization		176,284		5,399		1,361	183,044
Interest expense, net		64,757		10,808		11,595	87,160
Income (loss) before income taxes		220,361		79,295		(34,058)	265,598
Income taxes (benefit)		80,725		27,994		(13,140)	95,579
Net income (loss)		139,636		51,301		(20,918)	170,019
Preferred stock dividends of subsidiaries		1,995		—		(105)	1,890
Net income (loss) for common stock		137,641		51,301		(20,813)	168,129
Capital expenditures		336,679		28,073		74	364,826
Assets (at December 31, 2014)		5,550,021		5,566,222		60,900	11,177,143

See Note 1 for the impact to prior period financial information of the adoptions of ASU No. 2015-03.

Intercompany electricity sales of the Utilities to the bank and “other” segments are not eliminated because those segments would need to purchase electricity from another source if it were not provided by the Utilities and the profit on such sales is nominal.

Bank fees that ASB charges the Utilities and “other” segments are not eliminated because those segments would pay fees to another financial institution if they were to bank with another institution and the profit on such fees is nominal.

4 • Electric utility segment

Regulatory assets and liabilities. Regulatory assets represent deferred costs and accrued decoupling revenues which are expected to be fully recovered through rates over PUC-authorized periods. Generally, the Utilities do not earn a return on their regulatory assets; however, they have been allowed to recover interest on certain regulatory assets and to include certain regulatory assets in rate base. Regulatory liabilities represent amounts included in rates and collected from ratepayers for costs expected to be incurred in the future. For example, the regulatory liability for cost of removal in excess of salvage value represents amounts that have been collected from ratepayers for costs that are expected to be incurred in the future to retire utility plant. Generally, the Utilities include regulatory liabilities in rate base or are required to apply interest to certain regulatory liabilities. In the table below, noted in parentheses are the original PUC authorized amortization or recovery periods and, if different, the remaining amortization or recovery periods as of December 31, 2016 are noted.

Regulatory assets were as follows:

December 31 (in thousands)	2016	2015
Retirement benefit plans (balance primarily varies with plans' funded statuses)	\$ 745,367	\$ 679,766
Income taxes, net (1 to 55 years)	90,100	88,039
Decoupling revenue balancing account and RAM regulatory asset (1 to 2 years)	73,485	74,462
Unamortized expense and premiums on retired debt and equity issuances (19 to 30 years; 6 to 18 years remaining)	12,299	14,089
Vacation earned, but not yet taken (1 year)	10,970	10,420
Other (1 to 50 years; 1 to 46 years remaining)	25,230	29,955
	<u>\$ 957,451</u>	<u>\$ 896,731</u>
Included in:		
Current assets	\$ 66,032	\$ 72,231
Long-term assets	891,419	824,500
	<u>\$ 957,451</u>	<u>\$ 896,731</u>

Regulatory liabilities were as follows:

December 31 (in thousands)	2016	2015
Cost of removal in excess of salvage value (1 to 60 years)	\$ 394,072	\$ 357,825
Retirement benefit plans (5 years beginning with respective utility's next rate case)	10,824	9,835
Other (5 years; 1 to 2 years remaining)	5,797	3,883
	<u>\$ 410,693</u>	<u>\$ 371,543</u>
Included in:		
Current liabilities	\$ 3,762	\$ 2,204
Long-term liabilities	406,931	369,339
	<u>\$ 410,693</u>	<u>\$ 371,543</u>

The regulatory asset and liability relating to retirement benefit plans was recorded as a result of pension and OPEB tracking mechanisms adopted by the PUC in rate case decisions for the Utilities in 2007 (see Note 10).

Major customers. The Utilities received 11% (\$226 million), 11% (\$265 million) and 12% (\$350 million) of their operating revenues from the sale of electricity to various federal government agencies in 2016, 2015 and 2014, respectively.

Cumulative preferred stock. The following series of cumulative preferred stock are redeemable only at the option of the respective company at the following prices in the event of voluntary liquidation or redemption:

December 31, 2016	Voluntary liquidation price	Redemption price
Series		
C, D, E, H, J and K (Hawaiian Electric)	\$ 20	\$ 21
I (Hawaiian Electric)	20	20
G (Hawaii Electric Light)	100	100
H (Maui Electric)	100	100

Hawaiian Electric is obligated to make dividend, redemption and liquidation payments on the preferred stock of each of its subsidiaries if the respective subsidiary is unable to make such payments, but this obligation is subordinated to Hawaiian Electric's obligation to make payments on its own preferred stock.

Related-party transactions. HEI charged the Utilities \$6.5 million, \$6.5 million and \$7.0 million for general management and administrative services in 2016, 2015 and 2014, respectively. The amounts charged by HEI to its subsidiaries for services provided by HEI employees are allocated primarily on the basis of time expended in providing such services.

Hawaiian Electric's short-term borrowings totaled nil at December 31, 2016 and 2015. The interest charged on short-term borrowings from HEI is based on the lower of HEI's or Hawaiian Electric's effective weighted average short-term external borrowing rate. If both HEI and Hawaiian Electric do not have short-term external borrowings, the interest is based on the average of the effective rate for 30-day dealer-placed commercial paper quoted by the Wall Street Journal plus 0.15%.

Borrowings among the Utilities are eliminated in consolidation. Interest charged by HEI to Hawaiian Electric was \$0.04 million in 2016 and nil in each of 2015 and 2014.

Commitments and contingencies.

Fuel contracts. The Utilities have contractual agreements to purchase minimum quantities of low sulfur fuel oil (LSFO), medium sulfur fuel oil (MSFO), diesel fuel and biodiesel for multi-year periods, some through December 2019. Fossil fuel prices are tied to the market prices of crude oil and petroleum products in the Far East and U.S. West Coast and the biodiesel price is tied to the market prices of animal fat feedstocks in the U.S. West Coast and U.S. Midwest. Based on the average price per barrel as of December 31, 2016, the estimated cost of minimum purchases under the fuel supply contracts is \$125 million in 2017, \$119 million in 2018 and \$119 million in 2019. The actual cost of purchases in 2017 and future years could vary substantially from this estimate of minimum purchases as a result of changes in market prices, quantities actually purchased, entry into new supply contracts and/or other factors. The Utilities purchased \$0.4 billion, \$0.6 billion and \$1.1 billion of fuel under contractual agreements in 2016, 2015 and 2014, respectively.

On February 18, 2016, the Companies signed two fuel supply contracts with Chevron Products Company (Chevron) for: (1) Oahu's LSFO and diesel (for purposes of blending with LSFO) to meet the Environmental Protection Agency's Mercury and Air Toxic Standards; and (2) MSFO, diesel and ultra-low sulfur diesel for Oahu, Maui, Molokai and the island of Hawaii. The contract began on January 1, 2017, terminates on December 31, 2019, and may automatically renew for annual terms thereafter unless terminated earlier by either party. Both of these fuel contracts were recently assigned to Island Energy Services, LLC, a subsidiary of One Rock Capital Partners, L.P., who purchased Chevron's Hawaii assets on November 1, 2016. Both of these fuel contracts replace prior fuel supply contracts with Chevron and Par Hawaii Refining, LLC (Par), which both expired on December 31, 2016.

Hawaii Electric Light also signed a contract with Chevron, now Island Energy Services, LLC, for terminalling services in Hilo, Hawaii for 2017 through 2019. The terminalling services were provided by Chevron as part of the fuel supply contract but as mentioned above, that contract expired December 31, 2016. Now Hilo terminalling services are contracted in a stand-alone contract.

The PUC approved all of the contracts with Chevron, now Island Energy Services, LLC. All of the costs incurred under these contracts are included in the Utilities' respective Energy Cost Adjustment Clauses (ECACs) to the extent such costs are not recovered through the base rates.

Hawaiian Electric also has three contracts for biodiesel. Two of the contracts are with Pacific Biodiesel Technologies, LLC (PBT) and one contingency contract is in place with REG Marketing & Logistics, LLC (REG). PBT has agreed to supply biodiesel to Hawaiian Electric's Campbell Industrial Park (CIP) generating facility through November 2017. The Company intends to seek a one-year extension of this contract through 2018. While fuel is delivered to CIP, the contract provides that biodiesel can be trucked to the Honolulu International Airport Emergency Facility and to any other generating facility on Oahu owned by Hawaiian Electric. Hawaiian Electric intends to shift the biodiesel supply to Schofield generating station when that

new facility comes online and as long as the PBT contract remains in effect. PBT also has a spot buy contract with Hawaiian Electric to purchase additional quantities of biodiesel at or below the price of diesel. Very few purchases of “at parity” biodiesel have been purchased, however the contract remains in effect and was recently extended through June 2018.

Hawaiian Electric also has a contingency contract with REG. REG will supply biodiesel in the event PBT is unable to supply quantities above the contract maximum volume, should something unexpected occur. Hawaiian Electric did not purchase any biofuel from REG during 2016. Regardless of no purchases, Hawaiian Electric secured a one-year extension of this contract through November 2017.

The costs incurred under the Utilities’ biodiesel contracts are included in their respective ECACs, to the extent such costs are not recovered through the Utilities’ base rates.

The energy charge for energy purchased from Kalaeloa Partners, L.P. (Kalaeloa) under Hawaiian Electric’s purchase power agreement (PPA) with Kalaeloa is based in part on the price Kalaeloa pays PAR (formerly known as Hawaii Independent Energy, LLC) for LSFO in a fuel contract between the two parties.

Hawaiian Electric and Kalaeloa are currently in negotiations to address the PPA term that ended on May 23, 2016. The PPA automatically extends on a month-to-month basis as long as the parties are still negotiating in good faith. The month-to-month term extensions shall end 60 days after either party notifies the other in writing that negotiations have terminated. On August 1, 2016, Hawaiian Electric and Kalaeloa entered into an agreement that neither party will give written notice of termination of the PPA prior to October 31, 2017. This agreement complements continued negotiations between the parties and accounts for time needed for PUC approval of a negotiated resolution.

The costs incurred for LSFO under Hawaiian Electric's fuel contract with Kalaeloa is included in Hawaiian Electric's ECAC, to the extent such costs are not recovered through base rates.

Power purchase agreements. As of December 31, 2016, the Utilities had five firm capacity PPAs for a total of 551 megawatts (MW) of firm capacity. Purchases from these five independent power producers (IPPs) and all other IPPs totaled \$0.6 billion, \$0.6 billion and \$0.7 billion for 2016, 2015 and 2014, respectively. The PUC allows rate recovery for energy and firm capacity payments to IPPs under these agreements. Assuming that each of the agreements remains in place for its current term (and as amended) and the minimum availability criteria in the PPAs are met, aggregate minimum fixed capacity charges are expected to be approximately \$0.1 billion per year for 2017 through 2021 and a total of \$0.4 billion in the period from 2022 through 2033.

In general, the Utilities base their payments under the PPAs upon available capacity and actually supplied energy and they are generally not required to make payments for capacity if the contracted capacity is not available, and payments are reduced, under certain conditions, if available capacity drops below contracted levels. In general, the payment rates for capacity have been predetermined for the terms of the agreements. Energy payments will vary over the terms of the agreements. The Utilities pass on changes in the fuel component of the energy charges to customers through the ECAC in their rate schedules. The Utilities do not operate, or participate in the operation of, any of the facilities that provide power under the agreements. Title to the facilities does not pass to Hawaiian Electric or its subsidiaries upon expiration of the agreements, and the agreements do not contain bargain purchase options for the facilities.

Purchase power adjustment clause. The PUC has approved purchased power adjustment clauses (PPACs) for the Utilities. Purchased power capacity, O&M and other non-energy costs previously recovered through base rates are now recovered in the PPACs and, subject to approval by the PUC, such costs resulting from new purchased power agreements can be added to the PPACs outside of a rate case. Purchased energy costs continue to be recovered through the ECAC to the extent they are not recovered through base rates.

AES Hawaii, Inc. Under a PPA entered into in March 1988, as amended (through Amendment No. 2), for a period of 30 years beginning September 1992, Hawaiian Electric agreed to purchase 180 MW of firm capacity from AES Hawaii. In August 2012, Hawaiian Electric filed an application with the PUC seeking an exemption from the PUC’s Competitive Bidding Framework to negotiate an amendment to the PPA to purchase 186 MW of firm capacity, and amend the energy pricing formula in the PPA. The PUC approved the exemption in April 2013, but Hawaiian Electric and AES Hawaii were not able to reach agreement on an amendment. In June 2015, AES Hawaii filed an arbitration demand regarding a dispute about whether Hawaiian Electric was obligated to buy up to 9 MW of additional capacity based on a 1992 letter. Hawaiian Electric responded to the arbitration demand and, in October 2015, AES Hawaii and Hawaiian Electric entered into a Settlement Agreement to stay the arbitration proceeding. The Settlement Agreement included certain conditions precedent which, if satisfied would have released the parties from the claims under the arbitration proceeding. Among the conditions precedent was the successful negotiation of an amendment to the existing purchase power agreement and PUC approval of such amendment.

In November 2015, Hawaiian Electric entered into Amendment No. 3 to the PPA, subject to PUC approval. The arbitration proceeding was stayed to allow for the PUC approval proceeding to proceed. In January 2017, the PUC denied Hawaiian Electric's request to approve Amendment No. 3 to the PPA. Approval of Amendment No. 3 would have satisfied the final condition for effectiveness of the Settlement Agreement and resolved AES Hawaii's claims. Following the PUC's decision, the parties have agreed to extend the stay of the arbitration proceedings for an additional four months, to allow the parties to discuss possible alternative settlement structures.

Hu Honua Bioenergy, LLC. In May 2012, Hawaii Electric Light signed a PPA, which the PUC approved in December 2013, with Hu Honua Bioenergy, LLC (Hu Honua) for 21.5 MW of renewable, dispatchable firm capacity fueled by locally grown biomass from a facility on the island of Hawaii. Per the terms of the PPA, the Hu Honua plant was scheduled to be in service in 2016. However, Hu Honua encountered construction delays, failed to meet its current obligations under the PPA and failed to provide adequate assurances that it could perform or had the financial means to perform. Hawaii Electric Light terminated the PPA on March 1, 2016. Hawaii Electric Light and Hu Honua were in discussions regarding the possibility of reinstating the PPA under revised terms and conditions. However, on November 30, 2016, Hu Honua filed a civil complaint in the United States District Court for the District of Hawaii which included claims purportedly arising out of the termination of Hu Honua's PPA. The complaint named HEI, Hawaiian Electric and Hawaii Electric Light as defendants. HEI, Hawaiian Electric and Hawaii Electric believe the allegations in the complaint are without merit and intend to defend these lawsuits vigorously.

Liquefied natural gas. On May 18, 2016, Hawaiian Electric and Fortis Hawaii Energy Inc. (Fortis Hawaii), an affiliate of Fortis, Inc. (Fortis), entered into a Fuel Supply Agreement (FSA) whereby Fortis Hawaii intended to sell to Hawaiian Electric liquefied natural gas (LNG) to be produced from the LNG facilities on Tilbury Island in Delta, British Columbia, Canada. Pursuant to the FSA, Fortis Hawaii had arranged, or planned to arrange, for the transportation of gas for delivery to, and liquefaction at, the Tilbury LNG facilities, including with respect to the transport and delivery of LNG across a jetty at such facilities, for the purchase and storage of LNG at such LNG facilities and for the transportation of LNG to delivery points in Hawaii for the benefit of Hawaiian Electric and its subsidiaries. The FSA was subject to approval by the PUC and to the satisfaction of certain conditions precedent, including the consummation of the merger between HEI and NEE. On July 16, 2016, pursuant to the terms of the Merger Agreement, NEE terminated the Merger Agreement. Accordingly, on July 19, 2016, Hawaiian Electric provided notice of termination of the FSA to Fortis Hawaii, effective immediately, and withdrew the application for PUC approval of the FSA, which included a request for approval to commit approximately \$341 million to convert existing generating units to use natural gas, and to commit approximately \$117 million for containers to support LNG. In addition, on July 19, 2016, Hawaiian Electric withdrew its applications to the PUC for a waiver from the competitive bidding process to allow Hawaiian Electric to construct a modern, efficient, combined cycle generation system at the Kahe power plant that would utilize LNG and to commit \$859 million for such project. Hawaiian Electric will continue to evaluate all options to modernize generation using a cleaner fuel to bring price stability and support adding renewable energy for its customers.

Utility projects. Many public utility projects require PUC approval and various permits from other governmental agencies. Difficulties in obtaining, or the inability to obtain, the necessary approvals or permits can result in significantly increased project costs or even cancellation of projects. In the event a project does not proceed, or if it becomes probable the PUC will disallow cost recovery for all or part of a project, or if PUC imposed caps on project costs are exceeded, project costs may need to be written off in amounts that could result in significant reductions in Hawaiian Electric's consolidated net income.

Renewable energy project matters. In May 2012, the PUC instituted a proceeding for a competitive bidding process for up to 50 MW of firm renewable geothermal dispatchable energy (Geothermal RFP) on the island of Hawaii, and in July 2012, Hawaii Electric Light filed an application to defer 2012 costs related to the Geothermal RFP. In November 2015, the PUC approved the deferral of \$2.1 million of costs related to the Geothermal RFP, and will review the prudence and reasonableness of the deferred costs in the Hawaii Electric Light 2016 test year rate case. In February 2013, Hawaii Electric Light issued the Final Geothermal RFP. Six bids were received, but Hawaii Electric Light notified bidders that none of the submitted bids sufficiently met both the low-cost and technical requirements of the Geothermal RFP. In October 2014, Hawaii Electric Light issued Addendum No. 1 (Best and Final Offer) and Attachment A (Best and Final Offer Bidder's Response Package) directly to five eligible bidders. The submittals received in January 2015 were considered for final selection of one project to proceed with PPA negotiations. In February 2015, Ormat Technologies, Inc. was selected for an award and began PPA negotiations with Hawaii Electric Light. In February 2016, Hawaii Electric Light provided the PUC with a status update notifying the PUC that Ormat Technologies, Inc. had determined the proposed project not to be economically and financially viable, resulting in termination of PPA negotiations. On March 8, 2016, the Independent Observer issued a report on the results of the negotiation phase of the Geothermal RFP.

In February 2016, Huena Power Inc. (Huena) filed with the PUC a Petition for Declaratory Order (which the PUC later dismissed without prejudice) and a Complaint relating to the Geothermal RFP. Hawaii Electric Light filed a motion to dismiss Huena's Petition which was granted on March 28, 2016. Hawaii Electric Light's motion to dismiss Huena's Complaint is still

pending. On December 15, 2016, the PUC issued Order No. 34211 in Docket No. 2016-0027 granting Hawaii Electric Light's motion to dismiss Huena's complaint against Hawaii Electric Light with prejudice and closed the geothermal RFP docket.

Enterprise Resource Planning/Enterprise Asset Management (ERP/EAM) Implementation Project. The Utilities submitted their Enterprise Information System Roadmap to the PUC in June 2014 and refiled an application for an ERP/EAM implementation project in July 2014 with an estimated cost of \$82.4 million.

In October 2015, the PUC issued a D&O (1) finding that there is a need to replace the Utilities' existing ERP/EAM system, (2) denying the Utilities request to defer the costs for the ERP software purchased in 2012 and (3) deferring any ruling on whether it is reasonable and in the public interest for the Utilities to commence with the project under two options. As a result, the Utilities expensed the ERP software costs of \$4.8 million in the third quarter of 2015. In April 2016, the Utilities filed additional information on the costs and benefits of the project and the Consumer Advocate submitted its reply.

On August 11, 2016, the PUC issued a second D&O approving the Utilities' request to commence the ERP/EAM implementation project, subject to certain conditions, including a \$77.6 million cap on cost recovery as well as a requirement that the Utilities pass onto customers a minimum of \$244 million in savings associated with the system over its 12-year service life. Pursuant to the D&O and subsequent orders, the Utilities will be required to file: the proposed methods of passing on to customers the estimated monetary savings attributable to the project by March 31, 2017; a bottom-up, low-level analysis of the project's benefits; performance metrics and tracking mechanism for passing the project's benefits on to customers by September 2017; and monthly reports on the status and costs of the project starting February 2017. The project is expected to go-live by October 1, 2018.

Schofield Generating Station Project. In August 2012, the PUC approved a waiver from the competitive bidding framework to allow Hawaiian Electric to negotiate with the U.S. Army for the construction of a 50 MW utility owned and operated firm, renewable and dispatchable generation facility at Schofield Barracks. In September 2015, the PUC approved Hawaiian Electric's application to expend \$167 million for the project. In approving the project, the PUC placed a cost cap of \$167 million for the project, stated 90% of the cap is allowed for cost recovery through cost recovery mechanisms other than base rates, and stated the \$167 million cap will be adjusted downward due to any reduction in the cost of the engine contract due to a reduction in the foreign exchange rate. Hawaiian Electric was required to take all necessary steps to lock in the lowest possible exchange rate. On January 5, 2016, Hawaiian Electric executed a window forward agreement which lowered the cost of the engine contract by \$9.7 million, resulting in a revised project cost cap of \$157.3 million. Hawaiian Electric has received all of the major permits for the project, including a 35 year site lease from the U.S. Army. Construction of the facility began in October 2016, and the facility is expected to be placed in service in the first quarter of 2018.

Hamakua Energy Partners, L.P. (HEP) Asset Purchase Agreement. Hawaii Electric Light has been purchasing up to 60 MW (net) of firm capacity from HEP under a power purchase agreement (PPA) that expires on December 30, 2030. The HEP plant currently contributes about 23% of the island of Hawaii's generating capacity. On December 22, 2015, Hawaii Electric Light entered into an agreement, subject to PUC approval, to acquire the assets of HEP for approximately \$84.5 million. If approved by the PUC, the agreement to purchase the existing HEP generating assets will terminate the existing PPA. The elimination of certain required capacity payments under the PPA is expected to result in lower costs to customers. Additionally, by owning the plant, Hawaii Electric Light will be able to manage HEP's efficient generating units more productively, providing greater flexibility to cycle HEP's generating units to more effectively manage the Hawaii island grid. This increased operational flexibility will be essential to support and facilitate Hawaii Electric Light's efforts to integrate more renewable energy onto the grid.

A decision on an application requesting PUC approval of Hawaii Electric Light's purchase of the HEP Facility is pending.

Environmental regulation. The Utilities are subject to environmental laws and regulations that regulate the operation of existing facilities, the construction and operation of new facilities and the proper cleanup and disposal of hazardous waste and toxic substances. In recent years, legislative, regulatory and governmental activities related to the environment, including proposals and rulemaking under the Clean Air Act and Clean Water Act (CWA), have increased significantly.

Hawaiian Electric, Hawaii Electric Light and Maui Electric, like other utilities, periodically encounter petroleum or other chemical releases into the environment associated with current or previous operations. The Utilities report and take action on these releases when and as required by applicable law and regulations. The Utilities believe the costs of responding to such releases identified to date will not have a material adverse effect, individually or in the aggregate, on Hawaiian Electric's consolidated results of operations, financial condition or liquidity.

Clean Water Act Section 316(b). On August 14, 2014, the EPA published in the Federal Register the final regulations required by section 316(b) of the CWA designed to protect aquatic organisms from adverse impacts associated with existing power plant cooling water intake structures. The regulations were effective October 14, 2014 and apply to the cooling water

systems for the steam generating units at three of Hawaiian Electric's power plants on the island of Oahu. The regulations prescribe a process, including a number of required site-specific studies, for states to develop facility-specific entrainment and impingement controls to be incorporated in each facility's National Pollutant Discharge Elimination System (NPDES) permit. These studies must be completed before Hawaiian Electric and the State of Hawaii Department of Health (DOH) can determine what entrainment or impingement controls, if any, might be necessary at the affected facilities to comply with the new 316(b) rule. Hawaiian Electric will work with the DOH to identify the appropriate compliance methods for the 316(b) rule.

Mercury Air Toxics Standards. On February 16, 2012, EPA published the final rule establishing the National Emission Standards for Hazardous Air Pollutants for fossil-fuel fired steam electrical generating units (EGUs) in the Federal Register. The final rule, known as the Mercury and Air Toxics Standards (MATS), applies to the 14 EGUs at Hawaiian Electric's power plants. MATS established the Maximum Achievable Control Technology standards for the control of hazardous air pollutants emissions from new and existing EGUs. Hawaiian Electric received a one-year extension to comply by April 16, 2016. Hawaiian Electric initially selected a MATS compliance strategy based on switching to lower emission fuels, but has since continued developing and refining its emission control strategy. Hawaiian Electric's liquid oil-fired steam generating units that are subject to the MATS limits are able to comply with the new standards without a significant fuel switch in combination with a suite of operational changes.

Hawaiian Electric has proceeded with the implementation of the MATS Compliance Plan and has met all compliance requirements to date.

1-Hour Sulfur Dioxide National Ambient Air Quality Standard. On August 1, 2015, the EPA published the Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO₂) Primary National Ambient Air Quality Standard (NAAQS). Hawaiian Electric is working with the DOH to gather data the EPA requires through the installation and operation of two new 1-hour SO₂ air quality monitoring stations on the island of Oahu. This data will be integrated into the DOH's statewide monitoring network and will assist the State's development of its strategy to maintain the NAAQS and comply with the new 1-Hour SO₂ Rule in its State Implementation Plan. The two new 1-hour SO₂ air quality monitoring stations have been installed and were placed into operation prior to the EPA regulatory deadline of January 1, 2017.

Potential Clean Air Act Enforcement. On July 1, 2013, Hawaii Electric Light and Maui Electric received a letter from the U.S. Department of Justice (DOJ) alleging potential violations of the Prevention of Significant Deterioration and Title V requirements of the Clean Air Act involving the Hill and Kahului Power Plants. In correspondence dated November 4, 2014, the DOJ also identified potential violations by Hawaiian Electric at its Kahe facility and proposed resolving the identified, potential violations by entering into a consent decree pursuant to which the Utilities would install certain pollution controls and pay a penalty. The Utilities continue to negotiate with the DOJ to resolve these issues, but are unable to estimate the amount or effect of a consent decree, if any, at this time.

Former Molokai Electric Company generation site. In 1989, Maui Electric acquired by merger Molokai Electric Company. Molokai Electric Company had sold its former generation site (Site) in 1983, but continued to operate at the Site under a lease until 1985. The EPA has since identified environmental impacts in the subsurface soil at the Site. Although Maui Electric never operated at the Site or owned the Site property, after discussions with the EPA and the DOH Maui Electric agreed to undertake additional investigations at the Site and an adjacent parcel that Molokai Electric Company had used for equipment storage (the Adjacent Parcel) to determine the extent of environmental contamination. A 2011 assessment by a Maui Electric contractor of the Adjacent Parcel identified environmental impacts, including elevated polychlorinated biphenyls (PCBs) in the subsurface soils. In cooperation with the DOH and EPA, Maui Electric is further investigating the Site and the Adjacent Parcel to determine the extent of impacts of PCBs, residual fuel oils, and other subsurface contaminants. Maui Electric has a reserve balance of \$3.6 million as of December 31, 2016 for the additional investigation and estimated cleanup costs at the Site and the Adjacent Parcel; however, final costs of remediation will depend on the results of continued investigation.

Pearl Harbor sediment study. In July 2014, the U.S. Navy notified Hawaiian Electric of the Navy's determination that Hawaiian Electric is a Potentially Responsible Party responsible for cleanup of PCB contamination in sediment in the area offshore of the Waiiau Power Plant as part of the Pearl Harbor Superfund Site. The Navy has also requested that Hawaiian Electric reimburse the costs incurred by the Navy to date to investigate the area. The Navy has completed a remedial investigation and a feasibility study (FS) for the remediation of contaminated sediment at several locations in Pearl Harbor and issued its Final FS Report on June 29, 2015. On February 2, 2016, the Navy released the Proposed Plan for Pearl Harbor Sediment Remediation and Hawaiian Electric submitted comments. The extent of the contamination, the appropriate remedial measures to address it and Hawaiian Electric's potential responsibility for any associated costs have not been determined.

On March 23, 2015, Hawaiian Electric received a letter from the EPA requesting that Hawaiian Electric submit a work plan to assess potential sources and extent of PCB contamination onshore at the Waiiau Power Plant. Hawaiian Electric submitted a sampling and analysis (SAP) work plan to the EPA and the DOH. Onshore sampling at the Waiiau Power Plant was completed

in two phases in December 2015 and June 2016. The extent of the onshore contamination, the appropriate remedial measures to address it, and any associated costs have not yet been determined.

As of December 31, 2016, the reserve account balance recorded by Hawaiian Electric to address the PCB contamination was \$4.1 million. The reserve represents the probable and reasonably estimable cost to complete the onshore and offshore investigations and the remediation of PCB contamination in the offshore sediment. The final remediation costs will depend on the results of the onshore investigation and assessment of potential source control requirements, as well as the further investigation of contaminated sediment offshore from the Waiiau Power Plant.

Global climate change and greenhouse gas emissions reduction. National and international concerns about climate change and the contribution of greenhouse gas (GHG) emissions (including carbon dioxide emissions from the combustion of fossil fuels) to climate change have led to federal legislative and regulatory proposals and action by the State of Hawaii to reduce GHG emissions.

In July 2007, the State Legislature passed Act 234, which requires a statewide reduction of GHG emissions by January 1, 2020 to levels at or below the statewide GHG emission levels in 1990. On June 20, 2014, the Governor signed the final regulations required to implement Act 234 (i.e., the final GHG rule), which went into effect on June 30, 2014. In general, Act 234 and the corresponding GHG rule require affected sources (that have the potential to emit GHGs in excess of established thresholds) to reduce their GHG emissions by 16% below 2010 emission levels by 2020. In accordance with the GHG rule, the Utilities submitted their Emissions Reduction Plan (EmRP) to the DOH on June 30, 2015, demonstrating how they will comply. The Utilities have committed to a 16% reduction in GHG emissions company-wide. Pursuant to the State's GHG rule, the DOH will incorporate the proposed facility-specific GHG emission limits into each facility's covered source permit based on the 2020 levels specified in Hawaiian Electric's approved EmRP. The GHG rule also requires affected sources to pay an annual fee that is based on tons per year of GHG emissions starting on the effective date of the regulations. The fee for the Utilities is estimated to be approximately \$0.5 million annually. The latest assessment of the proposed federal and final state GHG rules is that the continued growth in renewable power generation will significantly reduce the compliance costs and risk for the Utilities.

As part of a negotiated amendment to the Power Purchase Agreement between Hawaiian Electric and AES Hawaii, Hawaiian Electric planned to include the AES Hawaii facility on Oahu as a partner in the Utilities' EmRP. The PUC denied the amendment to the Power Purchase Agreement in January 2017, however Hawaiian Electric and AES Hawaii continue to consider partnership options in the Utilities' EmRP. Additionally, if the proposed acquisition of the Hamakua Energy Partners (HEP) facility by Hawaii Electric Light is approved by the PUC, the GHG emissions from the HEP facility would need to be addressed in the Utilities' EmRP. Hawaiian Electric will work with the DOH on the timing of the EmRP modifications to address these changes in the partnership, if necessary.

The Utilities have taken, and continue to identify opportunities to take, direct action to reduce GHG emissions from their operations, including supporting DSM programs that foster energy efficiency, using renewable resources for energy production and purchasing power from IPPs generated by renewable resources, burning renewable biodiesel in Hawaiian Electric's Campbell Industrial Park combustion turbine No. 1 (CIP CT-1), using biodiesel for startup and shutdown of selected Maui Electric generating units, and testing biofuel blends in other Hawaiian Electric and Maui Electric generating units. The Utilities will continue to pursue the use of cleaner fuels to replace, at least in part, petroleum. Management is unable to evaluate the ultimate impact on the Utilities' operations of more comprehensive GHG regulations that might be promulgated; however, the various initiatives that the Utilities are pursuing are likely to provide a sound basis for appropriately managing the Utilities' carbon footprint and thereby meet both state and federal GHG reduction goals.

While the timing, extent and ultimate effects of climate change cannot be determined with any certainty, climate change is predicted to result in sea level rise. This effect could potentially result in impacts to coastal and other low-lying areas (where much of the Utilities' electric infrastructure is sited), and result in increased flooding and storm damage due to heavy rainfall, increased rates of beach erosion, saltwater intrusion into freshwater aquifers and terrestrial ecosystems, and higher water tables in low-lying areas. The effects of climate change on the weather (for example, more intense or more frequent rain events, flooding, or hurricanes), sea levels, and freshwater availability and quality have the potential to materially adversely affect the results of operations, financial condition and liquidity of the Utilities. For example, severe weather could cause significant harm to the Utilities' physical facilities.

Asset retirement obligations. AROs represent legal obligations associated with the retirement of certain tangible long-lived assets, are measured as the present value of the projected costs for the future retirement of specific assets and are recognized in the period in which the liability is incurred if a reasonable estimate of fair value can be made. The Utilities' recognition of AROs have no impact on their earnings. The cost of the AROs is recovered over the life of the asset through depreciation. AROs recognized by the Utilities relate to obligations to retire plant and equipment, including removal of asbestos and other hazardous materials.

Hawaiian Electric has recorded estimated AROs related to removing retired generating units at its Honolulu and Waiiau power plants. These removal projects are ongoing, with activity and expenditures occurring in partial settlement of these liabilities. Both removal projects are expected to continue through 2017.

Changes to the ARO liability included in “Other liabilities” on Hawaiian Electric’s balance sheet were as follows:

(in thousands)	2016	2015
Balance, January 1	\$ 26,848	\$ 29,419
Accretion expense	10	24
Liabilities incurred	—	—
Liabilities settled	(1,269)	(2,595)
Revisions in estimated cash flows	—	—
Balance, December 31	\$ 25,589	\$ 26,848

Decoupling. In 2010, the PUC issued an order approving decoupling, which was implemented by Hawaiian Electric on March 1, 2011, by Hawaii Electric Light on April 9, 2012 and by Maui Electric on May 4, 2012. Decoupling is a regulatory model that is intended to facilitate meeting the State of Hawaii’s goals to transition to a clean energy economy and achieve an aggressive renewable portfolio standard. The decoupling model implemented in Hawaii delinks revenues from sales and includes annual rate adjustments for certain O&M expenses and rate base changes. The decoupling mechanism has three components: (1) a sales decoupling component via a revenue balancing account (RBA), (2) a revenue escalation component via a rate adjustment mechanism (RAM) and (3) an earnings sharing mechanism, which would provide for a reduction of revenues between rate cases in the event the utility exceeds the ROACE allowed in its most recent rate case. Decoupling provides for more timely cost recovery and earning on investments. Under the decoupling tariff approved in 2011, the annual RAM is accrued and billed from June 1 of each year through May 31 of the following year.

As part of a January 2013 Settlement Agreement with the Consumer Advocate, which was approved by the PUC, for RAM years 2014 - 2016, Hawaiian Electric was allowed to record RAM revenue beginning on January 1 and to bill such amounts from June 1 of the applicable year through May 31 of the following year (current accrual method). After 2016, the RAM provisions approved in 2011 again apply to Hawaiian Electric. Applying the RAM provisions approved in 2011 again for Hawaiian Electric, is equivalent to a reduction of approximately \$14 million in pro forma net earnings for Hawaiian Electric in 2017, assuming all other factors are unchanged.

On May 31, 2013, as provided for in its original order issued in 2010 approving decoupling and citing three years of implementation experience for Hawaiian Electric, the PUC opened an investigative docket to review whether the decoupling mechanisms are functioning as intended, are fair to the Utilities and their ratepayers and are in the public interest. The PUC affirmed its support for the continuation of the sales decoupling (RBA) mechanism and stated its interest in evaluating the RAM to ensure it provides the appropriate balance of risks, costs, incentives and performance requirements, as well as administrative efficiency, and whether the current interest rate applied to the outstanding RBA balance is reasonable. In October 2013, the PUC issued orders that bifurcated the proceeding (into Schedule A and Schedule B issues).

On February 7, 2014, the PUC issued a decision and order (D&O) on the Schedule A issues, which made certain modifications to the decoupling mechanism. Specifically, the D&O required:

- A 90% limitation on the incremental current year Rate Base RAM Adjustment effective with the Utilities’ 2014 decoupling filing.
- Effective March 1, 2014, the interest rate to be applied on the outstanding RBA balances to be the short term debt rate used in each Utilities last rate case (ranging from 1.25% to 3.25%), instead of the 6% that had been previously approved.

On March 31, 2015, the PUC issued an Order (the March Order) related to the Schedule B portion of the proceeding to make certain further modifications to the decoupling mechanism, and to establish a briefing schedule with respect to certain issues in the proceeding. The March Order modified the RAM portion of the decoupling mechanism to be capped at the lesser of the RAM Revenue Adjustment as currently determined (adjusted to eliminate the 90% limitation on the current RAM Period Rate Base RAM adjustment that was ordered in the Schedule A portion of the proceeding) and a RAM Revenue Adjustment calculated based on the cumulative annual compounded increase in Gross Domestic Product Price Index (GDPPI) applied to the 2014 annualized target revenues (adjusted for certain items specified in the Order) (the RAM Cap). The 2014 annualized target revenues represent the target revenues from the last rate case, and RAM revenues, offset by earnings sharing credits, if any, allowed under the decoupling mechanism through the 2014 decoupling filing. The Utilities may apply to the PUC for approval of recovery of revenues for Major Projects (including related baseline projects grouped together for consideration as

Major Projects) through the RAM above the RAM cap or outside of the RAM through the Renewable Energy Infrastructure Program (REIP) surcharge or other adjustment mechanism. The RAM was amended on an interim basis pending the outcome of the PUC's review of the Utilities' Power Supply Improvement Plans. The triennial rate case cycle required under the decoupling mechanism continues to serve as the maximum period between the filing of general rate cases, and the amendments to the RAM do not limit or dilute the ordinary opportunities for the Utilities to seek rate relief according to conventional/traditional ratemaking procedures.

In making the modifications to the RAM Adjustment, the PUC stated the changes are designed to provide the PUC with control of and prior regulatory review over substantial additions to baseline projects between rate cases. The modifications do not deprive the Utilities of the opportunity to recover any prudently incurred expenditure or limit orderly recovery for necessary expanded capital programs.

The RBA, which is the sales decoupling component, was retained by the PUC in its March Order, and the PUC made no change in the authorized return on common equity. The PUC stated that performance-based ratemaking is not adopted at this time.

As required by the March Order, the parties filed initial and reply briefs related to the following issues: (1) whether and, if so, how the conventional performance incentive mechanisms proposed in this proceeding should be refined and implemented in this docket; (2) what are the appropriate steps, processes and timing for determining measures to improve the efficiency and effectiveness of the general rate case filing and review process; and (3) what are the appropriate steps, processes and timing to further consider the merits of the proposed changes to the ECAC identified in this proceeding. In identifying the issue on possible changes to the ECAC, the PUC stated that changes to the ECAC should be made with great care to avoid unintended consequences.

In accordance with the March Order, the Utilities and the Consumer Advocate filed on June 15, 2015, their *Joint Proposed Modified REIP Framework/Standards and Guidelines* regarding the eligibility of projects for cost recovery above the RAM Cap through the REIP surcharge. On the same date, the Utilities filed their proposed standards and guidelines on the eligibility of projects for cost recovery through the RAM above the RAM Cap. On June 30, 2015, the Consumer Advocate filed comments on this proposal, and the County of Hawaii filed comments on both the REIP and the RAM above the RAM Cap proposals.

The RAM Cap impacted the Utilities' recovery of capital investments as follows:

- Hawaiian Electric's RAM revenues were limited to the RAM Cap in 2015 and 2016. In October 2015, Hawaiian Electric filed an application to recover the revenue requirements associated with 2015 net plant additions in the amount of \$40.3 million and other associated costs for its Underground Cable Program and the 138kV Transmission and 46kV Sub-Transmission Structures Major Baseline Projects through the RAM above the 2015 RAM Cap. In April 2016, Hawaiian Electric modified its October 2015 application to reduce its request to recover revenue requirements associated with 2015 net plant additions from \$40.3 million to \$35.7 million as a result of the extension of bonus depreciation in 2015. In August 2016, the PUC dismissed Hawaiian Electric's October 2015 above the RAM Cap application because the application did not also request approval of the commitment of capital expenditures. Return on plant additions in excess of the amount provided by the RAM is being requested in the Hawaiian Electric 2017 test year rate case.
- Maui Electric's RAM revenues were limited to the RAM Cap in 2015 and 2016. In October 2015, Maui Electric filed an application to recover the revenue requirements associated with 2015 net plant additions in the amount of \$4.3 million and other associated costs for its transmission and distribution and generation plant reliability Major Baseline Project through the RAM above the 2015 RAM Cap. In March 2016, Maui Electric withdrew its October 2015 application. Maui Electric determined that the application was unnecessary because it could recover the revenue requirements associated with its 2015 net plant additions under the RAM Cap due to: (1) the extension of bonus depreciation in 2015 which resulted in an increased level of accumulated deferred income taxes as an offset to 2015 net plant additions; and (2) the recorded amount of net plant additions in 2015 was less than the estimate of net plant additions in the application. In anticipation of having plant additions in 2017 in excess of the amount provided for by the RAM. Maui Electric filed an application in August 2016, to recover the revenue requirements associated with 2017 plant additions for the Kaonoulu and Kuihelani substations in the total amount of \$27.2 million and other associated costs through the RAM above the 2017 RAM Cap. In September 2016, the Consumer Advocate recommended the PUC reject the application, and Maui Electric subsequently objected to that recommendation. Maui Electric is awaiting the PUC's decision.
- Hawaii Electric Light's RAM revenues were not limited to the RAM Cap in 2015 or 2016.

Annual decoupling filings. On May 24, 2016, the PUC approved the annual decoupling filings for Hawaiian Electric and Maui Electric and, as amended on May 19, 2016, for Hawaii Electric Light, to go into effect on June 1, 2016. Annual incremental RAM adjusted revenues were \$11.0 million, \$2.3 million and \$2.4 million for Hawaiian Electric, Hawaii Electric Light and Maui Electric, respectively.

Hawaiian Telcom. The Utilities each have separate agreements for the joint ownership and maintenance of utility poles with Hawaiian Telcom, Inc. (Hawaiian Telcom), the respective county or counties in which each utility operates and other third parties, such as the State of Hawaii. The agreements set forth various circumstances requiring pole removal/installation/replacement and the sharing of costs among the joint pole owners. The agreements allow for the cost of work done by one joint pole owner to be shared by the other joint pole owners based on the apportionment of costs in the agreements. The Utilities have maintained, replaced and installed the majority of the jointly-owned poles in each of the respective service territories, and have billed the other joint pole owners for their respective share of the costs. The counties and the State have been fully reimbursing the Utilities for their share of the costs. However, Hawaiian Telcom has been delinquent in reimbursing the Utilities for its share of the costs.

Hawaiian Electric has initiated a dispute resolution process to collect the unpaid amounts from Hawaiian Telcom is proceeding as specified by the joint pole agreement. For Hawaii Electric Light, the agreement does not specify an alternative dispute resolution process, and thus a complaint for payment was filed with the Circuit Court in June 2016. Maui Electric has not yet commenced any legal action to recover the delinquent amounts. As of December 31, 2016, total receivables under the joint pole agreement, including interest, from Hawaiian Telcom are \$21.3 million (\$14.2 million at Hawaiian Electric, \$5.7 million at Hawaii Electric Light, and \$1.4 million at Maui Electric). Management expects to prevail on these claims but has reserved for the accrued interest on the receivables.

April 2014 regulatory orders. In April 2014, the PUC issued four orders that collectively address certain key policy, resource planning and operational issues for the Utilities. The Utilities addressed these orders as follows:

Integrated Resource Planning. The PUC did not accept the Utilities' Integrated Resource Plan and Action Plans submission, and, in lieu of an approved plan, has commenced other initiatives to enable resource planning. The PUC directed each of Hawaiian Electric and Maui Electric to file their respective Power Supply Improvement Plans (PSIPs), which they did in August 2014. The PUC also provided its inclinations on the future of Hawaii's electric utilities in an exhibit to the order. The exhibit provides the PUC's perspectives on the vision, business strategies and regulatory policy changes required to align the Utilities' business model with customers' interests and the state's public policy goals.

Reliability Standards Working Group. The PUC ordered the Utilities to take timely actions intended to lower energy costs, improve system reliability and address emerging challenges to integrate additional renewable energy. In addition to the PSIPs mentioned above, the PUC ordered certain filing requirements which include the following:

- Distributed Generation Interconnection Plan - the Utilities' Plan was filed in August 2014.
- Plan to implement an on-going distribution circuit monitoring program to measure real-time voltage and other power quality parameters - the Utilities' Plan was filed in June 2014.
- Action Plan for improving efficiencies in the interconnection requirements studies - the Utilities' Plan was filed in May 2014.
- The Utilities are to file monthly reports providing details about interconnection requirements studies.
- Integrated interconnection queue for each distribution circuit for each island grid - the Utilities' integrated interconnection queue plan was filed in August 2014 and the integrated interconnection queues were implemented in January 2015.

The PUC also stated it would be opening new dockets to address (1) reliability standards, (2) the technical, economic and policy issues associated with distributed energy resources (see "Distributed Energy Resources (DER) Investigative Proceeding" below) and (3) the Hawaii electricity reliability administrator, which is a third party position which the legislature has authorized the PUC to create by contract to provide support for the PUC in developing and periodically updating local grid reliability standards and procedures and interconnection requirements and overseeing grid access and operation.

Policy Statement and Order Regarding Demand Response Programs. The PUC provided guidance concerning the objectives and goals for demand response programs, and ordered the Utilities to develop an integrated Demand Response (DR) Portfolio Plan that will enhance system operations and reduce costs to customers. The Utilities' Plan was filed in July 2014. Subsequently, the Utilities submitted status updates and an update and supplemental report to the Plan. On July 28, 2015, the PUC issued an order appointing a special adviser to guide, monitor, and review the Utility's Plan design and implementation.

On December 30, 2015, the Utilities filed applications with the PUC (1) for approval of their proposed DR Portfolio Tariff Structure, Reporting Schedule and Cost Recovery of Program Costs. The Utilities filed an update to the DR Portfolio proceeding on February 10, 2017. In the DRMS proceeding, the Parties filed Statements of Position in December 2016 and are awaiting a PUC decision.

Review of PSIPs. Collectively, the PUC's April 2014 resource planning orders confirm the energy policy and operational priorities that will guide the Utilities' strategies and plans going forward.

PSIPs for Hawaiian Electric, Maui Electric and Hawaii Electric Light were filed in August 2014. The PSIPs each include a tactical plan to transform how electric utility services will be offered to meet customer needs and produce higher levels of renewable energy. Each plan contains a diversified mix of technologies, including significant distributed and utility-scale renewable resources, that is expected to result, on a consolidated basis, in over 65% of the Utilities' energy being produced from renewable resources by 2030. Under these plans, the Utilities will support sustainable growth of private rooftop solar, expand use of energy storage systems, empower customers by developing smart grids, offer new products and services to customers (e.g., community solar, microgrids and voluntary "demand response" programs), switch from high-priced oil to lower cost liquefied natural gas, retire higher-cost, less efficient existing oil-based steam generators and lower full service residential customer bills in real dollars.

In November 2015, the PUC issued an order in the proceeding to review the PSIPs filed. The order provided observations and concerns on the PSIPs submitted. As required by the order, the Utilities submitted a Proposed Revision Plan in November 2015, which included a schedule and a work plan to supplement, amend and update the PSIPs in order to address the PUC's observations and concerns, and submitted updated PSIPs on April 1, 2016. The parties and participants filed comments on the Utilities Proposed Revision Plan in January 2016. The updated PSIPs, filed on April 1, 2016, provide the Utilities' assumptions, analyses and plans to achieve 100% renewable energy using a diverse mix of energy resources by 2045.

As required by the PUC, on December 23, 2016, the Utilities filed their PSIP Update Report: December 2016. The updated plans describe greater and faster expansion of the Utilities' renewable energy portfolio than in the plans filed in April 2016 and emphasize work that is in progress or planned over the next five years on each of the five islands the Utilities serve. The final step in the procedural schedule was the filing of the parties and participants' respective statements of position in February 2017.

Distributed Energy Resources (DER) Investigative Proceeding. In March 2015, the PUC issued an order to address DER issues.

On June 29, 2015, the Utilities submitted their final Statement of Position in the DER proceeding, which included:

- (1) new pricing provisions for future private rooftop photovoltaic (PV) systems,
- (2) technical standards for advanced inverters,
- (3) new options for customers including battery-equipped private rooftop PV systems,
- (4) a pilot time-of-use rate,
- (5) an improved method of calculating the amount of private rooftop PV that can be safely installed, and
- (6) a streamlined and standardized PV application process.

On October 12, 2015, the PUC issued a D&O establishing DER reforms that: (1) promote rapid adoption of the next generation of solar PV and other distributed energy technologies; (2) encourage more competitive pricing of distributed energy resource systems; (3) lower overall energy supply costs for all customers; and (4) help to manage DER in terms of each island's limited grid capacity.

The D&O approved a customer self-supply tariff and a customer grid supply tariff to govern customer generators connected to the Utilities' systems. These tariffs replace the Net Energy Metering (NEM) program.

In June 2016, the PUC approved the Utilities Advanced Inverter Test Plan and the Utilities submitted the results of the testing to the PUC.

Pursuant to a PUC order, in October 2016, the Utilities submitted tariffs for a Residential Interim Time of Use program, which is limited to 2 years and 5,000 customers. The primary objective is to encourage more efficient use of the electric system and enable more cost-effective integration of renewable energy by shifting customer load from the system's higher cost, peak demand period to the mid-day period when relatively inexpensive renewable resources are abundant.

The DER Phase 2 of this proceeding is focused on further developing competitive markets for distributed energy resources, including storage. On December 9, 2016, the PUC issued an Order, establishing the statement of issues and procedural schedule to govern Phase 2 of this proceeding. Technical track issues, including DER integration analyses and revisions to interconnection standards, will be addressed before the end of 2017. More complex market issues will be addressed in late 2018.

Derivative financial instrument. On January 5, 2016, Hawaiian Electric executed a window forward agreement to hedge the foreign currency risk associated with the anticipated purchase of engines from a European manufacturer to be included as part of the Schofield generating station. This window forward agreement has been designated as a cash flow hedge under which a single guaranteed exchange rate agreed upon on a certain date for future currency transactions scheduled to occur on specific dates with a “window” or range of plus/minus 30 days. Unrealized gains are recorded at fair value as assets in “other current assets,” and unrealized losses are recorded at fair value as liabilities in “other current liabilities,” both for the period they are outstanding. For this window forward agreement, the effective portion is reported as a component of accumulated other comprehensive income until reclassified into net income consistent with any gains or losses recognized on the engines. The generating station is expected to be placed in service in the first quarter of 2018.

December 31 (dollars in thousands)	2016	
	Notional amount	Fair value
Window forward contract	\$ 20,734	\$ (743)

Consolidating financial information. Hawaiian Electric is not required to provide separate financial statements or other disclosures concerning Hawaii Electric Light and Maui Electric to holders of the 2004 Debentures issued by Hawaii Electric Light and Maui Electric to HECO Capital Trust III (Trust III) since all of their voting capital stock is owned, and their obligations with respect to these securities have been fully and unconditionally guaranteed, on a subordinated basis, by Hawaiian Electric. Consolidating information is provided below for Hawaiian Electric and each of its subsidiaries for the periods ended and as of the dates indicated.

Hawaiian Electric also unconditionally guarantees Hawaii Electric Light’s and Maui Electric’s obligations (a) to the State of Hawaii for the repayment of principal and interest on Special Purpose Revenue Bonds issued for the benefit of Hawaii Electric Light and Maui Electric, (b) under their respective private placement note agreements and the Hawaii Electric Light notes and Maui Electric notes issued thereunder (see Hawaiian Electric and Subsidiaries' Consolidated Statements of Capitalization) and (c) relating to the trust preferred securities of Trust III (see Note 6). Hawaiian Electric is also obligated, after the satisfaction of its obligations on its own preferred stock, to make dividend, redemption and liquidation payments on Hawaii Electric Light’s and Maui Electric’s preferred stock if the respective subsidiary is unable to make such payments.

Consolidating statement of income

Year ended December 31, 2016

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Revenues	\$ 1,474,384	311,385	308,705	—	(106) [1]	\$ 2,094,368
Expenses						
Fuel oil	305,359	55,094	94,251	—	—	454,704
Purchased power	431,009	81,018	50,713	—	—	562,740
Other operation and maintenance	273,176	63,897	68,460	—	—	405,533
Depreciation	126,086	37,797	23,178	—	—	187,061
Taxes, other than income taxes	141,615	29,017	29,230	—	—	199,862
Total expenses	1,277,245	266,823	265,832	—	—	1,809,900
Operating income	197,139	44,562	42,873	—	(106)	284,468
Allowance for equity funds used during construction	6,659	765	901	—	—	8,325
Equity in earnings of subsidiaries	42,391	—	—	—	(42,391) [2]	—
Interest expense and other charges, net	(45,839)	(11,555)	(9,536)	—	106 [1]	(66,824)
Allowance for borrowed funds used during construction	2,484	294	366	—	—	3,144
Income before income taxes	202,834	34,066	34,604	—	(42,391)	229,113
Income taxes	59,437	12,277	13,087	—	—	84,801
Net income	143,397	21,789	21,517	—	(42,391)	144,312
Preferred stock dividends of subsidiaries	—	534	381	—	—	915
Net income attributable to Hawaiian Electric	143,397	21,255	21,136	—	(42,391)	143,397
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—	—	1,080
Net income for common stock	\$ 142,317	21,255	21,136	—	(42,391)	\$ 142,317

Consolidating statement of comprehensive income

Year ended December 31, 2016

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Net income for common stock	\$ 142,317	21,255	21,136	—	(42,391)	\$ 142,317
Other comprehensive income (loss), net of taxes:						
Derivatives qualified as cash flow hedges:						
Effective portion of foreign currency hedge net unrealized losses arising during the period, net of tax benefits	(281)	—	—	—	—	(281)
Less: reclassification adjustment to net income, net of taxes	(173)	—	—	—	—	(173)
Retirement benefit plans:						
Net losses arising during the period, net of tax benefits	(42,631)	(5,141)	(5,447)	—	10,588 [1]	(42,631)
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits	13,254	1,718	1,549	—	(3,267) [1]	13,254
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes	28,584	3,269	3,852	—	(7,121) [1]	28,584
Other comprehensive loss, net of tax benefits	(1,247)	(154)	(46)	—	200	(1,247)
Comprehensive income attributable to common shareholder	\$ 141,070	21,101	21,090	—	(42,191)	\$ 141,070

Consolidating statement of income

Year ended December 31, 2015

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Revenues	\$ 1,644,181	345,549	345,517	—	(81) [1]	\$ 2,335,166
Expenses						
Fuel oil	458,069	71,851	124,680	—	—	654,600
Purchased power	440,983	97,503	55,610	—	—	594,096
Other operation and maintenance	284,583	63,098	65,408	—	—	413,089
Depreciation	117,682	37,250	22,448	—	—	177,380
Taxes, other than income taxes	156,871	32,312	32,702	—	—	221,885
Total expenses	1,458,188	302,014	300,848	—	—	2,061,050
Operating income	185,993	43,535	44,669	—	(81)	274,116
Allowance for equity funds used during construction	5,641	604	683	—	—	6,928
Equity in earnings of subsidiaries	42,920	—	—	—	(42,920) [2]	—
Interest expense and other charges, net	(45,899)	(10,773)	(9,779)	—	81 [1]	(66,370)
Allowance for borrowed funds used during construction	1,967	215	275	—	—	2,457
Income before income taxes	190,622	33,581	35,848	—	(42,920)	217,131
Income taxes	53,828	12,292	13,302	—	—	79,422
Net income	136,794	21,289	22,546	—	(42,920)	137,709
Preferred stock dividends of subsidiaries	—	534	381	—	—	915
Net income attributable to Hawaiian Electric	136,794	20,755	22,165	—	(42,920)	136,794
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—	—	1,080
Net income for common stock	\$ 135,714	20,755	22,165	—	(42,920)	\$ 135,714

Consolidating statement of comprehensive income

Year ended December 31, 2015

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Net income for common stock	\$ 135,714	20,755	22,165	—	(42,920)	\$ 135,714
Other comprehensive income (loss), net of taxes:						
Retirement benefit plans:						
Net gains (losses) arising during the period, net of taxes	5,638	(2,710)	(1,352)	—	4,062 [1]	5,638
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits	20,381	2,728	2,503	—	(5,231) [1]	20,381
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of taxes	(25,139)	104	(1,107)	—	1,003 [1]	(25,139)
Other comprehensive income, net of taxes	880	122	44	—	(166)	880
Comprehensive income attributable to common shareholder	\$ 136,594	20,877	22,209	—	(43,086)	\$ 136,594

Consolidating statement of income

Year ended December 31, 2014

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Revenues	\$ 2,142,245	422,200	422,965	—	(87) [1]	\$ 2,987,323
Expenses						
Fuel oil	821,246	117,215	193,224	—	—	1,131,685
Purchased power	537,821	123,226	60,961	—	—	722,008
Other operation and maintenance	283,532	65,471	61,609	—	—	410,612
Depreciation	109,204	35,904	21,279	—	—	166,387
Taxes, other than income taxes	201,426	39,521	39,916	—	—	280,863
Total expenses	1,953,229	381,337	376,989	—	—	2,711,555
Operating income	189,016	40,863	45,976	—	(87)	275,768
Allowance for equity funds used during construction	6,085	472	214	—	—	6,771
Equity in earnings of subsidiaries	40,964	—	—	—	(40,964) [2]	—
Interest expense and other charges, net	(44,041)	(11,030)	(9,773)	—	87 [1]	(64,757)
Allowance for borrowed funds used during construction	2,306	182	91	—	—	2,579
Income before income taxes	194,330	30,487	36,508	—	(40,964)	220,361
Income taxes	55,609	11,264	13,852	—	—	80,725
Net income	138,721	19,223	22,656	—	(40,964)	139,636
Preferred stock dividends of subsidiaries	—	534	381	—	—	915
Net income attributable to Hawaiian Electric	138,721	18,689	22,275	—	(40,964)	138,721
Preferred stock dividends of Hawaiian Electric	1,080	—	—	—	—	1,080
Net income for common stock	\$ 137,641	18,689	22,275	—	(40,964)	\$ 137,641

Consolidating statement of comprehensive income (loss)

Year ended December 31, 2014

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Net income for common stock	\$ 137,641	18,689	22,275	—	(40,964)	\$ 137,641
Other comprehensive income (loss), net of taxes:						
Retirement benefit plans:						
Net losses arising during the period, net of tax benefits	(218,608)	(28,725)	(29,352)	—	58,077 [1]	(218,608)
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits	10,212	1,270	1,090	—	(2,360) [1]	10,212
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets, net of tax benefits	207,833	27,437	28,257	—	(55,694) [1]	207,833
Other comprehensive loss, net of tax benefits	(563)	(18)	(5)	—	23	(563)
Comprehensive income attributable to common shareholder	\$ 137,078	18,671	22,270	—	(40,941)	\$ 137,078

Consolidating balance sheet

December 31, 2016

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Assets						
Property, plant and equipment						
Utility property, plant and equipment						
Land	\$ 43,956	6,181	3,016	—	—	\$ 53,153
Plant and equipment	4,241,060	1,255,185	1,109,487	—	—	6,605,732
Less accumulated depreciation	(1,382,972)	(507,666)	(478,644)	—	—	(2,369,282)
Construction in progress	180,194	12,510	19,038	—	—	211,742
Utility property, plant and equipment, net	3,082,238	766,210	652,897	—	—	4,501,345
Nonutility property, plant and equipment, less accumulated depreciation	5,760	115	1,532	—	—	7,407
Total property, plant and equipment, net	3,087,998	766,325	654,429	—	—	4,508,752
Investment in wholly-owned subsidiaries, at equity	550,946	—	—	—	(550,946) [2]	—
Current assets						
Cash and equivalents	61,388	10,749	2,048	101	—	74,286
Advances to affiliates	—	3,500	10,000	—	(13,500) [1]	—
Customer accounts receivable, net	86,373	20,055	17,260	—	—	123,688
Accrued unbilled revenues, net	65,821	13,564	12,308	—	—	91,693
Other accounts receivable, net	7,652	2,445	1,416	—	(6,280) [1]	5,233
Fuel oil stock, at average cost	47,239	8,229	10,962	—	—	66,430
Materials and supplies, at average cost	29,928	7,380	16,371	—	—	53,679
Prepayments and other	16,502	5,352	2,179	—	(933) [3]	23,100
Regulatory assets	60,185	3,483	2,364	—	—	66,032
Total current assets	375,088	74,757	74,908	101	(20,713)	504,141
Other long-term assets						
Regulatory assets	662,232	120,863	108,324	—	—	891,419
Unamortized debt expense	151	23	34	—	—	208
Other	43,743	13,573	13,592	—	—	70,908
Total other long-term assets	706,126	134,459	121,950	—	—	962,535
Total assets	\$ 4,720,158	975,541	851,287	101	(571,659)	\$ 5,975,428
Capitalization and liabilities						
Capitalization						
Common stock equity	\$ 1,799,787	291,291	259,554	101	(550,946) [2]	\$ 1,799,787
Cumulative preferred stock—not subject to mandatory redemption	22,293	7,000	5,000	—	—	34,293
Long-term debt, net	915,437	213,703	190,120	—	—	1,319,260
Total capitalization	2,737,517	511,994	454,674	101	(550,946)	3,153,340
Current liabilities						
Short-term borrowings—affiliate	13,500	—	—	—	(13,500) [1]	—
Accounts payable	86,369	18,126	13,319	—	—	117,814
Interest and preferred dividends payable	15,761	4,206	2,882	—	(11) [1]	22,838
Taxes accrued	120,176	28,100	25,387	—	(933) [3]	172,730
Regulatory liabilities	—	2,219	1,543	—	—	3,762
Other	41,352	7,637	12,501	—	(6,269) [1]	55,221
Total current liabilities	277,158	60,288	55,632	—	(20,713)	372,365
Deferred credits and other liabilities						
Deferred income taxes	524,433	108,052	100,911	—	263 [1]	733,659
Regulatory liabilities	281,112	93,974	31,845	—	—	406,931
Unamortized tax credits	57,844	15,994	15,123	—	—	88,961
Defined benefit pension and other postretirement benefit plans liability	444,458	75,005	80,263	—	—	599,726
Other	49,191	13,024	14,969	—	(263) [1]	76,921
Total deferred credits and other liabilities	1,357,038	306,049	243,111	—	—	1,906,198
Contributions in aid of construction	348,445	97,210	97,870	—	—	543,525
Total capitalization and liabilities	\$ 4,720,158	975,541	851,287	101	(571,659)	\$ 5,975,428

Consolidating balance sheet

December 31, 2015

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Assets						
Property, plant and equipment						
Utility property, plant and equipment						
Land	\$ 43,557	6,219	3,016	—	—	\$ 52,792
Plant and equipment	4,026,079	1,212,195	1,077,424	—	—	6,315,698
Less accumulated depreciation	(1,316,467)	(486,028)	(463,509)	—	—	(2,266,004)
Construction in progress	147,979	11,455	15,875	—	—	175,309
Utility property, plant and equipment, net	2,901,148	743,841	632,806	—	—	4,277,795
Nonutility property, plant and equipment, less accumulated depreciation	5,659	82	1,531	—	—	7,272
Total property, plant and equipment, net	2,906,807	743,923	634,337	—	—	4,285,067
Investment in wholly-owned subsidiaries, at equity	556,528	—	—	—	(556,528) [2]	—
Current assets						
Cash and equivalents	16,281	2,682	5,385	101	—	24,449
Advances to affiliates	—	15,500	7,500	—	(23,000) [1]	—
Customer accounts receivable, net	93,515	20,508	18,755	—	—	132,778
Accrued unbilled revenues, net	60,080	12,531	11,898	—	—	84,509
Other accounts receivable, net	16,421	1,275	1,674	—	(8,962) [1]	10,408
Fuel oil stock, at average cost	49,455	8,310	13,451	—	—	71,216
Materials and supplies, at average cost	30,921	6,865	16,643	—	—	54,429
Prepayments and other	25,505	9,091	2,295	—	(251) [1], [3]	36,640
Regulatory assets	63,615	4,501	4,115	—	—	72,231
Total current assets	355,793	81,263	81,716	101	(32,213)	486,660
Other long-term assets						
Regulatory assets	608,957	114,562	100,981	—	—	824,500
Unamortized debt expense	359	74	64	—	—	497
Other	47,731	14,693	13,062	—	—	75,486
Total other long-term assets	657,047	129,329	114,107	—	—	900,483
Total assets	\$ 4,476,175	954,515	830,160	101	(588,741)	\$ 5,672,210
Capitalization and liabilities						
Capitalization						
Common stock equity	\$ 1,728,325	292,702	263,725	101	(556,528) [2]	\$ 1,728,325
Cumulative preferred stock—not subject to mandatory redemption	22,293	7,000	5,000	—	—	34,293
Long-term debt, net	875,163	213,580	189,959	—	—	1,278,702
Total capitalization	2,625,781	513,282	458,684	101	(556,528)	3,041,320
Current liabilities						
Short-term borrowings-affiliate	23,000	—	—	—	(23,000) [1]	—
Accounts payable	84,631	17,702	12,513	—	—	114,846
Interest and preferred dividends payable	15,747	4,255	3,113	—	(4) [1]	23,111
Taxes accrued	131,668	30,342	29,325	—	(251) [3]	191,084
Regulatory liabilities	—	1,030	1,174	—	—	2,204
Other	41,083	8,760	13,194	—	(8,958) [1]	54,079
Total current liabilities	296,129	62,089	59,319	—	(32,213)	385,324
Deferred credits and other liabilities						
Deferred income taxes	466,133	100,681	87,706	—	286 [1]	654,806
Regulatory liabilities	254,033	84,623	30,683	—	—	369,339
Unamortized tax credits	54,078	15,406	14,730	—	—	84,214
Defined benefit pension and other postretirement benefit plans liability	409,021	69,893	74,060	—	—	552,974
Other	51,273	13,243	13,916	—	(286) [1]	78,146
Total deferred credits and other liabilities	1,234,538	283,846	221,095	—	—	1,739,479
Contributions in aid of construction	319,727	95,298	91,062	—	—	506,087
Total capitalization and liabilities	\$ 4,476,175	954,515	830,160	101	(588,741)	\$ 5,672,210

Consolidating statements of changes in common stock equity

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Balance, December 31, 2013	\$ 1,593,564	274,802	248,771	101	(523,674)	\$ 1,593,564
Net income for common stock	137,641	18,689	22,275	—	(40,964)	137,641
Other comprehensive loss, net of tax benefits	(563)	(18)	(5)	—	23	(563)
Issuance of common stock, net of expenses	39,994	—	—	—	—	39,994
Common stock dividends	(88,492)	(11,627)	(14,349)	—	25,976	(88,492)
Balance, December 31, 2014	\$ 1,682,144	281,846	256,692	101	(538,639)	\$ 1,682,144
Net income for common stock	135,714	20,755	22,165	—	(42,920)	135,714
Other comprehensive income, net of taxes	880	122	44	—	(166)	880
Common stock issuance expenses	(8)	—	(1)	—	1	(8)
Common stock dividends	(90,405)	(10,021)	(15,175)	—	25,196	(90,405)
Balance, December 31, 2015	\$ 1,728,325	292,702	263,725	101	(556,528)	\$ 1,728,325
Net income for common stock	142,317	21,255	21,136	—	(42,391)	142,317
Other comprehensive loss, net of tax benefits	(1,247)	(154)	(46)	—	200	(1,247)
Issuance of common stock, net of expenses	23,991	(5)	—	—	5	23,991
Common stock dividends	(93,599)	(22,507)	(25,261)	—	47,768	(93,599)
Balance, December 31, 2016	\$ 1,799,787	291,291	259,554	101	(550,946)	\$ 1,799,787

Consolidating statement of cash flows

Year ended December 31, 2016

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Cash flows from operating activities						
Net income	\$ 143,397	21,789	21,517	—	(42,391) [2]	\$ 144,312
Adjustments to reconcile net income to net cash provided by operating activities						
Equity in earnings	(42,491)	—	—	—	42,391 [2]	(100)
Common stock dividends received from subsidiaries	47,843	—	—	—	(47,768) [2]	75
Depreciation of property, plant and equipment	126,086	37,797	23,178	—	—	187,061
Other amortization	2,979	1,817	2,139	—	—	6,935
Deferred income taxes	54,721	7,027	12,661	—	(23) [1]	74,386
Income tax credits, net	177	60	(6)	—	—	231
Allowance for equity funds used during construction	(6,659)	(765)	(901)	—	—	(8,325)
Other	(2,694)	(810)	(427)	—	—	(3,931)
Changes in assets and liabilities:						
Decrease (increase) in accounts receivable	10,175	(718)	1,776	—	(2,682) [1]	8,551
Increase in accrued unbilled revenues	(5,741)	(1,033)	(410)	—	—	(7,184)
Decrease in fuel oil stock	2,216	81	2,489	—	—	4,786
Decrease (increase) in materials and supplies	993	(515)	272	—	—	750
Increase in regulatory assets	(16,161)	(1,243)	(869)	—	—	(18,273)
Increase (decrease) in accounts payable	(10,247)	768	(1,135)	—	—	(10,614)
Change in prepaid and accrued income taxes, tax credits and revenue taxes	2,933	2,645	(3,478)	—	23 [1]	2,123
Increase (decrease) in defined benefit pension and other postretirement benefit plans liability	599	53	(168)	—	—	484
Change in other assets and liabilities	(11,682)	(78)	(2,272)	—	2,682 [1]	(11,350)
Net cash provided by operating activities	296,444	66,875	54,366	—	(47,768)	369,917
Cash flows from investing activities						
Capital expenditures	(236,425)	(51,344)	(32,668)	—	—	(320,437)
Contributions in aid of construction	23,611	3,412	3,077	—	—	30,100
Advances from affiliates	—	12,000	(2,500)	—	(9,500) [1]	—
Other	1,932	175	31	—	—	2,138
Net cash used in investing activities	(210,882)	(35,757)	(32,060)	—	(9,500)	(288,199)
Cash flows from financing activities						
Common stock dividends	(93,599)	(22,507)	(25,261)	—	47,768 [2]	(93,599)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—	(1,995)
Proceeds from issuance of common stock	24,000	—	—	—	—	24,000
Proceeds from issuance of long-term debt	40,000	—	—	—	—	40,000
Net decrease in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	(9,500)	—	—	—	9,500 [1]	—
Other	(276)	(10)	(1)	—	—	(287)
Net cash used in financing activities	(40,455)	(23,051)	(25,643)	—	57,268	(31,881)
Net increase (decrease) in cash and cash equivalents	45,107	8,067	(3,337)	—	—	49,837
Cash and cash equivalents, January 1	16,281	2,682	5,385	101	—	24,449
Cash and cash equivalents, December 31	\$ 61,388	10,749	2,048	101	—	\$ 74,286

Consolidating statement of cash flows

Year ended December 31, 2015

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Cash flows from operating activities						
Net income	\$ 136,794	21,289	22,546	—	(42,920) [2]	\$ 137,709
Adjustments to reconcile net income to net cash provided by operating activities						
Equity in earnings	(43,020)	—	—	—	42,920 [2]	(100)
Common stock dividends received from subsidiaries	25,296	—	—	—	(25,196) [2]	100
Depreciation of property, plant and equipment	117,682	37,250	22,448	—	—	177,380
Other amortization	4,678	2,124	2,137	—	—	8,939
Impairment of utility assets	4,573	724	724	—	—	6,021
Other	4,403	(2,476)	(255)	—	—	1,672
Deferred income taxes	53,338	8,295	13,707	—	286 [1]	75,626
Income tax credits, net	4,284	527	33	—	—	4,844
Allowance for equity funds used during construction	(5,641)	(604)	(683)	—	—	(6,928)
Changes in assets and liabilities:						
Decrease in accounts receivable	15,652	3,420	4,617	—	38 [1]	23,727
Decrease in accrued unbilled revenues	29,733	4,593	5,767	—	—	40,093
Decrease in fuel oil stock	25,060	5,490	4,280	—	—	34,830
Decrease (increase) in materials and supplies	2,233	(201)	789	—	—	2,821
Decrease (increase) in regulatory assets	(20,356)	(3,930)	104	—	—	(24,182)
Decrease in accounts payable	(42,751)	(6,425)	(5,379)	—	—	(54,555)
Change in prepaid and accrued income taxes, tax credits and revenue taxes	(50,382)	(6,166)	(6,548)	—	—	(63,096)
Increase (decrease) in defined benefit pension and other postretirement benefit plans liability	870	(161)	416	—	—	1,125
Change in other assets and liabilities	(24,197)	(3,545)	(4,554)	—	(324) [1]	(32,620)
Net cash provided by operating activities	238,249	60,204	60,149	—	(25,196)	333,406
Cash flows from investing activities						
Capital expenditures	(267,621)	(48,645)	(33,895)	—	—	(350,161)
Contributions in aid of construction	35,955	2,160	2,124	—	—	40,239
Advances from (to) affiliates	16,100	(15,500)	(7,500)	—	6,900 [1]	—
Other	924	132	84	—	—	1,140
Net cash used in investing activities	(214,642)	(61,853)	(39,187)	—	6,900	(308,782)
Cash flows from financing activities						
Common stock dividends	(90,405)	(10,021)	(15,175)	—	25,196 [2]	(90,405)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—	(1,995)
Proceeds from the issuance of long-term debt	50,000	25,000	5,000	—	—	80,000
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	23,000	(10,500)	(5,600)	—	(6,900) [1]	—
Other	(1,257)	(226)	(54)	—	—	(1,537)
Net cash used in financing activities	(19,742)	3,719	(16,210)	—	18,296	(13,937)
Net increase in cash and cash equivalents	3,865	2,070	4,752	—	—	10,687
Cash and cash equivalents, January 1	12,416	612	633	101	—	13,762
Cash and cash equivalents, December 31	\$ 16,281	2,682	5,385	101	—	\$ 24,449

Consolidating statement of cash flows
Year ended December 31, 2014

(in thousands)	Hawaiian Electric	Hawaii Electric Light	Maui Electric	Other subsidiaries	Consolidating adjustments	Hawaiian Electric Consolidated
Cash flows from operating activities						
Net income	\$ 138,721	19,223	22,656	—	(40,964) [2]	\$ 139,636
Adjustments to reconcile net income to net cash provided by operating activities						
Equity in earnings	(41,064)	—	—	—	40,964 [2]	(100)
Common stock dividends received from subsidiaries	26,076	—	—	—	(25,976) [2]	100
Depreciation of property, plant and equipment	109,204	35,904	21,279	—	—	166,387
Other amortization	4,535	2,926	2,436	—	—	9,897
Impairment of assets	1,866	—	—	—	—	1,866
Other	758	—	—	—	—	758
Deferred income taxes	56,901	12,083	13,963	—	—	82,947
Income tax credits, net	4,998	680	384	—	—	6,062
Allowance for equity funds used during construction	(6,085)	(472)	(214)	—	—	(6,771)
Change in cash overdraft	—	—	(1,038)	—	—	(1,038)
Changes in assets and liabilities:						
Decrease in accounts receivable	16,213	7,150	3,483	—	(103) [1]	26,743
Decrease in accrued unbilled revenues	4,680	1,174	896	—	—	6,750
Decrease in fuel oil stock	25,098	378	2,565	—	—	28,041
Decrease (increase) in materials and supplies	2,357	219	(2,648)	—	—	(72)
Decrease (increase) in regulatory assets	(14,620)	(3,357)	977	—	—	(17,000)
Decrease in accounts payable	(56,044)	(6,645)	(2,838)	—	—	(65,527)
Change in prepaid and accrued income taxes, tax credits and revenue taxes	(4,166)	(3,251)	3,381	—	—	(4,036)
Decrease in defined benefit pension and other postretirement benefit plans liability	(562)	—	(399)	—	—	(961)
Change in other assets and liabilities	(50,180)	(12,907)	(3,703)	—	103 [1]	(66,687)
Net cash provided by operating activities	218,686	53,105	61,180	—	(25,976)	306,995
Cash flows from investing activities						
Capital expenditures	(237,970)	(49,895)	(48,814)	—	—	(336,679)
Contributions in aid of construction	30,021	7,695	4,090	—	—	41,806
Advances from (to) affiliates	(9,261)	1,000	—	—	8,261 [1]	—
Other	604	492	68	—	—	1,164
Net cash used in investing activities	(216,606)	(40,708)	(44,656)	—	8,261	(293,709)
Cash flows from financing activities						
Common stock dividends	(88,492)	(11,627)	(14,349)	—	25,976 [2]	(88,492)
Preferred stock dividends of Hawaiian Electric and subsidiaries	(1,080)	(534)	(381)	—	—	(1,995)
Proceeds from the issuance of common stock	40,000	—	—	—	—	40,000
Repayment of long-term debt	—	(11,400)	—	—	—	(11,400)
Net increase (decrease) in short-term borrowings from non-affiliates and affiliate with original maturities of three months or less	(1,000)	10,500	(1,239)	—	(8,261) [1]	—
Other	(337)	(50)	(75)	—	—	(462)
Net cash used in financing activities	(50,909)	(13,111)	(16,044)	—	17,715	(62,349)
Net increase (decrease) in cash and cash equivalents	(48,829)	(714)	480	—	—	(49,063)
Cash and cash equivalents, January 1	61,245	1,326	153	101	—	62,825
Cash and cash equivalents, December 31	\$ 12,416	612	633	101	—	\$ 13,762

Explanation of consolidating adjustments on consolidating schedules:

- [1] Eliminations of intercompany receivables and payables and other intercompany transactions.
- [2] Elimination of investment in subsidiaries, carried at equity.
- [3] Reclassification of accrued income taxes for financial statement presentation.

5 • Bank segment (HEI only)

Selected financial information

American Savings Bank, F.S.B.

Statements of Income Data

Years ended December 31 (in thousands)	2016	2015	2014
Interest and dividend income			
Interest and fees on loans	\$ 199,774	\$ 184,782	\$ 179,341
Interest and dividends on investment securities	19,184	15,120	11,945
Total interest and dividend income	218,958	199,902	191,286
Interest expense			
Interest on deposit liabilities	7,167	5,348	5,077
Interest on other borrowings	5,588	5,978	5,731
Total interest expense	12,755	11,326	10,808
Net interest income	206,203	188,576	180,478
Provision for loan losses	16,763	6,275	6,126
Net interest income after provision for loan losses	189,440	182,301	174,352
Noninterest income			
Fees from other financial services	22,384	22,211	21,747
Fee income on deposit liabilities	21,759	22,368	19,249
Fee income on other financial products	8,707	8,094	8,131
Bank-owned life insurance	4,637	4,078	3,949
Mortgage banking income	6,625	6,330	2,913
Gains on sale of investment securities	598	—	2,847
Other income, net	2,256	4,750	2,375
Total noninterest income	66,966	67,831	61,211
Noninterest expense			
Compensation and employee benefits	90,117	90,518	79,885
Occupancy	16,321	16,365	17,197
Data processing	13,030	12,103	11,690
Services	11,054	10,204	10,269
Equipment	6,938	6,577	6,564
Office supplies, printing and postage	6,075	5,749	6,089
Marketing	3,489	3,463	3,999
FDIC insurance	3,543	3,274	3,261
Other expense	18,487	18,067	17,314
Total noninterest expense	169,054	166,320	156,268
Income before income taxes	87,352	83,812	79,295
Income taxes	30,073	29,082	27,994
Net income	\$ 57,279	\$ 54,730	\$ 51,301

Statements of Comprehensive Income

Years ended December 31 (in thousands)	2016	2015	2014
Net income	\$ 57,279	\$ 54,730	\$ 51,301
Other comprehensive income (loss), net of taxes:			
Net unrealized gains (losses) on available-for sale investment securities:			
Net unrealized gains (losses) on available-for sale investment securities arising during the period, net of (taxes) benefits of \$3,763, \$1,541 and \$(3,856) for 2016, 2015 and 2014, respectively	(5,699)	(2,334)	5,840
Less: reclassification adjustment for net realized gains included in net income, net of taxes of \$238, nil and \$1,132 for 2016, 2015 and 2014, respectively	(360)	—	(1,715)
Retirement benefit plans:			
Net gains (losses) arising during the period, net of (taxes) benefits of nil, \$(59) and \$6,164 for 2016, 2015 and 2014, respectively	—	90	(9,336)
Less: amortization of prior service credit and net losses recognized during the period in net periodic benefit cost, net of tax benefits of \$566, \$1,011 and \$561 for 2016, 2015 and 2014, respectively	857	1,531	850
Other comprehensive income (loss), net of taxes	(5,202)	(713)	(4,361)
Comprehensive income	\$ 52,077	\$ 54,017	\$ 46,940

Balance Sheets Data

December 31 (in thousands)	2016	2015
Assets		
Cash and due from banks	\$ 137,083	\$ 127,201
Interest-bearing deposits	52,128	93,680
Restricted cash	1,764	—
Available-for-sale investment securities, at fair value	1,105,182	820,648
Stock in Federal Home Loan Bank, at cost	11,218	10,678
Loans receivable held for investment	4,738,693	4,615,819
Allowance for loan losses	(55,533)	(50,038)
Net loans	4,683,160	4,565,781
Loans held for sale, at lower of cost or fair value	18,817	4,631
Other	329,815	309,946
Goodwill	82,190	82,190
Total assets	\$ 6,421,357	\$ 6,014,755
Liabilities and shareholder's equity		
Deposit liabilities—noninterest-bearing	\$ 1,639,051	\$ 1,520,374
Deposit liabilities—interest-bearing	3,909,878	3,504,880
Other borrowings	192,618	328,582
Other	101,635	101,029
Total liabilities	5,843,182	5,454,865
Commitments and contingencies		
Common stock	1	1
Additional paid in capital	342,704	340,496
Retained earnings	257,943	236,664
Accumulated other comprehensive loss, net of tax benefits		
Net unrealized losses on securities	\$ (7,931)	\$ (1,872)
Retirement benefit plans	(14,542)	(22,473)
(15,399)		(17,271)
Total shareholder's equity	578,175	559,890
Total liabilities and shareholder's equity	\$ 6,421,357	\$ 6,014,755

December 31 (in thousands)	2016	2015
Other assets		
Bank-owned life insurance	\$ 143,197	\$ 138,139
Premises and equipment, net	90,570	88,077
Prepaid expenses	3,348	3,550
Accrued interest receivable	16,824	15,192
Mortgage-servicing rights	9,373	8,884
Low-income housing equity investments	47,081	37,793
Real estate acquired in settlement of loans, net	1,189	1,030
Other	18,233	17,281
	\$ 329,815	\$ 309,946
Other liabilities		
Accrued expenses	\$ 36,754	\$ 30,705
Federal and state income taxes payable	4,728	13,448
Cashier's checks	24,156	21,768
Advance payments by borrowers	10,335	10,311
Other	25,662	24,797
	\$ 101,635	\$ 101,029

Bank-owned life insurance is life insurance purchased by ASB on the lives of certain key employees, with ASB as the beneficiary. The insurance is used to fund employee benefits through tax-free income from increases in the cash value of the policies and insurance proceeds paid to ASB upon an insured's death.

Available-for-sale investment securities. The major components of investment securities were as follows:

(dollars in thousands)	Amortized cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value	Gross unrealized losses					
					Less than 12 months			12 months or longer		
					Number of issues	Fair value	Amount	Number of issues	Fair value	Amount
December 31, 2016										
Available-for-sale										
U.S. Treasury and federal agency obligations	\$ 193,515	\$ 920	\$ (2,154)	\$ 192,281	18	\$ 123,475	\$ (2,010)	1	\$ 3,485	\$ (144)
Mortgage-related securities- FNMA, FHLMC and GNMA	909,408	1,742	(13,676)	897,474	88	709,655	(12,143)	13	47,485	(1,533)
Mortgage revenue bond	15,427	—	—	15,427	—	—	—	—	—	—
	\$1,118,350	\$ 2,662	\$ (15,830)	\$1,105,182	106	\$ 833,130	\$ (14,153)	14	\$ 50,970	\$ (1,677)
December 31, 2015										
Available-for-sale										
U.S. Treasury and federal agency obligations	\$ 213,234	\$ 1,025	\$ (1,300)	\$ 212,959	13	\$ 83,053	\$ (866)	3	\$ 17,378	\$ (434)
Mortgage-related securities- FNMA, FHLMC and GNMA	610,522	3,564	(6,397)	607,689	38	305,785	(2,866)	25	125,817	(3,531)
	\$ 823,756	\$ 4,589	\$ (7,697)	\$ 820,648	51	\$ 388,838	\$ (3,732)	28	\$ 143,195	\$ (3,965)

ASB does not believe that the investment securities that were in an unrealized loss position as of December 31, 2016, represent an other-than-temporary impairment. Total gross unrealized losses were primarily attributable to rising interest rates relative to when the investment securities were purchased and not due to the credit quality of the investment securities. The contractual cash flows of the U.S. Treasury, federal agency obligations and mortgage-related securities are backed by the full faith and credit guaranty of the United States government or an agency of the government. ASB does not intend to sell the securities before the recovery of its amortized cost basis and there have been no adverse changes in the timing of the contractual cash flows for the securities. ASB did not recognize OTTI for 2016, 2015 and 2014.

U.S. Treasury, federal agency obligations, and the mortgage revenue bond have contractual terms to maturity. Mortgage-related securities have contractual terms to maturity, but require periodic payments to reduce principal. In addition, expected maturities will differ from contractual maturities because borrowers have the right to prepay the underlying mortgages.

The contractual maturities of available-for-sale investment securities were as follows:

December 31, 2016	Amortized Cost	Fair value
(in thousands)		
Due in one year or less	\$ 9,979	\$ 10,001
Due after one year through five years	77,179	77,126
Due after five years through ten years	81,411	81,083
Due after ten years	40,373	39,498
	208,942	207,708
Mortgage-related securities-FNMA,FHLMC and GNMA	909,408	897,474
Total available-for-sale securities	\$ 1,118,350	\$ 1,105,182

The proceeds, gross gains and losses from sales of available-for-sale investment securities were as follows:

Years ended December 31	2016	2015	2014
(in millions)			
Proceeds	\$ 16.4	\$ —	\$ 79.6
Gross gains	0.6	—	2.8
Gross losses	—	—	—

Interest income from taxable and non-taxable investment securities were as follows:

Years ended December 31	2016	2015	2014
(in thousands)			
Taxable	\$ 19,166	\$ 15,120	\$ 11,666
Non-taxable	18	—	279
	\$ 19,184	\$ 15,120	\$ 11,945

ASB pledged securities with a market value of approximately \$277.1 million and \$100.5 million as of December 31, 2016 and 2015, respectively, as collateral for public funds and other deposits, automated clearinghouse transactions with Bank of Hawaii, to-be-announced mortgage-backed securities settlements with JP Morgan, borrowing at the discount window of the Federal Reserve Bank of San Francisco, and deposits in ASB's bankruptcy account with the Federal Reserve Bank of San Francisco. As of December 31, 2016 and 2015, securities with a carrying value of \$114.9 million and \$260.5 million, respectively, were pledged as collateral for securities sold under agreements to repurchase.

Stock in FHLB. As of December 31, 2016 and 2015, ASB's stock in FHLB was carried at cost (\$11.2 million and \$10.7 million, respectively) because it can only be redeemed at par and it is a required investment based on measurements of ASB's capital, assets and borrowing levels. In May 2015, the FHLB of Seattle and FHLB of Des Moines completed the merger of the two banks and began operating as the FHLB of Des Moines on June 1, 2015. With the merger, all of the ASB's excess FHLB stock was repurchased. The FHLB repurchased a total of nil and \$58.6 million of FHLB stock from ASB in 2016 and 2015, respectively. There was no other significant impact on ASB as a result of the merger.

Periodically and as conditions warrant, ASB reviews its investment in the stock of the FHLB for impairment. ASB evaluated its investment in FHLB stock for OTTI as of December 31, 2016, consistent with its accounting policy. ASB did not recognize an OTTI loss for 2016 based on its evaluation of the underlying investment, including:

- the net income and growth in retained earnings recorded by the FHLB in the first nine months of 2016;
- compliance by the FHLB with all of its regulatory capital requirements and being classified "adequately capitalized" by the Federal Housing Finance Agency (Finance Agency);
- being authorized by the Finance Agency to repurchase excess stock;
- the impact of legislative and regulatory changes on institutions and, accordingly, on the customer base of the FHLB;
- the liquidity position of the FHLB; and
- ASB's intent and assessment of whether it will more likely than not be required to sell the FHLB stock before recovery of its par value.

Future deterioration in the FHLB's financial position and/or negative developments in any of the factors considered in ASB's impairment evaluation above may result in future impairment losses.

Loans receivable.

The components of loans receivable were summarized as follows:

December 31	2016	2015
(in thousands)		
Real estate:		
Residential 1-4 family	\$ 2,048,051	\$ 2,069,665
Commercial real estate	800,395	690,561
Home equity line of credit	863,163	846,294
Residential land	18,889	18,229
Commercial construction	126,768	100,796
Residential construction	16,080	14,089
Total real estate	3,873,346	3,739,634
Commercial	692,051	758,659
Consumer	178,222	123,775
Total loans	4,743,619	4,622,068
Less: Deferred fees and discounts	(4,926)	(6,249)
Allowance for loan losses	(55,533)	(50,038)
Total loans, net	\$ 4,683,160	\$ 4,565,781

ASB's policy is to require private mortgage insurance on all real estate loans when the loan-to-value ratio of the property exceeds 80% of the lower of the appraised value or purchase price at origination. For non-owner occupied residential properties, the loan-to-value ratio may not exceed 80% of the lower of the appraised value or purchase price at origination. ASB is subject to the risk that the insurance company cannot satisfy the bank's claim on policies.

ASB services real estate loans for investors (principal balance of \$1.2 billion, \$1.5 billion and \$1.4 billion as of December 31, 2016, 2015 and 2014, respectively), which are not included in the accompanying consolidated balance sheets data. ASB reports fees earned for servicing such loans as income when the related mortgage loan payments are collected and charges loan servicing cost to expense as incurred.

As of December 31, 2016 and 2015, ASB had pledged loans with an amortized cost of approximately \$2.4 billion and \$2.3 billion, respectively, as collateral to secure advances from the FHLB.

As of December 31, 2016 and 2015, the aggregate amount of loans to directors and executive officers of ASB and its affiliates and any related interests (as defined in Federal Reserve Board (FRB) Regulation O) of such individuals, was \$22.9 million and \$27.8 million, respectively. The \$4.9 million decrease in such loans in 2016 was attributed to closed lines of credits and repayments of \$4.9 million. As of December 31, 2016 and 2015, \$19.0 million and \$25.8 million of the loan balances, respectively, were to related interests of individuals who are directors of ASB. All such loans were made at ASB's normal credit terms. Management believes these loans do not represent more than a normal risk of collection.

Allowance for loan losses. As discussed in Note 1, ASB must maintain an allowance for loan losses that is adequate to absorb estimated probable credit losses associated with its loan portfolio.

The allowance for loan losses (balances and changes) and financing receivables were as follows:

(in thousands)	Residential 1-4 family	Commercial real estate	Home equity line of credit	Residential land	Commercial construction	Residential construction	Commercial	Consumer	Unallo- cated	Total
December 31, 2016										
Allowance for loan losses:										
Beginning balance	\$ 4,186	\$ 11,342	\$ 7,260	\$ 1,671	\$ 4,461	\$ 13	\$ 17,208	\$ 3,897	\$ —	\$ 50,038
Charge-offs	(639)	—	(112)	(138)	—	—	(5,943)	(7,413)	—	(14,245)
Recoveries	421	—	59	461	—	—	1,093	943	—	2,977
Provision	(1,095)	4,662	(2,168)	(256)	1,988	(1)	4,260	9,373	—	16,763
Ending balance	\$ 2,873	\$ 16,004	\$ 5,039	\$ 1,738	\$ 6,449	\$ 12	\$ 16,618	\$ 6,800	\$ —	\$ 55,533
Ending balance: individually evaluated for impairment	\$ 1,352	\$ 80	\$ 215	\$ 789	\$ —	\$ —	\$ 1,641	\$ 6		\$ 4,083
Ending balance: collectively evaluated for impairment	\$ 1,521	\$ 15,924	\$ 4,824	\$ 949	\$ 6,449	\$ 12	\$ 14,977	\$ 6,794	\$ —	\$ 51,450
Financing Receivables:										
Ending balance	\$ 2,048,051	\$ 800,395	\$ 863,163	\$ 18,889	\$ 126,768	\$ 16,080	\$ 692,051	\$ 178,222	\$ —	\$ 4,743,619
Ending balance: individually evaluated for impairment	\$ 19,854	\$ 1,569	\$ 6,158	\$ 3,629	\$ —	\$ —	\$ 20,539	\$ 10	\$ —	\$ 51,759
Ending balance: collectively evaluated for impairment	\$ 2,028,197	\$ 798,826	\$ 857,005	\$ 15,260	\$ 126,768	\$ 16,080	\$ 671,512	\$ 178,212	\$ —	\$ 4,691,860
December 31, 2015										
Allowance for loan losses:										
Beginning balance	\$ 4,662	\$ 8,954	\$ 6,982	\$ 1,875	\$ 5,471	\$ 28	\$ 14,017	\$ 3,629	\$ —	\$ 45,618
Charge-offs	(356)	—	(205)	—	—	—	(1,074)	(4,791)	—	(6,426)
Recoveries	226	—	80	507	—	—	2,773	985	—	4,571
Provision	(346)	2,388	403	(711)	(1,010)	(15)	1,492	4,074	—	6,275
Ending balance	\$ 4,186	\$ 11,342	\$ 7,260	\$ 1,671	\$ 4,461	\$ 13	\$ 17,208	\$ 3,897	\$ —	\$ 50,038
Ending balance: individually evaluated for impairment	\$ 1,453	\$ —	\$ 442	\$ 891	\$ —	\$ —	\$ 3,527	\$ 7		\$ 6,320
Ending balance: collectively evaluated for impairment	\$ 2,733	\$ 11,342	\$ 6,818	\$ 780	\$ 4,461	\$ 13	\$ 13,681	\$ 3,890	\$ —	\$ 43,718
Financing Receivables:										
Ending balance	\$ 2,069,665	\$ 690,561	\$ 846,294	\$ 18,229	\$ 100,796	\$ 14,089	\$ 758,659	\$ 123,775		\$ 4,622,068
Ending balance: individually evaluated for impairment	\$ 22,457	\$ 1,188	\$ 3,225	\$ 5,683	\$ —	\$ —	\$ 21,119	\$ 13		\$ 53,685
Ending balance: collectively evaluated for impairment	\$ 2,047,208	\$ 689,373	\$ 843,069	\$ 12,546	\$ 100,796	\$ 14,089	\$ 737,540	\$ 123,762		\$ 4,568,383

Changes in the allowance for loan losses were as follows:

(dollars in thousands)	2016	2015	2014
Allowance for loan losses, January 1	\$ 50,038	\$ 45,618	\$ 40,116
Provision for loan losses	16,763	6,275	6,126
Charge-offs, net of recoveries			
Real estate loans	(52)	(252)	(1,137)
Other loans	11,320	2,107	1,761
Net charge-offs	11,268	1,855	624
Allowance for loan losses, December 31	\$ 55,533	\$ 50,038	\$ 45,618
Ratio of net charge-offs to average total loans	0.24%	0.04%	0.01%

Credit quality. ASB performs an internal loan review and grading on an ongoing basis. The review provides management with periodic information as to the quality of the loan portfolio and effectiveness of its lending policies and procedures. The objectives of the loan review and grading procedures are to identify, in a timely manner, existing or emerging credit trends so that appropriate steps can be initiated to manage risk and avoid or minimize future losses. Loans subject to grading include commercial, commercial real estate and commercial construction loans.

Each loan is assigned an Asset Quality Rating (AQR) reflecting the likelihood of repayment or orderly liquidation of that loan transaction pursuant to regulatory credit classifications: Pass, Special Mention, Substandard, Doubtful, and Loss. The AQR is a function of the probability of default model rating, the loss given default, and possible non-model factors which impact the ultimate collectability of the loan such as character of the business owner/guarantor, interim period performance, litigation, tax liens and major changes in business and economic conditions. Pass exposures generally are well protected by the current net worth and paying capacity of the obligor or by the value of the asset or underlying collateral. Special Mention loans have potential weaknesses that, if left uncorrected, could jeopardize the liquidation of the debt. Substandard loans have well-defined weaknesses that jeopardize the liquidation of the debt and are characterized by the distinct possibility that the Bank may sustain some loss. An asset classified Doubtful has the weaknesses of those classified Substandard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable.

The credit risk profile by internally assigned grade for loans was as follows:

December 31	2016				2015			
(in thousands)	Commercial real estate	Commercial construction	Commercial	Total	Commercial real estate	Commercial construction	Commercial	Total
Grade:								
Pass	\$ 701,657	\$ 102,955	\$ 614,139	1,418,751	\$ 642,410	\$ 86,991	\$ 703,208	\$ 1,432,609
Special mention	65,541	—	25,229	90,770	7,710	13,805	7,029	28,544
Substandard	33,197	23,813	52,683	109,693	40,441	—	47,975	88,416
Doubtful	—	—	—	—	—	—	447	447
Loss	—	—	—	—	—	—	—	—
Total	\$ 800,395	\$ 126,768	\$ 692,051	1,619,214	\$ 690,561	\$ 100,796	\$ 758,659	\$ 1,550,016

The credit risk profile based on payment activity for loans was as follows:

(in thousands)	30-59 days past due	60-89 days past due	Greater than 90 days	Total past due	Current	Total financing receivables	Recorded investment > 90 days and accruing
December 31, 2016							
Real estate:							
Residential 1-4 family	\$ 5,467	\$ 2,338	\$ 3,505	\$ 11,310	\$ 2,036,741	\$ 2,048,051	\$ —
Commercial real estate	2,416	—	—	2,416	797,979	800,395	—
Home equity line of credit	1,263	381	1,342	2,986	860,177	863,163	—
Residential land	—	—	255	255	18,634	18,889	—
Commercial construction	—	—	—	—	126,768	126,768	—
Residential construction	—	—	—	—	16,080	16,080	—
Commercial	413	510	1,303	2,226	689,825	692,051	—
Consumer	1,945	1,001	963	3,909	174,313	178,222	—
Total loans	\$ 11,504	\$ 4,230	\$ 7,368	\$ 23,102	\$ 4,720,517	\$ 4,743,619	\$ —
December 31, 2015							
Real estate:							
Residential 1-4 family	\$ 4,967	\$ 3,289	\$ 11,503	\$ 19,759	\$ 2,049,906	\$ 2,069,665	\$ —
Commercial real estate	—	—	—	—	690,561	690,561	—
Home equity line of credit	896	706	477	2,079	844,215	846,294	—
Residential land	—	—	415	415	17,814	18,229	—
Commercial construction	—	—	—	—	100,796	100,796	—
Residential construction	—	—	—	—	14,089	14,089	—
Commercial	125	223	878	1,226	757,433	758,659	—
Consumer	1,383	593	644	2,620	121,155	123,775	—
Total loans	\$ 7,371	\$ 4,811	\$ 13,917	\$ 26,099	\$ 4,595,969	\$ 4,622,068	\$ —

The credit risk profile based on nonaccrual loans, accruing loans 90 days or more past due, and TDR loans was as follows:

December 31	2016		2015	
(in thousands)				
Real estate:				
Residential 1-4 family	\$	11,154	\$	20,554
Commercial real estate		223		1,188
Home equity line of credit		3,080		2,254
Residential land		878		970
Commercial construction		—		—
Residential construction		—		—
Commercial		6,708		20,174
Consumer		1,282		895
Total nonaccrual loans	\$	23,325	\$	46,035
Real estate:				
Residential 1-4 family	\$	—	\$	—
Commercial real estate		—		—
Home equity line of credit		—		—
Residential land		—		—
Commercial construction		—		—
Residential construction		—		—
Commercial		—		—
Consumer		—		—
Total accruing loans 90 days or more past due	\$	—	\$	—
Real estate:				
Residential 1-4 family	\$	14,450	\$	13,962
Commercial real estate		1,346		—
Home equity line of credit		4,934		2,467
Residential land		2,751		4,713
Commercial construction		—		—
Residential construction		—		—
Commercial		14,146		1,104
Consumer		10		—
Total troubled debt restructured loans not included above	\$	37,637	\$	22,246

The total carrying amount and the total unpaid principal balance of impaired loans were as follows:

December 31 (in thousands)	2016					2015				
	Recorded investment	Unpaid principal balance	Related allowance	Average recorded investment	Interest income recognized*	Recorded investment	Unpaid principal balance	Related allowance	Average recorded investment	Interest income recognized*
With no related allowance recorded										
Real estate:										
Residential 1-4 family	\$ 9,571	\$ 10,400	\$ —	\$ 10,136	\$ 324	\$ 10,596	\$ 11,805	\$ —	\$ 11,215	\$ 332
Commercial real estate	223	228	—	1,124	—	1,188	1,436	—	370	74
Home equity line of credit	1,500	1,900	—	1,105	23	707	948	—	484	4
Residential land	1,218	1,803	—	1,518	66	1,644	2,412	—	2,397	137
Commercial construction	—	—	—	—	—	—	—	—	—	—
Residential construction	—	—	—	—	—	—	—	—	—	—
Commercial	6,299	8,869	—	8,694	370	5,671	6,333	—	5,185	157
Consumer	—	—	—	2	—	—	—	—	—	—
	18,811	23,200	—	22,579	783	19,806	22,934	—	19,651	704
With an allowance recorded										
Real estate:										
Residential 1-4 family	10,283	10,486	1,352	11,589	457	11,861	11,914	1,453	11,578	562
Commercial real estate	1,346	1,346	80	1,962	15	—	—	—	1,699	—
Home equity line of credit	4,658	4,712	215	3,765	137	2,518	2,579	442	1,597	49
Residential land	2,411	2,411	789	2,964	206	4,039	4,117	891	4,337	318
Commercial construction	—	—	—	—	—	—	—	—	—	—
Residential construction	—	—	—	—	—	—	—	—	—	—
Commercial	14,240	14,240	1,641	16,106	456	15,448	16,073	3,527	12,507	211
Consumer	10	10	6	12	—	13	13	7	14	—
	32,948	33,205	4,083	36,398	1,271	33,879	34,696	6,320	31,732	1,140
Total										
Real estate:										
Residential 1-4 family	19,854	20,886	1,352	21,725	781	22,457	23,719	1,453	22,793	894
Commercial real estate	1,569	1,574	80	3,086	15	1,188	1,436	—	2,069	74
Home equity line of credit	6,158	6,612	215	4,870	160	3,225	3,527	442	2,081	53
Residential land	3,629	4,214	789	4,482	272	5,683	6,529	891	6,734	455
Commercial construction	—	—	—	—	—	—	—	—	—	—
Residential construction	—	—	—	—	—	—	—	—	—	—
Commercial	20,539	23,109	1,641	24,800	826	21,119	22,406	3,527	17,692	368
Consumer	10	10	6	14	—	13	13	7	14	—
	\$ 51,759	\$ 56,405	\$ 4,083	\$ 58,977	\$ 2,054	\$ 53,685	\$ 57,630	\$ 6,320	\$ 51,383	\$ 1,844

* Since loan was classified as impaired.

Troubled debt restructurings. A loan modification is deemed to be a TDR when ASB grants a concession it would not otherwise consider were it not for the borrower's financial difficulty. When a borrower experiencing financial difficulty fails to make a required payment on a loan or is in imminent default, ASB takes a number of steps to improve the collectability of the loan and maximize the likelihood of full repayment. At times, ASB may modify or restructure a loan to help a distressed borrower improve its financial position to eventually be able to fully repay the loan, provided the borrower has demonstrated both the willingness and the ability to fulfill the modified terms. TDR loans are considered an alternative to foreclosure or liquidation with the goal of minimizing losses to ASB and maximizing recovery.

ASB may consider various types of concessions in granting a TDR including maturity date extensions, extended amortization of principal, temporary deferral of principal payments, and temporary interest rate reductions. ASB rarely grants principal forgiveness in its TDR modifications. Residential loan modifications generally involve interest rate reduction, extending the amortization period, or capitalizing certain delinquent amounts owed not to exceed the original loan balance. Land loans at origination are typically structured as a three-year term, interest-only monthly payment with a balloon payment due at maturity. Land loan TDR modifications typically involve extending the maturity date up to five years and converting the payments from interest-only to principal and interest monthly, at the same or higher interest rate. Commercial loan modifications generally involve extensions of maturity dates, extending the amortization period, and temporary deferral or

reduction of principal payments. ASB generally does not reduce the interest rate on commercial loan TDR modifications. Occasionally, additional collateral and/or guaranties are obtained.

All TDR loans are classified as impaired and are segregated and reviewed separately when assessing the adequacy of the allowance for loan losses based on the appropriate method of measuring impairment: (1) present value of expected future cash flows discounted at the loan's effective original contractual rate, (2) fair value of collateral less cost to sell or (3) observable market price. The financial impact of the calculated impairment amount is an increase to the allowance associated with the modified loan. When available information confirms that specific loans or portions thereof are uncollectible (confirmed losses), these amounts are charged off against the allowance for loan losses.

Loan modifications that occurred during 2016 and 2015 and the impact on the allowance for loan losses were as follows:

Years ended December 31 (dollars in thousands)	2016				2015			
	Number of contracts	Outstanding recorded investment		Net increase in ALLL	Number of contracts	Outstanding recorded investment		Net increase in ALLL
		Pre- modification	Post- modification			Pre- modification	Post- modification	
Troubled debt restructurings								
Real estate:								
Residential 1-4 family	14	\$ 3,131	\$ 3,245	\$ 337	19	\$ 3,594	\$ 3,668	\$ 87
Commercial real estate	—	—	—	—	1	1,500	1,500	—
Home equity line of credit	36	3,337	3,337	554	39	2,441	2,441	370
Residential land	2	203	204	—	1	218	218	—
Commercial construction	—	—	—	—	—	—	—	—
Residential construction	—	—	—	—	—	—	—	—
Commercial	15	20,266	20,266	865	8	2,267	2,267	486
Consumer	—	—	—	—	—	—	—	—
	67	\$ 26,937	\$ 27,052	\$ 1,756	68	\$ 10,020	\$ 10,094	\$ 943

Loans modified in TDRs that experienced a payment default of 90 days or more in 2016 and 2015, and for which the payment default occurred within one year of the modification, were as follows:

Years ended December 31 (dollars in thousands)	2016		2015	
	Number of contracts	Recorded investment	Number of contracts	Recorded investment
Troubled debt restructurings that subsequently defaulted				
Real estate:				
Residential 1-4 family	1	\$ 239	—	\$ —
Commercial real estate	—	—	—	—
Home equity line of credit	—	—	1	6
Residential land	—	—	—	—
Commercial construction	—	—	—	—
Residential construction	—	—	—	—
Commercial	1	24	1	1,056
Consumer	—	—	—	—
	2	\$ 263	2	\$ 1,062

If loans modified in a TDR subsequently default, ASB evaluates the loan for further impairment. Based on its evaluation, adjustments may be made in the allocation of the allowance or partial charge-offs may be taken to further write-down the carrying value of the loan. Commitments to lend additional funds to borrowers whose loan terms have been modified in a TDR totaled \$2.6 million at December 31, 2016.

Mortgage servicing rights. In its mortgage banking business, ASB sells residential mortgage loans to government-sponsored entities and other parties, who may issue securities backed by pools of such loans. ASB retains no beneficial interests in these loans other than the servicing rights of certain loans sold.

ASB received \$236.1 million, \$275.3 million and \$155.0 million of proceeds from the sale of residential mortgages in 2016, 2015, and 2014, respectively, and recognized gains on such sales of \$6.6 million, \$6.3 million, and \$2.9 million in 2016, 2015, and 2014, respectively. Repurchased mortgage loans in 2016, 2015, and 2014, were nil, nil and \$0.5 million, respectively.

Mortgage servicing fees, a component of other income, net, were \$2.9 million, \$3.5 million, and \$3.5 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Changes in the carrying value of mortgage servicing rights were as follows:

(in thousands)	Gross carrying amount	Accumulated amortization	Valuation allowance	Net carrying amount
December 31, 2016	\$ 17,271	\$ (7,898)	\$ —	\$ 9,373
December 31, 2015	\$ 14,531 ¹	\$ (5,647) ¹	\$ —	\$ 8,884

¹ Reflects sale of mortgage servicing rights and impact of loans paid in full.

Changes related to mortgage servicing rights were as follows:

(in thousands)	2016	2015	2014
Mortgage servicing rights			
Balance, January 1	\$ 8,884	\$ 11,749	\$ 11,938
Amount capitalized	2,740	3,123	1,637
Amortization	(2,251)	(2,682)	(1,731)
Sale of mortgage servicing rights	—	(3,302)	—
Other-than-temporary impairment	—	(4)	(95)
Carrying amount before valuation allowance, December 31	9,373	8,884	11,749
Valuation allowance for mortgage servicing rights			
Balance, January 1	—	209	251
Provision (recovery)	—	(205)	53
Other-than-temporary impairment	—	(4)	(95)
Balance, December 31	—	—	209
Net carrying value of mortgage servicing rights	\$ 9,373	\$ 8,884	\$ 11,540

The estimated aggregate amortization expenses of mortgage servicing rights for 2017, 2018, 2019, 2020 and 2021 are \$1.3 million, \$1.2 million, \$1.0 million, \$0.9 million and \$0.8 million, respectively.

ASB capitalizes mortgage servicing rights acquired through either the purchase or origination of mortgage loans for sale with servicing rights retained. On a monthly basis, ASB compares the net carrying value of the mortgage servicing rights to its fair value to determine if there are any changes to the valuation allowance and/or other-than-temporary impairment for the mortgage servicing rights. ASB's MSR's are stratified based on predominant risk characteristics of the underlying loans including loan type such as fixed-rate 15 and 30 year mortgages and note rate in bands of 50 to 100 basis points. For each stratum, fair value is calculated by discounting expected net income streams using discount rates that reflect industry pricing for similar assets. Changes in mortgage interest rates impact the value of ASB's mortgage servicing rights. Rising interest rates typically result in slower prepayment speeds in the loans being serviced for others, which increases the value of mortgage servicing rights, whereas declining interest rates typically result in faster prepayment speeds which decrease the value of mortgage servicing rights and increase the amortization of the mortgage servicing rights. Expected net income streams are estimated based on industry assumptions regarding prepayment expectations and income and expenses associated with servicing residential mortgage loans for others.

ASB uses a present value cash flow model using techniques described above to estimate the fair value of MSR's. Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in other income, net in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable.

Key assumptions used in estimating the fair value of ASB's mortgage servicing rights used in the impairment analysis were as follows:

December 31	2016		2015	
(dollars in thousands)				
Unpaid principal balance	\$	1,188,380	\$	1,097,314
Weighted average note rate		3.96%		4.05%
Weighted average discount rate		9.4%		9.6%
Weighted average prepayment speed		8.5%		9.3%

The sensitivity analysis of fair value of MSR to hypothetical adverse changes of 25 and 50 basis points in certain key assumptions was as follows:

December 31	2016		2015	
(in thousands)				
Prepayment rate:				
25 basis points adverse rate change	\$	(567)	\$	(561)
50 basis points adverse rate change		(1,154)		(1,104)
Discount rate:				
25 basis points adverse rate change		(128)		(111)
50 basis points adverse rate change		(254)		(220)

The effect of a variation in certain assumptions on fair value is calculated without changing any other assumptions. This analysis typically cannot be extrapolated because the relationship of a change in one key assumption to the changes in the fair value of MSRs typically is not linear.

Deposit liabilities. The summarized components of deposit liabilities were as follows:

December 31	2016		2015	
(dollars in thousands)	Weighted- average stated rate	Amount	Weighted- average stated rate	Amount
Savings	0.07%	\$ 2,208,594	0.07%	\$ 2,030,644
Checking				
Interest-bearing	0.02	890,633	0.02	831,143
Noninterest-bearing	—	817,867	—	746,875
Commercial checking	—	821,184	—	773,499
Money market	0.12	153,126	0.13	167,641
Term certificates	1.00	657,525	0.93	475,452
	0.15%	\$ 5,548,929	0.12%	\$ 5,025,254

As of December 31, 2016 and 2015, term certificates of \$100,000 or more totaled \$328.1 million and \$163.2 million, respectively.

The approximate scheduled maturities of term certificates outstanding at December 31, 2016 were as follows:

(in thousands)	
2017	\$ 322,661
2018	70,611
2019	105,478
2020	81,818
2021	73,686
Thereafter	3,271
	\$ 657,525

Interest expense on deposit liabilities by type of deposit was as follows:

Years ended December 31	2016	2015	2014
(in thousands)			
Term certificates	\$ 5,390	\$ 3,747	\$ 3,603
Savings	1,402	1,257	1,134
Money market	202	205	214
Interest-bearing checking	173	139	126
	\$ 7,167	\$ 5,348	\$ 5,077

Other borrowings.

Securities sold under agreements to repurchase. Securities sold under agreements to repurchase are accounted for as financing transactions and the obligations to repurchase these securities are recorded as liabilities in the balance sheet. ASB pledges investment securities as collateral for securities sold under agreements to repurchase. All such agreements are subject to master netting arrangements, which provide for conditional right of set-off in case of default by either party; however, ASB presents securities sold under agreements to repurchase on a gross basis in the balance sheet. The following tables present information about the securities sold under agreements to repurchase, including the related collateral received from or pledged to counterparties:

(in millions)	Gross amount of recognized liabilities	Gross amount offset in the Balance Sheet	Net amount of liabilities presented in the Balance Sheet
Repurchase agreements			
December 31, 2016	\$ 93	\$ —	\$ 93
December 31, 2015	229	—	229

(in millions)	Gross amount not offset in the Balance Sheet		
	Net amount of liabilities presented in the Balance Sheet	Financial instruments	Cash collateral pledged
December 31, 2016			
Financial institution	\$ —	\$ —	\$ —
Government entities	14	15	—
Commercial account holders	79	101	—
Total	\$ 93	\$ 116	\$ —
December 31, 2015			
Financial institution	\$ 50	\$ 56	\$ —
Government entities	56	61	—
Commercial account holders	123	144	—
Total	\$ 229	\$ 261	\$ —

The securities underlying the agreements to repurchase are book-entry securities and were delivered by appropriate entry into the counterparties' accounts or into segregated tri-party custodial accounts at the FHLB. Securities sold under agreements to repurchase are accounted for as financing transactions and the obligations to repurchase these securities are recorded as liabilities in the consolidated balance sheets. The securities underlying the agreements to repurchase continue to be reflected in ASB's asset accounts. The counterparties or tri-parties may determine that additional collateral is required based on movements in the fair value of the collateral. Typically, a five percent discount is taken from the fair value of the investment securities to determine the value of the collateral pledged for the repurchase agreements.

Information concerning securities sold under agreements to repurchase, which provided for the repurchase of identical securities, was as follows:

(dollars in millions)	2016		2015		2014	
Amount outstanding as of December 31	\$	93	\$	229	\$	191
Average amount outstanding during the year	\$	170	\$	219	\$	155
Maximum amount outstanding as of any month-end	\$	229	\$	277	\$	195
Weighted-average interest rate as of December 31		0.23%		1.24%		1.45%
Weighted-average interest rate during the year		1.43%		1.29%		1.67%
Weighted-average remaining days to maturity as of December 31		6		117		343

Securities sold under agreements to repurchase were summarized as follows:

December 31	2016				2015			
Maturity	Repurchase liability	Weighted-average interest rate	Collateralized by mortgage-related securities and federal agency obligations at fair value plus accrued interest	Repurchase liability	Weighted-average interest rate	Collateralized by mortgage-related securities and federal agency obligations at fair value plus accrued interest		
(dollars in thousands)								
Overnight	\$ 79,083	0.15%	\$ 100,305	\$ 122,684	0.15%	\$ 144,146		
1 to 29 days	—	—	—	—	—	—		
30 to 90 days	13,535	0.70	15,239	18,535	0.29	20,364		
Over 90 days	—	—	—	87,363 ¹	2.96	96,553		
	\$ 92,618	0.23%	\$ 115,544	\$ 228,582	1.24%	\$ 261,063		

¹ \$50.3 million callable by the counterparties quarterly at par until maturity in 2016.

Advances from Federal Home Loan Bank. FHLB advances are fixed rate for a specific term and consist of the following:

December 31, 2016	Weighted-average stated rate	Amount
(dollars in thousands)		
Due in		
2017	4.28%	\$ 50,000 ¹
2018	1.95	50,000
2019	—	—
2020	—	—
2021	—	—
Thereafter	—	—
	3.12%	\$ 100,000

¹ Callable quarterly at par until maturity in 2017.

ASB and the FHLB are parties to an Advances, Pledge and Security Agreement (Advances Agreement), which applies to currently outstanding and future advances, and governs the terms and conditions under which ASB borrows and the FHLB makes loans or advances from time to time. Under the Advances Agreement, ASB agrees to abide by the FHLB's credit policies, and makes certain warranties and representations to the FHLB. Upon the occurrence of and during the continuation of an "Event of Default" (which term includes any event of nonpayment of interest or principal of any advance when due or failure to perform any promise or obligation under the Advances Agreement or other credit arrangements between the parties), the FHLB may, at its option, declare all indebtedness and accrued interest thereon, including any prepayment fees or charges, to be immediately due and payable. Advances from the FHLB are collateralized by loans and stock in the FHLB. As of December 31, 2016 and 2015, ASB's available FHLB borrowing capacity was \$1.8 billion and \$1.7 billion, respectively. ASB is required to obtain and hold a specific number of shares of capital stock of the FHLB. ASB was in compliance with all Advances Agreement requirements as of December 31, 2016 and 2015.

Common stock equity. In 1988, HEI agreed with the OTS predecessor regulatory agency at the time, to contribute additional capital to ASB up to a maximum aggregate amount of approximately \$65.1 million (Capital Maintenance Agreement). As of December 31, 2016, as a result of capital contributions in prior years, HEI's maximum obligation to contribute additional capital under the Capital Maintenance Agreement has been reduced to approximately \$28.3 million. As of December 31, 2016, ASB was in compliance with the minimum capital requirements under OCC regulations.

In 2016, ASB paid cash dividends of \$36 million to HEI, compared to cash dividends of \$30 million in 2015. The FRB and OCC approved the dividends.

Related-party transactions. HEI charged ASB \$2.3 million, \$2.1 million and \$2.3 million for general management and administrative services in 2016, 2015 and 2014, respectively. The amounts charged by HEI for services performed by HEI employees to its subsidiaries are allocated primarily on the basis of time expended in providing such services.

Derivative financial instruments. ASB enters into interest rate lock commitments (IRLCs) with borrowers, and forward commitments to sell loans or to-be-announced mortgage-backed securities to investors to hedge against the inherent interest rate and pricing risks associated with selling loans.

ASB enters into IRLCs for residential mortgage loans, which commit ASB to lend funds to a potential borrower at a specific interest rate and within a specified period of time. IRLCs that relate to the origination of mortgage loans that will be held for sale are considered derivative financial instruments under applicable accounting guidance. Outstanding IRLCs expose ASB to the risk that the price of the mortgage loans underlying the commitments may decline due to increases in mortgage interest rates from inception of the rate lock to the funding of the loan. The IRLCs are free-standing derivatives which are carried at fair value with changes recorded in mortgage banking income.

ASB enters into forward commitments to hedge the interest rate risk for rate locked mortgage applications in process and closed mortgage loans held for sale. These commitments are primarily forward sales of to-be-announced mortgage backed securities. Generally, when mortgage loans are closed, the forward commitment is liquidated and replaced with a mandatory delivery forward sale of the mortgage to a secondary market investor. In some cases, a best-efforts forward sale agreement is utilized as the forward commitment. These commitments are free-standing derivatives which are carried at fair value with changes recorded in mortgage banking income.

Changes in the fair value of IRLCs and forward commitments subsequent to inception are based on changes in the fair value of the underlying loan resulting from the fulfillment of the commitment and changes in the probability that the loan will fund within the terms of the commitment, which is affected primarily by changes in interest rates and the passage of time.

The notional amount and fair value of ASB's derivative financial instruments were as follows:

December 31 (in thousands)	2016		2015	
	Notional amount	Fair value	Notional amount	Fair value
Interest rate lock commitments	\$ 25,883	\$ 421	\$ 22,241	\$ 384
Forward commitments	30,813	(177)	23,644	(29)

ASB's derivative financial instruments, their fair values, and balance sheet location were as follows:

Derivative Financial Instruments Not Designated as Hedging Instruments ¹

December 31 (in thousands)	2016		2015	
	Asset derivatives	Liability derivatives	Asset derivatives	Liability derivatives
Interest rate lock commitments	\$ 445	\$ 24	\$ 384	\$ —
Forward commitments	8	185	1	30
	\$ 453	\$ 209	\$ 385	\$ 30

¹ Asset derivatives are included in other assets and liability derivatives are included in other liabilities in the balance sheets.

The following table presents ASB's derivative financial instruments and the amount and location of the net gains or losses recognized in the statements of income:

Derivative Financial Instruments Not Designated as Hedging Instruments (in thousands)	Location of net gains (losses) recognized in the Statements of Income	Years ended December 31		
		2016	2015	2014
Interest rate lock commitments	Mortgage banking income	\$ 37	\$ (6)	\$ (74)
Forward commitments	Mortgage banking income	(148)	77	(245)
		\$ (111)	\$ 71	\$ (319)

Commitments. Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the commitments. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since certain of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. ASB minimizes its exposure to loss under these commitments by requiring that customers meet certain conditions prior to disbursing funds. The amount of collateral, if any, is based on a credit evaluation of the borrower and may include residential real estate, accounts receivable, inventory and property, plant and equipment.

Letters of credit are conditional commitments issued by ASB to guarantee payment and performance of a customer to a third party. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. ASB holds collateral supporting those commitments for which collateral is deemed necessary.

The following is a summary of outstanding off-balance sheet arrangements:

December 31 (in thousands)	2016	2015
Unfunded commitments to extend credit:		
Home equity line of credit	\$ 1,146,339	\$ 1,096,532
Commercial and commercial real estate	577,410	631,780
Consumer	64,762	60,198
Residential 1-4 family	38,271	24,863
Commercial and financial standby letters of credit	16,017	18,709
Total	\$ 1,842,799	\$ 1,832,082

Contingency. In October 2007, ASB, as a member financial institution of Visa U.S.A. Inc., received restricted shares of Visa, Inc. (Visa) as a result of a restructuring of Visa U.S.A. Inc. in preparation for an initial public offering by Visa. As a part of the restructuring, ASB entered into a judgment and loss sharing agreement with Visa in order to apportion financial responsibilities arising from any potential adverse judgment or negotiated settlements related to indemnified litigation involving Visa. In November 2012, a federal judge granted preliminary approval to a proposed settlement between merchants and Visa over credit card fees and in December 2013, a federal judge granted final approval to the settlement. Some merchants and trade organizations filed a notice of appeal shortly after the approval was issued. As of December 31, 2016, ASB had accrued a reserve of \$1.1 million related to the agreement. Because the extent of ASB's obligations under this agreement depends entirely upon the occurrence of future events, ASB's maximum potential future liability under this agreement is not determinable.

Federal Deposit Insurance Corporation assessment. In February 2011, the Federal Deposit Insurance Corporation (FDIC) finalized rules to change its assessment base from total domestic deposits to average total assets minus average tangible equity, as required in the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). Assessment rates were reduced to a range of 2.5 to 9 basis points on the new assessment base for financial institutions in the lowest risk category. Financial institutions in the highest risk category have assessment rates of 30 to 45 basis points. The new rate schedule was effective April 1, 2011. As of June 30, 2016, the deposit insurance fund surpassed a target of 1.15 percent of estimated insured deposits that triggered important changes in the FDIC assessments for all banks. The changes took effect for premiums billed and paid in December 2016. Banks with less than \$10 billion in assets saw their overall schedule decline by two basis points for banks paying the lowest premiums and up to five points for those at the top end of the assessment scale. In addition, a new formula for calculating risk-based assessment rates is now in effect. For the years ended December 31, 2016 and 2015, ASB's FDIC insurance assessments were \$3.2 million and \$3.0 million, respectively. The FDIC may impose special assessments in the future if it is deemed necessary to ensure the Deposit Insurance Fund ratio does not decline to a level that is close to zero or that could otherwise undermine public confidence in federal deposit insurance.

6 • Unconsolidated variable interest entities

HECO Capital Trust III. Trust III was created and exists for the exclusive purposes of (i) issuing in March 2004 2,000,000 6.50% Cumulative Quarterly Income Preferred Securities, Series 2004 (2004 Trust Preferred Securities) (\$50 million aggregate liquidation preference) to the public and trust common securities (\$1.5 million aggregate liquidation preference) to Hawaiian Electric, (ii) investing the proceeds of these trust securities in 2004 Debentures issued by Hawaiian Electric in the principal amount of \$31.5 million and issued by Hawaii Electric Light and Maui Electric each in the principal amount of \$10 million, (iii) making distributions on these trust securities and (iv) engaging in only those other activities necessary or incidental thereto. The 2004 Trust Preferred Securities are mandatorily redeemable at the maturity of the underlying debt on March 18, 2034, which maturity may be extended to no later than March 18, 2053; and are currently redeemable at the issuer's option without premium. The 2004 Debentures, together with the obligations of the Utilities under an expense agreement and Hawaiian Electric's obligations under its trust guarantee and its guarantee of the obligations of Hawaii Electric Light and Maui Electric under their respective debentures, are the sole assets of Trust III. Taken together, Hawaiian Electric's obligations under the Hawaiian Electric debentures, the Hawaiian Electric indenture, the subsidiary guarantees, the trust agreement, the expense agreement and trust guarantee provide, in the aggregate, a full, irrevocable and unconditional guarantee of payments of amounts due on the Trust Preferred Securities. Trust III has at all times been an unconsolidated subsidiary of Hawaiian Electric. Since Hawaiian Electric, as the holder of 100% of the trust common securities, does not absorb the majority of the variability of Trust III, Hawaiian Electric is not the primary beneficiary and does not consolidate Trust III in accordance with accounting rules on the consolidation of VIEs. Trust III's balance sheet as of December 31, 2016 consisted of \$51.5 million of 2004 Debentures; \$50.0 million of 2004 Trust Preferred Securities; and \$1.5 million of trust common securities. Trust III's income statement for 2016 consisted of \$3.4 million of interest income received from the 2004 Debentures; \$3.3 million of distributions to holders of the Trust Preferred Securities; and \$0.1 million of common dividends on the trust common securities to Hawaiian Electric. As long as the 2004 Trust Preferred Securities are outstanding, Hawaiian Electric is not entitled to receive any funds from Trust III other than pro-rata distributions, subject to certain subordination provisions, on the trust common securities. In the event of a default by Hawaiian Electric in the performance of its obligations under the 2004 Debentures or under its Guarantees, or in the event any of the Utilities elect to defer payment of interest on any of their respective 2004 Debentures, then Hawaiian Electric will be subject to a number of restrictions, including a prohibition on the payment of dividends on its common stock.

Power purchase agreements. As of December 31, 2016, the Utilities had five PPAs for firm capacity and other PPAs with IPPs and Schedule Q providers (i.e., customers with cogeneration and/or power production facilities who buy power from or sell power to the Utilities), none of which are currently required to be consolidated as VIEs. Approximately 90% of the firm capacity is purchased from AES Hawaii, Inc. (AES Hawaii), Kalaeloa Partners, L.P. (Kalaeloa), Hamakua Energy Partners, L.P. (HEP) and HPOWER. Purchases from all IPPs were as follows:

Years ended December 31	2016	2015	2014
(in millions)			
AES Hawaii	\$ 149	\$ 134	\$ 145
Kalaeloa	152	187	279
HEP	29	44	51
HPOWER	71	66	66
Puna Geothermal Venture	28	29	45
Hawaiian Commercial & Sugar (HC&S)	1	8	15
Other IPPs	133	126	121
Total IPPs	\$ 563	\$ 594	\$ 722

In October 2015 the amended PPA between Maui Electric and HC&S became effective following PUC approval in September 2015. The amended PPA amended the pricing structure and rates for energy sold to Maui Electric, eliminated the capacity payment to HC&S, eliminated Maui Electric's minimum purchase obligation, provided that Maui Electric may request up to 4 MW of scheduled energy during certain months and be provided up to 16 MW of emergency power, and extended the term of the PPA from 2014 to 2017. Effective on December 23, 2016, Maui Electric and HC&S agreed to terminate the PPA.

Some of the IPPs provided sufficient information for Hawaiian Electric to determine that the IPP was not a VIE, or was either a "business" or "governmental organization," and thus excluded from the scope of accounting standards for VIEs. Other IPPs declined to provide the information necessary for Hawaiian Electric to determine the applicability of accounting standards for VIEs.

Since 2004, Hawaiian Electric has continued its efforts to obtain from the IPPs the information necessary to make the determinations required under accounting standards for VIEs. In each year from 2005 to 2016, the Utilities sent letters to the identified IPPs requesting the required information. All of these IPPs declined to provide the necessary information, except that Kalaeloa later agreed to provide the information pursuant to the amendments to its PPA (see below) and an entity owning a wind farm provided information as required under its PPA. Management has concluded that the consolidation of two entities owning wind farms was not required as Hawaii Electric Light and Maui Electric do not have variable interests in the entities because the PPAs do not require them to absorb any variability of the entities.

If the requested information is ultimately received from the remaining IPPs, a possible outcome of future analyses of such information is the consolidation of one or more of such IPPs in the Consolidated Financial Statements. The consolidation of any significant IPP could have a material effect on the Consolidated Financial Statements, including the recognition of a significant amount of assets and liabilities and, if such a consolidated IPP were operating at a loss and had insufficient equity, the potential recognition of such losses. If the Utilities determine they are required to consolidate the financial statements of such an IPP and the consolidation has a material effect, the Utilities would retrospectively apply accounting standards for VIEs.

Kalaeloa Partners, L.P. In October 1988, Hawaiian Electric entered into a PPA with Kalaeloa, subsequently approved by the PUC, which provided that Hawaiian Electric would purchase 180 MW of firm capacity for a period of 25 years beginning in May 1991. In October 2004, Hawaiian Electric and Kalaeloa entered into amendments to the PPA, subsequently approved by the PUC, which together effectively increased the firm capacity from 180 MW to 208 MW. The energy payments that Hawaiian Electric makes to Kalaeloa include: (1) a fuel component, with a fuel price adjustment based on the cost of low sulfur fuel oil, (2) a fuel additives cost component, and (3) a non-fuel component, with an adjustment based on changes in the Gross National Product Implicit Price Deflator. The capacity payments that Hawaiian Electric makes to Kalaeloa are fixed in accordance with the PPA. Kalaeloa also has a steam delivery cogeneration contract with another customer, the term of which coincides with the PPA. The facility has been certified by the Federal Energy Regulatory Commission as a Qualifying Facility under the Public Utility Regulatory Policies Act of 1978.

Hawaiian Electric and Kalaeloa are in negotiations to address the PPA term that ended on May 23, 2016. The PPA automatically extends on a month-to-month basis as long as the parties are still negotiating in good faith. The month-to-month term extensions shall end 60 days after either party notifies the other in writing that negotiations have terminated. On August 1, 2016, Hawaiian Electric and Kalaeloa entered into an agreement that neither party will give written notice of termination of the PPA prior to October 31, 2017. This agreement complements continued negotiations between the parties and accounts for time needed for PUC approval of a negotiated resolution.

Pursuant to the current accounting standards for VIEs, Hawaiian Electric is deemed to have a variable interest in Kalaeloa by reason of the provisions of Hawaiian Electric's PPA with Kalaeloa. However, management has concluded that Hawaiian Electric is not the primary beneficiary of Kalaeloa because Hawaiian Electric does not have the power to direct the activities that most significantly impact Kalaeloa's economic performance nor the obligation to absorb Kalaeloa's expected losses, if any, that could potentially be significant to Kalaeloa. Thus, Hawaiian Electric has not consolidated Kalaeloa in its consolidated financial statements. The energy payments paid by Hawaiian Electric will fluctuate as fuel prices change, however, the PPA does not currently expose Hawaiian Electric to losses as the fuel and fuel related energy payments under the PPA have been approved by the PUC for recovery from customers through base electric rates and through Hawaiian Electric's ECAC to the extent the fuel and fuel related energy payments are not included in base energy rates. As of December 31, 2016, Hawaiian Electric's accounts payable to Kalaeloa amounted to \$12 million.

AES Hawaii, Inc. In March 1988, Hawaiian Electric entered into a PPA with AES Barbers Point, Inc. (now known as AES Hawaii, Inc.), which, as amended (through Amendment No. 2) and approved by the PUC, provided that Hawaiian Electric would purchase 180 MW of firm capacity for a period of 30 years beginning in September 1992. In November 2015, Hawaiian Electric entered into an Amendment No. 3, for which PUC approval was requested and subsequently denied in January 2017. Amendment No. 3 would have increased the firm capacity from 180 MW to a maximum of 189 MW. The payments that Hawaiian Electric makes to AES Hawaii for energy associated with the first 180 MW of firm capacity include a fuel component, a variable O&M component and a fixed O&M component, all of which are subject to adjustment based on changes in the Gross National Product Implicit Price Deflator.

Pursuant to the current accounting standards for VIEs, Hawaiian Electric is deemed to have a variable interest in AES Hawaii by reason of the provisions of Hawaiian Electric's PPA with AES Hawaii. However, management has concluded that Hawaiian Electric is not the primary beneficiary of AES Hawaii because Hawaiian Electric does not have the power to control the most significant activities of AES Hawaii that impact AES Hawaii's economic performance, including operations and maintenance of AES Hawaii's facility. Thus, Hawaiian Electric has not consolidated AES Hawaii in its consolidated financial statements. As of December 31, 2016, Hawaiian Electric's accounts payable to AES Hawaii amounted to \$13 million.

7 · Short-term borrowings

As of December 31, 2015, HEI had \$103 million of outstanding commercial paper, with a weighted-average interest rate of 1.1% and Hawaiian Electric had no commercial paper outstanding. As of December 31, 2016, HEI and Hawaiian Electric had no commercial paper outstanding.

As of December 31, 2016, HEI and Hawaiian Electric maintained syndicated credit facilities of \$150 million and \$200 million, respectively. Both HEI and Hawaiian Electric had no borrowings under their respective facilities during 2015 and 2016. None of the facilities are collateralized.

Credit agreements.

HEI. On April 2, 2014, HEI and a syndicate of nine financial institutions entered into an amended and restated revolving non-collateralized credit agreement (HEI Facility). The HEI Facility increased HEI's line of credit to \$150 million from \$125 million, extended the term of the facility to April 2, 2019, and provided improved pricing compared to HEI's prior facility. Under the HEI Facility, draws would generally bear interest, based on HEI's current long-term credit ratings, at the "Adjusted LIBO Rate," as defined in the agreement, plus 137.5 basis points and annual fees on undrawn commitments of 20 basis points. The HEI Facility contains updated provisions for pricing adjustments in the event of a long-term ratings change based on the HEI Facility's ratings-based pricing grid. Certain modifications were made to incorporate some updated terms and conditions customary for facilities of this type. In addition, the HEI Consolidated Net Worth covenant, as defined in the original facility, was removed from the HEI Facility, leaving only one financial covenant (relating to HEI's ratio of funded debt to total capitalization, each on a non-consolidated basis). Under the credit agreement, it is an event of default if HEI fails to maintain an unconsolidated "Capitalization Ratio" (funded debt) of 50% or less (actual ratio of 13% as of December 31, 2016, as calculated under the agreement) or if HEI no longer owns Hawaiian Electric. The HEI Facility continues to contain customary conditions which must be met in order to draw on it, including compliance with covenants (such as covenants preventing HEI's subsidiaries from entering into agreements that restrict the ability of the subsidiaries to pay dividends to, or to repay borrowings from, HEI).

The HEI Facility will be maintained to support the issuance of commercial paper, but also may be drawn to repay HEI's short-term and long-term indebtedness, to make investments in or loans to subsidiaries and for HEI's working capital and general corporate purposes.

Hawaiian Electric. On April 2, 2014, Hawaiian Electric and a syndicate of nine financial institutions entered into an amended and restated revolving non-collateralized credit agreement (Hawaiian Electric Facility). The Hawaiian Electric Facility increased Hawaiian Electric's line of credit to \$200 million from \$175 million. In January 2015, the PUC approved Hawaiian Electric's request to extend the term of the credit facility to April 2, 2019. The Hawaiian Electric Facility provided improved pricing compared to its prior facility. Under the Hawaiian Electric Facility, draws would generally bear interest, based on Hawaiian Electric's current long-term credit ratings, at the "Adjusted LIBO Rate," as defined in the agreement, plus 137.5 basis points and annual fees on undrawn commitments of 20 basis points. The Hawaiian Electric Facility contains updated provisions for pricing adjustments in the event of a long-term ratings change based on the Hawaiian Electric Facility's ratings-based pricing grid. Certain modifications were made to incorporate some updated terms and conditions customary for facilities of this type. The Hawaiian Electric Facility continues to contain customary conditions which must be met in order to draw on it, including compliance with several covenants (such as covenants preventing its subsidiaries from entering into agreements that restrict the ability of the subsidiaries to pay dividends to, or to repay borrowings from, Hawaiian Electric, and restricting its ability as well as the ability of any of its subsidiaries to guarantee additional indebtedness of the subsidiaries if such additional debt would cause the subsidiary's "Consolidated Subsidiary Funded Debt to Capitalization Ratio" to exceed 65% (ratio of 42% for Hawaii Electric Light and 42% for Maui Electric as of December 31, 2016, as calculated under the agreement)). In addition to customary defaults, Hawaiian Electric's failure to maintain its financial ratios, as defined in its credit agreement, or meet other requirements may result in an event of default. For example, under the credit agreement, it is an event of default if Hawaiian Electric fails to maintain a "Consolidated Capitalization Ratio" (equity) of at least 35% (ratio of 57% as of December 31, 2016, as calculated under the credit agreement), or if Hawaiian Electric is no longer owned by HEI.

The Hawaiian Electric Facility will be maintained to support the issuance of commercial paper, but also may be drawn to repay Hawaiian Electric's short-term indebtedness, to make loans to subsidiaries and for Hawaiian Electric's capital expenditures, working capital and general corporate purposes.

8 · Long-term debt

December 31	2016	2015
(dollars in thousands)		
Long-term debt of Utilities ¹	\$ 1,319,260	\$ 1,278,702
HEI term loan LIBOR + .75%, due 2017	125,000	125,000
HEI term loan LIBOR + .75%, due 2018	75,000	—
HEI senior note 4.41%, paid 2016	—	75,000
HEI senior note 5.67%, due 2021	50,000	50,000
HEI senior note 3.99%, due 2023	50,000	50,000
Less unamortized debt issuance costs	(241)	(334)
	\$ 1,619,019	\$ 1,578,368

¹ See components of “Total long-term debt” and unamortized debt issuance costs in Hawaiian Electric and subsidiaries’ Consolidated Statements of Capitalization.

As of December 31, 2016, the aggregate principal payments required on the Company’s long-term debt for 2017 through 2021 are \$125 million in 2017, \$125 million in 2018, nil in 2019, \$96 million in 2020 and \$50 million in 2021. As of December 31, 2016, the aggregate payments of principal required on the Utilities’ long-term debt for 2017 through 2021 are nil in 2017, \$50 million in 2018, nil in 2019, \$96 million in 2020 and nil in 2021.

The HEI term loans and senior notes contain customary representation and warranties, affirmative and negative covenants and events of default (the occurrence of which may result in some or all of the notes then outstanding becoming immediately due and payable). The HEI term loans and senior notes also contain provisions requiring the maintenance by HEI of certain financial ratios generally consistent with those in HEI’s revolving noncollateralized credit agreement, expiring on April 2, 2019. Upon a change of control or certain dispositions of assets (as defined in the Master Note Purchase Agreement dated March 24, 2011), HEI is required to offer to prepay the senior notes. HEI is in compliance with its covenants. (See Note 7 of the Consolidated Financial Statements).

The Utilities’ senior notes contain customary representations and warranties, affirmative and negative covenants, and events of default (the occurrence of which may result in some or all of the notes of each and all of the utilities then outstanding becoming immediately due and payable) and provisions requiring the maintenance by Hawaiian Electric, and each of Hawaii Electric Light and Maui Electric, of certain financial ratios generally consistent with those in Hawaiian Electric’s existing amended revolving noncollateralized credit agreement, expiring on April 2, 2019. The Utilities are in compliance with their covenants. (See Note 7 of the Consolidated Financial Statements).

Changes in long-term debt.

HEI. On March 21, 2016, HEI entered into a \$75 million term loan agreement with Bank of America, N.A., which matures on March 23, 2018, and includes substantially the same financial covenant and customary conditions as the HEI credit agreement described above. On March 23, 2016, HEI drew an initial \$75 million Eurodollar term loan at an initial interest rate of 1.18% for an initial one month interest period (and with subsequent resetting interest rates averaging 1.25% through December 31, 2016). The proceeds from the term loan were used to pay off HEI’s \$75 million 4.41% senior note at maturity on March 24, 2016.

Hawaiian Electric. On December 15, 2016, Hawaiian Electric issued, through a private placement pursuant to the Note Purchase Agreement, \$40 million of Series 2016A unsecured senior notes bearing taxable interest of 4.54%, which are due December 1, 2046 (the Notes) and includes substantially the same financial covenants and customary conditions as Hawaiian Electric’s credit agreement as described above.

All the proceeds of the Notes were used by Hawaiian Electric to finance its capital expenditures and/or to reimburse funds used for the payment of capital expenditures.

The Notes may be prepaid in whole or in part at any time at the prepayment price of the principal amount plus a “Make-Whole Amount.” The foregoing is a brief summary of only certain of the terms and conditions of the Note Purchase Agreement and does not purport to be a complete discussion of their terms. Accordingly, the foregoing description is qualified in its entirety by reference to the Note Purchase Agreement listed as Exhibit 4.23 to this Form 10-K.

9 • Shareholders' equity

Reserved shares. As of December 31, 2016, HEI had reserved a total of 11,857,869 shares of common stock for future issuance under the HEI Dividend Reinvestment and Stock Purchase Plan (DRIP), the Hawaiian Electric Industries Retirement Savings Plan (HEIRSP), the HEI 2011 Nonemployee Director Stock Plan, the ASB 401(k) Plan and the 2010 Executive Incentive Plan.

Equity forward transaction. On March 19, 2013, HEI entered into an equity forward transaction in connection with a public offering on that date of 6.1 million shares of HEI common stock at \$26.75 per share. On March 19, 2013, HEI common stock closed at \$27.01 per share. On March 20, 2013, the underwriters exercised their over-allotment option in full and HEI entered into an equity forward transaction in connection with the resulting additional 0.9 million shares of HEI common stock.

The use of an equity forward transaction substantially eliminates future equity market price risk by fixing a common equity offering sales price under the then existing market conditions, while mitigating immediate share dilution resulting from the offering by postponing the actual issuance of common stock until funds are needed in accordance with the Company's capital investment plans. Pursuant to the terms of these transactions, a forward counterparty borrowed 7 million shares of HEI's common stock from third parties and sold them to a group of underwriters for \$26.75 per share, less an underwriting discount equal to \$1.00312 per share. Under the terms of the equity forward transactions, HEI was required to issue and deliver shares of HEI common stock to the forward counterparty at the then applicable forward sale price. The forward sale price was initially determined to be \$25.74688 per share at the time the equity forward transactions were entered into, and the amount of cash to be received by HEI upon physical settlement of the equity forward was subject to certain adjustments in accordance with the terms of the equity forward transactions.

The equity forward transactions had no initial fair value since they were entered into at the then market price of the common stock. HEI concluded that the equity forward transactions were equity instruments based on the accounting guidance in ASC Topic 480, "Distinguishing Liabilities from Equity," and ASC Topic 815, "Derivatives and Hedging," and that they qualified for an exception from derivative accounting under ASC Topic 815 because the forward sale transactions were indexed to its own stock. On December 19, 2013 and July 14, 2014, HEI settled 1.3 million and 1.0 million shares under the equity forward for proceeds of \$32.1 million (net of the underwriting discount of \$1.3 million) and \$23.9 million (net of underwriting discount of \$1.0 million), respectively, which funds were ultimately used to purchase Hawaiian Electric shares.

On March 20, 2015, HEI settled the remaining 4.7 million shares under the equity forward for proceeds of \$104.5 million (net of the underwriting discount of \$4.7 million), which funds were used for the reduction of debt and for general corporate purposes. The proceeds were recorded in equity at the time of settlement. Prior to their settlement, the shares remaining under the equity forward transactions were reflected in HEI's diluted EPS calculations using the treasury stock method.

For 2016, 2015 and 2014, the equity forward transactions did not have a material dilutive effect on HEI's EPS.

Accumulated other comprehensive income/(loss). Changes in the balances of each component of accumulated other comprehensive income/(loss) (AOCI) were as follows:

(in thousands)	HEI Consolidated				Hawaiian Electric Consolidated		
	Net unrealized gains (losses) on securities	Unrealized gains (losses) on derivatives	Retirement benefit plans	AOCI	Unrealized losses on derivatives	Retirement benefit plans	AOCI
Balance, December 31, 2013	\$ (3,663)	\$ (525)	\$ (12,562)	\$ (16,750)	\$ —	\$ 608	\$ 608
Current period other comprehensive income (loss)	4,125	236	(14,989)	(10,628)	—	(563)	(563)
Balance, December 31, 2014	462	(289)	(27,551)	(27,378)	—	45	45
Current period other comprehensive income (loss)	(2,334)	235	3,215	1,116	—	880	880
Balance, December 31, 2015	(1,872)	(54)	(24,336)	(26,262)	—	925	925
Current period other comprehensive loss	(6,059)	(400)	(408)	(6,867)	(454)	(793)	(1,247)
Balance, December 31, 2016	\$ (7,931)	\$ (454)	\$ (24,744)	\$ (33,129)	\$ (454)	\$ 132	\$ (322)

Reclassifications out of AOCI were as follows:

Years ended December 31 (in thousands)	Amount reclassified from AOCI			Affected line item in the Statement of Income
	2016	2015	2014	
HEI consolidated				
Net realized gains on securities	\$ (360)	\$ —	\$ (1,715)	Revenues-bank (net gains on sales of securities)
Derivatives qualified as cash flow hedges				
Window forward contracts	(173)	—	—	Revenues-electric utilities (gains on window forward contracts—see Note 4 for additional details)
Interest rate contracts (settled in 2011)	54	235	236	Interest expense
Retirement benefit plan items				
Amortization of prior service credit and net losses recognized during the period in net periodic benefit cost	14,518	22,465	11,344	See Note 10 for additional details
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets	28,584	(25,139)	207,833	See Note 10 for additional details
Total reclassifications	\$ 42,623	\$ (2,439)	\$ 217,698	
Hawaiian Electric consolidated				
Derivatives qualified as cash flow hedges				
Window forward contracts	(173)	—	—	Revenues (gains on window forward contracts—see Note 4 for additional details)
Retirement benefit plan items				
Amortization of prior service credit and net losses recognized during the period in net periodic benefit cost	\$ 13,254	\$ 20,381	\$ 10,212	See Note 10 for additional details
Less: reclassification adjustment for impact of D&Os of the PUC included in regulatory assets	28,584	(25,139)	207,833	See Note 10 for additional details
Total reclassifications	\$ 41,665	\$ (4,758)	\$ 218,045	

10 · Retirement benefits

Defined benefit plans. Substantially all of the employees of HEI and the Utilities participate in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries (HEI Pension Plan). Substantially all of the employees of ASB and its subsidiaries participated in the American Savings Bank Retirement Plan (ASB Pension Plan) until it was frozen on December 31, 2007. The HEI Pension Plan and the ASB Pension Plan (collectively, the Plans) are qualified, noncontributory defined benefit pension plans and include, in the case of the HEI Pension Plan, benefits for utility union employees determined in accordance with the terms of the collective bargaining agreements between the Utilities and the union. The Plans are subject to the provisions of ERISA. In addition, some current and former executives and directors of HEI and its subsidiaries participate in noncontributory, nonqualified plans (collectively, Supplemental Plans). In general, benefits are based on the employees' or directors' years of service and compensation.

The continuation of the Plans and the Supplemental Plans and the payment of any contribution thereunder are not assumed as contractual obligations by the participating employers. The Supplemental Plan for directors has been frozen since 1996. The ASB Pension Plan was frozen as of December 31, 2007. The HEI Supplemental Executive Retirement Plan and ASB Supplemental Executive Retirement, Disability, and Death Benefit Plan (noncontributory, nonqualified, defined benefit plans) were frozen as of December 31, 2008. No participants have accrued any benefits under these plans after the respective plan's freeze and the plans will be terminated at the time all remaining benefits have been paid.

Each participating employer reserves the right to terminate its participation in the applicable plans at any time, and HEI and ASB reserve the right to terminate their respective plans at any time. If a participating employer terminates its participation in the Plans, the interest of each affected participant would become 100% vested to the extent funded. Upon the termination of the Plans, assets would be distributed to affected participants in accordance with the applicable allocation provisions of ERISA

and any excess assets that exist would be paid to the participating employers. Participants' benefits in the Plans are covered up to certain limits under insurance provided by the Pension Benefit Guaranty Corporation.

To determine pension costs for HEI and its subsidiaries under the Plans and the Supplemental Plans, it is necessary to make complex calculations and estimates based on numerous assumptions, including the assumptions identified under "Defined benefit pension and other postretirement benefit plans information" below.

Postretirement benefits other than pensions. HEI and the Utilities provide eligible employees health and life insurance benefits upon retirement under the Postretirement Welfare Benefits Plan for Employees of Hawaiian Electric Company, Inc. and participating employers (Hawaiian Electric Benefits Plan). Eligibility of employees and dependents is based on eligibility to retire at termination, the retirement date and the date of hire. The plan was amended in 2011, changing eligibility for certain bargaining unit employees hired prior to May 1, 2011, based on new minimum age and service requirements effective January 1, 2012, per the collective bargaining agreement, and certain management employees hired prior to May 1, 2011 based on new eligibility minimum age and service requirements effective January 1, 2012. The minimum age and service requirements for management and bargaining unit employees hired May 1, 2011 and thereafter have increased and their dependents are not eligible to receive postretirement benefits. Employees may be eligible to receive benefits from the HEI Pension Plan but may not be eligible for postretirement welfare benefits if the different eligibility requirements are not met.

The executive death benefit plan was frozen on September 10, 2009 to participants and benefit levels as of that date. The electric discount was eliminated for management employees and retirees of Hawaiian Electric in August 2009, Hawaii Electric Light in November 2010, and Maui Electric in August 2010, and for bargaining unit employees and retirees on January 31, 2011 per the collective bargaining agreement.

The Company's and Utilities' cost for OPEB has been adjusted to reflect the plan amendments, which reduced benefits and created prior service credits to be amortized over average future service of affected participants. The amortization of the prior service credit will reduce benefit costs over the next few years until the various credit bases are fully recognized. Each participating employer reserves the right to terminate its participation in the Hawaiian Electric Benefits Plan at any time.

Balance sheet recognition of the funded status of retirement plans. Employers must recognize on their balance sheets the funded status of defined benefit pension and other postretirement benefit plans with an offset to AOCI in shareholders' equity (using the projected benefit obligation (PBO) and accumulated postretirement benefit obligation (APBO), to calculate the funded status).

The PUC allowed the Utilities to adopt pension and OPEB tracking mechanisms in previous rate cases. The amount of the net periodic pension cost (NPPC) and net periodic benefits costs (NPBC) to be recovered in rates is established by the PUC in each rate case. Under the Utilities' tracking mechanisms, any actual costs determined in accordance with GAAP that are over/under amounts allowed in rates are charged/credited to a regulatory asset/liability. The regulatory asset/liability for each utility will then be amortized over 5 years beginning with the respective utility's next rate case. Accordingly, all retirement benefit expenses (except for executive life and nonqualified pension plan expenses, which amounted to \$0.9 million and \$1.0 million in 2016 and 2015, respectively) determined in accordance with GAAP will be recovered.

Under the tracking mechanisms, amounts that would otherwise be recorded in AOCI (excluding amounts for executive life and nonqualified pension plans), which amounts include the prepaid pension asset, net of taxes, as well as other pension and OPEB charges, are allowed to be reclassified as a regulatory asset, as those costs will be recovered in rates through the NPPC and NPBC in the future. The Utilities have reclassified to a regulatory asset/(liability) charges for retirement benefits that would otherwise be recorded in AOCI (amounting to the elimination of a potential charge to AOCI of \$47 million pretax and \$(41) million pretax for 2016 and 2015, respectively).

Under the pension tracking mechanism, the Utilities' are required to make contributions to the pension trust in the amount of the actuarially calculated NPPC, except when limited by the ERISA minimum contribution requirements or the maximum contribution limitations on deductible contributions imposed by the Internal Revenue Code.

The OPEB tracking mechanisms generally require the Utilities to make contributions to the OPEB trust in the amount of the actuarially calculated NPBC, except when limited by material, adverse consequences imposed by federal regulations.

Retirement benefits expense for the Utilities for 2016, 2015 and 2014 was \$31 million, \$30 million and \$32 million, respectively.

Defined benefit pension and other postretirement benefit plans information. The changes in the obligations and assets of the Company's and Utilities' retirement benefit plans and the changes in AOCI (gross) for 2016 and 2015 and the funded status of these plans and amounts related to these plans reflected in the Company's and Utilities' consolidated balance sheet as of December 31, 2016 and 2015 were as follows:

(in thousands)	2016		2015	
	Pension benefits	Other benefits	Pension benefits	Other benefits
HEI consolidated				
Benefit obligation, January 1	\$ 1,798,030	\$ 221,540	\$ 1,847,228	\$ 219,209
Service cost	60,555	3,331	66,260	3,927
Interest cost	81,549	9,670	76,960	9,011
Actuarial losses (gains)	67,741	7,831	(124,239)	(2,911)
Participants contributions	—	1,405	—	1,274
Benefits paid and expenses	(72,381)	(9,942)	(68,179)	(8,970)
Benefit obligation, December 31	1,935,494	233,835	1,798,030	221,540
Fair value of plan assets, January 1	1,271,474	170,687	1,266,060	180,332
Actual (loss) return on plan assets	103,836	11,352	(14,422)	(2,866)
Employer contributions	65,463	42	86,802	917
Participants contributions	—	1,405	—	1,274
Benefits paid and expenses	(71,072)	(9,235)	(66,966)	(8,970)
Fair value of plan assets, December 31	1,369,701	174,251	1,271,474	170,687
Accrued benefit asset (liability), December 31	\$ (565,793)	\$ (59,584)	\$ (526,556)	\$ (50,853)
Other assets	\$ 13,477	\$ —	\$ 12,509	\$ —
Defined benefit pension and other postretirement benefit plans liability	(579,270)	(59,584)	(539,065)	(50,853)
Accrued benefit asset (liability), December 31	\$ (565,793)	\$ (59,584)	\$ (526,556)	\$ (50,853)
AOCI debit/(credit), January 1 (excluding impact of PUC D&Os)	\$ 581,763	\$ 32,550	\$ 639,831	\$ 20,933
Recognized during year – prior service credit (cost)	57	1,793	(4)	1,793
Recognized during year – net actuarial losses	(24,832)	(804)	(36,800)	(1,796)
Occurring during year – net actuarial losses (gains)	62,463	8,751	(21,264)	11,620
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	619,451	42,290	581,763	32,550
Cumulative impact of PUC D&Os	(576,933)	(43,974)	(538,784)	(35,333)
AOCI debit/(credit), December 31	\$ 42,518	\$ (1,684)	\$ 42,979	\$ (2,783)
Net actuarial loss	\$ 619,582	\$ 52,792	\$ 581,951	\$ 44,845
Prior service gain	(131)	(10,502)	(188)	(12,295)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	619,451	42,290	581,763	32,550
Cumulative impact of PUC D&Os	(576,933)	(43,974)	(538,784)	(35,333)
AOCI debit/(credit), December 31	42,518	(1,684)	42,979	(2,783)
Income taxes (benefits)	(16,746)	656	(16,944)	1,084
AOCI debit/(credit), net of taxes (benefits), December 31	\$ 25,772	\$ (1,028)	\$ 26,035	\$ (1,699)

As of December 31, 2016 and 2015, the other postretirement benefit plans shown in the table above had ABOs in excess of plan assets.

(in thousands)	2016		2015	
	Pension benefits	Other benefits	Pension benefits	Other benefits
Hawaiian Electric consolidated				
Benefit obligation, January 1	\$ 1,649,690	\$ 213,990	\$ 1,690,777	\$ 211,760
Service cost	58,796	3,284	64,262	3,870
Interest cost	74,808	9,337	70,529	8,700
Actuarial losses (gains)	63,121	7,545	(114,286)	(2,860)
Participants contributions	—	1,389	—	1,260
Benefits paid and expenses	(66,789)	(9,822)	(63,037)	(8,858)
Transfers	—	—	1,445	118
Benefit obligation, December 31	1,779,626	225,723	1,649,690	213,990
Fair value of plan assets, January 1	1,141,833	167,930	1,129,005	177,256
Actual (loss) return on plan assets	93,441	11,168	(10,646)	(2,712)
Employer contributions	64,236	11	85,139	864
Participants contributions	—	1,389	—	1,260
Benefits paid and expenses	(66,326)	(9,115)	(62,584)	(8,858)
Other	—	—	919	120
Fair value of plan assets, December 31	1,233,184	171,383	1,141,833	167,930
Accrued benefit asset (liability), December 31	\$ (546,442)	\$ (54,340)	\$ (507,857)	\$ (46,060)
Other liabilities (short-term)	(460)	(596)	(425)	(518)
Defined benefit pension and other postretirement benefit plans liability	(545,982)	(53,744)	(507,432)	(45,542)
Accrued benefit asset (liability), December 31	\$ (546,442)	\$ (54,340)	\$ (507,857)	\$ (46,060)
AOCI debit/(credit), January 1 (excluding impact of PUC D&Os)	\$ 541,118	\$ 31,485	\$ 595,103	\$ 20,090
Recognized during year – prior service credit (cost)	(13)	1,803	(40)	1,804
Recognized during year – net actuarial losses	(22,693)	(793)	(33,371)	(1,754)
Occurring during year – net actuarial losses (gains)	61,313	8,472	(20,574)	11,345
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	579,725	40,967	541,118	31,485
Cumulative impact of PUC D&Os	(576,933)	(43,974)	(538,784)	(35,333)
AOCI debit/(credit), December 31	\$ 2,792	\$ (3,007)	\$ 2,334	\$ (3,848)
Net actuarial loss	\$ 579,691	\$ 51,463	\$ 541,071	\$ 43,784
Prior service cost (gain)	34	(10,496)	47	(12,299)
AOCI debit/(credit) before cumulative impact of PUC D&Os, December 31	579,725	40,967	541,118	31,485
Cumulative impact of PUC D&Os	(576,933)	(43,974)	(538,784)	(35,333)
AOCI debit/(credit), December 31	2,792	(3,007)	2,334	(3,848)
Income taxes (benefits)	(1,087)	1,170	(908)	1,497
AOCI debit/(credit), net of taxes (benefits), December 31	\$ 1,705	\$ (1,837)	\$ 1,426	\$ (2,351)

As of December 31, 2016 and 2015, the other postretirement benefit plan shown in the table above had ABOs in excess of plan assets.

The Company does not expect any plan assets to be returned to the Company during the calendar year 2017.

The dates used to determine retirement benefit measurements for the defined benefit plans were December 31 of 2016, 2015 and 2014.

The Pension Protection Act of 2006 (Pension Protection Act) signed into law on August 17, 2006, amended the Employee Retirement Income Security Act of 1974 (ERISA). Among other things, the Pension Protection Act changed the funding rules for qualified pension plans. On August 8, 2014, President Obama signed the latest change to the Pension Protection Act, the Highway and Transportation Funding Act of 2014 (HATFA). HATFA resulted in an increase of the Adjusted Funding Target

Attainment Percentage (AFTAP) for benefit distribution purposes and eased funding requirements effective with the 2014 plan year (a plan sponsor could have elected to apply the provisions of HATFA to 2013, but the Company did not so elect). The funding relief was extended by the Bipartisan Budget Act of 2015. As a result, the minimum funding requirements for the HEI Retirement Plan under ERISA are less than the net periodic cost for 2015 and 2016. Nevertheless, to satisfy the requirements of the Utilities pension and OPEB tracking mechanisms, the Utilities contributed the net periodic cost in 2015 and 2016 and expect to contribute the net periodic cost in 2017.

The Pension Protection Act provides that if a pension plan's funded status falls below certain levels, more conservative assumptions must be used to value obligations under the pension plan. The HEI Retirement Plan met the threshold requirements in each of 2014, 2015 and 2016 so that the more conservative assumptions did not apply for either 2015 or 2016 and will not apply for 2017. Other factors could cause changes to the required contribution levels.

For purposes of calculating NPPC and NPBC, the Company and the Utilities have determined the market-related value of retirement benefit plan assets by calculating the difference between the expected return and the actual return on the fair value of the plan assets, then amortizing the difference over future years – 0% in the first year and 25% in each of years two through five – and finally adding or subtracting the unamortized differences for the past four years from fair value. The method includes a 15% range restriction around the fair value of such assets (i.e., 85% to 115% of fair value).

A primary goal of the plans is to achieve long-term asset growth sufficient to pay future benefit obligations at a reasonable level of risk. The investment policy target for defined benefit pension and OPEB plans reflects the philosophy that long-term growth can best be achieved by prudent investments in equity securities while balancing overall fund volatility by an appropriate allocation to fixed income securities. In order to reduce the level of portfolio risk and volatility in returns, efforts have been made to diversify the plans' investments by asset class, geographic region, market capitalization and investment style.

The asset allocation of defined benefit retirement plans to equity and fixed income securities managers and related investment policy targets and ranges were as follows:

December 31	Pension benefits ¹				Other benefits ²			
	2016	2015	Investment policy		2016	2015	Investment policy	
			Target	Range			Target	Range
Assets held by category								
Equity securities managers	71%	70%	70%	65-75	70%	70%	70%	65-75
Fixed income securities managers	29	30	30	25-35	30	30	30	25-35
	100%	100%	100%		100%	100%	100%	

¹ Asset allocation is applicable to only HEI and the Utilities. In 2014, ASB revised its defined benefit pension plan asset allocation to a liability driven investment strategy and, as of December 31, 2016 and 2015, nearly all of its pension assets were invested in fixed income securities.

² Asset allocation is applicable to only HEI and the Utilities. ASB does not fund its other benefits.

Assets held in various trusts for the retirement benefit plans are measured at fair value on a recurring basis and were as follows:

(in millions)	Pension benefits				Other benefits			
	December 31	Fair value measurements using			December 31	Fair value measurements using		
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)		Level 1	Level 2	Level 3
2016								
Equity securities	\$ 692	\$ 692	\$ —	\$ —	\$ 94	\$ 94	\$ —	\$ —
Equity index funds	129	129	—	—	17	17	—	—
Equity investments at net asset value (NAV)	56	—	—	—	9	—	—	—
Total equity investments	877	821	—	—	120	111	—	—
Fixed income securities and public mutual funds	276	84	192	—	44	42	2	—
Fixed income investments at NAV	180	—	—	—	4	—	—	—
Total fixed income investments	456	84	192	—	48	42	2	—
Cash equivalents at NAV	33	—	—	—	6	—	—	—
Total	\$ 1,366	\$ 905	\$ 192	\$ —	\$ 174	\$ 153	\$ 2	\$ —
Cash, receivables and payables, net	4				—			
Fair value of plan assets	\$ 1,370				\$ 174			
2015								
Equity securities	\$ 640	\$ 640	\$ —	\$ —	\$ 92	\$ 92	\$ —	\$ —
Equity index funds	119	119	—	—	17	17	—	—
Equity investments at NAV	46	—	—	—	9	—	—	—
Total equity investments	805	759	—	—	118	109	—	—
Fixed income securities and public mutual funds	260	85	175	—	44	42	2	—
Fixed income investments at NAV	165	—	—	—	4	—	—	—
Total fixed income investments	425	85	175	—	48	42	2	—
Cash equivalents at NAV	38	—	—	—	5	—	—	—
Total	1,268	\$ 844	\$ 175	\$ —	171	\$ 151	\$ 2	\$ —
Cash, receivables and payables, net	3				—			
Fair value of plan assets	\$ 1,271				\$ 171			

Measured at net asset value	Pension benefits			Other benefits		
	December 31	Redemption frequency	Redemption notice period	December 31	Redemption frequency	Redemption notice period
(in millions)						
2016						
Non U.S. equity funds (a)	56	Daily - Quarterly	0 - 30 days	9	Monthly - Quarterly	10-30 days
Fixed income investments (b)	180	Monthly	10 days	4	Monthly	10 days
Cash equivalents (c)	33	Daily	0-1 day	6	Daily	0-1 day
	\$ 269			\$ 19		
2015						
Non U.S. equity funds (a)	46	Daily - Quarterly	0 - 30 days	9	Monthly - Quarterly	10-30 days
Fixed income investments (b)	165	Monthly	10 days	4	Monthly	10 days
Cash equivalents (c)	38	Daily	0-1 day	5	Daily	0-1 day
	\$ 249			\$ 18		

None of the investments presented in the tables above have unfunded commitments.

- (a) Represents investments in funds that primarily invest in non-U.S., emerging markets equities. Redemption frequency for pension benefits assets as of December 31, 2016 and 2015 were: daily, 31% and 24%; monthly, 31% and 29%; and quarterly, 38% and 47%, respectively. Redemption frequency for other benefits assets as of December 31, 2016 and 2015 were: monthly, 57% and 54%; and quarterly, 42% and 46%, respectively.
- (b) Represents investments in fixed income securities invested in a US-dollar denominated fund that seeks to exceed the Barclays Capital Long Corporate A or better Index through investments in US-dollar denominated fixed income securities and commingled vehicles.
- (c) Represents investments in cash equivalent funds. This class includes funds that invest primarily in securities issued or guaranteed by the U.S. government or its agencies or instrumentalities. For pension benefits, the fund may also invest in fixed income securities of investment grade issuers; the fund has an average rating of AA1.

The fair values of the investments shown in the table above represent the Company's best estimates of the amounts that would be received upon sale of those assets in an orderly transaction between market participants at that date. Those fair value measurements maximize the use of observable inputs. However, in situations where there is little, if any, market activity for the asset at the measurement date, the fair value measurement reflects the Company's judgments about the assumptions that market participants would use in pricing the asset. Those judgments are developed by the Company based on the best information available in the circumstances.

The fair value of investments measured at net asset value presented in the tables above are intended to permit reconciliation to the fair value of plan assets amounts.

The Company used the following valuation methodologies for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2016 and 2015.

Equity securities, equity index funds, U.S. Treasury fixed income securities and public mutual funds (Level 1). Equity securities, equity index funds, U.S. Treasury fixed income securities and public mutual funds are valued at the closing price reported on the active market on which the individual securities or funds are traded.

Fixed income securities (Level 2). Fixed income securities, other than those issued by the U.S. Treasury, are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

The following weighted-average assumptions were used in the accounting for the plans:

December 31	Pension benefits			Other benefits		
	2016	2015	2014	2016	2015	2014
Benefit obligation						
Discount rate	4.26%	4.60%	4.22%	4.22%	4.57%	4.17%
Rate of compensation increase	3.5	3.5	3.5	NA	NA	NA
Net periodic pension/benefit cost (years ended)						
Discount rate	4.60	4.22	5.09	4.57	4.17	5.03
Expected return on plan assets ¹	7.75	7.75	7.75	7.75	7.75	7.75
Rate of compensation increase	3.5	3.5	3.5	NA	NA	NA

NA Not applicable

¹ For 2016 and 2015, HEI's and utilities' plan assets only. For 2016 and 2015, ASB's expected return on plan assets was 4.80% and 4.22%, respectively.

The Company and the Utilities based their selection of an assumed discount rate for 2017 NPPC, NPBC and December 31, 2016 disclosure on a cash flow matching analysis that utilized bond information provided by Bloomberg for all non-callable, high quality bonds (i.e., rated AA- or better) as of December 31, 2016. In selecting the expected rate of return on plan assets for 2017 NPPC and NPBC: a) HEI and the Utilities considered economic forecasts for the types of investments held by the plans (primarily equity and fixed income investments), the Plans' asset allocations, industry and corporate surveys and the past performance of the plans' assets in selecting 7.50% and b) ASB considered its liability driven investment strategy in selecting 4.46%, which is consistent with the assumed discount rate as of December 31, 2016 with a 20 basis point active manager premium. For 2016, the Company's retirement benefit plans' assets had a net return of 8.0%.

The Company and the Utilities adopted mortality tables published in October 2014 by the Society of Actuaries as its mortality assumptions as of December 31, 2014. The use of the RP-2014 Tables and the Mortality Improvement Scale MP-2014 had a significant effect on the Company's and the Utilities' benefit obligations and increased their costs and required contributions for 2015. The Company and the Utilities adopted revised mortality tables for their mortality assumptions as of December 31, 2016 and 2015 (based on information published by the Society of Actuaries in October 2016 and 2015,

respectively), the use of which lowered obligations of the Company and Utilities as of December 31, 2016 and 2015 and will lower their costs and required contributions in 2017.

As of December 31, 2016, the assumed health care trend rates for 2017 and future years were as follows: medical, 7.75%, grading down to 5% for 2028 and thereafter; dental, 5%; and vision, 4%. As of December 31, 2015, the assumed health care trend rates for 2016 and future years were as follows: medical, 8%, grading down to 5% for 2028 and thereafter; dental, 5%; and vision, 4%.

The components of NPPC and NPBC were as follows:

(in thousands)	Pension benefits			Other benefits		
	2016	2015	2014	2016	2015	2014
HEI consolidated						
Service cost	\$ 60,555	\$ 66,260	\$ 49,264	\$ 3,331	\$ 3,927	\$ 3,490
Interest cost	81,549	76,960	72,202	9,670	9,011	8,550
Expected return on plan assets	(98,559)	(88,554)	(81,355)	(12,273)	(11,664)	(10,902)
Amortization of net prior service (gain) cost	(57)	4	88	(1,793)	(1,793)	(1,793)
Amortization of net actuarial losses (gains)	24,832	36,800	20,304	804	1,796	(11)
Net periodic pension/benefit cost	68,320	91,470	60,503	(261)	1,277	(666)
Impact of PUC D&Os	(18,117)	(40,011)	(13,324)	1,343	(240)	1,976
Net periodic pension/benefit cost (adjusted for impact of PUC D&Os)	50,203	51,459	47,179	1,082	1,037	1,310
Hawaiian Electric consolidated						
Service cost	\$ 58,796	\$ 64,262	\$ 47,597	\$ 3,284	\$ 3,870	\$ 3,392
Interest cost	74,808	70,529	65,979	9,337	8,700	8,234
Expected return on plan assets	(91,633)	(82,541)	(72,661)	(12,096)	(11,495)	(10,739)
Amortization of net prior service (gain) cost	13	40	62	(1,803)	(1,804)	(1,804)
Amortization of net actuarial losses	22,693	33,371	18,459	793	1,754	—
Net periodic pension/benefit cost	64,677	85,661	59,436	(485)	1,025	(917)
Impact of PUC D&Os	(18,117)	(40,011)	(13,324)	1,343	(240)	1,976
Net periodic pension/benefit cost (adjusted for impact of PUC D&Os)	\$ 46,560	\$ 45,650	\$ 46,112	\$ 858	\$ 785	\$ 1,059

The estimated prior service credit and net actuarial loss for defined benefit plans that will be amortized from AOCI or regulatory assets into NPPC and NPBC during 2017 is as follows:

(in millions)	HEI consolidated		Hawaiian Electric consolidated	
	Pension benefits	Other benefits	Pension benefits	Other benefits
Estimated prior service credit	\$ (0.1)	\$ (1.8)	\$ —	\$ (1.8)
Net actuarial loss	26.1	1.5	24.0	1.4

The Company recorded pension expense of \$33 million, \$35 million and \$32 million and OPEB expense of \$1.0 million, \$0.9 million and \$1.2 million in 2016, 2015 and 2014, respectively, and charged the remaining amounts primarily to electric utility plant. The Utilities recorded pension expense of \$30 million, \$29 million and \$31 million and OPEB expense of \$0.7 million, \$0.7 million and \$1.0 million in 2016, 2015 and 2014, respectively, and charged the remaining amounts primarily to electric utility plant.

The health care cost trend rate assumptions can have a significant effect on the amounts reported for other benefits. As of December 31, 2016, for the Company, a one-percentage-point increase in the assumed health care cost trend rates would have increased the total service and interest cost by \$0.1 million and the accumulated postretirement benefit obligation (APBO) by \$3.5 million, and a one-percentage-point decrease would have reduced the total service and interest cost by \$0.2 million and the APBO by \$4.2 million. As of December 31, 2016, for the Utilities, a one-percentage-point increase in the assumed health care cost trend rates would have increased the total service and interest cost by \$0.1 million and the APBO by \$3.4 million, and a one-percentage-point decrease would have reduced the total service and interest cost by \$0.2 million and the APBO by \$4.1 million.

Additional information on the defined benefit pension plans' accumulated benefit obligations (ABOs), which do not consider projected pay increases (unlike the PBOs shown in the table above), PBOs and assets were as follows:

December 31	HEI consolidated		Hawaiian Electric consolidated	
	2016	2015	2016	2015
(in billions)				
Defined benefit plans - ABOs	\$ 1.7	\$ 1.6	\$ 1.5	\$ 1.4
Defined benefit plans with ABO in excess of plan assets				
ABOs	1.6	1.5	1.5	1.4
Plan assets	1.3	1.2	1.2	1.1
Defined benefit plans with PBOs in excess of plan assets				
PBOs	1.8	1.7	1.8	1.6
Plan assets	1.3	1.2	1.2	1.1

HEI consolidated. The Company estimates that the cash funding for the qualified defined benefit pension plans in 2017 will be \$67 million, which should fully satisfy the minimum required contributions to those plans, including requirements of the Utilities' pension tracking mechanisms and the Plan's funding policy. The Company's current estimate of contributions to its other postretirement benefit plans in 2017 is \$0.2 million.

As of December 31, 2016, the benefits expected to be paid under all retirement benefit plans in 2017, 2018, 2019, 2020, 2021 and 2022 through 2026 amount to \$85 million, \$89 million, \$92 million, \$97 million, \$101 million and \$570 million, respectively.

Hawaiian Electric consolidated. The Utilities estimate that the cash funding for the qualified defined benefit pension plan in 2017 will be \$66 million, which should fully satisfy the minimum required contributions to that Plan, including requirements of the pension tracking mechanisms and the Plan's funding policy. The Utilities' current estimate of contributions to its other postretirement benefit plans in 2017 is \$0.2 million.

As of December 31, 2016, the benefits expected to be paid under all retirement benefit plans in 2017, 2018, 2019, 2020, 2021 and 2022 through 2026 amounted to \$79 million, \$81 million, \$84 million, \$89 million, \$92 million and \$522 million, respectively.

Defined contribution plans information. The ASB 401(k) Plan is a defined contribution plan, which includes a discretionary employer profit sharing contribution by ASB (AmeriShare) and a matching contribution by ASB on the first 4% of employee deferrals (AmeriMatch).

Changes to retirement benefits for HEI and utility employees commencing employment after April 30, 2011 include a reduction of benefits provided through the defined benefit plan and the addition of a 50% match by the applicable employer on the first 6% of employee deferrals through the defined contribution plan (under the Hawaiian Electric Industries Retirement Savings Plan).

For 2016, 2015 and 2014, the Company's expenses for its defined contribution pension plans under the HEIRSP and the ASB 401(k) Plan were \$5 million, \$6 million and \$5 million, respectively, and cash contributions were \$5 million, \$5 million and \$5 million, respectively. The Utilities' expenses and cash contributions for its defined contribution pension plan under the HEIRSP Plan for 2016, 2015 and 2014 were \$1.5 million, \$1.5 million and \$0.9 million, respectively.

11 · Share-based compensation

Under the 2010 Equity and Incentive Plan, as amended, HEI can issue shares of common stock as incentive compensation to selected employees in the form of stock options, stock appreciation rights (SARs), restricted shares, restricted stock units, performance shares and other share-based and cash-based awards. The 2010 Equity and Incentive Plan (original EIP) was amended and restated effective March 1, 2014 (EIP) and an additional 1.5 million shares was added to the shares available for issuance under these programs.

As of December 31, 2016, approximately 3.4 million shares remained available for future issuance under the terms of the EIP, assuming recycling of shares withheld to satisfy minimum statutory tax liabilities relating to EIP awards, including an estimated 0.3 million shares that could be issued upon the vesting of outstanding restricted stock units and the achievement of performance goals for awards outstanding under long-term incentive plans.

As of May 11, 2010 (when the 2010 Equity and Incentive Plan became effective), no new awards could be granted under the 1987 Stock Option and Incentive Plan, as amended (SOIP). Since by March 2015 all of the shares of common stock reserved for the outstanding SOIP grants and awards were issued or such grants and awards had expired, the remaining shares registered under the SOIP were deregistered and delisted.

For the SARs that were outstanding under the SOIP, the exercise price of each SAR generally equaled the fair market value of HEI's stock on or near the date of grant. SARs and related dividend equivalents issued in the form of stock awards generally became exercisable in installments of 25% each year for four years, and expired if not exercised ten years from the date of the grant. SARs compensation expense was recognized in accordance with the fair value-based measurement method of accounting. The estimated fair value of each SAR grant was calculated on the date of grant using a Binomial Option Pricing Model. There were no outstanding SARs as of December 31, 2016.

The restricted shares that had been issued under the 2010 Equity and Incentive Plan became unrestricted in four equal annual increments on the anniversaries of the grant date and were forfeited to the extent they had not become unrestricted for terminations of employment during the vesting period, except accelerated vesting was provided for terminations by reason of death, disability and termination without cause. Restricted shares compensation expense had been recognized in accordance with the fair-value-based measurement method of accounting. Dividends on restricted shares were paid quarterly in cash. There were no outstanding restricted shares as of December 31, 2016.

Restricted stock units awarded under the 2010 Equity and Incentive Plan in 2016, 2015, 2014, and 2013 will vest and be issued in unrestricted stock in four equal annual increments on the anniversaries of the grant date and are forfeited to the extent they have not become vested for terminations of employment during the vesting period, except that pro-rata vesting is provided for terminations due to death, disability and retirement. Restricted stock units expense has been recognized in accordance with the fair-value-based measurement method of accounting. Dividend equivalent rights are accrued quarterly and are paid at the end of the restriction period when the associated restricted stock units vest.

Stock performance awards granted under the 2014-2016 long-term incentive plan (LTIP) entitle the grantee to shares of common stock with dividend equivalent rights once service conditions and performance conditions are satisfied at the end of the three-year performance period. LTIP awards are forfeited for terminations of employment during the performance period, except that pro-rata participation is provided for terminations due to death, disability and retirement based upon completed months of service after a minimum of 12 months of service in the performance period. Compensation expense for the stock performance awards portion of the LTIP has been recognized in accordance with the fair-value-based measurement method of accounting for performance shares.

Under the 2011 Nonemployee Director Stock Plan (2011 Director Plan), HEI can issue shares of common stock as compensation to nonemployee directors of HEI, Hawaiian Electric and ASB. As of December 31, 2016, there were 121,198 shares remaining available for future issuance under the 2011 Director Plan.

Share-based compensation expense and the related income tax benefit were as follows:

(in millions)	2016	2015	2014
HEI consolidated			
Share-based compensation expense ¹	\$ 4.8	\$ 6.5	\$ 9.3
Income tax benefit	1.6	2.3	3.4
Hawaiian Electric consolidated			
Share-based compensation expense ¹	1.4	1.9	3.1
Income tax benefit	0.5	0.7	1.2

¹ For 2016, the Company has not capitalized any share-based compensation. \$0.15 million and \$0.16 million of this share-based compensation expense was capitalized in 2015 and 2014, respectively.

Stock awards. Nonemployee director awards totaling \$0.2 million were paid in cash (in lieu of common stock) in July 2016. HEI granted HEI common stock to nonemployee directors of HEI, Hawaiian Electric and ASB under the 2011 Director Plan as follows:

(dollars in millions)	2016	2015	2014
Shares granted	19,846	28,246	33,170
Fair value	\$ 0.6	\$ 0.8	\$ 0.8
Income tax benefit	0.2	0.3	0.3

The number of shares issued to each nonemployee director of HEI, Hawaiian Electric and ASB is determined based on the closing price of HEI Common Stock on the grant date.

Stock appreciation rights. Information about HEI's SARs is summarized as follows:

	2015		2014	
	Shares	(1)	Shares	(1)
Outstanding, January 1	80,000	\$ 26.18	164,000	\$ 26.12
Granted	—	—	—	—
Exercised	(80,000)	26.18	(22,000)	26.18
Forfeited	—	—	(62,000)	26.02
Expired	—	—	—	—
Outstanding, December 31	—	\$ —	80,000	\$ 26.18
Exercisable, December 31	—	\$ —	80,000	\$ 26.18

(1) Weighted-average exercise price

SARs activity and statistics were as follows:

(in thousands)	2015	2014
Intrinsic value of shares exercised ¹	\$ 502	\$ 29
Tax benefit realized for the deduction of exercises	82	11

¹ Intrinsic value is the amount by which the fair market value of the underlying stock and the related dividend equivalent rights exceeds the exercise price of the right.

Restricted shares and restricted stock awards. Information about HEI's grants of restricted shares and restricted stock awards was as follows:

	2014	
	Shares	(1)
Outstanding, January 1	4,503	\$ 22.21
Granted	—	—
Vested	(4,503)	22.21
Forfeited	—	—
Outstanding, December 31	—	\$ —

(1) Weighted-average grant-date fair value per share based on the closing or average price of HEI common stock on the date of grant.

For 2014, total restricted stock vested had a grant-date fair value of \$0.1 million and the tax benefits realized for the tax deductions related to restricted stock awards was nil.

Restricted stock units. Information about HEI's grants of restricted stock units was as follows:

	2016		2015		2014	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	210,634	\$ 28.82	261,235	\$ 25.77	288,151	\$ 25.17
Granted	114,431	29.70	85,772	33.69	117,786	25.17
Vested	(85,003)	27.84	(102,173)	25.67	(144,702)	24.09
Forfeited	(19,379)	29.82	(34,200)	27.09	—	—
Outstanding, December 31	220,683	\$ 29.57	210,634	\$ 28.82	261,235	\$ 25.77
Total weighted-average grant-date fair value of shares granted (\$ millions)	\$ 3.4		\$ 2.9		\$ 3.0	

(1) Weighted-average grant-date fair value per share based on the average price of HEI common stock on the date of grant.

For 2016, 2015 and 2014, total restricted stock units and related dividends that vested had a fair value of \$2.8 million, \$3.7 million and \$4.1 million, respectively, and the related tax benefits were \$0.9 million, \$1.1 million and \$1.2 million, respectively.

As of December 31, 2016, there was \$4.2 million of total unrecognized compensation cost related to the nonvested restricted stock units. The cost is expected to be recognized over a weighted-average period of 2.4 years.

Long-term incentive plan payable in stock. The 2014-2016 LTIP provides for performance awards under the original EIP of shares of HEI common stock based on the satisfaction of performance goals considered to be a market condition and service conditions. The number of shares of HEI common stock that may be awarded is fixed on the date the grants are made subject to the achievement of specified performance levels. The potential payout varies from 0% to 200% of the number of target shares depending on achievement of the goals. The LTIP performance goals for the LTIP period includes awards with a market goal based on total return to shareholders (TRS) of HEI stock as a percentile to the Edison Electric Institute Index over the three-year period. In addition, the 2014-2016 LTIP has performance goals related to levels of HEI weighted composite return on average common equity (ROACE), Hawaiian Electric consolidated ROACE and ASB net income - all based on the three-year averages, and ASB return on assets relative to performance peers. The 2015-2017 and the 2016-2018 LTIP provide for performance awards payable in cash and, thus, are not included in the tables below.

LTIP linked to TRS. Information about HEI's LTIP grants linked to TRS was as follows:

	2016		2015		2014	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	162,500	\$ 27.66	257,956	\$ 28.45	232,127	\$ 32.88
Granted	—	—	—	—	97,524	22.95
Vested (lapsed because goal not met)	(78,553)	32.69	(75,915)	30.71	(70,189)	35.46
Forfeited	(841)	22.95	(19,541)	26.25	(1,506)	28.32
Outstanding, December 31	83,106	\$ 22.95	162,500	\$ 27.66	257,956	\$ 28.45
Total weighted-average grant-date fair value of shares granted (\$ millions)	\$ —		\$ —		\$ 2.2	

(1) Weighted-average grant-date fair value per share determined using a Monte Carlo simulation model.

The grant date fair values of the shares were determined using a Monte Carlo simulation model utilizing actual information for the common shares of HEI and its peers for the period from the beginning of the performance period to the grant date and estimated future stock volatility and dividends of HEI and its peers over the remaining three-year performance period. The expected stock volatility assumptions for HEI and its peer group were based on the three-year historic stock volatility, and the annual dividend yield assumptions were based on dividend yields calculated on the basis of daily stock prices over the same three-year historical period.

The following table summarizes the assumptions used to determine the fair value of the LTIP awards linked to TRS and the resulting fair value of LTIP awards granted:

	2014
Risk-free interest rate	0.66%
Expected life in years	3
Expected volatility	17.8%
Range of expected volatility for Peer Group	12.4% to 23.3%
Grant date fair value (per share)	\$ 22.95

For 2016, 2015 and 2014, all of the shares vested (which were granted at target level based on the satisfaction of TRS performance) for the 2013-2015 LTIP, 2012-2014 LTIP and 2011-2013 LTIP were treated as lapsed because the TRS performance goal was not met.

As of December 31, 2016, there was no unrecognized compensation cost related to the nonvested performance awards payable in shares linked to TRS.

LTIP awards linked to other performance conditions. Information about HEI's LTIP awards payable in shares linked to other performance conditions was as follows:

	2016		2015		2014	
	Shares	(1)	Shares	(1)	Shares	(1)
Outstanding, January 1	222,647	\$ 26.02	364,731	\$ 26.01	296,843	\$ 26.14
Granted	—	—	—	—	129,603	25.18
Vested and settled	(109,097)	26.89	(121,249)	26.05	(65,089)	24.95
Increase above target (cancelled)	(1,989)	25.26	3,412	26.89	4,949	26.70
Forfeited	(1,745)	25.19	(24,247)	25.82	(1,575)	26.07
Outstanding, December 31	109,816	\$ 25.18	222,647	\$ 26.02	364,731	\$ 26.01
Total weighted-average grant-date fair value of shares granted (at target performance levels) (\$ millions)	\$ —		\$ —		\$ 3.3	

(1) Weighted-average grant-date fair value per share based on the average price of HEI common stock on the date of grant.

For 2016, 2015 and 2014, total vested LTIP awards linked to other performance conditions and related dividends had a fair value of \$3.6 million, \$4.7 million and \$1.9 million, respectively, and the related tax benefits were \$1.4 million, \$1.8 million and \$0.8 million, respectively.

As of December 31, 2016, there was no unrecognized compensation cost related to the nonvested shares linked to performance conditions other than TRS.

12 • Income taxes

The components of income taxes attributable to net income for common stock were as follows:

Years ended December 31 (in thousands)	HEI consolidated			Hawaiian Electric consolidated		
	2016	2015	2014	2016	2015	2014
Federal						
Current	\$ 59,873	\$ 44,343	\$ (8,959)	\$ 952	\$ —	\$ 1,108
Deferred	43,666	36,664	91,412	70,513	68,757	68,775
Deferred tax credits, net	268	318	—	268	318	—
	103,807	81,325	82,453	71,733	69,075	69,883
State						
Current	16,473	2,402	(5,793)	9,232	(1,048)	(9,436)
Deferred	3,452	4,768	12,813	3,873	6,869	14,172
Deferred tax credits, net	(37)	4,526	6,106	(37)	4,526	6,106
	19,888	11,696	13,126	13,068	10,347	10,842
Total	\$ 123,695	\$ 93,021	\$ 95,579	\$ 84,801	\$ 79,422	\$ 80,725

A reconciliation of the amount of income taxes computed at the federal statutory rate of 35% to the amount provided in the consolidated statements of income was as follows:

Years ended December 31 (in thousands)	HEI consolidated			Hawaiian Electric consolidated		
	2016	2015	2014	2016	2015	2014
Amount at the federal statutory income tax rate	\$ 130,844	\$ 89,176	\$ 92,959	\$ 80,190	\$ 75,996	\$ 77,126
Increase (decrease) resulting from:						
State income taxes, net of federal income tax benefit	13,915	8,097	9,073	8,494	6,726	7,047
Other, net	(21,064)	(4,252)	(6,453)	(3,883)	(3,300)	(3,448)
Total	\$ 123,695	\$ 93,021	\$ 95,579	\$ 84,801	\$ 79,422	\$ 80,725
Effective income tax rate	33.1%	36.5%	36.0%	37.0%	36.6%	36.6%

The Company's effective tax rate decreased in 2016 compared to 2015 and 2014 primarily due to the deductibility of previously capitalized merger costs. Additionally, current taxable income provided capacity for the domestic production activities deduction.

The tax effects of book and tax basis differences that give rise to deferred tax assets and liabilities were as follows:

December 31 (in thousands)	HEI consolidated		Hawaiian Electric consolidated	
	2016	2015	2016	2015
Deferred tax assets				
Net operating loss ¹	\$ —	\$ —	\$ 9,158	\$ 37,283
Allowance for bad debts	24,500	21,781	2,364	1,852
Other	47,201	43,089	18,720	18,386
Total deferred tax assets	71,701	64,870	30,242	57,521
Deferred tax liabilities				
Property, plant and equipment related	538,484	492,441	536,885	489,884
Repairs deduction	103,782	104,081	103,782	104,081
Regulatory assets, excluding amounts attributable to property, plant and equipment	35,107	34,261	35,107	34,261
Deferred RAM and RBA revenues	26,053	26,400	26,053	26,400
Retirement benefits	48,400	42,006	51,445	44,991
Other	48,681	46,558	10,629	12,710
Total deferred tax liabilities	800,507	745,747	763,901	712,327
Net deferred income tax liability	\$ 728,806	\$ 680,877	\$ 733,659	\$ 654,806

¹ The Hawaiian Electric deferred tax asset includes the tax effect of federal net operating loss carryforwards of \$9 million expiring in 2034 and federal general business credit carryforwards of \$3 million expiring in 2032 through 2036, net of unrecognized federal tax benefits of \$3 million due to uncertain tax positions.

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences are deductible. Based upon historical taxable income and projections for future taxable income, management believes it is more likely than not the Company and the Utilities will realize substantially all of the benefits of the deferred tax assets. As of December 31, 2016, the valuation allowance for deferred tax benefits is not significant. In 2016, the net deferred income tax liability continued to increase primarily as a result of accelerated tax deductions taken for bonus depreciation enacted in the Protecting Americans from Tax Hikes (PATH) Act of 2015.

The Utilities are included in the consolidated federal and Hawaii income tax returns of HEI and are subject to the provisions of HEI's tax sharing agreement, which determines each subsidiary's (or subgroup's) income tax return liabilities and refunds on a standalone basis as if it filed a separate return (or subgroup consolidated return). Consequently, although HEI consolidated does not anticipate any unutilized net operating loss (NOL) as of December 31, 2016, standalone Hawaiian Electric consolidated expects an unutilized NOL for federal tax purposes in accordance with the HEI tax sharing agreement. The Hawaiian Electric deferred tax asset associated with this NOL as of December 31, 2016 has decreased from December 31, 2015 as shown above.

The following is a reconciliation of the Company's liability for unrecognized tax benefits for 2016, 2015 and 2014.

(in millions)	HEI consolidated			Hawaiian Electric consolidated		
	2016	2015	2014	2016	2015	2014
Unrecognized tax benefits, January 1	\$ 3.6	\$ —	\$ 0.9	\$ 3.6	\$ —	0.5
Reductions based on tax positions taken during the year	(0.1)	—	—	(0.1)	—	—
Additions for tax positions of prior years	0.3	3.6	0.1	0.3	3.6	0.1
Settlements			(1.0)	—	—	(0.6)
Unrecognized tax benefits, December 31	\$ 3.8	\$ 3.6	\$ —	\$ 3.8	\$ 3.6	\$ —

HEI consolidated. The Company recognizes interest accrued related to unrecognized tax benefits in "Interest expense—other than on deposit liabilities and other bank borrowings" and penalties, if any, in operating expenses. In 2016, 2015 and 2014, the Company recognized approximately \$0.2 million, \$0.1 million and \$(1.7) million in interest (income) expense. The credit adjustments to interest expense in 2014 were primarily due to the resolution of tax issues with the Internal Revenue Service (IRS). The Company had \$0.3 million and \$0.1 million of interest accrued as of December 31, 2016 and 2015, respectively.

Hawaiian Electric consolidated. The Utilities recognize interest accrued related to unrecognized tax benefits in “Interest expense-other than on deposit liabilities and other bank borrowings” and penalties, if any, in operating expenses. In 2016, 2015 and 2014, the Utilities recognized approximately \$0.03 million, \$0.1 million and \$(0.7) million, respectively, in interest (income) expense. Additional interest expense related to the Utilities' unrecognized tax benefits was recognized at HEI Consolidated because of the Utilities NOL position. The credit adjustments to interest expense in 2014 were primarily due to the resolution of tax issues with the IRS. The Utilities had \$0.1 million and \$0.1 million of interest accrued as of December 31, 2016 and 2015, respectively.

As of December 31, 2016, the disclosures above present the Company's and the Utilities' accruals for potential tax liabilities. Based on information currently available, the Company and the Utilities believe these accruals have adequately provided for potential income tax issues with federal and state tax authorities, and that the ultimate resolution of tax issues for all open tax periods will not have a material adverse effect on its results of operations, financial condition or liquidity.

IRS examinations have been completed and settled through the tax year 2011 and the statute of limitations has tolled for tax year 2012, leaving subsequent years subject to IRS examination. The tax years 2011 and subsequent are still subject to examination by the Hawaii Department of Taxation.

Recent tax developments. On December 18, 2015, Congress passed, and President Obama signed into law, the “Protecting Americans from Tax Hikes (PATH) Act of 2015” and the “Consolidating Appropriations Act, 2016,” providing government funding and a number of significant tax changes.

The provision with the greatest impact on the Company is the extension of bonus depreciation. The PATH Act continues 50% bonus depreciation through 2017, phases down the percentage to 40% in 2018 and 30% in 2019 and then terminates bonus depreciation thereafter. Tax depreciation is expected to increase by approximately \$126 million in 2016 and result in increased accumulated deferred tax liabilities.

Additionally, the “Consolidating Appropriations Act, 2016” extended a variety of energy-related credits that were expired or were soon to expire. These credits include the production credit for wind facilities and the 30% investment credit for qualified solar energy property, with various phase-out dates through 2021.

13 • Cash flows

Years ended December 31	2016	2015	2014
(in millions)			
Supplemental disclosures of cash flow information			
HEI consolidated			
Interest paid to non-affiliates	\$ 84	\$ 83	\$ 84
Income taxes paid	55	75	47
Income taxes refunded	45	55	24
Hawaiian Electric consolidated			
Interest paid to non-affiliates	62	61	61
Income taxes paid	1	13	6
Income taxes refunded	20	12	8
Supplemental disclosures of noncash activities			
HEI consolidated			
Property, plant and equipment—change in unpaid invoices and accruals (investing)	14	5	43
Common stock dividends reinvested in HEI common stock (financing) ¹	17	—	—
Loans transferred from held for investment to held for sale (investing)	24	—	—
Real estate acquired in settlement of loans (investing)	1	1	3
Real estate transferred from property, plant and equipment to other assets held-for-sale (investing)	1	5	—
Obligations to fund low income housing investments, net (operating)	14	4	14
Hawaiian Electric consolidated			
Electric utility property, plant and equipment			
AFUDC-equity (operating)	8	7	7
Estimated fair value of noncash contributions in aid of construction (investing)	28	3	3
Change in unpaid invoices and accruals (investing)	14	5	40
Refinancing of long-term debt (financing)	—	47	—

¹ The amounts shown represents common stock dividends reinvested in HEI common stock under the HEI DRIP in noncash transactions.

14 • Regulatory restrictions on net assets

As of December 31, 2016, the Utilities could not transfer approximately \$729 million of net assets to HEI in the form of dividends, loans or advances without PUC approval.

ASB is required to notify the FRB and OCC prior to making any capital distribution (including dividends) to HEI (through ASB Hawaii). Generally, the FRB and OCC may disapprove or deny ASB's request to make a capital distribution if the proposed distribution will cause ASB to become undercapitalized, or the proposed distribution raises safety and soundness concerns, or the proposed distribution violates a prohibition contained in any statute, regulation or agreement between ASB and the OCC. As of December 31, 2016, ASB could transfer approximately \$152 million of net assets to HEI in the form of dividends and still maintain its "well-capitalized" position.

HEI management expects that the regulatory restrictions will not materially affect the operations of the Company nor HEI's ability to pay common stock dividends.

15 • Significant group concentrations of credit risk

Most of the Company's business activity is with customers located in the State of Hawaii.

The Utilities are regulated operating electric public utilities engaged in the generation, purchase, transmission, distribution and sale of electricity on the islands of Oahu, Hawaii, Maui, Lanai and Molokai in the State of Hawaii. The Utilities provide the only electric public utility service on the islands they serve. The Utilities grant credit to customers, all of whom reside or conduct business in the State of Hawaii.

Most of ASB's financial instruments are based in the State of Hawaii, except for the investment securities it owns. Substantially all real estate loans receivable are collateralized by real estate in Hawaii. ASB's policy is to require mortgage insurance on all real estate loans with a loan to appraisal ratio in excess of 80% at origination.

16 • Fair value measurements

Fair value estimates are estimates of the price that would be received to sell an asset, or paid upon the transfer of a liability, in an orderly transaction between market participants at the measurement date. The fair value estimates are generally determined based on assumptions that market participants would use in pricing the asset or liability and are based on market data obtained from independent sources. However, in certain cases, the Company and the Utilities use their own assumptions about market participant assumptions based on the best information available in the circumstances. These valuations are estimates at a specific point in time, based on relevant market information, information about the financial instrument and judgments regarding future expected loss experience, economic conditions, risk characteristics of various financial instruments and other factors. These estimates do not reflect any premium or discount that could result if the Company or the Utilities were to sell its entire holdings of a particular financial instrument at one time. Because no active trading market exists for a portion of the Company's and the Utilities' financial instruments, fair value estimates cannot be determined with precision. Changes in the underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the estimates. In addition, the tax ramifications related to the realization of the unrealized gains and losses could have a significant effect on fair value estimates but have not been considered in making such estimates.

The Company and the Utilities group their financial assets measured at fair value in three levels outlined as follows:

- Level 1: Inputs to the valuation methodology are quoted prices, unadjusted, for identical assets or liabilities in active markets. A quoted price in an active market provides the most reliable evidence of fair value and is used to measure fair value whenever available.
- Level 2: Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets; inputs to the valuation methodology include quoted prices for identical or similar assets or liabilities in markets that are not active; or inputs to the valuation methodology that are derived principally from or can be corroborated by observable market data by correlation or other means.
- Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Level 3 assets and liabilities include financial instruments whose value is determined using discounted cash flow methodologies, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

Classification in the hierarchy is based upon the lowest level input that is significant to the fair value measurement of the asset or liability. For instruments classified in Level 1 and 2 where inputs are primarily based upon observable market data, there is less judgment applied in arriving at the fair value. For instruments classified in Level 3, management judgment is more significant due to the lack of observable market data.

Fair value is also used on a nonrecurring basis to evaluate certain assets for impairment or for disclosure purposes. Examples of nonrecurring uses of fair value include mortgage servicing rights accounted for by the amortization method, loan impairments for certain loans and goodwill.

Fair value measurement and disclosure valuation methodology. The following are descriptions of the valuation methodologies used for assets and liabilities recorded at fair value and for estimating fair value for financial instruments not carried at fair value:

Short-term borrowings—other than bank. The carrying amount approximated fair value because of the short maturity of these instruments.

Investment securities. The fair value of ASB's investment securities is determined quarterly through pricing obtained from independent third-party pricing services or from brokers not affiliated with the trade. Non-binding broker quotes are infrequent and generally occur for new securities that are settled close to the month-end pricing date. The third-party pricing vendors ASB uses for pricing its securities are reputable firms that provide pricing services on a global basis and have processes in place to ensure quality and control. The third-party pricing services use a variety of methods to determine the fair value of securities that fall under Level 2 of the ASB's fair value measurement hierarchy. Among the considerations are quoted prices for similar securities in an active market, yield spreads for similar trades, adjustments for liquidity, size, collateral characteristics, historic and generic prepayment speeds, and other observable market factors.

To enhance the robustness of the pricing process, ASB will on a quarterly basis compare its standard third-party vendor's price with that of another third-party vendor. If the prices are within an acceptable tolerance range, the price of the standard

vendor will be accepted. If the variance is beyond the tolerance range, an evaluation will be conducted by ASB and a challenge to the price may be made. Fair value in such cases will be based on the value that best reflects the data and observable characteristics of the security. In all cases, the fair value used will have been independently determined by a third-party pricing vendor or non-affiliated broker and not by ASB.

The fair value of the mortgage revenue bond is estimated using a discounted cash flow model to calculate the present value of future principal and interest payments and, therefore is classified within Level 3 of the valuation hierarchy.

Loans held for sale. Loans carried at the lower of cost or market are valued using market observable pricing inputs, which are derived from third party loan sales and securitizations and, therefore, are classified within Level 2 of the valuation hierarchy.

Loans held for investment. Fair value of loans held for investment is derived using a discounted cash flow approach which includes an evaluation of the underlying loan characteristics. The valuation model uses loan characteristics which includes product type, maturity dates, and the underlying interest rate of the portfolio. This information is input into the valuation models along with various forecast valuation assumptions including prepayment forecasts, to determine the discount rate. These assumptions are derived from internal and third party sources. Noting the valuation is derived from model-based techniques, ASB includes loans held for investment within Level 3 of the valuation hierarchy.

Impaired loans. At the time a loan is considered impaired, it is valued at the lower of cost or fair value. Fair value is determined primarily by using an income, cost, or market approach and is normally provided through appraisals. Impaired loans carried at fair value generally receive specific allocations within the allowance for loan losses. For collateral-dependent loans, fair value is commonly based on recent real estate appraisals. These appraisals may utilize a single valuation approach or a combination of approaches including comparable sales and the income approach. Adjustments are routinely made in the appraisal process by the independent appraisers to adjust for differences between the comparable sales and income data available. Such adjustments typically result in a Level 3 classification of the inputs for determining fair value. Non-real estate collateral may be valued using an appraisal, net book value per the borrower's financial statements, or aging reports, adjusted or discounted based on management's historical knowledge, changes in market conditions from the time of the valuation, and management's expertise and knowledge of the client and client's business, resulting in a Level 3 fair value classification. Generally, impaired loans are evaluated quarterly for additional impairment and adjusted accordingly.

Other real estate owned. Foreclosed assets are carried at fair value (less estimated costs to sell) and is generally based upon appraisals or independent market prices that are periodically updated subsequent to classification as real estate owned. Such adjustments typically result in a Level 3 classification of the inputs for determining fair value. ASB estimates the fair value of collateral-dependent loans and real estate owned using the sales comparison approach.

Mortgage servicing rights. Mortgage servicing rights (MSR) are capitalized at fair value based on market data at the time of sale and accounted for in subsequent periods at the lower of amortized cost or fair value. Mortgage servicing rights are evaluated for impairment at each reporting date. ASB's MSR is stratified based on predominant risk characteristics of the underlying loans including loan type and note rate. For each stratum, fair value is calculated by discounting expected net income streams using discount rates that reflect industry pricing for similar assets. Expected net income streams are estimated based on industry assumptions regarding prepayment expectations and income and expenses associated with servicing residential mortgage loans for others. Impairment is recognized through a valuation allowance for each stratum when the carrying amount exceeds fair value, with any associated provision recorded as a component of loan servicing fees included in "Other income, net" in the consolidated statements of income. A direct write-down is recorded when the recoverability of the valuation allowance is deemed to be unrecoverable. ASB compares the fair value of MSR to an estimated value calculated by an independent third-party. The third-party relies on both published and unpublished sources of market related assumptions and their own experience and expertise to arrive at a value. ASB uses the third-party value only to assess the reasonableness of its own estimate.

Time deposits. The fair value of fixed-maturity certificates of deposit was estimated by discounting the future cash flows using the rates currently offered for deposits of similar remaining maturities.

Other borrowings. For fixed-rate advances and repurchase agreements, fair value is estimated using quantitative discounted cash flow models that require the use of interest rate inputs that are currently offered for advances and repurchase agreements of similar remaining maturities. The majority of market inputs are actively quoted and can be validated through external sources including broker market transactions and third party pricing services.

Long-term debt-other than bank. Fair value was obtained from third-party financial services providers based on the current rates offered for debt of the same or similar remaining maturities and from discounting the future cash flows using the current rates offered for debt of the same or similar remaining maturities.

Interest rate lock commitments (IRLCs). The estimated fair value of commitments to originate residential mortgage loans for sale is based on quoted prices for similar loans in active markets. IRLCs are classified as Level 2 measurements.

Forward sales commitments. To be announced (TBA) mortgage-backed securities forward commitments are classified as Level 1, and consist of publicly-traded debt securities for which identical fair values can be obtained through quoted market prices in active exchange markets. The fair values of ASB's best efforts and mandatory delivery loan sale commitments are determined using quoted prices in the market place that are observable and are classified as Level 2 measurements.

Window forward contract. The estimated fair value was obtained from a third-party financial services provider based on the effective exchange rate offered for the foreign currency denominated transaction. Window forward contracts are classified as Level 2 measurements.

The following table presents the carrying or notional amount, fair value, and placement in the fair value hierarchy of the Company's financial instruments. For stock in Federal Home Loan Bank, the carrying amount is a reasonable estimate of fair value because it can only be redeemed at par. For bank-owned life insurance, the carrying amount is the cash surrender value of the insurance policies, which is a reasonable estimate of fair value. For financial liabilities such as noninterest-bearing demand, interest-bearing demand, and savings and money market deposits, the carrying amount is a reasonable estimate of fair value as these liabilities have no stated maturity.

(in thousands)	Carrying or notional amount	Estimated fair value			Total
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
December 31, 2016					
Financial assets					
HEI consolidated					
Money market funds	\$ 13,085	\$ —	\$ 13,085	\$ —	\$ 13,085
Available-for-sale investment securities	1,105,182	—	1,089,755	15,427	1,105,182
Stock in Federal Home Loan Bank	11,218	—	11,218	—	11,218
Loans receivable, net	4,701,977	—	13,333	4,839,493	4,852,826
Mortgage servicing rights	9,373	—	—	13,216	13,216
Bank-owned life insurance	143,197	—	143,197	—	143,197
Derivative assets	23,578	—	453	—	453
Financial liabilities					
HEI consolidated					
Deposit liabilities	5,548,929	—	5,546,644	—	5,546,644
Other bank borrowings	192,618	—	193,991	—	193,991
Long-term debt, net—other than bank	1,619,019	—	1,704,717	—	1,704,717
Derivative liabilities	53,852	129	823	—	952
Hawaiian Electric consolidated					
Long-term debt, net	1,319,260	—	1,399,490	—	1,399,490
Derivative liabilities	20,734	—	743	—	743
December 31, 2015					
Financial assets					
HEI consolidated					
Money market funds	\$ 10	\$ —	\$ 10	\$ —	\$ 10
Available-for-sale investment securities	820,648	—	820,648	—	820,648
Stock in Federal Home Loan Bank	10,678	—	10,678	—	10,678
Loans receivable, net	4,570,412	—	4,639	4,744,886	4,749,525
Mortgage servicing rights	8,884	—	—	11,790	11,790
Bank-owned life insurance	138,139	—	138,139	—	138,139
Derivative assets	22,616	—	385	—	385
Financial liabilities					
HEI consolidated					
Deposit liabilities	5,025,254	—	5,024,500	—	5,024,500
Short-term borrowings—other than bank	103,063	—	103,063	—	103,063
Other bank borrowings	328,582	—	333,392	—	333,392
Long-term debt, net—other than bank*	1,578,368	—	1,669,087	—	1,669,087
Derivative liabilities	23,269	15	15	—	30
Hawaiian Electric consolidated					
Long-term debt, net*	1,278,702	—	1,363,766	—	1,363,766

* See Note 1 for the impact to prior period financial information of the adoption of ASU No. 2015-03.

Fair value measurements on a recurring basis. Assets and liabilities measured at fair value on a recurring basis were as follows:

December 31 (in thousands)	2016			2015		
	Fair value measurements using			Fair value measurements using		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Money market funds (“other” segment)	\$ —	\$ 13,085	\$ —	\$ —	\$ 10	\$ —
Available-for-sale investment securities (bank segment)						
Mortgage-related securities-FNMA, FHLMC and GNMA	\$ —	\$ 897,474	\$ —	\$ —	\$ 607,689	\$ —
U.S. Treasury and federal agency obligations	—	192,281	—	—	212,959	—
Mortgage revenue bond	—	—	15,427	—	—	—
	\$ —	\$ 1,089,755	\$ 15,427	\$ —	\$ 820,648	\$ —
Derivative assets (bank segment) ¹						
Interest rate lock commitments	\$ —	\$ 445	\$ —	\$ —	\$ 384	\$ —
Forward commitments	—	8	—	—	1	—
	\$ —	\$ 453	\$ —	\$ —	\$ 385	\$ —
Derivative liabilities						
Interest rate lock commitments (bank segment) ¹	\$ —	\$ 24	\$ —	\$ —	\$ —	\$ —
Forward commitments (bank segment) ¹	129	56	—	15	15	—
Window forward contracts (electric utility segment) ²	—	743	—	—	—	—
	\$ 129	\$ 823	\$ —	\$ 15	\$ 15	\$ —

¹ Derivatives are carried at fair value with changes in value reflected in the balance sheet in other assets or other liabilities and included in mortgage banking income.

² Liability derivatives are included in other current liabilities in the balance sheets.

There were no transfers of financial assets and liabilities between Level 1 and Level 2 of the fair value hierarchy during the years ended December 31, 2016 and 2015.

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis were as follows:

(in thousands)	Mortgage revenue bond
Balance at December 31, 2015	\$ —
Principal payments received	—
Purchases	15,427
Unrealized gain (loss) included in other comprehensive income	—
Balance at December 31, 2016	\$ 15,427

ASB holds one mortgage revenue bond issued by the Department of Budget and Finance of the State of Hawaii. The Company estimates the fair value by using a discounted cash flow model to calculate the present value of estimated future principal and interest payments. The unobservable input used in the fair value measurement is the weighted average discount rate. As of December 31, 2016, the weighted average discount rate was 2.517% which was derived by incorporating a credit spread over the one month LIBOR rate. Significant increases (decreases) in the weighted average discount rate could result in a significantly lower (higher) fair value measurement.

Fair value measurements on a nonrecurring basis. Certain assets and liabilities are measured at fair value on a nonrecurring basis and therefore are not included in the tables above. These measurements primarily result from assets carried at the lower of cost or fair value or from impairment of individual assets. The carrying value of assets measured at fair value on a nonrecurring

basis were as follows:

(in thousands)	Balance	Fair value measurements using		
		Level 1	Level 2	Level 3
December 31, 2016				
Loans	\$ 2,767	\$ —	\$ —	\$ 2,767
Real estate acquired in settlement of loans	1,189	—	—	1,189
December 31, 2015				
Loans	178	—	—	178
Real estate acquired in settlement of loans	1,030	—	—	1,030

For 2016 and 2015, there were no adjustments to fair value for ASB's loans held for sale.

The following table presents quantitative information about Level 3 fair value measurements for financial instruments measured at fair value on a nonrecurring basis:

(dollars in thousands)	Fair value	Valuation technique	Significant unobservable input	Significant unobservable input value (1)	
				Range	Weighted Average
December 31, 2016					
Residential loans	\$ 2,468	Sales price	Sales price	95-100%	97%
Residential loans	287	Fair value of property or collateral	Appraised value less 7% selling cost	42-65%	61%
Home equity lines of credit	12	Fair value of property or collateral	Appraised value less 7% selling cost		N/A (2)
Total loans	<u>\$ 2,767</u>				
Real estate acquired in settlement of loans	\$ 1,189	Fair value of property or collateral	Appraised value less 7% selling cost	100%	100%
December 31, 2015					
Residential loans	\$ 50	Fair value of property or collateral	Appraised value less 7% selling cost		N/A (2)
Home equity lines of credit	128	Fair value of property or collateral	Appraised value less 7% selling cost		N/A (2)
Total loans	<u>\$ 178</u>				
Real estate acquired in settlement of loans	\$ 1,030	Fair value of property or collateral	Appraised value less 7% selling cost	100%	100%

(1) Represent percent of outstanding principal balance.

(2) N/A - Not applicable. There is one loan in each fair value measurement type.

Significant increases (decreases) in any of those inputs in isolation would result in significantly higher (lower) fair value measurements.

17 · Other related-party transactions

Mr. Timothy Johns, a member of the Hawaiian Electric Board of Directors, is an executive officer of Hawaii Medical Service Association (HMSA). Ms. Susan Li, an executive of Hawaiian Electric, is the Chair of the Hawaii Dental Service (HDS) Board of Directors. The Company's HMSA costs and expense (for health insurance premiums, claims plus administration expense and stop-loss insurance coverages) and HDS costs and expense (for dental insurance premiums) and the Utilities' HMSA costs and expense (for health insurance premiums) and HDS costs and expense (for dental insurance premiums) were as follows:

(in millions)	HEI consolidated			Hawaiian Electric consolidated		
	2016	2015	2014	2016	2015	2014
HMSA costs	\$ 28	\$ 30	\$ 25	\$ 22	\$ 23	\$ 20
HMSA expense*	20	21	18	14	14	13
HDS costs	3	3	3	2	2	2
HDS expense*	2	2	2	1	1	1

* Charged the remaining costs primarily to electric utility plant.

The costs and expense in the table above are gross amounts (i.e., not net of employee contributions to employee benefits).

18 · Quarterly information (unaudited)

Selected quarterly information was as follows:

(in thousands, except per share amounts)	Quarters ended				Years ended
	March 31	June 30	Sept. 30	Dec. 31	December 31
HEI consolidated					
2016¹					
Revenues	\$ 550,960	\$ 566,244	\$ 646,055	\$ 617,395	\$ 2,380,654
Operating income	68,851	85,455	105,442	88,427	348,175
Net income	32,825	44,601	127,613	45,107	250,146
Net income for common stock	32,352	44,128	127,142	44,634	248,256
Basic earnings per common share ²	0.30	0.41	1.17	0.41	2.30
Diluted earnings per common share ³	0.30	0.41	1.17	0.41	2.29
Dividends per common share	0.31	0.31	0.31	0.31	1.24
Market price per common share ⁴					
High	32.69	34.98	33.57	34.08	34.98
Low	27.30	31.35	29.14	28.31	27.30
2015¹					
Revenues	\$ 637,862	\$ 623,912	\$ 717,176	\$ 624,032	\$ 2,602,982
Operating income	69,506	72,730	97,095	83,222	322,553
Net income	32,339	35,491	51,144	42,793	161,767
Net income for common stock	31,866	35,018	50,673	42,320	159,877
Basic earnings per common share ²	0.31	0.33	0.47	0.39	1.50
Diluted earnings per common share ³	0.31	0.33	0.47	0.39	1.50
Dividends per common share	0.31	0.31	0.31	0.31	1.24
Market price per common share ⁴					
High	34.86	32.58	31.28	30.29	34.86
Low	31.75	29.62	27.02	27.45	27.02
Hawaiian Electric consolidated					
2016					
Revenues	\$ 482,052	\$ 495,395	\$ 572,253	\$ 544,668	\$ 2,094,368
Operating income	55,326	70,686	89,812	68,644	284,468
Net income	25,866	36,356	47,472	34,618	144,312
Net income for common stock	25,367	35,857	46,974	34,119	142,317
2015					
Revenues	573,442	558,163	648,127	555,434	2,335,166
Operating income	57,636	66,161	82,657	67,662	274,116
Net income	27,373	33,340	43,504	33,492	137,709
Net income for common stock	26,874	32,841	43,006	32,993	135,714

Note: HEI owns all of Hawaiian Electric's common stock, therefore per share data for Hawaiian Electric is not meaningful.

¹ In the third quarter of 2016, HEI received a \$90 million termination fee from NEE and in 2016 and 2015 received and incurred other merger and spin-off-related amounts (see Note 2 to the Consolidated Financial Statements). For the first quarter of 2015, second quarter of 2015, third quarter of 2015, fourth quarter of 2015, first quarter of 2016, second quarter of 2016 and third quarter of 2016, the Company recorded merger- and spin-off-related income/(expenses), net of tax impacts of \$(5) million, \$(7) million, \$(2) million, \$(2) million, \$(2) million, \$(2) million and \$64 million, respectively.

² The quarterly basic earnings per common share are based upon the weighted-average number of shares of common stock outstanding in each quarter.

³ The quarterly diluted earnings per common share are based upon the weighted-average number of shares of common stock outstanding in each quarter plus the dilutive incremental shares at quarter end.

⁴ Market prices of HEI common stock (symbol HE) shown are as reported on the NYSE Composite Tape.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

HEI and Hawaiian Electric: None

ITEM 9A. CONTROLS AND PROCEDURES

HEI:

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Constance H. Lau, HEI Chief Executive Officer (CEO), and James A. Ajello, HEI Chief Financial Officer (CFO), have evaluated the disclosure controls and procedures of HEI as of December 31, 2016. Based on their evaluation, as of December 31, 2016, they have concluded that the disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective in ensuring that information required to be disclosed by HEI in reports HEI files or submits under the Securities Exchange Act of 1934:

- (1) is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and
- (2) is accumulated and communicated to HEI management, including HEI's CEO and CFO, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934, as amended. The Company's internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2016 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Hawaiian Electric:

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Alan M. Oshima, Hawaiian Electric CEO, and Tayne S. Y. Sekimura, Hawaiian Electric CFO, have evaluated the disclosure controls and procedures of Hawaiian Electric as of December 31, 2016. Based on their evaluation, as of December 31, 2016, they have concluded that the disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective in ensuring that information required to be disclosed by Hawaiian Electric in reports Hawaiian Electric files or submits under the Securities Exchange Act of 1934:

- (1) is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and
- (2) is accumulated and communicated to Hawaiian Electric management, including Hawaiian Electric's CEO and CFO, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) and Rule 15d-15(f) promulgated under the Securities Exchange Act of 1934, as amended. Hawaiian Electric's internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of Hawaiian Electric's internal control over financial reporting as of December 31, 2016 based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO. Based on this evaluation, management has concluded that Hawaiian Electric's internal control over financial reporting was effective as of December 31, 2016.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, Hawaiian Electric's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

HEI and Hawaiian Electric: None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

HEI:

Information regarding HEI's executive officers is provided in the "Executive Officers of the Registrant" section following Item 4 of this report.

The remaining information required by this Item 10 for HEI is incorporated herein by reference to the following sections in HEI's 2017 Proxy Statement:

- "Nominees for Class III directors whose terms expire at the 2020 Annual Meeting"
- "Nominee for Class I director whose term expires at the 2018 Annual Meeting"
- "Continuing Class I directors whose terms expire at the 2018 Annual Meeting"
- "Continuing Class II directors whose terms expire at the 2019 Annual Meeting"
- "Committees of the Board" (portions regarding whether HEI has an audit committee and identifying its members; no other portion of the Committees of the Board section is incorporated herein by reference)
- "Audit Committee Report" (portion identifying audit committee financial experts who serve on the HEI Audit Committee only; no other portion of the Audit Committee Report is incorporated herein by reference)

Family relationships; director arrangements

There are no family relationships between any HEI director or director nominee and any other HEI director or director nominee or any HEI executive officer. There are no arrangements or understandings between any HEI director or director nominee and any other person pursuant to which such director or director nominee was selected.

Section 16(a) beneficial ownership reporting compliance

Information required to be reported under this caption is incorporated herein by reference to the "Stock Ownership Information-Section 16(a) Beneficial Ownership Reporting Compliance" section in HEI's 2017 Proxy Statement.

Code of Conduct

The HEI Board has adopted a Corporate Code of Conduct that includes a code of ethics applicable to, among others, its principal executive officer, principal financial officer and principal accounting officer. The Corporate Code of Conduct is

available on HEI's website at www.hei.com. HEI elects to disclose the information required by Form 8-K, Item 5.05, "Amendments to the Registrant's Code of Ethics, or Waiver of a Provision of the Code of Ethics," through this website and such information will remain available on this website for at least a 12-month period.

Hawaiian Electric:

The information required by this Item 10 for Hawaiian Electric is incorporated herein by reference to pages 1 to 7 of Hawaiian Electric Exhibit 99.1.

ITEM 11. EXECUTIVE COMPENSATION

HEI:

The information required by this Item 11 for HEI is incorporated herein by reference to the information relating to executive and director compensation in HEI's 2017 Proxy Statement.

Hawaiian Electric:

The information required by this Item 11 for Hawaiian Electric is incorporated herein by reference to:

- Pages 8 to 29 of Hawaiian Electric Exhibit 99.1 to this Form 10-K;
- The discussion of "2015-17 Long-Term Incentive Plan" at pages 15-16 of Hawaiian Electric's Exhibit 99.1 to Annual Report on Form 10-K for the year ended December 31, 2015; and
- Information concerning compensation paid to directors of Hawaiian Electric who are also directors of HEI under the section of HEI's 2017 Proxy Statement entitled, "Director Compensation."

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

HEI:

The information required to be reported under this caption for HEI is incorporated herein by reference to the "Compensation Committee Interlocks and Insider Participation" section in HEI's 2017 Proxy Statement.

Hawaiian Electric:

The information required to be reported under this caption for Hawaiian Electric is incorporated herein by reference to page 32 of Hawaiian Electric Exhibit 99.1.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

HEI:

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The information required by this Item 12 for HEI is incorporated herein by reference to the “Stock Ownership Information-Security Ownership of Certain Beneficial Owners” section in HEI's 2017 Proxy Statement.

Equity Compensation Plan Information

Information as of December 31, 2016 about HEI Common Stock that may be issued under all of the Company’s equity compensation plans was as follows:

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (2)
Equity compensation plans approved by shareholders	266,754	\$ —	3,278,383
Equity compensation plans not approved by shareholders	—	—	—
Total	266,754	\$ —	3,278,383

- (1) This column includes the number of shares of HEI Common Stock which may be issued under the Revised and Amended HEI 2010 Equity Incentive Plan (amended EIP) on account of awards outstanding as of December 31, 2016, including:

EIP

161,145	Restricted stock units plus estimated compounded dividend equivalents (if applicable) *
105,609	Shares issued in February 2017 under the 2014-2016 LTIP plus compounded dividend equivalents
<u>266,754</u>	

* Under the amended EIP as of December 31, 2016, RSUs count as one share against shares available for issuance less estimated shares withheld for taxes under net share settlement which again become available for the issuance of new shares on a one-to-one basis.

- (2) This represents the number of shares available as of December 31, 2016 for future awards, including 3,157,185 shares available for future awards under the amended EIP and 121,198 shares available for future awards under the 2011 Nonemployee Director Plan.

Hawaiian Electric:

The information required by this Item 12 for Hawaiian Electric is incorporated herein by reference to pages 33 to 34 of Hawaiian Electric Exhibit 99.1.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

HEI:

The information required by this Item 13 for HEI is incorporated herein by reference to the sections relating to related person transactions and director independence in HEI's 2017 Proxy Statement.

Hawaiian Electric:

The information required by this Item 13 for Hawaiian Electric is incorporated herein by reference to pages 34 to 35 of Hawaiian Electric Exhibit 99.1.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

HEI:

The information required by this Item 14 for HEI is incorporated herein by reference to the relevant information in the Audit Committee Report in HEI's 2017 Proxy Statement (but no other part of the "Audit Committee Report" is incorporated herein by reference).

Hawaiian Electric:

The information required by this Item 14 for Hawaiian Electric is incorporated herein by reference to page 36 of Hawaiian Electric Exhibit 99.1.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial statements

See Item 8 for the Consolidated Financial Statements of HEI and Hawaiian Electric.

(a)(2) and (c) Financial statement schedules

The following financial statement schedules for HEI and Hawaiian Electric are included in this report on the pages indicated below:

		Page/s in Form 10-K	
		HEI	Hawaiian Electric
Schedule I	Condensed Financial Information of Registrant, Hawaiian Electric Industries, Inc. (Parent Company) at December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015 and 2014	185-187	NA
Schedule II	Valuation and Qualifying Accounts, Hawaiian Electric Industries, Inc. and subsidiaries and Hawaiian Electric Company, Inc. and subsidiaries for the years ended December 31, 2016, 2015 and 2014	189	189
NA Not applicable.			

Certain schedules, other than those listed, are omitted because they are not required, or are not applicable, or the required information is shown in the Consolidated Financial Statements.

Hawaiian Electric Industries, Inc.
SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED BALANCE SHEETS

December 31	2016	2015
(dollars in thousands)		
Assets		
Cash and cash equivalents	\$ 14,924	\$ 55,116
Accounts receivable	3,788	5,459
Property, plant and equipment, net	4,143	4,514
Deferred income tax assets	17,280	16,715
Other assets	9,858	11,650
Investments in subsidiaries, at equity	2,383,405	2,293,679
Total assets	\$ 2,433,398	\$ 2,387,133
Liabilities and shareholders' equity		
Liabilities		
Accounts payable	\$ 379	\$ 1,254
Interest payable	1,735	2,450
Notes payable to subsidiaries	5,373	5,946
Commercial paper	—	103,063
Long-term debt, net	299,759	299,666
Retirement benefits liability	33,939	31,704
Other	25,460	15,410
Total liabilities	366,645	459,493
Shareholders' equity		
Preferred stock, no par value, authorized 10,000,000 shares; issued: none	—	—
Common stock, no par value, authorized 200,000,000 shares; issued and outstanding: 108,583,413 shares and 107,460,406 shares at December 31, 2016 and 2015, respectively	1,660,910	1,629,136
Retained earnings	438,972	324,766
Accumulated other comprehensive loss	(33,129)	(26,262)
Total shareholders' equity	2,066,753	1,927,640
Total liabilities and shareholders' equity	\$ 2,433,398	\$ 2,387,133

Hawaiian Electric Industries, Inc.
SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT (continued)
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED STATEMENTS OF INCOME

Years ended December 31 (in thousands)	2016	2015	2014
Revenues	\$ 647	\$ 327	\$ 303
Equity in net income of subsidiaries	199,485	190,033	188,727
Expenses:			
Operating, administrative and general	18,701	34,350	20,921
Depreciation of property, plant and equipment	566	576	575
Taxes, other than income taxes	4,726	440	469
Total expenses	23,993	35,366	21,965
Income before merger termination fee, interest expense and income (taxes) benefits	176,139	154,994	167,065
Merger termination fee	90,000	—	—
Income before interest expense and income (taxes) benefits	266,139	154,994	167,065
Interest expense	9,037	10,788	11,599
Income before income (taxes) benefits	257,102	144,206	155,466
Income (taxes) benefits	(8,846)	15,671	13,047
Net income	\$ 248,256	\$ 159,877	\$ 168,513

HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
STATEMENTS OF COMPREHENSIVE INCOME
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

Incorporated by reference are HEI and Subsidiaries' Statements of Consolidated Comprehensive Income and Consolidated Statements of Changes in Shareholders' Equity in Part II, Item 8.

Hawaiian Electric Industries, Inc.
SCHEDULE I — CONDENSED FINANCIAL INFORMATION OF REGISTRANT (continued)
HAWAIIAN ELECTRIC INDUSTRIES, INC. (PARENT COMPANY)
CONDENSED STATEMENTS OF CASH FLOWS

Years ended December 31 (in thousands)	2016	2015	2014
Net cash provided by operating activities	\$ 191,306	\$ 97,141	\$ 100,794
Cash flows from investing activities			
Capital expenditures	(212)	(173)	(74)
Investments in subsidiaries	(24,000)	—	(40,000)
Other	1	—	—
Net cash used in investing activities	(24,211)	(173)	(40,074)
Cash flows from financing activities			
Net increase (decrease) in notes payable to subsidiaries with original maturities of three months or less	(618)	87	(222)
Net increase (decrease) in short-term borrowings with original maturities of three months or less	(103,063)	(15,909)	13,490
Proceeds from issuance of long-term debt	75,000	—	125,000
Repayment of long-term debt	(75,000)	—	(100,000)
Excess tax benefits from share-based payment arrangements	404	978	277
Net proceeds from issuance of common stock	13,220	104,435	26,898
Common stock dividends	(117,274)	(131,765)	(126,458)
Other	44	46	—
Net cash used in financing activities	(207,287)	(42,128)	(61,015)
Net increase (decrease) in cash and equivalents	(40,192)	54,840	(295)
Cash and cash equivalents, January 1	55,116	276	571
Cash and cash equivalents, December 31	\$ 14,924	\$ 55,116	\$ 276

NOTES TO CONDENSED FINANCIAL INFORMATION

Long-term debt

The components of long-term debt, net, were as follows:

December 31	2016	2015
(dollars in thousands)		
HEI Term loan LIBOR + .75%, due 2017	\$ 125,000	\$ 125,000
HEI Term loan LIBOR + .75%, due 2018	75,000	—
HEI senior note 4.41%, paid in 2016	—	75,000
HEI senior note 5.67%, due 2021	50,000	50,000
HEI senior note 3.99%, due 2023	50,000	50,000
Less unamortized debt issuance costs	(241)	(334)
Long-term debt, net	\$ 299,759	\$ 299,666

See Note 1 of the Consolidated Financial Statements for the impact to prior period financial information of the adoption of ASU No. 2015-03.

The aggregate payments of principal required within five years after December 31, 2016 on long-term debt are \$125 million in 2017, \$75 million in 2018 and nil in 2019 and 2020 and \$50 million in 2021.

Indemnities

As of December 31, 2016, HEI has a General Agreement of Indemnity in favor of both Liberty Mutual Insurance Company (Liberty) and Travelers Casualty and Surety Company of America (Travelers) for losses in connection with any and all bonds, undertakings or instruments of guarantee and any renewals or extensions thereof executed by Liberty or Travelers, including, but not limited to, a \$0.2 million self-insured United States Longshore & Harbor bond and a \$0.6 million self-insured automobile bond.

Income taxes

The Company's financial reporting policy for income tax allocations is based upon a separate entity concept whereby each subsidiary provides income tax expense (or benefits) as if each were a separate taxable entity. The difference between the aggregate separate tax return income tax provisions and the consolidated financial reporting income tax provision is charged or credited to HEI's separate tax provision.

Dividends from subsidiaries

In 2016, 2015 and 2014, cash dividends received from subsidiaries were \$130 million, \$121 million and \$124 million, respectively.

Supplemental disclosures of noncash activities

In 2016, 2015 and 2014, \$2.3 million, \$2.3 million and \$2.4 million, respectively, of HEI accounts receivable from ASB Hawaii were reduced with a corresponding reduction in HEI notes payable to ASB Hawaii in noncash transactions.

In 2016, 2015 and 2014, \$2.3 million, \$0.3 million and \$2.5 million, respectively, were contributed as equity by HEI into ASB Hawaii with a corresponding increase in HEI notes payable to ASB Hawaii in noncash transactions.

Under the HEI Dividend Reinvestment and Stock Purchase Plan (DRIP), common stock dividends reinvested by shareholders in HEI common stock in noncash transactions amounted to \$17 million, nil and nil in 2016, 2015 and 2014, respectively. HEI satisfied the requirements of the HEI DRIP, Hawaiian Electric Industries Retirement Savings Plan (HEIRSP) and ASB 401(k) Plan from March 6, 2014 through January 5, 2016 by acquiring for cash its common shares through open market purchases rather than by issuing additional shares. From January 6, 2016 through December 6, 2016, HEI satisfied its share purchase requirements for the plans through new issuances, except that from June 2, 2016 through August 9, 2016, HEI satisfied the share purchase requirements of the HEIRSP and ASB 401(k) Plan through open market purchases of its common stock. From December 7, 2016 to date, HEI satisfied the share purchase requirements of these three plans through open market purchases of its common stock rather than through new issuances.

Other

The "Notes to Consolidated Financial Statements" in Part II, Item 8 should be read in conjunction with the above HEI (Parent Company) financial statements.

Hawaiian Electric Industries, Inc. and subsidiaries
and Hawaiian Electric Company, Inc. and subsidiaries
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS
Years ended December 31, 2016, 2015 and 2014

Col. A	Col. B		Col. C		Col. D	Col. E
(in thousands)	Additions					
Description	Balance at begin- ning of period	Charged to costs and expenses	Charged to other accounts	Deductions	Balance at end of period	
2016						
Allowance for uncollectible accounts – electric utility	\$ 1,699	\$ 2,383	\$ 877 (a)	\$ 3,838 (b), (c)	\$ 1,121	
Allowance for uncollectible interest – bank	\$ 1,679	\$ —	\$ 155	\$ —	\$ 1,834	
Allowance for losses for loans receivable – bank	\$ 50,038	\$ 16,763 (d)	\$ 2,977 (a)	\$ 14,245 (b)	\$ 55,533	
Deferred tax valuation allowance – HEI	\$ 54	\$ —	\$ —	\$ 16	\$ 38	
2015						
Allowance for uncollectible accounts – electric utility	\$ 1,959	\$ 3,653	\$ 977 (a)	\$ 4,890 (b)	\$ 1,699	
Allowance for uncollectible interest – bank	\$ 1,514	\$ —	\$ 165	\$ —	\$ 1,679	
Allowance for losses for loans receivable – bank	\$ 45,618	\$ 6,275 (d)	\$ 4,571 (a)	\$ 6,426 (b)	\$ 50,038	
Allowance for mortgage-servicing assets – bank	\$ 209	\$ —	\$ (205)	\$ 4	\$ —	
Deferred tax valuation allowance – HEI	\$ 45	\$ 9	\$ —	\$ —	\$ 54	
2014						
Allowance for uncollectible accounts – electric utility	\$ 2,329	\$ 1,384	\$ 1,613 (a)	\$ 3,367 (b)	\$ 1,959	
Allowance for uncollectible interest – bank	\$ 1,661	\$ —	\$ —	\$ 147	\$ 1,514	
Allowance for losses for loans receivable – bank	\$ 40,116	\$ 6,126 (d)	\$ 4,926 (a)	\$ 5,550 (b)	\$ 45,618	
Allowance for mortgage-servicing assets – bank	\$ 251	\$ 53	\$ —	\$ 95	\$ 209	
Deferred tax valuation allowance – HEI	\$ 278	\$ 17	\$ —	\$ 250	\$ 45	

- (a) Primarily recoveries.
(b) Bad debts charged off.
(c) Reclass of allowance for one customer account into other long term assets.
(d) Represents provision for loan loss

(a)(3) and (b) Exhibits

The Exhibit Index attached to this Form 10-K is incorporated herein by reference. The exhibits listed for HEI and Hawaiian Electric are listed in the index under the headings “HEI” and “Hawaiian Electric,” respectively, except that the exhibits listed under “Hawaiian Electric” are also exhibits for HEI.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized. The execution of this report by registrant Hawaiian Electric Company, Inc. shall be deemed to relate only to matters having reference to such registrant and its subsidiaries.

HAWAIIAN ELECTRIC INDUSTRIES, INC.

(Registrant)

HAWAIIAN ELECTRIC COMPANY, INC.

(Registrant)

By /s/ James A. Ajello
James A. Ajello
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer of HEI)

By /s/ Tayne S. Y. Sekimura
Tayne S. Y. Sekimura
Senior Vice President and Chief Financial Officer
(Principal Financial Officer of Hawaiian Electric)

Date: February 24, 2017

Date: February 24, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrants and in the capacities indicated on February 24, 2017. The execution of this report by each of the undersigned who signs this report solely in such person’s capacity as a director or officer of Hawaiian Electric Company, Inc. shall be deemed to relate only to matters having reference to such registrant and its subsidiaries.

Signature	Title
<u>/s/ Constance H. Lau</u> Constance H. Lau	President of HEI and Director of HEI Chairman of the Board of Directors of Hawaiian Electric (Chief Executive Officer of HEI)
<u>/s/ Alan M. Oshima</u> Alan M. Oshima	President and Director of Hawaiian Electric (Chief Executive Officer of Hawaiian Electric)
<u>/s/ James A. Ajello</u> James A. Ajello	Executive Vice President and Chief Financial Officer of HEI (Principal Financial and Accounting Officer of HEI)
<u>/s/ Tayne S. Y. Sekimura</u> Tayne S. Y. Sekimura	Senior Vice President and Chief Financial Officer of Hawaiian Electric (Principal Financial Officer of Hawaiian Electric)
<u>/s/ Patsy H. Nanbu</u> Patsy H. Nanbu	Controller of Hawaiian Electric (Principal Accounting Officer of Hawaiian Electric)

SIGNATURES (continued)

Signature	Title
<hr/> <u>/s/ Don E. Carroll</u> Don E. Carroll	Director of Hawaiian Electric
<hr/> <u>/s/ Richard J. Dahl</u> Richard J. Dahl	Director of HEI and Hawaiian Electric
<hr/> <u>/s/ Thomas B. Fargo</u> Thomas B. Fargo	Director of HEI
<hr/> <u>/s/ Peggy Y. Fowler</u> Peggy Y. Fowler	Director of HEI
<hr/> <u>/s/ Timothy E. Johns</u> Timothy E. Johns	Director of Hawaiian Electric
<hr/> <u>/s/ Micah A. Kane</u> Micah A. Kane	Director of Hawaiian Electric
<hr/> <u>/s/ Bert A. Kobayashi, Jr.</u> Bert A. Kobayashi, Jr.	Director of Hawaiian Electric
<hr/> <u>/s/ Keith P. Russell</u> Keith P. Russell	Director of HEI
<hr/> <u>/s/ James K. Scott</u> James K. Scott	Director of HEI
<hr/> <u>/s/ Kelvin H. Taketa</u> Kelvin H. Taketa	Director of HEI and Hawaiian Electric
<hr/> <u>/s/ Barry K. Taniguchi</u> Barry K. Taniguchi	Director of HEI
<hr/> <u>/s/ Jeffrey N. Watanabe</u> Jeffrey N. Watanabe	Chairman of the Board of Directors of HEI and director of Hawaiian Electric

EXHIBIT INDEX

The exhibits designated by an asterisk (*) are filed herewith. The exhibits not so designated are incorporated by reference to the indicated filing. A copy of any exhibit may be obtained upon written request for a \$0.20 per page charge from the HEI Shareholder Services Division, P.O. Box 730, Honolulu, Hawaii 96808-0730.

<u>Exhibit no.</u>	<u>Description</u>
<u>HEI:</u>	
2	Agreement and Plan of Merger, dated as of December 3, 2014, by and among NextEra Energy, Inc., NEE Acquisition Sub I, LLC, NEE Acquisition Sub II, Inc. and HEI (Exhibit 2.1 to HEI's Current Report on Form 8-K December 3, 2014, File No. 1-8503).
3(i)	HEI's Amended and Restated Articles of Incorporation (Exhibit 3(i) to HEI's Current Report on Form 8-K, dated May 5, 2009, File No. 1-8503).
3(ii)	Amended and Restated Bylaws of HEI as last amended May 9, 2011 (Exhibit 3(ii) to HEI's Current Report on Form 8-K May 9, 2011, File No. 1-8503).
4.1	Agreement to provide the SEC with instruments which define the rights of holders of certain long-term debt of HEI and its subsidiaries (Exhibit 4.1 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 1992, File No. 1-8503).
4.2	Master Note Purchase Agreement among HEI and the Purchasers thereto, dated March 24, 2011 (Exhibit 4(a) to HEI's Current Report on Form 8-K dated March 24, 2011, File No. 1-8503).
4.2(a)	First Supplement to Note Purchase Agreement among HEI and the Purchasers thereto, dated March 6, 2013 (Exhibit 4(a) to HEI's Current Report on Form 8-K dated March 6, 2013, File No. 1-8503).
4.3(a)	Loan Agreement dated as of May 2, 2014 among HEI, as Borrower, the Lenders Party Thereto and Royal Bank of Canada, as Syndication Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Administrative Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd. and RBC Capital Markets, as Joint Lead Arrangers and Joint Book Runners (Exhibit 4 to HEI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, File No. 1-8503).
4.3(b)	Amendment No. 1 dated as of October 8, 2015 by and among HEI, The Bank of Tokyo-Mitsubishi UFJ, Ltd., as lender and Administrative Agent, and U.S. Bank, National Association, as lender, to Loan Agreement dated as of May 2, 2014 (Exhibit 4 to HEI's Current Report on Form 8-K dated October 8, 2015, File No. 1-8503).
4.4	Loan Agreement dated as of March 21, 2016 between Hawaiian Electric Industries, Inc., as Borrower and Bank of America, N.A. as Lender (Exhibit 4 to HEI's Current Report on Form 8-K dated March 21, 2016, File No. 1-8503).
4.5	Hawaiian Electric Industries Retirement Savings Plan, restatement effective January 1, 2013 (Exhibit 4.5 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
4.6	Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company, as Trustee (Exhibit 4 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, File No. 1-8503).
4.6(a)	Letter Amendment effective November 28, 2012 to Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company (Exhibit 4.6(a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
4.6(b)	Letter Amendment effective October 1, 2014 to Master Trust Agreement dated as of September 4, 2012 between HEI and ASB and Fidelity Management Trust Company (Exhibit 4 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, File No. 1-8503).
4.6(c)	First Amendment to Master Trust Agreement (dated as of September 4, 2012) effective March 1, 2015 between HEI and ASB and Fidelity Management Trust Company (Exhibit 4 to HEI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, File No. 1-8503).
4.6(d)	Letter Amendment effective August 3, 2015 to Master Trust Agreement (dated as of September 4, 2012) between HEI and ASB and Fidelity Management Trust Company (Exhibit 4 to HEI's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, File No. 1-8503).
4.7	Hawaiian Electric Industries, Inc. Dividend Reinvestment and Stock Purchase Plan, as amended and restated effective October 6, 2014 (Exhibit 4(a) to Registration Statement on Form S-3, Registration No. 333-199183).

<u>Exhibit no.</u>	<u>Description</u>
4.8	American Savings Bank 401(k) Plan, restatement effective January 1, 2013 (Exhibit 4.8 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
4.8(a)	Amendment 2013-1 to the American Savings Bank 401(k) Plan, effective January 1, 2014. (Exhibit 4.7 (a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, File No. 1-8503).
10.1	Conditions for the Merger and Corporate Restructuring of Hawaiian Electric Company, Inc. dated September 23, 1982. (Exhibit 10.1 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2006, File No. 1-8503).
10.2	Regulatory Capital Maintenance/Dividend Agreement dated May 26, 1988, between HEI, HEIDI and the Federal Savings and Loan Insurance Corporation (by the Federal Home Loan Bank of Seattle) (Exhibit (28)-2 to HEI's Current Report on Form 8-K dated May 26, 1988, File No. 1-8503).
10.3	OTS letter regarding release from Part II.B. of the Regulatory Capital Maintenance/Dividend Agreement dated May 26, 1988 (Exhibit 10.3(a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 1992, File No. 1-8503).

HEI Exhibits 10.4 through 10.21 are management contracts or compensatory plans or arrangements required to be filed as exhibits pursuant to Item 15(b) of this report. HEI Exhibits 10.4 through 10.19 are also management contracts or compensatory plans or arrangements with Hawaiian Electric participants.

10.4	HEI Executive Incentive Compensation Plan amended as of February 4, 2013 (Exhibit 10.4 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
10.5	HEI Executives' Deferred Compensation Plan (Exhibit 10.2 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.6	Hawaiian Electric Industries, Inc. 2010 Equity and Incentive Plan, as amended and restated November 16, 2010 (Exhibit 10.6 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, File No. 1-8503).
10.7	Hawaiian Electric Industries, Inc. 2010 Equity and Incentive Plan, as amended and restated February 14, 2014 (Exhibit D to HEI's Proxy Statement for Annual Meeting of Shareholders filed on March 25, 2014, File No. 1-8503).
10.7(a)	Form of Non-Qualified Stock Option Agreement pursuant to 2010 Equity and Incentive Plan (Exhibit 4.4 to Registration Statement filed on May 11, 2010 on Form S-8 Registration No. 333-166737).
10.7(b)	Form of Stock Appreciation Right Agreement pursuant to 2010 Equity and Incentive Plan (Exhibit 4.5 to Registration Statement filed on May 11, 2010 on Form S-8 Registration No. 333-166737).
10.7(c)	Form of Restricted Shares Agreement pursuant to 2010 Equity and Incentive Plan (Exhibit 4.6 to Registration Statement filed on May 11, 2010 on Form S-8 Registration No. 333-166737).
10.7(d)	Form of Performance Shares Agreement pursuant to 2010 Equity and Incentive Plan (Exhibit 4.7 to Registration Statement filed on May 11, 2010 on Form S-8 Registration No. 333-166737).
* 10.7(e)	Form of Restricted Stock Unit Agreement, amended as of December 15, 2016, pursuant to 2010 Equity and Incentive Plan, as amended and restated February 14, 2014.
10.8	HEI Long-Term Incentive Plan amended as of February 4, 2013 (Exhibit 10.8 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
10.9	HEI Supplemental Executive Retirement Plan amended and restated as of January 1, 2009 (Exhibit 10.3 to Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.9(a)	Amendments to the HEI Supplemental Executive Retirement Plan Freezing Benefit Accruals Effective December 31, 2008 (Exhibit 10.9(a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).
10.10	HEI Excess Pay Plan amended and restated as of January 1, 2009 (Exhibit 10.10 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).
10.10(a)	HEI Excess Pay Plan Addendum for Constance H. Lau (Exhibit 10.10(a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).

<u>Exhibit no.</u>	<u>Description</u>
10.10(b)	Amendment No. 1 dated December 13, 2010 to January 1, 2009 Restatement of HEI Excess Pay Plan (Exhibit 10.10(c) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-8503).
10.11	Form of Change in Control Agreement (Exhibit 10.11 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).
10.12	Nonemployee Director Retirement Plan, effective as of October 1, 1989 (Exhibit 10.15 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 1989, File No. 1-8503).
10.13	HEI 2011 Nonemployee Director Stock Plan (Appendix A to HEI's Proxy Statement for 2011 Annual Meeting of Shareholders filed on March 21, 2011, File No. 1-8503).
* 10.14	Nonemployee Director's Compensation Schedule effective January 1, 2017.
10.15	HEI Non-Employee Directors' Deferred Compensation Plan (Exhibit 10.5 to Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.16	Executive Death Benefit Plan of HEI and Participating Subsidiaries restatement effective as of January 1, 2009 (Exhibit 10.6 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.16(a)	Resolution of the Compensation Committee of the Board of Directors of Hawaiian Electric Industries, Inc. Re: Adoption of Amendment No. 1 to January 1, 2009 Restatement of the Executive Death Benefit Plan (Exhibit 10.1 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, File No. 1-8503).
10.17	Severance Pay Plan for Merit Employees of HEI and affiliates, restatement effective as of January 1, 2009 (Exhibit 10.17 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).
10.18	Hawaiian Electric Industries Deferred Compensation Plan adopted on December 13, 2010 (Exhibit 10.18 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, File No. 1-8503).
10.19	Form of Indemnity Agreement (HEI, Hawaiian Electric and ASB with their respective directors and HEI with certain of its senior officers) (Exhibit 10.1 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, File No. 1-8503).
10.20	American Savings Bank Select Deferred Compensation Plan (Restatement Effective January 1, 2009) (Exhibit 10.7 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.20(a)	Amendment No. 1 to January 1, 2009 Restatement of American Savings Bank Select Deferred Compensation Plan dated December 30, 2009. (Exhibit 10.20(a) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, File No. 1-8503).
10.20(b)	Amendment No. 2 to January 1, 2009 Restatement of American Savings Bank Select Deferred Compensation Plan dated December 29, 2010. (Exhibit 10.20(b) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, File No. 1-8503).
10.20(c)	Amendment No. 3 to January 1, 2009 Restatement of American Savings Bank Select Deferred Compensation Plan dated December 3, 2014. (Exhibit 10.20(c) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, File No. 1-8503).
10.21	American Savings Bank Supplemental Executive Retirement, Disability, and Death Benefit Plan, effective January 1, 2009 (Exhibit 10.8 to HEI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, File No. 1-8503).
10.21(a)	Amendments to the American Savings Bank Supplemental Executive Retirement, Disability, and Death Benefit Plan Freezing Benefit Accruals Effective December 31, 2008 (Exhibit 10.19(b) to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, File No. 1-8503).
10.22	Amended and Restated Credit Agreement, dated as of April 2, 2014, among HEI, as Borrower, the Lenders Party Thereto and Wells Fargo Bank, National Association, as Syndication Agent, and Bank of America, N.A., Bank of Hawaii, Royal Bank of Canada, Union Bank, N.A. and U.S. Bank National Association as Co-Documentation Agents, and JPMorgan Chase Bank, N.A., as Administrative Agent, Swingline Lender and Issuing Bank, and J.P. Morgan Securities LLC and Wells Fargo Securities, LLC, as Joint Lead Arrangers and Joint Book Runners (Exhibit 10.1 to HEI's Current Report on Form 8-K dated April 2, 2014, File No. 1-8503).

<u>Exhibit no.</u>	<u>Description</u>
*11	HEI - Computation of Earnings per Share of Common Stock.
*12.1	HEI - Computation of Ratio of Earnings to Fixed Charges.
*21.1	HEI - Subsidiaries of the Registrant.
*23.1	Consent of Independent Registered Public Accounting Firm.
*31.1	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Constance H. Lau (HEI Chief Executive Officer).
*31.2	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of James A. Ajello (HEI Chief Financial Officer).
*32.1	HEI Certification Pursuant to 18 U.S.C. Section 1350.
*101.INS	XBRL Instance Document.
*101.SCH	XBRL Taxonomy Extension Schema Document.
*101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
*101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
*101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
*101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

Hawaiian Electric:

2.1	Asset Purchase Agreement by and among Hamakua Energy Partners, L.P. and Hamakua Land Partnership, L.L.P., as sellers, and Hawaii Electric Light Company, Inc., as buyer, dated as of December 21, 2015. (confidential treatment has been granted for portions of this exhibit through March 31, 2017). (Exhibit 2.1 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, File No. 1-4955).**
3(i).1	Hawaiian Electric's Certificate of Amendment of Articles of Incorporation (Exhibit 3.1 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1988, File No. 1-4955).
3(i).2	Articles of Amendment to Hawaiian Electric's Amended Articles of Incorporation (Exhibit 3.1(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1989, File No. 1-4955).
3(i).3	Articles of Amendment to Hawaiian Electric's Amended Articles of Incorporation (Exhibit 3(i).4 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1998, File No. 1-4955).
3(i).4	Articles of Amendment amending Article V of Hawaiian Electric's Amended Articles of Incorporation effective August 6, 2009 (Exhibit 3(i).4 to Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, File No. 1-4955).
3(ii)	Hawaiian Electric's Amended and Restated Bylaws (as last amended August 6, 2010) (Exhibit 3(ii) to Hawaiian Electric's Current Report on Form 8-K dated August 9, 2010, File No. 1-4955).
4.1	Agreement to provide the SEC with instruments which define the rights of holders of certain long-term debt of Hawaiian Electric, Hawaii Electric Light and Maui Electric (Exhibit 4.1 to HEI's Annual Report on Form 10-K for the fiscal year ended December 31, 2002, File No. 1-4955).
4.2	Certificate of Trust of HECO Capital Trust III (incorporated by reference to Exhibit 4(a) to Registration No. 333-111073).
4.3	Amended and Restated Trust Agreement of HECO Capital Trust III dated as of March 1, 2004 (Exhibit 4 (c) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.4	Hawaiian Electric Junior Indenture with The Bank of New York, as Trustee, dated as of March 1, 2004 (Exhibit 4(f) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).

**Pursuant to Item 6.01 (b)(2) of Regulation S-K, exhibits and schedules are omitted. Hawaiian Electric agrees to furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request.

<u>Exhibit no.</u>	<u>Description</u>
4.5	6.500% Quarterly Income Trust Preferred Security issued by HECO Capital Trust III, dated March 18, 2004 (Exhibit 4(d) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.6	6.500% Junior Subordinated Deferrable Interest Debenture, Series 2004 issued by Hawaiian Electric, dated March 18, 2004 (Exhibit 4(g) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.7	Trust Guarantee Agreement between The Bank of New York, as Trust Guarantee Trustee, and Hawaiian Electric dated as of March 1, 2004 (Exhibit 4(l) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.8	Maui Electric Junior Indenture with The Bank of New York, as Trustee, including Hawaiian Electric Subsidiary Guarantee, dated as of March 1, 2004 (Exhibit 4(h) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.9	Hawaii Electric Light Junior Indenture with The Bank of New York, as Trustee, including Hawaiian Electric Subsidiary Guarantee, dated as of March 1, 2004 (Exhibit 4(j) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.10	6.500% Junior Subordinated Deferrable Interest Debenture, Series 2004 issued by Maui Electric, dated March 18, 2004 (Exhibit 4(i) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.11	6.500% Junior Subordinated Deferrable Interest Debenture, Series 2004 issued by Hawaii Electric Light, dated March 18, 2004 (Exhibit 4(k) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.12	Expense Agreement, dated March 1, 2004, among HECO Capital Trust III, Hawaiian Electric, Maui Electric and Hawaii Electric Light (Exhibit 4(m) to Hawaiian Electric's Current Report on Form 8-K dated March 16, 2004, File No. 1-4955).
4.13	Note Purchase Agreement among Hawaiian Electric and the Purchasers that are parties thereto, dated April 19, 2012 (Exhibit 4(a) to Hawaiian Electric's Current Report on Form 8-K dated April 19, 2012, File No. 1-4955).
4.14	Note Purchase and Guaranty Agreement among Hawaiian Electric, Maui Electric and the Purchasers that are parties thereto, dated April 19, 2012 (Exhibit 4(b) to Hawaiian Electric's Current Report on Form 8-K dated April 19, 2012, File No. 1-4955).
4.15	Note Purchase and Guaranty Agreement among Hawaiian Electric, Hawaii Electric Light and the Purchasers that are parties thereto, dated April 19, 2012 (Exhibit 4(c) to Hawaiian Electric's Current Report on Form 8-K dated April 19, 2012, File No. 1-4955).
4.16	Note Purchase Agreement among Hawaiian Electric and the Purchasers that are parties thereto, dated September 13, 2012 (Exhibit 4 to Hawaiian Electric's Current Report on Form 8-K dated September 13, 2012, File No. 1-4955).
4.17	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of October 3, 2013. (Exhibit 4(a) to Hawaiian Electric's Current Report on Form 8-K dated October 3, 2013, File No. 1-4955).
4.18	Note Purchase and Guaranty Agreement among Hawaiian Electric, Maui Electric Company, Limited and the Purchasers that are parties thereto, dated as of October 3, 2013. (Exhibit 4(b) to Hawaiian Electric's Current Report on Form 8-K dated October 3, 2013, File No. 1-4955).
4.19	Note Purchase and Guaranty Agreement among Hawaiian Electric, Hawaii Electric Light Company, Inc. and the Purchasers that are parties thereto, dated as of October 3, 2013. (Exhibit 4 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, 2013, File No. 1-4955).
4.20	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of October 15, 2015. (Exhibit 4(a) to Hawaiian Electric's Current Report on Form 8-K dated October 15, 2015, File No. 1-4955).
4.21	Note Purchase and Guaranty Agreement among Hawaiian Electric, Maui Electric Company, Limited and the Purchasers that are parties thereto, dated as of October 15, 2015. (Exhibit 4(b) to Hawaiian Electric's Current Report on Form 8-K dated October 15, 2015, File No. 1-4955).

<u>Exhibit no.</u>	<u>Description</u>
4.22	Note Purchase and Guaranty Agreement among Hawaiian Electric, Hawaii Electric Light Company, Inc. and the Purchasers that are parties thereto, dated as of October 15, 2015. (Exhibit 4(c) to Hawaiian Electric's Current Report on Form 8-K dated October 15, 2015, File No. 1-4955).
4.23	Note Purchase Agreement among Hawaiian Electric Company, Inc. and the Purchasers that are parties thereto, dated as of December 15, 2016. (Exhibit 4 to Hawaiian Electric's Current Report on Form 8-K dated December 15, 2016, File No. 1-4955).
10.1(a)	Power Purchase Agreement between Kalaeloa Partners, L.P., and Hawaiian Electric dated October 14, 1988 (Exhibit 10(a) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 1988, File No. 1-4955).
10.1(b)	Amendment No. 1 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated June 15, 1989 (Exhibit 10(c) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended June 30, 1989, File No. 1-4955).
10.1(c)	Lease Agreement between Kalaeloa Partners, L.P., as Lessor, and Hawaiian Electric, as Lessee, dated February 27, 1989 (Exhibit 10(d) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended June 30, 1989, File No. 1-4955).
10.1(d)	Restated and Amended Amendment No. 2 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated February 9, 1990 (Exhibit 10.2(c) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1989, File No. 1-4955).
10.1(e)	Amendment No. 3 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated December 10, 1991 (Exhibit 10.2(e) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1991, File No. 1-4955).
10.1(f)	Amendment No. 4 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated October 1, 1999 (Exhibit 10.1 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, File No. 1-4955).
10.1(g)	Confirmation Agreement Concerning Section 5.2B(2) of Power Purchase Agreement and Amendment No. 5 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated October 12, 2004 (Exhibit 10.3 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004, File No. 1-4955).
10.1(h)	Agreement for Increment Two Capacity and Amendment No. 6 to Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated October 12, 2004 (Exhibit 10.4 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004, File No. 1-4955).
10.1(i)	Letter agreement dated July 28, 2016 and executed August 1, 2016 extending the term of the Power Purchase Agreement between Hawaiian Electric and Kalaeloa Partners, L.P., dated October 14, 1988 (as amended) (Exhibit 10 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, File No. 1-4955).
10.2(a)	Power Purchase Agreement between AES Barbers Point, Inc. and Hawaiian Electric, entered into on March 25, 1988 (Exhibit 10(a) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended March 31, 1988, File No. 1-4955).
10.2(b)	Agreement between Hawaiian Electric and AES Barbers Point, Inc., pursuant to letters dated May 10, 1988 and April 20, 1988 (Exhibit 10.4 to Hawaiian Electric's Annual Report on Form 10-K for fiscal year ended December 31, 1988, File No. 1-4955).
10.2(c)	Amendment No. 1, entered into as of August 28, 1988, to Power Purchase Agreement between AES Barbers Point, Inc. and Hawaiian Electric (Exhibit 10 to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended September 30, 1989, File No. 1-4955).
10.2(d)	Hawaiian Electric's Conditional Notice of Acceptance to AES Barbers Point, Inc. dated January 15, 1990 (Exhibit 10.3(c) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1989, File No. 1-4955).
10.2(e)	Amendment No. 2, entered into as of May 8, 2003, to Power Purchase Agreement between AES Hawaii, Inc. and Hawaiian Electric (Exhibit 10.2(e) to Hawaiian Electric's Annual Report on Form 10-K for fiscal year ended December 31, 2003, File No. 1-4955).
10.3(a)	Purchase Power Contract between Hawaii Electric Light and Thermal Power Company dated March 24, 1986 (Exhibit 10(a) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended June 30, 1989, File No. 1-4955).

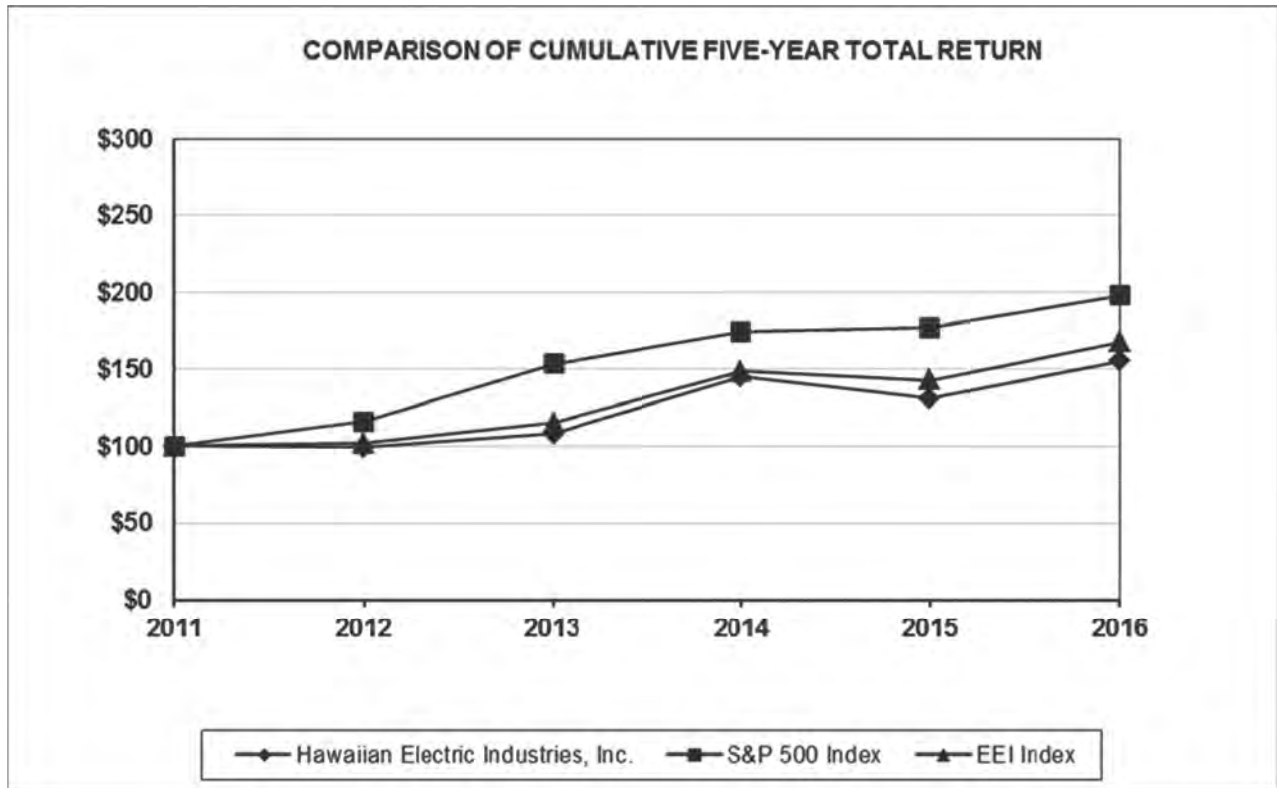
<u>Exhibit no.</u>	<u>Description</u>
10.3(b)	Firm Capacity Amendment between Hawaii Electric Light and Puna Geothermal Venture (assignee of AMOR VIII, who is the assignee of Thermal Power Company) dated July 28, 1989 to Purchase Power Contract between Hawaii Electric Light and Thermal Power Company dated March 24, 1986 (Exhibit 10 (b) to Hawaiian Electric's Quarterly Report on Form 10-Q for the quarter ended June 30, 1989, File No. 1-4955).
10.3(c)	Amendment made in October 1993 to Purchase Power Contract between Hawaii Electric Light and Puna Geothermal Venture dated March 24, 1986, as amended (Exhibit 10.5(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, File No. 1-4955).
10.3(d)	Third Amendment dated March 7, 1995 to the Purchase Power Contract between Hawaii Electric Light and Puna Geothermal Venture dated March 24, 1986, as amended (Exhibit 10.5(c) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, File No. 1-4955).
10.3(e)	Performance Agreement and Fourth Amendment dated February 12, 1996 to the Purchase Power Contract between Hawaii Electric Light and Puna Geothermal Venture dated March 24, 1986, as amended (Exhibit 10.5(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1995, File No. 1-4955).
10.3(f)	Fifth Amendment dated February 7, 2011 to the Purchase Power Contract between Hawaii Electric Light and Puna Geothermal Venture dated March 24, 1986, as amended (Exhibit 10.4(f) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2011, File No. 1-4955).
10.3(g)	Power Purchase Agreement between Puna Geothermal Venture and Hawaii Electric Light dated February 7, 2011 (Exhibit 10.4(g) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2011, File No. 1-4955).
10.4(a)	Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997 (but with the following attachments omitted: Attachment C, "Selected portions of the North American Electric Reliability Council Generating Availability Data System Data Reporting Instructions dated October 1996" and Attachment E, "Form of the Interconnection Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light," which is provided in final form as Exhibit 10.6(b)) (Exhibit 10.7 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, File No. 1-4955).
10.4(b)	Interconnection Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997 (Exhibit 10.7(a) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, File No. 1-4955).
10.4(c)	Amendment No. 1, executed on January 14, 1999, to Power Purchase Agreement between Encogen Hawaii, L.P. and Hawaii Electric Light dated October 22, 1997 (Exhibit 10.7(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 1998, File No. 1-4955).
10.4(d)	Power Purchase Agreement Novation dated November 8, 1999 by and among Encogen Hawaii, L.P., Hamakua Energy Partners and Hawaii Electric Light (Exhibit 10.7(c) to Hawaiian Electric's Annual Report on Form 10-K for fiscal year ended December 31, 2001, File No. 1-4955).
10.4(e)	Consent and Agreement Concerning Certain Assets of Black River Energy, LLC By and Among Great Point Power Hamakua Holdings, LLC, Hamakua Energy Partners, L.P. and Hawaii Electric Light dated April 19, 2010 (Exhibit 10.6(e) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, File No. 1-4955).
10.4(f)	Guarantee Agreement between Great Point Power Hamakua Holdings, LLC and Hawaii Electric Light dated June 4, 2010 (Exhibit 10.6(f) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, File No. 1-4955).
10.5	Inter-Island Supply Contract for Petroleum Fuels by and between Chevron Products Company and Hawaiian Electric, Hawaii Electric Light and Maui Electric dated as of February 18, 2016 (confidential treatment has been granted for portions of this exhibit through December 31, 2019) (Exhibit 10.1 to Hawaiian Electric's Amendment No. 1 to Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, File No. 1-4955).
10.6	Supply Contract for LSFO, Diesel and MATS Fuel by and between Hawaiian Electric and Chevron Products Company dated February 18, 2016 (confidential treatment has been granted for portions of this exhibit through December 31, 2019) (Exhibit 10.2 to Hawaiian Electric's Amendment No. 1 to Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, File No. 1-4955).

<u>Exhibit no.</u>	<u>Description</u>
10.7	Fuels Terminalling Agreement by and between Chevron Products Company and Hawaii Electric Light dated February 18, 2016 (confidential treatment has been granted for portions of this exhibit through December 31, 2019) (Exhibit 10.2 to Hawaiian Electric's Amendment No. 1 to Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, File No. 1-4955).
10.8(a)	Contract of private carriage by and between HITI and Hawaii Electric Light dated December 4, 2000 (Exhibit 10.13 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2000, File No. 1-4955).
10.8(b)	Consent to Change of Ownership/Control of Carrier by and between K-Sea Operating Partnership, L.P., and Hawaii Electric Light, dated July 1, 2011 (Exhibit 10.13(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-4955).
10.9(a)	Contract of private carriage by and between HITI and Maui Electric dated December 4, 2000 (Exhibit 10.14 to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2000, File No. 1-4955).
10.9(b)	Consent to Change of Ownership/Control of Carrier by and between K-Sea Operating Partnership, L.P., and Maui Electric, dated July 1, 2011 (Exhibit 10.14(b) to Hawaiian Electric's Annual Report on Form 10-K for the fiscal year ended December 31, 2012, File No. 1-4955).
10.10	Amended and Restated Credit Agreement, dated as of April 2, 2014, among Hawaiian Electric, as Borrower, the Lenders Party Thereto and Wells Fargo Bank, National Association, as Syndication Agent, and Bank of America, N.A., Bank of Hawaii, Royal Bank of Canada, Union Bank, N.A. and U.S. Bank National Association as Co-Documentation Agents, and JPMorgan Chase Bank, N.A., as Administrative Agent, Swingline Lender and Issuing Bank, and J.P. Morgan Securities LLC and Wells Fargo Securities, LLC, as Joint Lead Arrangers and Joint Book Runners (Exhibit 10.2 to Hawaiian Electric's Current Report on Form 8-K dated April 2, 2014, File No. 1-4955).
11	Computation of Earnings Per Share of Common Stock (See note on Hawaiian Electric's Item 6. Selected Financial Data).
*12.2	Hawaiian Electric - Computation of Ratio of Earnings to Fixed Charges.
*21.2	Hawaiian Electric - Subsidiaries of the Registrant.
*31.3	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Alan M. Oshima (Hawaiian Electric Chief Executive Officer).
*31.4	Certification Pursuant to Section 13a-14 of the Securities Exchange Act of 1934 of Tayne S. Y. Sekimura (Hawaiian Electric Chief Financial Officer).
*32.2	Hawaiian Electric Certification Pursuant to 18 U.S.C. Section 1350.
*99.1	Hawaiian Electric's Directors, Executive Officers and Corporate Governance; Hawaiian Electric's Executive Compensation; Hawaiian Electric's Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters; Hawaiian Electric's Certain Relationships and Related Transactions, and Director Independence; and Hawaiian Electric's Principal Accounting Fees and Services.

Appendix A

Shareholder Return Performance Graph

The graph below compares the cumulative total shareholder return on HEI Common Stock against the cumulative total return of the companies listed on the S&P 500 Stock Index and the Edison Electric Institute (EEI) Index of Investor-Owned Electric Companies (44 companies were included as of December 31, 2016). The graph is based on the market price of common stock for all companies in the indices at December 31 each year and assumes that \$100 was invested on December 31, 2011, in HEI Common Stock and the common stock of all companies in the indices and that dividends were reinvested.



Source: S&P Global Inc.

Appendix B

Explanation of HEI's Use of Certain Unaudited Non-GAAP Measures

HEI and Hawaiian Electric Company management use certain non-GAAP measures to evaluate the performance of HEI and the utility. Management believes these non-GAAP measures provide useful information and are a better indicator of the companies' core operating activities. Core earnings and other financial measures as presented here may not be comparable to similarly titled measures used by other companies. The accompanying tables provide a reconciliation of reported GAAP¹ earnings to non-GAAP core earnings, the return on average common equity (ROACE) and the adjusted non-GAAP core ROACE for HEI consolidated.

The reconciling adjustments from GAAP earnings to core earnings are limited to the fees, reimbursements, costs and associated taxes related to the terminated merger between HEI and NextEra Energy, Inc., the cancelled spin-off of ASB Hawaii, Inc. and the terminated liquefied natural gas (LNG) contract which required the Hawaii Public Utilities Commission approval of the merger with NextEra Energy, Inc. For more information on the transactions, see HEI's Form 8-K filed on July 18, 2016, and HEI's Form 8-K filed on July 19, 2016. Management does not consider these items to be representative of the company's fundamental core earnings.

RECONCILIATION OF GAAP¹ TO NON-GAAP MEASURES

Hawaiian Electric Industries, Inc. and Subsidiaries (HEI)

Unaudited

(\$ in millions, except per share amounts)

	2016	2015	2014
HEI CONSOLIDATED NET INCOME			
GAAP (as reported)	\$ 248.3	\$ 159.9	\$ 168.1
Excluding special items (after-tax):			
(Income) expenses related to the terminated merger with NextEra Energy and cancelled spin-off of ASB Hawaii	(60.3)	15.8	4.9
Costs related to the terminated LNG contract ²	2.1	-	-
Non-GAAP (core) net income	\$ 190.1	\$ 175.7	\$ 173.0
HEI CONSOLIDATED DILUTED EARNINGS PER COMMON SHARE			
GAAP (as reported)	\$ 2.29	\$ 1.50	\$ 1.63
Excluding special items (after-tax):			
(Income) expenses related to the terminated merger with NextEra Energy and cancelled spin-off of ASB Hawaii	(0.56)	0.15	0.05
Costs related to the terminated LNG contract ²	0.02	-	-
Non-GAAP (core) diluted earnings per common share	\$ 1.75	\$ 1.65	\$ 1.68
HEI CONSOLIDATED RETURN ON AVERAGE COMMON EQUITY (ROACE) (simple average)			
Based on GAAP	12.4%	8.6%	9.6%
Based on non-GAAP (core)³	9.5%	9.4%	9.8%

Note: Columns may not foot due to rounding

1 Accounting principles generally accepted in the United States of America

2 The LNG contract was terminated as it was conditioned on the merger with NextEra Energy closing

3 Calculated as core net income divided by average GAAP common equity

EXECUTIVE MANAGEMENT (as of March 1, 2017)

HAWAIIAN ELECTRIC INDUSTRIES (HEI)

Constance H. Lau

President and Chief Executive Officer,
Hawaiian Electric Industries, Inc.

Chair,
Hawaiian Electric Company, Inc.

Chair,
American Savings Bank, F.S.B.

James A. Ajello*

Executive Vice President and
Chief Financial Officer

Greg C. Hazelton*

Senior Vice President, Finance

HAWAIIAN ELECTRIC

Alan M. Oshima

President and Chief Executive Officer

Jay M. Ignacio

President, Hawai'i Electric Light and
Senior Operations Advisor to the
President and CEO of Hawaiian Electric

Sharon M. Suzuki

President,
Maui Electric

Jimmy D. Alberts

Senior Vice President,
Customer Service

Colton K. Ching

Senior Vice President,
Planning and Technology

Ronald R. Cox

Senior Vice President,
Operations

Shelee M. T. Kimura

Senior Vice President,
Business Development and Strategic Planning

Susan A. Li

Senior Vice President,
General Counsel, Chief Compliance and
Administrative Officer, and Corporate Secretary

Stephen M. McMenamain

Senior Vice President and
Chief Information Officer

Tayne S. Y. Sekimura

Senior Vice President and
Chief Financial Officer

Scott W. H. Seu

Senior Vice President,
Public Affairs

AMERICAN SAVINGS BANK (ASB)

Richard F. Wacker

President and Chief Executive Officer

Thomas A. Bowers

Executive Vice President,
Marketing and Business Development

Johnathan U. Choe

Executive Vice President,
Consumer Banking

Alexander S. Kim

Executive Vice President,
Operations and Technology

Gabriel S. H. Lee

Executive Vice President,
Commercial Markets

Robert K. W. H. Nobriga

Executive Vice President and
Chief Financial Officer

Craig A. Norris

Executive Vice President and
Chief Credit Officer

Natalie M. H. Taniguchi

Executive Vice President,
Enterprise Risk and Regulatory Relations

K. Elizabeth Whitehead

Executive Vice President,
Chief Administrative Officer and
Assistant Secretary

*As disclosed in HEI's Form 8-K dated February 13, 2017, Mr. Ajello will retire from HEI effective April 2, 2017 and be succeeded in his role as Executive Vice President and Chief Financial Officer by Mr. Hazelton. Mr. Ajello will join the board of American Savings Bank, F.S.B. upon his retirement from HEI.

BOARD OF DIRECTORS



Jeffrey N. Watanabe
 Chair, HEI
 Chair, HEI Executive Committee
 Director, Hawaiian Electric
 Director, ASB
 Retired Founder, Watanabe Ing LLP



Constance H. Lau
 President and Chief Executive Officer, HEI
 Director, HEI
 Chair, Hawaiian Electric
 Chair, ASB
 Chair, ASB Executive Committee



Barry K. Taniguchi
 Chair, HEI Audit Committee
 Director, HEI
 Chair, ASB Audit Committee
 Director, ASB
 Chairman and Chief Executive Officer, KTA Super Stores



Admiral Thomas B. Fargo, USN (Retired)
 Chair, HEI Compensation Committee
 Director, HEI
 Chairman, Huntington Ingalls Industries, Inc.
 Former Commander of the U.S. Pacific Command



Kelvin H. Taketa
 Chair, HEI Nominating & Corporate Governance Committee
 Director, HEI
 Director, Hawaiian Electric
 Chief Executive Officer, Hawai'i Community Foundation



Peggy Y. Fowler
 Director, HEI
 Lead Independent Director, Umpqua Holdings Corp.
 Retired President and Chief Executive Officer, Portland General Electric Company



Richard J. Dahl
 Director, HEI
 Director, Hawaiian Electric
 Chairman and Interim Chief Executive Officer, DineEquity, Inc.
 Retired President and Chief Executive Officer, James Campbell Company, LLC



Keith P. Russell
 Director, HEI
 Chair, ASB Risk Committee
 Director, ASB
 President, Russell Financial, Inc.



James K. Scott, Ed.D.
 Director, HEI
 Director, ASB
 President, Punahou School



Don E. Carroll
 Director, Hawaiian Electric
 Retired Chairman, Oceanic Time Warner Cable Advisory Board



Shirley J. Daniel, Ph.D.
 Director, ASB
 Professor of Accountancy, Shidler College of Business, University of Hawai'i-Mānoa



Timothy E. Johns
 Chair, Hawaiian Electric Audit Committee
 Director, Hawaiian Electric
 Chief Consumer Officer, Hawai'i Medical Service Association



Micah A. Kāne
 Director, Hawaiian Electric
 President and Chief Operating Officer, Hawai'i Community Foundation



Bert A. Kobayashi, Sr.
 Director, ASB
 Chairman and Chief Executive Officer, Kobayashi Development Group LLC



Bert A. Kobayashi, Jr.
 Director, Hawaiian Electric
 Managing Partner, BlackSand Capital, LLC



Alan M. Oshima
 President and Chief Executive Officer, Hawaiian Electric
 Director, Hawaiian Electric



Richard F. Wacker
 President and Chief Executive Officer, ASB
 Director, ASB

HEI

Jeffrey N. Watanabe, Chair (1, 3)
 Barry K. Taniguchi (1, 2)
 Admiral Thomas B. Fargo, USN (Retired) (3, 4)
 Kelvin H. Taketa (4)
 Richard J. Dahl (2)
 Peggy Y. Fowler (3)
 Constance H. Lau (1)
 Keith P. Russell (2)
 James K. Scott, Ed.D. (4)

Hawaiian Electric

Constance H. Lau, Chair
 Timothy E. Johns (5)
 Don E. Carroll (5)
 Richard J. Dahl (5)
 Micah A. Kāne
 Bert A. Kobayashi, Jr.
 Alan M. Oshima
 Kelvin H. Taketa
 Jeffrey N. Watanabe

ASB

Constance H. Lau, Chair (6, 8)
 Barry K. Taniguchi (6, 7)
 Keith P. Russell (7, 8)
 Shirley J. Daniel, Ph.D. (7)
 Bert A. Kobayashi, Sr.
 James K. Scott, Ed.D.
 Richard F. Wacker
 Jeffrey N. Watanabe (6, 8)

Hawaiian Electric Industries Committees of the Board of Directors:

- (1) Executive
 Jeffrey N. Watanabe, Chair
- (2) Audit
 Barry K. Taniguchi, Chair

- (3) Compensation
 Admiral Thomas B. Fargo, USN (Retired), Chair
- (4) Nominating & Corporate Governance
 Kelvin H. Taketa, Chair

Hawaiian Electric Committees of the Board of Directors:

- (5) Audit
 Timothy E. Johns, Chair

American Savings Bank Committees of the Board of Directors:

- (6) Executive
 Constance H. Lau, Chair
- (7) Audit
 Barry K. Taniguchi, Chair
- (8) Risk
 Keith P. Russell, Chair



Catalyst for a better Hawai'i

Hawaiian Electric Industries, Inc.

SHAREHOLDER INFORMATION

CORPORATE HEADQUARTERS

Hawaiian Electric Industries, Inc.
1001 Bishop Street, Suite 2900
Honolulu, Hawai'i 96813
Telephone: 808-543-5662

Mailing address:

P.O. Box 730
Honolulu, Hawai'i 96808-0730

NEW YORK STOCK EXCHANGE

Common stock symbol: HE
Trust preferred securities symbol:
HEPrU (Hawaiian Electric Company, Inc.)

SHAREHOLDER SERVICES

P.O. Box 730
Honolulu, Hawai'i 96808-0730
Telephone: 808-532-5841
Toll Free: 866-672-5841
Facsimile: 808-532-5868
E-mail: invest@hei.com
Office hours: 7:30 a.m. to 3:30 p.m. H.S.T.

Correspondence about common stock and utility preferred stock ownership, dividend payments, transfer requirements, changes of address, lost stock certificates, duplicate mailings, and account status may be directed to Shareholder Services.

A copy of the 2016 Form 10-K Annual Report for Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc., including financial statements and schedules, will be provided by HEI without charge upon written request directed to Shareholder Services, at the above address for Shareholder Services or through HEI's website.

WEBSITE

Internet users can access information about HEI and its subsidiaries at <http://www.hei.com>.

Dividends and Distributions

Common stock quarterly dividends are customarily paid on or about the 10th of March, June, September, and December to shareholders of record on the dividend record date.

Quarterly distributions on trust preferred securities are paid by HECO Capital Trust III, an unconsolidated financing subsidiary of Hawaiian Electric Company, Inc., on or about March 31, June 30, September 30, and December 31 to holders of record on the business day before the distribution is paid.

Utility company preferred stock quarterly dividends are paid on the 15th of January, April, July, and October to preferred shareholders of record on the 5th of these months.

DIRECT REGISTRATION

HEI common stock can be issued in direct registration (book entry) form. The stock is DRS (Direct Registration System) eligible.

Dividend Reinvestment and Stock Purchase Plan

Any individual of legal age or any entity may buy HEI common stock at market prices directly from HEI. The minimum initial investment is \$250. Additional optional cash investments may be as small as \$25. The annual maximum investment is \$300,000. After your account is open, you may reinvest all of your dividends to purchase additional shares or elect to receive some or all of your dividends in cash. You may instruct HEI to electronically debit a regular amount from a checking or savings account. HEI can also deposit dividends automatically to your checking or savings account. A prospectus describing the plan may be obtained through HEI's website or by contacting Shareholder Services.

ANNUAL MEETING

Friday, May 5, 2017, 10:00 a.m.
American Savings Bank Tower
1001 Bishop Street
8th Floor, Room 805
Honolulu, Hawai'i 96813

Please direct inquiries to:
Kurt K. Murao
Vice President,
Legal and Administration
and Corporate Secretary

Telephone: 808-543-5884
Facsimile: 808-203-1992

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP
999 Bishop Street, Suite 2700
Honolulu, Hawai'i 96813
Telephone: 808-543-0700
Facsimile: 855-214-5030

INSTITUTIONAL INVESTOR AND SECURITIES ANALYST INQUIRIES

Please direct inquiries to:
Clifford H. Chen
Treasurer, Manager, Investor Relations and Strategic Planning
Telephone: 808-543-7300
Facsimile: 808-203-1164
E-mail: ir@hei.com

TRANSFER AGENTS

Common stock and utility company preferred stock:
Shareholder Services

Common stock only:
Continental Stock Transfer & Trust Company
17 Battery Place, 8th Floor
New York, New York 10004
Telephone: 212-509-4000
Facsimile: 212-509-5150

Trust preferred securities:
Contact your investment broker for information on transfer procedures.



To minimize our environmental impact, the Hawaiian Electric Industries 2016 Annual Report to Shareholders was printed on papers containing fibers from products from socially and environmentally responsible forestry.

To learn more, please visit us at
www.hei.com