

Burbank Water and Power Fiscal Year 2020-21 Proposed Budget Electric Fund Capital Plan

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Subject to Review and Change

	2020-21 Proposed	2021-22 Forecast	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast	FY 2020-21 to FY 2024-25 Forecast
Power Supply Improvement Projects	1,585,000	2,165,000	915,000	915,000	3,165,000	8,745,000
Operations Technology	450,000	550,000	-	-	-	1,000,000
Distribution Expansion Projects	3,310,861	2,896,817	7,146,739	6,017,515	6,305,685	25,677,617
Distribution Replacement Projects	11,072,087	15,996,419	16,130,000	9,744,589	9,240,000	62,183,095
New Customer Projects/AIC	11,101,217	7,034,650	5,230,800	2,530,800	2,500,000	28,397,467
Facility Renovations	487,800	290,600	333,400	344,100	343,900	1,799,800
ONE Burbank	1,160,000	640,000	450,000	400,000	400,000	3,050,000
Finance, Warehouse and Fleet Facility	105,000	-	-	730,357	1,410,000	2,245,357
Customer Service	825,000	-	600,000	500,000	4,300,000	6,225,000
Security	205,000	-	75,000	100,000	-	380,000
Water Fund's share of common projects	(346,622)	(96,669)	(90,716)	(197,563)	(739,199)	(1,470,768) (A)
Total CIP	\$ 29,955,344	\$ 29,476,817	\$ 30,790,223	\$ 21,084,798	\$ 26,925,386	\$ 138,232,569
Capital Outlay	1,681,170	1,342,520	1,369,370	1,396,758	1,424,693	7,214,511
Information Technology	307,772	126,501	20,000	70,000	177,000	701,273
Master Fleet Plan	803,275	2,285,965	2,600,645	2,020,000	1,942,933	9,652,818
Total Capital Outlay	\$ 2,792,217	\$ 3,754,985	\$ 3,990,015	\$ 3,486,758	\$ 3,544,626	\$ 17,568,601
Grand Total for Electric CIP	\$ 32,747,561	\$ 33,231,803	\$ 34,780,239	\$ 24,571,556	\$ 30,470,012	\$ 155,801,170

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 2020-21 Proposed Budget
Electric Fund Capital Improvement Projects**

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	B	AS	AT	AU	AV	AW	BC
1	Project	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2020/21 - 2024/25
3							
4	Power Supply Improvement Projects						
9	Cyber & Physical Security Systems (ECC)	40,000	40,000	40,000	40,000	40,000	200,000
14	SCADA Hardware Replacement	130,000			50,000	50,000	230,000
23	Energy Trading Risk Management Software Replacement			750,000	750,000		1,500,000
34	Advanced Distribution Management System	1,000,000					1,000,000
41	Lake NOx Emission System Retrofit	140,000	2,000,000				2,140,000
46	Municipal Rooftop Solar					3,000,000	3,000,000
48	Pacific Northwest DC Intertie	275,000	125,000	125,000	75,000	75,000	675,000
49	Sub-Total	1,585,000	2,165,000	915,000	915,000	3,165,000	8,745,000
50							
51	Operations Technology						
52	Operational Reliability	200,000					200,000
53	Security Operations Center (SOC)/Network Operations Center (NOC)	250,000					250,000
54	Data Center Hardware		550,000				550,000
61	Sub-Total	450,000	550,000	-	-	-	1,000,000
62							
63	Distribution Expansion Projects						
74	Upgrade Circuit M-11 Overhead Lines			364,000			364,000
76	Upgrade Circuit W-11 Overhead Lines			260,000			260,000
87	Voltage Corrections	150,000	150,000	150,000	150,000	150,000	750,000
88	Reconfigure San Jose Station 12kV gateways for better reliability	150,000					150,000
92	Upgrade Relays for 69 kV Lines, Lincoln-Valley #2	218,000					218,000
94	69kV Line Metering and Protection Upgrades			169,200	169,200		338,400
95	Replace GE Relays on 69kV Lines TBD (Dept Share)	338,400	276,900				615,300
97	Relay Setting Management and Version Control		150,000				150,000
101	Upgrade Relays for 34 kV Lines, Town-Flower		258,163				258,163
103	Upgrade Relays for 34 kV Lines, Winona-Lincoln	258,163					258,163
105	Install 34kV PTs for Metering and Protection			200,000	200,000		400,000
106	Upgrade 34kV Relays TBD					260,000	260,000
107	Replace 34kV GE Relays		150,000	150,000			300,000
113	Voltage Regulator Replacements			200,000			200,000
114	Customer Meter Voltage Monitoring			50,000	250,000		300,000
126	Install Transformer Temperature Monitors at Capon & Olive (Dept share)	170,000					170,000
127	Install Transformer Temperature Monitors at Hollywood Way and Warner			115,000			115,000
128	Install Transformer Bushing Monitoring		50,000	300,000	300,000		650,000
129	Install Transformer Gas Monitor at RSE & Switching Stations (Dept Share)		139,000				139,000
134	Install Transformer Gas Monitor at Naomi & Keystone Stations	102,721					102,721
135	Install Transformer Gas Monitor at Lincoln and Valley			125,000			125,000
136	Sudden Pressure Relay Replacement	100,000	100,000				200,000
149	Capacitory Bank Enclosure Cooling at Golden State	100,000					100,000
151	Capon Cap Bank Control Upgrade	75,000					75,000

**Burbank Water and Power
Fiscal Year 2020-21 Proposed Budget
Electric Fund Capital Improvement Projects**

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	B	AS	AT	AU	AV	AW	BC
1	Project	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2020/21 - 2024/25
3							
160	Replace GE Bus Relays at Capon					200,000	200,000
169	Ontario Distributing Station			863,514	1,192,472		2,055,986
170	Ontario Distributing Station - Transmission lines Build-out	245,000		150,000	750,000		1,145,000
171	Ontario Distributing Station - Distribution lines Build-out	225,000			227,667		452,667
172	Campus Micro-grid					3,600,000	3,600,000
173	Extend (existing-idle) 34kV line from Valley to Capon		250,000	1,750,000	1,500,000		3,500,000
184	DC Panel Upgrades Flower and McCambridge			100,000			100,000
185	DC Panel Upgrades TBD				100,000	50,000	150,000
197	Upgrade Work Force Management Software			100,000			100,000
198	Upgrade Geographic Information System (GIS)	-	100,000	500,000			600,000
199	Replace Transformer tracking software (TUGE)			75,000			75,000
200	Implement New Gridview Modules			50,000			50,000
201	Meter inventory System	25,000	150,000				175,000
203	Keystone Station Feeder Relay Upgrades					500,000	500,000
207	Down Conductor Detection	250,000					250,000
208	Station Remote Terminal Units (RTU) Replacement		300,000	600,000	300,000		1,200,000
213	Electric Vehicle Charging Program	603,577	692,754	785,025	828,176	545,685	3,455,217
215	Station Cameras	150,000					150,000
217	Substation Security Enhancements	100,000					100,000
219	Fiber Optic Infrastructure Expansion	-	130,000	90,000	50,000		270,000
221	Wi-Fi Mesh Improvements	50,000					50,000
222	Advanced Metering Infrastructure Backhaul Network Replacement					1,000,000	1,000,000
226	Sub-Total	3,310,861	2,896,817	7,146,739	6,017,515	6,305,685	25,677,617
227							
231	Distribution Replacement Projects						
234	4kV to 12kV Conversion Engineering	100,087	100,000	100,000	100,000	100,000	500,087
243	4 kV to 12 kV Conversion of Circuit W-1 (Partial)	500,000					500,000
244	4 kV to 12 kV Conversion of Circuit V-12	3,600,000					3,600,000
245	4 kV to 12 kV Conversion of Circuit V-9	800,000	1,800,000				2,600,000
246	4 kV to 12 kV Conversion of Circuit V-8		3,200,000				3,200,000
247	4 kV to 12 kV Conversion of Circuit V-1			4,800,000			4,800,000
248	4 kV to 12 kV Conversion of Circuit V-14				4,400,000		4,400,000
249	4 kV to 12 kV Conversion of Circuit V-13				500,000	3,000,000	3,500,000
250	4 kV to 12 kV Conversion of Circuit V-2					1,900,000	1,900,000

**Burbank Water and Power
Fiscal Year 2020-21 Proposed Budget
Electric Fund Capital Improvement Projects**

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1	Project	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2020/21 - 2024/25
3							
265	Media District 12kV Capacity		6,000,000	7,300,000			13,300,000
267	Replace Deteriorated Underground Electrical Dist. Lines	1,000,000	1,000,000	800,000	800,000	800,000	4,400,000
275	Replace Burbank Station Distribution Getaways	504,535	200,000				704,535
280	Replace 69 kV and 34.5 kV Lines Due to Deterioration	105,000	105,000	105,000	105,000	105,000	525,000
281	Replace Deteriorated Overhead Electrical Dist. Lines	2,000,000	1,500,000	1,000,000	1,000,000	1,000,000	6,500,000
282	Replace Services	500,000	500,000	500,000	500,000	500,000	2,500,000
284	Underground Existing Overhead Electric Lines	400,000	400,000	400,000	400,000	400,000	2,000,000
286	Fiber Optic Infrastructure Replacement					100,000	100,000
289	Replace Obsolete Equipment and Minor System Upgrades at Substations	250,000	250,000	415,000	415,000	415,000	1,745,000
290	Transformer & Breaker Bushing Replacement	100,000	50,000				150,000
293	Replace Station Medium Voltage Oil/Air Circuit Breakers with Vacuum Circuit Breakers a	130,000	400,000	400,000	400,000	400,000	1,730,000
296	Replace Station High Voltage Oil Circuit Breakers - TBD	210,000	210,000	210,000	420,000	420,000	1,470,000
299	Replace Batteries & Charger at Hollywood Way Substation	86,512					86,512
303	Replace Batteries & Charger at TBD		100,000	100,000	100,000	100,000	400,000
305	Ground Grid Improvements	127,419	127,419				254,838
306	Substation Safety Shower Replacements	54,000	54,000				108,000
307	Distribution Substation Transformer Replacement	604,535			604,589		1,209,124
315	Sub-Total	11,072,087	15,996,419	16,130,000	9,744,589	9,240,000	62,183,095
316							
320	Aid In Construction (AIC)						
321	Build New Customer Transformer Stations, 750 kVA & Under	800,000	800,000	800,000	800,000	800,000	4,000,000
325	Build Service to Large Project Over 1 MVA	3,000,000	2,500,000	2,500,000	1,500,000	1,500,000	11,000,000
328	Relocation of Facilities for Caltrans Burbank Bridge Replacement	500,000					500,000
333	Install Transformer Gas Monitor at RSE & Switching Stations (AIC Share)		11,550				11,550
337	Upgrade Relays for 69 kV Lines, Lincoln-Valley #2 (AIC share)	39,617					39,617
340	69 kV Line Metering and Protection Upgrades			30,800	30,800		61,600
341	Replace GE Relays AIC Share	61,600	23,100				84,700
342	Media District 12kV Capacity (AIC Share)	3,500,000	3,500,000	1,700,000			8,700,000
343	Build Facilities for Avion Burbank Development	3,000,000					3,000,000
348	Provide Fiber Optic Services to Customers City Wide	200,000	200,000	200,000	200,000	200,000	1,000,000
350	Sub-Total	11,101,217	7,034,650	5,230,800	2,530,800	2,500,000	28,397,467
351							
352	Electric Total	25,234,166	25,597,886	28,217,539	18,042,904	16,745,685	113,838,180
356							
357	Facility Renovations						
364	Roof Replacement Program	125,000	100,000	75,000	75,000	75,000	450,000
367	BWP Administrative Building Lighting Upgrade	100,000					100,000
373	HVAC Upgrade for Campus Buildings	262,800	190,600	258,400	269,100	268,900	1,249,800
383	Sub-Total	487,800	290,600	333,400	344,100	343,900	1,799,800

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1	Project	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	Total
2		Proposed	Forecast	Forecast	Forecast	Forecast	FY 2020/21 - 2024/25
3							
384							
385	ONE Burbank						
386	ONE Burbank Network Infrastructure Expansion	400,000	400,000	400,000	400,000	400,000	2,000,000
387	Geographic Information System (GIS) Upgrades			50,000			50,000
390	Ethernet Switched Services Network Infrastructure Replacement	750,000					750,000
391	Wavelength-Division Multiplexing Equipment Replacement	10,000	240,000				250,000
393	Sub-Total	1,160,000	640,000	450,000	400,000	400,000	3,050,000
394							
395	Finance, Warehouse and Fleet Facility						
399	Auto Reordering						
400	Vertical Lift Modules					600,000	600,000
410	Oracle Enterprise Business System (eBS) Upgrade	105,000				810,000	915,000
412	Work Order Asset Management (WAM) Upgrades				500,000		500,000
413	Hyperion Upgrades				230,357		230,357
416	Sub-Total	105,000	-	-	730,357	1,410,000	2,245,357
417							
418	Customer Service						
419	Meter Data Management System Upgrade and Update			350,000		350,000	700,000
421	Customer Information System Upgrade				450,000		450,000
422	Customer Information System (CIS) Upgrade/Replacement					3,500,000	3,500,000
423	Customer Payment Options	75,000					75,000
424	Customer Relationship Management/Analytics	250,000					250,000
425	BWP Website	100,000					100,000
426	Customer Web Portal					450,000	450,000
428	Electric Advanced Metering Infrastructure Upgrade/Replacement	250,000		250,000			500,000
431	Interactive Voice Response (IVR) Upgrade				50,000		50,000
432	Customer Service Call Center Study	150,000					150,000
434	Sub-Total	825,000	-	600,000	500,000	4,300,000	6,225,000
435							
436	Security						
437	OT Cyber Security Protection & Monitoring	100,000		75,000			175,000
438	BWP Campus Network Update	35,000					35,000
439	BWP Enterprise Security	70,000			100,000		170,000
440	Sub-Total	205,000	-	75,000	100,000	-	380,000
441							
449	Water Fund's Share of Common Projects	(346,622)	(96,669)	(90,716)	(197,563)	(739,199)	(1,470,768)
451							
452							
453	Grand Total Electric Fund CIP Projects	29,955,344	29,476,817	30,790,223	21,084,798	26,925,386	138,232,569
454							