

**NORTHERN CALIFORNIA POWER AGENCY  
AND ASSOCIATED POWER CORPORATIONS**

**Reports on Audit of Combined Financial Statements**

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**For the Years Ended June 30, 2018 and 2017**

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## **MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)**

### **NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

The management of Northern California Power Agency (the Agency or NCPA) offers the following narrative discussion and analysis of its financial performance for the years ended June 30, 2018 and 2017. This discussion should be read in conjunction with the Agency's combined financial statements and accompanying notes, which follow this section.

#### **BACKGROUND**

The Northern California Power Agency is a joint powers agency formed by member public entities under the laws of the State of California to provide cost effective wholesale power, energy-related services, and advocacy on behalf of public power consumers. The Agency's purposes are for purchasing, generating, transmitting, and selling electrical energy and for providing other related services to its members and customers as each may require. The Agency provides a portion of certain of its members' power needs and certain of its members also self-provide and/or purchase power and transmission from other public and private sources.

NCPA is governed by a Commission comprised of one representative for each member. The Commission is responsible for the general management of the affairs, property, and business of the Agency. Under the direction of the General Manager, the staff of the Agency is responsible for providing various administrative, operating and planning services for the Agency.

The Agency's project construction and development programs have been individually financed by project revenue bonds that are collateralized by the Agency's assignment of all payments, revenues, and proceeds associated with its interest in each project. Each of the Agency's members may choose which projects it wishes to participate in, and is known as a "project participant" for each such project. Each project participant has agreed to pay its proportionate share of debt service and other costs of the related project, notwithstanding the suspension, interruption, interference, or reduction or curtailment of output from the project for any reason (that is, the take-or-pay member agreements). Certain of the revenue bonds are additionally supported by municipal bond insurance credit enhancements.

Power sales by the Agency to its members for their resale include both sales of power to project participants generated by operating plants and power purchased from outside sources. Collections for power sales are designed to recover costs that include budgeted annual operating costs and debt service. Additional amounts for operating reserves or cost stabilization may be included in collections under the terms of bond indentures. The Agency's collections for electric service are not subject to the regulatory jurisdiction of the California Public Utilities Commission (CPUC) or the Federal Energy Regulatory Commission (FERC). Rather, the Agency's collections are established annually in connection with its budget, which is approved by its governing Commission.

Various legal and tax considerations caused the Agency to provide that separate not-for-profit corporations should be delegated by the Agency to own the geothermal electrical generating projects undertaken by the Agency ("the Associated Power Corporations"). The Associated Power Corporations, consisting of Northern California Municipal Power Corporation Nos. Two and Three, have delegated to the Agency the authority to construct, operate, and manage their respective geothermal plants and related assets. The Agency, in return for financing the costs of acquisition and construction, acquires all the capacity and energy generated by the plants.

Because the Agency is a separate, special-purpose governmental entity that serves its participating members, who are also the Agency's principal customers, the net results of operations flow through to its participating members as either net revenues or net expenses.

## **MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)**

### **NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

#### **FINANCIAL REPORTING**

For accounting purposes, the Agency is a special-purpose governmental entity that is engaged in a business-type activity, principally as a supplier of wholesale electricity and transmission to its member participants. As such, the Agency's financial statements are presented as an enterprise type fund.

The records of the Agency and the Associated Power Corporations are maintained substantially in accordance with the FERC Uniform System of Accounts. Accounting principles generally accepted in the United States of America are applied by the Agency in conformance with pronouncements of the Governmental Accounting Standards Board (GASB). The combined financial statements encompass the Agency and Associated Power Corporations on an accrual accounting basis. All significant intercompany balances and transactions have been eliminated from the combined amounts reported.

In accordance with GASB Statement of Government Accounting Standards No. 62, Codification of Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting (GASB No. 62), the Agency has recorded as regulatory assets and liabilities certain items of expense and revenue that otherwise would have been charged to operations as such items will be recovered in future years' operations. The Agency expects to recover these items in collections over the term of the related debt obligations it has issued or when the obligation is paid.

In accordance with GASB Statement of Government Accounting Standards No. 72, Fair Value Measurement and Application, the Agency has established standards for fair value measurements of assets and liabilities. The definition of *fair value* is the price in an orderly transaction between market participants at the measurement date.

In accordance with GASB Statement of Government Accounting Standards No. 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions (OPEB), the Agency reports a liability on the face of the financial statements, including deferred outflows of resources and deferred inflows. The standard also requires more extensive note disclosures and required supplementary information related to our OPEB liabilities.

The Agency has elected to adopt GASB Statement of Government Accounting Standards No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements early. In accordance with this standard, the Agency added additional note disclosures for debt, including direct borrowings and direct placements.

#### **COMBINED STATEMENTS OF NET POSITION, COMBINED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION, AND COMBINED STATEMENTS OF CASH FLOWS**

The combined statements of net position includes the Agency's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position using the accrual method of accounting, as well as information about which assets can be used for general purposes and which assets are restricted as a result of bond covenants and other commitments. The combined statement of net position provides information about the nature and amount of resources and obligations at a specific point in time. The combined statements of revenues, expenses, and changes in net position report all the revenues and expenses during the time periods indicated. The combined statements of cash flows report the cash provided and used by operating activities, as well as other cash sources such as investment income and debt financing, and other cash uses, such as payments for debt service and capital additions.

# MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

## NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

### FINANCIAL HIGHLIGHTS

The following is a summary of the Agency's combined financial position and results of operations for the years ended June 30, 2018, 2017, and 2016.

Condensed Statement of Net Position	June 30,		
	(in thousands)		
	2018	2017	2016
<b>Assets</b>			
Current assets	\$ 89,908	\$ 88,453	\$ 83,366
Restricted assets	219,905	221,783	211,759
Electric plant, net	531,337	559,841	588,870
Other assets	231,430	236,269	249,574
Total Assets	1,072,580	1,106,346	1,133,569
Deferred outflows of resources	61,076	61,612	63,441
	<u>\$ 1,133,656</u>	<u>\$ 1,167,958</u>	<u>\$ 1,197,010</u>
<b>Liabilities and Net Position</b>			
Long-term debt, net	\$ 694,597	\$ 737,022	\$ 776,982
Current liabilities	95,389	101,550	91,653
Non-current liabilities	231,517	218,427	214,612
Total Liabilities	1,021,503	1,056,999	1,083,247
Deferred inflows of resources	74,085	76,899	85,800
Net position:			
Net investment in capital assets	(63,119)	(62,191)	(62,193)
Restricted	60,318	58,269	66,282
Unrestricted	40,869	37,982	23,874
	<u>\$ 1,133,656</u>	<u>\$ 1,167,958</u>	<u>\$ 1,197,010</u>

Condensed Statements of Revenues, Expenses and Changes in Net Position	Years Ended June 30,		
	(in thousands)		
	2018	2017	2016
Operating revenues *	\$ 560,883	\$ 466,738	\$ 467,102
Operating expenses	(509,190)	(418,307)	(421,508)
Net operating revenues	51,693	48,431	45,594
Other expenses	(25,559)	(21,561)	(38,860)
Future refundable costs	(11,812)	(13,274)	(140)
Refunds to participants	(10,314)	(7,499)	(8,622)
Change in net position	4,008	6,097	(2,028)
Net position, beginning of year	34,060	27,963	29,991
Net position, end of year	<u>\$ 38,068</u>	<u>\$ 34,060</u>	<u>\$ 27,963</u>

\*A reclassification of \$14,457,000 was made for FY 2016 between Operating Revenues and Operating Expenses for comparability purpose.

## **MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)**

### **NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

#### **ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

##### **Current Assets**

*2018 Compared to 2017* - Current assets increased \$1.5 million or 1.6% from the prior year, primarily due to timing of collections and payments of transmission costs and energy sales and purchases.

*2017 Compared to 2016* - Current assets increased \$5.1 million or 6.1% from the prior year, primarily due to higher energy sales during May and June. The higher energy sales resulted from increased hydroelectric generation as a result of a significant snowpack and heavy rainfall during the winter months.

##### **Restricted Assets**

*2018 Compared to 2017* - Restricted assets decreased \$1.9 million or 0.8% from the prior year. This is primarily due to decreased investment mark to market adjustment as a result of higher interest rate compared to prior year.

*2017 Compared to 2016* - Restricted assets increased \$10.0 million or 4.7% from the prior year. This is primarily a result of net increase in participants' General Operating Reserves of \$4.7 million and collections of budgeted reserves and deposits of \$5.3 million.

##### **Electric Plant, net**

*2018 Compared to 2017* - The Agency has invested approximately \$531.3 million in plant assets and construction work in progress, net of accumulated depreciation, at June 30, 2018. Net utility plant comprises approximately 46.9% of the Agency's assets. The \$28.5 million or 5.1% decrease from the prior year consists of \$30.9 million in depreciation, offset by net capital expenditures of \$2.4 million. For additional detail, refer to Note B – Significant Accounting Policies.

*2017 Compared to 2016* - The Agency has invested approximately \$559.8 million in plant assets and construction work in progress, net of accumulated depreciation, at June 30, 2017. Net utility plant comprises approximately 47.9% of the Agency's assets. The \$29.1 million or 4.9% decrease from the prior year consists of \$30.7 million in depreciation, offset by net capital expenditures of \$0.1 million. For additional detail, refer to Note B – Significant Accounting Policies.

##### **Deferred Outflows**

*2018 Compared to 2017* - Total deferred outflows of resources decreased \$0.5 million or 0.8% due to the scheduled amortization of excess of cost on refunding of debt of \$6.2 million offset by increase of deferred pension and OPEB contributions of \$5.7 million.

*2017 Compared to 2016* - Total deferred outflows of resources decreased \$1.8 million or 2.9% due to the scheduled amortization of excess of cost on refunding of debt of \$6.2 million offset by increase of deferred pension contribution of \$4.4 million.

## MANAGEMENT’S DISCUSSION AND ANALYSIS (UNAUDITED)

### NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

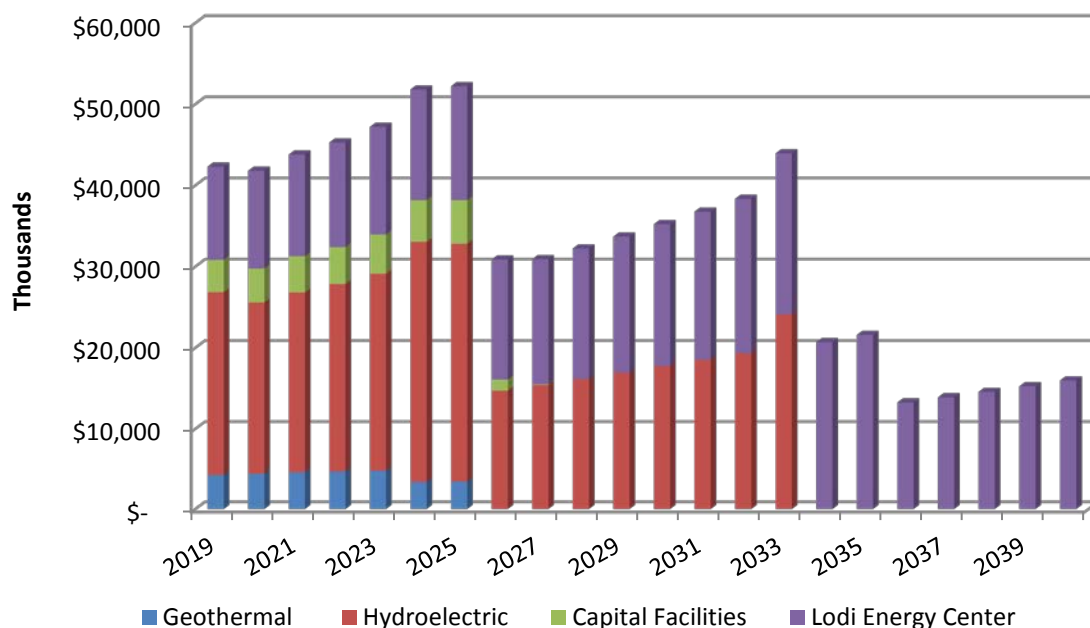
#### LIABILITIES

##### Long-Term Debt, net

*2018 Compared to 2017* - Long-term debt, net decreased \$42.4 million or 5.8% in 2018 as a result of scheduled principal payments of \$39.8 million, net premium amortization of \$2.3 million, and a decrease for the net transfer of the current portion of long-term debt of \$2.8 million offset by a net increase of \$2.5 million related to two refunding activities: 1) Hydroelectric Project Number One Revenue Bonds 2018 Refunding Series A and B that refunded the Hydroelectric Project Number One Revenue Bonds 2008 Refunding Series C, and 2) Lodi Energy Center Revenue Refunding Bonds, Issue One, 2017 Series A that partially refunded the Lodi Energy Center Revenue Bonds, Issue One, 2010 Series A debt. For additional detail, refer to Note E – Projects and Related Financing.

*2017 Compared to 2016* - Long-term debt, net decreased \$40.0 million or 5.1% in 2017 as a result of scheduled principal payments of \$37.2 million, net premium amortization of \$2.3 million, and a decrease for the net transfer of the current portion of long-term debt of \$2.2 million offset by a net increase of \$1.7 million related to the Geothermal Project 3 Revenue Refunding Bonds 2016 Series A that partially refunded the Geothermal Project 3 Revenue Bonds 2009 Series A debt. For additional detail, refer to Note E – Projects and Related Financing.

The following table shows the Agency’s scheduled annual debt service principal payments through FY 2041 as of June 30, 2018:



## **MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)**

### **NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

#### **Current Liabilities**

*2018 Compared to 2017* - Current liabilities decreased by \$6.2 million or 6.1% in 2018. This is primarily due to decreases in accounts payable of \$8.4 million and decreases in accrued interest payable of \$1.9 million offset by increases in operating reserves of \$1.3 million and increases in current portion of long-term debt of \$2.8 million.

*2017 Compared to 2016* - Current liabilities increased by \$9.9 million or 10.8% in 2017. This is primarily due to increases in accounts payable of \$6.0 million, increases in operating reserves of \$2.5 million and increases in current portion of long-term debt of \$2.2 million offset by decreases in accrued interest of \$0.8 million.

#### **Other Non-Current Liabilities**

*2018 Compared to 2017* - Non-current liabilities increased by a net of \$13.1 million or 6.0% in 2018. This was primarily due to increased net pension and OPEB liability of \$11.4 million and increased operating reserves of \$5.7 million for budget collections offset by decreased interest rate swap liability of \$4.0 million.

*2017 Compared to 2016* - Non-current liabilities increased by a net of \$3.8 million or 1.8% in 2017. This was primarily due to increased net pension liability of \$6.8 million and increased operating reserves of \$4.1 million for budget collections offset by decreased interest rate swap liability of \$7.1 million.

#### **Deferred Inflows**

*2018 Compared to 2017* – Total deferred inflows of resources decreased \$2.8 million or 3.7% due to deferral of certain revenues related to the amortization of construction advances and prepaids totaling \$1.5 million and net pension and OPEB expense amortization of \$1.3 million.

*2017 Compared to 2016* – Total deferred inflows of resources decreased \$8.9 million or 10.4% due to the recognition of PG&E-CPUC gas pipeline settlement of \$4.3 million, deferral of certain revenues related to the inventory and prepaids totaling \$2.5 million and net pension expense amortization of \$2.1 million.

### **CHANGES IN NET POSITION**

The Agency is intended to operate on a not-for-profit basis. Therefore, net position primarily represents differences between total revenues collected, based on estimated operating expenses and debt service, and the total actual expenses incurred. In subsequent periods of operation, excess collections (net of encumbrances) may be refunded to participants or appropriated for other uses at the discretion of the Agency's governing Board of Commissioners. In the event the Agency incurs a net expense at year-end, the balance would be subject to recovery from participants under the terms of the related participating member agreements. See Notes A, B and E to the Combined Financial Statements.

#### **Operating Revenues**

Operating revenues consist of Participants Revenue, California Independent System Operator (CAISO) Energy Sales and Ancillary Services (A/S) Revenues and Other Revenues.

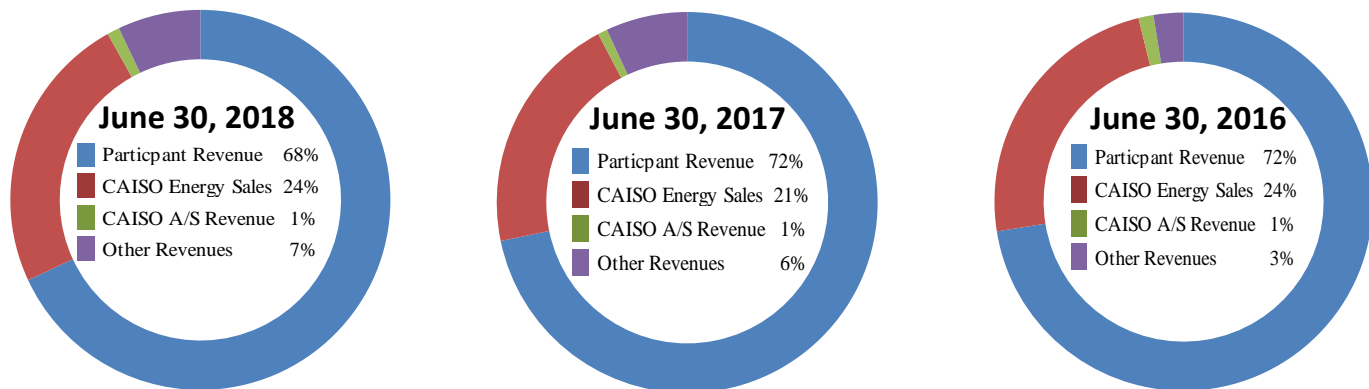
*2018 Compared to 2017* - Operating revenues for fiscal year 2018 were approximately \$94.1 million or 20.2% higher than in the prior fiscal year. This was the net result of the following: (1) higher LEC generation of 1,075,084 MWh versus 299,107 MWh in the prior year, and (2) higher collections for transmission costs due to increased generation.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

### NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

*2017 Compared to 2016* - Operating revenues for fiscal year 2017 were approximately \$.4 million or 0.1% lower than in the prior fiscal year. This was the net result of the following: (1) lower other third party revenues of \$7.2 million due to reduced generation resulting in decreased energy sales into the CAISO market from generation plants, and (2) higher operating revenues from Agency participants of \$6.8 million due to higher collections for CAISO costs and energy purchases.

#### OPERATING REVENUES BY SOURCES



#### Operating Expenses

*2018 Compared to 2017* - Operating expenses were \$509.2 million in FY 2018, an increase of \$90.9 million from FY 2017. Purchased power expense was \$31.4 million higher in 2018 primarily due to increased energy purchased to fulfill energy requirements. Operations expense increased \$21.6 million primarily due to increased fuel usage for the LEC (see Operating Revenues). Maintenance expenses were \$4.5 million higher than in FY 2017 due to increased plant maintenance costs resulting from increased generation. Additionally, the increase in transmission costs of \$33.7 million was due to increased generation.

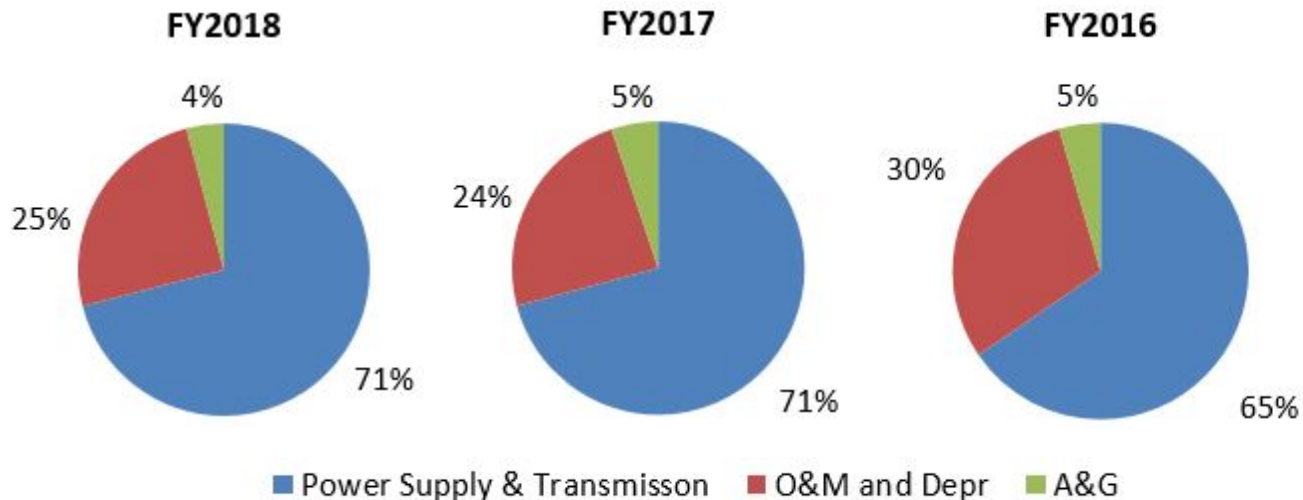
*2017 Compared to 2016* - Operating expenses were \$418.3 million in FY 2017, a decrease of \$3.2 million from FY 2016. Purchased power expense was \$10.2 million higher in 2017 mainly due to increased energy purchased to fulfill energy requirements. Operations expense decreased \$16.5 million primarily due to decreased fuel usage for the LEC. The LEC generated 300.6 MWh in FY 2017 compared to 1,076.9 MWh in FY 2016 due to economic reasons. Maintenance expenses were \$5.7 million lower than in FY 2016 due to decreased plant maintenance costs. Additionally, the increase in transmission costs of \$5.4 million was due to increased CAISO wheeling access charges during the year.



## MANAGEMENT’S DISCUSSION AND ANALYSIS (UNAUDITED)

### NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

The following charts compare the components of Operating Expenses in fiscal years ended June 30, 2018, 2017, and 2016:



### FINANCING ACTIVITIES

During 2018, 2017 and 2016 the Agency continued to implement strategies to further improve its competitive position and financial flexibility. These actions included: (1) monitoring current financial market conditions for financing or refinancing opportunities; and (2) providing rating agencies annual updates on all projects.

In March 2018, the Agency issued Hydroelectric Project Number One Revenue Bonds 2018 Refunding Series A and B (\$70,215,000) to refund Hydroelectric Project Number One Revenue Bond 2008 Refunding Series C. The refunding was completed through the issuance of \$70,215,000 fixed rate debt (2018 Series A & B) with a yield of 2.01% with varying principal maturities ranging from \$839,850 to \$14,957,250 through July 1, 2024. The refunding is estimated to have decreased project debt service by an estimated \$8.34 million over the next 5 years, which results in an estimated economic gain to the Agency of approximately \$7.76 million.

In December 2017, the Agency issued Lodi Energy Center Revenue Refunding Bonds Issue One 2017 Series A (\$38,970,000) to refund a portion of Lodi Energy Center Revenue Bonds Issue One 2010 Series A. The private placement refunding was completed through the issuance of \$38,970,000 fixed rate tax exempt debt (2017 Series A) with a yield of 2.27% with varying principal maturities ranging from \$335,000 to \$7,825,000 through June 1, 2025. The refunding is estimated to have decreased project debt service by an estimated \$2.41 million over the next 6 years, which results in an estimated economic gain to the Agency of approximately \$2.22 million.

In September 2016, the Agency issued Geothermal Project Number 3 Revenue Refunding Bond 2016 Series A (\$17,530,000) to refund a portion of Geothermal Project Number 3 Revenue Bonds 2009 Series A. The refunding was completed through the issuance of \$17,530,000 fixed rate tax exempt debt (2016 Series A) with a yield of 1.67% with varying principal maturities ranging from \$265,000 to \$3,425,000 through July 1, 2024. The refunding is estimated to have decreased project debt service by an estimated \$1.69 million over the next 8 years, which results in an estimated economic gain to the Agency of approximately \$1.03 million.

Each year the Agency has either informal discussions or sometimes formal presentations with each of the credit rating agencies in order to maintain ongoing communications. Standard and Poor’s, Moody’s, and Fitch affirmed their current ratings on all projects in February 2018, October 2017, and May of 2018, respectively.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

### NOTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

Ratings assigned to the Agency's outstanding project bonds as of June 30, 2018 are as follows:

<b>Debt Credit Ratings:</b>	<b>Standard &amp; Poor's</b>	<b>Fitch</b>	<b>Moody's</b>
Geothermal	A- , stable	A+, stable	A1, stable
Hydroelectric	A+, stable	A+, stable	Aa3, stable
Capital Facilities	A- , stable	Not rated	A2, stable
Lodi Energy Center (Issue One)	A- , stable	A, stable	A1, stable
Lodi Energy Center (Issue Two)	AAA, stable	Not rated	Aa2, stable

### INVESTMENT IN ASSOCIATED COMPANY

Effective June 2018, the Agency purchased a 20% interest in the not-for-profit corporation Hometown Connections, Inc. (HCI) for \$265,000. HCI is a national service corporation that provides consulting, management and metering services to public power utilities on a national level. HCI has contracted with the Agency to provide monthly accounting service. This investment is accounted for using the equity method of accounting.

### SUMMARY

The management of the Agency is responsible for preparing the information in this management's discussion and analysis, combined financial statements and notes to the combined financial statements. Financial statements were prepared according to accounting principles generally accepted in the United States of America, and they fairly portray the Agency's financial position and operating results. The notes to the financial statements are an integral part of the basic financial statements and provide additional financial information.

# Agency Financials

# COMBINED STATEMENTS OF NET POSITION

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

	June 30,	
	2018	2017
	(in thousands)	
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 38,561	\$ 45,779
Investments	36,963	24,825
Accounts receivable		
Participants	950	997
Other	1,797	5,650
Interest receivable	319	171
Inventory and supplies	9,746	9,746
Prepaid expenses	1,572	1,285
<b>TOTAL CURRENT ASSETS</b>	<b>89,908</b>	<b>88,453</b>
<b>RESTRICTED ASSETS</b>		
Cash and cash equivalents	65,435	80,265
Investments	153,830	141,042
Interest receivable	640	476
<b>TOTAL RESTRICTED ASSETS</b>	<b>219,905</b>	<b>221,783</b>
<b>ELECTRIC PLANT</b>		
Electric plant in service	1,504,621	1,501,733
Less: accumulated depreciation	(973,466)	(942,713)
	531,155	559,020
Construction work-in-progress	182	821
<b>TOTAL ELECTRIC PLANT</b>	<b>531,337</b>	<b>559,841</b>
<b>OTHER ASSETS</b>		
Regulatory assets	231,147	236,245
Unused vendor credits	-	24
Preliminary survey and investigation costs	18	-
Investment in associated company	265	-
<b>TOTAL ASSETS</b>	<b>1,072,580</b>	<b>1,106,346</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Excess cost on refunding of debt	41,876	48,106
Pension deferrals	19,200	13,506
<b>TOTAL DEFERRED OUTFLOWS OF RESOURCES</b>	<b>61,076</b>	<b>61,612</b>
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>	<b>\$ 1,133,656</b>	<b>\$ 1,167,958</b>

# COMBINED STATEMENTS OF NET POSITION

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

	June 30,	
	2018	2017
	(in thousands)	
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable and accrued expenses	\$ 22,020	\$ 30,456
Member advances	1,068	993
Operating reserves	21,328	20,024
Current portion of long-term debt	42,335	39,495
Accrued interest payable	8,638	10,582
<b>TOTAL CURRENT LIABILITIES</b>	<b>95,389</b>	<b>101,550</b>
<b>NON-CURRENT LIABILITIES</b>		
Net pension and OPEB liabilities	76,002	64,589
Operating reserves and other deposits	144,406	138,665
Interest rate swap liability	11,109	15,173
Long-term debt, net	694,597	737,022
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>926,114</b>	<b>955,449</b>
<b>TOTAL LIABILITIES</b>	<b>1,021,503</b>	<b>1,056,999</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Regulatory credits	70,890	72,439
Pension and OPEB deferrals	3,195	4,460
<b>TOTAL DEFERRED INFLOWS OF RESOURCES</b>	<b>74,085</b>	<b>76,899</b>
<b>NET POSITION</b>		
Net investment in capital assets	(63,119)	(62,191)
Restricted for:		
Debt service	59,139	57,424
Other programs	1,179	845
Unrestricted	40,869	37,982
<b>TOTAL NET POSITION</b>	<b>38,068</b>	<b>34,060</b>
<b>TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>	<b>\$ 1,133,656</b>	<b>\$ 1,167,958</b>

**COMBINED STATEMENTS OF REVENUES, EXPENSES  
AND CHANGES IN NET POSITION**

**NORTHERN CALIFORNIA POWER AGENCY  
AND ASSOCIATED POWER CORPORATIONS**

	Years Ended June 30,	
	2018	2017
	(in thousands)	
OPERATING REVENUES		
Participants	\$ 381,762	\$ 334,913
Other Third-Party	179,121	131,825
TOTAL OPERATING REVENUES	560,883	466,738
OPERATING EXPENSES		
Purchased power	224,197	192,806
Operations	74,190	52,558
Transmission	137,251	103,544
Depreciation	30,915	30,749
Maintenance	21,497	16,970
Administrative and general	21,140	21,680
TOTAL OPERATING EXPENSES	509,190	418,307
NET OPERATING REVENUES	51,693	48,431
NON OPERATING (EXPENSES) REVENUES		
Interest expense	(34,728)	(34,550)
Interest income	1,245	60
Other	7,924	12,929
TOTAL NON OPERATING EXPENSES	(25,559)	(21,561)
FUTURE RECOVERABLE AMOUNTS	(11,812)	(13,274)
REFUNDS TO PARTICIPANTS	(10,314)	(7,499)
INCREASE (DECREASE) IN NET POSITION	4,008	6,097
NET POSITION, Beginning of year	34,060	27,963
NET POSITION, End of year	\$ 38,068	\$ 34,060

# COMBINED STATEMENTS OF CASH FLOW

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

	Years Ended June 30,	
	2018	2017
	(in thousands)	
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Received from participants	\$ 380,335	\$ 327,844
Received from others	180,815	135,318
Payments for employee services	(38,700)	(35,930)
Payments to suppliers for goods and services	(439,070)	(348,243)
<b>NET CASH FLOWS FROM OPERATING ACTIVITIES</b>	<b>83,380</b>	<b>78,989</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Proceeds from maturities and sales of investments	99,449	113,772
Interest received on cash and investments	3,246	2,590
Purchase of investments	(129,244)	(105,399)
<b>NET CASH FLOWS FROM INVESTING ACTIVITIES</b>	<b>(26,549)</b>	<b>10,963</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Acquisition and construction of electric plant	(2,411)	(1,720)
Interest paid on long-term debt	(33,954)	(36,390)
Principal repayment on long-term debt	(39,830)	(37,250)
Proceeds from bond issues	117,438	15,416
Payments to refund debt	(117,714)	(15,705)
<b>NET CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>	<b>(76,471)</b>	<b>(75,649)</b>
<b>CASH FLOWS FROM NON-CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Other proceeds	7,906	12,929
Refunds to participants	(10,314)	(7,499)
<b>NET CASH FLOWS FROM NON-CAPITAL AND RELATED FINANCING ACTIVITIES</b>	<b>(2,408)</b>	<b>5,430</b>
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	<b>(22,048)</b>	<b>19,733</b>
<b>CASH AND CASH EQUIVALENTS</b>		
Beginning of year	126,044	106,311
End of year	\$ 103,996	\$ 126,044

# COMBINED STATEMENTS OF CASH FLOW-Continued

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

	Years Ended June 30,	
	2018	2017
	(in thousands)	
RECONCILIATION OF NET OPERATING REVENUES TO NET CASH FLOWS FROM OPERATING ACTIVITIES		
Operating income	\$ 51,693	\$ 48,431
Adjustments to reconcile net operating revenues to net cash from operating activities:		
Depreciation	30,915	30,749
	<u>82,608</u>	<u>79,180</u>
CASH FLOWS IMPACTED BY CHANGES IN		
Accounts receivable	3,900	(5,462)
Inventory, prepaid expense, and unused vendor credits	(263)	(790)
Operating reserves and other deposits	7,045	6,577
Member advances	75	-
Regulatory credits	(1,549)	(6,762)
Accounts payable	(8,436)	5,983
Net pension liability and related amounts	-	263
NET CASH FROM OPERATING ACTIVITIES	<u>\$ 83,380</u>	<u>\$ 78,989</u>
RECONCILIATION OF CASH AND CASH EQUIVALENTS TO STATEMENTS OF NET POSITION		
Cash and cash equivalents - current assets	\$ 38,561	\$ 45,779
Cash and cash equivalents - restricted assets	65,435	80,265
End of year	<u>\$ 103,996</u>	<u>\$ 126,044</u>
NON-CASH TRANSACTIONS:		
Future recoverable/(refundable) costs	\$ (11,812)	\$ (13,274)
Amortization	(6,783)	(6,069)
Hydro swap change in fair value	(4,064)	7,089
Gain/loss on investments	(664)	(7)



## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### NOTE A -- ORGANIZATION

**The Agency** Northern California Power Agency (Agency) was formed in 1968 as a joint powers agency of the State of California. The membership consists of twelve cities with publicly-owned electric utility distribution systems, one port authority, a transit authority, one public utility district, and one associate member. The Agency is generally empowered to purchase, generate, transmit, distribute, and sell electrical energy. Members participate in the projects of the Agency on an elective basis.

Various legal and tax considerations caused the Agency to provide that separate Special District Entities should be delegated by the Agency to own the geothermal electrical generating projects undertaken by the Agency ("the Associated Power Corporations"). The Associated Power Corporations, Northern California Municipal Power Corporations Nos. Two and Three, have delegated to the Agency the authority to construct, operate and manage their respective geothermal plants and related assets. The Agency, in return for financing the costs of acquisition and construction, acquires all the capacity and energy generated by the plants. See Note E – Projects and Related Financing.

The Agency is governed by a Commission comprised of one representative for each member. The Commission is responsible for the general management of the affairs, property, and business of the Agency. Under the direction of the General Manager, the staff of the Agency is responsible for providing various administrative, operating, and planning services for the Agency.

#### NOTE B -- SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting and Principles of Combination** For accounting purposes, the Agency is a special-purpose governmental entity that is engaged in a business-type activity, principally as a supplier of wholesale electricity and transmission to its member participants. As such, the Agency's financial statements are presented as an enterprise type fund.

The records of the Agency and its Associated Power Corporations are maintained substantially in accordance with the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts. Accounting principles generally accepted in the United States of America are applied by the Agency in conformance with pronouncements of the Governmental Accounting Standards Board (GASB). The combined financial statements encompass the Agency and Associated Power Corporations on an accrual accounting basis. All significant intercompany balances and transactions have been eliminated from the combined amounts reported.

**Cash and Cash Equivalents** Cash and cash equivalents include all debt instruments purchased with an original maturity of 90 days or less, all investments in the Local Agency Investment Fund (LAIF) and cash maintained in interest-bearing depository accounts, which are fully insured or collateralized in accordance with state law. Cash balances may be invested in either overnight repurchase agreements, which are fully collateralized by U.S. Government Securities, or in money market funds invested in short-term U.S. Treasury Securities. The Agency commingles operating cash for investment purposes only. Separate detailed accounting records are maintained for each account's related investments. All cash of the Agency is held by either the Agency's custodian or its primary bank and revenue bond trustee.

Custodial credit risk for cash deposits is the risk that, in the event of the failure of a depository financial institution, the Agency will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. Under California Government Code Section 53651, depending on specific types of eligible securities, a bank must deposit eligible securities posted as collateral with its Agent having a fair value of 110% to 150% of the Agency's cash on deposit. All of the Agency's deposits are either insured by the Federal Depository Insurance Corporation (FDIC) or collateralized with pledged securities held in the trust department of the financial institutions.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Investments** The Agency's investments are reported at fair value. Realized and unrealized gains and losses are included in interest income in the Statement of Revenue, Expenses and Changes in Net Position.

**Accounts Receivable** Accounts Receivable consists primarily of amounts due from participants and other governmental entities related to sales of energy and transmission. Amounts are deemed to be collectible and as such, no allowance for uncollectible accounts has been recorded.

**Inventory and Supplies** Inventory and supplies consist primarily of spare parts for the maintenance of plant assets and are stated at average cost.

**Restricted Assets** Cash and cash equivalents, investments and related accrued interest, which are restricted under terms of certain agreements, trust indentures or Commission actions limiting the use of such funds, are included in restricted assets.

**Electric Plant** Electric plant in service is recorded at historical cost. The cost of additions, renewals and betterments are capitalized; repairs and minor replacements are charged to operating expenses as incurred. The original cost of property retired, net of removal and salvage costs, is charged to accumulated depreciation. Depreciation expense is computed using the straight-line method over the estimated useful lives of the related assets. The provision for depreciation was approximately 2.0% of the average electric plant in service for the Agency during both 2018 and 2017. Depreciation is calculated using the following estimated lives:

Generation and Transmission	25 to 42 years
General Plant	5 to 25 years
Furniture and Fixtures	10 years
Transportation Equipment	5 years
Computer and Electronic Equipment	5 years

A summary of changes in electric plant for the year ended June 30, 2018 is as follows:

	Balance June 30, 2017	Adjustments	Additions	Deletions	Balance June 30, 2018
	(in thousands)				
Structures and Leasehold Improvements	\$ 319,378	\$ -	\$ 1,356	\$ -	\$ 320,734
Reservoirs, Dams and Waterways	249,338	-	-	-	249,338
Equipment	758,026	-	1,400	(162)	759,264
Furniture and Fixtures	3,046	-	294	-	3,340
	1,329,788	-	3,050	(162)	1,332,676
Accumulated Depreciation	(942,713)	-	(30,915)	162	(973,466)
	387,075		(27,865)	-	359,210
Construction Work-In-Progress	821	-	75	(714)	182
Land and Land Rights	171,945	-	-	-	171,945
Electric Plant, Net	\$ 559,841	\$ -	\$ (27,790)	\$ (714)	\$ 531,337

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

A summary of changes in electric plant for the year ended June 30, 2017 is as follows:

	Balance June 30, 2016	Adjustments	Additions	Deletions	Balance June 30, 2017
	(in thousands)				
Structures and Leasehold Improvements	\$ 319,127	\$ 60	\$ 203	\$ (12)	\$ 319,378
Reservoirs, Dams and Waterways	249,339	(1)	-	-	249,338
Equipment	757,727	(331)	630	-	758,026
Furniture and Fixtures	2,601	271	174	-	3,046
	1,328,794	(1)	1,007	(12)	1,329,788
Accumulated Depreciation	(911,976)	-	(30,749)	12	(942,713)
	416,818		(29,742)	-	387,075
Construction Work-In-Progress	107	-	714	-	821
Land and Land Rights	171,945	-	-	-	171,945
Electric Plant, Net	\$ 588,870	\$ (1)	\$ (29,028)	\$ -	\$ 559,841

**Construction Work-In-Progress** Construction work-in-progress (CWIP) includes the capitalized cost of land, material, equipment, labor, interest (net of interest income), certain other financing costs incurred to facilitate the projects and an allocated portion of general and administrative expenses related to the development of electric plant. In addition, CWIP ultimately includes costs incurred during the test and start-up phase of projects prior to commencement of commercial operations.

**Regulatory Assets/Credits** In accordance with GASB Statement No. 62, the Agency has deferred certain items of expense and revenue that otherwise would have been charged to operations because it is probable that such items will be recovered in future years' operations. For items related to Net Pension and OPEB Liabilities, the Agency expects to recover these items through participant collections using the actuarially calculated amounts as represented in the respective annual and biennial actuarial valuation reports. For other regulatory items, the Agency expects to recover these items through participant collections over the term of the related debt obligations it has issued. On an ongoing basis, the Agency reviews its operations to determine the continued applicability of these deferrals under GASB Statement No. 62.

The items of expense that have been deferred are net pension and OPEB liabilities and those originally paid from bond proceeds, including depreciation, certain bond amortizations, and interest paid from bond proceeds. These amounts are recorded to future recoverable amounts. Revenues used to acquire electric plant have also been deferred to future years. As of June 30, 2018 and 2017, the Agency had accumulated regulatory assets, net of regulatory credits, of approximately \$160,257,000 and \$163,806,000, respectively.

**Investment in Associated Company** Effective June 2018, the Agency invested \$265,000 (20% interest) into Hometown Connections Inc. (a not-for-profit corporation) (HCI). HCI is a national service corporation that provides consulting, management and metering services to public power utilities on a national level. This investment is accounted for using the equity method of accounting.

**Debt Related Costs** Debt issuance costs are expensed as incurred. Excess costs on refunding of bonds are considered deferred outflows of resources as prescribed by GASB Statement No. 65 and amortized over the life of the refunding bonds, or the life of the refunded bonds, whichever is shorter. Amortization is computed using the effective interest method and included in interest expense.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Compensated Absences** Accumulated unpaid compensated absences are accrued as the obligation is incurred. Compensated absences are included in accounts payable and accrued expenses.

**Pensions** For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions and pension expenses, information about the fiduciary net position of the Agency's CalPERS plan (Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Other Post Employment Benefits (OPEB)** For purposes of measuring the net OPEB liability, deferred outflows/inflows of resources related to OPEB and OPEB expenses, information about the fiduciary net position of the Agency's California Employers' Retirement Benefit Trust (CERBT) Fund and additions to/deductions from Fund's fiduciary net position have been determined on the same basis as they are reported by CalPERS, the trust administrator. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Long-Term Debt** Long-term debt is stated net of unamortized discounts and premiums. Discounts and premiums are amortized over the term of the related obligation using the effective interest method. Amortization of debt discounts and premiums is included in total interest expense for the period. See Note E - Projects and Related Financing.

**Operating Reserves** The Agency has established various funded operating reserves, in accordance with various bond indentures, project agreements, and prudent utility practice, for anticipated periodic operating costs and related liabilities including, but not limited to, scheduled maintenance other than ordinary repairs and replacements. Certain amounts funded each year are charged to operating expense because the collections established by the Agency for power sales to its members include these costs on a prospective basis. Changes to operating reserve levels are periodically evaluated during the annual budgeting process. A non-project specific, individual participant controlled, general operating reserve is also maintained for participating Agency members.

**Rates** Power sales to participants for their resale include both power generated by operating plants and power purchased from outside sources. Collection rates for power sales are designed to recover costs that include budgeted annual operating costs and debt service. Additional amounts for operating reserves or rate stabilization may be included in collection rates under the terms of bond indentures. During fiscal years 2018 and 2017, no amounts were specifically collected for rate stabilization.

The Agency's collection rates for electric service are not subject to the regulatory jurisdiction of the California Public Utilities Commission (CPUC) or FERC. Rather, the Agency's rates are established annually in connection with its budget, which is approved by its governing Commission.

**Power, Transmission and Fuel Forward Transactions** In the normal course of its business, the Agency is required to manage loads, resources, and energy price risk on behalf of its members. Consequently, the Agency buys and sells power, transmission, and fuel in wholesale markets as required. The Agency does not enter into such agreements solely for trading purposes. All such transactions are normal purchases and sales subject to settlement at the agreed to contract prices for quantities delivered. While authorized to transact forward purchase contracts for terms of up to five years, forward contract purchases at fiscal year ended June 30, 2018 were for periods not greater than four years duration beyond the current fiscal year. In the event of default, undelivered

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

transactions are required to be marked-to-market subject to the following limitations. If the Agency, as buyer, is the defaulting entity, the Agency's termination settlement amount is capped at the agreed to contract cost for all future undelivered commodities. If the selling counterparty is the defaulting entity, the seller's termination settlement is not capped for all future undelivered commodities. The defaulting entity is also subject to resultant transmission charges, brokerage fees, attorney fees, and all other reasonable expenses. See Note H - Commitments and Contingencies, Power Purchase Contracts.

**Fair Values of Financial Instruments** The following methods and assumptions were used by the Agency in estimating its fair value disclosures for financial instruments:

*Cash and Cash Equivalents* - The carrying amount reported in the statements of net position for cash and cash equivalents approximates its fair value.

*Investments* - The fair values for investments are based on quoted market prices and significant other observable inputs. See Note C - Investments.

*Swaps* - The fair values take into consideration the prevailing interest rate environment, the specific terms and conditions of a given transaction, and any upfront payments that were received. All fair values were estimated using the zero-coupon discounting method. This method calculates the future payments required by the swap, assuming that the current forward rates implied by the yield curve are the market's best estimate of future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for a hypothetical zero-coupon rate bond due on the date of each future net settlement on the swaps. While the current net mark-to-market values are negative, this valuation would be realized only if the swaps were terminated at the valuation date.

**Net Position** The Agency classifies its net position into three components; invested in capital assets, restricted, and unrestricted. These classifications are defined as follows:

*Net Investment in Capital Assets* - This component consists of capital assets, net of accumulated depreciation reduced by outstanding debt balances, net of unspent bond proceeds.

*Restricted* - This component consists of net position with constraints placed on their use. Constraints include those imposed by debt indentures and other agreements; grants, laws and regulations of other governments or by the Agency's governing Board of Commissioners.

*Unrestricted* - This component consists of net position that does not meet the definition of "net investment in capital assets" or "restricted".

The Agency and the Associated Power Corporations are intended to operate on a not-for-profit basis. Therefore, any balance of net position represents differences between total revenues collected, using collection rates based on estimated operating expenses and debt service, and the total actual expenses incurred. In subsequent periods of operation, excess collections (net of encumbrances) that the participating members do not direct be held by or released to the Agency, are refunded to the participating members. Estimated encumbrances at June 30, 2018 and 2017 were \$2,452,000 and \$3,257,000, respectively. In the event the Agency incurs a negative net position balance, the balance would be subject to recovery in collection rates under the terms of the related take-or-pay member agreements. See Note E – Projects And Related Financing.

**Deferred Outflows and Inflows of Resources** The statement of financial position includes a separate section for deferred outflows of resources. This separate financial statement element, *Deferred Outflows of Resources*, represents a consumption of net position that applies to a future period(s) and will not be recognized as an outflow of resources (expense/expenditure) until then. Deferred Outflows of Resources consist of excess cost on refunding of debt and pension and OPEB deferrals. Pension contributions made in the current year are

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

reported as deferred outflows of resources as the CalPERS' valuation measurement date is June 30, 2017; those contributions will be expensed in fiscal year 2019.

In addition to liabilities, the statement of financial position includes a separate section for deferred inflows of resources. This separate financial statement element, *Deferred Inflows of Resources*, represents an acquisition of net position that applies to a future period(s) and will be recognized as revenue at that time. The Agency's deferred inflows of resources are comprised of regulatory credits intended to offset the effects of the collection rate process and pension and OPEB deferrals projected in the pension and OPEB actuarial reports.

**Recent Accounting Pronouncements** In March 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt including Direct Borrowings and Direct Placements*, effective for financial statements for years beginning after June 15, 2018. The Agency has elected to adopt this statement as of July 1, 2017. This statement requires the Agency to add additional note disclosures for debt, including direct borrowings and direct placements.

In June 2015, GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, effective for financial statements for years beginning after June 15, 2017. This statement requires governments to report a liability on the face of the financial statements for the Postemployment Benefits Other than Pensions provided by the entities and requires governments to present more extensive note disclosures and required supplementary information about their OPEB liabilities.

In February 2015, GASB issued Statement No. 72, *Fair Value Measurement and Application*, effective for financial statements for years beginning after June 15, 2015. This statement clarifies the definition of fair value, establishes general principles for measuring fair value, provides additional fair value application guidance, and enhances disclosures about fair value measurements. This statement establishes a three-level hierarchy to the valuation techniques used to measure fair value. Disclosure is required to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques.

#### **Accounting Pronouncements Effective in Future Fiscal Years**

- **GASB Statement No. 83** – In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The objective of the Statement is to address accounting and reporting for certain asset retirement obligations (AROs). This Statement requires governments to recognize a liability for legal obligations to perform future asset retirement activities related to tangible capital assets. The Statement is effective for the periods beginning after June 15, 2018, or fiscal year 2019. The Agency has not determined the effect of the statement.
- **GASB Statement No. 84** – In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. The objective of the Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The Statement is effective for the periods beginning after December 15, 2018, or fiscal year 2020. The Agency has not determined the effect of the statement.
- **GASB Statement No. 87** – In June 2017, GASB issued Statement No. 87, *Leases*. The objective of the Statement is to recognize in the Financial Statements certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. The Statement is effective for the periods

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

beginning after December 15, 2019, or the fiscal year 2021. The Agency has not determined the effect of the statement.

- **GASB Statement No. 89** – In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. The objective of the Statement is (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. The Statement is effective for the periods beginning after December 15, 2019, or fiscal year 2021. The Agency has not determined the effect of the statement

**Use of Estimates in the Preparation of Financial Statements** The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Reclassifications** Certain reclassifications have been made to the prior year financial statements to conform to the current year presentation. Such reclassifications had no material effect on net position.

#### NOTE C -- INVESTMENTS

The Agency is authorized to invest in obligations of the U.S. Government and its agencies and instrumentalities, in certificates of deposit, commercial paper, banker's acceptances, repurchase agreements, passbook savings account demand deposits, municipal bonds, the State Treasurer's LAIF pool, mid-term corporate notes, and in other instruments authorized by applicable sections of the Government Code of the State of California. The Agency's investments are stated at fair value.

Investments at June 30, 2018

<u>Description</u>	Carrying Value	Fair Value	Wtd. Avg Maturity (In years)
	(in thousands)		
U.S. Agencies	\$ 160,079	\$ 156,857	2.12
U.S. Treasury	1,594	1,591	0.45
Corporate Bonds	32,685	32,345	4.29
<b>TOTAL INVESTMENTS</b>	<b>\$ 194,358</b>	<b>\$ 190,793</b>	

Investments at June 30, 2017

<u>Description</u>	Carrying Value	Fair Value	Wtd. Avg Maturity (In years)
	(in thousands)		
U.S. Agencies	\$ 167,404	\$ 165,867	2.79
<b>TOTAL INVESTMENTS</b>	<b>\$ 167,404</b>	<b>\$ 165,867</b>	

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

The Agency's investment policy requires investments that assure safety of the principal, liquidity to meet specific obligations of the Agency when due, and investment quality all in compliance with California State law and the Agency's revenue bond indentures. Generally, operating and reserve funds investment maturities are limited to one and five years, except for Geothermal Decommissioning Reserve and debt service reserve funds, which are allowed maturities up to ten years and fifteen years, respectively. All U.S. Government and U.S. Government Agency securities held by the Agency are either in effect or actually AA rated.

All securities owned by, or held on behalf of, the Agency are held by either the Agency's custodian, Union Bank of California, N.A., or its revenue bond trustee, U.S. Bank Trust, N.A.

The Agency's investment policy includes restrictions for investments relating to maximum amounts invested as a percentage of the portfolio and with a single issuer, maximum maturities, and minimum credit ratings.

**Credit Risk** To mitigate the risk that an issuer will not fulfill its obligation to the investment, the Agency limits investments to those rated, at a minimum, A or equivalent for long/medium term notes by a nationally recognized statistical rating organization.

**Custodial Credit Risk** This is the risk that in the event of a failure of a depository financial institution, the Agency's deposits may not be returned or the Agency will not be able to recover its deposits, investments, or collateral securities that are in the possession of another party. The Agency's policy mitigates this risk by requiring transactions with approved institutions and firms that have one or more of the following attributes: recognized as a primary government dealer as designated by the Federal Reserve Bank; regional broker/dealer headquartered in the State of California; national or state chartered bank that must be a member of the FDIC; direct issuer of securities eligible for purchase by the Agency; brokers and dealers qualify under SEC Rule 15C3-1 (Uniform Net Capital Rule), must be registered with the Financial Industry Regulatory Authority (FINRA) and must be licensed to do business in the State of California. Capitalization, credit worthiness, experience, reference checks and services offered criteria are evaluated when selecting a custodian.



## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Concentration of Credit Risk** This is the risk of loss attributed to the magnitude of an entity's investment in a single issuer. The investment policy of the Agency contains no limitations on the amount that may be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer (other than mutual funds and external investment pools) that represent 5% or more of total Agency investments include the following at June 30, 2018 and June 30, 2017.

#### Concentration of Credit Risk, June 30, 2018

Issuer:	Investment Type	Reported Amount	Percentage of Portfolio
Federal National Mortgage Association	Federal Agency	44,194,177	23.2%
Federal Home Loan Mortgage Corp.	Federal Agency	37,424,182	19.6%
Federal Farm Credit Bank	Federal Agency	32,732,318	17.2%
Federal Home Loan Bank	Federal Agency	42,506,166	22.3%

#### Concentration of Credit Risk, June 30, 2017

Issuer:	Investment Type	Reported Amount	Percentage of Portfolio
Federal National Mortgage Association	Federal Agency	59,751,517	36.0%
Federal Home Loan Mortgage Corp.	Federal Agency	40,633,931	24.5%
Federal Farm Credit Bank	Federal Agency	30,655,349	18.5%
Federal Home Loan Bank	Federal Agency	34,816,372	21.0%

**Interest Rate Risk** Interest rate risk is the risk that changes in market interest rates may adversely affect the fair value of an investment. The Agency manages its exposure to interest rate risk by following a hold-to-maturity investment approach for some investments, purchasing a combination of shorter and longer term investments, and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity evenly over time as necessary to provide the cash flow and liquidity needed for operations. In addition, the Agency periodically rebalances larger fund portfolios to maintain the appropriate rate of return through market cycles; such rebalances are performed only in instances when the result of the rebalance transaction is a net gain.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### NOTE D -- FAIR VALUE MEASUREMENT

In February 2015, the GASB issued Statement No. 72, *Fair Value Measurement and Application*, effective for financial statements for years beginning after June 15, 2015. This statement clarifies the definition of fair value, establishes general principles for measuring fair value, provides additional fair value application guidance, and enhances disclosures about fair value measurements.

In accordance with GASB 72, Fair Value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). Fair value is a market-based measurement for a particular asset or liability based on assumptions that market participants would use in pricing the asset or liability.

Valuation inputs are assumptions that market participants use in pricing an asset or liability. The hierarchy of inputs used to generate the valuation is classified into three different Levels:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date.
- Level 2 inputs include quoted prices for similar assets or liabilities in markets that are active; quoted prices for identical or similar assets or liabilities in markets that are not active; and inputs other than quoted prices that are observable for an asset, either directly or indirectly.
- Level 3 inputs are unobservable inputs from the asset or liability where there is very little market activity and they should be used only when relevant Level 1 and Level 2 inputs are unavailable.

The Agency's fair value measurements are performed on a recurring basis. Because investing is not a core part of the Agency's mission, the Agency determines that the disclosures related to these investments only need to be disaggregated by major type. The fair value of swaps reflect the nonperformance risk of their client counterparty relating to that liability, and the nonperformance risk of the bank counterparty relating to that asset.

Fair Value of Investments under GASB 72 – Debt and other securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Level 2 Securities are valued using a multi-dimensional relationship model or matrix pricing model utilizing market data including, but not limited to, benchmark yields, reported trades, and broker/dealer quotes.

Fair Value of Swaps under GASB 72 – Fair values take into consideration the prevailing interest rate environment and the specific terms and conditions of a given transaction. The valuations of derivatives transactions provided are indicative values based on mid-market levels as of June 30, 2018. These valuations do not represent the actual terms at which new transactions could be entered into or the actual terms at which existing transactions could be liquidated. The valuations provided are derived from proprietary models based upon well-recognized financial principles and reasonable estimates about relevant future market conditions for interest rate swaps. The observability of inputs used to perform the measurement results in the swap fair values being categorized as Level 2.

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

The Agency has the following fair value measurements as of June 30, 2018:

Fair Value Using  
(thousands)

	June 30, 2018	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level				
Debt Securities				
U.S agencies	\$ 156,857	\$ 34,810	\$ 122,047	-
U.S treasury	1,591	1,591		
Corporate Bonds	32,345		32,345	
Total debt securities	190,793	36,401	154,392	-
Total investments by fair value level	\$ 190,793	\$ 36,401	\$ 154,392	\$ -
Derivative Instruments by fair value level				
Swap liability instruments	\$ (11,109)	\$ -	\$ (11,109)	\$ -
Total Derivative Instruments by fair value level	\$ (11,109)	\$ -	\$ (11,109)	\$ -

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

The Agency had the following fair value measurements as of June 30, 2017:

Fair Value Using  
(thousands)

	June 30, 2017	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level				
Debt Securities				
U.S agencies	\$ 165,867	\$ 34,894	\$ 130,973	-
Total debt securities	165,867	34,894	130,973	-
Total investments by fair value level	\$ 165,867	\$ 34,894	\$ 130,973	\$ -
Derivative Instruments by fair value level				
Swap liability instruments	\$ (15,173)	\$ -	\$ (15,173)	\$ -
Total Derivative Instruments by fair value level	\$ (15,173)	\$ -	\$ (15,173)	\$ -

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### NOTE E -- PROJECTS AND RELATED FINANCING

**Financing Programs** The Agency's project construction and development programs have been individually financed by project revenue bonds that are collateralized by the Agency's assignment of all payments, revenues, and proceeds associated with its interest in each project. Each project participant has agreed to pay its proportionate share of debt service and other costs of the related project, notwithstanding the suspension, interruption, interference, reduction or curtailment of output from the project for any reason (that is, the take-or-pay member agreements).

Certain of the revenue bonds are additionally supported by municipal bond insurance credit enhancements.

	Balance July 1, 2017	Additions	Retirements (in thousands)	Balance June 30, 2018	Current Portion
Geothermal Project					
2009 Series A - Original Issue Amount \$35,610 Serial, 4.00-5.50% through 2025	\$ 7,640	\$ -	\$ 2,420	\$ 5,220	\$2,545
2012 Series A - Original Issue Amount \$12,910 Term, 2.289% due 2023	7,595	-	1,310	6,285	1,340
2016 Series A - Original Issue Amount \$17,530 Term, 1.670% due 2024	17,530	-	265	17,265	365
Total Geothermal Project	32,765	-	3,995	28,770	4,250
Hydroelectric Project - Original Issue Amount \$195,610					
1992 Refunding Series A Term, 6.30% due 2019	23,595	-	11,440	12,155	12,155
2008 Refunding Series A - Original Issue Amount \$85,160 Term, adjustable rate-weekly reset, due 2033	85,160	-	-	85,160	-
2008 Refunding Series B (Taxable) - Original Issue Amount \$3,165 Term, adjustable rate-weekly reset, due 2021	1,540	-	305	1,235	325
2008 Refunding Series C - Original Issue Amount \$128,005 Serial, 4.00-5.00% through 2025	77,130	-	77,130	-	-
2010 Refunding Series A - Original Issue Amount \$101,260 Serial, 4.00-5.00% through 2024	72,615	-	9,640	62,975	10,130
2012 Refunding Series A - Original Issue Amount \$76,665 Serial, 5.00% through 2033	76,665	-	-	76,665	-
2012 Refunding Series B - Original Issue Amount \$7,120 Serial, 4.32% through 2025	7,120	-	-	7,120	-
2018 Refunding Series A - Original Issue Amount \$68,875 Serial, 5.00% through 2025	-	68,875	-	68,875	-
2018 Refunding Series B - Original Issue Amount \$1,340 Serial, 4.32% through 2025	-	1,340	-	1,340	-
Add: Unamortized Premium, net	10,473	8,253	2,984	15,742	-
Total Hydroelectric Project	354,298	78,468	101,499	331,267	22,610

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

	Balance July 1, 2017	Additions	Retirements	Balance June 30, 2018	Current Portion
Capital Facilities Project – Original Issue Amount \$55,120					
2010 Refunding Series A					
Serial, 2.00-5.25% through 2026	37,400	-	3,760	33,640	3,995
Add: Unamortized Premium	763	-	181	582	-
Total Capital Facilities Project	38,163	-	3,941	34,222	3,995
Lodi Energy Center, Issue One					
2010 Series A - Original Issue Amount \$78,330					
Serial, 3.00-5.00% through 2020	17,755	-	5,630	12,125	5,915
Term, 5.00% due 2025	36,020	-	36,020	-	-
2010 Series B (Federally Taxable - Direct Payment Build America Bonds) - Original Issue Amount \$176,625					
Term, 7.311% due 2040	176,625	-	-	176,625	-
Lodi Energy Center, Issue Two					
2010 Series A - Original Issue Amount \$30,540					
Serial, 3.00-5.00% through 2019	9,685	-	4,725	4,960	4,960
2010 Series B (Federally Taxable - Direct Payment Build America Bonds) - Original Issue Amount \$110,225					
Term, 4.63% due 2020	5,210	-	-	5,210	-
Term, 5.679% due 2035	105,015	-	-	105,015	-
Lodi Energy Center, Issue One					
2017 Series A – Original Issue Amount \$38,970					
Serial, 2.70% through 2025	-	38,970	335	38,635	605
Add: Unamortized Premium	981	-	878	103	-
Total Lodi Energy Center Project	351,291	38,970	47,588	342,673	11,480
Total Long-Term Debt, Net	\$ 776,517	\$117,438	\$ 157,023	\$ 736,932	\$ 42,335

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

Debt service requirements for each of the next five years and in five-year cumulative increments thereafter as of June 30, 2018:

203, 2010.

	Revenue Bonds		Notes from Direct Placements		
	Principal	Interest	Principal	Interest	Total
	(in thousands)				
2019	\$ 40,025	\$ 38,299	\$ 2,310	\$ 1,302	\$ 81,936
2020	39,470	36,863	2,365	1,251	79,949
2021	32,085	34,952	11,745	1,199	79,981
2022	33,290	33,000	12,005	951	79,246
2023	34,985	30,971	11,505	698	78,159
2024-2028	175,325	121,626	22,255	875	320,081
2029-2033	187,935	73,252	-	-	261,187
2034-2038	83,980	27,944	-	-	111,924
2039-2040	31,225	3,451	-	-	34,676
Add: Unamortized Bond Premium	16,427	-	-	-	16,427
	\$ 674,747	\$ 400,358	\$ 62,185	\$ 6,276	\$ 1,143,566

Interest includes interest requirements for fixed rate debt at their stated rate and variable rate debt covered by interest rate swaps at their fixed swap rate.

Changes in long-term debt obligations for the year ended June 30, 2018, are as follows:

	Balance at July 1, 2017	Increases	Decreases	Balance at June 30, 2018	Due Within One Year
	(in thousands)				
Revenue bonds	\$ 739,175	\$ 70,215	\$ 151,070	\$ 658,320	\$ 40,025
Notes from direct placements	25,125	38,970	1,910	62,185	2,310
Add: Unamortized Premium, net	12,217	8,253	4,043	16,427	-
Total	<b>\$ 776,517</b>	<b>\$ 117,438</b>	<b>\$ 157,023</b>	<b>\$ 736,932</b>	<b>\$ 42,335</b>

The Agency's outstanding notes from direct placements of \$62,185 contain provisions that in an event of default, outstanding amounts become immediately due if (1) the Agency is unable to pay the principal or interest when due, (2) files bankruptcy or becomes insolvent, or (3) S&P issues a downgrade below "BBB-."

**Redemption Provisions** As set forth in the bond indentures, the term bonds are subject to redemption prior to maturity in varying amounts at specific dates. At the option of the Agency, the bonds are also subject to early redemption at specific redemption prices and dates.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Defeased Debt** Various bond refundings were undertaken to defease debt and realize future debt service savings. Debt was defeased by using the proceeds of the refunding issues and other available monies to irrevocably place in trust cash and U.S. Government Securities, which together with interest earned thereon, will be sufficient to pay both the interest and the appropriate maturity or redemption value of the refunded bonds as required. Detailed information about the refunding transactions follow.

In March 2018, the Agency issued Hydroelectric Project Number One Revenue Bonds 2018 Refunding Series A and B (\$70,215,000) to refund Hydroelectric Project Number One Revenue Bond 2008 Refunding Series C. The refunding was completed through the issuance of \$70,215,000 fixed rate debt (2018 Series A & B) with a yield of 2.01% with varying principal maturities ranging from \$839,850 to \$14,957,250 through July 1, 2024.

In December 2017, the Agency issued Lodi Energy Center Revenue Refunding Bonds Issue One 2017 Series A (\$38,970,000) to refund a portion of Lodi Energy Center Revenue Bonds Issue One 2010 Series A. The private placement refunding was completed through the issuance of \$38,970,000 fixed rate tax exempt debt (2017 Series A) with a yield of 2.27% with varying principal maturities ranging from \$335,000 to \$7,825,000 through June 1, 2025.

Accordingly, some of these defeased debt issues have been considered extinguished for financial reporting purposes. At year-end, the following defeased debt remained outstanding:

		2018	2017
		(in thousands)	
Hydroelectric:	Project No. One, 1985 Series A	\$ 12,150	\$ 12,150
	Project No. One, 1986 Series A	31,360	31,360
	Project No. One, 2008 Series C	77,130	-
		120,640	43,510
LEC:	Issue One, 2010 Series A	36,020	-
Total Defeased Debt Outstanding		\$ 156,660	\$ 43,510

**Geothermal Project** In addition to a federal geothermal leasehold, steam wells, gathering system and related facilities, the project consists of two electric generating stations (Plant 1 and Plant 2) with combined 165 MW (nameplate rating) turbine generator units utilizing low temperature geothermal steam; associated electrical, mechanical and control facilities; a heat dissipation system; a steam gathering system, a transmission tap-line, and other related facilities. Geothermal steam for the project is derived from the geothermal property, which includes well pads, access roads, steam wells and re-injection wells.

**Hydroelectric Project** The Agency contracted to finance, manage, construct, and operate Hydroelectric Project Number One for the licensed owner, Calaveras County Water District. In exchange, the Agency has the right to the electric output of the project for 50 years from February 1982. The Agency also has an option to purchase power from the project in excess of the District's requirements for the subsequent Federal Energy Regulatory Commission project license term of 30 to 50 years.



## **NOTES TO COMBINED FINANCIAL STATEMENTS**

### **NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

As part of a refinancing plan in November 2004, the Agency entered into two forward starting interest rate swaps in an initial notional amount of \$85,160,000 and \$1,574,000. Payments under the swap agreements with Citigroup Financial Products, Inc. began on April 2, 2008. To complete the refinancing transaction and realize the debt service savings under the 2004 swap agreement, on April 2, 2008 the Agency completed a bond refunding of certain maturities of the 1998 Hydroelectric Refunding Series A bonds totaling \$85,870,000 maturing in 2023 to 2032. These fixed rate bonds were refinanced through the issuance of tax-exempt 2008 Hydroelectric Refunding Series A (\$85,160,000) bonds and taxable 2008 Hydroelectric Refunding Series B (\$3,165,000) bonds. Both issues are variable interest rate bonds bearing interest at weekly interest rates, payable semi-annually on July 1 and January 1 each year. To support this financing, the Agency entered into two irrevocable direct pay letter of credit agreements with Citibank N.A. The Citibank letters of credit were for a period of three years and were scheduled to expire on September 27, 2014. On September 10, 2014, the irrevocable letter of credit agreements with Citibank N.A. were terminated. Substitution letters of credit with the Bank of Montreal were issued the same day. The Bank of Montreal letters of credit are for a period of five years and expire on September 9, 2019.

The payment of principal and interest on these issues are not covered by any financial guaranty insurance policies. This 2008 Hydroelectric Refunding and the associated interest rate swaps are estimated to have reduced project debt service by \$11.8 million over the next 24 years providing the Agency with an estimated economic gain (difference between the present values of the old and new debt service payments) of approximately \$5.9 million.

The Agency has entered into two separate pay-fixed, receive-variable interest rate swaps to produce savings or to result in lower costs over the life of each transaction than what the Agency would have paid using fixed-rate debt. While these derivative instruments carry additional risks, the Agency's swap policy and favorable negotiations have helped to reduce such risks.

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

### 2008 Hydroelectric Refunding Revenue Bonds Forward Starting Swaps

Associated Interest Rate Swaps starting April 2, 2008	Series A	Series B (Taxable)
Counterparty to Interest Rate Swap	Citigroup Financial Products Inc.	Citigroup Financial Products Inc.
Notional Value of Interest Rate Swap	\$ 85,160,000	\$1,073,895
Fair Value--Due from (to) Counterparty	\$(11,251,644)	\$ 143,056
Credit Downgrade Required Collateral Posting:		
For Counterparty, Fair Value Above	\$10 million	\$10 million
If S&P or Moody's Credit Rating falls to	A-/A3 and BBB-/Baa3	A-/A3 and BBB-/Baa3
For Agency (Credit of Agency's Insurer National Public Finance Guarantee formerly MBIA and NCPA credit), Fair Value Above	\$10 million	\$10 million
If S&P or Moody's Credit Rating falls to	A+/A1	A+/A1
Termination Date	July 1, 2032	July 1, 2032
	Terms Rates	Terms Rates
Payments to (from) Counterparty	Fixed 3.819 %	Fixed (5.376) %
Variable Payments (from) to Counterparty	54% LIBOR+.54%* (1.373) %	100% of LIBOR* 1.550 %
Net Interest Rate Swap Payments	2.446 %	(3.826) %
Variable-Rate Bond Payments	SIFMA** 1.039 %	SIFMA** 1.733 %
Effective Interest Rate on Bonds	3.485 %	(2.093) %

Average to Date: \*1-Month London Inter-Bank Offered Rate

\*\*Securities Industry and Financial Market Association Municipal Swap Index (formerly the Bond Market Association Municipal Swap Index)

The total fair value of outstanding swap instruments was a net liability of \$11,109,000 and \$15,173,000 at June 30, 2018 and June 30, 2017, respectively. These amounts are reported as a non-current liability. The interest rate swaps beginning in FY 2013 are both ineffective hedges and considered investment derivative instruments. The change in fair value was \$4.1 million and \$7.1 million for years ended June 30, 2018 and 2017, respectively and are recorded as interest expense in the Statement of Revenues, Expenses, and Changes in Net Position. The net settlement payments of interest on these investment derivative instruments total \$2.0 million and \$2.5 million, which is recorded as interest expense in the Statement of Revenues, Expenses, and Changes in Net Position for FY 2018 and FY 2017, respectively. The value of the swaps noted above reflects the estimated fair value of the swaps at June 30, 2018 and 2017 as determined by the Agency's financial advisor. The fair value of the swaps will change due to notional amount, amortizations, and interest rate changes.

The following swap agreement risks are common to all the interest rate swaps. The interest rate swaps expose the Agency to basis risk should the relationship between LIBOR and SIFMA converge, changing the synthetic rate on the bonds. If a change occurs that results in the rates moving to convergence, the expected cost savings of the swap may not be realized. The Agency is exposed to interest rate risk on its pay-fixed, receive variable

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

interest rate swaps. Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of the Agency's financial instruments or cash flows. As the LIBOR or SIFMA swap index decreases, the Agency's net payment on swaps increases. In addition, the Agency is exposed to interest rate risk if the counterparty to the swap defaults or if the swap is terminated. The Agency is also exposed to market access risk, the risk that it will not be able to enter credit markets or that credit will become more costly. The Agency's financial rating is tied to the credit strength of the major participants of the specific project for which each financial instrument is issued. The Agency is also exposed to market access risks caused by disruptions in the municipal bond market.

To mitigate the potential for credit risk, the swap counterparties are required by the agreement to post collateral should the fair value exceed certain thresholds as shown above. At June 30, 2018, credit ratings of the counterparties to the swaps were as follows:

Swap Counterparty & Agency's Insurer	Standard & Poor's	Moody's
Citigroup Financial Products Inc.	A+	A1
National Public Finance Guarantee formerly MBIA (the Agency's insurer)	AA-	Baa2

The swaps utilized the International Swap Dealers Association (ISDA) Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. However, an additional provision under the Schedule to the ISDA Master Agreement allows the swap to be terminated by the Agency if the counterparty's credit rating falls below A- by Standard & Poor's or A3 by Moody's. If a swap is terminated, the applicable bonds would no longer carry a synthetic fixed interest rate. In addition, if a swap has a negative fair value at the time of an early termination, the Agency would be liable to the counterparty for a payment equal to the swap's fair value.

**Combustion Turbine Project** The original project consisted of five combustion turbine units, each nominally rated at approximately 25 megawatts. Concurrent with the final project bond maturity, two units located in Roseville were acquired by an Agency member. The remaining project consists of two units in Alameda and one in Lodi. The project provides capacity during peak load periods and emergency capacity reserves. Excess capacity and energy from the project are also sold to other entities from time to time.

**Capital Facilities Project** The project consists of one 49.9 megawatt natural gas-fired steam injected combustion turbine generator unit located in Lodi, California. Wastewater is reclaimed from the City of Lodi's White Slough water pollution control facility, processed to eliminate contaminants, and heated to steam and used in the turbine to produce augmented power and emissions control.

**Lodi Energy Center (LEC)** The project is a 296 MW base load, combined cycle, natural gas-fired, combustion turbine generating station (one gas turbine and one steam turbine) located in Lodi, California, next to the Capital Facilities Project discussed above. Pursuant to the Lodi Energy Center Power Sales Agreement, the Agency agreed to operate the LEC and has sold all of the capacity and energy of the LEC to thirteen participants (including four non-members) in accordance with their respective Generation Entitlement Shares (GES). Each participant has agreed to unconditionally provide for its share of the operation and maintenance expenses and all capital improvements based on its GES. The LEC will be operated and maintained by the Agency under the direction of the LEC Project Management and Operations Agreement among the Agency and the LEC Project Participants.

## **NOTES TO COMBINED FINANCIAL STATEMENTS**

### **NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

Lodi Energy Center Revenue Bonds, Issue One provided financing for 11 project participants with 55.7857% GES. Lodi Energy Center Revenue Bonds, Issue Two provided financing for the California Department of Water Resources 33.5% GES. The Modesto Irrigation District elected to provide its own financing for its 10.7143% GES of the costs of construction of the project. Modesto Irrigation District is not liable for any Agency debt service obligations for the project.

The Issue One Series B and the Issue Two Series B bonds were issued as Taxable Subsidy Bonds constituting Build America Bonds (BABs) for the purposes of the American Recovery and Reinvestment Act of 2009. The Act provides for a direct payment to the Agency from the federal government equal to 35% of the interest costs. The direct payment was reduced by 6.6% and 6.9% in 2018 and 2017, respectively, due to federal government budget sequestration. Such payments may continue to be affected by sequestrations.

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

### NOTE F -- RETIREMENT PLAN

#### General Information about the Pension Plans

**Plan Descriptions** The Agency provides a defined benefit retirement plan to all eligible employees under the Public Employees' Retirement System (PERS). The Plan is an agent multiple-employer defined benefit pension plan administered by the California Public Employees' Retirement System (CalPERS). CalPERS issues publicly available reports that include a full description of the pension plans regarding benefit provisions, assumptions and membership information that can be found on the CalPERS website.

**Benefits Provided** CalPERS provides service retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full time employment. In 2012, the Public Employees' Pension Reform Act (PEPRA) become law that implemented new benefit formulas and final compensation period, as well as new contribution requirements for new employees hired on or after January 1, 2013 who meet the definition of new member under PEPRA. Employees hired prior to January 1, 2013, and those new employees not meeting the PEPRA definition of new member, are considered classic members.

The Plans' provisions and benefits in effect at June 30, 2018, are summarized as follows:

Hire date	Prior to January 1, 2013	On or After January 1, 2013
Benefit formula	2.5% @ 55	2.0% @ 62
Benefit vesting schedule	5 full-time years	5 full-time years
Benefit payments	monthly for life	monthly for life
Retirement age	50 - 55	60 - 67
Monthly benefits, as a % of eligible compensation	2.0% to 2.5%	2.0% to 2.5%
Required employee contribution rates	8.00%	6.50%
Required employer contribution rates	32.649%	32.649%

**Employees Covered** – At June 30, 2018 and 2017, the following employees were covered by the benefit terms for each Plan:

	<u>2018</u>	<u>2017</u>
Inactive employees or beneficiaries currently receiving benefits	126	119
Inactive employees entitled to but not yet receiving benefits	21	27
Active employees	<u>150</u>	<u>150</u>
Total	<u>297</u>	<u>296</u>

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Contributions** Section 20814(c) of the California Public Employees' Retirement Law (PERL) requires that the employer contribution rates for all public employers are determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through CalPERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. For the measurement period ended June 30, 2017 and 2016 (the measurement dates), the average active employee contribution rates were 8.380% and 8.022%, respectively, of annual pay and the Agency's contribution rates are 36.355% and 29.474%, respectively, of annual payroll. Employer contribution rates may change if plan contracts are amended.

**Net Pension Liability** The Agency's net pension liability for the Plan is measured as the total pension liability, less the pension plan's fiduciary net position. The net pension liability of the Plan is measured at year end, using annual actuarial valuations as of the previous year end and rolled forward to current year end, using standard update procedures. A summary of principal assumptions and methods used to determine the net pension liability is shown below.

**Actuarial Assumptions** The total pension liabilities as of June 30, 2018 and 2017 were determined using the following actuarial assumptions:

	<u>2018</u>	<u>2017</u>
Valuation Date	June 30, 2016	June 30, 2015
Measurement Date	June 30, 2017	June 30, 2016
Actuarial Cost Method	Entry-Age Normal	Entry-Age Normal
Actuarial Assumptions:		
Discount Rate	7.15%	7.65%
Inflation	2.75%	2.75%
Payroll Growth	3.00%	3.00%
Projected Salary Increase	3.2%-12.2% (1)	3.2%-12.2% (1)
Investment Rate of Return	7.5% (2)	7.5% (2)
Mortality	(3)	(3)

(1) Depending on age and service.

(2) Net of pension plan investment expenses, including inflation.

(3) Derived using CalPERS' specific membership data with projected on-going mortality improvement using Scale BB published by the Society of Actuaries.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Discount Rate** The discount rate used to measure the total pension liability was 7.15% for the Plan. To determine whether the municipal bond rate should be used in the calculation of a discount rate for the plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans run out of assets. Therefore, the current 7.15% discount rate is adequate and the use of the municipal bond rate calculation is not necessary. The long term expected discount rate of 7.15% will be applied to all plans in the Public Employees Retirement Fund (PERF). The stress test results are presented in a detailed report called “GASB Crossover Testing Report” that can be obtained at CalPERS’ website under the GASB 68 section.

According to Paragraph 30 of Statement 68, the long-term discount rate should be determined without reduction for pension plan administrative expense. The 7.15% investment return assumption used in this accounting valuation is net of administrative expenses. Administrative expenses are assumed to be 15 basis points. An investment return excluding administrative expenses would have been 7.30%. For the measurement year ended June 30, 2017 and 2016, using this lower discount rate resulted in a slightly higher total pension liability and net pension liability. This difference was deemed immaterial to the agent multiple-employer plan.

On December 21 2016, CalPERS announced to employers that the CalPERS Board of Administration voted to lower the discount rate assumption, net of administrative expenses, from 7.5% to 7.0% over a three year period as follows:

- FY 2017-2018: 7.375%
- FY 2018-2019: 7.25 %
- FY 2019-2020: 7.00 %

There will be a one year implementation delay for school districts and public agencies deferring the first rate discount decrease to FY 2018-2019. Lowering the discount rate, also known as the assumed rate of return, means employers that contract with CalPERS to administer their pension plans will see increases in their normal costs and unfunded actuarial liabilities. CalPERS has estimated that the three-year reduction of the discount rate will result in average employer rate increases of about 1 percent to 3 percent of normal cost as a percent of payroll in addition to increases to the current unfunded accrued liability payments.

To mitigate the growing unfunded accrued liability, the Agency implemented a Long-Term Funding Plan for NCPA’s Employee Pension Program which includes accelerated funding of the unfunded liability over a 15 year period. The plan includes: 1) a goal for minimum funding level of 80% within 15 years and annual Commission confirmation of the continued funding of the annual required employer contribution at 100%; 2) shorten the amortization period of the liability to 15 years; 3) research other ways to limit the pension liability; and 4) annual Finance Committee review in conjunction with annual CalPERS actuarial valuations and recommendation to the Commission as needed. In addition, the Agency has a budget policy that mandates an annual reconciliation of budgeted versus actual pension costs. The policy requires that positive budget variances are contributed as payments against the unfunded liability at year end.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Such cash flows were developed assuming that both members and employers will make their required contributions on time and as scheduled in all future years. Using historical returns of all the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11-60 years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

The table below reflects the long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

For measurement period ending June 30, 2017:

<b>Asset Class</b>	<b>New Strategic Allocation</b>	<b>Real Return Years 1-10<sup>1</sup></b>	<b>Real Return Years 11+<sup>2</sup></b>
Global Equity	47.00%	4.90%	5.38%
Private Equity	12.00%	6.60%	6.63%
Fixed Income	19.00%	0.80%	2.27%
Liquidity	2.00%	-0.40%	-0.90%
Real Estate	11.00%	2.80%	5.21%
Inflation Assets	6.00%	0.60%	1.39%
Other	3.00%	3.90%	5.36%

<sup>1</sup> An expected inflation of 2.5% used for this period

<sup>2</sup> An expected inflation of 3.0% used for this period

For measurement period ending June 30, 2016:

<b>Asset Class</b>	<b>New Strategic Allocation</b>	<b>Real Return Years 1-10<sup>1</sup></b>	<b>Real Return Years 11+<sup>2</sup></b>
Global Equity	51.00%	5.25%	5.71%
Global Fixed Income	20.00%	0.99%	2.43%
Inflation Sensitive	6.00%	0.45%	3.36%
Private Equity	10.00%	6.83%	6.95%
Real Estate	10.00%	4.50%	5.13%
Infrastructure and Forestland	2.00%	4.50%	5.09%
Liquidity	1.00%	-0.55%	-1.05%

<sup>3</sup> An expected inflation of 2.5% used for this period

<sup>4</sup> An expected inflation of 3.0% used for this period



# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

### Changes in the Net Pension Liability

The change in the Net Pension Liability for each Plan follows:

Description	Increase/(Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
<b>Balance at June 30, 2017</b>	\$ 143,919,618	\$ 79,331,018	\$ 64,588,600
Service cost incurred	3,548,776	-	3,548,776
Interest on total pension liability	10,678,090	-	10,678,090
Differences between actual and expected experience	(1,980,198)	-	(1,980,198)
Change in assumption	8,835,307	-	8,835,307
Change in benefits	-	-	-
Contributions – employer	-	6,752,236	(6,752,236)
Contributions – employee	-	1,155,483	(1,556,483)
Net investment income	-	8,979,321	(8,979,321)
Differences between projected and actual earnings on plan investments	-	-	-
Benefit payments	(6,410,415)	(6,410,415)	-
Administrative expense		(117,127)	117,127
Net changes	14,671,560	10,760,498	3,911,062
<b>Balance at June 30, 2018</b>	\$ 158,591,178	\$ 90,091,516	\$ 68,499,662

Description	Increase/(Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
<b>Balance at June 30, 2016</b>	\$ 135,846,223	\$ 78,072,198	\$ 57,774,025
Service cost incurred	3,152,017	-	3,152,017
Interest on total pension liability	10,328,232	-	10,328,232
Differences between actual and expected experience	581,539	-	581,539
Change in assumption	-	-	-
Change in benefits	-	-	-
Contributions - employer	-	5,406,928	(5,406,928)
Contributions - employee	-	1,453,722	(1,453,722)
Projected earnings on investments	-	434,144	(434,144)
Differences between projected and actual earnings on plan investments	-	-	-
Benefit payments	(5,988,393)	(5,988,393)	-
Administrative expense		(47,581)	47,581
Net changes	8,073,395	1,258,820	6,814,575
<b>Balance at June 30, 2017</b>	\$ 143,919,618	\$ 79,331,018	\$ 64,588,600

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Plan, calculated using the discount rate, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.15% for 2018 and 6.65% for 2017) or 1-percentage point higher (8.15% for 2018 and 8.65% for 2017) than the current rate:

<b>2018</b>	<b>Discount Rate – 1% (6.15%)</b>	<b>Current Discount Rate (7.15%)</b>	<b>Discount Rate + 1% (8.15%)</b>
<b>Plan's Net Pension Liability</b>	<b>\$ 89,937,527</b>	<b>\$ 68,499,662</b>	<b>\$ 50,727,512</b>

<b>2017</b>	<b>Discount Rate – 1% (6.65%)</b>	<b>Current Discount Rate (7.65%)</b>	<b>Discount Rate + 1% (8.65%)</b>
<b>Plan's Net Pension Liability</b>	<b>\$ 83,586,138</b>	<b>\$ 64,588,600</b>	<b>\$ 48,792,228</b>

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions

For the years ending June 30, 2018 and 2017, the Agency incurred pension expense of \$8,048,230 and \$6,016,714, respectively. At June 30, 2018 and 2017, the Agency has deferred outflows of resources and deferred inflows of resources related to pensions as follows:

2018	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	\$ 7,769,768	\$ -
Changes in assumptions	6,626,480	(672,759)
Differences between actual and expected experience	297,861	(1,895,832)
Net differences between projected and actual earnings on plan investments	1,050,762	-
Total	<u>\$ 15,744,871</u>	<u>\$ (2,568,591)</u>

2017	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	\$ 6,254,577	\$ -
Changes in assumptions	-	(1,233,393)
Differences between actual and expected experience	439,700	(752,919)
Net differences between projected and actual earnings on plan investments	6,811,477	(2,473,421)
Total	<u>\$ 13,505,754</u>	<u>\$ (4,459,733)</u>

Pension contributions subsequent to measurement date of \$7,769,768 and \$6,254,577 reported as deferred outflows of resources for years ending June 30, 2018 and 2017, respectively, will be recognized as a reduction of the net pension liability in the year ended June 30, 2019 and 2018, respectively.

For reporting year ended June 30, 2018, amounts reported as deferred outflows (inflows) of resources related to pensions will be recognized in future pension expense as follows:

Measurement Period Ended June 30:	Deferred Outflows/(Inflows) of Resources
2018	\$ 962,526
2019	2,921,531
2020	2,177,959
2021	(655,504)
2022	-
Thereafter	-
Total	<u>\$ 5,406,512</u>

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

For reporting year ended June 30, 2017, amounts reported as deferred outflows (inflows) of resources related to pensions will be recognized in future pension expense as follows:

<b>Measurement Period Ended June 30:</b>	<b>Deferred Outflows/(Inflows) of Resources</b>
2017	\$ (95,749)
2018	(95,748)
2019	1,863,257
2020	1,119,684
2021	-
Thereafter	-
Total	<u>\$ 2,791,444</u>

**Payable to the Pension Plan** At June 30, 2018 and 2017, the Agency did not have an outstanding amount of contributions payable to the pension plan required for the years ended.

#### NOTE G -- OTHER POST EMPLOYMENT BENEFITS (OPEB)

##### General Information about the OPEB Plan

The Agency contracts with the CalPERS under the Public Employees' Medical and Hospital Care Act (PEMHCA) for employee medical insurance. In connection with this plan, the Agency provides medical insurance to all active employees and their families, as well as all qualified retirees (and spouses), subject to certain limitations. The Agency has maintained an actuarially based restricted fund for the sole purpose of paying medical insurance premiums for qualified retired employees (and spouses) participating in the CalPERS medical plan. In 2007, the Agency became a participant in the CalPERS California Employers' Retiree Benefit Trust (CERBT), a pre-funding OPEB plan, which is an irrevocable multi-employer trust and plan consisting of an aggregation of single-employer plans, with pooled administrative and investment functions. CalPERS issues publicly available reports that include the net changes in Fiduciary Net Position by Employer and can be found on the CalPERS website.

The Agency makes its Actuarially Determined Contribution (ADC) to this OPEB plan annually. The ADC represents the service cost plus an amortized amount of net OPEB liabilities (NOL). The amortization of NOL is based on a 30 year level dollar amount on a "closed" basis. There are 26 years remaining as of the measurement date of June 30, 2017.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### Summary of certain plan provisions and benefits in effect during fiscal year ended June 30, 2018:

Required service for eligibility	Pre-1/1/2009 Hires, 5 full-time years On or After 1/1/2009 Hires, 5 full-time years and minimum 10 years CalPERS service
Minimum retirement age	50
Benefit payments	Monthly for life
Vesting for eligible employees	Pre-1/1/2009 Hires, 100% at 5 years On or After 1/1/2009 Hires, 50% at 10 years; 5%/year up to 100% at 20 years
Maximum monthly benefit	90% of Sacramento Kaiser Family rate

**Employees Covered** – At June 30, 2018 and 2017, the following employees were covered by the benefit terms for each Plan:

	<u>2018</u>	<u>2017</u>
Inactive employees or beneficiaries currently receiving benefits	133	119
Inactive employees entitled to but not yet receiving benefits	0	0
Active employees	<u>150</u>	<u>150</u>
Total	<u>283</u>	<u>269</u>

**Contributions** The Actuarially Determined Contribution (ADC) and funded status of the OPEB plan were determined based on current cost trends of the CalPERS health plans in which the employees currently participate at the time of the actuarial valuation. The June 30, 2017 actuarial valuation was prepared on the basis of the OPEB assumption model, as prescribed by the CalPERS, in effect at the time of the valuation. At fiscal year-end June 30, 2018, the Agency had 150 active eligible employees and 133 retirees drawing benefits under this program.

The ADC and funded status of the plan are subject to periodic revision based on actual results, changes in assumptions or plan provisions, and new estimates of expected future circumstances. Future actuarial valuations will be performed every two years, as prescribed by CalPERS.

The Agency's ADC (based on actuarially established rates) was determined as part of a June 30, 2017, actuarial valuation using the entry age normal actuarial cost method. The primary actuarial assumptions included: valuation using the Entry Age Normal Cost Method, 6.75% annual discount rate, payroll growth of 3.80% to 9.40%, 2.50% inflation, and maximum employer contribution increases derived from the Getzen Model for developing long-term health care cost trends.

To mitigate the growing OPEB unfunded accrued liability, the Agency implemented a Long-Term Funding Plan for the NCPA Retiree Medical Plan which includes: 1) establish a goal to obtain a minimum funding level of 80% within 15 years and confirm the policy of funding 100% or more of the ARC each year; 2) reduce actuarial liability by developing a cap for health care premiums going forward; 3) shorten the amortization period used in the actuarial calculations from 28 years to 15 years; 4) consider additional funding sources for increased funding of the ARC, including further budget reductions or new revenues (from members or new services/customers); and 5) conduct new actuarial studies on a biennial basis as required and review the updated results with the Finance Committee, who will make recommendations for revision to the Commission as needed.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

In addition, the Agency has a budget policy that mandates an annual reconciliation of budgeted versus actual OPEB costs. The policy requires that positive budget variances are contributed as payments against the unfunded liability at fiscal year end.

**Net OPEB Liability** The Agency's net liability for the OPEB Plan is measured as the total OPEB liability, less the OPEB plan's fiduciary net position. The net OPEB liability of the Plan is measured at year end, using annual actuarial valuations as of the previous year end and rolled forward to current year end, using standard update procedures. A summary of principal assumptions and methods used to determine the net OPEB liability is shown below.

**Actuarial Assumptions** The total OPEB liabilities as of June 30, 2018 are determined using the following actuarial assumptions, applied to all periods included in the measurement:

	<u>2018</u>
Valuation Date	June 30, 2017
Measurement Date	June 30, 2017
Actuarial Cost Method	Entry-Age Normal
Actuarial Assumptions:	
Discount Rate	6.75%
Inflation	2.50%
Payroll Growth	3.80%-9.40%
Projected Salary Increase	Varies (1)
Investment Rate of Return	6.75% (2)
Mortality	(3)
Healthcare cost trend rates	(4)

- (1) Depending on age and service.
- (2) Net of OPEB trust investment expenses, including inflation.
- (3) Mortality rates are based on the 2016 California PERS (CalPERS) Pension report and includes a projection to 2028 using scale BB to account for anticipated future mortality improvement.
- (4) Medical inflation was based on the "Getzen" model published by the Society of Actuaries for purposes of evaluating long term medical trend. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend. The trend also reflects the removal of the Health Insurer Fee for calendar year 2019. This fee will be assessed again in calendar year 2020.

**Discount Rate** The discount rate used to measure the total OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that the Agency's contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected OPEB payments for current active and inactive employees. Therefore, the long-term expected rate of return on OPEB trust investments was applied to all periods of projected benefit payments to determine the total OPEB liability. To the extent that OPEB trust assets are insufficient to finance all OPEB benefits, the discount rate should be based on 20-year tax-exempt AA or higher Municipal Bonds as of the measurement date.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table (net of administrative expenses):

For measurement period ending June 30, 2017:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Global Equity	57.00%	7.92%
US Fixed Income	27.00%	6.83%
Treasury Inflation-Protected Securities	5.00%	3.95%
Real Estate Investment Trusts	8.00%	7.56%
Commodities	3.00%	5.47%

For measurement period ending June 30, 2016:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Global Equity	57.00%	8.53%
US Fixed Income	27.00%	6.46%
Treasury Inflation-Protected Securities	5.00%	4.19%
Real Estate Investment Trusts	8.00%	7.95%
Commodities	3.00%	6.12%

# NOTES TO COMBINED FINANCIAL STATEMENTS

## NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

### Changes in the Net OPEB Liability

Description	Increase/(Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
<b>Balance at June 30, 2017</b>	\$ 33,365,151	\$ 22,735,392	\$ 10,629,759
Service cost incurred	909,576	-	909,576
Interest on total OPEB liability	2,256,395	-	2,256,395
Differences between actual and expected experience	-	-	-
Change in assumption	-	-	-
Change in benefits	-	-	-
Contributions – employer	-	3,914,644	(3,914,644)
Contributions – employee	-	-	-
Net investment income	-	2,390,569	(2,390,569)
Differences between projected and actual earnings on plan investments	-	-	-
Benefit payments	(1,721,416)	(1,721,416)	-
Administrative expense		(11,683)	11,683
Net changes	1,444,555	4,572,114	(3,127,559)
<b>Balance at June 30, 2018</b>	<b>\$ 34,809,706</b>	<b>\$ 27,307,506</b>	<b>\$ 7,502,200</b>

### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the Plan, calculated using the discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower (5.75%) or 1-percentage point higher (7.75%) than the current rate:

2018	Discount Rate – 1% (5.75%)	Current Discount Rate (6.75%)	Discount Rate + 1% (7.75%)
<b>Plan's Net OPEB Liability</b>	\$ 11,650,819	\$ 7,502,200	\$ 4,051,503

### Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates.

The following presents the net OPEB liability of the Plan, as well as what the Plan's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

2018	Healthcare Costs Trend Rate – 1%	Current Healthcare Costs Trend Rate	Healthcare Costs Trend Rate + 1%
<b>Plan's Net OPEB Liability</b>	\$ 4,147,668	\$ 7,502,200	\$ 11,678,446



## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### OPEB Expenses and Deferred Outflows/Inflows of Resources Related to OPEB

For the year ending June 30, 2018, the Agency incurred OPEB expense of \$1,413,889. At June 30, 2018, the Agency has deferred outflows of resources and deferred inflows of resources related to OPEB as follows:

2018	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in assumptions	\$ -	\$ -
Differences between actual and expected experience	-	-
Net differences between projected and actual earnings on plan investments	-	(626,804)
Total	\$ -	\$ (626,804)

Amounts reported as deferred outflows/(inflows) of resources related to OPEB will be recognized in future OPEB expense as follows:

Measurement Period Ended June 30:	Deferred Outflows/(Inflows) of Resources
2018	\$ (156,701)
2019	(156,701)
2020	(156,701)
2021	(156,701)
2022	-
Thereafter	-
Total	\$ (626,804)

**Payable to the OPEB Plan** At June 30, 2018 and 2017, the Agency did not have an outstanding amount of contributions payable to the OPEB plan required for the year ended.

During fiscal year-end June 30, 2017, the annual required contribution and funded status of the OPEB plan were determined based on current cost trends of the CalPERS health plans in which the employees currently participate at the time of the actuarial valuation. The June 30, 2015 actuarial valuation was prepared on the basis of the OPEB assumption model, as prescribed by the CalPERS, in effect at the time of the valuation.

The funded status of the plan and the annual required contributions are subject to periodic revision based on actual results, changes in assumptions or plan provisions, and new estimates of expected future circumstances. Future actuarial valuations will be performed every two years, as prescribed by CalPERS.

The Agency's 2017 annual required contribution (based on actuarially established rates) was determined as part of a June 30, 2015, actuarial valuation using the entry age normal actuarial cost method. The primary actuarial assumptions included: valuation using the Entry Age Normal Cost Method, 7.00% annual discount rate, payroll growth of 0.29% to 10.87%, 2.50% inflation, and maximum employer contribution increases derived from the Getzen Model for developing long-term health care cost trends.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

#### NOTE H -- COMMITMENTS AND CONTINGENCIES

**Power Exchange Agreement** On behalf of certain of its members, the Agency has entered into a seasonal exchange agreement with Seattle City Light whereby the companies exchange 60 megawatts of summer capacity and 90,580 megawatt hours of energy in exchange for a return of 46 megawatts of capacity and 108,696 megawatt hours of energy in the winter. The term of the agreement terminated in May 2018.

**Power Purchase Contracts** The Agency had commitments of approximately \$27.8 million in connection with various power purchase contracts as of June 30, 2018. The contracts, extending through December 2020, are normal purchases at agreed to contract prices for fixed quantities of energy. Certain of the Agency's members have individually entered into certain other long-term contracts, which the Agency dispatches and schedules for them. See Note B - Summary of Significant Accounting Policies.

**Fuel Supply Agreements** The Agency has entered into the following agreements to provide natural gas fuel supply for use in its generation resources:

- A 30-year agreement terminating in October 2023 with various natural gas pipeline management companies under which the Agency has acquired firm natural gas pipeline transportation capacity in four separate natural gas pipelines between Alberta, Canada and northern California. The estimated minimum annual natural gas transmission commitment is approximately \$720,000. The Agency's firm natural gas pipeline transportation capacity is scheduled by Mercuria Energy Gas Trading, LLC (Mercuria) pursuant to the term and conditions of an Asset Management Agreement for Pipeline Transportation Capacity that became effective on January 1, 2015.
- On behalf of the participants in the Combustion Turbine Project Number One and the Capital Facilities project, the Agency entered into an agreement with EDF Trading North America, LLC (EDF) effective January 1, 2013 to provide natural gas supply and scheduling, nomination, balancing and settlement services. The contract automatically renews each year on January 1, unless terminated earlier by six-months written notice by either party.
- The Agency had approximately \$10.0 million of gas purchase commitments at June 30, 2018. The commitments, extending through December 2020, are normal purchases at agreed to prices for fixed quantities of gas.

**Western Area Power Administration Base Resource** A number of the Agency's members, who had an aggregate 18.87957% of the Base Resource Contract with the Western Area Power Administration to receive electric power from the Central Valley Project in California, have assigned their shares to the Agency in order to create a power resource portfolio for the mutual benefit of participating Agency members. The assignments terminate the earlier of December 31, 2024 or 60 days after Western approves a reassignment.

**Geothermal Royalties** Under terms of federal geothermal leasehold agreements, the Agency is required to pay royalties to the United States (U.S.) on the value of geothermal steam produced. Currently, the effective rate of such royalties is 3.6% of an amount based on the Agency's monthly weighted average cost of third-party wholesale electricity purchases made by Agency members participating in the Geothermal Project. The U.S. Department of the Interior, Office of Natural Resources Revenue maintains the right to periodically review and withdraw their approval or to change this methodology should operations, market conditions, or Federal regulations change.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Geothermal Steam Production & Decommissioning** Steam for the Agency's geothermal plants comes from lands in the Geysers area, which are leased by the Agency from the federal government. The Agency operates these steam-supply areas. Operation of the geothermal plants at high generation levels, together with high steam usage by others in the same area, resulted in a decline in the steam production from the steam wells at a rate greater than expected. As a result, by April 1988, for the purpose of slowing the decline in the steam field capability, the Agency changed its steam field production from base-load to load-following and reduced average annual generation. These changes were effective in reducing the decline in steam production.

Beginning in 1991, along with other steam field operators in the area, the Agency began implementing various operating strategies to further reduce the rate of decline in steam production. The Agency has modified both steam turbine units at Plant 1 and the associated steam collection system to enable generation with lower pressure steam at higher mass-flow rates to optimize the utilization of the available steam resource.

The Agency also entered into agreements with other producers in the Geysers area to finance and construct the Southeast Geysers Effluent Pipeline Project, which was completed in September 1997 and began operating soon thereafter. The 26-mile pipeline collects wastewater from Lake County Sanitation District treatment plants at Clearlake and Middletown and delivers the wastewater to the Agency and the other Geysers steam field operators for injection into the steam field. A second pipeline enhancement project to further augment the wastewater injection program was completed in 2004.

Based on current operating protocols and forecasted operations, the Agency expects both the average and peak capacity to continue to decrease, reaching approximately 72 MWG (megawatts gross) by calendar year 2039.

Under terms of the federal geothermal leasehold agreements, which became effective August 1, 1974, the leasehold had a 10-year primary term with provision for renewal as long thereafter as geothermal steam is produced or utilized, but not longer than 40 years. At the expiration of that period, if geothermal steam is still being produced, the Agency has preferential right to renew the leasehold for a second term. The leasehold also requires the Agency to remove its leasehold improvements including the geothermal plants and steam gathering system when, and if, the Agency abandons the leasehold. The Agency obtained an updated decommissioning costs study in December, 2016. These decommissioning costs are currently estimated to total approximately \$59.3 million. The Agency has been collecting monies to pay the expected decommissioning costs since 2007 and currently holds approximately \$18.1 million in a reserve for such purpose as of June 30, 2018.

### CLAIMS AND LITIGATION

**California Energy Crisis** During 2000 and 2001, California experienced extreme fluctuations in the prices and supplies of natural gas and electricity in much of the State. While there has been progress in addressing these issues, uncertainty remains. As a result, no assurance can be given that measures undertaken, together with measures to be taken in the future, will prevent the recurrence of shortages, price volatility or other energy problems that have adversely affected California electric utilities in the past. The Agency has settled with the plaintiffs in related litigation, and while the settlement has been approved by FERC, there are still some claims by others that remain ongoing. Although the Agency considers these claims to be lacking in merit, no assurance thereof can be given until all proceedings are finally concluded.

Following a July 10, 2018 FERC order generally accepting the CAISO and CALPX's filings calculating the refunds owed by all participants in the ISO and PX markets, the California parties have begun the process of reconciling the amounts recorded by the ISO and PX with all the settlements entered into by the California Parties (including the settlement with NCPA). Following that process, some adjustments may need to be made to account for differences between the interest owed and interest actually collected on certain escrow accounts. NCPA is unlikely to be affected by any such adjustments.

## NOTES TO COMBINED FINANCIAL STATEMENTS

### NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

**Greenhouse Gas (GHG) Emissions** The California Global Warming Solutions Act of 2006 (also known as California Assembly Bill 32 or AB 32) requires the gradual reduction of state-wide GHG emissions to the 1990 level by 2020. The California Air Resources Board (CARB) is the state agency charged with monitoring GHG levels and adopting regulations to implement and enforce AB 32. The CARB has approved various regulations, including regulations that established a state-wide, comprehensive “cap-and-trade” program that sets a gradually declining limit (or “cap”) on the amount of GHGs that may be emitted by the major sources of GHG emissions each year. GHG emissions are measured in metric tons (MT) of carbon dioxide-equivalent greenhouse gases (CO<sub>2e</sub>) per year.

The cap and trade program’s first two-year compliance period, which began January 1, 2013, applies to the electricity generation and large industrial sectors. The next compliance period, from January 1, 2015 through December 31, 2017, expanded to include the natural gas supply and transportation sectors, effectively covering all the capped sectors until 2020. In July 2017, CARB adopted an updated set of cap-and-trade regulations that extends the cap-and-trade program to 2030. The updated regulations continue the direct allocation of allowances to distribution utilities which in turn can be transferred by members to the Agency.

The Agency’s Lodi Energy Center gas plant, Steam Injected Gas Turbine gas plant and electricity imports (purchased power) are subject to the compliance rules established by CARB for the cap-and-trade program. As such, the Agency acquires sufficient compliance instruments to cover its compliance obligations or receives transfers of required compliance instruments from its project participants. At June 30, 2018, the Agency had cumulative compliance obligation of 1,093,971 MT with 1,242,482 MT of acquired allowances to meet its compliance obligation. At June 30, 2017, the Agency had cumulative compliance obligation of 902,456 MT with 1,097,509 MT of acquired allowances to meet its compliance obligation.

**Other Factors Affecting the Electric Utility Industry** Electric industry market participants, such as the Agency and its members, continue to face numerous potential risks and uncertainties including, but not limited to, significant volatility in energy prices and increased transmission and ancillary services costs; new federal and state renewable energy, operating efficiency, and environmental standards; and, global pressures on economic and financial market conditions. The Agency and its members continue to study and to take various actions in an effort to mitigate and manage these risk and uncertainties. However, the Agency cannot predict either the ultimate outcome of these ongoing changes or whether such outcome will have a material adverse effect on its financial position or results of operations.

**Other Legal Matters** The Agency is engaged in various legal proceedings before federal and state courts and various administrative tribunals incidental to the Agency’s operations.

Based on its review of the aforementioned proceedings with outside legal counsel, the Agency believes that the ultimate aggregate liability, if any, resulting from these proceedings will not have a materially adverse effect on the combined financial position or results of operations of the Agency.

**Claims** On September 9, 2015, a major wildfire (The Valley Fire) occurred in the California counties of Lake, Napa, and Sonoma. The fire burned approximately 74,000 acres and destroyed approximately 1,960 structures including homes, commercial properties, and other minor structures. The Agency’s Geysers geothermal and effluent projects are located in Lake County, and some of those facilities were damaged in the fire. Damage and reparation costs totaled \$1.74 million in 2015 and 2016. A Presidential Disaster Declaration was issued on September 22, 2015. Public Assistance was added to the Disaster Declaration on October 9, 2015. The Agency recovered \$531,317 from the project insurance policy in fiscal year 2017. Additionally, the Agency seeks to recover public assistance grants and will record those proceeds in other non-operating revenue in the fiscal year in which they are received.

In December, 2015, the Hydroelectric Project Adit 4 Tunnel Spoils incurred water related damage that required remediation to stabilize the site and prevent further erosion to Clark Creek. The Adit 4 Tunnel Spoils (Spoils)

## **NOTES TO COMBINED FINANCIAL STATEMENTS**

### **NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

are located approximately 1.5 miles up canyon from the Collierville Powerhouse in Calaveras County and are part of the water conveyance tunnel between McKays Point Diversion Dam and the Collierville Power House. Damage and reparation costs are estimated to be \$4.5 million. Construction was completed in late summer 2018, and final invoices are pending. The Agency recovered \$2,100,000 from the project insurance policy in fiscal year 2018.

During the period of January 3-12, 2017, severe winter storms caused flooding and mudslides in many California Counties. As a result of those storms, the Beaver Creek Diversion Dam and McKays Point Reservoir filled with sediment and debris, and Beaver Creek required emergency dredging after the river flows receded during the summer. Additionally, much of the Project was inaccessible for weeks as a result of numerous road failures. Repair costs totalled approximately \$2.2 million. Construction was completed in fall 2017. The Agency recovered \$1,270,036 from the project insurance policy in fiscal year 2018. On February 14, 2017, a Presidential Disaster Declaration was issued including federal disaster assistance. The Agency seeks to recover public assistance grants and will record those proceeds in other non-operating revenue in the fiscal year in which they are received.

#### **NOTE I – SUBSEQUENT EVENTS**

On September 10, 2018 California passed SB 100 setting a 100% clean electricity goal for the state, and issued an executive order establishing a new target to achieve carbon neutrality by 2045. SB 100 modifies the existing Renewables Portfolio Standard (RPS) Program to require 60% of electric retail sales to come from eligible renewable energy resources by December 31, 2030. The modified RPS requires eligible renewables to account for 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030.

The bill also makes it the policy of the state that RPS-eligible renewable energy resources and zero-carbon resources supply 100% of electric retail sales to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045. While the 60% RPS is limited to currently identified RPS-eligible technologies, the remaining 40% can consist of other zero-carbon resources such as large hydro. The provisions of SB 100 are effective January 1, 2019.

The Agency has not determined the financial impact of this new regulation.

**REQUIRED SUPPLEMENTARY INFORMATION  
(UNAUDITED)  
NORTHERN CALIFORNIA POWER AGENCY  
AND ASSOCIATED POWER CORPORATIONS**

**Schedule of Changes in the Net Pension Liability  
and Related Ratios Last 10 Measurement Years \***

	<b>FY 2017</b>	<b>FY 2016</b>	<b>FY 2015</b>	<b>FY 2014</b>
<b>Total Pension Liability</b>				
Service cost	\$ 3,548,776	\$ 3,152,017	\$ 3,256,167	\$ 3,220,329
Interest on total pension liability	10,678,090	10,328,232	9,734,270	9,285,364
Differences between expected and actual experience	(1,980,198)	581,539	(1,437,389)	-
Changes in assumptions	8,835,307	-	(2,354,661)	-
Changes in benefits	-	-	-	-
Benefit payments, including refunds of employee contributions	(6,410,415)	(5,988,393)	(5,522,982)	(5,059,144)
<b>Net change in total pension liability</b>	<b>14,671,560</b>	<b>8,073,395</b>	<b>3,675,405</b>	<b>7,446,549</b>
<b>Total pension liability - beginning</b>	<b>143,919,618</b>	<b>135,846,223</b>	<b>132,170,818</b>	<b>124,724,269</b>
<b>Total pension liability - ending (a)</b>	<b>\$ 158,591,178</b>	<b>\$ 143,919,618</b>	<b>\$ 135,846,223</b>	<b>\$ 132,170,818</b>
<b>Plan fiduciary net position</b>				
Contributions - employer	\$ 6,752,236	\$ 5,406,928	\$ 5,584,985	\$ 5,507,642
Contributions - employee	1,556,483	1,453,722	1,433,343	1,410,488
Net investment income	8,979,321	434,144	1,754,108	10,868,237
Benefit payments	(6,410,415)	(5,988,393)	(5,522,982)	(5,059,144)
Administrative expense	(117,127)	(47,581)	(87,934)	-
<b>Net change in plan fiduciary net position</b>	<b>10,760,498</b>	<b>1,258,820</b>	<b>3,161,520</b>	<b>12,727,223</b>
<b>Plan fiduciary net position - beginning</b>	<b>79,331,018</b>	<b>78,072,198</b>	<b>74,910,678</b>	<b>62,183,455</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 90,091,516</b>	<b>\$ 79,331,018</b>	<b>\$ 78,072,198</b>	<b>\$ 74,910,678</b>
<b>Net pension liability - ending (a)-(b)</b>	<b>\$ 68,499,662</b>	<b>\$ 64,588,600</b>	<b>\$ 57,774,025</b>	<b>\$ 57,260,140</b>
Plan fiduciary net position as a percentage of the total pension liability	56.81%	55.12%	57.47%	56.68%
Covered - employee payroll	\$ 18,573,174	\$ 18,121,290	\$ 18,365,293	\$ 17,596,462
Net pension liability as percentage of covered-employee payroll	368.81%	356.42%	314.58%	325.41%

**Notes to Schedule:**

**Benefit changes** The figures above do not include any liability impact that may have resulted from plan changes, which occurred after June 30, 2017. This applies for voluntary benefit changes as well as any offers to Two Years Additional Service Credit (aka Golden Handshakes).

**Changes in assumptions** In 2017, CalPERS reduced the discount rate from 7.65% to 7.15%. In 2016, GASB 68 was modified to state that the long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense. Accordingly, the discount rate was changed from 7.50 percent (net of administrative expense in 2014) to 7.65 percent as of June 30, 2015 measurement date to reflect this required methodology change.

\* Measurement fiscal year 2014 was the first year of implementation, therefore only four years are shown.

**REQUIRED SUPPLEMENTARY INFORMATION - Continued**  
**(UNAUDITED)**  
**NORTHERN CALIFORNIA POWER AGENCY**  
**AND ASSOCIATED POWER CORPORATIONS**

**Schedule of Pension Plan Contributions**  
**Last 10 Fiscal Years \***

	<b>FY 2018</b>	<b>FY 2017</b>	<b>FY 2016</b>	<b>FY 2015</b>
Actuarially Determined Contribution	\$ 6,263,130	\$ 5,715,970	\$ 5,406,928	\$ 5,065.861
Contributions in Relation to the Actuarially Determined Contribution	(7,769,768)	(6,752,236)	(5,406,928)	(5,584.985)
Contribution Deficiency (Excess)	\$ (1,506,638)	\$ (1,036,266)	\$ 0	\$ (519.124)
Covered-Employee Payroll <sup>1</sup>	\$ 19,556,203	\$ 18,573,174	\$ 18,121,290	\$ 18,365,293
Contributions as a Percentage of Covered-Employee Payroll <sup>1</sup>	39.73%	36.35%	29.84%	30.41%

<sup>1</sup> Covered-Employee Payroll represented above is based on pensionable earnings provided by the employer. However, GASB 68 defines covered-employee payroll as the total payroll of employees that are provided pensions through the pension plan. Pensionable earnings are covered employee payroll reduced for earnings and other earnings adjustments not subject to pension contributions.

\* Fiscal year 2015 was the first year of implementation, therefore only four years are shown.

**REQUIRED SUPPLEMENTARY INFORMATION- Continued**  
**(UNAUDITED)**  
**NORTHERN CALIFORNIA POWER AGENCY**  
**AND ASSOCIATED POWER CORPORATIONS**

**Schedule of Changes in the Net OPEB Liability and  
Related Ratios Last 10 Measurement Years \***

	<b>FY 2017</b>
<b>Total OPEB Liability</b>	
Service cost	\$ 909,576
Interest on total OPEB liability	2,256,395
Differences between expected and actual experience	-
Changes in assumptions	-
Changes in benefits	-
Benefit payments, including refunds of employee contributions	(1,721,416)
<b>Net change in total OPEB liability</b>	<b>1,444,555</b>
<b>Total OPEB liability - beginning</b>	<b>33,365,151</b>
<b>Total OPEB liability - ending (a)</b>	<b>\$ 34,809,706</b>
<b>Plan fiduciary net position</b>	
Contributions - employer	\$ 3,914,644
Contributions - employee	-
Net investment income	2,390,569
Benefit payments	(1,721,416)
Administrative expense	(11,683)
<b>Net change in plan fiduciary net position</b>	<b>4,572,114</b>
<b>Plan fiduciary net position - beginning</b>	<b>22,735,392</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 27,307,506</b>
<b>Net OPEB liability - ending (a)-(b)</b>	<b>\$ 7,502,200</b>
 Plan fiduciary net position as a percentage of the total OPEB liability	 78.45%
 Covered - employee payroll	 \$ 18,573,174
Net OPEB liability as percentage of covered-employee payroll	40.39%

**Notes to Schedule:**

**Benefit changes** The benefit payments for FY 2017 consist of pay-as-you-go cost of \$1,394,637 plus estimated implicit rate subsidy of \$326,779.

**Changes in assumptions** NCPA funds, at minimum, the Actuarially Determined Contribution to the OPEB fund. During measurement period ending June 30, 2017, discount rate decreased from 7.00% to 6.75%.

\* Measurement fiscal year 2017 was the first year of implementation, therefore only one year is shown.



**REQUIRED SUPPLEMENTARY INFORMATION - Continued**  
**(UNAUDITED)**  
**NORTHERN CALIFORNIA POWER AGENCY**  
**AND ASSOCIATED POWER CORPORATIONS**

**Schedule of OPEB Plan Contributions**  
**Last 10 Fiscal Years \***

	<b>FY 2018</b>
Actuarially Determined Contribution	\$ 1,426,947
Contributions in Relation to the Actuarially Determined Contribution	(3,454,933)
Contribution Deficiency (Excess)	<u>\$ (2,027,985)</u>
Covered-Employee Payroll	\$ 19,556,203
Contributions as a Percentage of Covered-Employee Payroll <sup>1</sup>	17.67%

\* Fiscal year 2018 was the first year of implementation, therefore only one year is shown.

**Valuation Date:**

Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.

**Methods and Assumptions used to Determine Contributions Rates:**

Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percentage of payroll, closed
Amortization period	15 years
Asset valuation method	5 year smoothed market
Discount rate	6.75 percent
Healthcare cost trend rates	3.50% for pre-65 and 2.25% for post-65
Salary increases	3.00 percent
Investment rate of return	6.75 percent
Retirement age	In the 2017 actuarial valuation, expected retirement ages of general employees were adjusted to more closely reflect actual experience.
Mortality	Rates based on statistics taken from the latest California PERS (CalPERS) Pension Valuation Report. The mortality rates include an assumed improvement in future mortality based on Scale BB projected to 2028.

**REQUIRED SUPPLEMENTARY INFORMATION - Continued**  
**(UNAUDITED)**  
**NORTHERN CALIFORNIA POWER AGENCY**  
**AND ASSOCIATED POWER CORPORATIONS**

**June 30, 2017 GASB 45 Information**

**Trend Information for the OPEB Plan**

Fiscal Year Ended	Annual Required Contribution	Annual OPEB Cost	Actual OPEB Contributions	Net OPEB Obligation	Percentage of OPEB Cost Contributed
June 30, 2013	\$ 1,049,873	\$ 1,049,873	\$ 1,506,882	\$ (457,009)	144%
June 30, 2014	\$ 871,135	\$ 871,135	\$ 2,094,609	\$ (1,223,474)	240%
June 30, 2015	\$ 889,447	\$ 889,447	\$ 1,535,620	\$ (646,173)	173%
June 30, 2016	\$ 2,301,880	\$ 2,306,684	\$ 1,486,108	\$ 820,576	64%

**Funded Status of the OPEB Fund**

Actuarial Valuation Date	Actuarial Accrued Liability (a)	Actuarial Value of Assets (b)	Actuarial Unfunded Liability (a) - (b)	Funded Ratio (b) / (a)	Annual Covered Payroll (c)	Unfunded Actuarial Accrued Liability as % of Payroll [(a) - (b)] / (c)
June 30, 2008	\$ 16,114,250	\$ 12,213,980	\$ 3,900,270	75.8%	\$ 15,491,511	25.2%
June 30, 2010	\$ 18,936,156	\$ 13,975,353	\$ 4,960,803	73.8%	\$ 16,355,901	30.3%
June 30, 2011*	\$ 21,599,763	\$ 14,464,987	\$ 7,134,776	67.0%	\$ 16,672,248	42.8%
June 30, 2013	\$ 22,477,396	\$ 17,529,070	\$ 4,948,326	78.0%	\$ 17,564,711	28.2%
June 30, 2015**	\$ 36,724,032	\$ 22,291,159	\$ 14,432,873	60.7%	\$ 17,941,846	80.4%

\* The discount rate was changed from 7.75%, which was used in all prior years' actuarial valuations, to 7.61% for June 30, 2011 through June 30, 2014, as prescribed by CalPERS.

\*\* The discount rate was changed from 7.61% to 7.00% for the June 30, 2015 actuarial valuation, as prescribed by CalPERS.