

**SMUD ANNUAL DISCLOSURE
For the Year Ended 12/31/2018**

POWER SUPPLY RESOURCES

The following table sets forth information concerning SMUD’s power supply resources as of March 31, 2019. Capacity availability reflects rated or nameplate capacities at SMUD’s load center, as well as entitlement, firm allocations and contract amounts.

**POWER SUPPLY RESOURCES
(As of March 31, 2019)**

Source:	Capacity Available (MW)⁽¹⁾
Generating Facilities:	
Upper American River Project – Hydroelectric	673
Solano 1, 2 & 3 Wind Projects – Wind ⁽²⁾	86
Sub-total:	759
Local Gas-Fired Plants:	
SFA (Cosumnes)	576
CVFA (Carson-Ice)	103
SCA (Procter & Gamble)	182
SPA (McClellan)	72
SPA (Campbell Soup)	170
Sub-total:	1,103
Purchased Power:	
Western Area Power Administration (WAPA) ⁽³⁾ ⁽⁴⁾	336
Feed-in-Tariff Photovoltaic – Solar.....	83
Grady – Wind	71
Recurrent – Solar	55
Rock Tenn (Simpson) – Biomass	42
Iberdrola (PPM) Wind.....	24
CalGeo – Geothermal	17
Patua (Gradient/Vulcan) – Geothermal	12
Other Long-Term Contracts	35
Firm Contract Reserves ⁽¹⁾	17
Committed Short-Term Purchases ⁽⁵⁾	583
Uncommitted Short-Term Purchases.....	79
Sub-total:	1,353
Total	3,216

⁽¹⁾ Available capacity is the net capacity available to serve SMUD’s system during the peak month of July.

⁽²⁾ Wind supply resources are intermittent and are shown at the average historical capacity over the past 3 years between 12:00 p.m. and 6:00 p.m.

⁽³⁾ Total includes SMUD’s Base Resource share and WAPA Customer allocations.

⁽⁴⁾ Assumes firm reserves of 5% are included.

⁽⁵⁾ Committed Short-Term Purchases are primarily purchased on a year-ahead to season-ahead basis from various sources.

Note: Totals may not add due to rounding.

**PROJECTED REQUIREMENTS AND RESOURCES TO MEET
LOAD REQUIREMENTS⁽¹⁾
ENERGY REQUIREMENTS AND RESOURCES (GWh)**

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
Renewable Resources										
<u>District or Joint Powers Authority Owned:</u>										
UARP - Small Hydro	57	66	66	66	66	67	67	67	67	66
Solano 1, 2 & 3 – Wind	621	619	618	917	917	917	917	917	917	917
SFA – Shell Landfill Gas and Digester Gas ⁽²⁾	294	998	998	1,006	1,007	1,087	1,087	1,088	1,087	1,088
Total	973	1,683	1,682	1,990	1,990	2,071	2,072	2,072	2,070	2,072
<u>Purchases</u>										
Western (WAPA) – Small Hydro	23	19	20	20	20	20	20	20	20	20
Iberdrola (PPM) – Wind	122	127	127	127	127	127	58	-	-	-
Rock Tenn (Simpson) – Biomass	326	341	161	-	-	-	-	-	-	-
Grady – Wind	436	900	895	895	895	900	895	895	895	900
Rancho Seco PV2	-	-	337	335	333	332	330	328	327	325
Patua (Gradient/Vulcan) – Geothermal	143	147	147	147	147	144	144	144	144	144
Recurrent Solarshare	169	170	171	171	171	172	172	169	169	169
Cal Energy – Geothermal	133	199	223	223	223	224	223	223	223	224
Navajo Solar	-	-	1	303	301	294	294	291	291	289
Feed-in-Tariff Photovoltaic – Solar	210	213	212	211	210	210	208	207	206	205
Other Long-Term Contracts	228	244	259	258	237	225	186	100	77	78
Total	1,789	2,360	2,551	2,689	2,664	2,647	2,529	2,377	2,351	2,353
Non-Renewable										
<u>District or Joint Powers Authority Owned:</u>										
UARP – Large Hydro ⁽³⁾	2,159	1,511	1,544	1,592	1,596	1,566	1,567	1,568	1,570	1,565
SFA – Cosumnes	2,834	2,563	2,683	2,512	2,783	2,945	2,938	2,919	2,851	2,794
CVFA – Carson Ice	303	144	141	155	180	145	155	154	151	149
SCA – P&G	743	598	600	572	640	522	523	480	471	415
SPA – McClellan	2	2	2	2	2	1	1	-	1	-
SPA – Campbell Soup	746	534	404	603	660	518	569	498	382	306
Total	6,787	5,352	5,375	5,436	5,861	5,697	5,753	5,620	5,426	5,230
<u>Purchases</u>										
Western (WAPA) – Large Hydro	753	605	641	641	641	641	641	641	641	641
Western (WAPA) Customers (wheeling)	36	36	38	38	38	38	38	38	38	38
Calpine Sutter	590	74	-	-	-	-	-	-	-	-
Committed Purchases	75	-	-	-	-	-	-	-	-	-
Total	1,453	715	679	680	679	679	679	679	679	679
Total Resources	11,002	10,110	10,288	10,795	11,195	11,094	11,034	10,747	10,526	10,334
Uncommitted Purchases / (Sales)	(93)	749	526	24	(392)	(273)	(243)	36	277	548
Transmission Losses (COTP/CVP)	(62)	(82)	(71)	(72)	(60)	(47)	(45)	(42)	(42)	(42)
Total Projected Energy Requirements	10,848	10,777	10,743	10,748	10,743	10,774	10,745	10,741	10,761	10,840
Energy Efficiency (EE) Board Goals	119	219	313	409	514	615	728	855	962	1,086
SB1 Photovoltaic Goals	69	151	190	241	292	336	376	424	474	526
Expected Electric Vehicle (EV) Charging	(9)	(17)	(32)	(66)	(86)	(109)	(132)	(158)	(188)	(259)
Total Gross Energy Requirements before EE, SB1 and EV Charging	11,027	11,129	11,214	11,331	11,463	11,615	11,717	11,861	12,008	12,193

(1) Totals may not sum due to rounding.

(2) 2019-2028 includes a biomethane contract counted as renewable (see “POWER SUPPLY AND TRANSMISSION – Fuel Supply – Renewable Natural Gas Supply”).

(3) 2019 based on current precipitation levels. All other years assume average precipitation.

CAPACITY REQUIREMENTS AND RESOURCES⁽¹⁾
NET CAPACITY – MEGAWATTS

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>
Load:										
Managed Peak	2,894	2,922	2,950	2,978	3,019	3,016	3,033	3,048	3,059	3,066
Energy Efficiency (EE) Board Goals	(21)	(38)	(55)	(71)	(91)	(106)	(125)	(146)	(164)	(186)
SB1 Photovoltaic Goals	(17)	(37)	(46)	(58)	(79)	(39)	(39)	(39)	(39)	(39)
Electric Vehicle (EV) Charging	-	-	1	1	2	2	3	3	4	5
Planned Peak	2,855	2,847	2,850	2,851	2,850	2,873	2,871	2,867	2,860	2,847
Transmission Losses	22	22	22	22	22	22	22	22	22	22
Dispatchable Demand Resource	(81)	(81)	(81)	(81)	(81)	(81)	(81)	(81)	(81)	(81)
Adjusted Peak	2,796	2,788	2,791	2,791	2,791	2,814	2,812	2,808	2,801	2,788
15% Reserve Margin	419	418	419	419	419	422	422	421	420	418
Adjusted Peak with Reserves	3,216	3,206	3,209	3,210	3,210	3,236	3,234	3,229	3,221	3,206
Renewable Resources										
<u>District or Joint Powers Authority</u>										
<u>Owned:</u>										
UARP – Small Hydro	36	36	36	36	36	36	36	36	36	36
Solano Wind	86	86	86	133	133	133	133	133	133	133
SFA – Shell Landfill Gas and Digester Gas ⁽²⁾	86	150	158	159	159	159	159	159	159	159
Total	207	271	279	328	328	328	328	328	328	328
<u>Purchases</u>										
Western (WAPA) – Small Hydro	10	9	9	9	9	9	9	9	9	9
Iberdrola (PPM) – Wind	24	24	24	24	24	24	24	-	-	-
Rock Tenn (Simpson) – Biomass	42	42	-	-	-	-	-	-	-	-
Grady – Wind	71	71	71	71	71	71	71	71	71	71
Recurrent Solar Shares	55	54	54	54	54	53	53	53	52	52
RanchoSeco PV2 - Solar	-	-	105	104	104	103	103	102	102	101
Navajo Solar	-	-	-	80	79	79	78	78	78	77
Patua (Gradient/Vulcan) – Geothermal	12	12	12	12	12	12	12	12	12	12
CalGeo – Geothermal	17	26	26	26	26	26	26	26	26	26
Feed-in-Tariff Photovoltaic – Solar	83	83	83	83	83	83	83	83	83	83
Other Long-Term Contracts	35	45	45	45	45	40	40	25	25	25
Total	348	366	429	508	507	500	499	459	458	456
Non-Renewable										
<u>District or Joint Powers Authority Owned:</u>										
UARP – Large Hydro	637	637	637	637	637	637	637	637	637	637
SFA (Cosumnes)	490	426	418	417	417	417	417	417	417	417
CVFA (Carson-Ice)	103	103	103	103	103	103	103	103	103	103
SCA (Procter & Gamble)	182	182	182	182	182	182	182	182	182	182
SPA (McClellan)	72	72	72	72	72	72	72	72	72	72
SPA (Campbell Soup)	170	170	170	170	170	170	170	170	170	170
Total	1,654	1,590	1,582	1,581	1,581	1,581	1,581	1,581	1,581	1,581
<u>Purchases</u>										
Western (WAPA) – Large Hydro	309	309	309	309	309	309	309	309	309	309
Western (WAPA) Customers (wheeling)	18	18	18	18	18	18	18	18	18	18
Other Long-Term Contracts	258	258	-	-	-	-	-	-	-	-
Firm Contract Reserves ⁽³⁾	17	17	17	17	17	17	17	17	17	17
Committed Purchases	325	250	-	-	-	-	-	-	-	-
Total	927	852	344	344	344	344	344	344	344	344
Uncommitted Purchases / (Sales)	80	127	575	450	451	484	483	518	511	497
Total Resources	3,216	3,206	3,209	3,210	3,210	3,236	3,234	3,229	3,221	3,206

(1) Totals may not sum due to rounding.

(2) The SFA Project is a 495 MW plant that includes 100 MW capacity attributable to a biogas contract counted as renewable (see “POWER SUPPLY AND TRANSMISSION – Fuel Supply – *Renewable Natural Gas Supply*”) and 395 MW capacity from natural gas.

(3) SMUD assumes that for all firm system purchases, the suppliers will be planning 5% reserves.

AVERAGE CLASS RATES

	SMUD Rates (cents/kWh)⁽¹⁾	PG&E Rates (cents/kWh)⁽²⁾	Percent Below PG&E⁽³⁾
Residential - Standard	15.09¢	23.30¢	35.2%
Residential – Low Income	9.98¢	13.50¢	26.2%
All Residential	14.39¢	20.55¢	30.0%
Small Commercial (Less than 20 kW)	15.02¢	24.60¢	38.9%
Small Commercial (21 to 299 kW)	13.91¢	23.52¢	40.9%
Medium Commercial (300 to 499 kW)	13.05¢	21.53¢	39.4%
Medium Commercial (500 to 999 kW)	12.27¢	18.89¢	35.1%
Large Commercial (Greater than 1,000 kW)	10.38¢	15.07¢	31.1%
Lighting – Traffic Signals	11.78¢	23.53¢	49.9%
Lighting – Street Lighting	13.02¢	23.77¢	45.2%
Agriculture	13.21¢	20.82¢	36.0%
System Average	13.40¢	19.99¢	33.0%

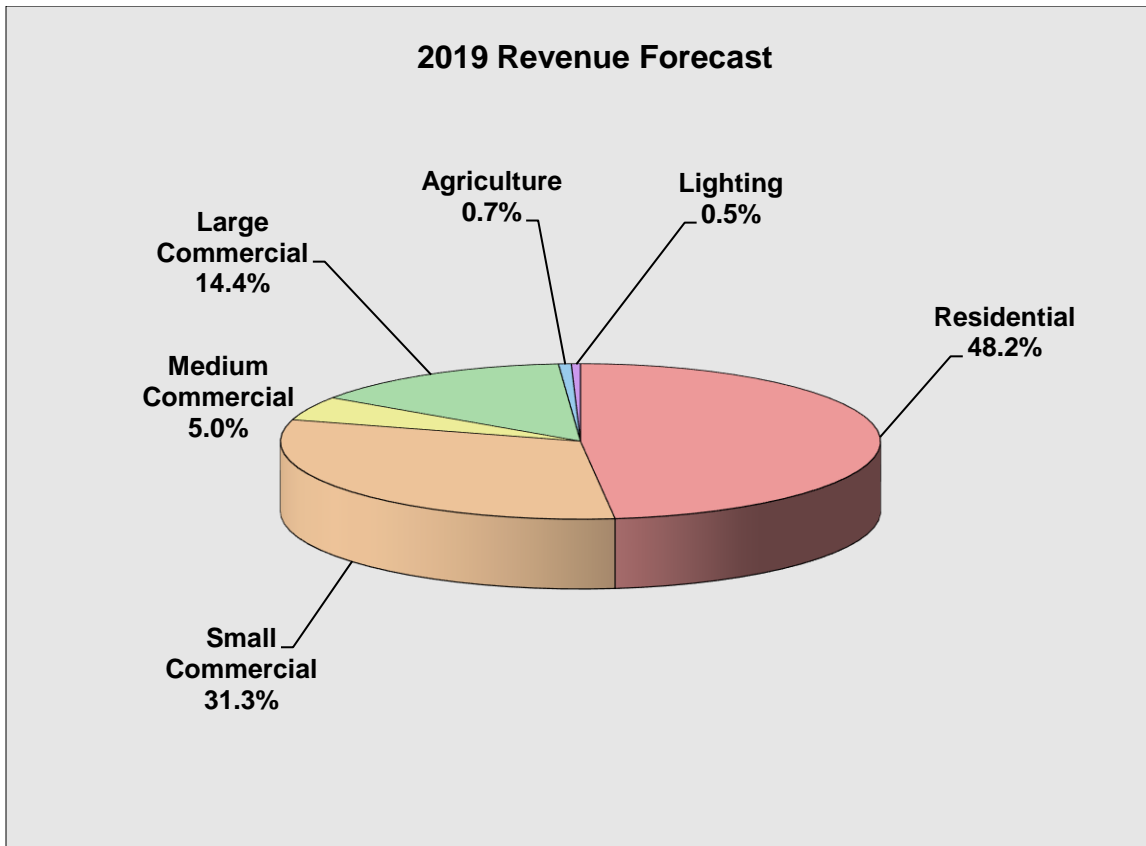
⁽¹⁾ Projected 2018 average prices for SMUD with rates effective January 1, 2019.

⁽²⁾ PG&E average prices in 2019 reflect rates effective March 1, 2019, per Advice Letter 5231-E dated February 15, 2019.

⁽³⁾ The rates in the Average Class Rates table are calculated by dividing the total revenue of each class by the total usage of that class in kWhs. The actual savings per customer will vary based on their actual electricity consumption.

ALLOCATION OF DISTRICT REVENUE BY CUSTOMER CLASS

The following chart sets forth the forecast percentage of SMUD revenues from billed sales associated with each customer class.



OPERATING DATA

Selected operating data of SMUD for the four years ended December 31, 2015 through 2018, and for the three months ended April 30, 2019 and April 30, 2018 are presented in the following table.

SMUD SELECTED OPERATING DATA CUSTOMERS, SALES, SOURCES OF ENERGY AND REVENUES

	Four Months Ended April 30,		Year Ended December 31,			
	2019	2018	2018	2017	2016	2015
Customers at End of Period:						
Residential	561,211	556,266	559,907	554,201	551,890	547,653
Commercial and industrial	67,935	67,313	67,782	67,260	67,037	66,777
Other	7,435	7,497	7,448	7,491	7,533	7,560
Total	<u>636,581</u>	<u>631,076</u>	<u>635,137</u>	<u>628,952</u>	<u>626,460</u>	<u>621,990</u>
MWh Sales:						
Residential	1,337,505	1,367,956	4,515,031	4,957,240	4,670,307	4,654,571
Commercial and industrial	1,709,794	1,707,515	5,661,449	5,761,158	5,688,615	5,747,669
Other	19,327	19,706	57,031	57,952	62,216	71,559
Total	<u>3,066,626</u>	<u>3,095,177</u>	<u>10,233,511</u>	<u>10,776,350</u>	<u>10,421,135</u>	<u>10,473,799</u>
Surplus power/out of area sales	<u>354,604</u>	<u>386,732</u>	<u>1,516,289</u>	<u>1,788,719</u>	<u>1,826,687</u>	<u>1,677,566</u>
Total	<u>3,421,230</u>	<u>3,481,909</u>	<u>11,749,800</u>	<u>12,565,069</u>	<u>12,247,822</u>	<u>12,151,365</u>
Sources of Energy Sold MWh:						
Generated by SMUD	1,784,657	2,087,614	7,089,430	7,274,860	7,934,086	6,857,498
Purchased or exchanged	1,755,794	1,521,651	5,078,432	5,757,332	4,798,517	5,746,573
Total	<u>3,540,451</u>	<u>3,609,265</u>	<u>12,167,862</u>	<u>13,032,192</u>	<u>12,732,603</u>	<u>12,604,071</u>
Less System losses and SMUD usage	<u>119,221</u>	<u>127,356</u>	<u>418,062</u>	<u>467,123</u>	<u>484,781</u>	<u>452,706</u>
Total	<u>3,421,230</u>	<u>3,481,909</u>	<u>11,749,800</u>	<u>12,565,069</u>	<u>12,247,822</u>	<u>12,151,365</u>
Gross System peak demand (kW) ⁽¹⁾	1,924,000	1,552,000	2,944,000	3,157,000	2,972,000	2,956,000
Average kWh sales per residential customer ⁽²⁾	2,384	2,462	8,101	8,969	8,495	8,522
Average Revenue per kWh Sold:						
Residential ⁽²⁾ (cents)	13.32	13.97	14.43	14.05	13.90	13.48
Commercial & industrial ⁽²⁾ (cents)	12.04	11.90	12.57	12.63	12.35	12.13

⁽¹⁾ Peak system MW values are measured at the four SMUD interconnection points and exclude SMUD's generation losses. Historical values include the impacts of dispatchable, non-dispatchable, and energy efficiency program capacity savings.

⁽²⁾ The average kWh sales per residential customer and the average revenue per kWh sold are calculated based upon billed and unbilled sales.

Source: SMUD

SMUD UNCONSOLIDATED FINANCIAL DATA⁽¹⁾
(thousands of dollars)

	Four Months Ended		Year Ended December 31,			
	April 30,		2018	2017	2016	2015
	2019	2018	2018	2017	2016	2015
Summary of Income						
Operating Revenues ⁽²⁾	\$ 457,501	\$ 443,008	\$1,589,612	\$1,554,366	\$1,490,522	\$1,474,691
Operating Expenses.....	(490,642)	(411,286)	(1,376,987)	(1,366,555)	(1,282,597)	(1,309,001)
Operating Income (Loss).....	(33,141)	31,722	212,625	187,811	207,925	165,690
Interest and Other Income (Expense) .	4,370	36,275	76,966	58,217	43,020	103,679
Interest Expense	(21,653)	(25,702)	(73,021)	(78,554)	(82,465)	(84,565)
Change in Net Position.....	\$ (50,424)	\$ 42,295	\$ 216,570	\$ 167,474	\$ 168,480	\$ 184,804
Selected Statement of Net Position Information						
Net Plant in Service.....	\$2,973,721	\$2,929,455	\$2,995,505	\$2,942,005	\$2,976,674	\$2,974,179
Construction Work in Progress	460,601	318,002	396,794	278,721	205,786	173,638
Electric Utility Plant – Net.....	\$3,434,322	\$3,247,457	\$3,392,299	\$3,220,726	\$3,182,460	\$3,147,817
Unrestricted Cash.....	\$ 347,661	\$ 527,196	\$ 434,103	\$ 608,311	\$ 622,657	\$ 534,392
Rate Stabilization Fund.....	\$ 115,079	\$ 101,562	\$ 96,694	\$ 99,899	\$ 35,154	\$ 30,251
Total Assets.....	\$5,287,491	\$5,159,205	\$5,325,742	\$5,426,013	\$5,183,326	\$5,095,984
Net Position.....	\$1,673,051	\$1,552,661	\$1,723,476	\$1,506,905	\$1,339,431	\$1,170,952
Long-Term Debt ⁽³⁾	\$1,796,581	\$1,995,437	\$1,803,840	\$2,001,767	\$2,126,395	\$2,224,376
Debt Service Coverage Ratios						
Parity Debt Service Coverage Ratio ..	N/A	N/A	2.37x	2.77x	2.59x	2.57x
Parity and Subordinate Debt Service Coverage Ratio.....	N/A	N/A	2.37x	2.75x	2.53x	2.52x

(1) The consolidated financial statements of SMUD comprise financial information of SMUD along with the consolidated component units, CVFA, SPA, SCA, SFA, NCGA and NCEA. This table includes only unconsolidated financial information of SMUD. Net operating revenues and expenses and Electric Utility Plant and Capitalization of CVFA, SPA, SCA, SFA, NCGA and NCEA are not included in this table, although amounts paid to or received from the Authorities by SMUD are included.

(2) Operating Revenues reflect net transfers to (from) the Rate Stabilization Fund for each full year as follows:
2018 (\$3.2 million)
2017 \$64.7 million
2016 \$4.9 million
2015 (\$15.1 million)

Transfers to the Rate Stabilization Fund reduce operating revenues in the year transferred; transfers from the Rate Stabilization Fund increase operating revenues. Transfers from the HGA balancing account in the Rate Stabilization Fund are automatic based on the amount of precipitation received. See "RATES AND CUSTOMER BASE – Rates and Charges" above.

(3) Long-Term Debt includes Long-Term Debt due within one year and unamortized premiums.

DEBT SERVICE COVERAGE RATIOS

	Year Ended December 31,				
	2018	2017	2016	2015	2014
Parity Debt Service Coverage Ratio	2.52x	2.63x	2.59x	2.57x	2.25x
..... Fixed Charge Ratio	2.49x	2.54x	2.49x	2.48x	2.17x
.....					

Note: Previously shown figures have been updated to match current Accounting methodology.

METHOD OF COMPUTATION OF DEBT SERVICE RATIOS For the Year Ended 12/31/2018

	Debt Service Coverage Ratio (Parity Bond Basis)	Fixed Charge Basis
Operating Revenues ⁽¹⁾	\$ 1,589,612	\$ 1,589,612
Interest and Other Income	7,936	7,936
Adjustments:		
Build America Bonds rebate	9,164	-
Net receipts on Series K swap	5,947	-
CIAC (Cash Proceeds Only)	16,841	16,841
AFUDC-equity and borrowed funds	4,624	-
Grant Revenue	2,029	2,029
Revenue From Ineffective Gas Swaps	1,494	-
SB-1 Revenue Recognition	(2,754)	(2,754)
EPR Deferral	(3,540)	(3,540)
	1,631,353	1,610,123
Operating Expenses		
Operations & Maintenance (less Rosa accretion and PP&L amortization)	1,186,406	1,184,421
GASB 68 Reversal	(8,155)	(8,155)
OPEB Adjustment	31,802	31,802
	1,210,057	1,208,068
NET REVENUES	\$421,296	\$402,055
Parity Bonds		
Principal	76,300	76,300
Interest	90,940	77,385
Subordinated Bonds Principal and Interest	0	1,622
Commercial Paper Interest	0	6,267
Parity Revenue Bond Debt Service	168,314	161,091
Debt Service Coverage/Fixed Charge Ratio	2.52	2.49

Notes:

1.) Includes transfer from the rate stabilization fund of: \$3,204,000

RANCHO SECO DECOMMISSIONING (As of 12/31/2018)

	<u>\$ Millions</u>
Total Decommissioning Cost Estimate (Excluding Site Restoration)	520.1
<u>Total Decommissioning Costs Incurred as of 12/31/2018</u>	<u>514.5</u>
Amount Needed for Remaining Decommissioning Costs	5.6
Balance in Decommissioning Fund ⁽¹⁾	8.4
Contribution to the Decommissioning Trust Fund in 2018	0
Estimate for Site Restoration Costs ⁽¹⁾	13.1

⁽¹⁾ Expected site restoration costs are not required to be funded per NRC requirements

ESTIMATED CAPITAL REQUIREMENTS
(Dollars in Thousands)

	Service Area and Other System Improvements Including Distribution System	Improvements to Existing Generation Plant	General Plant	Special Projects	Total Capital Requirements
2019	\$207,469	\$75,709	\$123,075	\$48,307	\$454,560
2020	209,278	45,424	134,105	43,674	432,481
2021	174,586	53,962	125,532	80,847	434,926
2022	177,586	53,962	143,432	103,067	478,046
2023	179,986	53,962	151,232	82,397	467,576