

Burbank Water and Power Fiscal Year 2019-20 Proposed Budget Electric Fund Capital Plan

DRAFT
Subject to Review and Change

	2019-20 Proposed	2020-21 Forecast	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	FY 2019-20 to FY 2023-24 Forecast
Power Supply Improvement Projects	1,170,000	1,015,000	2,875,000	125,000	100,000	5,285,000
Operations Technology	25,000	450,000	200,000	350,000	-	1,025,000
Distribution Expansion Projects	2,812,597	2,668,719	1,766,047	2,868,020	10,224,109	20,339,492
Distribution Replacement Projects	10,673,164	10,218,000	15,092,419	14,930,000	9,744,589	60,658,173
New Customer Projects/AIC	2,904,997	8,385,140	7,239,919	7,000,000	2,500,000	28,030,056
Facility Renovations	540,000	325,000	200,000	175,000	175,000	1,415,000
ONE Burbank	300,000	360,000	1,050,000	300,000	300,000	2,310,000
Finance, Warehouse and Fleet Facility	675,000	-	-	-	230,357	905,357
Customer Service	800,000	750,000	750,000	750,000	500,000	3,550,000
Security	284,294	105,000	-	75,000	100,000	564,294
Safety	75,000	-	-	-	-	75,000
Water Fund's share of common projects	(288,644)	(163,700)	(139,750)	(131,500)	(120,616)	(844,210) (A)
Total CIP	\$ 19,971,409	\$ 24,113,159	\$ 29,033,635	\$ 26,441,520	\$ 23,753,439	\$ 123,313,162
Capital Outlay	1,389,800	1,417,596	1,445,948	1,474,867	1,504,364	7,232,575
Information Technology	69,030	70,411	71,819	73,255	74,720	359,235
Master Fleet Plan	239,925	2,921,610	2,701,800	1,777,595	1,432,900	9,073,830
Total Capital Outlay	\$ 1,698,755	\$ 4,409,617	\$ 4,219,567	\$ 3,325,717	\$ 3,011,985	\$ 16,665,640
Grand Total for Electric CIP	\$ 21,670,164	\$ 28,522,776	\$ 33,253,202	\$ 29,767,237	\$ 26,765,423	\$ 139,978,802

Note:

(A) Includes 15% for Safety, 12.5% for Customer Service, and 11.5% for Operations Technology, Facilities, Finance, and Security when applicable.

**Burbank Water and Power
Fiscal Year 2019-20 Proposed Budget
Electric Fund Capital Improvement Projects (CIP)**

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	B	AM	AN	AO	AP	AQ	AW
1	Project	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2019/20 - 2023/24
3							
4	Power Supply Improvement Projects						
14	SCADA VM Hardware					50,000	50,000
23	Energy Trading Risk Management Software Replacement		750,000	750,000			1,500,000
24	ECC Emergency Generator Control System	20,000					20,000
40	Lake NOx Emission System Retrofit	50,000	140,000	2,000,000			2,190,000
47	Pacific Northwest DC Intertie	1,100,000	125,000	125,000	125,000	50,000	1,525,000
48	Sub-Total	1,170,000	1,015,000	2,875,000	125,000	100,000	5,285,000
49							
50	Operations Technology						
51	Operational Reliability	25,000	200,000				225,000
52	Security Operations Center (SOC)/Network Operations Center (NOC)		250,000				250,000
53	Data Center Hardware			200,000	350,000		550,000
59	Sub-Total	25,000	450,000	200,000	350,000	-	1,025,000
60							
61	Distribution Expansion Projects						
77	Upgrade 34.5 kV Lines	100,000					100,000
85	Voltage Corrections	200,000	150,000	150,000	150,000	150,000	800,000
86	Reconfigure San Jose Station 12kV gateways for better reliability	50,000	150,000				200,000
90	Upgrade Relays for 69 kV Lines, Lincoln-Valley #2		128,628				128,628
92	69kV Line Metering and Protection Upgrades				200,000	200,000	400,000
93	Replace GE Relays on 69kV Lines TBD (Dept Share)	100,000	200,000	150,000			450,000
95	Relay Setting Management and Version Control			150,000			150,000
97	Upgrade Relays for 34 kV Lines, Pacific-Valley	128,628					128,628
98	Upgrade Relays for 34 kV Lines, Lincoln-Pacific	128,628					128,628
99	Upgrade Relays for 34 kV Lines, Town-Flower		258,163				258,163
101	Upgrade Relays for 34 kV Lines, Winona-Lincoln		258,163				258,163
103	Install 34kV PTs for Metering and Protection				200,000	200,000	400,000
105	Replace 34kV GE Relays			150,000	150,000		300,000
106	Upgrade Voltage Regulator Controllers at Town Substation				210,000		210,000
107	Upgrade Voltage Regulator Controllers at McCambridge Substation					182,558	182,558
108	Upgrade Voltage Regulator Controllers at Winona Substation					203,163	203,163
111	Voltage Regulator Replacements				200,000		200,000
116	Upgrade Station Transformer Relays at Keystone & Warner	308,991					308,991
117	Upgrade Station Transformer Relays at Naomi					308,991	308,991
122	Install Transformer Temperature Monitors at Lincoln & Valley (dept share)	113,024					113,024
123	Install Transformer Temperature Monitors at Capon & Olive (dept share)		113,024				113,024
124	Install Transformer Temperature Monitors at Hollywood Way and Warner				115,000		115,000
125	Install Transformer Bushing Monitoring					50,000	50,000
126	Install Transformer Gas Monitor at RSE & Switching Stations (Dept Share)			60,000			60,000
130	Install Transformer Gas Monitor at Clybourn, Town, & San Jose Stations	118,326					118,326
131	Install Transformer Gas Monitor at Naomi & Keystone Stations		102,721				102,721

**Burbank Water and Power
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Electric Fund Capital Improvement Projects (CIP)**

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1	Project	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2019/20 - 2023/24
3							
132	Install Transformer Gas Monitor at Lincoln and Valley				125,000		125,000
141	Station Capacitor Bank Upgrade at Naomi					325,744	325,744
144	Capacitory Bank Enclosure Cooling at Burbank	100,000					100,000
145	Capacitory Bank Enclosure Cooling at Golden State		100,000				100,000
158	Ontario Distributing Station					2,055,986	2,055,986
159	Ontario Distributing Station - Transmission lines Build-out					1,145,000	1,145,000
160	Ontario Distributing Station - Distribution lines Build-out					452,667	452,667
161	Campus Micro-grid					3,600,000	3,600,000
173	DC Panel Upgrades Flower and McCambridge				100,000		100,000
174	DC Panel Upgrades TBD					100,000	100,000
175	Automatic Bus Transfer Scheme at Burbank & Hollywood Way				78,020		78,020
177	Automatic Bus Transfer Scheme at Naomi & San Jose		78,020				78,020
178	Automatic Bus Transfer Scheme at Golden State & Keystone			156,047			156,047
186	Upgrade Work Force Management Software					100,000	100,000
187	Upgrade Geographic Information System (GIS)		200,000				200,000
188	Replace Transformer tracking software (TUGE)	75,000					75,000
189	Implement New Gridview Modules	50,000					50,000
194	Station RTU Replacement			300,000	600,000	300,000	1,200,000
199	Electric Vehicle Charging Program	650,000	650,000	650,000	650,000	800,000	3,400,000
200	2020 Electric Distribution Masterplan Update	350,000					350,000
201	Station Cameras	100,000	150,000				250,000
204	Fiber Optic Infrastructure Expansion	190,000	130,000		90,000	50,000	460,000
206	Wi-Fi Mesh Improvements	50,000					50,000
209	Sub-Total	2,812,597	2,668,719	1,766,047	2,868,020	10,224,109	20,339,492
210							
211	Distribution Replacement Projects						
220	4 kV to 12 kV Conversion of Circuit V-7	4,400,000					4,400,000
221	4 kV to 12 kV Conversion of Circuit N-15	600,000					600,000
222	4 kV to 12 kV Conversion of Circuit W-1 (Partial)		500,000				500,000
223	4 kV to 12 kV Conversion of Circuit V-12		3,600,000				3,600,000
224	4 kV to 12 kV Conversion of Circuit V-9		900,000	1,800,000			2,700,000
225	4 kV to 12 kV Conversion of Circuit V-8			3,200,000	100,000		3,300,000
226	4 kV to 12 kV Conversion of Circuit V-1				4,800,000		4,800,000
227	4 kV to 12 kV Conversion of Circuit V-14				100,000	4,400,000	4,500,000
228	4 kV to 12 kV Conversion of Circuit V-13					600,000	600,000
235	Media District 12kV Capacity			6,000,000	6,000,000		12,000,000
236	Replace Deteriorated Underground Electrical Dist. Lines	800,000	800,000	800,000	800,000	800,000	4,000,000
244	Replace Burbank Station Distribution Getaways		404,535				404,535
245	Replace Circuit BB-15 Underground Lines		100,000				100,000
246	Replace Circuit BB-3 Underground Lines			200,000			200,000
248	Restore condition of padmount transformers in stock	50,000					50,000

**Burbank Water and Power
Fiscal Year 2019-20 Proposed Budget
Electric Fund Capital Improvement Projects (CIP)**

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1	Project	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2019/20 - 2023/24
3							
249	Replace 69 kV and 34.5 kV Lines Due to Deterioration	105,000	105,000	105,000	105,000	105,000	525,000
250	Replace Deteriorated Overhead Electrical Dist. Lines	1,500,000	1,500,000	1,000,000	1,000,000	1,000,000	6,000,000
251	Replace Services	500,000	500,000	500,000	500,000	500,000	2,500,000
253	Underground Existing Overhead Electric Lines	400,000	400,000	400,000	400,000	400,000	2,000,000
254	Protective Relay Network Replacement	1,026,560					1,026,560
258	Replace Obsolete Equipment and Minor System Upgrades at Substations	250,000	250,000	250,000	415,000	415,000	1,580,000
262	Replace Station Medium Voltage Oil/Air Circuit Breakers with Vacuum Circuit Breakers at TBD	130,000	130,000	400,000	400,000	400,000	1,460,000
265	Replace Station High Voltage Oil Circuit Breakers - TBD	210,000	210,000	210,000	210,000	420,000	1,260,000
268	Replace Batteries & Charger at Hollywood Way Substation		86,512				86,512
269	Replace Batteries & Charger at Warner Substation	76,209					76,209
272	Replace Batteries & Charger at TBD			100,000	100,000	100,000	300,000
274	Ground Grid Improvements		127,419	127,419			254,838
275	Distribution Substation Transformer Replacement		604,535			604,589	1,209,124
277	Reconfigure Golden State Transformers	625,395					625,395
283	Sub-Total	10,673,164	10,218,000	15,092,419	14,930,000	9,744,589	60,658,173
284							
285	<u>Aid In Construction (AIC)</u>						
286	Build New Customer Transformer Stations, 750 kVA & Under	573,485	800,000	800,000	800,000	800,000	3,773,485
290	Build Service to Large Project Over 1 MVA	900,000	3,000,000	2,500,000	2,500,000	1,500,000	10,400,000
293	Relocation of Facilities for Caltrans Burbank Bridge Replacement	1,000,000	500,000				1,500,000
298	Install Transformer Gas Monitor at RSE & Switching Stations (AIC Share)			89,919			89,919
299	Install Transformer Temperature Monitors at Lincoln & Valley (AIC share)	56,512					56,512
300	Install Transformer Temperature Monitors at Capon & Olive (AIC share)		56,512				56,512
302	Upgrade Relays for 69 kV Lines, Lincoln-Valley #2 (AIC share)		128,628				128,628
304	Replace GE Relays AIC Share	100,000	200,000	150,000			450,000
305	Media District 12kV Capacity (AIC Share)		3,500,000	3,500,000	3,500,000		10,500,000
311	Provide Fiber Optic Services to Customers City Wide	200,000	200,000	200,000	200,000	200,000	1,000,000
312	Install Fiber Optic Service to City Facilities	75,000					75,000
313	Sub-Total	2,904,997	8,385,140	7,239,919	7,000,000	2,500,000	28,030,056
314							
315	<u>Electric Total</u>	15,875,758	20,941,859	23,898,385	24,508,020	22,218,698	107,442,720
316							
317	<u>Facility Renovations</u>						
324	Roof Replacement Program	150,000	125,000	100,000	75,000	75,000	525,000
327	BWP Administrative Building Lighting Upgrade	30,000	100,000				130,000
331	Communication System	60,000					60,000
333	HVAC Upgrade for Campus Buildings	100,000	100,000	100,000	100,000	100,000	500,000
334	HVAC Upgrade Study & Project for ECC	200,000					200,000
343	Sub-Total	540,000	325,000	200,000	175,000	175,000	1,415,000
344							

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1	Project	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2019/20 - 2023/24
3							
345	ONE Burbank						
346	ONE Burbank Network Infrastructure Expansion	300,000	300,000	300,000	300,000	300,000	1,500,000
347	Geographic Information System (GIS) Upgrades		50,000				50,000
350	ESSN Network Infrastructure Replacement		10,000	750,000			760,000
353	Sub-Total	300,000	360,000	1,050,000	300,000	300,000	2,310,000
354							
355	Finance, Warehouse and Fleet Facility						
359	Auto Reordering	200,000					200,000
361	Warehouse Office & HVAC Modification Project	100,000					100,000
368	Implement Oracle Self Service and Time Entry	150,000					150,000
372	Hyperion Upgrades	225,000				230,357	455,357
374	Sub-Total	675,000	-	-	-	230,357	905,357
375							
376	Customer Service						
377	Meter Data Management System Upgrade and Update		350,000		350,000		700,000
379	Customer Information System Upgrade	500,000		450,000		450,000	1,400,000
381	Customer Web Portal	300,000		300,000			600,000
382	Customer Enhancements		150,000		150,000		300,000
383	Electric AMI Upgrade/Replacement		250,000		250,000		500,000
385	IVR Upgrade					50,000	50,000
387	Sub-Total	800,000	750,000	750,000	750,000	500,000	3,550,000
388							
389	Security						
390	OT Network Monitoring	50,000			75,000		125,000
391	BWP Campus Network Update	194,294	35,000				229,294
392	BWP Enterprise Security	40,000	70,000			100,000	210,000
393	Sub-Total	284,294	105,000	-	75,000	100,000	564,294
394							
395	Safety						
398	EHS Data Management System	75,000					75,000
399	Sub-Total	75,000	-	-	-	-	75,000
400							
401							
402	Water Fund's Share of Common Projects	(288,644)	(163,700)	(139,750)	(131,500)	(120,616)	(844,210)
405							
406	Grand Total Electric Fund CIP Projects	19,971,409	24,113,159	29,033,635	26,441,520	23,753,439	123,313,162