2024 Budget

Including:

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- Comparative Capital Budget
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BENTON P.U.D

RP3 RELIABLE PUBLIC POWER PROVIDER
American Public Power Association

*December 12, **2023***

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Overview

Tab 1

To: Benton PUD Commissioners

From: Rick Dunn, General Manager

Date: December 12, 2023

Re: 2024 Budget

Benton PUD's 2024 preliminary budget was presented to the Commission at a public hearing on Tuesday, November 14, 2023. The preliminary budget is a first draft of the District's forecasted revenues and proposed expenditures for the coming year. Since then, staff has reviewed both expenses and revenues and no significant revisions were made to the preliminary 2024 budget that was presented at the public hearing. The proposed 2024 budget supports our strategic goals and highest priorities. To provide a point of reference, the table below compares the 2024 budget to the original 2023 budget.

Dollars in thousands	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Revenues (excluding Secondary Market Sales)	**$143,281**	**$142,284**	**$997**	**0.7%**
Expenses (including Secondary Market Sales)				
Purchased Power	70,447	68,456	1,991	2.9%
Purchased Transmission & Ancillary Services	13,149	14,251	(1,102)	(7.7%)
Net Conservation	323	373	(50)	(13.4%)
Less: Secondary Market Sales	4,090	11,645	(7,555)	(64.9%)
Net Power Expenses	**$79,829**	**$71,435**	**$8,394**	**11.8%**
Transmission Operation & Maintenance	111	169	(58)	(34.3%)
Distribution Operation & Maintenance	14,052	13,371	681	5.1%
Broadband Expense	1,197	1,193	4	0.3%
Customer Accounting	5,043	4,995	48	1.0%
Administrative & General	9,475	9,222	253	2.7%
Subtotal before Taxes & Depreciation	**$29,878**	**$28,950**	**$928**	**3.2%**
Taxes	14,777	14,712	65	0.4%
Depreciation/Amortization	11,995	11,233	762	6.8%
Non-Power Operating Expenses	**$56,650**	**$54,895**	**$1,755**	**3.2%**
Gross Capital	31,918	29,869	2,049	6.9%
Less: Capital Contributions	3,571	3,113	458	14.7%
Net Capital Additions	**$28,347**	**$26,756**	**$1,591**	**5.9%**
Debt Service (including BABs Subsidy)	**$6,377**	**$5,088**	**$1,289**	**25.3%**

Overview

District staff is always mindful of controlling and managing costs to ensure high value service is provided to our customers for the rates they pay. Staff has been able to develop a 2024 budget that allows for sound operations and a continuation of our visionary investments in capacity and reliability

without the need for a retail rate increase. At a high level, compared to the original 2023 budget, the 2024 budget includes a forecasted increase in retail revenues; a modest increase in non-power operating expenses; a substantial increase in net power expenses due to the removal of the one-time $6.1 million Bonneville Power Administration (BPA) Reserves Distribution Clause (RDC) received in 2023; and a significant increase in net capital additions. The following sections include more detail on each of the District's key budget categories.

Revenues (excluding secondary market sales)

Most of the District's revenue (excluding secondary market sales) comes from electricity sales to retail customers. Electricity sales can fluctuate year-to-year based on weather, customer growth, and net load growth. In order to provide appropriate budget assumptions, the District prepares a Ten-Year Load and Customer Forecast (TLCF) which uses regression modeling to establish a relationship between annual load, weather, and economic variables. The most recent TLCF was approved by the Commission on June 13, 2023, with a forecasted annual retail load growth of 0.31% over the next five years. Staff will continue to monitor electricity sales analytics on a regular basis and will adjust assumptions and forecasts as necessary.

Net Power Expenses (including secondary market sales)

Starting October 1, 2023, the District's wholesale power supply contract with BPA switched from Block/Slice to Load Following. The District made the change to a Load Following contract to mitigate financial and physical risks driven by increasing forward market prices; market price volatility that can cost millions of dollars over a multi-day period; and potential future shortages of dependable generating capacity driven by Washington and Oregon clean energy policies and their strong preference for variable and intermittent wind and solar power. Net Power Expenses typically represent nearly 60% of the District's annual costs, however for 2024 the percentage is 50%, which is lower than normal due to a larger than typical capital budget. These expenses include purchased power (net of revenue from selling White Creek Wind and Nine Canyon Wind into the wholesale power market as well as a capacity call option sold to The Energy Authority) and transmission services.

Overall, 2024 net power expenses are expected to be $8.3 million more than the 2023 original budget which represents an 11.8% increase. The main driver for the increase is the removal of the one-time $6.1 million BPA RDC the District received in 2023, as well as the estimated net financial gains we expected to realize on power market financial hedges that did not come to fruition but were included in the 2023 original budget.

Non-Power Operating Expenses

Non-power operating expenses are expected to increase $1.8 million or 3.2% over the 2023 original budget, of which $0.8 million is related to taxes and depreciation. Taxes are expected to increase 0.4% as a function of higher expected revenues and depreciation is expected to increase 6.8% as a result of new capital additions in recent years. That leaves an expected increase of $0.9 million (or 3.2%) in the balance of non-power operating expenses. Over the last several years, the District has successfully managed its operations and maintenance (O&M) expenses despite cost pressures associated with a growing customer base, higher employee benefit costs, annual wage escalation and new regulatory requirements. The District's O&M "cost per customer" metric continues to remain well below the benchmark numbers published by the American Public Power Association (APPA). This is a direct result of the efforts and skills of District employees as well as investments in technology and employee training.

Net Capital Additions

One of the District's strategic goals is to constantly strive to meet 21st century grid expectations which means a focus on reliability, resiliency, automation, and increasing capacity to meet customer growth and support economic development. The District's 2024 capital budget includes projects that support our visionary 115-kilovolt (kV) transmission system reliability improvement plans, continued high-level of customer growth, upgrading and modernizing aging equipment, and the first-of-a-kind deployment of small cell wireless as part of our Broadband business revenue growth strategy. The 2024 capital budget is significantly higher than typical as it includes final construction cost estimates for the Spaw-to-Phillips 115-kV transmission line project carried over from 2023 along with the small cell project. Both projects have experienced delays due to longer than expected engineering design and permitting processes as well as persistent worldwide supply chain constraints. The 2024 capital budget also includes $2.9 million for physical security projects to help ensure employee and customer safety and to improve protection of equipment and supplies through modernization and hardening of District facilities.

The 2024 total gross capital budget has been set at $31.9 million including the following six categories: $19.4 million (60.8%) for substation and distribution projects; $5.8 million (18.2%) for transmission system additions; $2.9 million (9.1%) for security projects; $1.4 million (4.5%) for broadband projects; $1.4 million (4.3%) for general plant; and $1.0 million (3.1%) for information technology projects. A credit of $3.6 million to account for expected contributions-in-aid-to-construction (CIAC) from developers, customers and community partners provides an offset to capital expenses and results in expected 2024 Net Capital Additions of $28.3 million.

It is important to note this level of capital expenditures represents a 50% increase over the average of the most recent five years driven mostly by the largest transmission line construction project undertaken by the District since the first transmission system investments were made in south Benton County to bring large irrigated agriculture on line in the early 70's. Additionally, persistent supply chain constraints and price inflation are a significant cost driver along with the infrequent and sizeable expense associated with upgrading District facilities to improve physical safety and security.

Debt Service

On September 12, 2023, the Commission authorized staff to proceed with developing plans to issue up to $25 million in new bonds to simultaneously accomplish maintaining the District's commitment to meet 21st century power grid expectations; maintaining adequate financial metrics and credit rating; and eliminating the need for a near-term rate increase during a time of implementing a change to the rate structure for residential customers (i.e. residential demand charge). The new bond issue is expected to be completed in December of 2023 and the additional interest expense related to the new bond issue is included in the 2024 Budget.

Conclusion

Overall, staff believes the 2024 budget provides a balance of revenues and expenses that will allow the District to continue to be responsive to near-term customer growth while also investing in facilities and equipment that are foundational to providing ever increasing value to our customers over the long-term. While we continue to operate in a time of great uncertainty, it is gratifying to know the District's long tradition of rigorous planning and financial stewardship has positioned us well for the coming year and that our customers will continue to receive reliable and affordable services without the need for a retail rate increase in 2024.

Key Assumptions

Tab 2

2024 BUDGET - KEY ASSUMPTIONS

REVENUES

- The 2024 Budget reflects no revenue increase.
- Gross retail energy sales of $137.8 million are based on 204.4 aMW of retail load.
- Sales for resale are estimated at $4.1 million.
- 710 new customer connections are included in the 2023 load forecast (see Tab 8) and of these new customer connections, 684 are residential.

POWER & TRANSMISSION COSTS *(see Tab 10, 2024 Power Supply Plan for more details)*

- **The District's contract with BPA switched from a Block/Slice contract to a Load Following Contract effective October 1, 2023.**
  - The District made the change to a Load Following contract to mitigate the District's risk from increasing market prices, market price excursions that can cost millions of dollars over a multi-day period, potential future shortages of physical power all caused by resource adequacy concerns, and to have more certainty with power costs.
- **The District's net power cost is estimated using BPA's BP-24 Final Record of Decision and the District's Load Forecast.**
- **Known power cost variables were included as follows:**
  - Power costs reflect BPA's Tiered Rate Methodology.
  - The budget includes an irrigation mitigation benefit of $3.6 million in CY 2024.
  - Conservation program costs for CY 2023 are $2.4 million, offset by a $2.1 million reimbursement from BPA.
  - No Cost Recovery Adjustment Clauses (CRACs) are assumed for CY 2024.
  - Court ordered additional spill costs are included in BPA's rates for 2024.
  - No slice true-up credit is assumed for CY 2024.
  - Includes 10.2 aMW of Tier 2 loads.
  - Power cost forecast includes the estimated cost to meet the requirements of the Energy Independence Act (EIA).
  - No carbon cap and trade impact included in power budget.

2024 BUDGET - KEY ASSUMPTIONS
(CONTINUED)

INTERNAL DISTRICT COSTS

Employee benefits and payroll taxes of $7.3 million are based on total District labor of $18.2 million. Employee benefit costs include the District's share of FICA, Medicare, retirement, medical, dental, life insurance, short-term disability insurance, personal leave, unemployment tax, and state industrial insurance (see Tab 5).

FINANCING

- The District is developing plans to issue up to $25 million in new bonds which is expected to be completed in December 2023 or Q1 of 2024. The additional interest expense related to the new bond issue is included in the 2024 Budget.

CAPITAL

- Capital is based on the District's five-year Capital Requirements Plan (see Tab 9).

- Includes $5.8 million for new transmission line planning and design.
  - $4.4 million for the new transmission line from Phillips to Spaw
  - $0.4 million for the Spaw Phillips 115kV Breaker Upgrade
  - $0.7 million for the new transmission switches (Prior Tap, Reata and Sunset)

- Includes $19.4 million for distribution system upgrades and additions.
  - $9.4 million for projected customer growth, such as requested electrical line extension, transformers, and meters (1,000 new service connections)
  - $6.6 million for capacity and reliability upgrades and additions
  - $3.2 million for repair and replacement of aging underground cable and other distribution equipment.

- Includes $1.0 million for Information Technology network reliability upgrades, utility analytics, and enterprise applications.

- Includes $1.4 million for projected broadband growth
  - Advanced wireless/small cell

- Includes $2.9 million for physical security upgrade
  - $1.5 million for Kennewick's Customer Service lobby remodel
  - $1.1 million for facility fencing and gate improvements

- Includes $1.4 million for transportation equipment replacements
  - $0.5 million for a Vac Truck that was ordered in 2023
  - $0.6 million for two bucket truck replacements

Annual Budget Summary

Tab 3

Comparative Operating Statement
Public Utility District No. 1 of Benton County
2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
OPERATING REVENUES				
Energy Sales - Retail	$137,714,154	$137,198,444	$515,710	0.4%
Energy Secondary Market Sales	3,878,125	10,729,262	(6,851,137)	(63.9%)
Transmission of Power for Others	211,731	915,346	(703,615)	(76.9%)
Broadband Revenue	2,971,653	2,910,308	61,345	2.1%
Other Revenue	1,594,885	1,575,349	19,536	1.2%
TOTAL OPERATING REVENUES	**146,370,548**	**153,328,709**	**(6,958,161)**	**(4.5%)**
OPERATING EXPENSES				
Purchased Power	70,447,486	68,456,292	1,991,194	2.9%
Purchased Transmission and Ancillary Services	13,148,868	14,250,896	(1,102,028)	(7.7%)
Conservation	322,683	373,452	(50,769)	(13.6%)
Total Power Supply	83,919,037	83,080,640	838,397	1.0%
Transmission Operation & Maintenance	111,273	168,909	(57,636)	(34.1%)
Distribution Operation & Maintenance	14,052,150	13,371,383	680,767	5.1%
Broadband Expense	1,197,223	1,192,566	4,657	0.4%
Customer Accounting, Collection and Information	5,042,657	4,994,528	48,129	1.0%
Administrative & General	9,474,759	9,222,397	252,362	2.7%
Subtotal before Taxes & Depreciation	29,878,062	28,949,784	928,279	3.2%
Taxes	14,777,000	14,712,000	65,000	0.4%
Depreciation & Amortization	11,994,800	11,232,810	761,990	6.8%
Total Other Operating Expenses	56,649,862	54,894,594	1,755,269	3.2%
TOTAL OPERATING EXPENSES	**140,568,899**	**137,975,234**	**2,593,665**	**1.9%**
OPERATING INCOME (LOSS)	**5,801,649**	**15,353,475**	**(9,551,826)**	**(62.2%)**
NONOPERATING REVENUES & EXPENSES				
Interest Income	1,000,000	600,000	400,000	66.7%
Other Income	301,192	336,486	(35,294)	(10.5%)
Interest Expense	(3,821,759)	(2,717,067)	(1,104,692)	40.7%
Debt Discount & Expense Amortization	408,171	422,897	(14,726)	(3.5%)
TOTAL NONOPERATING REVENUES & EXPENSES	**(2,112,396)**	**(1,357,684)**	**(754,712)**	**55.6%**
INCOME (LOSS) BEFORE CONTRIBUTIONS	**3,689,253**	**13,995,791**	**(10,306,538)**	**(73.6%)**
CAPITAL CONTRIBUTIONS	**3,571,055**	**3,113,466**	**457,589**	**14.7%**
CHANGE IN NET POSITION	**$7,260,308**	**$17,109,257**	**($9,848,949)**	**(57.6%)**
NET POWER	**$79,829,181**	**$71,436,032**	**$8,393,149**	**11.7%**
CHANGE IN NET POSITION	**$7,260,308**	**$17,109,257**	**($9,848,949)**	**(57.6%)**
Less: Gross Capital in Excess of Depreciation	(19,923,476)	(18,635,955)	(1,287,521)	6.9%
Less: Principal Payment on Outstanding Debt	(3,265,000)	(3,130,000)	(135,000)	4.3%
Plus: Non-Cash Items (Prepaid Expense Amortizations, etc.)	608,965	594,239	14,726	2.5%
ESTIMATED ADDITION/(REDUCTION) TO CASH RESERVES	**($15,319,203)**	**($4,062,459)**	**($11,256,744)**	**277.1%**

Comparative Capital Budget
Public Utility District No. 1 of Benton County
2024 Budget

Capital Category	Project Group	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Transmission	Transmission Projects	$5,803,910	$8,534,445	($2,730,535)	(32.0%)
Distribution	Capacity & Reliability	6,673,639	5,838,682	834,957	14.3%
	Customer Growth	8,641,661	6,214,210	2,427,451	39.1%
	General Plant	730,000	680,000	50,000	7.4%
	Other	188,760	648,750	(459,990)	(70.9%)
	Repair & Replace	3,154,802	2,442,834	711,968	29.1%
Total Distribution		19,388,862	15,824,476	3,564,386	22.5%
Broadband	Broadband	1,425,054	1,775,213	(350,159)	(19.7%)
General Plant	General Plant	1,368,500	1,818,300	(449,800)	(24.7%)
Information Technology	Information Technology	986,750	901,332	85,418	9.5%
Security	Security	2,945,200	1,014,999	1,930,201	190.2%
Grand Total (Gross)		**31,918,276**	**29,868,765**	**2,049,511**	**6.9%**
Contributions in Aid	Broadband	-	(58,800)	58,800	(100.0%)
	Customer Growth	(3,452,505)	(2,948,616)	(503,889)	17.1%
	Other	(118,550)	(106,050)	(12,500)	11.8%
Total Contributions in Aid		(3,571,055)	(3,113,466)	(457,589)	14.7%
Net Capital		**$28,347,221**	**$26,755,299**	**$1,591,922**	**5.9%**

Comparative Broadband Budget
Public Utility District No. 1 of Benton County
2024 Budget

	2024 Budget [1]	2023 Original Budget	Increase/ (Decrease)	% Change
Revenue	$2,971,653	$2,910,308	$61,345	2.1%
Operating Expenses	(1,197,223)	(1,192,566)	(4,657)	0.4%
Net Income (Loss)	**1,774,430**	**1,717,742**	**56,688**	**3.3%**
Broadband Capital:				
Base Capital Expenditures	1,098,691	1,101,713	(3,022)	(0.3%)
Small Cell	326,363	673,500	(347,137)	(51.5%)
Capital Contributions	-	(58,800)	58,800	n/a
Net Capital Expenditures	**1,425,054**	**1,716,413**	**(291,359)**	**(17.0%)**
Net Cash from / (to) Broadband	**$349,376**	**$1,329**	**$348,047**	**n/a**

	Future 5 Years (2024-2028)[1]	Previous 5 Years (2019-2023)
Five Year Rolling Net Cash Test[2]	$3,771,241	$ 2,912,302

1) Includes small cell estimated cost, revenue, and capital contributions
2) Resolution 2432: Broadband Strategy states "… maintain net positive cash flows over rolling five-year period, both looking back and forward. Net cash flow may be negative in individual years provided that the amount is offset by positive net cash flow in other years."

Comparative Budget by Activity Code
Public Utility District No. 1 of Benton County
2024 Budget

		2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Allocated Costs:					
88	Payroll Taxes	$1,377,013	$1,293,344	$83,669	6.5%
101	Employee Benefits	5,878,025	5,717,540	160,485	2.8%
	Allocated Cost Total	**7,255,038**	**7,010,884**	**244,154**	**3.5%**
Payroll:					
10	District Overtime Labor	1,008,873	926,678	82,195	8.9%
11	All Other District Labor	17,228,068	16,226,346	1,001,722	6.2%
	District Labor Total	**18,236,941**	**17,153,023**	**1,083,918**	**6.3%**
Power Cost:					
9	Purchased Power	80,478,182	79,730,353	747,829	0.9%
	Power Cost Total	**80,478,182**	**79,730,353**	**747,829**	**0.9%**
System Costs:					
12	Materials & Supplies	5,344,800	4,821,791	523,009	10.8%
13	Store Expense - Non Labor	25,000	25,000	-	0.0%
14	Small Tools & Materials	144,850	113,550	31,300	27.6%
15	Transportation Expense-Gas&Oil	380,000	380,000	-	0.0%
16	Transportation Exp-Repair&Main	215,000	200,000	15,000	7.5%
17	Operation & Maintenance Exp	849,622	795,822	53,800	6.8%
18	Misc Construction Expense	275,084	409,795	(134,712)	(32.9%)
19	Tree Trimming - Contract	760,000	734,000	26,000	3.5%
20	Off-the-Dock Labor	769,799	1,176,130	(406,332)	(34.5%)
21	Elec Construction Contracts	7,549,223	9,967,981	(2,418,758)	(24.3%)
23	Environmental	26,000	26,000	-	0.0%
	System Cost Total	**16,339,378**	**18,650,069**	**(2,310,692)**	**(12.4%)**
General Expenditures:					
25	Maintenance of Software	1,199,015	1,153,419	45,596	4.0%
26	Computer Hardware & Equip Exp	139,800	101,000	38,800	38.4%
27	Personal Computer Software	134,800	144,100	(9,300)	(6.5%)
28	Personal Computer O&M Costs	216,000	216,700	(700)	(0.3%)
29	Personal Computer Supplies&Exp	8,550	12,000	(3,450)	(28.8%)
30	Customer Service Expenses	566,855	566,855	-	0.0%
33	Office Supplies & Expenses	80,200	91,200	(11,000)	(12.1%)
34	Insurance	1,028,300	924,295	104,005	11.3%
37	Grounds Care	94,524	94,524	-	0.0%
38	Maint of Bldg & Improvements	387,600	362,600	25,000	6.9%
39	Maint of Equipment	39,500	39,500	-	0.0%
40	Rents	436,911	382,548	54,363	14.2%
41	Insurance Damages & Other Reim	10,000	10,000	-	0.0%
42	Business Expense & Travel	221,500	221,150	350	0.2%

Comparative Budget by Activity Code
Public Utility District No. 1 of Benton County
2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
43 Training Expense & Travel	231,251	204,461	26,790	13.1%
44 Other General Expenses	1,116,575	1,096,648	19,928	1.8%
45 Subscriptions & Publications	27,346	40,888	(13,542)	(33.1%)
46 Treasurer Expenses	501,000	501,000	-	0.0%
General Expenditure Total	**6,439,727**	**6,162,888**	**276,840**	**4.5%**
Utilities:				
50 Telephone & Answering Services	314,500	278,500	36,000	12.9%
51 Water,Garbage,Irrigation&Other	79,000	79,000	-	0.0%
Utilities Total	**393,500**	**357,500**	**36,000**	**10.1%**
Outside Services:				
60 Audit Examination - State	181,300	153,500	27,800	18.1%
61 Professional Services	1,528,387	1,768,850	(240,463)	(13.6%)
Outside Services Total	**1,709,687**	**1,922,350**	**(212,663)**	**(11.1%)**
Dues and Assessments:				
70 Civic & Service Organizations	21,095	21,095	-	0.0%
72 Industry Assoc Assessments	519,020	544,774	(25,754)	(4.7%)
Dues and Assessments Total	**540,115**	**565,869**	**(25,754)**	**(4.6%)**
Taxes:				
80 Public Utility & Excise Tax	5,522,000	5,500,000	22,000	0.4%
81 State Privilege Tax	2,816,000	2,806,000	10,000	0.4%
82 City Occupation Taxes	6,439,000	6,406,000	33,000	0.5%
Taxes Total	**14,777,000**	**14,712,000**	**65,000**	**0.4%**
Other Employee Costs:				
104 Other Employee Costs	281,510	257,300	24,210	9.4%
Other Employee Costs Total	**281,510**	**257,300**	**24,210**	**9.4%**
Energy Resources:				
111 Electric Vehicle	5,000	5,000	-	0.0%
112 Residential Conservation Exp	400,000	475,000	(75,000)	(15.8%)
113 Commercial Conservation Exp	240,000	220,000	20,000	9.1%
114 Industrial Conservation Exp	420,000	320,000	100,000	31.3%
115 Agriculture Conservation Exp	100,000	175,000	(75,000)	(42.9%)
118 Low Income Conservation	600,000	325,000	275,000	84.6%
Energy Resources Total	**1,765,000**	**1,520,000**	**245,000**	**16.1%**

Comparative Budget by Activity Code
Public Utility District No. 1 of Benton County
2024 Budget

		2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Public Information:					
119	Public Information Expenses	325,100	334,110	(9,010)	(2.7%)
	Public Information Total	**325,100**	**334,110**	**(9,010)**	**(2.7%)**
Purchased Electric Plant & Equip:					
120	Substation Xfrs & Regulators	627,527	627,527	-	0.0%
121	Substation Equip & Materials	1,281,430	1,556,784	(275,354)	(17.7%)
122	Line Devices	516,466	444,387	72,079	16.2%
123	Transformers & Related Items	3,213,908	1,500,000	1,713,908	114.3%
124	Meters & Related Items	650,000	600,000	50,000	8.3%
125	Land & Land Rights - Electric	27,500	139,167	(111,667)	(80.2%)
127	SCADA Communications Equipment	56,248	41,250	14,998	36.4%
128	SCADA Substation Equipment	133,709	30,130	103,579	>200%
	Purchased Electric Plant and Equip Total	**6,506,788**	**4,939,244**	**1,567,544**	**31.7%**
Purchased General Plant & Equip:					
131	Structures & Improvements	2,910,000	1,094,000	1,816,000	166.0%
132	Office Equipment	8,000	3,000	5,000	166.7%
133	Transportation Equipment	1,219,000	1,080,000	139,000	12.9%
134	Tools, Shop & Stores Equipment	102,000	89,000	13,000	14.6%
135	Laboratory & Test Equipment	30,000	183,800	(153,800)	(83.7%)
136	Communication Equipment	130,000	130,000	-	0.0%
137	Capitalized Computer Software	72,000	173,800	(101,800)	(58.6%)
138	Computer Equipment	790,000	850,000	(60,000)	(7.1%)
	Purchased General Plant & Equip Total	**5,261,000**	**3,603,600**	**1,657,400**	**46.0%**
Debt Service:					
150	Principal	3,265,000	3,130,000	135,000	4.3%
151	Interest	3,072,396	1,917,684	1,154,712	60.2%
	Debt Service Total	**6,337,396**	**5,047,684**	**1,289,712**	**25.6%**
Other Misc. Expenditures:					
200	New Services Expenses	2,500	2,500	-	0.0%
201	New Product Expenses	3,500	3,500	-	0.0%
	Other Misc Expenditures Total	**6,000**	**6,000**	**-**	**0.0%**
Depreciation:					
301	Depreciation (Other)	11,994,800	11,232,810	761,990	6.8%
	Transportation Equipment - Allocation	417,000	426,000	(9,000)	(2.1%)
	Depreciation Total	**12,411,800**	**11,658,810**	**752,990**	**6.5%**
	Grand Total	**$179,064,162**	**$173,631,684**	**$5,432,478**	**3.1%**

Summary of Revenues

Tab 4

Comparative Revenues
Public Utility District No. 1 of Benton County
2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Retail Power Sales	$137,714,154	$137,198,444	$515,710	0.4%
Wholesale Power Sales	4,089,856	11,644,608	(7,554,752)	(64.9%)
Broadband Revenues	2,971,653	2,910,308	61,345	2.1%
Interest Income and Other	1,301,192	936,486	364,706	38.9%
Other Electric Revenue	1,594,884	1,575,350	19,534	1.2%
Joint Use Cost Share	700,000	700,000	-	0.0%
Capital Contributions:				
Electric Facilities	3,571,055	3,054,666	516,389	16.9%
Broadband Facilities	-	58,800	(58,800)	n/a
Total Revenue	**$151,942,794**	**$158,078,662**	**($6,135,868)**	**(3.9%)**

Comparative Revenues

Public Utility District No. 1 of Benton County

2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Finance and Customer Service				
Finance				
515 Interest Income	$1,000,000	$600,000	$400,000	66.7%
151 BAB's Subsidy	301,192	336,486	(35,294)	(10.5%)
560 Insurance/Claims Reimbursements	100,000	100,000	-	0.0%
Total Finance	1,401,192	1,036,486	364,706	35.2%
Customer Service				
545 Other Electric Revenue	500,000	500,000	-	0.0%
Total Customer Service	500,000	500,000	-	0.0%
Total Finance and Customer Service	**1,901,192**	**1,536,486**	**364,706**	**23.7%**
Engineering				
523 Pole Contact Revenue				
Pole Contact Fees	500,000	500,000	-	0.0%
525 Capital Contributions				
Angus Franklin Transmission	43,550	43,550	-	0.0%
Joint Use Deficiency Correction CIAC	75,000	62,500	12,500	20.0%
Misc. Customer Fees (Primary, etc.)	3,452,505	2,948,616	503,889	17.1%
545 Other Electric Revenue	700,000	700,000	-	0.0%
Total Engineering	**4,771,055**	**4,254,666**	**516,389**	**12.1%**
Power Management				
505 Wholesale Power Sales Revenue				
Slice Power Sales for Resale	3,878,125	10,729,262	(6,851,137)	(63.9%)
510 Wholesale Transmission Sales Revenue	211,731	915,346	(703,615)	(76.9%)
Total Power Management	**4,089,856**	**11,644,608**	**(7,554,752)**	**(64.9%)**
Broadband				
550 Products and Services Revenue				
Ethernet Revenue	1,673,578	1,657,008	16,570	1.0%
TDM Revenue	36,000	36,000	-	0.0%
Wireless Revenue	2,500	5,000	(2,500)	(50.0%)
Internet Transport Revenue	91,555	89,760	1,795	2.0%
Access Internet Revenue	560,000	524,000	36,000	6.9%
USC Cran	109,020	99,540	9,480	9.5%
Broadband Revenue-Other (Incl. Fiber Leases)	499,000	499,000	-	0.0%
525 Capital Contributions				
Advanced Wireless/Small Cell	-	58,800	(58,800)	n/a
Total Broadband	**2,971,653**	**2,969,108**	**2,545**	**0.1%**
Operations				
Supt. of Transmission & Distribution				
550 Products and Services Revenue				
Pre-Notifier - Tree Trimming	53,250	43,300	9,950	23.0%
Safety Coordinator	123,531	123,000	531	0.4%
Total Supt. of Transmission & Distribution	176,781	166,300	10,481	6.3%
Supt. of Operations				
535 Microwave Site Rental	71,987	70,228	1,759	2.5%
Rattlesnake Site Rental	52,116	44,822	7,294	16.3%
545 Other Electric Revenue				
Windfarm Maintenance	114,000	114,000	-	0.0%
Total Supt. of Operations	238,103	229,050	9,053	4.0%
Total Operations	**414,884**	**395,350**	**19,534**	**4.9%**

Comparative Revenues

Public Utility District No. 1 of Benton County

2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
Non-Departmental				
501 Retail Energy Sales Total	131,533,162	131,049,486	483,676	0.4%
503 Bad Debt Expense	(258,008)	(257,042)	(966)	0.4%
502 City Occupation Taxes Collected	6,439,000	6,406,000	33,000	0.5%
520 Temporary Service Revenue	80,000	80,000	-	0.0%
Total Non-Departmental	**137,794,154**	**137,278,444**	**515,710**	**0.4%**
Grand Total Revenue	**$151,942,794**	**$158,078,662**	**($6,135,868)**	**(3.9%)**

Labor Staffing

Tab 5

Public Utility District No. 1 of Benton County
2024 Labor & Benefits Budget

District Labor	2024 Budget	2023 Original Budget	Increase (Decrease)	% Change
Regular Labor - Activity 11	$17,228,068	$16,226,341	$1,001,727	6.2%
Overtime Labor - Activity 10	1,008,873	926,678	82,195	8.9%
Total Labor	**$18,236,941**	**$17,153,019**	**$1,083,922**	**6.3%**
District Labor Taxes & Benefits				
Payroll Taxes - Activity 88	$1,377,012	$1,293,344	$83,668	6.5%
Employee Benefits - Activity 101	5,878,026	5,717,541	160,485	2.8%
Total Labor Taxes & Benefits	**$7,255,039**	**$7,010,885**	**$244,154**	**3.5%**

District Staffing	2024 Budget	2023 Original Budget	Increase (Decrease)	% Change
Full Time Equivalent Positions (FTEs)	152.75	155.75	(3.00)	(1.9%)

Public Utility District No. 1 of Benton County
2024 Staffing Plan

Full Time Equivalent Positions (FTEs)

Directorate	2024 Budget	2023 Budget	Increase/ (Decrease)
Executive / Human Resources / Communications & Government	14.25	14.25	0.00
Finance & Customer Service	28.00	30.00	(2.00)
Engineering	17.25	17.25	0.00
Power Management	8.00	9.00	(1.00)
Operations	67.50	67.50	0.00
IT	17.75	17.75	0.00
Authorized District Positions	**152.75**	**155.75**	**(3.00)**
Less: FTEs utilized by other local utilities*	(1.10)	(1.10)	0.00
District Adjusted FTEs	**151.65**	**154.65**	**(3.00)**

*Positions that are shared with local utilities are the Safety Coordinator & Vegetation Management

Change in FTEs	**(3.00)**
Executive / Human Resources / Communications & Government	**0.00**
Dept. 1 - General Manager	
Remove - Administrative Assistant II	(1.00)
Dept. 43 - Marketing & Key Accounts	
Add - Communications Specialist II	1.00
Finance & Customer Service	**(2.00)**
Dept. 44 - Customer Service	
Remove - Customer Service Representative - Prosser	(1.00)
Remove - Customer Service Representative - LA	(1.00)
Engineering	**0.00**
Dept. 21 - Engineering	
Remove - Distribution Designer - Transfer to Customer Engineering	(1.00)
Dept. 22 - Customer Engineering	
Add - Distribution Designer - Transferred from Engineering	1.00
Remove - Department Specialist	(1.00)
Add - Department Assistant I	1.00
Power Management	**(1.00)**
Dept. 51 - Power Management	
Remove - Power & Energy Program Analyst	(1.00)
Operations	**0.00**
Dept. 32 - Superintendent Transmission & Distribution	
Add - Lineman - Apprentice	1.00
Remove - Equipment Operator / Locator	(1.00)

Public Utility District No. 1 of Benton County
2024 Payroll Taxes and Employee Benefits Allocation Budget

Overview

The District allocates the cost of payroll taxes, employee benefits (including paid time off) over actual regular productive work hours. Overtime hours receive an allocation of those payroll taxes and benefits that directly relate to overtime. Payroll taxes and employee benefit costs are distributed to applicable general ledger accounts via activity codes 88 and 101, respectively, by applying a percentage rate to overtime and regular labor (activity codes 10 and 11, respectively). Calculation of the percentage rate is provided below.

Labor Breakdown	2024 Budget	2023 Original Budget	Increase/ (Decrease)	Notes
Labor charged to Expense	11,065,173	$10,744,171	$321,002	
Labor charged to Capital	3,037,985	2,565,829	472,156	
Labor charged to Warehouse & Equipment Maintenance	694,080	632,757	61,323	
Total Productive Labor	$14,797,238	$13,942,757	$854,481	
Paid Leave - Includes Holidays and Personal Leave	$2,430,830	$2,283,589	$147,241	
Total Regular Labor	**$17,228,068**	**$16,226,346**	**$1,001,722**	
Benefits/Taxes				
Social Security	$1,112,577	$1,044,625	$67,951	
Medicare	264,436	248,719	15,717	
State Industrial	174,289	124,800	49,489	This represents 80% of the employer portion of the total L&I charges with a 3% increase assumption. The District's experience rating is factored into the premiums.
Unemployment	11,000	10,000	1,000	The District does not pay unemployment tax but instead reimburses the State for benefits paid to former employees.
PERS	1,662,035	1,725,993	(63,958)	According to the Collective Bargaining Agreement, the District provides a deferred compensation match of 3%. In addition, there is a $50 per month contribution to a VEBA account along with an additional $150 per month contribution which is dependent on the employee's participation in a wellness program. As of 7/1/2023, the employer rate for PERS was set at 9.53%. The 7/1/2024 rate is projected to decrease to 9.03%.
Deferred Compensation	506,253	473,920	32,333	
VEBA Contribution	361,200	366,000	(4,800)	
Medical Insurance	2,669,314	2,517,588	151,726	The 2024 budget assumes a 9.5% increase for medical, a minor increase for dental, and no increase for vision insurance on 1/1/2024. A decrease in FTEs has helped offset the increase in medical benefits.
Dental Insurance	217,687	211,434	6,253	
Vision Insurance	37,247	37,805	(558)	
Life Insurance	36,000	47,000	(11,000)	Updated budget based on estimated rates from new provider.
STD Admin Fee	3,000	3,000	-	
Total Benefits/Taxes	$7,055,039	$6,810,885	$244,154	
Leave				
Change PL Liability	$200,000	$200,000	$0	
Paid Time Off	2,430,830	2,283,589	147,241	
Leave Subtotal	$2,630,830	$2,483,589	$147,241	
Total Benefits/Taxes and Leave	**$9,685,869**	**$9,294,474**	**$391,395**	

Allocation Rate - Regular and Overtime	
Total Regular Benefits/Taxes and Leave	$9,685,869
Total Regular Productive Labor	$14,797,238
Allocation Rate - Regular Time	**65.46%**

Budget by Directorate

Tab 6

Revenue and Expense Summary by Department
Public Utility District No. 1 of Benton County
2024 Budget

	2024 Budget	2023 Original Budget	Increase/ (Decrease)	% Change
REVENUE				
Finance and Customer Service	$1,901,192	$1,536,486	$364,706	23.7%
Broadband	2,971,653	2,969,108	2,545	0.1%
Engineering	4,771,055	4,254,666	516,389	12.1%
Power Management	4,089,856	11,644,608	(7,554,752)	(64.9%)
Operations	414,884	395,350	19,534	4.9%
Non-Departmental	137,794,154	137,278,444	515,710	0.4%
Total Revenue	**$151,942,794**	**$158,078,662**	**($6,135,868)**	**(3.9%)**
EXPENSES				
Executive Administration	$5,169,136	$3,231,846	$1,937,290	59.9%
Finance & Customer Service	4,732,456	4,823,113	(90,657)	(1.9%)
Information Technology	5,434,653	5,347,233	87,420	1.6%
Broadband	2,442,471	2,876,641	(434,170)	(15.1%)
Engineering	20,944,869	21,216,366	(271,497)	(1.3%)
Power Management	86,666,263	82,441,471	4,224,792	5.1%
Operations	16,413,534	15,365,637	1,047,897	6.8%
Non-Departmental	39,931,234	38,329,378	1,601,856	4.2%
Total Expenses	**$181,734,616**	**$173,631,685**	**$8,102,931**	**4.7%**

Executive

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Executive Administration

Department(s)		Totals
01	General Manager, Commission	2,320,037
02	Human Resources	496,200
03	Security	1,564,600
12	Communications & Government	220,180
43	Marketing & Key Accounts	568,119
Grand Total Expenses - Executive Administration		$5,169,136

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Executive

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
1 - General Manager, Commission	11 - All Other District Labor	$1,623,010	$1,544,398	$78,612	5.1%
	33 - Office Supplies & Expenses	14,200	14,200	-	0.0%
	42 - Business Expense & Travel	75,000	75,000	-	0.0%
	43 - Training Expense & Travel	21,500	15,500	6,000	38.7%
	44 - Other General Expenses	45,000	45,000	-	0.0%
	45 - Subscriptions & Publications	11,533	11,018	515	4.7%
	61 - Professional Services	85,000	85,000	-	0.0%
	72 - Industry Assoc Assessments	444,794	459,720	(14,926)	(3.2%)
1 - General Manager, Commission Total		**2,320,037**	**2,249,836**	**70,201**	**3.1%**
2 - Human Resources	42 - Business Expense & Travel	2,700	13,050	(10,350)	(79.3%)
	43 - Training Expense & Travel	14,900	3,800	11,100	292.1%
	44 - Other General Expenses	47,250	47,750	(500)	(1.0%)
	45 - Subscriptions & Publications	5,800	5,800	-	0.0%
	61 - Professional Services	226,750	95,250	131,500	138.1%
	72 - Industry Assoc Assessments	31,800	31,750	50	0.2%
	104 - Other Employee Costs	167,000	166,000	1,000	0.6%
2 - Human Resources Total		**496,200**	**363,400**	**132,800**	**36.5%**
3 - Security	33 - Office Supplies & Expenses	2,000	2,000	-	0.0%
	38 - Maint of Bldg & Improvements	26,600	26,600	-	0.0%
	42 - Business Expense & Travel	1,000	1,000	-	0.0%
	43 - Training Expense & Travel	4,000	4,000	-	0.0%
	61 - Professional Services	31,000	31,000	-	0.0%
	72 - Industry Assoc Assessments	-	250	(250)	(100.0%)
	131 - Structures & Improvements	1,500,000	-	1,500,000	N/A
3 - Security Total		**1,564,600**	**64,850**	**1,499,750**	**2312.6%**
12 - Communications & Government	42 - Business Expense & Travel	8,800	13,200	(4,400)	(33.3%)
	45 - Subscriptions & Publications	-	1,000	(1,000)	(100.0%)
	61 - Professional Services	78,000	189,000	(111,000)	(58.7%)
	70 - Civic & Service Organizations	21,095	17,450	3,645	20.9%
	72 - Industry Assoc Assessments	5,285	1,500	3,785	252.3%
	119 - Public Information Expenses	107,000	331,610	(224,610)	(67.7%)
12 - Communications & Government Total		**220,180**	**553,760**	**(333,580)**	**(60.2%)**
43 - Marketing & Key Accounts	11 - All Other District Labor	293,616	282,495	11,121	3.9%
	33 - Office Supplies & Expenses	6,000	-	6,000	N/A
	42 - Business Expense & Travel	15,600	1,500	14,100	940.0%
	43 - Training Expense & Travel	-	3,000	(3,000)	(100.0%)
	45 - Subscriptions & Publications	1,603	-	1,603	N/A
	61 - Professional Services	35,000	-	35,000	N/A
	70 - Civic & Service Organizations	-	3,645	(3,645)	(100.0%)
	72 - Industry Assoc Assessments	700	4,500	(3,800)	(84.4%)
	119 - Public Information Expenses	215,600	-	215,600	N/A
43 - Marketing & Key Accounts Total		**568,119**	**295,140**	**272,979**	**92.5%**
Grand Total		**$5,169,136**	**$3,526,986**	**$1,642,150**	**46.6%**

Department 01 General Manager, Commission

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**$1,623,010**
	Admin and General	920.00		$1,243,708
	Broadband	935.50		$844
	Customer Accounting	903.00		$101,228
	Personal Leave	184.30		$227,222
	Purchased Power	557.00		$50,008
033	**Office Supplies & Expenses**			**$14,200**
	Misc Office Supplies (Exec, HR & Communications)	921.00		$8,000
	Off-Site Storage of Permanent Records (Vital Record Holdings)	921.00		$1,200
	Records Mgmt - Shredding Services (CI Shred)	921.00		$5,000
042	**Business Expense and Travel**			**$75,000**
	Commission Travel	930.20		$53,000
	General Manager	921.00		$22,000
043	**Training Expense & Travel**			**$21,500**
	ARMA Local/In-State Trainings (Records Administrator)	921.00		$700
	Misc Training/Conferences (Local or Regional Seminars/Trainings)	921.00		$1,900
	NISC Conference	921.00		$3,000
	NWPPA Admin Assistants Conference (Clerk, Administrative Assistant)	921.00		$3,000
	NWPPA Washington Utilities Records Mgmt Meeting (Records Administrator)	921.00		$3,000
	WAPRO Bi-Annual Training (Director, Clerk, Records Administrator)	921.00		$2,500
	WMCA Annual Conference	921.00		$1,400
	WMCA CMC Certification	921.00		$3,000
	WPUDA Bi-Annual Assistants Meeting (Administrative Assistant)	921.00		$1,500
	WPUDA Bi-Annual Records Roundtable (Records Administrator)	921.00		$1,500
044	**Other General Expenses**			**$45,000**
	Election Costs	930.20		$45,000
045	**Subscriptions & Publications**			**$11,533**
	Clearing Up (NewsData)	930.20		$9,700
	Doodle Poll	930.20		$83
	Energy GPS Newsletter	930.20		$1,600
	Wall Street Journal	930.20		$150

Department 01 General Manager, Commission

Activity	Description	GL/FERC	BU Project	Amount
061	**Professional Services**			**$85,000**
	Contract Attorney	923.00		$75,000
	Misc. Legal (Gordon Thomas Honeywell)	923.00		$10,000
072	**Industry Association Assessment**			**$444,794**
	APPA	930.20		$49,330
	ARMA Membership - Includes Local Chapter (Records Administrator)	921.00		$200
	CRTPG - Columbia River Treaty Power Group	557.00		$3,150
	IEEE (General Manager)	921.00		$245
	IIMC - International Institute of Municipal Clerks (Clerk)	921.00		$215
	NAGARA Membership (Records Administrator)	921.00		$89
	Notary (Supv. Exec. Administration/ Administrative Assistant)	921.00		$100
	NW River Partners	557.00		$49,000
	NW River Partners Media Campaign	557.00		$37,000
	NWPPA	930.20		$30,000
	PNUCC	557.00		$11,752
	PNWA, PNWA River Values Media Campaign & PNWA Inland Ports & Nav Group	557.00		$24,450
	Professional Engineers License (General Manager)	921.00		$116
	Public Power Council (PPC)	557.00		$62,265
	Rotary Club of Tri Cities Sunrise (Commission)	930.20		$1,000
	SHRM (Communications Specialist)	921.00		$244
	South Central WMCA (Clerk)	921.00		$50
	TRIDEC	930.20		$21,000
	WA Municipal Clerk Association (Clerk)	921.00		$75
	WA Public Records Officer Association (Director /Clerk/ Records Administrator)	921.00		$75
	WPUDA	930.20		$154,438
TOTAL EXPENSE General Manager, Commission				**$2,320,037**

Department 02 Human Resources

Activity	Description	GL/FERC	BU Project	Amount
042	**Business Expense and Travel**			**$2,700**
	CWPU, UIP, EIAC Meetings	921.00		$1,500
	Executive - Leadership Planning Workshop	921.00		$700
	HR - Other Business Travel or Expense	921.00		$500
043	**Training Expense & Travel**			**$14,900**
	District - Leadership & Developmental Training Expenses	921.00		$1,900
	HR - Affiliate, System or Program Conferences	921.00		$13,000
044	**Other General Expenses**			**$47,250**
	Driver Abstracts & Clearinghouse Queries	921.00		$2,500
	Employee Recognition & Programs	921.00		$8,000
	Energy Northwest Internship Program	921.00		$5,000
	General Expenses - Misc.	921.00		$250
	Recruitment - Advertising and Career Fairs	921.00		$20,000
	Recruitment - Background Screening	921.00		$2,000
	Recruitment - Interview/Travel Expenses	921.00		$3,000
	Recruitment - Physicals & DOT Screens	921.00		$3,000
	SHL Aptitude Tests	921.00		$1,000
	Trucking Consortium - Collections	921.00		$2,500
045	**Subscriptions & Publications**			**$5,800**
	Labor Law Poster Updates	921.00		$300
	Salary Surveys	921.00		$5,500
061	**Professional Services**			**$226,750**
	Consultant - Affirmative Action	923.00		$1,750
	District - EmPOWERed Field Trip Transportation	923.00		$5,000
	District - EmPOWERed Training (Campbell)	923.00		$150,000
	District - Guest safety speaker fee	923.00		$5,000
	District - Respectful Workforce Training	923.00		$11,500
	District - Sylvan Test Proctor	923.00		$1,500
	Leadership Training	923.00		$40,000
	Legal Services	923.00		$10,000
	Trucking Consortium (Service Fee & Training)	923.00		$2,000
072	**Industry Association Assessment**			**$31,800**

Department 02 Human Resources

Activity	Description	GL/FERC	BU Project	Amount
	CWPU Membership Assessments	921.00		$30,000
	District - Assoc. of WA Cities Membership	921.00		$500
	HR Staff - SHRM Professional Memberships (3)	921.00		$750
	HR Staff - World at Work Memberships (2)	921.00		$550
104	**Other Employee Costs**			**$167,000**
	360 Wellbeing Incentive	926.10		$40,000
	Assessments - ADA, Ergonomic & Fitness For Duty	926.10		$500
	Assessments - CDL Medical Certifications	926.10		$4,000
	COBRA Administration	926.10		$500
	CWPU Wellness Program/Catapult	926.10		$5,000
	District - Annual Employee Event	926.10		$10,000
	District - Employee Logo Clothing	926.10		$10,000
	District - EmPOWERed Employee Event	926.10		$3,000
	Employee Assistance Program (EAP) Mediation	926.10		$500
	Flex 125 Plan Administration	926.10		$2,000
	HealthInvest Administration Fee	926.10		$1,500
	Local Wellness Activities & Events	926.10		$15,000
	Safety Program - Supplies & Activities/Events	926.10		$5,000
	Safety Incentive	926.10		$40,000
	Tuition Reimbursement	926.10		$30,000
TOTAL EXPENSE Human Resources				**$496,200**

Department 03 Security

Activity	Description	GL/FERC	BU Project	Amount
033	**Office Supplies & Expenses**			**$2,000**
	Security Program Expenses	921.00		$2,000
038	**Maint of Bldg & Improvements - General**			**$26,600**
	Administration Bldg Security	935.00		$1,800
	Broadband Facility Security	588.00		$600
	Jump Off Joe Security	935.02		$1,000
	Maintenance and Equipment	598.10		$10,000
	Operations Facility Security	598.10		$3,200
	Patrol Services of Operations	598.10		$6,000
	Prosser Butte Security	935.03		$1,000
	Prosser Facility Security	935.04		$2,000
	Umatilla Ridge Security	935.01		$1,000
042	**Business Expense and Travel**			**$1,000**
	Misc. Meetings, Scheduled Speaker Costs	921.00		$1,000
043	**Training Expense & Travel**			**$4,000**
	Security Conference, Misc. Webinars	921.00		$4,000
061	**Professional Services**			**$31,000**
	Consulting for Admin Fence and Ops Gate	923.00		$30,000
	Emergency Services Agency (KPD, KFD, etc) Fees for False Alarms	923.00		$1,000
072	**Industry Association Assessment**			**$0**
	ASIS International - Security Manager	921.00		$0
131	**Structures & Improvements**			**$1,500,000**
	Kennewick Lobby Remodel	390.00	420	$1,500,000
TOTAL EXPENSE Security				**$1,564,600**

Department 12 Communications & Government

Activity	Description	GL/FERC	BU Project	Amount
042	**Business Expense and Travel**			**$8,800**
	NWPPA, PPC, WPUDA (Manager)	921.00		$8,800
061	**Professional Services**			**$78,000**
	Governmental Relations	910.00		$78,000
070	**Civic & Service Organizations**			**$21,095**
	Benton City Chamber of Commerce	921.00		$330
	Prosser Chamber of Commerce	921.00		$315
	Prosser Economic Development Association	921.00		$3,000
	Tri-Cities Hispanic Chamber of Commerce	921.00		$450
	Tri-Cities Regional Chamber of Commerce	921.00		$12,000
	Visit Tri-Cities	921.00		$5,000
072	**Industry Association Assessment**			**$5,285**
	CSRIA - Columbia Snake River Irrigators Assoc	921.00		$4,500
	FWEE - Foundation for Water & Energy Education	910.00		$500
	TC Public Relations Society of America (Mgr. of Communication)	910.00		$285
119	**Public Information Expenses**			**$107,000**
	Public Education/Community Outreach	910.00		$107,000
TOTAL EXPENSE	**Communications & Government**			**$220,180**

Department 43 Marketing & Key Accounts

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**$293,616**
	Customer Accounting	903.00		$252,510
	Personal Leave	184.30		$41,106
033	**Office Supplies & Expenses**			**$6,000**
	Media Equipment	921.00		$6,000
042	**Business Expense and Travel**			**$15,600**
	Business Travel & Expense	921.00		$15,600
045	**Subscriptions & Publications**			**$1,603**
	Canva, Seattle Times, Shutterfly, PRB, TCH, WSJ	921.00		$1,603
061	**Professional Services**			**$35,000**
	Production, Graphics	910.00		$35,000
072	**Industry Association Assessment**			**$700**
	PRSA (Manager/Specialist)	910.00		$700
119	**Public Information Expenses**			**$215,600**
	Advertising (Online & Print)	910.00		$30,200
	Printing (Newsletters, postcards, Inserts, Brochures, etc)	910.00		$96,600
	Radio	910.00		$88,800
TOTAL EXPENSE	**Marketing & Key Accounts**			**$568,119**

Finance & Customer Service

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Finance & Customer Service

Department(s)		Totals
11	Finance & Business Services	821,798
14	General Accounting	665,042
16	Risk Management & Treasury	1,576,780
17	Contracts & Purchasing	19,975
44	Customer Service	1,648,861
Grand Total Expenses - Finance & Customer Service		$4,732,456

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Finance & Customer Services

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
11 - Finance & Business Services	10 - District Overtime Labor	$1,000	$1,000	$0	0.0%
	11 - All Other District Labor	811,406	768,237	43,169	5.6%
	33 - Office Supplies & Expenses	5,000	5,000	-	0.0%
	42 - Business Expense & Travel	1,300	1,300	-	0.0%
	43 - Training Expense & Travel	1,600	1,600	-	0.0%
	45 - Subscriptions & Publications	200	200	-	0.0%
	72 - Industry Assoc Assessments	1,292	1,232	60	4.9%
11 - Finance & Business Services Total		**821,798**	**778,569**	**43,229**	**5.6%**
14 - General Accounting	10 - District Overtime Labor	500	1,000	(500)	(50.0%)
	11 - All Other District Labor	564,297	528,733	35,564	6.7%
	43 - Training Expense & Travel	4,000	4,000	-	0.0%
	45 - Subscriptions & Publications	1,360	1,920	(560)	(29.2%)
	60 - Audit Examination - State	93,000	84,500	8,500	10.1%
	72 - Industry Assoc Assessments	1,495	1,418	77	5.4%
	104 - Other Employee Costs	390	-	390	N/A
14 - General Accounting Total		**665,042**	**621,571**	**43,471**	**7.0%**
16 - Treasurer	34 - Insurance	1,028,300	924,295	104,005	11.3%
	41 - Insurance Damages & Other Reim	10,000	10,000	-	0.0%
	42 - Business Expense & Travel	1,300	1,300	-	0.0%
	43 - Training Expense & Travel	3,600	3,600	-	0.0%
	46 - Treasurer Expenses	501,000	501,000	-	0.0%
	61 - Professional Services	32,500	32,500	-	0.0%
	72 - Industry Assoc Assessments	80	80	-	0.0%
16 - Treasurer Total		**1,576,780**	**1,472,775**	**104,005**	**7.1%**
17 - Purchasing	33 - Office Supplies & Expenses	11,000	11,000	-	0.0%
	42 - Business Expense & Travel	1,300	1,300	-	0.0%
	43 - Training Expense & Travel	4,500	4,500	-	0.0%
	44 - Other General Expenses	2,565	2,565	-	0.0%
	72 - Industry Assoc Assessments	610	550	60	10.9%
17 - Purchasing Total		**19,975**	**19,915**	**60**	**0.3%**
44 - Customer Service	10 - District Overtime Labor	20,479	20,479	-	0.0%
	11 - All Other District Labor	1,004,627	990,909	13,718	1.4%
	30 - Customer Service Expenses	566,855	566,855	-	0.0%
	33 - Office Supplies & Expenses	24,000	24,000	-	0.0%
	39 - Maint of Equipment	3,500	3,500	-	0.0%
	42 - Business Expense & Travel	7,200	7,200	-	0.0%
	43 - Training Expense & Travel	3,500	3,500	-	0.0%
	44 - Other General Expenses	5,000	5,000	-	0.0%
	45 - Subscriptions & Publications	200	200	-	0.0%
	61 - Professional Services	5,000	5,000	-	0.0%
	119 - Public Information Expenses	2,500	2,500	-	0.0%
	200 - New Services Expenses	2,500	2,500	-	0.0%
	201 - New Product Expenses	3,500	3,500	-	0.0%
44 - Customer Service Total		**1,648,861**	**1,635,143**	**13,718**	**0.8%**
Grand Total		**$4,732,456**	**$4,527,973**	**$204,483**	**4.5%**

Department 11 Finance & Business Services

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$1,000**
	Labor - Overtime - Admin General	920.00		$1,000
011	**All Other District Labor**			**$811,406**
	Admin and General	920.00		$514,787
	Customer Accounting	903.00		$53,879
	Distribution O&M	588.00		$93,206
	Personal Leave	184.30		$113,597
	Purchased Power	557.00		$35,937
033	**Office Supplies & Expenses**			**$5,000**
	Misc Office Supplies	921.00		$5,000
042	**Business Expense and Travel**			**$1,300**
	Rating Agency Meeting	921.00		$700
	TEA/BPA/Other	921.00		$600
043	**Training Expense & Travel**			**$1,600**
	APPA/GFOA/Accounting/Auditing Standards Training (Director)	921.00		$1,000
	WPUDA (Director)	921.00		$600
045	**Subscriptions & Publications**			**$200**
	Misc. Publications (Director)	921.00		$200
072	**Industry Association Assessment**			**$1,292**
	AICPA (American Institute of CPAs) Membership (Director)	921.00		$315
	CMA License - IMA (Inst of Mgmt Accountants) (Director)	921.00		$290
	CPA License - WA ST Board of Accountancy (Director)	921.00		$77
	GFOA (Government Finance Officers Assoc) Membership (Director)	921.00		$280
	WSCPA (WA State Board of CPAs) Membership (Director)	921.00		$330
TOTAL EXPENSE Finance & Business Services				**$821,798**

Department 14 General Accounting

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$500**
	Labor - Overtime - Admin General	920.00		$500
011	**All Other District Labor**			**$564,297**
	Admin and General	920.00		$485,295
	Personal Leave	184.30		$79,002
043	**Training Expense & Travel**			**$4,000**
	Training (Manager)	921.00		$1,000
	Training (Analyst/Specialist)	921.00		$1,500
	Training (AP/Payroll)	921.00		$500
	WPUDA Finance Meetings	921.00		$1,000
045	**Subscriptions & Publications**			**$1,360**
	Accounting Publications	921.00		$300
	GFOA Fee - ACFR Excellence in Reporting program	921.00		$460
	Governmental GAAP (Various)	921.00		$600
060	**Audit Examination - State**			**$93,000**
	Financial Statement External Audit	923.00		$64,000
	State Auditors Office	923.00		$29,000
072	**Industry Association Assessment**			**$1,495**
	AICPA (American Institute of CPAs) (Manager/Analyst)	921.00		$325
	APA (American Payroll Assoc) (Specialist)	921.00		$0
	CPA License - WA State Board of Accountancy (Manager/Analyst)	921.00		$460
	Notary (Specialist)	921.00		$50
	WSCPA (Wash. Society of CPAs) (Manager/Analyst)	921.00		$660
104	**Other Employee Costs**			**$390**
	Employee Recognition	921.00		$390

TOTAL EXPENSE General Accounting **$665,042**

Department 16 Risk Management & Treasury

Activity	Description	GL/FERC	BU Project	Amount
034	**Insurance**			**$1,028,300**
	Crime Policy	925.00		$4,900
	Cyber Security Insurance	925.00		$44,200
	Fiduciary Liability Policy	925.00		$17,000
	Liability, Directors & Officers	925.00		$23,000
	Liability, Excess $65 million, EIM	925.00		$99,800
	Liability, excess General & Professional, AEGIS	925.00		$365,300
	Liability, General Assessment	925.00		$150,000
	Other Insurance Policies (Flood, Bonds, Fronting, etc)	925.00		$1,100
	Property, Excess, National Union Fire	925.00		$237,500
	Property, General Assessment	925.00		$80,000
	Railroad	925.00		$3,000
	Special Trips	925.00		$1,600
	Storage Tank Pollution Liability, WA. State	925.00		$900
041	**Insurance Damages & Other Reimbursable**			**$10,000**
	Direct Payment of Damages and Other Reimbursements	925.00		$10,000
042	**Business Expense and Travel**			**$1,300**
	PURMS (Manager)	921.00		$1,300
043	**Training Expense & Travel**			**$3,600**
	NWPPA / APPA / Rates (Manager/Analyst)	921.00		$1,900
	Training (Analyst/Specialist)	921.00		$1,000
	WPTA (Analyst)	921.00		$400
	WPUDA Finance Officers (Manage/Analyst)	921.00		$300
046	**Treasurer Expenses**			**$501,000**
	Bank Service Fees (Bank of America)	921.00		$25,000
	Credit Card Processor Fees (NISC)	903.00		$410,000
	Fiscal Agent Fees (US Bank)	921.00		$1,500
	Investment Custody Fees (US Bank)	921.00		$3,000
	Line of Credit Fee (Bank of America)	431.00		$40,000
	NISC - Banking Fees (Citi Bank First Data/Jack Henry)	903.00		$11,500
	US Payments (Kiosk Transaction/Processing Fees)	903.00		$10,000
061	**Professional Services**			**$32,500**

Department 16 Risk Management & Treasury

Activity	Description	GL/FERC	BU Project	Amount
	Bond Counsel/Financial Advisor	923.00		$8,500
	Fitch Ratings	923.00		$7,500
	Moodys Investors Service	923.00		$1,500
	Retail Rate Design Consultant	916.00		$10,000
	Standard & Poors	923.00		$5,000
072	**Industry Association Assessment**			**$80**
	WPTA	921.00		$80
TOTAL EXPENSE	**Risk Management & Treasury**			**$1,576,780**

Department 17 Contracts & Purchasing

Activity	Description	GL/FERC	BU Project	Amount
033	**Office Supplies & Expenses**			**$11,000**
	Misc Office Supplies	588.00		$1,000
	Paper, Envelopes, Mailing Labels, Letterhead	588.00		$10,000
042	**Business Expense and Travel**			**$1,300**
	Plant Tour (Manager)	588.00		$1,300
043	**Training Expense & Travel**			**$4,500**
	Contracts & Purchasing Training State DES (Manager/Administrator/Specialist)	921.00		$2,000
	ISM Seminar (Local) (Manager/Buyer)	921.00		$300
	L & I Training (Manager/Buyer/Coordinator)	921.00		$300
	NIGP - Contract Training (Manager)	921.00		$1,900
044	**Other General Expenses**			**$2,565**
	Advertising (A & E Notice, Vendor Notice, Bids, & RFPs)	921.00		$2,000
	Costco Membership	921.00		$165
	Small Works Administrative Fee	921.00		$400
072	**Industry Association Assessment**			**$610**
	ISM - Institute of Supply Chain Management (Manager)	588.00		$300
	NIGP Membership Dues (Administrator/Specialist)	588.00		$120
	NIGP Membership Dues (Base Agency Fee) (Manager)	588.00		$190
TOTAL EXPENSE	**Contracts & Purchasing**			**$19,975**

Department 44 Customer Service

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$20,479**
	Labor - Overtime - Customer Accounting	903.00		$20,479
011	**All Other District Labor**			**$1,004,627**
	Customer Accounting	903.00		$863,979
	Personal Leave	184.30		$140,648
030	**Customer Service Expenditures**			**$566,855**
	Application Processing Fees (Helping Hands/Disabled Disc Programs)	903.00		$9,800
	Armored Car, Kennewick & Prosser Kiosks, Dropbox	903.00		$39,000
	Bill Image Storage Fee	903.00		$5,000
	Cash Vault Services	903.00		$20,255
	Identity Verifications and Adverse Action Letters	903.00		$16,700
	Interpretation Services	903.00		$3,600
	Mail Machine Rental Fee	903.00		$3,500
	NISC - Messenger Letters, Urgent Notices, LL, Autopay, Budget Plan	903.00		$70,000
	NISC - Print & Mail Services (forms,envelopes, data)	903.00		$365,000
	NISC - Special Handle Bill Postage/Online Payments RPPS/Fiserv	903.00		$9,000
	Non-Bill District Postage Costs	903.00		$22,000
	Wireless Telephone Headsets	903.00		$3,000
033	**Office Supplies & Expenses**			**$24,000**
	Misc Office Supplies	903.00		$24,000
039	**Maintenance of Equipment**			**$3,500**
	Postage Meter & Mail Insert Machine Expenses	903.00		$3,500
042	**Business Expense and Travel**			**$7,200**
	CS Week/NWPPA	903.00		$1,500
	NISC - MIC	903.00		$4,000
	NISC/WPUDA users Groups	903.00		$1,700
043	**Training Expense & Travel**			**$3,500**
	CSR Training Off Site/QA Program	903.00		$3,500
044	**Other General Expenses**			**$5,000**
	Other Expenses	903.00		$5,000

Department 44 Customer Service

Activity	Description	GL/FERC	BU Project	Amount
045	**Subscriptions & Publications**			**$200**
	Dues and Subscriptions	903.00		$200
061	**Professional Services**			**$5,000**
	Professional Services	903.00		$5,000
119	**Public Information Expenses**			**$2,500**
	Public Info / Communication	903.00		$2,500
200	**New Services Expenses**			**$2,500**
	Demos of New Services	903.00		$2,500
201	**New Product Expenses**			**$3,500**
	Demos of New Products	903.00		$3,500

TOTAL EXPENSE Customer Service **$1,648,861**

Information Technology / Broadband

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Information Technology (IT)

Department(s)		Totals
15	IT Infrastructure	2,755,004
18	IT Applications	2,679,649
Grand Total Expenses - Information Technology (IT)		$5,434,653

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Information Technology

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
15 - IT Infrastructure	10 - District Overtime Labor	$2,000	$2,000	$0	0.0%
	11 - All Other District Labor	664,594	736,841	(72,247)	(9.8%)
	25 - Maintenance of Software	385,050	360,050	25,000	6.9%
	26 - Computer Hardware & Equip Exp	117,500	83,500	34,000	40.7%
	27 - Personal Computer Software	128,300	133,300	(5,000)	(3.8%)
	28 - Personal Computer O&M Costs	166,000	151,700	14,300	9.4%
	29 - Personal Computer Supplies&Exp	5,550	9,000	(3,450)	(38.3%)
	33 - Office Supplies & Expenses	-	17,000	(17,000)	(100.0%)
	42 - Business Expense & Travel	7,000	9,000	(2,000)	(22.2%)
	43 - Training Expense & Travel	15,750	19,500	(3,750)	(19.2%)
	45 - Subscriptions & Publications	250	250	-	0.0%
	50 - Telephone & Answering Services	157,500	151,500	6,000	4.0%
	61 - Professional Services	40,000	107,500	(67,500)	(62.8%)
	104 - Other Employee Costs	510	-	510	N/A
	131 - Structures & Improvements	250,000	-	250,000	N/A
	137 - Capitalized Computer Software	25,000	25,000	-	0.0%
	138 - Computer Equipment	790,000	850,000	(60,000)	(7.1%)
15 - IT Infrastructure Total		**2,755,004**	**2,656,141**	**98,863**	**3.7%**
18 - IT Applications	11 - All Other District Labor	1,516,024	1,288,973	227,051	17.6%
	17 - Operation & Maintenance Exp	73,900	73,900	-	0.0%
	25 - Maintenance of Software	813,965	793,369	20,596	2.6%
	26 - Computer Hardware & Equip Exp	22,300	17,500	4,800	27.4%
	27 - Personal Computer Software	2,500	7,300	(4,800)	(65.8%)
	33 - Office Supplies & Expenses	1,500	1,500	-	0.0%
	42 - Business Expense & Travel	34,000	28,000	6,000	21.4%
	43 - Training Expense & Travel	12,500	12,500	-	0.0%
	45 - Subscriptions & Publications	1,250	250	1,000	400.0%
	61 - Professional Services	145,700	311,000	(165,300)	(53.2%)
	72 - Industry Assoc Assessments	8,500	8,000	500	6.3%
	104 - Other Employee Costs	510	-	510	N/A
	137 - Capitalized Computer Software	47,000	148,800	(101,800)	(68.4%)
18 - IT Applications Total		**2,679,649**	**2,691,092**	**(11,443)**	**(0.4%)**
Grand Total		**$5,434,653**	**$5,347,233**	**$87,420**	**1.6%**

Department 15 IT Infrastructure

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$2,000**
	Labor - Overtime - Admin General	920.00		$2,000
011	**All Other District Labor**			**$664,594**
	Admin and General	920.00		$359,748
	Customer Accounting	903.00		$51,393
	Data Center	391.00	430	$50,000
	Distribution O&M	588.00		$102,785
	Enterprise Security System	391.00	222	$5,000
	Fiber to Carma	380.00	144	$500
	Fiber to H2F2 Reservoir Sub	380.00	144	$500
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$625
	Fiber to Sandpiper	380.00	144	$500
	Fiber to Whitcomb	380.00	144	$500
	Personal Leave	184.30		$93,043
025	**Maintenance of Software**			**$385,050**
	1Password	921.00		$5,500
	2FA/SSO	921.00		$8,000
	Accellion (FTP Software)	921.00		$8,650
	Archive Social	921.00		$4,200
	Cisco Umbrella	921.00		$5,500
	Cyber Security Training	921.00		$2,000
	Fax Server	921.00		$1,300
	FortiSiem	921.00		$17,500
	FoxIT	921.00		$5,500
	Manager Engine	921.00		$8,500
	Microcall (Phone Call Logging)	921.00		$1,250
	Microsoft System Center	921.00		$10,000
	Mobile Device Management	921.00		$5,000
	Nessus (Network Analysis)	921.00		$27,000
	NetScaler	921.00		$7,500
	OATI Certificate	921.00		$1,100
	OEL for Existing	921.00		$2,500
	Phone Q/A Software	903.00		$3,500
	Power Broker (Desktop Security)	921.00		$1,700
	Room Tech Monitoring	921.00		$500

Department 15 IT Infrastructure

Activity	Description	GL/FERC	BU Project	Amount
	RSA (Network Authentication)	921.00		$3,500
	Secret Server	921.00		$2,500
	SmartNet (Ironport, Firepower)	921.00		$40,000
	SmartNet (Phone)	921.00		$22,500
	Solar Winds (Network Monitoring)	921.00		$27,000
	Solar Winds (Storage, VM)	921.00		$7,550
	SpecOPS Password Enforcer	921.00		$2,500
	Storage System maint/support	921.00		$42,000
	Tech Smith (SnagIT)	921.00		$1,000
	Third Tier Backup Software (Veeam)	921.00		$27,000
	Trackit (Help Desk Ticket Tracker)	921.00		$6,800
	VMWare (Server Virtualization)	921.00		$45,500
	VMWare (VDI)	921.00		$17,000
	WSA	921.00		$13,500
026	**Computer Hardware & Equip Exp**			**$117,500**
	Commission Technology	921.00		$1,500
	General PC needs (HD, Mouse, DVD Burner, Cables, etc)	921.00		$15,000
	Printers for Labels @ Desktops	588.00		$2,000
	Replacement Desktop (8)	921.00		$40,000
	Replacement Laptops (3)	921.00		$12,500
	Replacement laptops (transformer shop)	588.00		$25,000
	Replacement Monitors (20)	921.00		$6,000
	Replacement projectors - (Conference Room)	921.00		$1,500
	Standard Printer	588.00		$3,000
	Tablets - iPads (60)	588.00		$7,500
	Zero Clients (10)	921.00		$3,500
027	**Personal Computer Software**			**$128,300**
	Affiliations	921.00		$300
	Barco Datawell Support	588.00		$10,000
	Misc Upgrades and Software	921.00		$6,000
	MSDN (Support Specialist (2), System Administrator)	921.00		$2,000
	Office 365	921.00		$110,000
028	**Personal Computer O&M Costs**			**$166,000**
	Cisco SmartNets	921.00		$130,000
	MFP Maintenance - Engineering	588.00		$7,500

Department 15 IT Infrastructure

Activity	Description	GL/FERC	BU Project	Amount
	MFP Maintenance - Executive	921.00		$1,500
	MFP Maintenance - Finance/CS	921.00		$8,000
	MFP Maintenance - Operations	588.00		$5,500
	MFP Maintenance - Power Mgmt	921.00		$4,000
	MFP Maintenance - Prosser	921.00		$1,000
	Printer Maintenance - Engineering	588.00		$1,000
	Printer Maintenance - Executive	921.00		$500
	Printer Maintenance - Finance/CS	921.00		$500
	Printer Maintenance - IT	921.00		$1,500
	Printer Maintenance - Operations	588.00		$1,000
	Printer Maintenance - Power Mgmt	921.00		$500
	Printer Maintenance - Prosser	921.00		$1,000
	Records Scanner	921.00		$1,000
	UPS Maintenance	921.00		$1,500
029	**Personal Computer Supplies & Expenses**			**$5,550**
	Engineering	588.00		$2,000
	Executive	921.00		$500
	Finance/CS	921.00		$450
	IT	921.00		$200
	Operations	588.00		$2,000
	Power Mgmt	921.00		$200
	Prosser	921.00		$200
042	**Business Expense and Travel**			**$7,000**
	IT Management/Strategic Planing (Manager)	921.00		$2,000
	SAN/VMWare Conference (Administrator)	921.00		$2,500
	TechMentor (Support Specialist)	921.00		$2,500
043	**Training Expense & Travel**			**$15,750**
	IT Management Training (Supervisor)	921.00		$2,500
	Microsoft (Support Specialist)	921.00		$2,500
	Security/Network Training (Network Engineer)	921.00		$3,750
	Storage/VMWare Training (System Administrator)	921.00		$7,000
045	**Subscriptions & Publications**			**$250**
	Subscription & Publications	921.00		$250

Department 15 IT Infrastructure

Activity	Description	GL/FERC	BU Project	Amount
050	**Telephone & Answering Services**			**$157,500**
	Aircards - Operations (Field)	588.00		$13,500
	Aircards (iPads)	588.00		$7,000
	AVL - Operations - 85	588.00		$24,000
	Charter (Internet Service)	921.00		$2,000
	Frontier (includes all Non-Wireless Services)	921.00		$33,500
	Local Cloud Call Prompter	921.00		$50,000
	Verizon Wireless	921.00		$27,500
061	**Professional Services**			**$40,000**
	Consulting for External Network Audit	923.00		$25,000
	Infrastructure Support	923.00		$5,000
	Phone System Support	923.00		$10,000
104	**Other Employee Costs**			**$510**
	Employee Recognition	921.00		$510
131	**Structures & Improvements**			**$250,000**
	Data Center	391.00	430	$250,000
137	**Capitalized Computer Software**			**$25,000**
	Windows Datacenter Licenses	391.00	38	$25,000
138	**Computer Equipment**			**$790,000**
	Cisco Blade Server	391.00	44	$250,000
	Enterprise Security System	391.00	222	$250,000
	Fabric Interconnects	391.00	388	$120,000
	Multi-Function Printer	391.00	302	$30,000
	Network Switch Purchase	391.00	33	$40,000
	TGB Expansion	391.00	432	$100,000

TOTAL EXPENSE IT Infrastructure **$2,755,004**

Department 18 IT Applications

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**$1,516,024**
	Admin and General	920.00		$485,192
	Broadband	935.50		$6,906
	Customer Accounting	903.00		$306,734
	Distribution	588.00		$444,010
	Enterprise Security System	391.00	222	$10,000
	iVUE Enhancements	391.00	31	$16,960
	NoaNET NCS and District Labor	397.20	22	$26,779
	Personal Leave	184.30		$212,243
	Survalent ICCP Software Plug-In	391.00	408	$4,320
	Transmission	566.00		$2,880
017	**Operation & Maintenance Expense**			**$73,900**
	Benton County Aerial Imagery (Orthophotos)	588.00		$6,000
	Benton County Plat Imagery	588.00		$900
	Sensus Flexnet Meter Reading Fee	902.00		$67,000
025	**Maintenance of Software**			**$813,965**
	Adobe Creative Cloud	921.00		$1,100
	Alden	588.00		$4,048
	AutoCAD Network License	588.00		$5,200
	Cascade (Asset Management)	588.00		$24,000
	CData Sharepoint Driver for Polybase	921.00		$4,500
	CrisisGo	921.00		$3,000
	Customer Survey Tool	921.00		$3,000
	Doble Software Maintenance	588.00		$4,100
	DocuSign	921.00		$3,350
	Erwin	921.00		$2,700
	ESRI (GIS)	588.00		$27,500
	Foglight	921.00		$27,000
	Google Translate Service (Website)	921.00		$1,000
	Hootsuite	921.00		$640
	IKE GPS Software Services	588.00		$6,200
	Kapish EasyLink	921.00		$962
	Kentico License (Website)	921.00		$6,250
	MilSoft (Analysis)	588.00		$12,600
	NeoGov	921.00		$35,500

Department 18 IT Applications

Activity	Description	GL/FERC	BU Project	Amount
	NISC - Monthly Recurring Costs	921.00		$371,000
	Osmose Ocalc Licenses (8)	588.00		$3,900
	PI Historian Annual Maintenance	588.00		$12,200
	PowerWorld Transmission Software	588.00		$3,990
	Reporting Workflow Software (Tableau?)	921.00		$2,000
	Sag10	588.00		$1,300
	SEL DMA	588.00		$3,400
	Sensus Alarm Manager	902.00		$7,000
	Sensus RNI	902.00		$92,000
	SentryOne Annual Maintenance (SSIS)	921.00		$3,500
	SQL Server SA	921.00		$20,000
	SSIS Additional Add-ons (CozyRoc)	921.00		$2,000
	Survalent (SCADA)	592.30		$28,750
	Tableau Business Intelligence Software	921.00		$38,000
	TextPower	588.00		$3,000
	Toad Data Point	921.00		$3,100
	Toad for Oracle Base Edition (3 perpetual)	921.00		$1,100
	Toad for SQL Server Professional Edition (3)	921.00		$750
	Toad for SQL Server Xpert Edition (1)	921.00		$650
	TRIM	921.00		$29,000
	Vehicle Management System Maintenance	588.00		$6,300
	Watt - Net Express	588.00		$1,500
	Website Hosting Fees	921.00		$6,875
026	**Computer Hardware & Equip Exp**			**$22,300**
	Kiosks (2) - Lease Kennewick & Prosser	903.00		$22,300
027	**Personal Computer Software**			**$2,500**
	Misc Upgrades and Software	921.00		$2,500
033	**Office Supplies & Expenses**			**$1,500**
	Misc Office Supplies	921.00		$1,500
042	**Business Expense and Travel**			**$34,000**
	Business Intelligence Conference	921.00		$6,000
	Data Integration & DBA Conferences	921.00		$6,000
	IT Management/Strategic Planning (Director)	921.00		$3,000
	IT Mgmt/Strategic Planning (Manager)	921.00		$2,500

Department 18 IT Applications

Activity	Description	GL/FERC	BU Project	Amount
	NISC - User Group (Analyst)	921.00		$7,500
	NWPPA IT Conference (Cyber Engineer)	921.00		$3,000
	Sensus User Conference (1)	902.00		$3,000
	TechAdvantage (Cyber Engineer)	921.00		$3,000
043	**Training Expense & Travel**			**$12,500**
	Business Intelligence and Database Training	921.00		$10,000
	CBT Nuggets Training (Annual Subscription)	921.00		$2,500
045	**Subscriptions & Publications**			**$1,250**
	Subscription & Publications	921.00		$1,250
061	**Professional Services**			**$145,700**
	AMI Enhanced Support	902.00		$49,700
	BI Consulting	923.00		$15,000
	iVUE Enhancements	391.00	31	$15,000
	NISC - Programming (Expense)	923.00		$15,000
	TRIM Maintenance/Consulting	923.00		$24,000
	Website Annual Upgrades & Misc Programming	923.00		$27,000
072	**Industry Association Assessment**			**$8,500**
	Cyber Memberships (IEEE, ISC)	921.00		$500
	Utility Analytics Membership	921.00		$8,000
104	**Other Employee Costs**			**$510**
	Employee Recognition	921.00		$510
137	**Capitalized Computer Software**			**$47,000**
	Enterprise Security System	391.00	222	$10,000
	Survalent ICCP Software Plug-In	391.00	408	$37,000

TOTAL EXPENSE IT Applications **$2,679,649**

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Broadband

Department(s)		Totals
46	Broadband	2,442,471
Grand Total Expenses - Broadband		$2,442,471

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Broadband

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
46 - Broadband	12 - Materials & Supplies	$298,050	$425,550	($127,500)	(30.0%)
	17 - Operation & Maintenance Exp	67,500	57,900	9,600	16.6%
	18 - Misc Construction Expense	20,000	20,000	-	0.0%
	20 - Off-the-Dock Labor	675,950	1,005,950	(330,000)	(32.8%)
	28 - Personal Computer O&M Costs	50,000	65,000	(15,000)	(23.1%)
	38 - Maint of Bldg & Improvements	7,500	2,500	5,000	200.0%
	40 - Rents	181,711	178,408	3,303	1.9%
	44 - Other General Expenses	1,016,760	996,333	20,428	2.1%
	136 - Communication Equipment	125,000	125,000	-	0.0%
46 - Broadband Total		**2,442,471**	**2,876,641**	**(434,169)**	**(15.1%)**
Grand Total		**$2,442,471**	**$2,876,641**	**($434,169)**	**(15.1%)**

Department 46 Broadband

Activity	Description	GL/FERC	BU Project	Amount
012	**Materials & Supplies**			**$298,050**
	Advanced Wireless/Small Cell	397.30	214	$104,550
	Fiber Backbone & Laterals	397.30	134	$30,000
	Fiber Conduit	397.20	19	$6,000
	Fiber Customer Connects - LEC	397.20	135	$127,500
	System Improvement Projects	397.30	349	$30,000
017	**Operation & Maintenance Expense**			**$67,500**
	Fiber Reel Testing	935.20		$7,500
	NCS - Fiber Repair Emergency On-Call Support	935.30		$20,000
	NCS - Fiber Replacement and Restoration	935.30		$40,000
018	**Miscellaneous Construction Expense**			**$20,000**
	Franchise BB Facility Relocations	397.30	252	$20,000
020	**Off-the-Dock Labor**			**$675,950**
	Advanced Wireless/Small Cell	397.30	214	$204,450
	Fiber Backbone & Laterals	397.30	134	$70,000
	Fiber Conduit	397.20	19	$14,000
	Fiber Customer Connects - LEC	397.20	135	$297,500
	Joint Use Audit Corrective Actions	935.30		$20,000
	System Improvement Projects	397.30	349	$70,000
028	**Personal Computer O&M Costs**			**$50,000**
	Curvature Cisco Equipment Maintenance	935.20		$15,000
	Nokia - MPLS Equipment M&S	935.20		$35,000
038	**Maint of Bldg & Improvements - General**			**$7,500**
	Maintenance Expense (Nodes and Building)	935.20		$7,500
040	**Rents**			**$181,711**
	BPA - License Agreement (CRC,#19TX-16737)	935.20		$708
	BPA Dark Fiber Lease (BPA 01TX-10704/BPUD #01-41-05)	935.20		$4,000
	COR - Dark Fiber Lease	935.20		$6,480
	COR - Dark Fiber Lease - Columbia REA (was 19-46-07)	935.20		$1,620
	COR - Dark Fiber Lease - Community First Bank	935.20		$3,240
	COR - Dark Fiber Lease - Fowler St (20-46-04)	935.20		$1,620

Department 46 Broadband

Activity	Description	GL/FERC	BU Project	Amount
	COR - Dark Fiber Lease - Inline Computers	935.20		$1,620
	COR - Dark Fiber Lease - MSA Steptoe/Knight(20-46-20)	935.20		$1,620
	COR - Dark Fiber Lease - Parsec Computers(20-46-03)	935.20		$1,620
	COR - Dark Fiber Lease - Preferred Freezer (was 19-46-08)	935.20		$1,620
	COR - Dark Fiber Lease - Richland Public Library	935.20		$1
	COR - Dark Fiber Lease - RSD	935.20		$1,620
	COR - Dark Fiber Lease - Tmobi	935.20		$1,620
	COR - Dark Fiber Lease - T-Mobile	935.20		$1,620
	COR - Dark Fiber Lease - Umpqua Bank(19-46-11)	935.20		$1,620
	COR - Dark Fiber Lease - Utility Trailer Sales	935.20		$1,620
	COR - Dark Fiber Lease - WalMart Duportail	935.20		$1,620
	COR - DFL - 2800 Stevens Dr	935.20		$1,620
	COR - DFL - 510 Wellsian Way	935.20		$1,620
	COR - DFL - 651 Truman (was 18-46-06)	935.20		$1,620
	COR - DFL - Bellerive, Steptoe	935.20		$3,240
	COR - DFL - HMIS	935.20		$1,620
	COR - DFL - Jericho, Keene	935.20		$3,240
	COR - DFL - Steptoe Bike to Duportail Bypass	935.20		$3,240
	COR - DFL - T-Mobile, 514 Warehous St	935.20		$1,620
	COR - Fiber Lease - 4 Towers (13-46-02)	935.20		$12,960
	COR - Fiber Lease - 5 Towers	935.20		$16,200
	COR - Fiber Lease - Duportail St	935.20		$1,620
	COR - Fiber Lease - Fowler St	935.20		$1,620
	COR - Fiber Lease - GWW & Knight St.	935.20		$3,240
	COR - Fiber Lease - LW Campus	935.20		$3,240
	COR - Fiber Lease - Williams Blvd	935.20		$3,240
	COR -DFL - HAPO Dark Fiber	935.20		$3,240
	Energy NW - (2) Dark Fiber-Ashe Facility to POS, Line #1	935.20		$5,040
	FPUD - BB Services Agreement	935.20		$1,800
	FPUD - DFL	935.20		$13,200
	FPUD Dark Fiber Lease	935.20		$15,480
	Permits (2) with Tri-City Railroad	935.20		$1,000
	Pole Contact Fees (COR, FPUD, LSN, & BREA)	935.20		$18,622
	Spectrum - DFL - W Richland PD	935.20		$12,000
	Verizon Colocation Space and DC Power	935.20		$17,520
044	**Other General Expenses**			**$1,016,760**
	Franklin PUD Recurring Transport Charges	935.20		$2,200

Department 46 Broadband

Activity	Description	GL/FERC	BU Project	Amount
	NCS - NoaNet Labor Allocation to O&M	935.20		$791,648
	NoaNet - Internet Access via Franklin POP ($1,260 x 12 plus bursting @ $3.6 per meg x 25	935.20		$25,000
	NoaNET NCS and District Labor	397.20	22	$197,912
136	**Communication Equipment**			**$125,000**
	Backbone System Electronics	397.40	133	$75,000
	Premise Electronics	397.25	136	$50,000
TOTAL EXPENSE Broadband				**$2,442,471**

Engineering

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Engineering

Department(s)		Totals
21	Engineering	19,500,443
22	Customer Engineering	1,444,427
Grand Total Expenses - Engineering		$20,944,869

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Engineering

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
21 - Engineering	11 - All Other District Labor	$737,902	$775,906	($38,004)	(4.9%)
	12 - Materials & Supplies	5,046,750	4,396,241	650,509	14.8%
	18 - Misc Construction Expense	24,740	157,994	(133,254)	(84.3%)
	20 - Off-the-Dock Labor	83,849	160,180	(76,332)	(47.7%)
	21 - Elec Construction Contracts	7,244,223	9,747,981	(2,503,758)	(25.7%)
	33 - Office Supplies & Expenses	4,000	4,000	-	0.0%
	42 - Business Expense & Travel	3,000	1,000	2,000	200.0%
	43 - Training Expense & Travel	16,500	10,500	6,000	57.1%
	45 - Subscriptions & Publications	2,500	2,500	-	0.0%
	61 - Professional Services	475,437	397,500	77,937	19.6%
	72 - Industry Assoc Assessments	15,254	15,154	100	0.7%
	104 - Other Employee Costs	1,000	-	1,000	N/A
	120 - Substation Xfrs & Regulators	627,527	627,527	-	0.0%
	121 - Substation Equip & Materials	1,281,430	1,556,784	(275,354)	(17.7%)
	122 - Line Devices	516,466	444,387	72,079	16.2%
	123 - Transformers & Related Items	3,213,908	1,500,000	1,713,908	114.3%
	125 - Land & Land Rights - Electric	25,000	66,667	(41,667)	(62.5%)
	127 - SCADA Communications Equipment	51,248	36,250	14,998	41.4%
	128 - SCADA Substation Equipment	128,709	25,130	103,579	412.2%
	132 - Office Equipment	1,000	1,000	-	0.0%
21 - Engineering Total		**19,500,443**	**19,926,700**	**(426,257)**	**(2.1%)**
22 - Customer Engineering	10 - District Overtime Labor	25,750	25,750	-	0.0%
	11 - All Other District Labor	1,017,927	831,708	186,218	22.4%
	14 - Small Tools & Materials	2,250	1,250	1,000	80.0%
	17 - Operation & Maintenance Exp	3,600	3,600	-	0.0%
	18 - Misc Construction Expense	15,000	16,457	(1,457)	(8.9%)
	29 - Personal Computer Supplies&Exp	3,000	3,000	-	0.0%
	33 - Office Supplies & Expenses	2,000	2,000	-	0.0%
	40 - Rents	65,000	25,000	40,000	160.0%
	42 - Business Expense & Travel	11,600	11,600	-	0.0%
	43 - Training Expense & Travel	23,800	23,800	-	0.0%
	61 - Professional Services	190,000	190,000	-	0.0%
	125 - Land & Land Rights - Electric	2,500	72,500	(70,000)	(96.6%)
	132 - Office Equipment	2,000	2,000	-	0.0%
	134 - Tools, Shop & Stores Equipment	80,000	81,000	(1,000)	(1.2%)
22 - Customer Engineering Total		**1,444,427**	**1,289,666**	**154,761**	**12.0%**
Grand Total		**$20,944,869**	**$21,216,366**	**($271,496)**	**(1.3%)**

Department 21 Engineering

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**$737,902**
	Admin and General	920.00		$2,565
	Berrian Tap Meter Point RTU upgrade	380.00	435	$2,362
	Broadband	935.50		$18,553
	Chevron RTU Upgrade	380.00	425	$2,362
	Customer Accounting	903.00		$4,510
	Distribution	588.00		$491,870
	Fiber to Carma	380.00	144	$3,530
	Fiber to H2F2 Reservoir Sub	380.00	144	$2,142
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$7,061
	Fiber to Sandpiper	380.00	144	$3,530
	Fiber to Whitcomb	380.00	144	$3,530
	H2F Tap Metering Point RTU upgrade	380.00	425	$2,362
	H2F2 Reservoir RTU Replacement	380.00	425	$2,080
	McNary POD	355.00	300	$9,450
	Paterson Tap Metering Point RTU upgrade	380.00	425	$2,362
	Personal Leave	184.30		$103,306
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$3,742
	SCADA Alarm Standard Implementation	380.00	435	$4,160
	Spaw Phillips 115kV Breaker	355.00	334	$2,000
	Transmission	566.00		$15,646
	Transmission Line-Phillips to Spaw	355.00	212	$26,348
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$18,167
	VREG RTAC SYSTEM Upgrade (37 REGS-Com Line Optimization)	380.00	427	$2,262
	Zephyr Height SCADA Upgrades	380.00	202	$4,000
012	**Materials & Supplies**			**$5,046,750**
	Berrian Tap Meter Point RTU upgrade	380.00	435	$3,000
	Chevron RTU Upgrade	380.00	425	$3,000
	Distribution - Inventory Issued for O&M	588.00		$100,000
	Distribution Base Growth	365.00	140	$749,592
	Distribution Base Growth	366.00	140	$1,110,196
	Distribution Line Equipment SCADA	380.00	143	$20,000
	Distribution Pole Replacement	364.00	160	$5,444
	Distribution System Improvements	366.00	141	$327,563
	Distribution System Improvements	365.00	141	$218,377
	Farm Cable Replacement	367.00	424	$100,000

Department 21 Engineering

Activity	Description	GL/FERC	BU Project	Amount
	Fiber to Carma	380.00	144	$2,666
	Fiber to H2F2 Reservoir Sub	380.00	144	$1,900
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$15,416
	Fiber to Sandpiper	380.00	144	$10,676
	Fiber to Substations & Line Devices	380.00	144	$25,000
	Fiber to Whitcomb	380.00	144	$4,392
	H2F Tap Metering Point RTU upgrade	380.00	425	$3,000
	H2F2 Reservoir RTU Replacement	380.00	425	$7,500
	Install New Switch N/O Sunset Tap	355.00	137	$1,852
	Install New Switch W/O Reata Sub	355.00	137	$1,852
	JU - NESC Compliance Program	365.00	145	$114,000
	McNary POD	355.00	300	$11,886
	Paterson Tap Metering Point RTU upgrade	380.00	425	$3,000
	Poles & Fixtures, Misc. Repairs	355.00	75	$100,000
	POS #102 - HED-4 Getaway Reconductor	367.00	288	$47,085
	POS #11 - GUM-4, HED-3, recond. 3/0, Bowles Rd.	365.00	331	$213,734
	POS #41 - ZEH-4, new OH tie to GUM-4 at Game Farm Rd.	365.00	206	$30,443
	POS #41 - ZEH-4, new OH tie to GUM-4 at Game Farm Rd.	365.00	206	$77,440
	POS #58 -BEC-3, new feeder to east to tie with SSR-1	365.00	205	$476,800
	POS #81 - PHI-8, new feeder north to Cochrane	365.00	297	$41,461
	POS #81 - PHI-8, new feeder north to Cochrane	365.00	297	$132,887
	Prior Tap Switches	355.00	137	$3,705
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$2,588
	Repair & Replacement - Cable	367.00	147	$227,900
	Repair & Replacement - Other	367.00	92	$112,360
	Repair & Replacement - Other	365.00	92	$168,540
	Service Poles	365.00	93	$14,099
	Services, Set Xfmrs, Run Secondary	369.10	94	$113,956
	Services, Set Xfmrs, Run Secondary	369.20	94	$163,062
	Spaw Phillips 115kV Breaker	355.00	334	$5,000
	Switch Upgrade/Additions	355.00	137	$200,000
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$28,400
	Vista Substation Feeder Getaways (OH)	365.00	296	$44,000
	VREG RTAC SYSTEM Upgrade (37 REGS-Com Line Optimization)	380.00	427	$480
	Zephyr Height SCADA Upgrades	380.00	202	$2,500
018	**Miscellaneous Construction Expense**			**$24,740**
	Distribution Pole Replacement	364.00	160	$2,740

Department 21 Engineering

Activity	Description	GL/FERC	BU Project	Amount
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$22,000
020	**Off-the-Dock Labor**			**$83,849**
	Fiber to Carma	380.00	144	$6,221
	Fiber to H2F2 Reservoir Sub	380.00	144	$6,500
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$35,970
	Fiber to Sandpiper	380.00	144	$24,910
	Fiber to Whitcomb	380.00	144	$10,248
021	**Electric Construction Contracts**			**$7,244,223**
	Dock Crew Joint Use Deficiency Corrections	590.10		$1,035,609
	JU - NESC Compliance Program	365.00	145	$36,000
	McNary POD	355.00	300	$133,334
	POS #58 -BEC-3, new feeder to east to tie with SSR-1	365.00	205	$424,000
	Repair & Replacement - Cable	367.00	147	$1,171,218
	Spaw Phillips 115kV Breaker	355.00	334	$250,000
	Transmission Line-Phillips to Spaw	355.00	212	$4,194,062
033	**Office Supplies & Expenses**			**$4,000**
	Misc Office Supplies	588.00		$4,000
042	**Business Expense and Travel**			**$3,000**
	Cascade Users Conference (Senior Engineer)	588.00		$3,000
043	**Training Expense & Travel**			**$16,500**
	Technical Training (Assistant)	588.00		$1,500
	Technical Training (Manager)	588.00		$3,000
	Technical Training (Engineer)	588.00		$3,000
	Technical Training (Engineer)	588.00		$3,000
	Technical Training (Senior Engineer)	588.00		$3,000
	Technical Training (Senior Engineer)	588.00		$3,000
045	**Subscriptions & Publications**			**$2,500**
	Subscription & Publications (IEEE, ANSI stds, etc.)	588.00		$2,500
061	**Professional Services**			**$475,437**
	Distribution - Joint Use Pole Contact Consulting	590.10		$47,000
	Distribution - Unanticipated Consulting Engineering Support	588.00		$25,000

Department 21 Engineering

Activity	Description	GL/FERC	BU Project	Amount
	McNary POD	355.00	300	$3,000
	NERC/WECC Consulting - GDS #10-51-06	560.01		$30,000
	SCADA Communications Network Study	380.00	333	$299,770
	Spaw Phillips 115kV Breaker	355.00	334	$2,000
	Transmission Line-Phillips to Spaw	355.00	212	$2,000
	Transmission Line-Phillips to Spaw	355.00	212	$66,667
072	**Industry Association Assessment**			**$15,254**
	General Association Assessments	588.00		$100
	IEEE Membership (Manager/Senior Engineer/Engineer (5))	588.00		$1,200
	Notary	588.00		$350
	PE Licenses & Renewals (3) $201 every 2 yrs ea	588.00		$604
	Smart Electric Power Alliance (SEPA)	588.00		$5,000
	WSU Power Engineering Program	588.00		$8,000
104	**Other Employee Costs**			**$1,000**
	Employee Misc Benefit	588.00		$1,000
120	**Substation Transformers & Regulators**			**$627,527**
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$627,527
121	**Substation Equipment & Materials**			**$1,281,430**
	Fire Mitigation - OH Line Reconstruction Joe/Johnson Butte	365.00	312	$250,000
	New Badger Canyon Substation	362.01	434	$300,000
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$12,075
	Spaw Phillips 115kV Breaker	355.00	334	$179,355
	Substation Inventory Issued for O&M	592.00		$100,000
	Substation Misc. Aux Equip, Relays/Controls	362.01	148	$40,000
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$400,000
122	**Line Devices**			**$516,466**
	Distribution - Inventory Issued for O&M	595.00		$100,000
	Distribution Regulators	368.20	323	$75,000
	Distribution System Improvements	365.00	141	$47,992
	Install New Switch N/O Sunset Tap	355.00	137	$62,797
	Install New Switch W/O Reata Sub	355.00	137	$62,797
	POS #102 - HED-4 Getaway Reconductor	365.00	288	$14,784
	POS #41 - ZEH-4, new OH tie to GUM-4 at Game Farm Rd.	365.00	206	$13,750

Department 21 Engineering

Activity	Description	GL/FERC	BU Project	Amount
	POS #81 - PHI-8, new feeder north to Cochrane	365.00	297	$13,750
	Prior Tap Switches	355.00	137	$125,595
123	**Transformers & Related Items**			**$3,213,908**
	Services, Set Xfmrs, Run Secondary	368.10	94	$3,213,908
125	**Land & Land Rights - Electric**			**$25,000**
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$12,500
	Fiber to Sandpiper	380.00	144	$12,500
127	**SCADA Communications Equipment**			**$51,248**
	Distribution System Improvements	380.00	141	$7,571
	Fiber to Carma	380.00	144	$6,500
	Fiber to H2F2 Reservoir Sub	380.00	144	$2,926
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$18,750
	Fiber to Sandpiper	380.00	144	$6,250
	Fiber to Whitcomb	380.00	144	$6,250
	H2F2 Reservoir RTU Replacement	380.00	425	$3,000
128	**SCADA Substation Equipment**			**$128,709**
	Berrian Tap Meter Point RTU upgrade	380.00	435	$5,000
	Chevron RTU Upgrade	380.00	425	$4,500
	Fiber to Carma	380.00	144	$9,750
	Fiber to H2F2 Reservoir Sub	380.00	144	$3,642
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$28,125
	Fiber to Sandpiper	380.00	144	$9,375
	Fiber to Whitcomb	380.00	144	$9,375
	H2F Tap Metering Point RTU upgrade	380.00	425	$5,000
	H2F2 Reservoir RTU Replacement	380.00	425	$4,500
	Paterson Tap Metering Point RTU upgrade	380.00	425	$5,000
	VREG RTAC SYSTEM Upgrade (37 REGS-Com Line Optimization)	380.00	427	$37,440
	Zephyr Height SCADA Upgrades	380.00	202	$7,002
132	**Office Equipment**			**$1,000**
	Misc. Office Furniture	588.00		$1,000
TOTAL EXPENSE Engineering				**$19,500,443**

Department 22 Customer Engineering

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$25,750**
	Labor - Overtime - Distribution	588.00		$25,750
011	**All Other District Labor**			**$1,017,927**
	Customer Accounting	903.00		$31,479
	Distribution Base Growth	365.00	140	$99,953
	Distribution Base Growth	366.00	140	$14,563
	Distribution Base Growth	366.00	140	$91,200
	Distribution O&M	588.00		$472,124
	Distribution Pole Replacement	364.00	160	$1,582
	Distribution System Improvements	365.00	141	$682
	Distribution System Improvements	366.00	141	$1,021
	Farm Cable Replacement	367.00	424	$12,000
	Personal Leave	184.30		$142,510
	POS #102 - HED-4 Getaway Reconductor	367.00	288	$2,915
	POS #11 - GUM-4, HED-3, recond. 3/0, Bowles Rd.	365.00	331	$8,260
	POS #41 - ZEH-4, new OH tie to GUM-4 at Game Farm Rd.	365.00	206	$5,566
	POS #81 - PHI-8, new feeder north to Cochrane	365.00	297	$5,566
	Repair & Replacement - Cable	367.00	147	$53,235
	Service Poles	365.00	93	$1,538
	Services, Set Xfmrs, Run Secondary	369.10	94	$73,732
014	**Small Tools & Materials**			**$2,250**
	GPS Batteries - Replacement/Purchase	588.00		$400
	GPS Cables - Replacement/Purchase	588.00		$400
	Survey Supplies (Stakes, Flags, etc)	588.00		$1,000
	Training/Instructional Manuals & Publications	588.00		$450
017	**Operation & Maintenance Expense**			**$3,600**
	Equipment Maintenance/Repair	588.00		$500
	Misc. Form Printing	588.00		$500
	O&M Related Permit Fees	588.00		$500
	Scanning Services	588.00		$1,000
	Unplanned O&M Expenses	588.00		$500
	WA State Ref. Network - Annual Maint. for VRS Net (GPS Signals)	588.00		$600
018	**Miscellaneous Construction Expense**			**$15,000**

Department 22 Customer Engineering

Activity	Description	GL/FERC	BU Project	Amount
	County Recording Fees - Easements	360.10	140	$15,000
029	**Personal Computer Supplies & Expenses**			**$3,000**
	Printer / Plotter Paper	588.00		$3,000
033	**Office Supplies & Expenses**			**$2,000**
	Labeling / Binding Supplies	588.00		$2,000
040	**Rents**			**$65,000**
	Maintenance Crossing Permits (Railroad, DOT, etc)	588.00		$20,000
	New Permits (Crossing, Etc.)	360.00	140	$40,000
	Pole Contact Fee (us on their poles)	588.00		$5,000
042	**Business Expense and Travel**			**$11,600**
	Design Software User Group (Distribution Design Technician)	588.00		$6,000
	NISC - MIC Conference (Supervisor)	588.00		$2,600
	NWPPA E&O (Supervisor/ Distribution Designer)	588.00		$3,000
043	**Training Expense & Travel**			**$23,800**
	NESC Code Update or Other Advanced Tech Training (3) (Distribution Designer)	588.00		$5,000
	NWPPA Staking Certification Courses (2) (Technician)	588.00		$9,000
	Technical Training (3) (Engineering Technician)	588.00		$3,000
	Technical Training (Distribution Designer)	588.00		$1,000
	Technical Training Class (Distribution Designer)	588.00		$2,000
	Training Admin Staff (2) (Assistant)	588.00		$3,800
061	**Professional Services**			**$190,000**
	JU - NESC Consultant for Field Work	590.10		$60,000
	JU - NESC Consultant for Work Order Prep	590.10		$120,000
	Surveying for O&M Support	588.00		$10,000
125	**Land & Land Rights - Electric**			**$2,500**
	Title Reports for Construction Projects	360.00	140	$2,500
132	**Office Equipment**			**$2,000**
	Office Furniture	588.00		$2,000
134	**Tools, Shop & Stores Equipment**			**$80,000**

Department 22 Customer Engineering

Activity	Description	GL/FERC	BU Project	Amount
	GPS, Staking or Other Related Tools and Equipment	588.00		$80,000
TOTAL EXPENSE	**Customer Engineering**			**$1,444,427**

Power Management

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Power Management

Department(s)		Totals
45	Energy Programs	272,440
51	Power Management	83,023,368
Grand Total Expenses - Power Management		$83,295,808

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Power Management

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
45 - Energy Programs	9 - Purchased Power	($2,040,000)	($1,763,524)	($276,476)	15.7%
	11 - All Other District Labor	450,640	434,489	16,151	3.7%
	33 - Office Supplies & Expenses	5,000	5,000	-	0.0%
	42 - Business Expense & Travel	9,800	9,800	-	0.0%
	43 - Training Expense & Travel	12,000	6,600	5,400	81.8%
	45 - Subscriptions & Publications	150	150	-	0.0%
	60 - Audit Examination - State	48,300	29,000	19,300	66.6%
	61 - Professional Services	17,500	100,000	(82,500)	(82.5%)
	72 - Industry Assoc Assessments	4,050	10,680	(6,630)	(62.1%)
	111 - Electric Vehicle	5,000	5,000	-	0.0%
	112 - Residential Conservation Exp	400,000	475,000	(75,000)	(15.8%)
	113 - Commercial Conservation Exp	240,000	220,000	20,000	9.1%
	114 - Industrial Conservation Expense	420,000	320,000	100,000	31.3%
	115 - Agriculture Conservation Expense	100,000	175,000	(75,000)	(42.9%)
	118 - Low Income Conservation	600,000	325,000	275,000	84.6%
45 - Energy Programs Total		**272,440**	**352,195**	**(79,755)**	**(22.6%)**
51 - Power Management	9 - Purchased Power	82,518,182	81,493,877	1,024,305	1.3%
	11 - All Other District Labor	382,086	459,104	(77,018)	(16.8%)
	33 - Office Supplies & Expenses	1,500	1,500	-	0.0%
	42 - Business Expense & Travel	12,000	12,000	-	0.0%
	43 - Training Expense & Travel	5,500	3,000	2,500	83.3%
	45 - Subscriptions & Publications	500	15,600	(15,100)	(96.8%)
	60 - Audit Examination - State	40,000	40,000	-	0.0%
	61 - Professional Services	60,000	55,600	4,400	7.9%
	72 - Industry Assoc Assessments	3,600	8,595	(4,995)	(58.1%)
51 - Power Management Total		**83,023,368**	**82,089,276**	**934,092**	**1.1%**
Grand Total		**$83,295,808**	**$82,441,471**	**$854,337**	**1.0%**

Department 45 Energy Programs

Activity	Description	GL/FERC	BU Project	Amount
009	**Purchased Power**			**($2,040,000)**
	EEI Reimbursement - Rebates	555.71		($2,040,000)
011	**All Other District Labor**			**$450,640**
	Conservation Program	908.30		$299,256
	EV Expense	908.60		$23,253
	Personal Leave	184.30		$63,090
	Purchased Power	557.00		$31,126
	Solar	908.97		$33,915
033	**Office Supplies & Expenses**			**$5,000**
	Audit Field Materials (Flow Meter, Camera, Protective Clothing, Customer Materials)	908.30		$5,000
042	**Business Expense and Travel**			**$9,800**
	BPA/PNWCC Conservation Mtgs (Manager/Analyst)	908.30		$3,300
	EV (Manager)	908.60		$1,600
	Renewable meetings (White Creek, Nine Canyon, Packwood)	557.00		$3,300
	Solar (Manager)	908.97		$1,600
043	**Training Expense & Travel**			**$12,000**
	BOC Timmerman	908.30		$5,000
	BPA Annual Conservation Mtgs (Advisor (2)/Analyst (2)/Specialist)	908.30		$4,000
	Misc. Training - (Advisor (3)/Analyst (2)/ Specialist)	908.30		$3,000
045	**Subscriptions & Publications**			**$150**
	Subscription & Publications (Home Energy Mag.)	908.30		$150
060	**Audit Examination - State**			**$48,300**
	CETA SAO Audit Examination Fees	557.00		$10,000
	I-937 SAO Audit Examination (Fees Conservation)	557.00		$30,000
	I-937 SAO Audit Examination Fees (REC)	557.00		$8,300
061	**Professional Services**			**$17,500**
	CETA Low-Income Assessment	908.35		$12,500
	Legal Expense- K&L Gates, EES CPA Audit Support	557.00		$5,000
072	**Industry Association Assessment**			**$4,050**

Department 45 Energy Programs

Activity	Description	GL/FERC	BU Project	Amount
	APPA - DEED Program	921.00		$3,600
	HBA - Home Builders Association Kennewick	908.30		$450
111	**Electric Vehicle**			**$5,000**
	Electric Vehicle Rebate	908.60		$5,000
112	**Residential Conservation Expenses**			**$400,000**
	Residential Conservation Expenses	908.30		$400,000
113	**Commercial Conservation Expenses**			**$240,000**
	Commercial Conservation Expenses	908.32		$240,000
114	**Industrial Conservation Expenses**			**$420,000**
	Industrial Conservation Expenses	908.31		$420,000
115	**Irrigation Conservation Expenses**			**$100,000**
	Agriculture /Irrigation Conservation Expenses	908.33		$100,000
118	**Low Income Conservation Expenses**			**$600,000**
	Residential CAC Low Income Program	908.34		$250,000
	Residential District Low Income Program	908.30		$350,000
TOTAL EXPENSE Energy Programs				**$272,440**

Department 51 Power Management

Activity	Description	GL/FERC	BU Project	Amount
009	**Purchased Power**			**$82,518,182**
	BPAP - Composite Charge - Load Following	555.07		$70,862,334
	BPAP - Demand	555.05		$3,677,524
	BPAP - Irrigation Rate Discount	555.12		($3,612,608)
	BPAP - Load Shaping HLH	555.10		($335,609)
	BPAP - Load Shaping LLH	555.11		$577,762
	BPAP - Non-Slice Charge - Load Following	555.08		($12,453,219)
	BPAP - Prepayment Credit	555.72		($161,256)
	BPAP - Tier 2 Short Term	555.06		$5,824,995
	BPAT - Energy Imbalance Market (EIM)	565.05		$192,000
	BPAT - Network Integration (NT) Service Charge	565.05		$7,674,743
	BPAT - NT Scheduling, Control & Dispatch (SCD)	565.05		$1,469,953
	BPAT - Point-to-Point (PTP) Long Term Firm	565.05		$19,776
	BPAT - PTPLong Term Firm SCD	565.05		$3,792
	BPAT - Regional Compliance Enforcement (WECC)	565.05		$74,280
	BPAT - Regional Coordinator Service (CAISO RC West)	565.05		$74,280
	BPAT - Regulation & Frequency Response	565.05		$817,083
	BPAT - Spinning Reserve Requirement	565.05		$636,622
	BPAT - Supplemental Reserve Requirement	565.05		$415,965
	BPAT - Transfer Service Delivery Charge for DOE-251	565.30		$1,026
	Capacity Call Option - Morgan Stanley	555.50		$843,750
	Nine Canyon Wind Phase I	555.50		$361,473
	Nine Canyon Wind Phase III	555.50		$1,334,472
	Nine Canyon Wind Transmission	565.50		$125,650
	Packwood Hydro	555.50		$487,785
	Packwood Resource Support Services (SCS, TSS, etc.)	555.50		$6,576
	PTP Short Term Purchases	565.50		$117,157
	Renewable Energy Credit (REC) Purchases	555.52		$1,233,660
	TEA Resource Management Agreement	557.00		$400,000
	White Creek to Rock Creek - Klickitat PUD Transmission	565.50		$48,369
	White Creek Wind I	555.50		$1,169,848
	White Creek Wind I Cash Call	555.50		$4,000
	White Creek Wind LL&P	555.50		$624,938
	WREGIS Annual Dues & Fees	555.52		$1,061
011	**All Other District Labor**			**$382,086**
	Conservation Program	908.30		$14,349

Department 51 Power Management

Activity	Description	GL/FERC	BU Project	Amount
	Personal Leave	184.30		$53,492
	Purchased Power	557.00		$314,245
033	**Office Supplies & Expenses**			**$1,500**
	Misc Office Supplies	557.00		$1,500
042	**Business Expense and Travel**			**$12,000**
	BPA, PPC, TEA, PNUCC (Director/Senior Engineer/ Analyst)	557.00		$12,000
043	**Training Expense & Travel**			**$5,500**
	Load Forecast Data (Senior Engineer)	557.00		$2,500
	NWPPA, APPA, AMA (Director/Senior Engineer/Analyst/Specialist)	557.00		$3,000
045	**Subscriptions & Publications**			**$500**
	Load Forecast Data	557.00		$500
060	**Audit Examination - State**			**$40,000**
	Ecology GHG Reporting - 3rd Party Verification	557.00		$40,000
061	**Professional Services**			**$60,000**
	K&L Gates	557.00		$10,000
	TEA Consulting	557.00		$50,000
072	**Industry Association Assessment**			**$3,600**
	GMEI Maintenance Fee	557.00		$125
	IEEE (Senior Engineer)	557.00		$250
	Notary (Specialist)	557.00		$50
	OATI Web Registry Fee	557.00		$350
	PE License (Senior Engineer)	557.00		$125
	Peak Load Management Alliance (PLMA)	557.00		$2,700

TOTAL EXPENSE Power Management **$83,023,368**

Operations

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Operations

Department(s)		Totals
31	Operations	1,248,968
32	Supt. of Transmission & Distribution	6,771,585
33	Supt. of Operations	680,348
34	Meter Shop	1,642,952
35	Transformer Shop	1,012,912
37	Automotive Shop	1,033,609
38	Support Services	3,562,860
39	Warehouse	460,300
Grand Total Expenses - Operations		$16,413,534

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	Operations

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
31 - Operations	11 - All Other District Labor	$1,196,608	$1,143,655	$52,953	4.6%
	33 - Office Supplies & Expenses	4,000	4,000	-	0.0%
	42 - Business Expense & Travel	8,500	8,500	-	0.0%
	43 - Training Expense & Travel	4,500	4,500	-	0.0%
	45 - Subscriptions & Publications	500	500	-	0.0%
	61 - Professional Services	-	10,000	(10,000)	(100.0%)
	72 - Industry Assoc Assessments	1,060	845	215	25.4%
	104 - Other Employee Costs	28,800	13,000	15,800	121.5%
	132 - Office Equipment	5,000	-	5,000	N/A
31 - Operations Total		**1,248,968**	**1,185,000**	**63,968**	**5.4%**
32 - Supt of Transm & Distribtution	10 - District Overtime Labor	776,555	719,565	56,990	7.9%
	11 - All Other District Labor	4,471,785	4,124,864	346,921	8.4%
	14 - Small Tools & Materials	107,000	75,000	32,000	42.7%
	17 - Operation & Maintenance Exp	50,000	50,000	-	0.0%
	18 - Misc Construction Expense	205,344	205,344	-	0.0%
	19 - Tree Trimming - Contract	760,000	734,000	26,000	3.5%
	20 - Off-the-Dock Labor	10,000	10,000	-	0.0%
	21 - Elec Construction Contracts	225,000	220,000	5,000	2.3%
	39 - Maint of Equipment	15,000	15,000	-	0.0%
	42 - Business Expense & Travel	7,500	10,000	(2,500)	(25.0%)
	43 - Training Expense & Travel	36,901	34,361	2,540	7.4%
	50 - Telephone & Answering Services	12,000	12,000	-	0.0%
	61 - Professional Services	20,000	10,000	10,000	100.0%
	104 - Other Employee Costs	52,500	47,500	5,000	10.5%
	131 - Structures & Improvements	-	30,000	(30,000)	(100.0%)
	134 - Tools, Shop & Stores Equipment	22,000	8,000	14,000	175.0%
32 - Supt of Transm & Distribtution Total		**6,771,585**	**6,305,634**	**465,951**	**7.4%**
33 - Supt of Operations	10 - District Overtime Labor	28,221	26,624	1,597	6.0%
	11 - All Other District Labor	186,827	182,556	4,271	2.3%
	17 - Operation & Maintenance Exp	55,100	52,500	2,600	5.0%
	40 - Rents	190,200	179,140	11,060	6.2%
	42 - Business Expense & Travel	3,500	3,500	-	0.0%
	43 - Training Expense & Travel	12,000	12,000	-	0.0%
	50 - Telephone & Answering Services	145,000	115,000	30,000	26.1%
	61 - Professional Services	59,000	53,000	6,000	11.3%
	72 - Industry Assoc Assessments	500	500	-	0.0%
33 - Supt of Operations Total		**680,348**	**624,820**	**55,528**	**8.9%**
34 - Meter Shop	10 - District Overtime Labor	43,672	41,200	2,472	6.0%
	11 - All Other District Labor	773,380	713,879	59,501	8.3%
	14 - Small Tools & Materials	8,500	6,000	2,500	41.7%
	17 - Operation & Maintenance Exp	9,100	7,500	1,600	21.3%
	21 - Elec Construction Contracts	80,000	-	80,000	N/A
	39 - Maint of Equipment	10,000	10,000	-	0.0%
	42 - Business Expense & Travel	1,500	1,500	-	0.0%
	43 - Training Expense & Travel	11,300	11,300	-	0.0%
	45 - Subscriptions & Publications	500	500	-	0.0%
	61 - Professional Services	10,000	80,000	(70,000)	(87.5%)
	124 - Meters & Related Items	650,000	600,000	50,000	8.3%
	127 - SCADA Communications Equipment	5,000	5,000	-	0.0%
	128 - SCADA Substation Equipment	5,000	5,000	-	0.0%
	135 - Laboratory & Test Equipment	30,000	58,800	(28,800)	(49.0%)
	136 - Communication Equipment	5,000	5,000	-	0.0%
34 - Meter Shop Total		**1,642,952**	**1,545,679**	**97,273**	**6.3%**
35 - Transformer Shop	10 - District Overtime Labor	51,261	48,360	2,901	6.0%
	11 - All Other District Labor	761,729	664,813	96,916	14.6%
	14 - Small Tools & Materials	8,000	12,200	(4,200)	(34.4%)
	17 - Operation & Maintenance Exp	168,922	133,922	35,000	26.1%
	18 - Misc Construction Expense	10,000	10,000	-	0.0%
	42 - Business Expense & Travel	4,300	4,300	-	0.0%
	43 - Training Expense & Travel	8,200	8,200	-	0.0%
	45 - Subscriptions & Publications	500	500	-	0.0%
	135 - Laboratory & Test Equipment	-	125,000	(125,000)	(100.0%)
35 - Transformer Shop Total		**1,012,912**	**1,007,295**	**5,617**	**0.6%**
37 - Automotive Shop	10 - District Overtime Labor	10,800	10,300	500	4.9%
	11 - All Other District Labor	403,609	378,556	25,053	6.6%

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
	14 - Small Tools & Materials	12,100	12,100	-	0.0%
	15 - Transportation Expense-Gas&Oil	380,000	380,000	-	0.0%
	16 - Transportation Exp-Repair&Main	215,000	200,000	15,000	7.5%
	17 - Operation & Maintenance Exp	1,000	1,000	-	0.0%
	39 - Maint of Equipment	6,000	6,000	-	0.0%
	42 - Business Expense & Travel	1,200	1,200	-	0.0%
	43 - Training Expense & Travel	3,900	3,900	-	0.0%
37 - Automotive Shop Total		**1,033,609**	**993,056**	**40,553**	**4.1%**
38 - Support Services	10 - District Overtime Labor	48,635	30,400	18,235	60.0%
	11 - All Other District Labor	518,001	476,229	41,772	8.8%
	14 - Small Tools & Materials	3,000	3,000	-	0.0%
	17 - Operation & Maintenance Exp	22,500	17,500	5,000	28.6%
	23 - Environmental	26,000	26,000	-	0.0%
	27 - Personal Computer Software	4,000	3,500	500	14.3%
	37 - Grounds Care	94,524	94,524	-	0.0%
	38 - Maint of Bldg & Improvements	353,500	333,500	20,000	6.0%
	39 - Maint of Equipment	5,000	5,000	-	0.0%
	42 - Business Expense & Travel	2,400	4,900	(2,500)	(51.0%)
	43 - Training Expense & Travel	7,500	7,500	-	0.0%
	45 - Subscriptions & Publications	500	500	-	0.0%
	51 - Water,Garbage,Irrigation&Other	79,000	79,000	-	0.0%
	61 - Professional Services	17,500	16,500	1,000	6.1%
	104 - Other Employee Costs	1,800	1,800	-	0.0%
	131 - Structures & Improvements	1,160,000	1,064,000	96,000	9.0%
	133 - Transportation Equipment	1,219,000	1,080,000	139,000	12.9%
38 - Support Services Total		**3,562,860**	**3,243,853**	**319,007**	**9.8%**
39 - Warehouse	13 - Store Expense - Non Labor	25,000	25,000	-	0.0%
	14 - Small Tools & Materials	4,000	4,000	-	0.0%
	17 - Operation & Maintenance Exp	398,000	398,000	-	0.0%
	42 - Business Expense & Travel	1,000	1,000	-	0.0%
	43 - Training Expense & Travel	3,300	3,300	-	0.0%
	104 - Other Employee Costs	29,000	29,000	-	0.0%
39 - Warehouse Total		**460,300**	**460,300**	**-**	**0.0%**
Grand Total		**$16,413,534**	**$15,365,637**	**$1,047,898**	**6.8%**

Department 31 Operations

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**$1,196,608**
	Admin and General	920.00		$109,161
	Customer Accounting	903.00		$7,283
	Distribution O&M	588.00		$802,784
	Inventory	163.00		$39,516
	Personal Leave	184.30		$167,525
	Services, Set Xfmrs, Run Secondary	369.10	94	$30,804
	Transportation	184.12		$39,535
033	**Office Supplies & Expenses**			**$4,000**
	Misc Office Supplies	588.00		$4,000
042	**Business Expense and Travel**			**$8,500**
	Distributech (AGM/Senior Director)	588.00		$2,000
	E&O (Safety Coordinator)	588.00		$2,500
	EUSAC (Safety Coordinator)	588.00		$2,500
	Travel (Senior Director/Assistant)	588.00		$1,500
043	**Training Expense & Travel**			**$4,500**
	Safety Coordinator Training	588.00		$2,500
	Training (Senior Director/Executive Assistant)	588.00		$2,000
045	**Subscriptions & Publications**			**$500**
	Publications	588.00		$500
072	**Industry Association Assessment**			**$1,060**
	APT - Admin Professionals of the Tri-Cities (Executive Assistant)	588.00		$50
	Arborist Recertification (Every 3 Years)	588.00		$185
	IEEE (Senior Director)	588.00		$250
	ISA - International Society of Arboriculture (Tree Coordinator)	588.00		$250
	National Arbor Day Foundation (Tree LIne USA Annual Fee)	588.00		$75
	Notary	588.00		$50
	PE License (Senior Director)	588.00		$150
	UDIG (Superintendent)	588.00		$50
104	**Other Employee Costs**			**$28,800**
	AED Batteries/Pads	588.00		$700

Department 31 Operations

Activity	Description	GL/FERC	BU Project	Amount
	CDL Endorsement Reimbursement - Ops	588.00		$1,300
	First Aid Cards	588.00		$2,000
	First Aid Training Supplies	588.00		$1,000
	Operations Employee Recognition	588.00		$800
	Operations Replacement Fitness Equipment	588.00		$15,000
	Other Dist. Expense	588.00		$2,000
	Safety Lens Reimbursement Program	588.00		$3,000
	Safety Supplies	588.00		$1,000
	Special Safety Sessions	588.00		$2,000
132	**Office Equipment**			**$5,000**
	Projected Capital Equip - Ops	390.00	66	$5,000

TOTAL EXPENSE Operations **$1,248,968**

Department 32 Supt. of Transmission & Distribution

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$776,555**
	Distribution System Improvements	366.00	141	$815
	Distribution System Improvements	365.00	141	$543
	Install New Switch N/O Sunset Tap	355.00	137	$935
	Install New Switch W/O Reata Sub	355.00	137	$935
	Labor - Overtime - Distribution	588.00		$770,336
	Prior Tap Switches	355.00	137	$1,869
	Service Poles	365.00	93	$1,122
011	**All Other District Labor**			**$4,471,785**
	Admin and General	920.00		$2,102
	Broadband	935.50		$5,029
	Customer Accounting	903.00		$77,765
	Distribution	588.00		$1,531,788
	Distribution Base Growth	365.00	140	$246,409
	Distribution Base Growth	366.00	140	$363,145
	Distribution Pole Replacement	364.00	160	$14,243
	Distribution System Improvements	366.00	141	$54,047
	Distribution System Improvements	365.00	141	$36,032
	Farm Cable Replacement	367.00	424	$19,000
	Install New Switch N/O Sunset Tap	355.00	137	$23,649
	Install New Switch W/O Reata Sub	355.00	137	$23,649
	McNary POD	355.00	300	$8,906
	Meal Reimbursement	588.00		$15,000
	Personal Leave	184.30		$623,950
	POS #102 - HED-4 Getaway Reconductor	367.00	288	$19,701
	POS #11 - GUM-4, HED-3, recond. 3/0, Bowles Rd.	365.00	331	$106,867
	POS #41 - ZEH-4, new OH tie to GUM-4 at Game Farm Rd.	365.00	206	$117,460
	POS #58 -BEC-3, new feeder to east to tie with SSR-1	365.00	205	$66,840
	POS #81 - PHI-8, new feeder north to Cochrane	365.00	297	$193,765
	Prior Tap Switches	355.00	137	$47,297
	Repair & Replacement - Cable	367.00	147	$35,072
	Service Poles	365.00	93	$13,242
	Services, Set Xfmrs, Run Secondary	369.20	94	$158,651
	Services, Set Xfmrs, Run Secondary	369.10	94	$236,292
	Transmission	566.00		$12,685
	Transmission Line-Phillips to Spaw	355.00	212	$26,717

Department 32 Supt. of Transmission & Distribution

Activity	Description	GL/FERC	BU Project	Amount
	Trouble Orders	365.00	149	$207,000
	Trouble Orders	365.00	149	$150,000
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$4,453
	Vista Substation Feeder Getaways (OH)	365.00	296	$31,031
014	**Small Tools & Materials**			**$107,000**
	Hot Arms	588.00		$12,000
	Small Tool Expense	588.00		$95,000
017	**Operation & Maintenance Expense**			**$50,000**
	Other Dist Exp	588.00		$30,000
	Trouble Orders - O&M	588.00		$20,000
018	**Miscellaneous Construction Expense**			**$205,344**
	Misc. Construction Capital Expense - Line Department	364.00	60	$67,500
	Trouble Orders	365.00	149	$137,844
019	**Tree Trimming - Contract**			**$760,000**
	Tree Replacement	593.40		$5,000
	Tree Trimming	593.40		$755,000
020	**Off-the-Dock Labor**			**$10,000**
	Pole Stubbing	364.00	64	$10,000
021	**Electric Construction Contracts**			**$225,000**
	Pole Testing	593.10		$185,000
	Steel Pole Testing	593.10		$40,000
039	**Maintenance of Equipment**			**$15,000**
	Maint of Tools	588.00		$15,000
042	**Business Expense and Travel**			**$7,500**
	E&O (2)	588.00		$2,500
	Supt Business (2)	588.00		$2,500
	Tree Coordinator Business Exp	588.00		$2,500
043	**Training Expense & Travel**			**$36,901**
	Drone Training	588.00		$2,500

Department 32 Supt. of Transmission & Distribution

Activity	Description	GL/FERC	BU Project	Amount
	Lineman Rodeo	588.00		$1
	Training	588.00		$20,000
	Training (Line Apprentices)	588.00		$14,400
050	**Telephone & Answering Services**			**$12,000**
	Locates	584.00		$12,000
061	**Professional Services**			**$20,000**
	Meter Repair /Coordinated Electrical Repair	597.00		$20,000
104	**Other Employee Costs**			**$52,500**
	FR Clothing (New Hires)	588.00		$1,500
	FR Clothing (Rain Gear)	588.00		$2,000
	FR Clothing and Gloves (Current Employees)	588.00		$47,000
	Hats	588.00		$2,000
134	**Tools, Shop & Stores Equipment**			**$22,000**
	115kV Phasing Set	394.00	428	$7,000
	Anderson Presses (3 @ $5000 each)	394.00	429	$15,000

TOTAL EXPENSE Supt. of Transmission & Distribution **$6,771,585**

Department 33 Supt. of Operations

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$28,221**
	Labor - Overtime - Distribution	588.00		$28,221
011	**All Other District Labor**			**$186,827**
	Distribution	588.00		$160,671
	Personal Leave	184.30		$26,156
017	**Operation & Maintenance Expense**			**$55,100**
	Communication Expenses	588.00		$2,500
	Doble Lease - Power Factor Test Set (XFR Shop)	592.00		$34,000
	Doble Relay Test Set Maintenance/Calibration	592.00		$12,000
	Microwave Site/Umatilla Power Bill	935.01		$6,000
	Phase Tracker Yearly Fee	588.00		$600
040	**Rents**			**$190,200**
	800 MHz Usage Fee - BCES	588.00		$46,000
	Badger Mtn Site AMI Fee	588.00		$4,200
	DNR Billing - Jump Off Joe	935.02		$44,000
	Microwave Circuit Billing - BCES	588.00		$37,000
	Prosser Tower Site	935.03		$3,100
	Rattlesnake Site Fee	588.00		$50,000
	Umatilla Ground Lease and Taxes	935.01		$5,900
042	**Business Expense and Travel**			**$3,500**
	Travel (Superintendent)	588.00		$3,500
043	**Training Expense & Travel**			**$12,000**
	Dept Asst. Training	588.00		$1,500
	Survalent Training/Training (Back Up Dispatcher)	588.00		$3,500
	Training (Superintendent)	588.00		$3,500
	Training (System Dispatcher)	588.00		$3,500
050	**Telephone & Answering Services**			**$145,000**
	Call Center	588.00		$145,000
061	**Professional Services**			**$59,000**
	Communications Contracting	588.00		$25,000

Department 33 Supt. of Operations

Activity	Description	GL/FERC	BU Project	Amount
	Meter Testing	586.10		$34,000
072	**Industry Association Assessment**			**$500**
	Electrician License Renewal	588.00		$500
TOTAL EXPENSE	**Supt. of Operations**			**$680,348**

Department 34 Meter Shop

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$43,672**
	Labor - Overtime - Distribution	588.00		$43,672
011	**All Other District Labor**			**$773,380**
	Berrian Tap Meter Point RTU upgrade	380.00	425	$2,297
	Chevron RTU Upgrade	380.00	425	$2,297
	Customer Accounting	903.00		$1,287
	Distribution	588.00		$522,717
	Distribution System Improvements	365.00	141	$6,572
	Fiber to Carma	380.00	144	$2,000
	Fiber to H2F2 Reservoir Sub	380.00	144	$3,549
	Fiber to Sandpiper	380.00	144	$5,000
	Fiber to Whitcomb	380.00	144	$2,000
	H2F Tap Metering Point RTU upgrade	380.00	425	$2,297
	H2F2 Reservoir RTU Replacement	380.00	425	$2,297
	Paterson Tap Metering Point RTU upgrade	380.00	425	$2,297
	Personal Leave	184.30		$108,273
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$4,238
	Services, Set Xfmrs, Run Secondary	370.00	94	$59,495
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$18,378
	VREG RTAC SYSTEM Upgrade (37 REGS-Com Line Optimization)	380.00	427	$17,000
	Zephyr Height SCADA Upgrades	380.00	202	$11,385
014	**Small Tools & Materials**			**$8,500**
	RMS Ampstik	597.00		$2,500
	Small Tool Expense	597.00		$6,000
017	**Operation & Maintenance Expense**			**$9,100**
	Calibration of Radian Weco Meter Test Boards	597.00		$2,500
	O&M Expenses	597.00		$5,000
	Support Package for Radian Weco 4150X	597.00		$1,600
021	**Electric Construction Contracts**			**$80,000**
	Meter Change-Outs	370.00	370	$80,000
039	**Maintenance of Equipment**			**$10,000**
	Other Dist Exp	597.00		$10,000

Department 34 Meter Shop

Activity	Description	GL/FERC	BU Project	Amount
042	**Business Expense and Travel**			**$1,500**
	NW Meter Group and Hands On Relay Planning	588.00		$1,500
043	**Training Expense & Travel**			**$11,300**
	NW Meter School	588.00		$1,500
	Power Quality	588.00		$1,400
	Relay School	588.00		$1,400
	SEL - 2032 Communication Processor Training	588.00		$2,000
	Training	588.00		$5,000
045	**Subscriptions & Publications**			**$500**
	Subscription & Publications	588.00		$500
061	**Professional Services**			**$10,000**
	Replacement of Meter CT's	588.00		$10,000
124	**Meters & Related Items**			**$650,000**
	Meter Change-Outs	370.00	370	$350,000
	Meters	370.00	86	$300,000
127	**SCADA Communications Equipment**			**$5,000**
	SCADA Radio	592.30		$5,000
128	**SCADA Substation Equipment**			**$5,000**
	SCADA Substation Equipment	592.00		$5,000
135	**Laboratory & Test Equipment**			**$30,000**
	Probe well Meter Test Equipment	395.00	431	$15,000
	Three Phase PMI Meter Socket Power Quality Recorder	395.00	433	$15,000
136	**Communication Equipment**			**$5,000**
	Communications Equipment/800 MHz Radios	397.00	49	$5,000

TOTAL EXPENSE Meter Shop **$1,642,952**

Department 35 Transformer Shop

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$51,261**
	Labor - Overtime - Distribution	588.00		$51,261
011	**All Other District Labor**			**$761,729**
	Admin and General	920.00		$3,341
	Distribution	588.00		$578,084
	Distribution System Improvements	366.00	141	$5,888
	Fiber to Carma	380.00	144	$3,000
	Fiber to H2F2 Reservoir Sub	380.00	144	$3,304
	Fiber to Paterson 1&2, SunHeaven River	380.00	144	$5,000
	Fiber to Sandpiper	380.00	144	$2,000
	Fiber to Whitcomb	380.00	144	$3,000
	Personal Leave	184.30		$106,642
	POS #102 - HED-4 Getaway Reconductor	367.00	288	$5,830
	Prosser Bay #2 Voltage Reg Replacement	362.01	373	$13,018
	Vista Bay #1 Metalclad Switchgear Replacement	362.01	375	$32,621
014	**Small Tools & Materials**			**$8,000**
	Small Tool Expense	595.00		$8,000
017	**Operation & Maintenance Expense**			**$168,922**
	Gloves, Macs, Blankets, Rubber Goods	595.00		$15,000
	O&M Expense	595.00		$81,922
	Oil Testing at Wind Farm (Reimbursable Job 19244)	595.00		$14,000
	Replace Aging Macs	595.00		$5,000
	SD Myer Oil Screening	595.00		$18,000
	Substation Sterilization	595.00		$10,000
	Whitcomb SF6 Breaker Maintenance	595.00		$25,000
018	**Miscellaneous Construction Expense**			**$10,000**
	Misc. Construction Capital Expense - Transformer Shop	361.00	61	$10,000
042	**Business Expense and Travel**			**$4,300**
	Cascade Conference	588.00		$1,000
	Codes Update (6) (Station Electrician)	588.00		$2,300
	E&O	588.00		$1,000

Department 35 Transformer Shop

Activity	Description	GL/FERC	BU Project	Amount
043	**Training Expense & Travel**			**$8,200**
	Cooper Reg Workshop	588.00		$1,600
	Doble Training Onsite	588.00		$1,600
	Pesticide License - Refresher	588.00		$200
	Recloser Training	588.00		$1,600
	Reinhausen Tap Changer Workshop	588.00		$1,600
	Waukesha Tap Changer Training	588.00		$1,600
045	**Subscriptions & Publications**			**$500**
	Subscription & Publications	588.00		$500

TOTAL EXPENSE Transformer Shop **$1,012,912**

Department 37 Automotive Shop

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$10,800**
	Labor - Overtime - Transportation	184.11		$10,800
011	**All Other District Labor**			**$403,609**
	Distribution	588.00		$7,931
	Personal Leave	184.30		$56,505
	Transportation	184.12		$339,173
014	**Small Tools & Materials**			**$12,100**
	All Data	184.12		$2,100
	General Tools	184.12		$3,000
	Software Update	184.12		$7,000
015	**Transportation Expense - Gas & Oil**			**$380,000**
	Transportation Expense - Gas and Oil	184.11		$380,000
016	**Transportation Expense - Repair & Maintenance**			**$215,000**
	Boom Inspections	184.12		$10,000
	Fire Extinguishers on Vehicles	184.12		$2,000
	Transportation Expense	184.12		$180,000
	Vehicle Detailing	184.12		$23,000
017	**Operation & Maintenance Expense**			**$1,000**
	O&M Expense	588.00		$1,000
039	**Maintenance of Equipment**			**$6,000**
	Bio Digester (Filtration System for Wash Bay)	598.10		$2,500
	Maint Agrmts for Pressure Washer, Compressor and Water Filter	184.12		$2,500
	Transportation Expense - Other	184.12		$1,000
042	**Business Expense and Travel**			**$1,200**
	Business Travel & Expense (Foreman/Mechanic)	588.00		$1,200
043	**Training Expense & Travel**			**$3,900**
	Altec Aerial Training	588.00		$1,200
	Automotive Training Group (at CBC)	588.00		$700
	Cummings Training	588.00		$1,000

Department 37 Automotive Shop

Activity	Description	GL/FERC	BU Project	Amount
	Vehicle Motor Maint (1)	588.00		$1,000
TOTAL EXPENSE	**Automotive Shop**			**$1,033,609**

Department 38 Support Services

Activity	Description	GL/FERC	BU Project	Amount
010	**District Overtime Labor**			**$48,635**
	Labor - Overtime - Inventory	163.00		$48,635
011	**All Other District Labor**			**$518,001**
	Admin and General	920.00		$48,228
	Distribution O&M	588.00		$119,425
	Inventory	163.00		$275,856
	Personal Leave	184.30		$72,520
	Transmission	566.00		$1,972
014	**Small Tools & Materials**			**$3,000**
	Small Tool Expense	588.00		$3,000
017	**Operation & Maintenance Expense**			**$22,500**
	O&M Expense	588.00		$2,500
	Pole Line Sterilization	571.20		$15,000
	Ultraviolet Lights (Virus Killer)	588.00		$5,000
023	**Environmental**			**$26,000**
	Hazardous Waste Disposal	588.00		$6,000
	Transportation Expense - Oil Disposal	588.00		$10,000
	Universal Waste Disposal	588.00		$10,000
027	**Personal Computer Software**			**$4,000**
	SDS Online (MSDS)	588.00		$4,000
037	**Grounds Care**			**$94,524**
	General Expenses - Admin	935.00		$4,000
	General Expenses - Operations	598.10		$3,000
	Kennewick	935.00		$48,500
	Property Clean - Up	598.10		$4,000
	Prosser	935.04		$16,024
	Substations	598.10		$6,500
	Tree Maintenance	598.10		$12,500
038	**Maint of Bldg & Improvements - General**			**$353,500**
	Carpet Cleaning (Admin)	935.00		$5,000

Department 38 Support Services

Activity	Description	GL/FERC	BU Project	Amount
	Carpet Cleaning (Operations)	598.10		$4,500
	Fire Extinguishers	598.10		$3,000
	Floor Mats (Admin)	935.00		$4,000
	Floor Mats (Operations)	598.10		$10,000
	General Maintenance - Admin	935.00		$22,000
	General Maintenance - Operations	598.10		$22,000
	General Maintenance - Prosser	935.04		$20,000
	Graffiti Removal	598.10		$5,000
	HVAC - Admin	935.00		$25,000
	HVAC - Operations	598.10		$15,000
	HVAC - Prosser	935.04		$2,000
	Insulation of Directors/Managers/Supervisors Offices (16 Total Units)	935.00		$20,000
	Janitorial - Extra work as needed	598.10		$5,000
	Janitorial Services - Admin	935.00		$63,000
	Janitorial Services - Operations	598.10		$51,000
	Janitorial Services - Prosser	935.04		$19,000
	Painting - Admin	935.00		$6,000
	Painting - Operations	598.10		$6,000
	Security (Radio Sites)	598.10		$26,000
	Water Service Ops and Prosser	588.00		$10,000
	Water System Admin	935.00		$5,000
	Wireless Expansion (Operations)	598.10		$5,000
039	**Maintenance of Equipment**			**$5,000**
	Maintenance	935.00		$5,000
042	**Business Expense and Travel**			**$2,400**
	Audit Disposal Facility	588.00		$1,000
	Green House Gas Meeting	588.00		$300
	Maint. Dept Business Travel Exp	588.00		$400
	Supt of Support Svcs Business Travel (Includes: Fleet Managers Quarterly)	588.00		$700
043	**Training Expense & Travel**			**$7,500**
	Hazwopper Training	588.00		$1,200
	NWPPA Environmental Task Force (Quarterly)	588.00		$1,400
	PCB & XFR Oil Workshop (2)	588.00		$3,000
	Pesticide License - Renewal and Testing	588.00		$1,200
	Washington Dept of Ecology (RCRA)	588.00		$700

Department 38 Support Services

Activity	Description	GL/FERC	BU Project	Amount
045	**Subscriptions & Publications**			**$500**
	Subscription & Publications	588.00		$500
051	**Water, Garbage, Irrigation & Other**			**$79,000**
	Benton County Property Tax	935.00		$2,000
	CID	935.00		$2,000
	KID	935.00		$9,000
	Prosser Utilities	598.10		$19,000
	Water, Garbage, Irrigation, Other	598.10		$47,000
061	**Professional Services**			**$17,500**
	General Expenses	921.00		$4,000
	Green House Gas	588.00		$3,000
	Mech Engr Drawings	588.00		$4,000
	Radio Tower Site Inspection (2024 Umatilla)	935.01		$6,500
104	**Other Employee Costs**			**$1,800**
	Clothing/Shoes/Gloves	588.00		$1,800
131	**Structures & Improvements**			**$1,160,000**
	Facility Fencing and Gates	390.00	326	$810,000
	Operations Gate Overhaul	390.01	326	$250,000
	Wiring - Camera System	390.00	222	$100,000
133	**Transportation Equipment**			**$1,219,000**
	Bucket Truck - Prosser (Replacing #73) (Under Contract)	392.00	347	$340,000
	Kennewick Bucket Truck (Replace #149) (Under Contract)	392.00	342	$342,000
	Vac Truck (Under Contract)	392.00	401	$537,000

TOTAL EXPENSE Support Services **$3,562,860**

Department 39 Warehouse

Activity	Description	GL/FERC	BU Project	Amount
013	**Store Expense - Non Labor**			**$25,000**
	Stores Exp Undistributed	163.00		$25,000
014	**Small Tools & Materials**			**$4,000**
	Small Tool Expense	163.00		$4,000
017	**Operation & Maintenance Expense**			**$398,000**
	Exempt Inventory	163.00		$300,000
	Other Dist Exp	588.00		$30,400
	Stores Exp Undistributed	163.00		$67,600
042	**Business Expense and Travel**			**$1,000**
	Travel Expense (Foremen/Warehouseworker/Coordinator)	588.00		$1,000
043	**Training Expense & Travel**			**$3,300**
	NISC - ABS	588.00		$1,300
	NWPPA Material Management (1)	588.00		$700
	Warehouse Coordinator	588.00		$1,300
104	**Other Employee Costs**			**$29,000**
	A&G	921.00		$4,300
	Other Distribution Expense	588.00		$24,700
TOTAL EXPENSE Warehouse				**$460,300**

Non-Departmental

Tab 6

PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY
2024 Budget
Summary of Expense by Directorate

Non-Departmental

Department(s)		Totals
98	Non-Departmental Rev/Exp	39,931,234
Grand Total Expenses - Non-Departmental		$39,931,234

Directorate Budget by Department and Activity
2024 Budget Compared to 2023 Original Budget

Directorate	No Directorate

Department	Activity	2024 Budget	2023 Original Budget	Increase / (Decrease)	% Increase / (Decrease)
98 - Non-Departmental Rev/Exp	11 - All Other District Labor	($150,000)	($100,000)	($50,000)	50.0%
	80 - Public Utility & Excise Tax	5,522,000	5,500,000	22,000	0.4%
	81 - State Privilege Tax	2,816,000	2,806,000	10,000	0.4%
	82 - City Occupation Taxes	6,439,000	6,406,000	33,000	0.5%
	88 - Payroll Taxes	1,377,013	1,293,344	83,669	6.5%
	101 - Employee Benefits	5,878,025	5,717,540	160,485	2.8%
	150 - Principal	3,265,000	3,130,000	135,000	4.3%
	151 - Interest	3,072,396	1,917,684	1,154,712	60.2%
	301 - Depreciation	12,411,800	11,658,810	752,990	6.5%
	545 - Other Electric Revenue	(700,000)	(700,000)	-	0.0%
98 - Non-Departmental Rev/Exp Total		**39,931,234**	**37,629,378**	**2,301,856**	**6.1%**
Grand Total		**$39,931,234**	**$37,629,378**	**$2,301,856**	**6.1%**

Department 98 Non-Departmental Rev/Exp

Activity	Description	GL/FERC	BU Project	Amount
011	**All Other District Labor**			**($150,000)**
	Distribution	588.00		($150,000)
080	**State Public Utility Tax & Other Excise Taxes**			**$5,522,000**
	Other Excise Tax	408.08		$93,000
	Public Utility Tax	408.06		$5,429,000
081	**State Privilege Tax**			**$2,816,000**
	Privilege Tax	408.05		$2,816,000
082	**City Occupation Taxes**			**$6,439,000**
	City Occupation Tax	408.07		$6,439,000
088	**Payroll Taxes**			**$1,377,013**
	Medicare	184.34		$264,436
	Social Security	184.34		$1,112,577
101	**Employee Benefits**			**$5,878,025**
	Change in PL	184.30		$200,000
	Deferred Compensation	184.40		$506,253
	Dental	184.36		$217,687
	Life Insurance	184.32		$36,000
	Medical	184.33		$2,669,314
	PERS	184.35		$1,662,035
	State Industrial (L&I)	184.31		$174,289
	STD Admin Fee	184.39		$3,000
	Unemployment	184.38		$11,000
	VEBA Wellness ($200 per employee per month)	184.40		$361,200
	Vision	184.44		$37,247
150	**Principal**			**$3,265,000**
	Debt Service - Principal	125.00		$3,265,000
151	**Interest**			**$3,072,396**
	Amortization of Bond Loss/Gain on Defeasance	428.00		($3,048)
	Amortization of Bond Premium	429.00		($405,123)
	BABs Subsidy for 2010 Bonds	427.01		($301,192)

Department 98 Non-Departmental Rev/Exp

Activity	Description	GL/FERC	BU Project	Amount
	Bond Interest Expense	427.00		$3,781,759
301	**Depreciation Expense**			**$12,411,800**
	Depr - Broadband	403.61		$1,129,700
	Depr - Distribution	403.60		$8,716,050
	Depr - General Plant	403.70		$1,781,850
	Depr - Generation	403.40		$30,000
	Depr - Transmission	403.50		$337,200
	Depr - Transportation Equipment	184.12		$417,000
545	**Other Electric Revenue**			**($700,000)**
	Joint Use Deficiency Corrections - Pole Attachment Reimbursements	590.10		($700,000)
TOTAL EXPENSE	**Non-Departmental Rev/Exp**			**$39,931,234**

Activity Codes

Tab 6

SYSTEM COSTS:

5 Construction Overhead Allocated
The allocation of overhead construction costs based on loaded construction payroll.

6 Warehouse & Small Tool Allocated
The allocation of expenses associated with the warehouse and purchasing functions based on inventory activity.

7 Transportation Expense Allocated
The allocation of expenses associated with the auto shop function to mileage.

8 Benefits & Payroll Taxes Allocated
The allocation of employee benefits and payroll taxes based on labor.

9 Purchased Power
Includes all expenses associated with the procurement of electric power and the associated transmission expense.

Some examples of power sources are included here:

*The Energy Authority (TEA)
*Bonneville Power Administration/Energy NW
*Market purchases and contracts for purchase
*Frederickson

10 District Overtime Labor
Includes all expenses for wages paid to District employees for overtime worked.

11 All Other District Labor
All expenses for wages, other than for overtime, including the following:

*Regular Pay (includes temporary upgrades, etc.)
*Standby Pay
*Duty Pay
*Vehicle Add Pay
*Other pay not covered elsewhere

12 Materials & Supplies
Includes all materials and supplies used which are kept in the District's inventories, except substation power transformers and regulators.

13 Stores Expense - Non Labor
Includes charges for the following:

*Cost of special forms for stores and purchasing use
*Miscellaneous general use materials and supplies of very low value such as miscellaneous screws, bolts, nuts, batteries, rags, nails, etc.

14 Small Tools & Materials

Includes expenses for tools and tool items having a unit cost of less than **$5,000**. Also includes such items as rope or chain used in conjunction with other tools even though purchased by the reel where the intent is to cut it into useable sizes.

Some examples of expenses included here are:

*Klien Chicago Grips
*Hot sticks
*High voltage gloves
*Shovels and handles
*Rope & chain
*Endless slings
*Saw blades and files
*Glass rangepoles
*String measuring devices
*Extending level rod
*Magnetic strobe lights
*Travellers
*Drill bits and braces
*Pull grips and clamp sticks
*Hoists-hotstick and lineman
*Cadweld molds
*Signs - men working, etc.
*Traffic cones
*Ground clamps
*Hot line jumpers
*Line guards
*Miscellaneous test meters
*Electric drills and saws
*Various small hand tools

15 Transportation Expense - Gas & Oil

Includes all expenses for gasoline, diesel fuel, propane and automotive oil and grease.

16 Transportation Expense - Repair & Maintenance

Includes all expenses for parts and labor purchased to repair and maintain all vehicles in good condition, including towing costs.

17 Operations & Maintenance Expense

Includes expenses pertinent to the operations and maintenance of the District's electrical systems.

Some examples of expenses included here are:

*Materials and supplies generally purchased to operations or maintenance expense accounts rather than to inventory.
*Special engineering supplies
*Drafting film (Mylar, etc.)
*White print material
*Reduction services
*Microfilming
*Special forms unique to operations or maintenance
*Equipment instructions, operating, maintenance and service manuals
*Blueprint machine maintenance and paper costs
*Pressure vacuum regulators and gauges
*Rubber padding
*Paving repairs (i.e. road crossings, etc.)
*Wildlife protective boots
*Posts with cable decals
*Hi-Line road work
*Fuse links and other small fuses including bayonet fuses for transformers
*Miscellaneous materials and services for operations or maintenance of electric systems

*Repairs to private property

Does not include materials and supplies normally purchased to District inventories or Off-the-Dock contract labor budgeted separately.

18 Miscellaneous Construction Expense

Includes costs charged to jobs for items of expense that do not become a part of a unit of property.

Some examples of expenses included here are:

*Benton County Engineer costs
*Purchases of sand, gravel and concrete for construction
*Rental costs necessary to job
*Service charges necessary to job
*Purchased labor other than bid by contract or quote (ex. payments to small contractor for road patching, trenching, blasting, digging pole holes, etc.)
*Payments to machine shops for making parts
*Purchased surveying costs incurred on specific jobs the construction of new transmission or distribution plant
*Miscellaneous Engineering or service labor for specific jobs
*Photography charged to jobs
*Miscellaneous small charges not readily identifiable
*Miscellaneous supplies for surveying such as stakes, flags etc.

19 Tree Trimming - Contract

Includes only those expenses for contracted tree trimming.

20 Off-the-Dock Labor

Includes only contracted Off-the-Dock labor.

21 Electric Construction Contracts

Includes contracts obtained by bid or quote to do a specific package of work such as build transmission or distribution line or a substation or part thereof.

Does not include contract costs for major maintenance of, or construction of, new general plant such as storage yards, service facilities and general office buildings. Such costs should be budgeted at items 038 - Maintenance of Buildings and Improvements or 131 – Structures and Improvements to differentiate them from electric plant costs.

22 Contract Temporary Labor

Includes contract labor on a temporary basis for existing labor positions. These are for people that are paid through a job agency and are not paid through the District's payroll system.

23 Environmental

Includes those costs associated with environmental compliance, waste minimization, handling, storage and disposal of hazardous material or dangerous waste.

Some examples of expenses included here are:

*Fees paid to disposal firms
*Transportation costs
*Test kits

*Testing of materials
*Cleanup media
*Drums

Does not include, cost to repair or replace real or personal property damaged by an environmental occurrence. Examples of these types of costs are blacktop replacement, concrete, gravel dirt or repairs to personal property.

GENERAL EXPENSES:

25 Maintenance of Software

26 Computer Hardware & Equipment Expense

27 Personal Computer Software

All personal computer software packages.

28 Personal Computer O & M Costs

Includes all expenses related to the operation and maintenance of hardware equipment.

Some examples of expenses included here are:

*Replacement of cables
*Switches
*Connectors
*Cards
*Disk drives with like kind
*Maintenance contracts
*Phone line costs

29 Personal Computer Supplies & Expenses

Includes all purchases of plotter paper, forms, diskettes, tapes, cartridges, ribbons, pens, and miscellaneous supplies used on the computer.

30 Customer Service Expenses

Includes expenses attributable to Customer Service

Some examples of costs included here are:

*Armored Car dispatch
*Payments to Collections Stations (drugstores, etc.)
*Payments to Collection Agencies
*Padlocks - (meter readers)
*Special Forms (Cust. Accounting, Credit and Meter Reading)
*All postage expense

33 Office Supplies & Expenses

Some examples of expenses included here are:

*Small items of office equipment - less than **$5,000** unit cost
*Paper and envelopes
*General use forms
*Pencils, pens, erasers, rulers and misc. scales

34 Insurance

Includes the cost of insurance premiums including "Self-Insurance Assessments". It does not include the employee insurance premiums.

37 Grounds Care

Includes expenses for care of lawns and shrubbery at all office and substation locations.

38 Maintenance of Building & Improvements - General

Includes janitorial service, maintenance of buildings, and certain improvements to general property such as graveled and/or paved areas and fences.

Some examples of expenses included here are:

*Janitorial Services
*Painting and repairs to buildings and structures
*Adding gravel to graveled areas
*Patching paved areas
*Repairs to heating, air conditioning, electrical and water systems.
*Contracts for major repairs, including labor contract.

39 Maintenance of Equipment - Communication, Office Equipment, General Property & Other

Some examples of expenses that may be included here are:

*Cost of Maintenance Agreements/Office equipment maintenance repair
*Maintenance/repair of vehicle radios
*Maintenance of telephones
*Maintenance/repair of other general property not budgeted elsewhere, i.e., tools.

40 Rents

Includes all expenses for use of property and equipment not budgeted elsewhere.

Some examples of expenses included here are:

*Poles contact rentals
*Permits for railway crossings

41 Insurance Damages & Other Reimbursable

Costs paid to be reimbursed by insurance for damages to District property.

42 Business Expense & Travel

Includes all costs of meetings and travel that are for general business-related purposes.

Some examples of expenses included here are:

*Chamber of Commerce
*TRIDEC
*Kiwanis
*Rotary Club
*NoaNet
*CWPU
*PURMS
*Foreman's dinner
*Travel costs related to the evaluation/investigation of products or equipment.

43 Training Expense & Travel

Includes all costs (travel, registration fees, materials, etc.) for meetings, conferences, and seminars that provide training or educational sessions or speakers in a learning or networking environment related to your work:

Some examples of expenses included here are:

*Conferences of professional associations with break-out training sessions
*Sessions offering continuing education credits or units
*Vendor conferences
*Meter school
*APPA or NWPPA courses or seminars

44 Other General Expenses

Miscellaneous general expenses not budgeted elsewhere, including but not limited to:

*Miscellaneous advertising for bids, rate studies, surplus property, call for bonds, etc.
*Employee service pins and awards
*Special survey costs

45 Subscriptions & Publications

Included here are <u>all</u> books, reference texts and manuals, newspapers, magazines and other general informational publications.

Some examples of expenses included here are:

*Special manuals
*Reference manuals and services (R.C.W.'s, National Public Employee Reports, etc.)
*Directories
*Computer Services
*Westlaw Legal Service
*Other miscellaneous publications such as:
Kiplinger Letter
Northwest Wage & Hours Subscription
N.A.D.A. Subscription
Electric Power & Light
Clearing Up
Energy Omnium

46 Treasurer Expenses

Bank fees, escrow fees, and other expenses directly related to the Treasurer.

<u>UTILITIES:</u>

50 Telephone & Answering Services

Includes all expenses for use of telephone lines and answering services except those for remote computer terminals

Some examples of expenses included here are:

*Frontier/Embarg - Prosser
*Verizon NW - Kennewick
*Kelley's Answering Service

*City of Prosser - Emergency Answering Service
*Washington State Central Stores - Scan lines
*Asplund - Utilities Underground Location Center

51 Water, Garbage, Irrigation & Other

Includes expenses for water, garbage and irrigation assessments at all District locations.

Some examples of expenses included here are:

*Kennewick Disposal - Garbage
*City of Kennewick - Water and Sewer
*City of Prosser - Water
*Culligan - Water conditioning
*Irrigation Districts - Annual Assessments
*Special Assessments

OUTSIDE SERVICES:

60 Audit Examination - State

61 Professional Services

Includes expenses for all professional services not budgeted elsewhere.

Some examples of expenses included here are:

*Engineering studies
*Other attorney fees
*District share of labor negotiations office
*Arbitration costs
*Purchased surveying costs not identified to other budget items. These would include surveying costs incurred in conjunction with feasibility studies and would not include survey cost for acquisition of land and land rights for general plant, or survey costs for power line design.

DUES & ASSESSMENTS:

70 Civic & Service Organizations

72 Industry Association Assessments

Includes all assessments paid for membership in various industry associations.

73 Other Assessments

Includes all other assessments not budgeted above or elsewhere in the budget.

TAXES:

80 State Public Utility Tax & Other Excise Taxes

81 State Privilege Tax

82 City Occupation Taxes

88 Payroll Taxes

EMPLOYEE BENEFITS:

101 Employee Benefits

102 GASB Pension Expense

104 Other Employee Costs
Includes expenses made for the benefit of employees.
Some examples of expenses included here are:
*Purchase of tools supplied to employees
*School Reimbursements
*Medical exams

106 Vacation Accrual

CONSERVATION:

107 Residential Loans

108 Non-Reimbursed Conservation Costs
Includes the commercial program, flow restrictors, outlet gaskets, etc.

109 Conservation Advertising
Includes all conservation advertising costs.

111 Electric Vehicle
Includes all expenses incurred under the Electrification of Transportation Plan which was adopted by the commission on November 12, 2019, resolution 2521.

112 Residential Conservation Expenses
Includes the Weatherization, Heat Pump, Water Heater and Duct Sealing Programs.

113 Commercial Conservation Expenses
Includes small and medium general service and multi-family residential common area lighting improvements and small and medium general service building and equipment improvements.

114 Industrial Conservation Expense
Includes reimbursable program expenses for industrial customers.

115 Agriculture Conservation Expenses
Includes reimbursable program expenses only for the Agriculture programs.

116 Non-Federally Funded Conservation
Includes non-BPA reimbursable program expenses only for Washington State licensed marijuana facility conservation projects.

117 Customer Installed Measures

Includes reimbursable program expenses for washer, dryers, water heaters, along with lighting.

118 Low Income Conservation

Includes the Weatherization, Heat Pump, Water Heater and Duct Sealing Programs.

PUBLIC INFORMATION:

119 Public Information Expenses

Includes safety and promotional expenses sponsored by the District, such as radio spots, demonstrations and newspaper ads.

PURCHASED ELECTRIC PLANT & EQUIPMENT:

120 Substation Transformers & Regulators

Purchase of substation power transformers and regulators only.

121 Substation Equipment & Materials

Since substations as such are actually large pieces of electric equipment, it is intended that all expenses incurred for the construction of substations including work in progress purchases, which are not specifically budgeted elsewhere, shall be collected here.

Some examples of expenses included here are:

*Miscellaneous purchased labor
*Fencing materials or installed fencing
*Materials used in construction of substations such as gravel, concrete, bar stock, wiring and other materials not budgeted elsewhere

Does not include power transformers and regulators, substation demand meters and other metering devices for substations, labor contracted to build substations per bid or quote and Off-the-Dock labor.

122 Line Devices

Includes all expenses for protective and operational line equipment for transmission and distribution systems other than those line items included in substations.

Some examples of expenses included here are:

*Switches - line type only, except regulator bypass switches
*Cutouts
*Lightning arrestors (not included in the substation inventories)

123 Transformers & Related Items

Include only those items included in the distribution lines.

Some examples of expenses included here are:

*Distribution transformers
*Fiberglass enclosures
*Transformer vaults and pads (flat and with box)
*Miscellaneous installation of low value materials, unique to the items above.

124 Meters & Related Items

All meters and metering devices purchased by the District including substation metering, and related items.

Some examples of expenses included here are:

*Single phase demand and no demand meters
*Three phase demand and no demand meters
*Current transformers - including substation type
*Potential transformers - including substation type
*Demand registers - including substation type
*kW demand registers
*Compensators
*Enclosures
*Test switches - meter maintenance
*Miscellaneous materials used only in the installation of metering devices

125 Land & Land Rights - Electric

Includes all expenses associated with the acquisition of land and land rights for construction of electric plant.

Some examples of expenses included here are:

*Purchase price
*Taxes and escrow fees
*Survey and legal costs associated with the purchase of the land or land rights
*Other costs deemed necessary to obtain the property or rights

126 SCADA Master Station Equipment

Computers, monitors, printers, furniture, UPS, spare equipment, vendor support, remodeling costs.

127 SCADA Communications Equipment

Master radio, repeater radio, RTU radios, antennas, coax cables, spares and test equipment.

128 SCADA Substation Equipment

RTU transducers, cable, auxiliary relays, control modifications, enclosures, RTU test equipment.

129 SCADA Travel & Non-District Labor

Consists of vendor training costs, travel expenses, consultants, BPA - metering modifications, contract labor.

PURCHASED GENERAL PLANT & EQUIPMENT:

130 Land & Land Rights - General

Includes all expenses for the acquisition of land and land rights for the construction of office and operations facilities.

Some examples of expenses included here are:

*Purchase price

*Taxes and escrow fees
*Survey and legal costs associated with the purchase of the property or rights
*Other costs deemed necessary to obtain the property or rights

131 Structures & Improvements

Include expenses for the construction of buildings and the improvement of lands, buildings or other structures.

Some examples of expenses included here are:

*Site improvement costs, such as grading, graveling, paving and landscaping
*Costs to build buildings or structures
*Improvements to buildings or structures
*Surveying costs associated with development of improvement

132 Office Equipment

Includes all expenses for office furniture and equipment with a value of $5,000 or more.

133 Transportation Equipment

Includes all expenses for motor driven or towed vehicles including any ancillary or auxiliary equipment attached to the vehicle with a value of $5,000 or more.

The term vehicle includes:

*Automobiles
*Trucks
*Trailers
*Backhoes
*Forklifts

134 Tools, Shop & Stores Equipment

Includes the cost of tools and equipment with a value of $5,000 or more and purchased to accounts 393.00 - Stores Equipment or 394.00 - Tools, Shop and Garage Equipment.

Some items included here are:

*Stores cabinets and bins
*Work benches
*Shelving
*Tools for use in the Auto Shop, Meter Shop, Transformer Shop, Warehouse, Line Crews, and equipment used by same, but not specialized calibration and test equipment included at 135 below

135 Laboratory & Test Equipment

Includes the cost of specialized tools and equipment purchased to account 395.00 - Laboratory Equipment having a unit value of $5,000 or more.

Tools and equipment included here are of a type used to calibrate and/or test other tools or equipment items of electric plant such as meters, transformers, etc.

136 Communication Equipment

Includes the expense of all types of communication equipment purchased to account 397.00 - Communications Equipment, having a value of $5,000 or more

Some items included here are:

*The telephone system
*Portable and mobile radios
*Radio base stations

Does not include communication equipment for linking information systems equipment together.

137 Capitalized Computer Software

138 Computer Equipment

Personal computers will be identified as a personal computer system and will normally include items such as keyboards, monitors, printers, modems, digitizers, plotters, etc.

All auxiliary equipment, such as that specified above, will be identified to a personal computer. If the total cost of the computer together with the auxiliary equipment identified to it costs or will cost $5,000 or more, this will constitute a capital purchase and the items will be capitalized in account 391.00. Items added after initial purchase of a computer will be capitalized with the computer for which they are acquired. This will include replacing a floppy disk drive with a hard drive, network cards, etc.

139 Miscellaneous General Plant

Includes the cost of equipment purchased to account 398.00 Miscellaneous Equipment, having a value of $5,000 or more. Equipment included here is usually not necessary to the operation of the business.

Some examples of expenses included here are:

*Cameras
*Other miscellaneous items

140 Generation Plant & Equipment

DEBT SERVICE:

150 Principal

Includes payment made to retire debt.

151 Interest

153 Provision for Bond Reserve

Includes monies set aside in special deposits or investments to insure payment of bond debts.

PRODUCTS & SERVICES EXPENSES:

200 New Services Expenses

Expenses related to providing services that the District offers customers. **These are services not related to the sale or delivery of energy.**

Some examples of expenses included here are:

*Postage for Mail Service for other companies
*Supplies for Glove Testing provided other utilities
*Supplies for Maintenance of Substations belonging to other utilities

*Home and Building Inspection expenses (non-Public Purpose)
*Advertising and Marketing expense including fees associated with "Home Shows" etc.

201 New Product Expenses

Expenses incurred in obtaining, selling, merchandising, and advertising products to consumers.

Some examples of expenses included here are:

*Purchase cost of light bulbs, appliances, surge suppressors, etc.
*Display booths
*Advertising and Marketing expense including fees associated with Home Show, Fair, etc.

202 Mutual Aid & Other Reimbursable Expenses

Non-labor expenses incurred by the District in providing mutual aid or maintenance and repair work to other utilities except for Maintenance of Substations (see 200).

Some examples of expenses included here are:

*Travel expenses
*Fuel
*Other miscellaneous costs

OTHER MISCELLANEOUS EXPENSES:

301 Depreciation Expense

302 Amortized Conservation

303 WCEF Expense

This is the expense for the one-time credit that residential customers will receive on their bill and the payment to the Housing Authority for weatherization.

304 Grant Expense

REVENUE:

501 Retail Energy Sales

502 City Occupation Taxes

503 Bad Debt Expense

505 Wholesale Power Sales Revenue

510 Wholesale Transmission & Wheeling Sales

515 Interest and Investment Income

520 Electric Services Installation Revenue

523 Pole Contact Rent Revenue

*Pole Contact Rental
*Pole Contact Application Fees

525 Capital Contributions

530 Property Rental Revenue

*Rent of Electric Property
*Auditorium Rent

535 Microwave Site Rental

545 Other Electric Revenue

*NSF check charges
*Electric account service charge
*Collection of write-offs

546 Miscellaneous Non-Electric Revenue

547 WCEF Settlement Revenue

This is the Washington Consumer Energy Fund settlement. A portion of the settlement will be given to the Housing Authority for weatherization. The remaining funds will be given back to residential customers as a one-time credit on their bill.

548 Grant Revenue

549 SWIFT Grant Revenue

550 Products & Services Revenue

*Substation Maintenance and Repair for other Utilities
*Meter Shop Revenue
*Glove Testing
*Mail Service
*Sale of Products (light bulbs, surge suppressors, etc.)
*Energy Service Revenue (building inspection fees, etc.)
*Block Heater Rental

560 Insurance Claim Revenue

570 Reserves (Gain or Loss)

ADDITIONS & USAGE OF INVENTORY: (for use in controlling the growth of Inventory)

994 Reel Deposits

996 CT Inventory

997 Substation Inventory

998 Fiber Optic Inventory

999 Non-Exempt Inventory

Financial Plan

Tab 7

2024 BUDGET
FINANCIAL PLAN - KEY ASSUMPTIONS

The Financial Plan for 2024 is based on these key assumptions:

GENERAL

- Conservative assumptions have been used in the development of the financial plan in accordance with the District's Financial Policies and prudent utility practice.
- The financial plan is based on accrued revenues and costs. To derive end-of-year cash balances, amounts are adjusted to remove non-cash items, to add non-cost cash items and to account for timing differences between accrued cost and cash.

REVENUES

- The 2024 Budget reflects no rate increase.
- Retail energy sales are based on the Retail Energy Load Ten-Year Forecast, which uses regression modeling to establish a relationship between annual load, weather, and economic variables. The most recent Ten-Year Load Forecast was approved by the Commission on June 13, 2023 (see Tab 8).
- Sales for Resale are consistent with the 2024 Power Supply Plan.

POWER & TRANSMISSION COSTS *(see Tab 10, 2024 Power Supply Plan for more details)*

- **The District's contract with BPA switched from a Block/Slice contract to a Load Following Contract effective October 1, 2023.**
    - The District made the change to a Load Following contract to mitigate the District's risk from increasing market prices, market price excursions that can cost millions of dollars over a multi-day period, potential future shortages of physical power all caused by resource adequacy concerns, and to have more certainty with power costs.
- **The District's net power cost is estimated using BPA's BP-24 Final Record of Decision and the District's Load Forecast.**

FINANCIAL PLAN - KEY ASSUMPTIONS
(CONTINUED)

- **Known power cost variables were included as follows:**
  - Power costs reflect BPA's Tiered Rate Methodology.
  - The forecast includes an irrigation mitigation annual benefit of $3.6 million.
  - Net conservation program costs after reimbursement from BPA are expected to be $0.3 million.
  - No Cost Recovery Adjustment Clause (CRAC) is assumed.
  - Court ordered additional spill costs are included in BPA's rates for 2024.
  - No slice true-up credit is assumed.
  - Includes 10.2 aMW of Tier 2 loads.
  - Power cost forecast includes the estimated cost to meet the requirements of the Energy Independence Act (EIA).
  - No carbon cap and trade impact included in power forecast.

FINANCING

- The District is developing plans to issue up to $25 million in new bonds which is expected to be completed in December 2023 or Q1 of 2024. The additional interest expense related to the new bond issue is included in the 2024 Budget.
- Short-term borrowing may be used, if needed, to maintain cash flow requirements, but none is projected.

CAPITAL

- Capital is based on the District's five-year Capital Requirement Plan (see Tab 9).

Comparative Operating Statement
Public Utility District No. 1 of Benton County
2024 Budget

	2022 Actual	2023 Forecast	2024 Budget
Revenue Action Budget Assumption *For planning purposes only, any future rate action would require Commission approval*			**0.00%**
OPERATING REVENUES			
Energy Sales - Retail	$ 140,653,312	$ 141,060,647	$ 137,714,156
Energy Secondary Market Sales	33,353,756	10,536,656	3,878,125
Transmission of Power for Others	1,600,411	1,138,769	191,088
Broadband Revenue	2,922,004	2,910,308	2,971,653
Other Electric Revenue	1,693,674	1,609,988	1,594,885
TOTAL OPERATING REVENUES	180,223,157	157,256,368	146,349,907
OPERATING EXPENSES			
Purchased Power	106,075,114	84,983,048	70,573,136
Purchased Transmission & Ancillary Services	15,901,217	14,672,998	13,002,575
Conservation	332,766	379,962	322,683
Total Power Supply	122,309,097	100,036,008	83,898,394
Transmission Operation & Maintenance	45,372	168,909	111,273
Distribution Operation & Maintenance	11,436,000	12,685,151	14,052,150
Broadband Expense	1,289,313	1,230,568	1,197,223
Customer Accounting, Collections & Information	4,442,149	4,909,228	5,042,657
Administrative & General	7,692,670	8,905,544	9,474,759
Subtotal before Taxes & Depreciation	24,905,504	27,899,400	29,878,062
Taxes	15,003,476	15,126,000	14,777,000
Depreciation & Amortization	11,175,496	11,232,810	11,994,800
Total Other Operating Expenses	51,084,476	54,258,210	56,649,862
TOTAL OPERATING EXPENSES	173,393,573	154,294,218	140,548,256
OPERATING INCOME (LOSS)	6,829,584	2,962,150	5,801,651
NONOPERATING REVENUES & EXPENSES			
Interest Income	172,523	1,000,000	1,000,000
Unrealized Gain/(Loss) on Investments	-	-	-
Other Income (includes BABs subsidy)	529,814	336,486	301,192
Interest Expense	(2,827,042)	(2,717,067)	(3,821,760)
Debt Premium/Discount & Expense Amortization	402,824	422,897	408,171
TOTAL NONOPERATING REVENUES & EXPENSES	(1,721,881)	(957,684)	(2,112,397)
NET INCOME (LOSS) BEFORE CONTRIBUTIONS	5,107,703	2,004,466	3,689,254
CAPITAL CONTRIBUTIONS	3,225,724	3,597,917	3,571,055
CHANGE IN NET ASSETS	**$ 8,333,427**	**$ 5,602,383**	**$ 7,260,309**
CAPITAL REQUIREMENTS PLAN (Gross)	**$ 20,668,663**	**$ 25,700,572**	**$ 31,918,276**
UNRESTRICTED RESERVES (End of Year)	**$ 53,459,006**	**$ 63,965,513**	**$ 48,829,199**

Liquidity Measures
Public Utility District No. 1 of Benton County
2024 Budget

Unrestricted Reserves	2022 Actual	2023 Forecast	2024 Budget
BEGINNING BALANCE	$ 58,453,176	$ 53,459,006	$ 63,965,513
Revenues (excluding sales for resale)	145,971,327	146,917,429	143,581,886
Capital Contributions	3,225,724	3,597,917	3,571,055
Operating Expenses*	(128,500,301)	(127,455,713)	(124,276,043)
Amortization of White Creek	578,400	578,400	578,400
Debt Service and LOC	(6,039,399)	(5,869,696)	(7,112,078)
Gross Capital	(20,668,663)	(25,700,572)	(31,918,276)
BPA Prepay	438,742	438,742	438,742
Bond Proceeds to Reimburse Capital	-	25,000,000	18,000,000
Estimated Capital reimbursed from bond proceeds	-	(7,000,000)	(18,000,000)
ENDING BALANCE	**$ 53,459,006**	**$ 63,965,513**	**$ 48,829,199**

** Operating expenses include gross power expense and exclude depreciation*

Days Cash on Hand	2022 Actual	2023 Forecast	2024 Budget
Unrestricted Reserves	$ 53,459,006	$ 45,965,513	$ 48,829,199
Construction Account	-	18,000,000	-
Total Reserves	$ 53,459,006	$ 63,965,513	$ 48,829,199
Gross Power Expense	122,309,097	100,036,008	83,898,394
Non-Power Operating Expenses	51,084,476	54,258,210	56,649,862
Depreciation	(11,175,496)	(11,232,810)	(11,994,800)
Amortization of White Creek/BPA Prepay	(1,017,142)	(1,017,142)	(1,017,142)
Operating Expenses (cash basis)	$ 161,200,935	$ 142,044,266	$ 127,536,314
DAYS CASH ON HAND (Unrestricted Reserves)	**121**	**118**	**140**
DAYS CASH ON HAND (Construction Account)	**0**	**46**	**0**
TOTAL DAYS CASH ON HAND	**121**	**164**	**140**

Days Liquidity on Hand	2022 Actual	2023 Forecast	2024 Budget
Unrestricted Reserves + $10M LOC	$ 63,459,006	$ 55,965,513	$ 58,829,199
Operating Expenses (cash basis)	$ 161,200,935	$ 142,044,266	$ 127,536,314
DAYS LIQUIDITY ON HAND	**144**	**144**	**168**

Debt Measures
Public Utility District No. 1 of Benton County
2024 Budget

Debt Service Coverage	2022 Actual	2023 Forecast	2024 Budget
Change in Net Assets	$ 8,333,427	$ 5,602,383	$ 7,260,309
Depreciation	11,175,496	11,232,810	11,994,800
Amortization of White Creek	578,400	578,400	578,400
Amortization of BPA Prepay	438,742	438,742	438,742
GASB 68 Pension Expense	(1,647,466)	-	-
Interest Expense	2,424,218	2,294,170	3,413,589
Funds Available for Debt Service (FADS)	$ 21,302,817	$ 20,146,505	$ 23,685,840
Debt Service	$ 5,998,843	$ 5,829,696	$ 7,072,078
DSC with capital contributions (Target = 2.00)	**3.55**	**3.46**	**3.35**
DSC without capital contributions (Target = 1.75)	**3.01**	**2.84**	**2.84**

Fixed Charge Coverage	2022 Actual	2023 Forecast	2024 Budget
Change in Net Assets	$ 8,333,427	$ 5,602,383	$ 7,260,309
Depreciation	11,175,496	11,232,810	11,994,800
Amortization of White Creek	578,400	578,400	578,400
Amortization of BPA Prepay	438,742	438,742	438,742
GASB 68 Pension Expense	(1,647,466)	-	-
Interest Expense	2,424,218	2,294,170	3,413,589
Frederickson Fixed Costs	5,288,959	-	-
33% of BPA Power & Transmission	22,778,689	20,916,421	25,009,085
Adjusted FADS	$ 49,370,465	$ 41,062,926	$ 48,694,925
Debt Service	$ 5,998,843	$ 5,829,696	$ 7,072,078
Frederickson Fixed Costs	5,288,959	-	-
33% of BPA Power & Transmission	22,778,689	20,916,421	25,009,085
Debt Service & Fixed Charges	$ 34,066,491	$ 26,746,117	$ 32,081,163
FCC Ratio (Target = 1.3)	**1.45**	**1.54**	**1.52**

Debt Ratio	2022 Actual	2023 Forecast	2024 Budget
Revenue Bonds Outstanding	$ 57,000,000	$ 77,970,000	$ 74,705,000
Capitalization (bonds + net assets)	$ 221,247,246	$ 247,819,628	$ 252,107,876
Debt Ratio	**26%**	**31%**	**30%**

Public Utility District No. 1 Of Benton County, Washington
2023 - 2027 Retail Revenue and Kilowatt Hours (kWh) Forecast
(October 2023 Forecast)

Forecast - 2023	Revenues	kWh
Residential	$66,572,733	761,673,089
Small Gen. Service	9,724,744	130,606,131
Medium Gen. Service	14,511,794	200,956,643
Large Gen. Service	14,845,714	229,867,481
Large Industrial	3,468,390	64,567,464
Small Ag Irrigation	1,063,187	15,353,626
Large Ag. Irrigation	23,709,669	424,844,586
Street Lighting	219,531	2,481,918
Security Lighting	237,112	746,955
Unmetered Accounts	217,589	3,063,696
TOTAL	**$134,570,464**	**1,834,161,591**

Forecast - 2024	Revenues	kWh
Residential	$65,173,384	739,520,923
Small Gen. Service	10,060,274	137,475,832
Medium Gen. Service	15,319,642	219,961,331
Large Gen. Service	12,602,269	192,466,165
Large Industrial	3,434,666	64,470,318
Small Ag Irrigation	1,055,042	15,191,775
Large Ag. Irrigation	23,183,695	419,787,360
Street Lighting	219,864	2,390,758
Security Lighting	268,556	831,959
Unmetered Accounts	215,770	3,039,012
TOTAL	**$131,533,164**	**1,795,135,434**

Forecast - 2025	Revenues	kWh
Residential	$65,523,644	742,132,197
Small Gen. Service	10,107,652	138,227,857
Medium Gen. Service	15,385,579	221,164,571
Large Gen. Service	12,651,858	193,519,000
Large Industrial	3,425,454	64,296,684
Small Ag Irrigation	1,046,367	15,066,530
Large Ag. Irrigation	23,122,385	418,640,400
Street Lighting	219,864	2,391,508
Security Lighting	268,556	818,525
Unmetered Accounts	216,954	3,055,683
TOTAL	**$131,968,314**	**1,799,312,956**

Forecast - 2026	Revenues	kWh
Residential	$66,029,124	746,843,865
Small Gen. Service	10,083,432	137,843,415
Medium Gen. Service	15,351,872	220,549,464
Large Gen. Service	12,626,508	192,980,781
Large Industrial	3,425,638	64,300,159
Small Ag Irrigation	1,041,898	15,004,008
Large Ag. Irrigation	23,122,385	418,640,400
Street Lighting	219,864	2,391,508
Security Lighting	268,556	804,544
Unmetered Accounts	218,111	3,071,979
TOTAL	**$132,387,387**	**1,802,430,124**

Forecast - 2027	Revenues	kWh
Residential	$66,534,515	751,554,336
Small Gen. Service	10,096,588	138,052,235
Medium Gen. Service	15,370,181	220,883,575
Large Gen. Service	12,640,277	193,273,129
Large Industrial	3,425,358	64,294,875
Small Ag Irrigation	1,037,574	14,943,664
Large Ag. Irrigation	23,122,385	418,640,400
Street Lighting	219,864	2,391,508
Security Lighting	268,556	790,564
Unmetered Accounts	219,268	3,088,275
TOTAL	**$132,934,566**	**1,807,912,561**

Total kWh for 2023-2027

Actual (January - September 2023)

Total kWh 2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	101,537,957	85,443,973	70,668,829	55,837,841	44,452,169	51,525,192	61,100,823	62,985,982	52,176,641	41,361,636	57,215,825	77,366,221	761,673,089
Small Gen. Service	12,135,528	10,969,855	9,742,435	10,177,164	10,130,139	11,699,075	12,861,586	13,486,689	12,024,348	8,343,279	8,835,325	10,200,709	130,606,131
Medium Gen. Service	16,975,379	15,906,348	15,494,588	15,747,382	16,268,368	18,203,465	18,756,882	19,442,877	18,539,325	15,026,133	15,271,095	15,324,800	200,956,643
Large Gen. Service	21,335,340	21,020,320	18,157,040	16,097,700	16,545,440	17,516,400	18,479,120	19,562,860	18,752,140	21,854,344	20,808,181	19,738,596	229,867,481
Large Industrial	5,800,800	4,374,840	5,567,200	5,611,240	5,742,760	5,438,760	5,669,040	5,544,240	4,026,080	5,770,122	5,318,899	5,703,483	64,567,464
Small Ag Irrigation	89,673	64,956	103,156	710,943	2,134,030	2,904,303	3,258,184	2,927,209	2,042,683	942,355	124,516	51,618	15,353,626
Large Ag. Irrigation	243,151	243,870	8,003,758	18,987,757	66,995,256	99,063,729	109,885,471	69,931,215	29,713,212	18,630,653	2,859,985	286,529	424,844,586
Street Lighting	210,535	210,503	210,503	210,382	210,382	210,382	210,403	210,403	200,508	199,300	199,304	199,313	2,481,918
Security Lighting	61,367	60,691	60,654	60,096	59,942	59,472	59,320	58,974	58,186	69,703	69,347	69,204	746,955
Unmetered Accounts	253,038	254,020	254,292	254,325	254,798	257,489	258,689	258,689	259,756	254,331	253,755	250,515	3,063,696
TOTAL Retail kWh SALES:	**158,642,768**	**138,549,376**	**128,262,455**	**123,694,830**	**162,793,284**	**206,878,267**	**230,539,518**	**194,409,138**	**137,792,879**	**112,451,855**	**110,956,232**	**129,190,989**	**1,834,161,591**

Total kWh 2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	88,020,675	83,357,045	77,979,814	53,634,788	41,426,971	47,072,811	54,012,568	63,566,251	52,896,743	41,740,022	57,739,249	78,073,986	739,520,923
Small Gen. Service	12,746,172	12,548,908	11,551,572	10,028,228	9,888,396	11,152,368	11,967,158	13,429,473	12,144,078	9,757,273	10,332,710	11,929,496	137,475,832
Medium Gen. Service	18,795,723	18,210,023	17,293,053	16,616,683	16,924,811	18,462,883	18,878,258	20,682,850	19,529,165	17,972,552	18,265,547	18,329,783	219,961,331
Large Gen. Service	15,425,231	14,945,032	14,432,674	14,769,758	15,342,681	16,099,546	16,469,880	18,660,169	17,653,991	17,044,402	16,228,490	15,394,311	192,466,165
Large Industrial	5,544,549	5,111,063	5,753,977	5,387,979	4,478,132	5,356,689	4,884,543	5,707,621	5,408,388	5,785,541	5,333,113	5,718,725	64,470,318
Small Ag Irrigation	61,680	43,985	173,596	639,316	2,093,765	2,755,033	3,256,619	2,988,464	2,061,295	941,962	124,464	51,597	15,191,775
Large Ag. Irrigation	277,143	387,274	4,902,001	21,390,385	61,682,475	97,351,887	104,603,328	74,808,420	32,548,230	18,681,172	2,867,740	287,306	419,787,360
Street Lighting	199,027	199,201	199,316	199,227	199,225	199,236	199,235	199,282	199,278	199,237	199,242	199,250	2,390,758
Security Lighting	70,015	69,737	71,232	70,032	69,816	69,465	69,225	68,956	68,803	68,506	68,157	68,016	831,959
Unmetered Accounts	253,789	254,193	255,478	252,214	252,303	252,436	252,462	252,485	251,056	255,670	255,091	251,834	3,039,012
TOTAL Retail kWh SALES:	**141,394,003**	**135,126,460**	**132,612,712**	**122,988,611**	**152,358,574**	**198,772,354**	**214,593,277**	**200,363,972**	**142,761,027**	**112,446,337**	**111,413,803**	**130,304,304**	**1,795,135,434**

Total kWh 2025	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	88,331,479	83,651,381	78,255,164	53,824,175	41,573,251	47,239,027	54,203,289	63,790,705	53,083,523	41,887,407	57,943,128	78,349,668	742,132,197
Small Gen. Service	12,815,897	12,617,553	11,614,761	10,083,085	9,942,488	11,213,374	12,032,621	13,502,936	12,210,509	9,810,648	10,389,232	11,994,753	138,227,857
Medium Gen. Service	18,898,540	18,309,636	17,387,650	16,707,581	17,017,394	18,563,879	18,981,526	20,795,990	19,635,994	18,070,866	18,365,464	18,430,051	221,164,571
Large Gen. Service	15,509,610	15,026,785	14,511,624	14,850,552	15,426,609	16,187,614	16,559,974	18,762,245	17,750,562	17,137,639	16,317,264	15,478,521	193,519,000
Large Industrial	5,529,616	5,097,298	5,738,480	5,373,468	4,466,071	5,342,262	4,871,388	5,692,249	5,393,821	5,769,959	5,318,750	5,703,323	64,296,684
Small Ag Irrigation	61,171	43,622	172,165	634,045	2,076,503	2,732,320	3,229,771	2,963,826	2,044,301	934,196	123,438	51,171	15,066,530
Large Ag. Irrigation	276,386	386,216	4,888,608	21,331,941	61,513,943	97,085,898	104,317,526	74,604,025	32,459,300	18,630,130	2,859,904	286,521	418,640,400
Street Lighting	199,090	199,263	199,379	199,290	199,288	199,299	199,298	199,344	199,341	199,300	199,304	199,313	2,391,508
Security Lighting	68,884	68,611	70,081	68,901	68,688	68,343	68,108	67,843	67,692	67,400	67,056	66,918	818,525
Unmetered Accounts	255,182	255,587	256,879	253,598	253,687	253,821	253,847	253,870	252,433	257,073	256,490	253,216	3,055,683
TOTAL Retail kWh SALES:	**141,945,854**	**135,655,952**	**133,094,790**	**123,326,635**	**152,537,922**	**198,885,837**	**214,717,347**	**200,633,035**	**143,097,478**	**112,764,618**	**111,840,032**	**130,813,455**	**1,799,312,956**

Total kWh 2026	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	88,892,280	84,182,469	78,751,992	54,165,895	41,837,192	47,538,939	54,547,416	64,195,701	53,420,541	42,153,343	58,310,999	78,847,096	746,843,865
Small Gen. Service	12,780,253	12,582,461	11,582,458	10,055,041	9,914,836	11,182,188	11,999,156	13,465,381	12,176,549	9,783,362	10,360,338	11,961,393	137,843,415
Medium Gen. Service	18,845,979	18,258,713	17,339,291	16,661,113	16,970,064	18,512,249	18,928,734	20,738,152	19,581,382	18,020,607	18,314,386	18,378,793	220,549,464
Large Gen. Service	15,466,475	14,984,992	14,471,264	14,809,250	15,383,704	16,142,593	16,513,917	18,710,063	17,701,194	17,089,976	16,271,882	15,435,472	192,980,781
Large Industrial	5,529,915	5,097,573	5,738,790	5,373,758	4,466,313	5,342,550	4,871,651	5,692,557	5,394,113	5,770,271	5,319,037	5,703,631	64,300,159
Small Ag Irrigation	60,918	43,441	171,450	631,414	2,067,886	2,720,982	3,216,368	2,951,527	2,035,818	930,319	122,926	50,959	15,004,008
Large Ag. Irrigation	276,386	386,216	4,888,608	21,331,941	61,513,943	97,085,898	104,317,526	74,604,025	32,459,300	18,630,130	2,859,904	286,521	418,640,400
Street Lighting	199,090	199,263	199,379	199,290	199,288	199,299	199,298	199,344	199,341	199,300	199,304	199,313	2,391,508
Security Lighting	67,707	67,439	68,884	67,724	67,515	67,176	66,944	66,684	66,535	66,249	65,911	65,775	804,544
Unmetered Accounts	256,543	256,950	258,249	254,950	255,040	255,174	255,201	255,224	253,780	258,444	257,858	254,566	3,071,979
TOTAL Retail kWh SALES:	**142,375,544**	**136,059,518**	**133,470,365**	**123,550,377**	**152,675,781**	**199,047,048**	**214,916,212**	**200,878,659**	**143,288,554**	**112,902,001**	**112,082,545**	**131,183,520**	**1,802,430,124**

Total kWh 2027	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	89,452,939	84,713,423	79,248,694	54,507,528	42,101,066	47,838,776	54,891,456	64,600,595	53,757,474	42,419,211	58,678,777	79,344,398	751,554,336
Small Gen. Service	12,799,614	12,601,522	11,600,005	10,070,274	9,929,856	11,199,128	12,017,334	13,485,780	12,194,995	9,798,183	10,376,033	11,979,513	138,052,235
Medium Gen. Service	18,874,529	18,286,373	17,365,558	16,686,353	16,995,773	18,540,294	18,957,410	20,769,569	19,611,046	18,047,906	18,342,130	18,406,635	220,883,575
Large Gen. Service	15,489,905	15,007,693	14,493,186	14,831,684	15,407,009	16,167,047	16,538,934	18,738,407	17,728,010	17,115,865	16,296,532	15,458,855	193,273,129
Large Industrial	5,529,460	5,097,154	5,738,319	5,373,317	4,465,945	5,342,111	4,871,250	5,692,089	5,393,670	5,769,797	5,318,600	5,703,162	64,294,875
Small Ag Irrigation	60,673	43,266	170,761	628,874	2,059,570	2,710,038	3,203,432	2,939,656	2,027,630	926,578	122,431	50,754	14,943,664
Large Ag. Irrigation	276,386	386,216	4,888,608	21,331,941	61,513,943	97,085,898	104,317,526	74,604,025	32,459,300	18,630,130	2,859,904	286,521	418,640,400
Street Lighting	199,090	199,263	199,379	199,290	199,288	199,299	199,298	199,344	199,341	199,300	199,304	199,313	2,391,508
Security Lighting	66,531	66,267	67,687	66,547	66,342	66,008	65,781	65,525	65,379	65,098	64,766	64,632	790,564
Unmetered Accounts	257,903	258,313	259,619	256,303	256,393	256,528	256,555	256,578	255,126	259,815	259,226	255,917	3,088,275
TOTAL Retail kWh SALES:	**143,007,028**	**136,659,491**	**134,031,816**	**123,952,112**	**152,995,184**	**199,405,127**	**215,318,976**	**201,351,568**	**143,691,971**	**113,231,883**	**112,517,703**	**131,749,701**	**1,807,912,561**

Total Revenue for 2023-2027

Actual (January - September 2023)

Total Revenue 2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	$8,347,523	$7,150,734	$6,012,410	$4,990,532	$4,138,809	$4,682,387	$5,367,248	$5,525,716	$4,726,361	$3,943,395	$5,084,223	$6,603,395	$66,572,733
Small Gen. Service	909,348	831,869	743,070	765,936	746,429	847,582	919,247	960,754	872,765	658,896	687,333	781,515	9,724,744
Medium Gen. Service	1,215,694	1,149,722	1,127,147	1,135,042	1,193,719	1,307,553	1,335,122	1,386,657	1,381,267	1,097,339	1,095,298	1,087,234	14,511,794
Large Gen. Service	1,370,589	1,349,465	1,183,433	1,037,615	1,099,571	1,136,945	1,184,714	1,252,000	1,223,863	1,408,871	1,336,145	1,262,503	14,845,714
Large Industrial	311,447	250,111	297,045	296,518	300,480	293,476	299,856	295,860	237,378	302,766	283,713	299,741	3,468,390
Small Ag Irrigation	9,566	8,353	14,935	64,062	145,373	186,836	206,310	188,921	140,130	77,409	14,260	7,032	1,063,187
Large Ag. Irrigation	117,209	127,658	704,829	1,292,016	3,659,978	5,091,450	5,568,156	3,794,309	1,757,626	1,239,092	277,752	79,595	23,709,669
Street Lighting	18,242	18,243	18,243	18,242	18,243	18,243	18,244	18,244	18,621	18,322	18,322	18,322	219,531
Security Lighting	19,117	19,019	18,964	18,920	18,915	18,838	18,812	18,712	18,676	22,380	22,380	22,380	237,112
Unmetered Accounts	17,966	18,036	18,055	18,058	18,091	18,282	18,368	18,367	18,505	18,057	18,017	17,787	217,589
TOTAL REVENUE:	**$12,336,701**	**$10,923,210**	**$10,138,131**	**$9,636,941**	**$11,339,608**	**$13,601,592**	**$14,936,077**	**$13,459,540**	**$10,395,192**	**$8,786,526**	**$8,837,442**	**$10,179,503**	**$134,570,464**

Total Revenue 2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	$7,322,844	$6,911,887	$6,560,359	$4,847,661	$3,996,076	$4,369,351	$4,901,519	$5,555,666	$4,762,116	$4,030,107	$5,204,485	$6,711,313	$65,173,384
Small Gen. Service	921,668	897,505	845,794	746,096	741,619	817,436	872,887	965,373	880,373	734,588	766,095	870,839	10,060,274
Medium Gen. Service	1,285,713	1,251,201	1,209,218	1,153,880	1,190,694	1,290,840	1,313,486	1,422,840	1,390,760	1,277,243	1,272,780	1,260,986	15,319,642
Large Gen. Service	992,205	972,569	944,031	965,495	1,015,104	1,065,347	1,083,744	1,217,679	1,164,689	1,118,916	1,060,767	1,001,723	12,602,269
Large Industrial	292,695	278,975	299,968	286,215	249,109	284,925	267,531	299,354	287,316	303,572	284,468	300,538	3,434,666
Small Ag Irrigation	7,678	6,467	20,077	59,670	143,510	179,703	206,789	192,323	140,232	77,354	14,232	7,007	1,055,042
Large Ag. Irrigation	78,362	100,303	447,564	1,389,806	3,352,652	5,008,457	5,313,912	3,992,713	1,899,664	1,242,283	278,337	79,643	23,183,695
Street Lighting	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	219,864
Security Lighting	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	268,556
Unmetered Accounts	18,019	18,048	18,139	17,907	17,913	17,923	17,925	17,926	17,825	18,153	18,111	17,880	215,770
TOTAL REVENUE:	**$10,959,887**	**$10,477,657**	**$10,385,852**	**$9,507,432**	**$10,747,379**	**$13,074,684**	**$14,018,494**	**$13,704,577**	**$10,583,676**	**$8,842,917**	**$8,939,978**	**$10,290,632**	**$131,533,164**

Total Revenue 2025	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	$7,358,852	$6,945,506	$6,593,644	$4,874,610	$4,020,363	$4,394,639	$4,929,043	$5,585,512	$4,788,854	$4,054,587	$5,232,782	$6,745,253	$65,523,644
Small Gen. Service	926,060	901,830	849,775	749,552	745,027	821,280	877,011	970,002	884,558	737,950	769,656	874,951	10,107,652
Medium Gen. Service	1,291,348	1,256,660	1,214,402	1,158,861	1,195,767	1,296,375	1,319,145	1,429,040	1,396,614	1,282,630	1,278,256	1,266,481	15,385,579
Large Gen. Service	996,180	976,419	947,750	969,300	1,019,057	1,069,495	1,087,987	1,222,487	1,169,237	1,123,307	1,064,948	1,005,689	12,651,858
Large Industrial	291,910	278,227	299,163	285,447	248,441	284,161	266,814	298,551	286,545	302,758	283,705	299,732	3,425,454
Small Ag Irrigation	7,616	6,415	19,914	59,180	142,328	178,223	205,086	190,740	139,078	76,718	14,117	6,951	1,046,367
Large Ag. Irrigation	78,318	100,198	446,510	1,386,178	3,343,661	4,994,942	5,299,562	3,981,974	1,894,643	1,239,058	277,745	79,595	23,122,385
Street Lighting	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	219,864
Security Lighting	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	268,556
Unmetered Accounts	18,118	18,147	18,238	18,005	18,012	18,021	18,023	18,025	17,923	18,252	18,211	17,978	216,954
TOTAL REVENUE:	**$11,009,104**	**$10,524,103**	**$10,430,099**	**$9,541,836**	**$10,773,359**	**$13,097,837**	**$14,043,374**	**$13,737,031**	**$10,618,154**	**$8,875,963**	**$8,980,122**	**$10,337,331**	**$131,968,314**

Total Revenue 2026	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	$7,413,130	$6,996,480	$6,643,043	$4,912,885	$4,053,465	$4,429,887	$4,967,942	$5,628,587	$4,826,650	$4,087,958	$5,273,395	$6,795,701	$66,029,124
Small Gen. Service	923,815	899,619	847,740	747,785	743,285	819,315	874,903	967,636	882,419	736,231	767,836	872,849	10,083,432
Medium Gen. Service	1,288,467	1,253,870	1,211,752	1,156,314	1,193,174	1,293,546	1,316,252	1,425,870	1,393,621	1,279,876	1,275,457	1,263,672	15,351,872
Large Gen. Service	994,148	974,451	945,849	967,355	1,017,037	1,067,374	1,085,818	1,220,029	1,166,912	1,121,063	1,062,811	1,003,662	12,626,508
Large Industrial	291,926	278,242	299,179	285,463	248,455	284,176	266,828	298,567	286,560	302,774	283,720	299,748	3,425,638
Small Ag Irrigation	7,574	6,379	19,820	58,924	141,727	177,473	204,224	189,937	138,490	76,389	14,048	6,912	1,041,898
Large Ag. Irrigation	78,318	100,198	446,510	1,386,178	3,343,661	4,994,942	5,299,562	3,981,974	1,894,643	1,239,058	277,745	79,595	23,122,385
Street Lighting	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	219,864
Security Lighting	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	268,556
Unmetered Accounts	18,215	18,243	18,336	18,101	18,108	18,117	18,119	18,121	18,018	18,349	18,308	18,074	218,111
TOTAL REVENUE:	**$11,056,295**	**$10,568,183**	**$10,472,931**	**$9,573,708**	**$10,799,612**	**$13,125,532**	**$14,074,351**	**$13,771,423**	**$10,648,016**	**$8,902,401**	**$9,014,022**	**$10,380,913**	**$132,387,387**

Total Revenue 2027	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Residential	$7,467,398	$7,047,445	$6,692,432	$4,951,154	$4,086,562	$4,465,129	$5,006,835	$5,671,656	$4,864,441	$4,121,324	$5,314,001	$6,846,139	$66,534,515
Small Gen. Service	925,035	900,820	848,845	748,745	744,231	820,382	876,048	968,921	883,581	737,165	768,825	873,990	10,096,588
Medium Gen. Service	1,290,032	1,255,385	1,213,192	1,157,698	1,194,582	1,295,082	1,317,824	1,427,592	1,395,247	1,281,372	1,276,977	1,265,197	15,370,181
Large Gen. Service	995,252	975,520	946,881	968,412	1,018,134	1,068,526	1,086,996	1,221,364	1,168,175	1,122,282	1,063,972	1,004,763	12,640,277
Large Industrial	291,902	278,219	299,155	285,439	248,434	284,153	266,806	298,543	286,537	302,749	283,697	299,724	3,425,358
Small Ag Irrigation	7,532	6,343	19,729	58,676	141,146	176,749	203,392	189,162	137,922	76,071	13,980	6,873	1,037,574
Large Ag. Irrigation	78,318	100,198	446,510	1,386,178	3,343,661	4,994,942	5,299,562	3,981,974	1,894,643	1,239,058	277,745	79,595	23,122,385
Street Lighting	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	18,322	219,864
Security Lighting	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	22,380	268,556
Unmetered Accounts	18,311	18,340	18,433	18,197	18,204	18,213	18,215	18,217	18,114	18,447	18,405	18,170	219,268
TOTAL REVENUE:	**$11,114,481**	**$10,622,972**	**$10,525,879**	**$9,615,200**	**$10,835,656**	**$13,163,879**	**$14,116,380**	**$13,818,130**	**$10,689,361**	**$8,939,170**	**$9,058,304**	**$10,435,153**	**$132,934,566**

Retail Energy Sales Forecast

Tab 8

RESOLUTION NO. 2639

June 13, 2023

**A RESOLUTION OF THE COMMISSION OF
PUBLIC UTILITY DISTRICT NO. 1 OF BENTON COUNTY, WASHINGTON
APPROVING THE 2023 LOAD FORECAST FROM 2023-2032
BASED ON THE 2022 LOAD FORECAST MODEL**

WHEREAS, on April 26, 2022 the Commission of Public Utility District No. 1 of Benton County approved Resolution No. 2600 adopting the Ten-Year Load and Customer Forecast 2022-2031 (2022 Load Forecast); AND

WHEREAS, the Load Forecast is typically updated annually, per Finance Policy No. 24 – District Planning, and is necessary for the District's revenue forecasting and other fiscal planning tools including, but not limited to, the cost-of-service analysis, resource planning, rate analysis, budgeting, power requirements planning, and five-year capital planning; AND

WHEREAS, a ten-year load forecast is required to be shared with external entities performing regional load forecasting, including the Pacific Northwest Utilities Conference Committee (PNUCC) and the Bonneville Power Administration (BPA); AND

WHEREAS, the District's Power Management staff has an increased work load in calendar year 2023, including tasks associated with the transition from the BPA Slice/Block to Load Following power sales agreement, effective October 1, 2023, and the implementation of Washington's cap-and-invest and greenhouse gas reporting requirements, which became effective January 1 ,2023; AND

WHEREAS, there is an opportunity to defer the efforts related to producing a 2023 Load Forecast report, given that little change is expected from the 2022 Load Forecast data and knowing that the District will be preparing a new Load Forecast report in 2024—as an input to the 2024 resource plan—which will incorporate the results of a 2023 Conservation Potential Assessment; AND

WHEREAS, the 2022 Load Forecast model included data for a 20-year forecast from 2022-2041, which will accommodate forecast stakeholders requiring a ten-year forecast from 2023-2032.

NOW, THEREFORE BE IT HEREBY RESOLVED that the Commission of Public Utility District No. 1 of Benton County approves and adopts the 2023 Load Forecast from 2023-2032 based on the 2022 Load Forecast model.

BE IT FURTHER RESOLVED that this Resolution supersedes Resolution No. 2600 dated April 26, 2022.

APPROVED AND ADOPTED by the Commission of Public Utility District No. 1 of Benton County at an open public meeting as required by law, this 13th day of June 2023.

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Barry Bush, President

ATTEST:

DocuSigned by:

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Lori Kays-Sanders, Secretary

Public Utility District No. 1 of Benton County

Ten-Year Load & Customer Forecast 2022-2031

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1. Executive Summary

The Ten-Year Load and Customer Forecast for 2022-2031 provides an estimate of the District's annual/monthly loads and customer counts for each customer class and the total system. The Forecast is developed annually and used as critical input to several analyses and processes including the Cost of Service Analysis (COSA), the Integrated Resource Plan (IRP), rate analysis, budgeting, power requirements planning, and the Five-Year Capital Plan.

The following are the key assumptions of the 2022-2031 Forecast:

1) Uses regression modeling to relate historical retail load/customers, economic, and weather variables to forecast future retail load/customers.
    a) 2021 Woods and Poole projections for county employment were used to forecast the number of customers
    b) Historical monthly load and customers are combined to find a historical usage per customer for each rate class
    c) Weather variables include the last 15-year average of heating degree days and cooling degree days
2) Includes 11.7 aMW of conservation achievements identified by the 2021 Conservation Potential Assessment's ten-year cost-effective potential.
3) Does not *explicitly* include electricity intensive loads (EIL) or electric vehicles (EV's) because each currently represents a relatively small component of the total system load for the District. The District did perform scenario analyses that consider electrification impacts of both EVs and Residential Natural Gas fuel switching. More detail of this can be found in **Section 4.0 Load Forecast Scenario Analyses.**

The Forecast expects the total system retail load to be 202.9 aMW in 2022 and the 5-year and 10-year annual average rates of growth to be 0.35% and 0.29%, respectively. These growth rates are lower than the previous forecast, primarily due to removing COVID recovery assumptions. For the previous forecast, the small general service load was assumed to be reduced in 2021, but then ramp back to normal, which resulted in artificially high 5-year and 10-year growth rates because of the first year being abnormally low. However, COVID-19 has continued to play a role in economic impacts to local small businesses and the future outlook will be difficult to project when this class returns to the pre-pandemic customer growth that was historically seen. Total system forecast for calendar year 2022 is about 0.1 aMW lower than was estimated by the 2021 forecast. The Forecast projects a total system retail load of 208.2 aMW in 2031, as shown below in **Figure 1-1.**

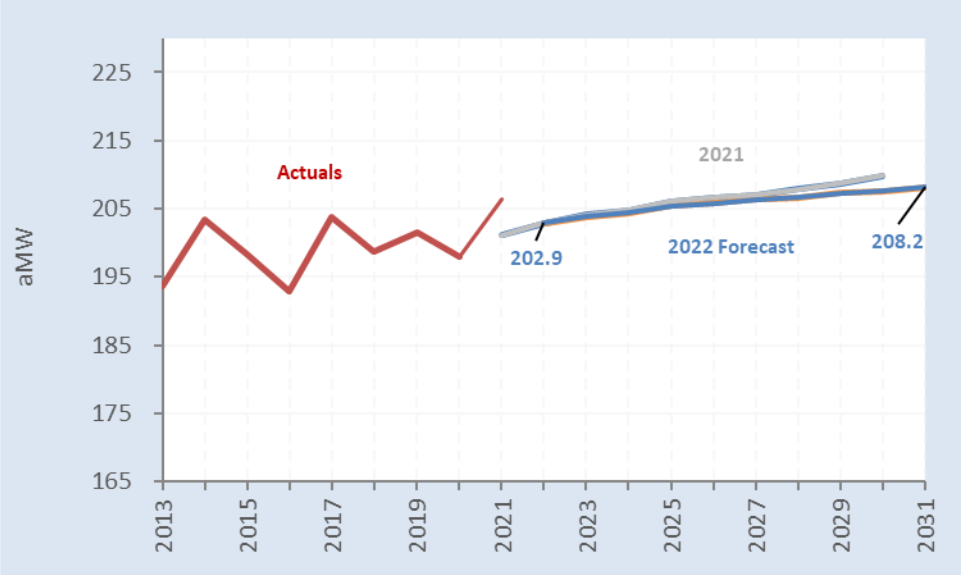


Figure 1-1 – Total system retail load comparison of 2022 Forecast to 2021 Forecast

The Forecast expects continued strong growth in the District's number of customers, with the total system number of customers forecast to increase by 709 customers in 2022. The dip in customers in 2023, as shown below, is due to an expected transfer of customers and load to the City of Richland and is anticipated to be completed in summer of 2023. Overall, the District is expecting to keep pace with recent historical annual growth in customers. The total system annual customer count increase is shown in Error! Reference source not found..

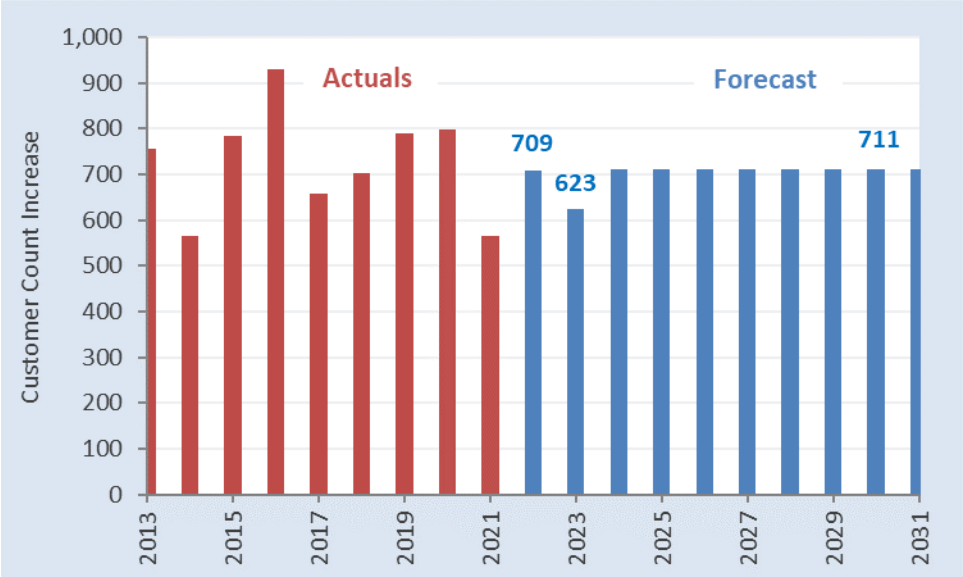


Figure 1-2 – Total system annual customer count increase

Overall, the Forecast reflects the continuing trend of the District having strong growth in our customer count, but a relatively low rate of retail load growth, primarily due to declining trends in energy usage per customer as a result of energy efficiency and conservation. The Forecast expects the total system annual usage per customer to decrease from 31.4 MWh/customer in 2022 to 29.0 MWh/customer in 2031, as shown below in **Figure 1-3**.

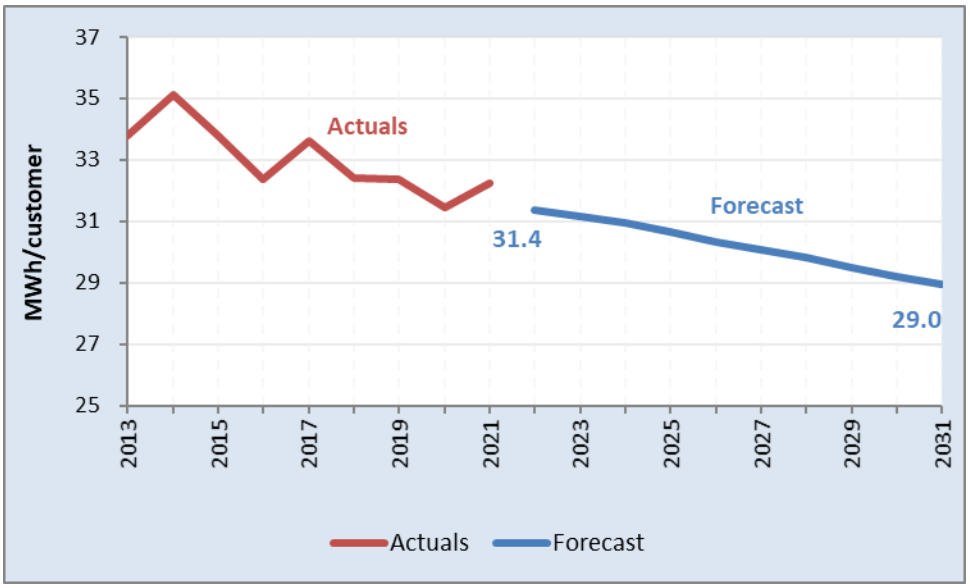


Figure 1-3 – Total system annual energy usage per customer

2. Forecast Methodology

2.1 Overview

The Ten-Year Load and Customer Forecast (Forecast) is a forecast of the District's total system and customer class annual and monthly energy (MWh), average demand (aMW), year-end number of customers, and average annual number of customers. The Forecast inputs include historical monthly loads and monthly customer counts by customer class, plus monthly historical and forecasted weather. The historical monthly load and customer counts are used to derive monthly usage per customer for each customer class. This historical usage per customer is then regressed against Heating-Degree Days (HDD) and Cooling-Degree Days (CDD) to account for weather's impact to loads. The District also produces an independent customer forecast driven by its relationship to Benton County total employment. The usage per customer and customer forecasts are combined to arrive at a class level forecast which is further aggregated to a total system forecast. Additionally, the conservation forecast and any manual adjustments as determined by District staff are also included. Additional details of the forecast methodology and assumptions are provided in the following sections.

2.2 Customer Classes

The Forecast results include a total system forecast that is a summation of the forecasts for each customer class. **Table 2-1** below summarizes the relationship of the District's customer classes (i.e. revenue classes) to its rate schedules and identifies the section of this report that discusses the Forecast results. Refer to the District's website for detailed descriptions of the rate schedules.

Table 2-1 – District customer class relationship to rate schedules

Customer Class	Rate Schedule(s)	Report Section
Total System	All	5.0
Residential	11, 12	6.1
Small General	21, 90, 95	6.2
Medium General	22	6.3
Large General	23, 24	6.4
Large Industrial	34	6.5
Small Irrigation	71	6.6
Large Irrigation	72, 73, 74, 75, 76	6.7
Street Lights	51	6.8
Security Lights	61	6.9
Unmetered Flats	85	6.10

2.3 Historical Data

Historical monthly retail energy sales (MWh) and monthly customer counts (i.e. number of active services), as reported by the District's monthly financial statements by customer class, are key inputs to the Forecast regression modeling. Additionally, the Forecast utilizes the historical monthly energy (MWh) and peak demand (MW) values reported by the Bonneville Power Administration (BPA) Meter Data Management Reporting (MDMR2) system for the District's total system load at the BPA point-of-delivery (Meter #8110).

2.4 Economic Data and COVID-19

Economic impacts are something that should be considered when forecasting future load and customer growth. The Energy Authority (TEA) subscribes to Woods & Poole Economics, a small independent firm in Washington DC that specializes in long-term county economic and demographic projections. Their forecasts, which are updated annually, provide some insight to potential growth for the future. The statements below from Woods & Poole provide a summary of their economic data, as described in *Technical Description of the Woods & Poole Economics, Inc. 2021 Regional Projections and Database:*

- "The Woods & Poole Economics, Inc. database contains more than 900 economic and demographic variables for every county in the United States for every year from 1970 to 2050. This comprehensive database includes detailed population data by age, sex, and race; employment and earnings by major industry; personal income by source of income; retail sales by kind of business; and data on the number of households, their size, and their income. All of these variables are projected for each year through 2050."
- "The Woods & Poole 2021 projections include historical data only through the year 2019, prior to the impact of the COVID-19 pandemic on U.S. population, employment, retail sales, and income. Data for the year 2020, the nadir of the COVID-19 impact, are forecast by Woods & Poole based on Bureau of Labor Statistics (BLS) total employment change 2019 to 2020 for all U.S. counties. Total U.S. retail sales data by kind of business from the Census Bureau for 2020 were used to adjust county forecasts for 2020 to reflect the COVID-19 impact. BEA Gross Domestic Product (GDP) and total personal income by source for the year 2020 were also used to adjust county forecasts for 2020 to reflect the COVID-19 impact. Data for personal current government transfer receipts for 2020 are from BEA National Income and Product Account (NIPA) estimates and were used to adjust county forecasts in 2020. BEA personal current government transfer receipts for 2020 were provided for unemployment benefits and all other transfers. Unemployment benefits transfers in 2020 were estimated based on BLS total number of people unemployed in 2020 by county."
- "The 2021 Woods & Poole projections do not show a significant long-term economic impact from COVID-19 beyond 2022."

TEA's general assessment was that Woods and Poole Economic data has proven to be a fairly reliable source of economic predictions for longer term projections and can be used as starting point to link to customer growth in multiple rate classes. For this reason, the Total Employment in Benton County was used in the creation of the customer forecast.

2.5 Weather Data

Weather data from the Tri-Cities Airport Pasco, WA weather station is a key input for the Forecast's regression modeling. **Table 2-2**Table 2-2 identifies the two key weather variables that are utilized.

Table 2-2 – Types of weather variables utilized for regression modeling

Weather Variable
Heating degree days (HDD)
Cooling degree days (CDD)

Heating degree days represent days where customers are forecasted to need heating services; whereas, cooling degree days represent days where customers are forecasted to need cooling services. As the need for heating and cooling services increases, the District's customers' energy usage increases as well. For each customer class, the regression analysis tested a range of base temperatures from 60 to 70 degrees Fahrenheit and selected the base temperature corresponding to the highest R^2 value. Monthly degree days were derived from hourly calculations aggregated for the month and then divided by 24.

In addition to the historical weather data being critical for the regression modeling, the data is also utilized to calculate a 15-year average for each weather variable to define the "normal weather" assumed for the base case forecast. **Figure 2-1**Figure 2-1 shows the annual historical values for degree days including the 15-year average at the 61-degree base. **Table 2-3** summarizes the 15-year minimum, average, and maximum values for the weather variables.

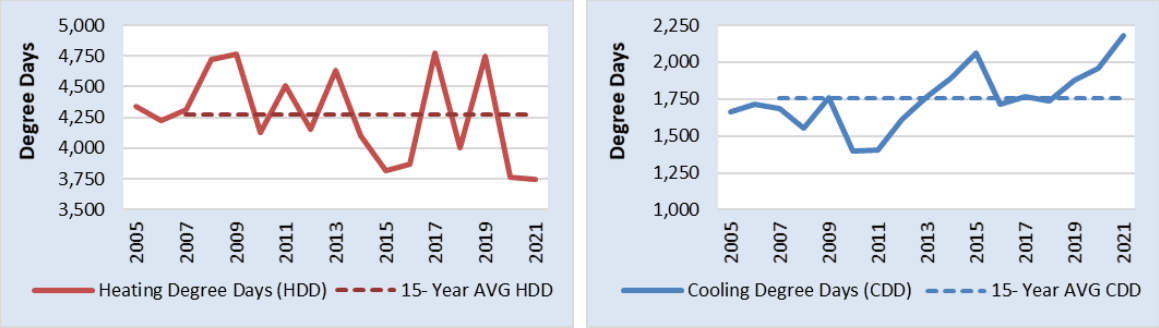


Figure 2-1 – Annual heating and cooling degree days from 2005-2021 at the Tri-Cities Airport

Table 2-3 – Weather variables 15-year min., avg. and max. values at Tri-Cities Airport

Weather Variable	Minimum	Average (Base Case)	Maximum
Heating degree days (HDD)	3748	4270	4775
Cooling degree days (CDD)	1397	1757	2177

2.6 Regression Modeling

The main component of the Forecast methodology is the regression modeling that determines the correlation, or relationship of historical loads and customers with historical weather and economic variables to produce a forecast. The District provides historical load and customer data to The Energy Authority (TEA), who the District has contracted with to perform regression modeling for the load forecast. For this year's forecast TEA has used *R-Programming Language* to perform statistical computing and creation of this year's load forecast model. R is often used among data experts and statisticians for data analysis and modeling.

TEA first separates the load forecast process into two sets of processes. The customer forecast portion must be completed first to use the output to assist with the second process. The customer forecast model starts by utilizing the historical number of customers for a given month and rate class utilizing data beginning in 2013. Customer data prior to 2013 showed several "step" changes which could make the regression provide an incorrect forecast or attempt to add additional step changes in the future.

Starting in 2013 helps eliminate counting errors or counting changes that impacted these historical values. TEA takes the provided data and runs a regression utilizing *Woods and Poole* economic data to establish a relationship between Total Employment in Benton County and customer growth. The output of this regression model is the initial customer forecast which is analyzed against recent customer growth trending for credibility.

The second process is creating the load forecast model which utilizes the customer forecast component from above to achieve the initial load results. The new modeling first takes both historical monthly load and customers by rate class to derive historical monthly usage (kWh/customer). A regression analysis on historical monthly usage is completed and plotted against historical monthly weather (HDD, CDD) to help build the model. **Figure 2-2** below represents the steps used in the load forecast process.

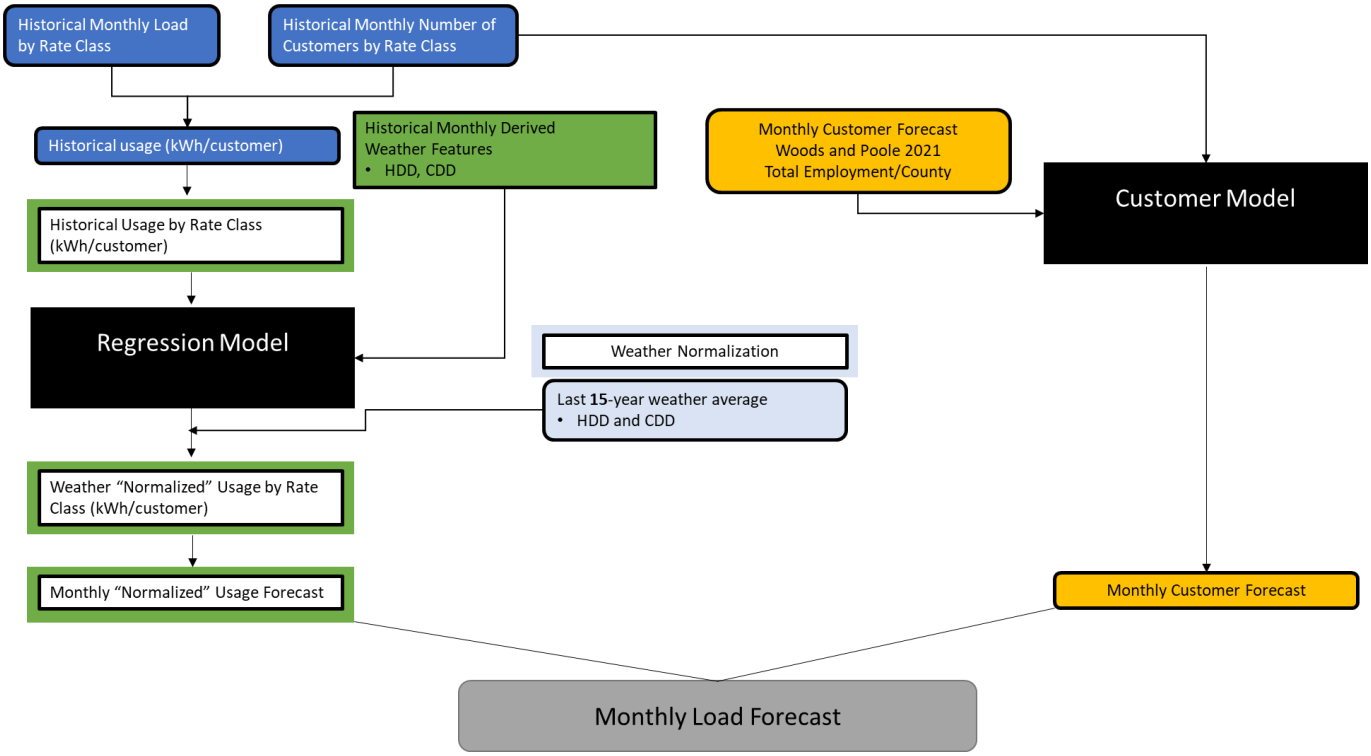


Figure 2-2 – Load Forecast Model

Weather variables from a monthly average of the last 15-years are used as input into the model for the assumed weather that will drive load going forward. This weather is the expected "normal" weather and helps establish a monthly usage per customer forecast by class. The last and final step is to apply this monthly normalized usage and multiply it by the monthly customer forecast to get the monthly load forecast. In some cases, District staff has overridden the model output (see Section 2.9 – Manual Adjustment); however, this section is intended to document the base TEA models as they evolve over time.

2.7 Monthly Shaping

The regression modeling uses historical monthly billing data and monthly weather variables to create a monthly forecast. After determining the monthly values, they are aggregated to annual forecast values where they are shaped using a 5-year average of the percentage of the month's billed retail load compared to the annual billed retail load. Monthly regression modeling on actual usage during a specific month would be preferred, but the District is currently limited to billing data. For example, a customer may be billed in February for usage that occurred from January 5 to February 5. Therefore, it would not be valid to find a correlation between the customers billed "February usage" and February weather, given that most of the usage occurred in January. The District is working on using advanced meter data combined with business intelligence analytics to overcome this limitation, which is expected to give better deliverables in the future.

2.8 Conservation Forecast

In addition to natural energy saving effects due to electricity rate inflation and economic conditions, the District has an established conservation program in place to proactively assist our customers with efforts to reduce their energy consumption. In order to account for these extra efforts, the District uses the latest Conservation Potential Assessment (CPA) report as an input to the Forecast. The CPA details recent historical conservation savings and provides a 2-year, 4-year, 10-year and 20-year forecast of conservation savings by customer sector. In October 2021, the District's Commission passed Resolution No. 2582 to adopt a new CPA, which is used as the input for the 2022 Forecast. CPA's are conducted every two years and this input is currently being updated in even years. **Figure 2-3** below shows the historical achieved conservation from 2013 to 2021 by customer sector.

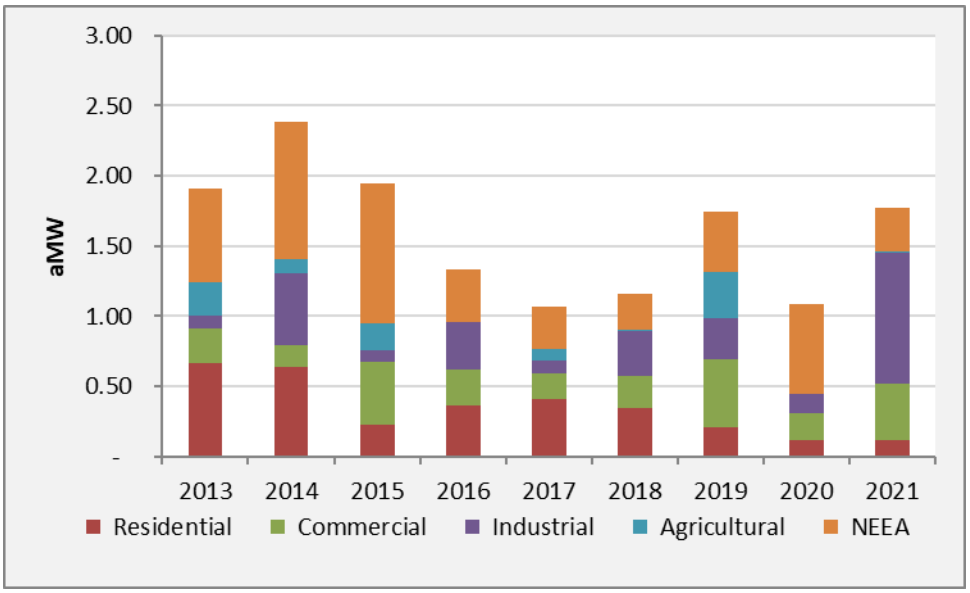


Figure 2-3 – Historical annual conservation by customer sector from 2013-2021

The CPA's forecasted conservation by customer sector is analyzed by staff, allocated to the District's customer classes and then subtracted from the forecasted loads to account for load reductions associated with conservation activities. District staff has observed that approximately 1.0 aMW of annual conservation has been consistently achieved since the year 2000. Although conservation achievements

were below historical levels in 2020 due to restrictions during the initial phases of the COVID-19 pandemic, the District is back on track with strong conservation achievements in 2021.

In order to account for the impact of historical conservation activities influencing the regression model's trend, District staff subtracts 1.0 aMW from the CPA's annual conservation projection. Therefore, the Forecast only includes the expected annual incremental conservation savings above or below 1.0 aMW.

The Forecast reflects the District's practice of targeting to achieve 60% of its 2-year target in the first year and 40% in the second year, as well as each customer class's changing percentage share of the total potential over time. The 10-year cumulative conservation potential is about 11.7 aMW. **Figure 2-4** shows the forecast of total annual cumulative conservation by customer class for the years 2022-2031.

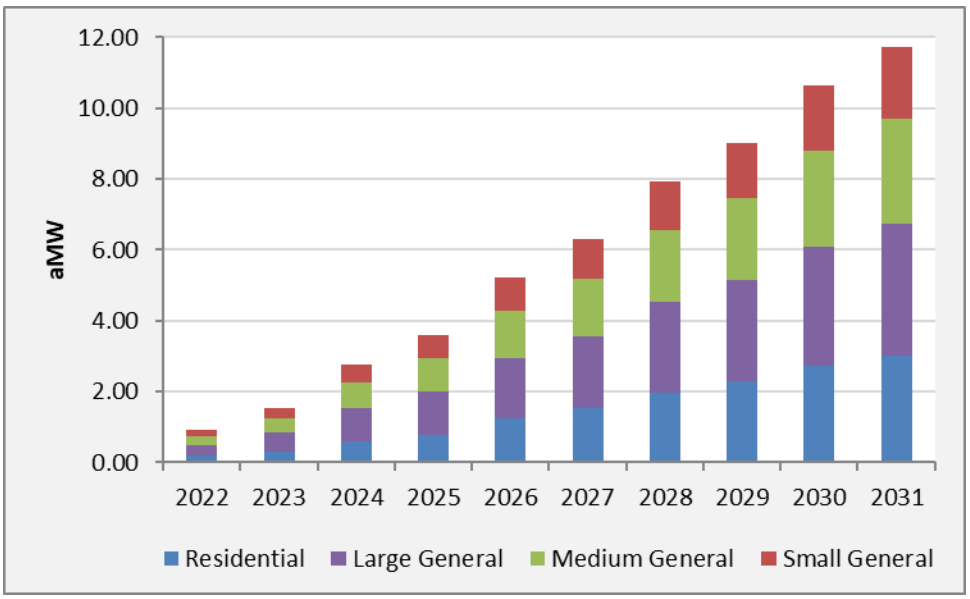


Figure 2-4 - Forecast of total cumulative conservation by customer class from 2022-2031

2.9 Manual Adjustment

Staff uses professional judgement to implement manual adjustments to the regression model's forecast, primarily for two reasons: 1) to adjust for step-changes or high growth in load or customers that the regression analysis trend would not be able to consider, and 2) to adjust for modeling results that do not reflect reasonable expectations. In general, it is preferred to make as few adjustments as possible and instead to focus on improving the modeling methodology.

The regression modeling attempts to minimize the forecast error such that the modeled values align closely with the historical actuals, but there is always some model error. At times there is a need to adjust the starting point for the first year of the forecast to account for the forecast error between the previous years modeled and actual value. Recent historical (2017-2021) load and customer trends also provided insights and known or upcoming impacts to specific rate classes. A combination of the initial model results and analysis of recent history were both utilized in the formulation of the 2022 load forecast.

Manual adjustments were also made for customer growth and loss of load due to transferring some customers to the City of Richland (COR) which is expected to occur in 2023. A complete list is shown in **Table 2-4** summarizing the manual adjustments that were utilized for the Forecast by rate class.

Table 2-4 – Manual adjustments applied to the forecast after regression modeling

Customer Class	Adjustment Type	Adjustment Description
Residential	Customer & Load	1) Increased customer growth to achieve about 57 cust./month 2) Removed customer first year forecast error 3) Adjusted customers down by 87 in 2023 due to expected transfer to COR. 4) Increased load results to linear trend since 2013
Small General	Customer & Load	5) Decreased customer growth to achieve about 3 cust./month 6) Removed customer first year forecast error 7) Adjusted customers down by 1 in 2023 due to an expected transfer to COR. 8) Increased load results to linear trend since 2013
Medium General	Customer	9) Removed customer first year forecast error
Large General	None	10) Acceptable model results
Large Industrial	Load	11) Increased load to trend 2019-2021, then held flat
Small Irrigation	Customer & Load	12) Decreased customer growth to show a decline of about 3 customers annually 13) Increased load to trend 2016-2021, then held flat
Large Irrigation	Customer & Load	14) Increased load to trend 2016-2021, then held flat 15) Adjusted customers down by 1 in 2023 due to an expected transfer to COR
Streetlights	Load	16) Acceptable. Held flat to 2021 load
Security Lights	Customer	17) Removed customer first year forecast error 18) Customer count declines at about 2 customers/month
Unmetered Flats	Load	19) Adjusted load down to start where 2021 ended

2.10 System Losses

The historical customer class load data used for the Forecast is based on the District's billed load, which includes both District metered and unmetered loads. The unmetered loads (street lighting, security lighting and flats) utilize estimates for monthly energy consumption. The aggregation of District billed load is referred to as "retail load" and this term implies the exclusion of losses associated with serving this load over the District's transmission and distribution system or the Bonneville Power Administration's (BPA's) system. Refer to the following paragraphs for additional background on system losses and to **Appendix A, Table** 7-1 for a summary of the how the losses impact the total system load.

The Bonneville Power Administration (BPA) separately meters the District's load. The District's contract with BPA defines both a "point-of-delivery" and a "point-of-metering". The aggregation of load measured by BPA's points-of-metering will include the District's entire retail load, as defined above, but only a portion of the losses associated with the District's transmission and distribution system, because not all of BPA's meters are physically positioned to measure 100% of the losses at their locations. For example, BPA metering is typically installed on the low voltage side of a substation power transformer and therefore does not measure the losses associated with the District's power transformer. Another

example is when BPA metering is installed at the substation, but the point-of-delivery is defined at a point upstream where the District's transmission line taps BPA's line. For billing, BPA estimates the losses associated with the difference between the point-of-metering and the point-of-delivery. BPA's billed aggregate load at the point-of-delivery, also referred to as the District's "wholesale load", is inclusive of the District's entire retail load and the District's entire transmission and distribution system losses.

The difference between BPA's billed total load at the point-of-delivery and the District's billed retail load is equal to the District's transmission and distribution system losses. These losses are typically represented as a percentage of the total point-of-delivery load. The Forecast assumes that the District's transmission and distribution system losses are 3.4%, which is the average of the last 10 years of historical annual losses.

The District is not only responsible for procuring the energy necessary to serve our customers' load and our system losses, but also the losses associated with the transport of electricity over BPA's equipment and transmission lines from regional generation resources to our points-of-delivery. BPA transmission customers are required to return real power losses to BPA. Schedule 11 of BPA's Open Access Transmission Tariff (OATT) sets the real power loss factor by season, at 1.95% of kWh delivered for the non-summer period and 2.31% for the summer period. The BPA summer period is identified as June 1, 12:00 AM to September 1, 12:00 AM.

2.11 Peak Forecast

To calculate a monthly peak forecast, a five year monthly average load factor was calculated using the historical relationship between the BPA point-of-delivery total system monthly average energy and monthly peak demand. The average load factor was then applied to the monthly load forecast to generate peak demands for every month. **Appendix A** – Summary Tables, **Table** 7-1 includes the historical and forecast of the system peak hourly demand.

3. Forecast Considerations

3.1 Forecast History

Figure 3-1 shows the past six years of ten-year forecasts of total system retail load, actual load and the current 2022 ten-year forecast. As seen in the graph, the District's retail load forecasts have continued to project a fractional growth rate with the most recent years being below 0.5%. The Forecasts' growth rates have maintained similar growth patterns the last several years.

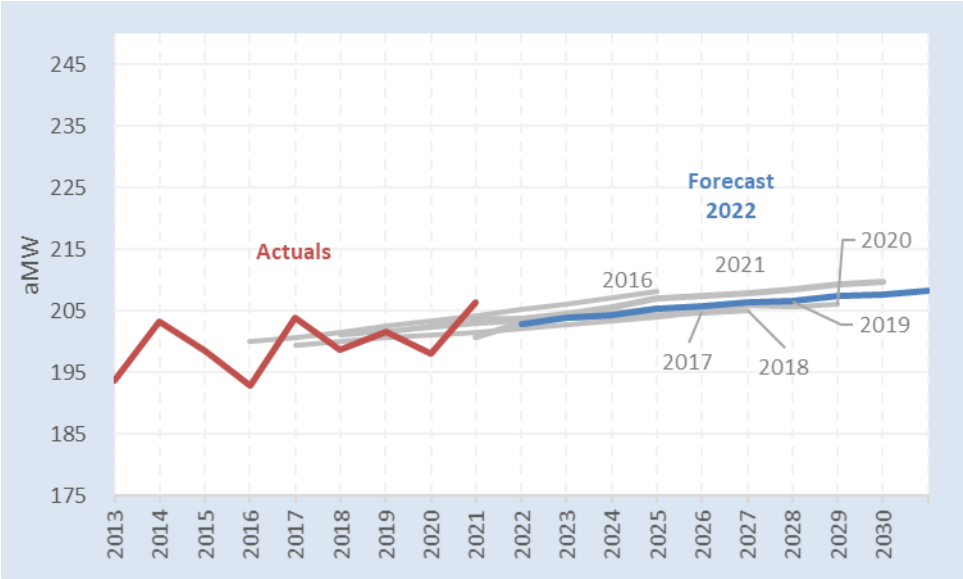


Figure 3-1 – Total system retail load ten-year forecasts from 2016 to 2022

3.2 Forecast Variances

Several factors can cause variations from the Forecast compared to actuals, including weather, large irrigation customer crop rotations, and unforeseen new loads or loss of loads. The most common driver of the variance is weather, given that the Forecast is based on average weather. **Figure 3-2** below shows that over the past 11 years the District's total system retail load forecast variance has ranged from +4.3% to -3.6%. For an annual forecast near 200 aMW, a 5% variance is equivalent to 10 aMW.

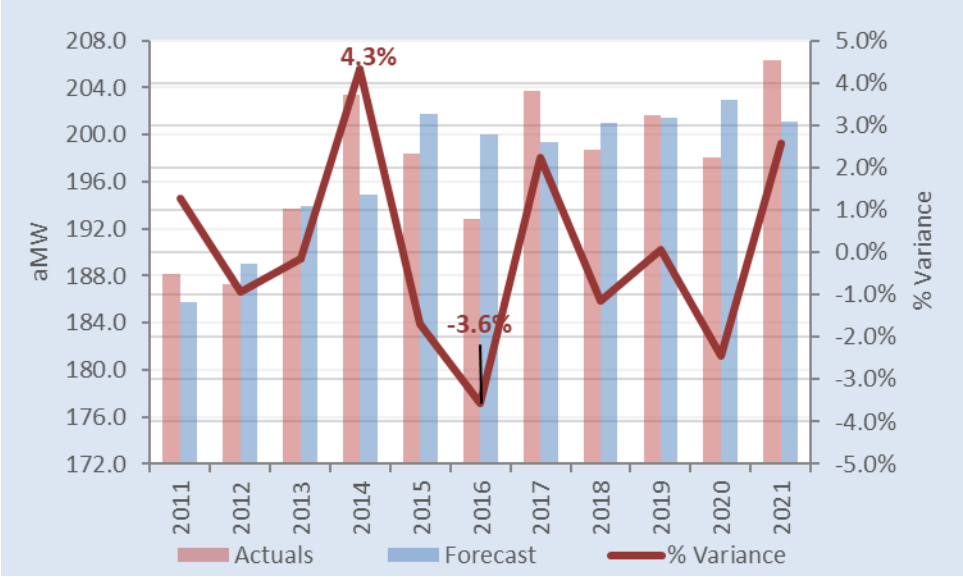


Figure 3-2 – Forecast vs. actuals variance of total system retail load from 2011 to 2021

In addition to the variance of the total system retail load, the District considers variances by customer class. In 2021, general service rate classes show mixed results after returning from pandemic level usage and irrigation loads increased due to extreme June 2021 temperatures and lack of precipitation. **Table 3-1** shows the variance by customer class for the 2021 forecast versus 2021 actuals.

Table 3-1 – Forecast vs actuals variance of retail load (aMW) by customer class for 2021

Customer Class	2021 Forecast	2021 Actual	2021 % Variance
Residential	83.08	81.26	-2.20%
Small General	13.78	13.27	-3.71%
Medium General	20.67	20.92	1.18%
Large General	26.21	27.62	5.41%
Large Industrial	7.29	7.43	1.93%
Small Irrigation	1.70	1.91	12.37%
Large Irrigation	47.66	53.19	11.61%
Street Lights	0.29	0.27	-5.95%
Security Lights	0.10	0.10	-6.23%
Unmetered Flats	0.35	0.34	-2.15%
Total System[1]	**201.13**	**206.31**	**2.58%**

1) Total of class amounts may differ from Total System due to rounding.

3.3 Forecast High & Low Cases

To account for some of the load uncertainties, the District's Forecast includes high and low cases, in addition to a base case load forecast. Similar to last year's forecast, the base case regression model output is adjusted up/down based on a statistical analysis of the historical percentage deviation from the average from 2002 to 2021 for each customer class. These historical deviations are representative of variances that can be expected going forward, including due to above or below average weather. For the 2022 Forecast, the high and low cases are ± 4.6% (± 9.2 aMW) in 2022 and ± 4.6% (± 9.5 aMW) in 2031. **Figure 3-3** shows graphically the historical annual variability along with the Forecast base, high, and low case forecasts.

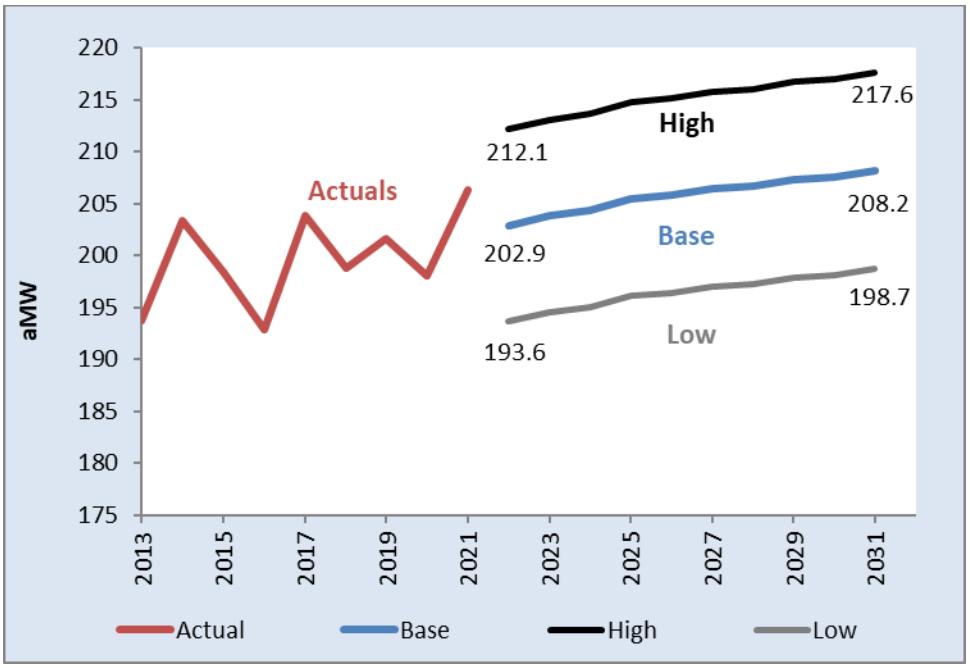


Figure 3-3 –Total system retail load historical and base forecast with high and low case

3.4 Load Preservation and Load Growth

Many utilities are experiencing lower retail sales growth due to several factors which may include general economic activity, energy efficiency programs, fuel-switching or customer generation from rooftop solar installations and community solar installations. Flattening or declining retail sales puts upward pressure on customer retail rates as general inflation causes costs to increase while sales remain stagnant. More importantly, about one-half of total utility costs are fixed costs such as poles, wires and substations required to safely and reliably serve customer loads. Fixed costs do not decrease as sales flatten or decrease.

In the current environment, it is important for the District to preserve existing load and continue to have positive load growth. The District has surplus energy above what is required to meet loads ("long on resources") on an annual average basis in an average water year and the excess energy from its resources is sold in the wholesale market. Wholesale market prices have declined significantly in recent years as a result of overbuilding of renewable generation due to state mandated renewable energy policies and because of large increases in natural gas supplies due to fracking technologies, which has kept natural gas prices low. By growing loads and selling the District's energy at retail rather than wholesale, it will decrease pressure on customer retail rates. The District has partnered with TRIDEC and other local agencies to market and highlight areas within the District's service territory that have excess capacity and are ready to interconnect new loads.

Over the last two years the market has seen a bounce back in market price volatility due to uncertainly at both state and regional levels surrounding resource adequacy concerns and Greenhouse Gas (GHG) regulatory programs. Recent clean energy legislation bills and topics like Cap-and-Trade or Carbon Tax programs are shifting states like Washington to procuring and using clean energy resources for the future. Many of these programs push other sectors such as transportation, heating/cooling building codes and infrastructure, and others away from fossil fuels and towards electrification. As demand for

clean electricity increases, higher pricing is expected to follow suit until additional generation resources are built to balance demand. It's unclear how quickly these sectors will move towards electrification, but it's anticipated that load will likely grow over the next 10-20 years as these programs are implemented. The District has performed scenario analyses around electrification and electric vehicles, which can be found in section **4.0 Load Forecast Scenario Analyses** below.

3.5 Customer Generation

In 2021 the District added 141 new services for customer generation net metering, which was slightly less than the 169 new services added in 2018 but significantly more than the 56 added in 2020. Slower solar growth after 2019 was expected due to the end of the Washington State incentive funding. However, in 2020 the federal Solar Investment Tax Credit (ITC) was extended so interested residential parties could qualify for a 26% ITC through the end of 2022 and 22% in 2023 prior to ending in 2024.The District expects on average 3-4 new services per week in 2022-2023 with the ITC still being offered.

The net metering services are predominantly roof top solar, with only about 3 services being wind generators. In addition to its net metered customers, the District has 154 customers that funded the construction of two community solar projects, the 74.8 kW Ely Community Solar Project in Kennewick, WA (commissioned July 1, 2015) and the 24.6 kW Old Inland Empire (OIE) Community Solar Project in Prosser, WA (commissioned March 4, 2016).

The aggregate of the District's customer generation, including the District's community solar projects, reduced the District's annual retail load in 2021 by about 0.75 aMW or 6,570 MWh. The single hour maximum generation was 3.8 MW from 1:00-2:00 pm on June 5, 2021. The impact of customer generation reducing load has not been explicitly modeled in the Forecast.

3.6 Electricity Intensive Loads

The District has assigned the term Electricity Intensive Loads (EIL) to the emergence of new loads associated with cryptocurrency mining and block chain operations. The District has developed a policy to address the requirements and risks associated with EIL customers. As of March 2021, the District has identified 6 customers operating a total of 9 EIL services. The combined load of all EIL customers in 2021 was about 2.6 aMW, which is up about 2.1 aMW compared to 2020. The District's largest EIL service accounted for about 1.8 aMW in 2021. Several of these customers increased their usage between May and Dec of 2021, likely impacted by the economic conditions for mining cryptocurrency. The 2022 Forecast does not explicitly model new EIL growth, but the District will continue to monitor these types of loads in the years ahead.

3.7 Electric Vehicles

Another possible source of load growth is electric vehicles (EVs). The impact of electric vehicles on load growth has not been explicitly modeled in the Forecast, but the District conducted additional analyses that include potential EV outcomes in the **4.0 Load Forecast Scenario Analyses** section below. EVs present an opportunity for the District to offset the impact of flattening or declining retail sales by preserving and possibly growing loads. Like any new business that enters the community, EVs have the potential to generate more energy sales over the long run that will help mitigate upward pressure on rates. The move to clean energy use will be something to monitor closely over the next 10-20 years, especially as EVs become more popular and affordable.

The District passed Resolution No. 2521 on November 12, 2019 to create an Electrification of Transportation Plan that will allow the District to offer incentives/rebates, advertise, and promote the adoption of EV's. Following the adoption of Resolution No. 2521, the District began promoting the

benefits of owning an electric vehicle by offering a $250 rebate to customers who purchase or lease a new electric vehicle. The District has provided 15 total rebates for EVs through March of 2022 since adopting the resolution.

The Washington State Department of Licensing (WA DOL) maintains a database and website of electric vehicles registered in Washington State. The data set includes both plug-in hybrid electric vehicles (PHEV) and battery electric vehicles (BEV). District staff is monitoring this data, particularly for increases in BEVs because this type of EV qualifies for a District rebate. BEVs are the predominant focus and long-term direction of the EV industry and has greater charging load impact than PHEV technology. According to the data, there was an increase of 110 BEV vehicles registered in the last year to one of the 3 cities in **Table 3-2** below.

Table 3-2 – Number of electric vehicle registrations by type and city as of Mar. 2022

City	Plug-in hybrid electric vehicle (PHEV)	Battery electric vehicle (BEV)	Grand Total
Prosser	11	13	24
Benton City	22	20	42
Kennewick	175	279	454
Grand Total	**208**	**312**	**520**

Assuming a single BEV uses 2,800 kWh annually–based on a Chevy Bolt at 28 kWh/100 miles driven 10,000 miles per year–the 312 BEV's would add about 0.09 aMW of annual load. If all 312 BEV's charged at the same time using a level 2 charger (240-volt, 40 amp) it would add about 3.0 MW of peak demand.

3.8 Natural Gas/Electrification

A source of potential load growth for the District could come in the form of natural gas transition and electrification due to current climate initiatives and political decisions in the state of Washington. These changes could mean consumers options and alternatives will be limited in new construction or renovation of homes or businesses. **Table 3-3** below provides the District's best estimate from currently available spatial and billing data through October of 2021, the total number of service locations and their current energy source(s). It will be important for the District to recognize the impact of future legislation and remain nimble in addressing new potential loads and/or load shifting.

Table 3-3 – Service Locations in Benton County by Energy Source

Energy Source(s)	# of Service Locations	% of Total
Full - Electric	38,079	70.6
Gas/Electric	15,932	29.4
Grand Total	**54,238**	**100.0**

4. Load Forecast Scenario Analyses

4.1 Overview

As mentioned in the previous sections, there are many considerations and future impacts to load as requirements shift over the next 10 to 20 years. Additional solar installations will reduce load during the mid-morning to late afternoon, but incremental load from new electric vehicles and potential fuel-switching from natural gas could push loads in the other direction with new regulatory action or customer adoption. Given the potential for many different future outcomes, the District analyzed an array of load scenarios that may come to fruition and could change loads significantly from the expected "base" forecast.

4.2 Natural Gas/Electrification Scenario

In 2021 HB 1084[1] was introduced during Washington State's legislative session, which if enacted into law would have prohibited natural gas infrastructure for space and water heating in both new residential and commercial construction and additionally require the removal of natural gas systems when renovation is undertaken on existing buildings.[2] Many cities in other states such as California, New York, and Massachusetts have already adopted similar codes and requirements. Given the current regulatory climate in the state and recent passages of both the Clean Energy Transformation Act (CETA) and the Climate Commitment Act (CCA), it may be only a matter of time until another bill similar to HB 1084 will pass in an upcoming legislative session. Due to the rapidly changing environment, the District thought it would be important to consider the load impacts of such a bill. However, due to data availability and the large range of electric consumption by certain rate classes, the District only performed this analysis on the residential rate class.

Analyzing historical service locations through October 2021 within the District's service territory and leveraging recently acquired spatial data and technology, the District was able to analyze which residential service locations across the territory have a gas meter present on the premises on each county parcel the District currently serves. **Figure 4-1** below, shows a small snapshot of Kennewick parcels which are color coded. Fully electric customers are shown in blue and gas/electric customers in gold.

[1] 2021 HB 1084 Reducing GHG - https://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/House%20Bills/1084-S.pdf?q=20220324095112

[2] State Level NG Ban - https://www.natlawreview.com/article/washington-state-legislature-considers-first-its-kind-state-level-natural-gas-ban

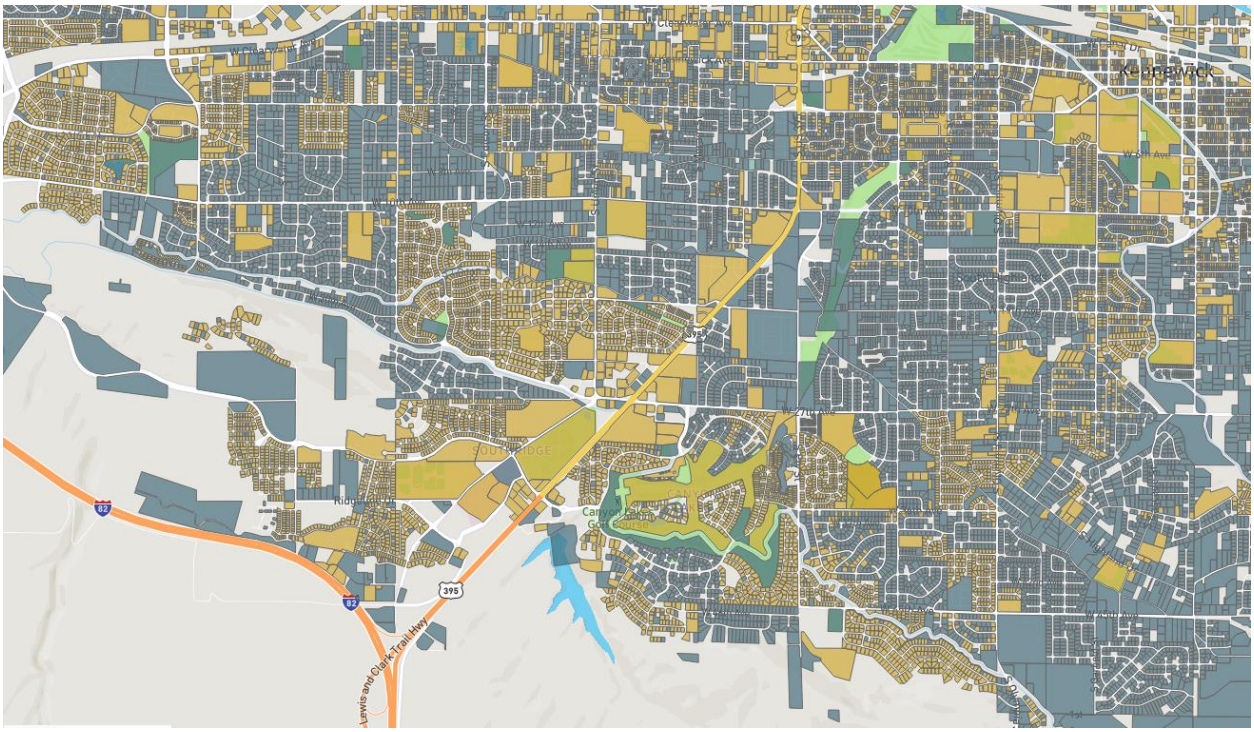


Figure 4-1 –Benton PUD Full-Electric and Gas/Electric Service locations

Customers that have a gas meter present on their property may have different uses for natural gas whether it be cooking, space heating, and/or water heating. From an electric utility perspective these customers' electricity consumption differs considerably from full-electric customers. When comparing the two load profiles, significant variances can be seen over the course of the year. **Figure 4-2** below compares the average monthly consumption of a Gas/Elec customer, Full-Electric customer, and the "Average" usage of all residential customers between Oct 2018 – Oct 2021.

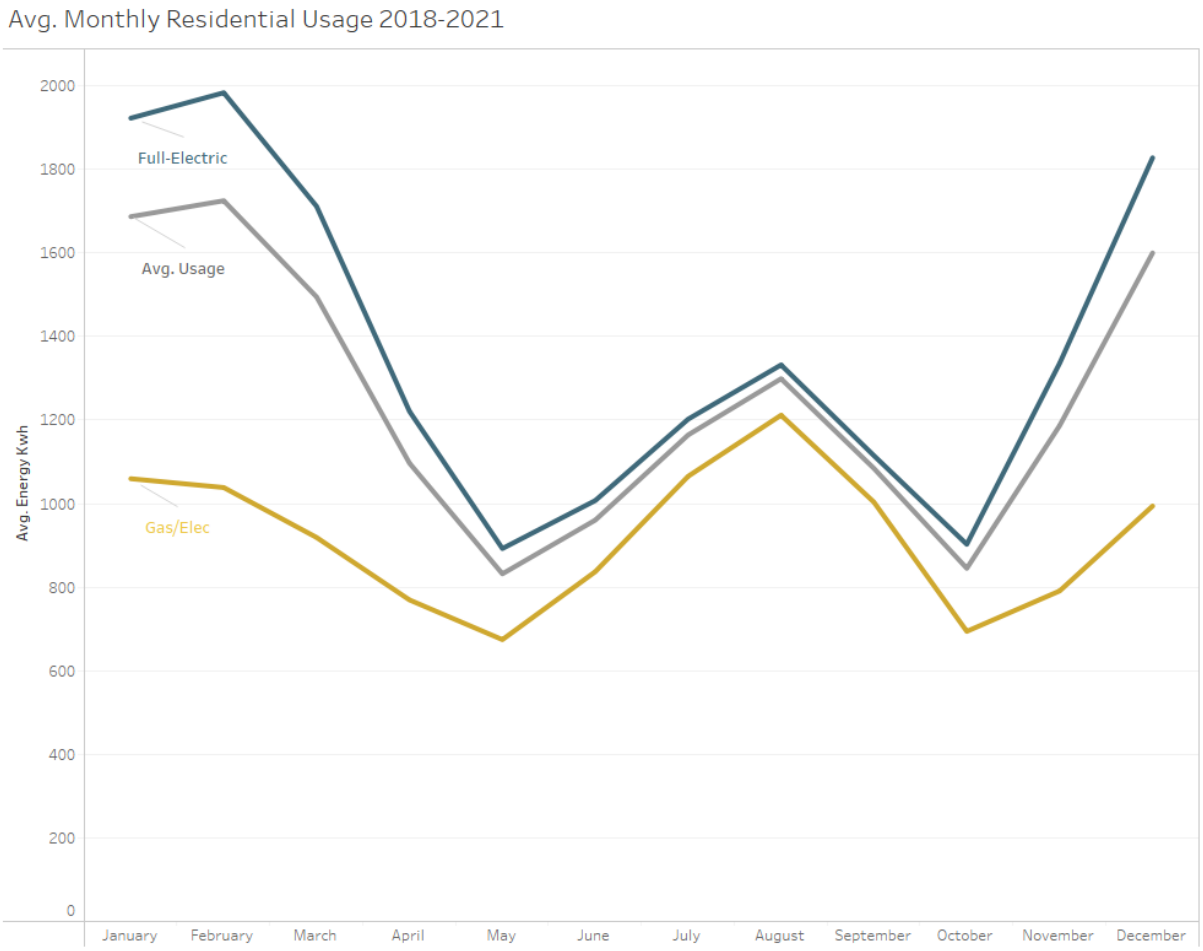


Figure 4-2 –Monthly Residential Usage (Gas/Elec, Full-Electric, and "Average" Res)

Perhaps unsurprisingly, electric usage in the fall, winter, and early spring months of the year is considerably less for customers who use both gas and electric forms of energy in their home. In fact, when comparing the annual electricity consumption, residential gas/elec. customers are currently using roughly 5,386 kWh less per year than a full electric customer when looking at recent history as can be seen in **Table 4-1** below.

Table 4-1 – Monthly Avg. Energy variance between Full-Elec. and Gas/Elec. customers (2018-2021)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Avg. Var. (kWh)	863.0	946.0	793.3	451.3	218.3	170.3	138.0	120.7	111.3	195.3	544.7	833.3	5385.6
% of Annual Total	16.0	17.6	14.7	8.4	4.1	3.2	2.6	2.2	2.1	3.6	10.1	15.5	100.0

Performing an analysis of new residential services, that the District installed between 2019-2021 revealed that approximately 36.1% of these installations had a gas meter also present at the service location/property. A total 12,928 current residential Gas/Elec customers were identified in 2021 and assuming the same percentage to the customer forecast moving forward, the District would have approximately 14,130 gas/elec. customers at the end of 2026.

Table 4-2 – Forecasted number of residential Gas/Elec Customers by 2026

Year	New Residential Customer Forecast	Total Res Service Customers	Res Gas/Elec Customers	Full-Elec Customers	% Gas Customers
2021		47,043	12,928	34,115	27.5%
2022	682	47,719	13,174	34,545	27.6%
2023	599	48,312	13,390	34,922	27.7%
2024	684	48,990	13,637	35,353	27.8%
2025	684	49,668	13,883	35,784	28.0%
2026	684	50,346	14,130	36,215	28.1%

Starting in 2027, HB 1084 stated any construction to new or existing residential buildings would be required to be fully electric going forward. Given that the average life expectancy of most gas furnaces is between 15-20 years[3], all current gas/elec. customers could conceivably be converted to full electric status by the mid-2040s. Taking a simplified assumption that 5% (1/20th) of those customers switch to full-electric needing to replace their gas heating system and utilizing the consumption variance from earlier, the District would see additional load, especially in the winter months. Under a higher transition rate of 10%, driven by potential incentives or stricter regulatory movement, the load increases even quicker with all customers transitioned to fully electric by 2036. **Table 4-3** below provides the conversion values and additional potential load.

Table 4-3 – Potential Natural Gas conversion 2026-2041

Year	Total Res Gas/Elec Customers 5%	Total Res Gas/Elec Customers 10%	5% Conversion (aMW)	10% Conversion (aMW)	Base Load (aMW)	Base Load + 5% Conversion (aMW)	Base Load + 10% Conversion (aMW)
2026	14,130	14,130	0.0	0.0	205.8	205.8	205.8
2027	13,424	12,717	0.6	1.0	206.4	206.9	207.4
2028	12,717	11,304	1.1	2.0	206.6	207.7	208.6
2029	12,011	9,891	1.7	3.0	207.3	209.0	210.3
2030	11,304	8,478	2.2	4.0	207.6	209.8	211.5
2031	10,598	7,065	2.8	5.0	208.2	211.0	213.1
2032	9,891	5,652	3.4	6.0	208.3	211.7	214.3
2033	9,185	4,239	3.9	7.0	208.9	212.9	215.9
2034	8,478	2,826	4.5	8.0	209.2	213.7	217.2
2035	7,772	1,413	5.0	9.0	209.7	214.7	218.6
2036	7,065	0	5.6	9.9	209.7	215.3	219.6
2037	6,359	0	6.2	10.1	210.3	216.5	220.4
2038	5,652	0	6.7	10.2	210.5	217.2	220.7
2039	4,946	0	7.3	10.3	210.8	218.1	221.1
2040	4,239	0	7.8	10.5	210.7	218.6	221.2
2041	3,533	0	8.4	10.6	210.9	219.3	221.5

[3] Gas Furnace Lifespan - https://www.carrier.com/residential/en/us/products/furnaces/how-long-does-a-furnaces-last

4.3 Electric Vehicle Scenario

As of March 25, 2022 Washington state signed into law HB 5974, which sets a target for all vehicles model year 2030 or newer that sold, purchased, or registered in Washington state must be electric vehicles.[4] As a part of a larger transportation package called "Move Ahead Washington" which plans to spend nearly $17 billion, the inclusion of this language will directly impact future load forecasts as the push for additional electric vehicles (EVs) continues. Further considerations are needed now to prepare for a future where EVs are the standard form of transportation and likely a significant addition to load.

The recently released 2021 Northwest Power Plan[5] from the Northwest Power and Conservation Council (NWPCC) predicts that at a regional level, annual electricity demand from electric vehicles will likely range between 1,000 aMW to 4,000 aMW by 2040[6]. Light-Duty Vehicles (LDV) are expected to significantly increase their market share and could be as high as 70%[7] of all new vehicle sales in 2030. Sweeping changes in regional climate policies and a call for emissions reductions are having a profound impact moving forward.

The NWPCC's transportation modeling methodology[8] begins by looking at a variety of historic transportation data including vehicle sales and stock, vehicle capital costs, fuel prices, vehicle efficiencies, population growth, and energy demand by fuel type. Demand requirements come from a need to fill vehicle stock requirements and fill demand resulting from population growth for LDV. The model additionally assumes that electric vehicles follow a declining cost curve over time and auto manufacturers are expected to offer multiple electric vehicle options in the near future. Forecasted results from the NWPCC study of LDV stock for both the Reference case and High-Electric case can be seen below in both **Figure 4-3** and **Figure 4-4.**

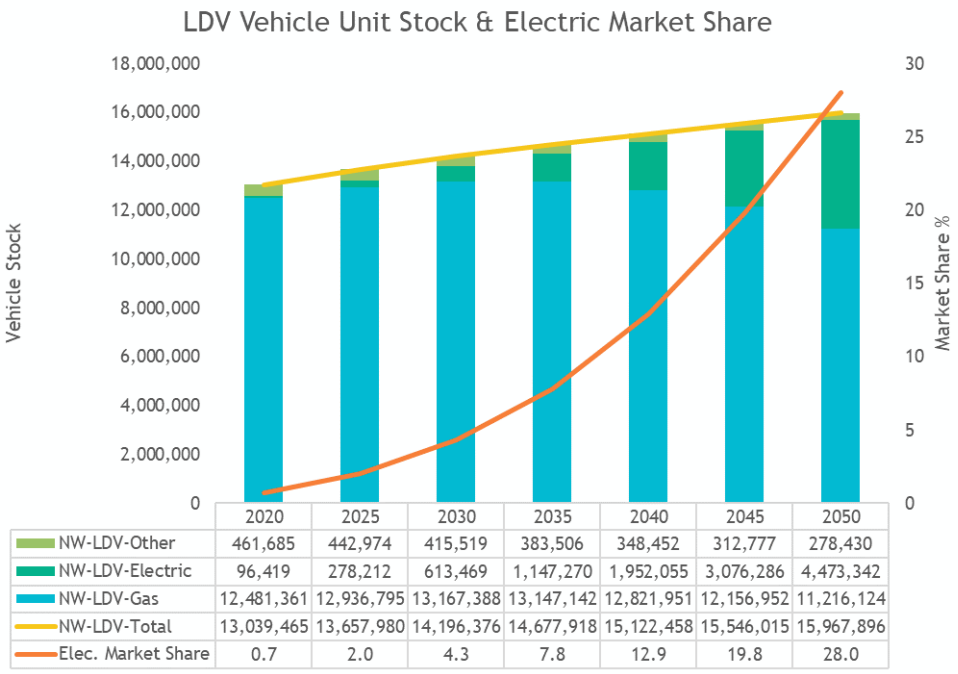
[4] 2030 All EV Sales Washington - https://electrek.co/2022/03/25/washington-passes-bill-targeting-all-electric-car-sales-by-2030-for-real-this-time/

[5] 2021 NW Power Plan - https://www.nwcouncil.org/media/filer_public/4b/68/4b681860-f663-4728-987e-7f02cd09ef9c/2021powerplan_2022-3.pdf

[6] 2040 EV Forecast Predictions - https://www.nwcouncil.org/2021powerplan_transportation-model-findings/

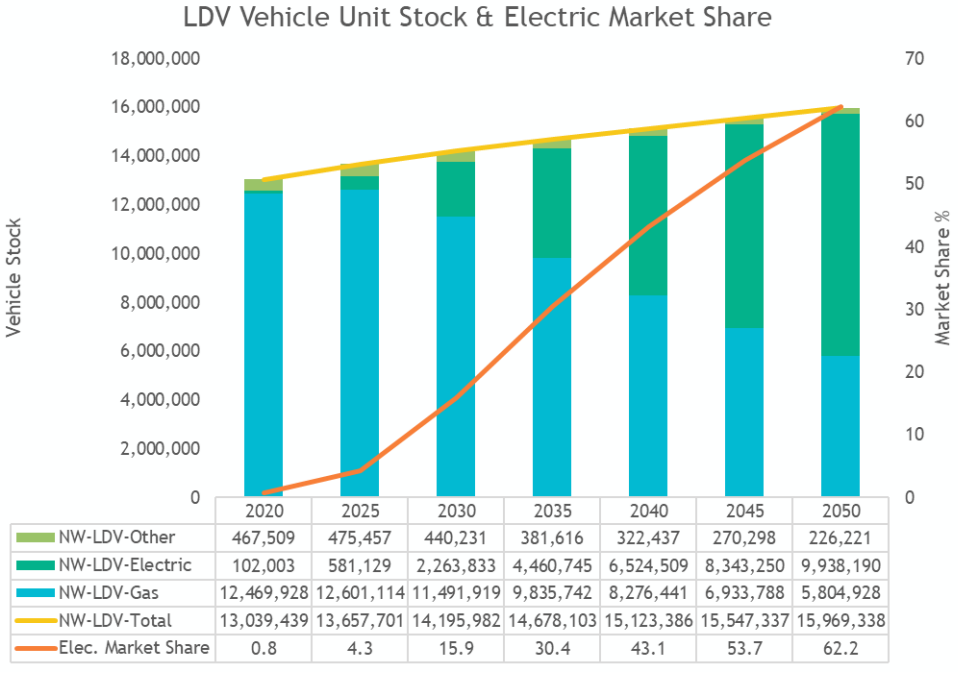
[7] Market Share of Electric Vehicle Sales in LDV Category - https://www.nwcouncil.org/2021powerplan_transportation-model-findings/

[8] NWPCC Transportation Model Methodology - https://www.nwcouncil.org/2021powerplan_transportation-model/



	2020	2025	2030	2035	2040	2045	2050
NW-LDV-Other	461,685	442,974	415,519	383,506	348,452	312,777	278,430
NW-LDV-Electric	96,419	278,212	613,469	1,147,270	1,952,055	3,076,286	4,473,342
NW-LDV-Gas	12,481,361	12,936,795	13,167,388	13,147,142	12,821,951	12,156,952	11,216,124
NW-LDV-Total	13,039,465	13,657,980	14,196,376	14,677,918	15,122,458	15,546,015	15,967,896
Elec. Market Share	0.7	2.0	4.3	7.8	12.9	19.8	28.0

Figure 4-3 –LDV Vehicle Unit Stock & Electric Market Share – Reference Case[9]



	2020	2025	2030	2035	2040	2045	2050
NW-LDV-Other	467,509	475,457	440,231	381,616	322,437	270,298	226,221
NW-LDV-Electric	102,003	581,129	2,263,833	4,460,745	6,524,509	8,343,250	9,938,190
NW-LDV-Gas	12,469,928	12,601,114	11,491,919	9,835,742	8,276,441	6,933,788	5,804,928
NW-LDV-Total	13,039,439	13,657,701	14,195,982	14,678,103	15,123,386	15,547,337	15,969,338
Elec. Market Share	0.8	4.3	15.9	30.4	43.1	53.7	62.2

Figure 4-4 –LDV Vehicle Unit Stock & Electric Market Share – High-Elec Case[10]

[9] LDV Vehicle Unit Stock & Electric Market Share Reference Case - https://www.nwcouncil.org/2021powerplan_transportation-model-reference-case-results/sites/default/files/TPT_ModelResults_Reference_Case.xlsx

[10] LDV Vehicle Unit Stock & Electric Market Share High-Elec Case - https://www.nwcouncil.org/2021powerplan_transportation-model-high-electric-case/sites/default/files/TPT_ModelResults_HiElectric_Case.xlsx

The figures above show the Northwest's potential for substantial growth in market share from electric vehicles in both the reference case and the high-electric case studies. The District analyzed these results further by disaggregating the Northwest results to focus on the Washington state which makes up over 60% of the current total electric vehicle stock in the Northwest and is the primary driver of most of the electric vehicle sales both historically and in the Council's model results. These forecasted electric vehicle stock values for Washington were then used to derive a Year-over-Year (YoY) growth percentage which was then applied to the current EV count in Benton County. At the end of 2021 Benton County had 666 EVs and after applying this methodology, the county could have between 3,324 and 10,879 EVs by 2030 based on the Reference case and High-Electric case respectively. **Table 4-4** below shows the EV numbers given both growth scenarios.

Table 4-4 – Benton County EV Growth Scenarios

Year	YoY Growth % (Ref)	YoY Growth % (Hi Elec)	EV Count (Ref)	EV Count (Hi Elec)
2021			666	666
2022	23.5%	42.6%	822	949
2023	23.4%	43.9%	1,014	1,367
2024	23.9%	43.6%	1,257	1,963
2025	21.3%	41.6%	1,524	2,779
2026	19.3%	38.2%	1,819	3,839
2027	17.9%	34.5%	2,145	5,163
2028	16.6%	32.3%	2,501	6,831
2029	15.7%	28.4%	2,893	8,769
2030	14.9%	24.1%	3,324	10,879
2031	14.2%	18.7%	3,795	12,915
2032	13.6%	15.1%	4,309	14,871
2033	13.1%	12.7%	4,873	16,756
2034	12.5%	10.9%	5,483	18,578
2035	12.1%	9.5%	6,145	20,334
2036	11.7%	8.3%	6,866	22,031
2037	11.2%	7.5%	7,637	23,674
2038	10.9%	6.7%	8,467	25,262
2039	10.5%	6.1%	9,356	26,798
2040	10.2%	5.6%	10,307	28,294
2041	9.8%	5.1%	11,316	29,741

While many popular car companies like Tesla have been selling EVs for nearly a decade, it was not until the last few years that other car manufacturers like Ford, GM, Volvo, etc. have begun offering more electric vehicle options. Ford has plans to release its fully electric Ford F-150 Lightning in 2022 and GM has made public statements about making more than 30 EV options available to consumers by 2025 and making only all-electric vehicles by 2035.

Utilizing the projected EV counts from **Table 4-4,** the District then evaluated the amount of load added each year given the YoY growth projections under both the Reference and High-Electric cases. Considering that future LDV sales will likely be a blend of both small cars and trucks, the District utilized a blend of several known models (Tesla, Nissan, Rivian, GM, and Ford) to formulate an average EV consumption

(kWh/mile)[11]. The District then utilized an average of 10,000 miles driven per year, per vehicle to quantify the potential average EV load impacts over the analysis period. **Table 4-5** below provides the cumulative additional load from EV growth under both scenarios and these assumptions.

Table 4-5 – Benton County EV Growth (aMW)

Year	Cumulative EV Ref (aMW)	Cumulative EV Hi Elec (aMW)	Base Load (aMW)	Base Load + EV Ref (aMW)	Base Load + EV Hi Elec (aMW)
2022	0.1	0.1	202.9	202.9	203.0
2023	0.1	0.3	203.8	204.0	204.1
2024	0.2	0.5	204.4	204.6	204.9
2025	0.3	0.8	205.4	205.7	206.2
2026	0.4	1.2	205.8	206.2	207.0
2027	0.6	1.7	206.4	206.9	208.1
2028	0.7	2.3	206.6	207.3	209.0
2029	0.8	3.1	207.3	208.2	210.4
2030	1.0	3.9	207.6	208.6	211.4
2031	1.2	4.7	208.2	209.4	212.8
2032	1.4	5.4	208.3	209.7	213.7
2033	1.6	6.1	208.9	210.5	215.1
2034	1.8	6.8	209.2	211.0	216.0
2035	2.1	7.5	209.7	211.8	217.1
2036	2.4	8.1	209.7	212.0	217.8
2037	2.6	8.7	210.3	212.9	219.0
2038	3.0	9.3	210.5	213.4	219.8
2039	3.3	9.9	210.8	214.1	220.7
2040	3.7	10.5	210.7	214.4	221.2
2041	4.0	11.0	210.9	215.0	222.0

4.3 Load Scenario Summary

Impacts from customer adoption, future regulatory action, and even some District intervention will likely play a role in how things develop in the future. The importance of recognizing these potential outcomes is essential for many of the workgroups at the District including Power Management, Energy Programs, Engineering and Customer Service. **Table 4-6** and **Figure 4-5** below summarize all the potential combinations of natural gas and EV scenario analyses conducted for the 2022 Load Forecast.

[11] Electric Car KWh Per Mile - https://ecocostsavings.com/electric-car-kwh-per-mile-list/

Table 4-6 – Base Forecast and Potential Load Scenarios 2022-2041

Calendar Year	Base Load (aMW)	Base Load + Ref EV (aMW)	Base Load + High EV (aMW)	Base Load + 5% Gas (aMW)	Base Load + 10% Gas (aMW)	Base Load + Ref EV/5% Gas (aMW)	Base Load + Ref EV/10% Gas (aMW)	Base Load + High EV/5% Gas (aMW)	Base Load + High EV/10% Gas (aMW)
2022	202.9	202.9	203.0	202.9	202.9	202.9	202.9	203.0	203.0
2023	203.8	204.0	204.1	203.8	203.8	204.0	204.0	204.1	204.1
2024	204.4	204.6	204.9	204.4	204.4	204.6	204.6	204.9	204.9
2025	205.4	205.7	206.2	205.4	205.4	205.7	205.7	206.2	206.2
2026	205.8	206.2	207.0	205.8	205.8	206.2	206.2	207.0	207.0
2027	206.4	206.9	208.1	206.9	207.4	207.5	207.9	208.7	209.1
2028	206.6	207.3	209.0	207.7	208.6	208.4	209.3	210.1	211.0
2029	207.3	208.2	210.4	209.0	210.3	209.9	211.2	212.1	213.4
2030	207.6	208.6	211.4	209.8	211.5	210.8	212.6	213.7	215.4
2031	208.2	209.4	212.8	211.0	213.1	212.2	214.3	215.6	217.8
2032	208.3	209.7	213.7	211.7	214.3	213.0	215.6	217.1	219.7
2033	208.9	210.5	215.1	212.9	215.9	214.5	217.5	219.0	222.0
2034	209.2	211.0	216.0	213.7	217.2	215.5	219.0	220.5	224.0
2035	209.7	211.8	217.1	214.7	218.6	216.8	220.7	222.2	226.1
2036	209.7	212.0	217.8	215.3	219.6	217.7	222.0	223.4	227.8
2037	210.3	212.9	219.0	216.5	220.4	219.1	223.0	225.2	229.1
2038	210.5	213.4	219.8	217.2	220.7	220.1	223.6	226.5	230.0
2039	210.8	214.1	220.7	218.1	221.1	221.4	224.4	228.0	231.1
2040	210.7	214.4	221.2	218.6	221.2	222.2	224.8	229.1	231.7
2041	210.9	215.0	222.0	219.3	221.5	223.4	225.6	230.4	232.6

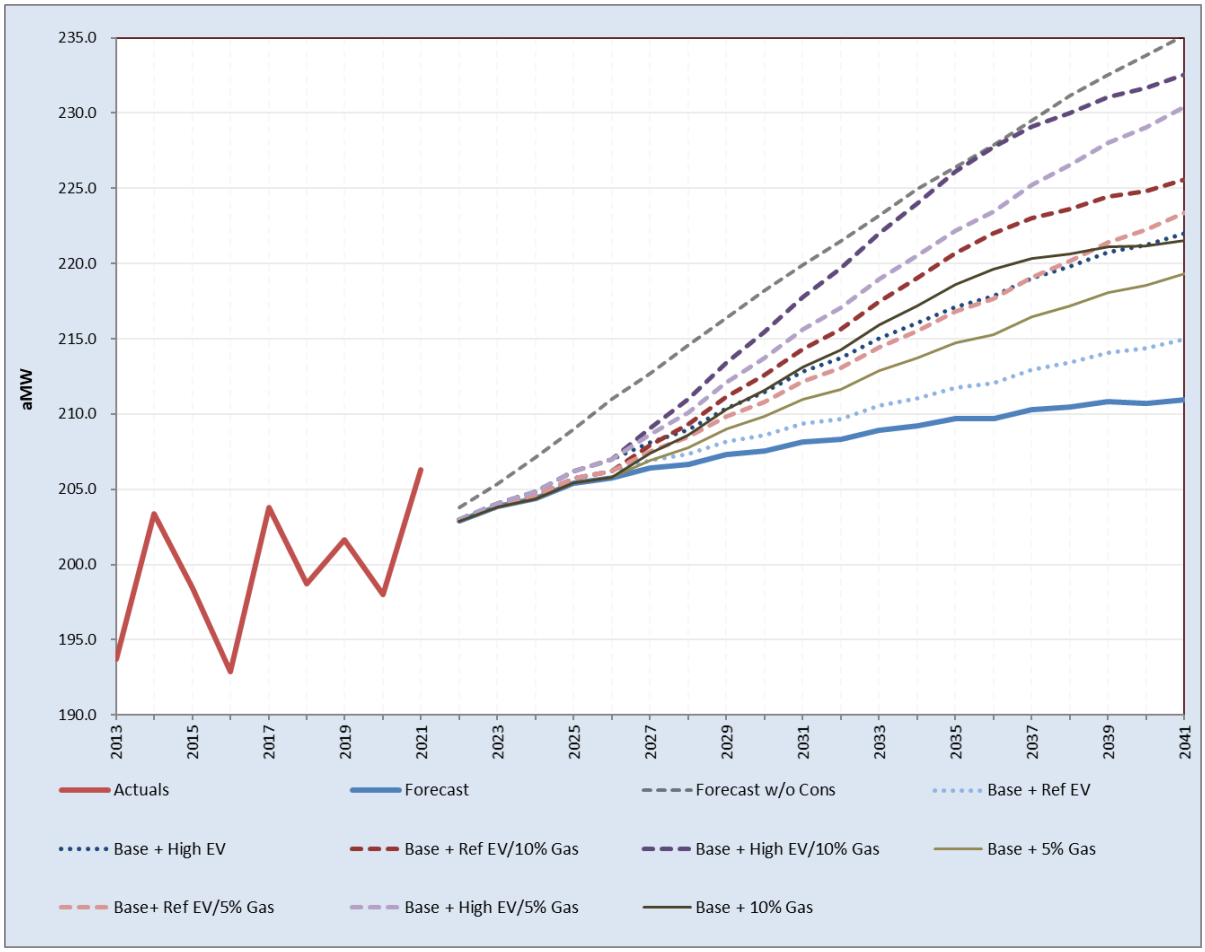


Figure 4-5 –Base Forecast and Potential Load Scenarios 2022-2041

5. Forecast for Total System

The total system forecast is an aggregation of the forecasts of each customer class. The forecast for the total system load is 202.9 aMW in 2022 and growing to 208.2 aMW in 2031. The five and ten-year average annual rates of growth are 0.35% and 0.29%, respectively. The ten-year forecast includes 11.7 aMW of cumulative conservation expected over the 10-year period. The forecasted change in customers is expected to increase by roughly 709 total customers in 2022. See **Figure 5-1** and **Table 5-1** for the ten-year forecast detail.

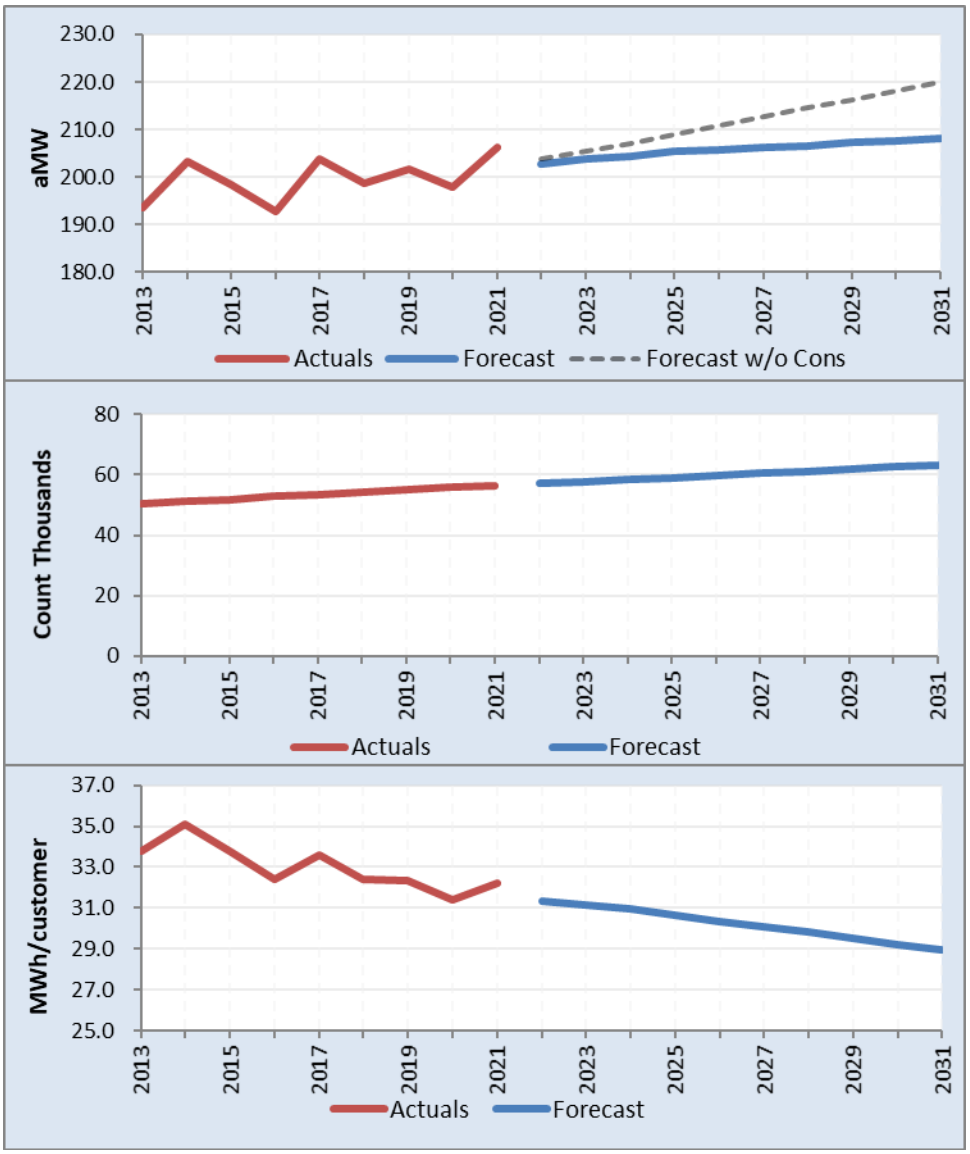


Figure 5-1 – Total System forecast of retail load, customers and usage per customer

Table 5-1 – Total System forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	1,602,508	#N/A	182.93	0.62%	#N/A	#N/A	45,307	#N/A	#N/A	45,068	35.558
2006	1,555,710	#N/A	177.59	-2.92%	#N/A	#N/A	45,981	674	1.49%	45,535	34.165
2007	1,607,265	#N/A	183.48	3.31%	#N/A	#N/A	46,621	640	1.39%	46,248	34.753
2008	1,639,856	#N/A	186.69	1.75%	#N/A	#N/A	47,582	961	2.06%	47,279	34.685
2009	1,726,341	#N/A	197.07	5.56%	#N/A	#N/A	48,007	425	0.89%	47,753	36.151
2010	1,592,802	#N/A	181.83	-7.74%	#N/A	#N/A	48,616	609	1.27%	48,296	32.980
2011	1,648,362	#N/A	188.17	3.49%	#N/A	#N/A	49,134	518	1.07%	48,876	33.725
2012	1,645,277	#N/A	187.30	-0.46%	#N/A	#N/A	49,738	604	1.23%	49,389	33.313
2013	1,696,774	#N/A	193.70	3.41%	#N/A	#N/A	50,495	757	1.52%	50,199	33.801
2014	1,781,322	#N/A	203.35	4.98%	#N/A	#N/A	51,061	566	1.12%	50,732	35.112
2015	1,738,022	#N/A	198.40	-2.43%	#N/A	#N/A	51,845	784	1.54%	51,441	33.787
2016	1,694,078	#N/A	192.86	-2.79%	#N/A	#N/A	52,774	929	1.79%	52,320	32.379
2017	1,785,098	#N/A	203.78	5.66%	#N/A	#N/A	53,433	659	1.25%	53,111	33.611
2018	1,740,849	#N/A	198.73	-2.48%	#N/A	#N/A	54,136	703	1.32%	53,744	32.392
2019	1,766,171	#N/A	201.62	1.45%	#N/A	#N/A	54,926	790	1.46%	54,581	32.359
2020	1,739,433	#N/A	198.02	-1.78%	#N/A	#N/A	55,725	799	1.45%	55,342	31.431
2021	1,807,315	#N/A	206.31	4.19%	#N/A	#N/A	56,289	564	1.01%	56,072	32.232
2022	#N/A	1,777,184	202.87	-1.67%	1,785,226	203.79	56,998	709	1.26%	56,672	31.359
2023	#N/A	1,785,461	203.82	0.47%	1,798,864	205.35	57,621	623	1.09%	57,332	31.143
2024	#N/A	1,795,135	204.36	0.27%	1,819,485	207.14	58,331	710	1.23%	58,006	30.947
2025	#N/A	1,799,313	205.40	0.51%	1,830,849	209.00	59,043	712	1.22%	58,717	30.644
2026	#N/A	1,802,430	205.76	0.17%	1,848,192	210.98	59,753	710	1.20%	59,428	30.330
2027	#N/A	1,807,913	206.38	0.30%	1,863,159	212.69	60,464	711	1.19%	60,138	30.063
2028	#N/A	1,815,026	206.63	0.12%	1,884,689	214.56	61,175	711	1.18%	60,849	29.828
2029	#N/A	1,816,193	207.33	0.34%	1,895,149	216.34	61,885	710	1.16%	61,560	29.503
2030	#N/A	1,818,305	207.57	0.12%	1,911,488	218.21	62,596	711	1.15%	62,270	29.200
2031	#N/A	1,823,499	208.16	0.29%	1,926,166	219.88	63,307	711	1.14%	62,981	28.953
AARG %[1] (2022-2026)			0.35%								-0.83%
AARG %[1] (2022-2031)			0.29%								-0.88%

1) AARG % = Annual Average Rate of Growth Percentage

6. Forecast by Customer Class

6.1 Residential

The forecast for residential retail load is 83.1 aMW in 2022 and growing to 87.9 aMW in 2031. The five and ten-year average annual rates of growth are 0.64% and 0.63% respectively. The ten-year forecast incudes 3.0 aMW of cumulative conservation. The forecasted change in customers is an increase of 682 customers in 2022. The District will be transferring 87 of its residential customers and load to the City of Richland in summer of 2023. See **Figure 6-1** and **Table 6-1** for the ten-year forecast detail.

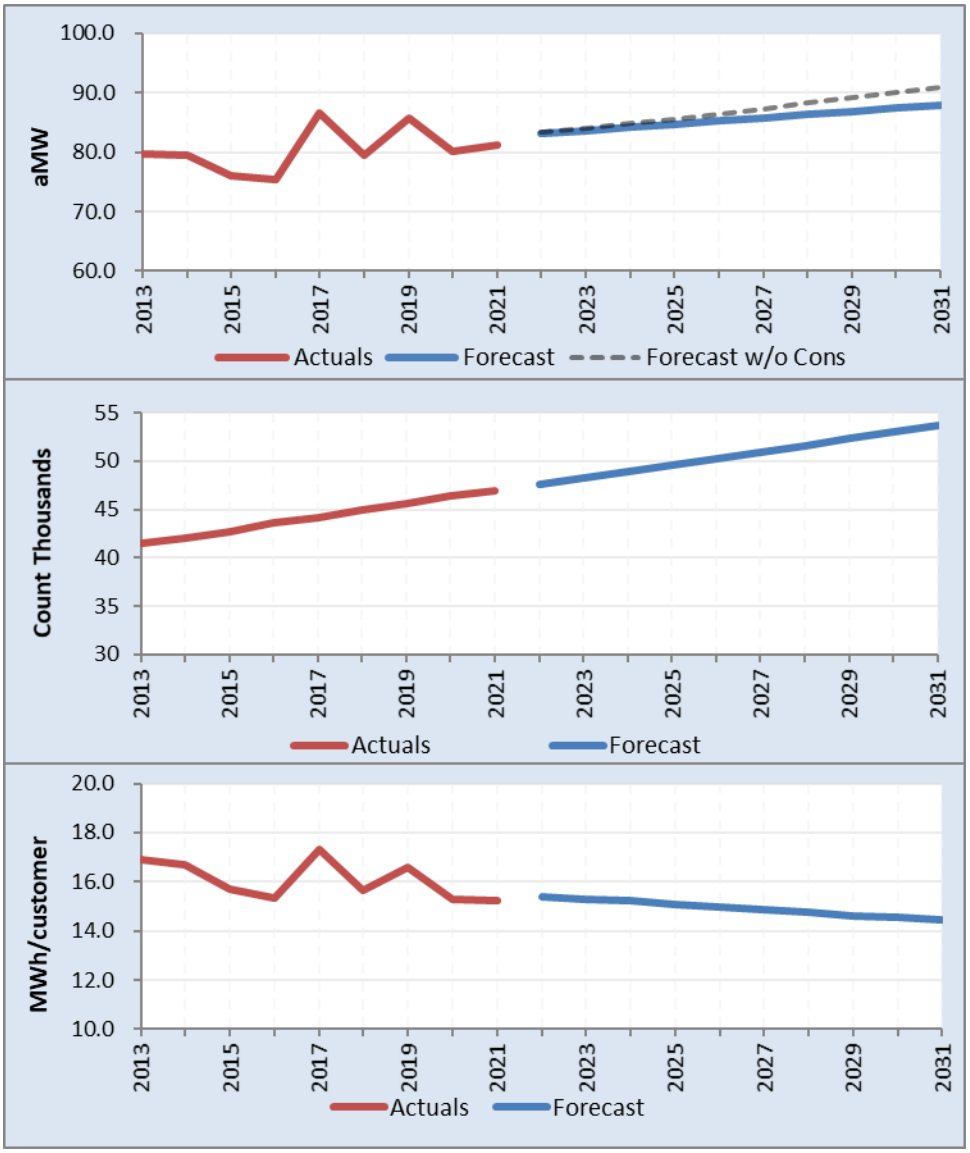


Figure 6-1 - Residential forecast of retail load, customers and usage per customer

Table 6-1 – Residential forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	622,639	#N/A	71.08	0.48%	#N/A	#N/A	37,236	#N/A	#N/A	36,963	16.845
2006	632,213	#N/A	72.17	1.54%	#N/A	#N/A	37,802	566	1.52%	37,418	16.896
2007	644,392	#N/A	73.56	1.93%	#N/A	#N/A	38,285	483	1.28%	37,969	16.972
2008	666,418	#N/A	75.87	3.14%	#N/A	#N/A	39,095	810	2.12%	38,855	17.151
2009	721,719	#N/A	82.39	8.60%	#N/A	#N/A	39,430	335	0.86%	39,220	18.402
2010	654,775	#N/A	74.75	-9.28%	#N/A	#N/A	39,973	543	1.38%	39,687	16.498
2011	687,953	#N/A	78.53	5.07%	#N/A	#N/A	40,432	459	1.15%	40,201	17.113
2012	668,018	#N/A	76.05	-3.16%	#N/A	#N/A	40,955	523	1.29%	40,645	16.435
2013	697,887	#N/A	79.67	4.76%	#N/A	#N/A	41,561	606	1.48%	41,321	16.889
2014	696,804	#N/A	79.54	-0.16%	#N/A	#N/A	42,039	478	1.15%	41,758	16.687
2015	665,505	#N/A	75.97	-4.49%	#N/A	#N/A	42,724	685	1.63%	42,375	15.705
2016	661,742	#N/A	75.33	-0.84%	#N/A	#N/A	43,574	850	1.99%	43,157	15.333
2017	759,634	#N/A	86.72	15.11%	#N/A	#N/A	44,177	603	1.38%	43,870	17.316
2018	697,107	#N/A	79.58	-8.23%	#N/A	#N/A	44,946	769	1.74%	44,550	15.648
2019	751,107	#N/A	85.74	7.75%	#N/A	#N/A	45,666	720	1.60%	45,319	16.574
2020	704,408	#N/A	80.19	-6.47%	#N/A	#N/A	46,398	732	1.60%	46,027	15.304
2021	711,831	#N/A	81.26	1.33%	#N/A	#N/A	46,936	538	1.16%	46,690	15.246
2022	#N/A	728,130	83.12	2.29%	729,786	83.31	47,618	682	1.45%	47,305	15.392
2023	#N/A	732,817	83.65	0.64%	735,576	83.97	48,217	599	1.26%	47,939	15.286
2024	#N/A	739,521	84.19	0.64%	744,773	84.79	48,901	684	1.42%	48,588	15.220
2025	#N/A	742,132	84.72	0.63%	749,022	85.50	49,585	684	1.40%	49,272	15.062
2026	#N/A	746,844	85.26	0.63%	757,654	86.49	50,269	684	1.38%	49,956	14.950
2027	#N/A	751,554	85.79	0.63%	764,979	87.33	50,953	684	1.36%	50,640	14.841
2028	#N/A	758,325	86.33	0.63%	775,717	88.31	51,637	684	1.34%	51,324	14.775
2029	#N/A	760,912	86.86	0.62%	780,871	89.14	52,321	684	1.32%	52,008	14.631
2030	#N/A	765,560	87.39	0.61%	789,440	90.12	53,005	684	1.31%	52,692	14.529
2031	#N/A	770,294	87.93	0.62%	796,788	90.96	53,689	684	1.29%	53,376	14.432
AARG %[1] (2022-2026)			0.64%								-0.73%
AARG %[1] (2022-2031)			0.63%								-0.71%

1) AARG % = Annual Average Rate of Growth Percentage

6.2 Small General

The forecast for small general service retail load is 13.5 aMW in 2022 and decreasing to 12.7 aMW in 2031. The five and ten-year average annual rates of growth are -0.67% and -0.68% respectively. The ten-year forecast incudes 2.0 aMW of cumulative conservation. The first-year increase in the customer forecast is smaller than recent history because the District will be transferring 1 customer to the City of Richland in Summer of 2023. This rate-class was the most impacted by COVID-19 and is therefore difficult to forecast due to lower loads and slowed customer growth since 2020. See **Figure 6-2** and **Table 6-2** for the ten-year forecast detail.

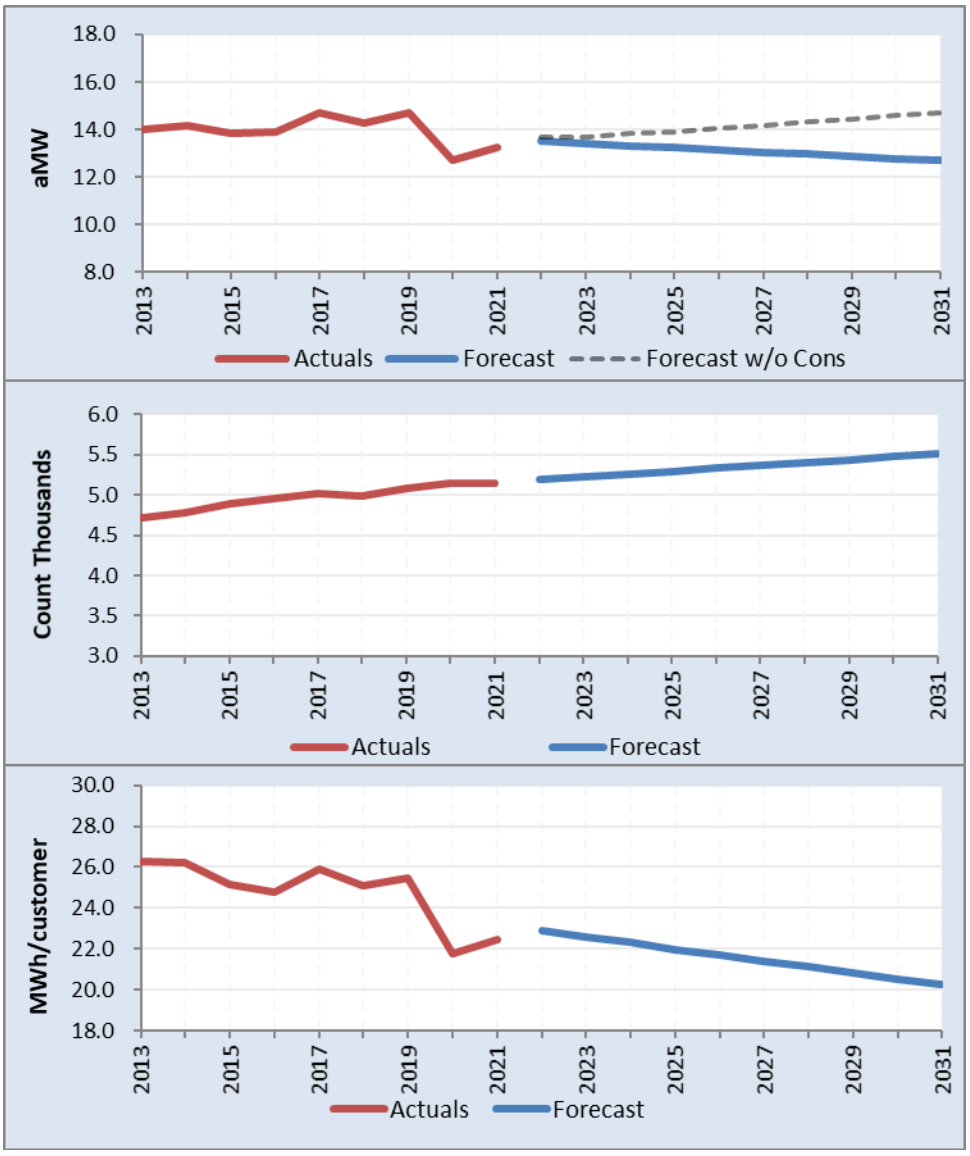


Figure 6-2 – Small General forecast of retail load, customers and usage per customer

Table 6-2 – Small General forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	114,710	#N/A	13.09	-0.48%	#N/A	#N/A	4,128	#N/A	#N/A	4,144	27.681
2006	112,705	#N/A	12.87	-1.75%	#N/A	#N/A	4,232	104	2.52%	4,169	27.034
2007	115,049	#N/A	13.13	2.08%	#N/A	#N/A	4,324	92	2.17%	4,295	26.787
2008	115,616	#N/A	13.16	0.22%	#N/A	#N/A	4,445	121	2.80%	4,385	26.366
2009	121,580	#N/A	13.88	5.45%	#N/A	#N/A	4,484	39	0.88%	4,460	27.260
2010	113,483	#N/A	12.95	-6.66%	#N/A	#N/A	4,528	44	0.98%	4,503	25.202
2011	118,338	#N/A	13.51	4.28%	#N/A	#N/A	4,576	48	1.06%	4,553	25.991
2012	119,421	#N/A	13.60	0.64%	#N/A	#N/A	4,652	76	1.66%	4,610	25.905
2013	122,928	#N/A	14.03	3.22%	#N/A	#N/A	4,709	57	1.23%	4,682	26.255
2014	124,285	#N/A	14.19	1.10%	#N/A	#N/A	4,784	75	1.59%	4,741	26.215
2015	121,498	#N/A	13.87	-2.24%	#N/A	#N/A	4,883	99	2.07%	4,828	25.165
2016	121,868	#N/A	13.87	0.03%	#N/A	#N/A	4,949	66	1.35%	4,915	24.795
2017	129,054	#N/A	14.73	6.19%	#N/A	#N/A	5,011	62	1.25%	4,977	25.930
2018	124,864	#N/A	14.25	-3.25%	#N/A	#N/A	4,991	-20	-0.40%	4,972	25.114
2019	128,836	#N/A	14.71	3.18%	#N/A	#N/A	5,081	90	1.80%	5,055	25.487
2020	111,746	#N/A	12.72	-13.50%	#N/A	#N/A	5,146	65	1.28%	5,134	21.766
2021	116,212	#N/A	13.27	4.28%	#N/A	#N/A	5,148	2	0.04%	5,169	22.483
2022	#N/A	118,301	13.50	1.80%	119,785	13.67	5,185	37	0.72%	5,169	22.889
2023	#N/A	117,553	13.42	-0.63%	120,027	13.70	5,220	35	0.68%	5,204	22.589
2024	#N/A	117,078	13.33	-0.68%	121,516	13.83	5,256	36	0.69%	5,240	22.345
2025	#N/A	115,969	13.24	-0.68%	121,698	13.89	5,292	36	0.68%	5,276	21.983
2026	#N/A	115,181	13.15	-0.68%	123,306	14.08	5,328	36	0.68%	5,312	21.685
2027	#N/A	114,350	13.05	-0.72%	124,071	14.16	5,364	36	0.68%	5,348	21.384
2028	#N/A	113,907	12.97	-0.66%	126,057	14.35	5,400	36	0.67%	5,384	21.159
2029	#N/A	112,803	12.88	-0.70%	126,517	14.44	5,436	36	0.67%	5,420	20.814
2030	#N/A	112,010	12.79	-0.70%	128,119	14.63	5,472	36	0.66%	5,456	20.532
2031	#N/A	111,225	12.70	-0.70%	128,931	14.72	5,508	36	0.66%	5,492	20.254
AARG %[1] (2022-2026)			-0.67%								-1.34%
AARG %[1] (2022-2031)			-0.68%								-1.35%

1) AARG % = Annual Average Rate of Growth Percentage

6.3 Medium General

The forecast for medium general service retail load is 20.8 aMW in 2022 and sustaining to 20.8 aMW in 2031. The five and ten-year average annual rates of growth are 0.23% and 0.01% respectively. The ten-year forecast incudes nearly 3.0 aMW of cumulative conservation. The forecasted change in customers is an increase of about 11 customers in 2022. See **Figure 6-3** and **Table 6-3** for the ten-year forecast detail.

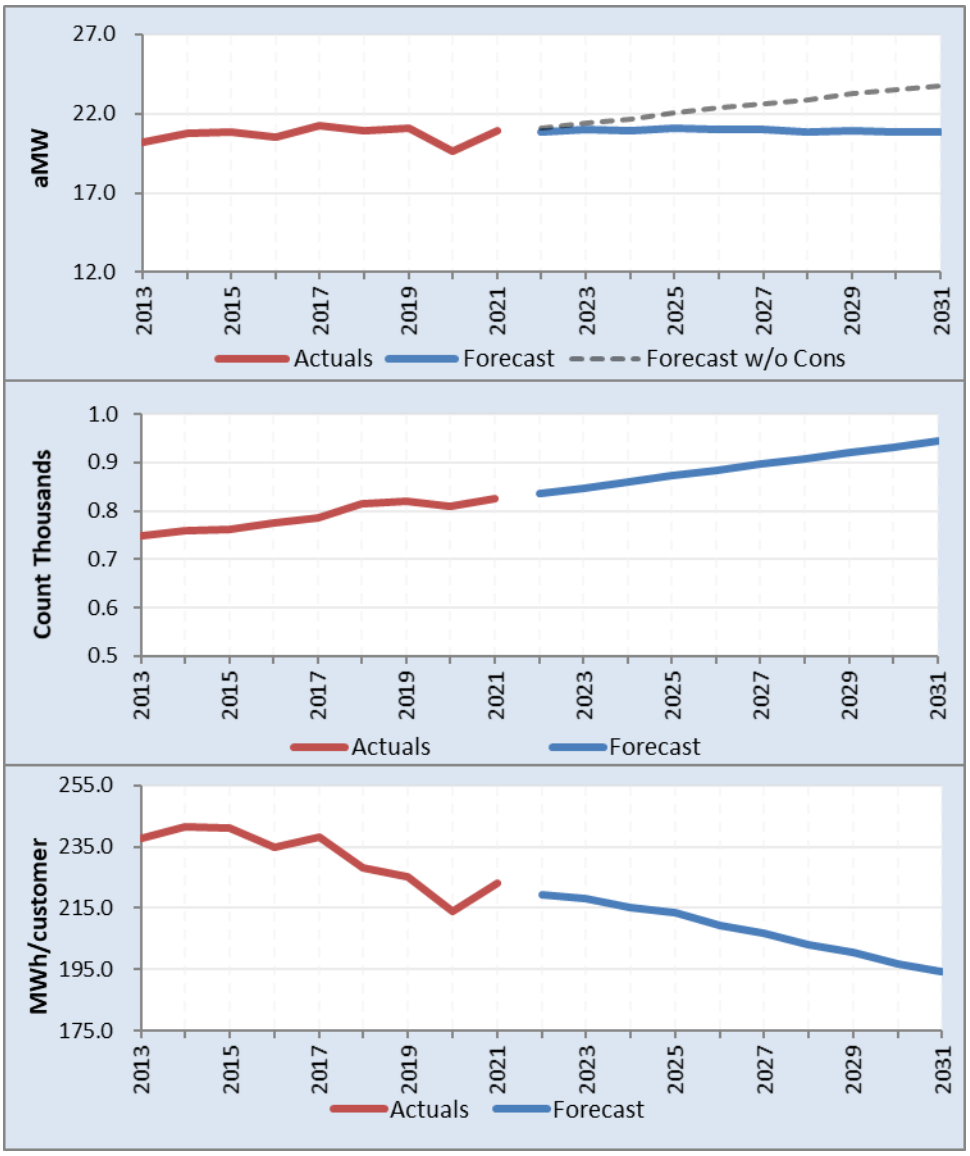


Figure 6-3 – Medium General forecast of retail load, customers and usage per customer

Table 6-3 – Medium General forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	164,043	#N/A	18.73	-1.87%	#N/A	#N/A	627	#N/A	#N/A	637	257.524
2006	160,440	#N/A	18.32	-2.20%	#N/A	#N/A	641	14	2.23%	636	252.263
2007	165,186	#N/A	18.86	2.96%	#N/A	#N/A	665	24	3.74%	654	252.577
2008	169,571	#N/A	19.30	2.37%	#N/A	#N/A	683	18	2.71%	676	250.845
2009	175,265	#N/A	20.01	3.64%	#N/A	#N/A	707	24	3.51%	695	252.179
2010	170,868	#N/A	19.51	-2.51%	#N/A	#N/A	725	18	2.55%	718	237.977
2011	175,463	#N/A	20.03	2.69%	#N/A	#N/A	747	22	3.03%	732	239.704
2012	175,999	#N/A	20.04	0.03%	#N/A	#N/A	742	-5	-0.67%	747	235.607
2013	177,250	#N/A	20.23	0.99%	#N/A	#N/A	750	8	1.08%	746	237.601
2014	182,044	#N/A	20.78	2.70%	#N/A	#N/A	758	8	1.07%	754	241.437
2015	182,610	#N/A	20.85	0.31%	#N/A	#N/A	762	4	0.53%	758	240.911
2016	180,467	#N/A	20.54	-1.44%	#N/A	#N/A	775	13	1.71%	768	234.983
2017	186,155	#N/A	21.25	3.43%	#N/A	#N/A	785	10	1.29%	782	238.050
2018	183,125	#N/A	20.90	-1.63%	#N/A	#N/A	815	30	3.82%	803	228.051
2019	184,797	#N/A	21.10	0.91%	#N/A	#N/A	821	6	0.74%	820	225.362
2020	172,572	#N/A	19.65	-6.87%	#N/A	#N/A	809	-12	-1.46%	806	214.110
2021	183,223	#N/A	20.92	6.46%	#N/A	#N/A	825	16	1.98%	821	223.171
2022	#N/A	182,322	20.81	-0.49%	184,497	21.06	836	11	1.33%	831	219.533
2023	#N/A	183,901	20.99	0.87%	187,526	21.41	848	12	1.44%	843	218.280
2024	#N/A	184,026	20.95	-0.21%	190,530	21.69	860	12	1.42%	855	215.361
2025	#N/A	184,890	21.11	0.74%	193,284	22.06	872	12	1.40%	867	213.376
2026	#N/A	184,033	21.01	-0.46%	195,936	22.37	884	12	1.38%	879	209.485
2027	#N/A	184,289	21.04	0.14%	198,532	22.66	896	12	1.36%	891	206.950
2028	#N/A	183,396	20.88	-0.76%	201,197	22.90	908	12	1.34%	903	203.209
2029	#N/A	183,463	20.94	0.31%	203,556	23.24	920	12	1.32%	915	200.616
2030	#N/A	182,381	20.82	-0.59%	205,983	23.51	932	12	1.30%	927	196.850
2031	#N/A	182,413	20.82	0.02%	208,354	23.78	944	12	1.29%	939	194.366
AARG %[1] (2022-2026)			0.23%								-1.16%
AARG %[1] (2022-2031)			0.01%								-1.34%

1) AARG % = Annual Average Rate of Growth Percentage

6.4 Large General

The forecast for large general service retail load is 27.8 aMW in 2022 and increasing to 29.2 aMW in 2031. The five and ten-year average annual rates of growth are 0.89% and 0.55% respectively. The ten-year forecast incudes 3.71 aMW of cumulative conservation. The forecasted change in customers is an increase of about 4 customers in 2022. See **Figure 6-4** and **Table 6-4** for the ten-year forecast detail.

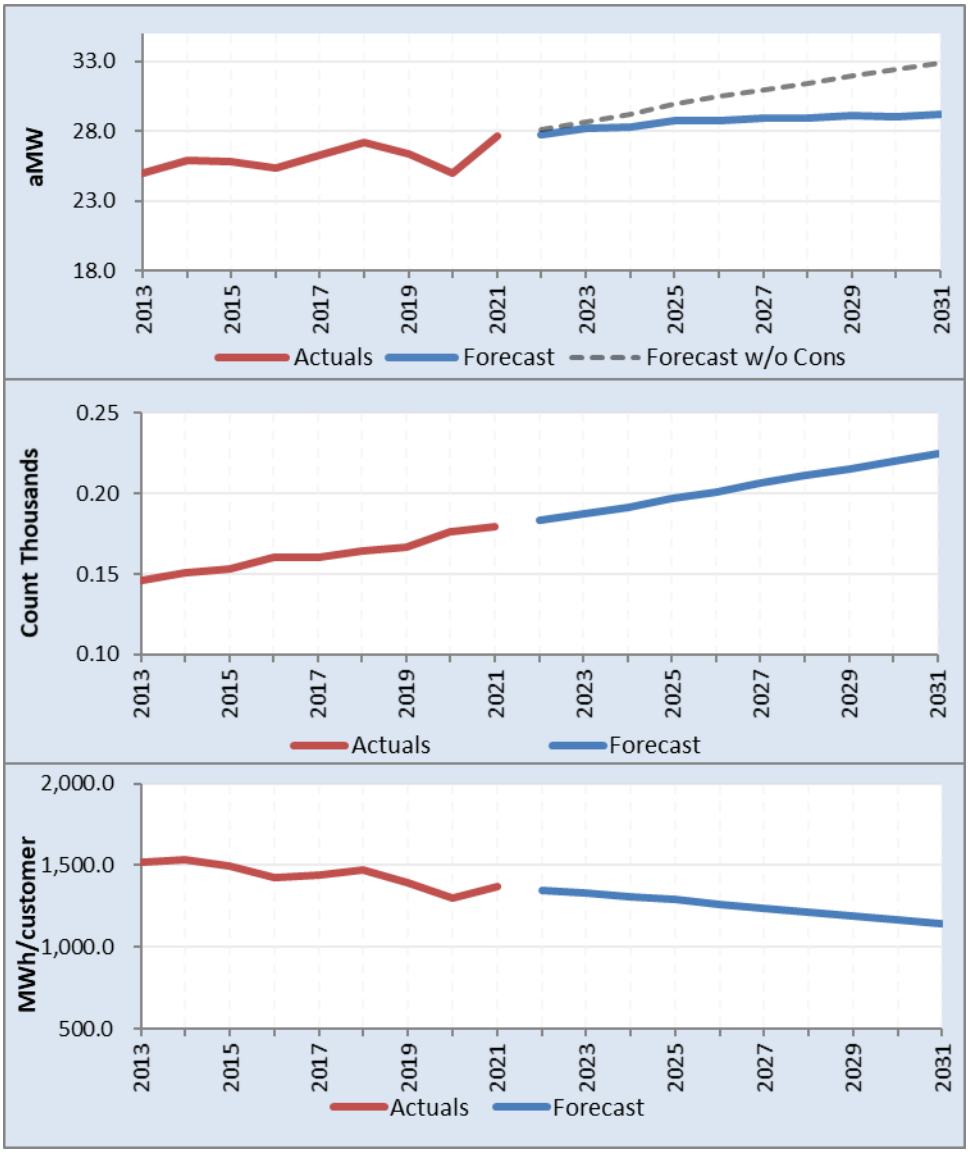


Figure 6-4 – Large General forecast of retail load, customers and usage per customer

Table 6-4 – Large General forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	242,555	#N/A	27.69	1.26%	#N/A	#N/A	123	#N/A	#N/A	122	1,988.160
2006	236,908	#N/A	27.04	-2.33%	#N/A	#N/A	127	4	3.25%	126	1,880.220
2007	223,317	#N/A	25.49	-5.74%	#N/A	#N/A	131	4	3.15%	128	1,744.660
2008	224,958	#N/A	25.61	0.46%	#N/A	#N/A	132	1	0.76%	131	1,717.234
2009	233,410	#N/A	26.65	4.04%	#N/A	#N/A	135	3	2.27%	134	1,741.869
2010	218,686	#N/A	24.96	-6.31%	#N/A	#N/A	135	0	0.00%	135	1,619.899
2011	209,669	#N/A	23.93	-4.12%	#N/A	#N/A	141	6	4.44%	136	1,541.682
2012	217,377	#N/A	24.75	3.39%	#N/A	#N/A	143	2	1.42%	142	1,530.826
2013	219,315	#N/A	25.04	1.17%	#N/A	#N/A	146	3	2.10%	144	1,523.024
2014	226,679	#N/A	25.88	3.36%	#N/A	#N/A	151	5	3.42%	148	1,531.617
2015	226,175	#N/A	25.82	-0.22%	#N/A	#N/A	153	2	1.32%	151	1,497.847
2016	223,268	#N/A	25.42	-1.56%	#N/A	#N/A	160	7	4.58%	157	1,422.089
2017	230,674	#N/A	26.33	3.60%	#N/A	#N/A	160	0	0.00%	160	1,441.715
2018	238,606	#N/A	27.24	3.44%	#N/A	#N/A	164	4	2.50%	162	1,472.877
2019	231,448	#N/A	26.42	-3.00%	#N/A	#N/A	167	3	1.83%	166	1,394.263
2020	219,313	#N/A	24.97	-5.50%	#N/A	#N/A	176	9	5.39%	169	1,297.712
2021	241,981	#N/A	27.62	10.64%	#N/A	#N/A	179	3	1.70%	177	1,367.123
2022	#N/A	243,364	27.78	0.57%	246,091	28.09	183	4	2.23%	181	1,345.792
2023	#N/A	246,780	28.17	1.40%	251,325	28.69	187	4	2.19%	185	1,332.147
2024	#N/A	248,800	28.32	0.54%	256,954	29.25	191	4	2.14%	190	1,308.325
2025	#N/A	252,052	28.77	1.58%	262,576	29.97	197	6	3.14%	195	1,290.919
2026	#N/A	252,159	28.79	0.04%	267,084	30.49	201	4	2.03%	200	1,262.375
2027	#N/A	253,570	28.95	0.56%	271,428	30.98	206	5	2.49%	204	1,241.469
2028	#N/A	253,916	28.91	-0.14%	276,235	31.45	211	5	2.43%	209	1,213.456
2029	#N/A	254,967	29.11	0.69%	280,159	31.98	215	4	1.90%	214	1,192.826
2030	#N/A	254,363	29.04	-0.24%	283,956	32.42	220	5	2.33%	218	1,165.467
2031	#N/A	255,622	29.18	0.50%	288,149	32.89	225	5	2.27%	223	1,145.005
AARG %[1] (2022-2026)			0.89%								-1.59%
AARG %[1] (2022-2031)			0.55%								-1.78%

1) AARG % = Annual Average Rate of Growth Percentage

6.5 Large Industrial

The forecast for large industrial service retail load in 2022 is 7.34 aMW and is estimated to remain flat over the ten-year forecast period, with no incremental conservation and no additional customers added. See **Figure 6-5** and **Table 6-5** for the ten-year forecast detail.

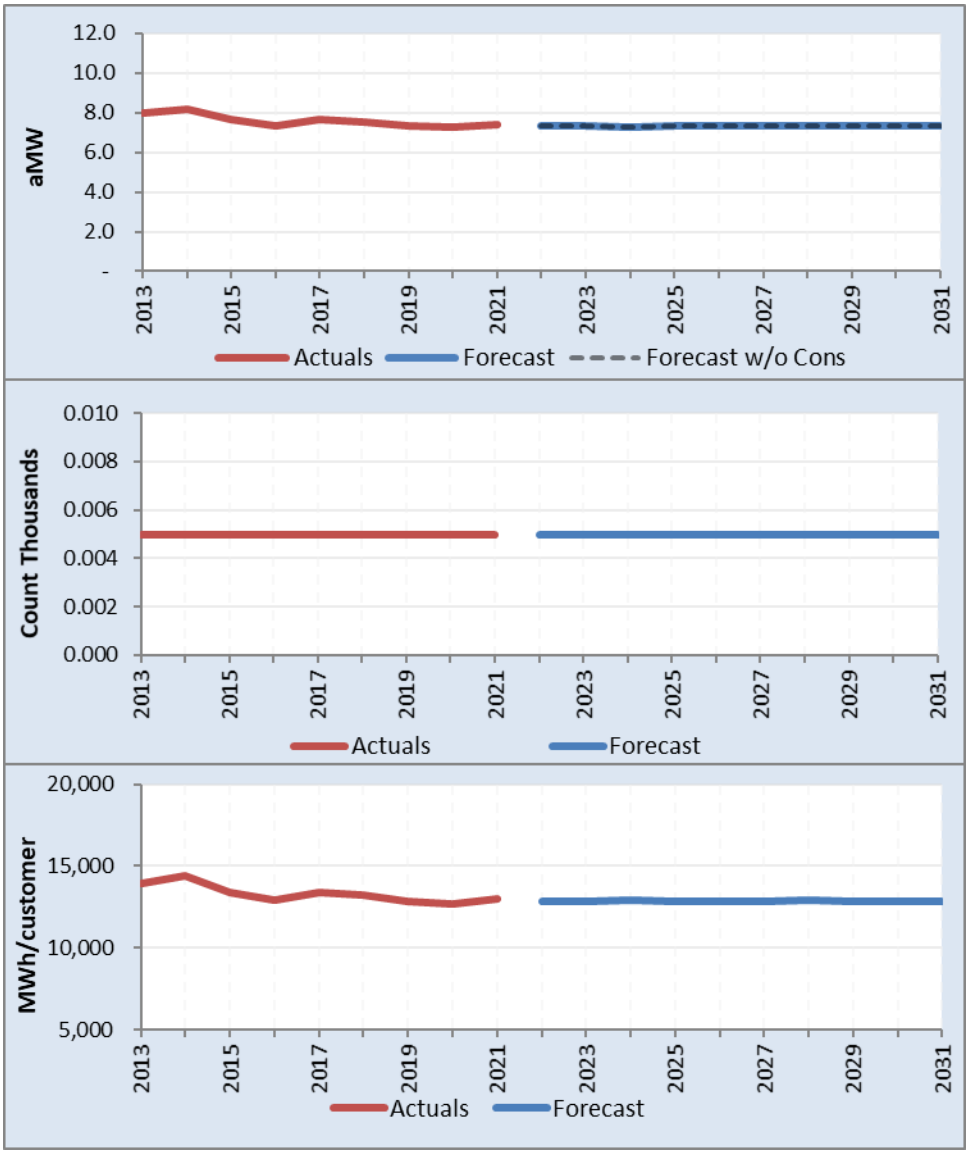


Figure 6-5 – Large Industrial forecast of retail load, customers and usage per customer

Table 6-5 – Large Industrial forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	53,286	#N/A	6.08	-23.10%	#N/A	#N/A	5	#N/A	#N/A	5	10,657.159
2006	37,456	#N/A	4.28	-29.71%	#N/A	#N/A	5	0	0.00%	5	7,491.183
2007	49,045	#N/A	5.60	30.94%	#N/A	#N/A	3	-2	-40.00%	5	9,809.030
2008	47,760	#N/A	5.44	-2.89%	#N/A	#N/A	5	2	66.67%	5	9,552.059
2009	38,909	#N/A	4.44	-18.31%	#N/A	#N/A	5	0	0.00%	5	7,781.815
2010	55,365	#N/A	6.32	42.29%	#N/A	#N/A	5	0	0.00%	5	11,072.932
2011	65,411	#N/A	7.47	18.15%	#N/A	#N/A	5	0	0.00%	5	13,082.162
2012	70,575	#N/A	8.03	7.60%	#N/A	#N/A	5	0	0.00%	5	14,115.033
2013	69,803	#N/A	7.97	-0.82%	#N/A	#N/A	5	0	0.00%	5	13,960.556
2014	71,869	#N/A	8.20	2.96%	#N/A	#N/A	5	0	0.00%	5	14,373.897
2015	66,942	#N/A	7.64	-6.86%	#N/A	#N/A	5	0	0.00%	5	13,388.377
2016	64,612	#N/A	7.36	-3.74%	#N/A	#N/A	5	0	0.00%	5	12,922.450
2017	67,084	#N/A	7.66	4.11%	#N/A	#N/A	5	0	0.00%	5	13,416.822
2018	65,997	#N/A	7.53	-1.62%	#N/A	#N/A	5	0	0.00%	5	13,199.344
2019	64,318	#N/A	7.34	-2.54%	#N/A	#N/A	5	0	0.00%	5	12,863.616
2020	63,625	#N/A	7.24	-1.35%	#N/A	#N/A	5	0	0.00%	5	12,725.056
2021	65,084	#N/A	7.43	2.57%	#N/A	#N/A	5	0	0.00%	5	13,016.760
2022	#N/A	64,295	7.34	-1.21%	64,295	7.34	5	0	0.00%	5	12,859.003
2023	#N/A	64,298	7.34	0.01%	64,298	7.34	5	0	0.00%	5	12,859.699
2024	#N/A	64,470	7.34	-0.01%	64,470	7.34	5	0	0.00%	5	12,894.064
2025	#N/A	64,297	7.34	0.00%	64,297	7.34	5	0	0.00%	5	12,859.337
2026	#N/A	64,300	7.34	0.01%	64,300	7.34	5	0	0.00%	5	12,860.032
2027	#N/A	64,295	7.34	-0.01%	64,295	7.34	5	0	0.00%	5	12,858.975
2028	#N/A	64,475	7.34	0.01%	64,475	7.34	5	0	0.00%	5	12,895.059
2029	#N/A	64,302	7.34	0.00%	64,302	7.34	5	0	0.00%	5	12,860.365
2030	#N/A	64,297	7.34	-0.01%	64,297	7.34	5	0	0.00%	5	12,859.308
2031	#N/A	64,300	7.34	0.01%	64,300	7.34	5	0	0.00%	5	12,860.003
AARG %[1] (2022-2026)			0.00%								0.00%
AARG %[1] (2022-2031)			0.00%								0.00%

6.6 Small Irrigation

The forecast for small irrigation retail load is 1.7 aMW in 2022 and sustaining 1.7 aMW into 2031. The five and ten-year average annual rates of growth are -0.43% and -0.40% respectively, due to a small, expected reduction in load (less than 0.1 aMW) over the 10 year period. The forecasted change in customers is expected to lose about 3-4 customers annually. The ten-year forecast does not include any conservation See **Figure 6-6** and **Table 6-6** for the ten-year forecast detail.

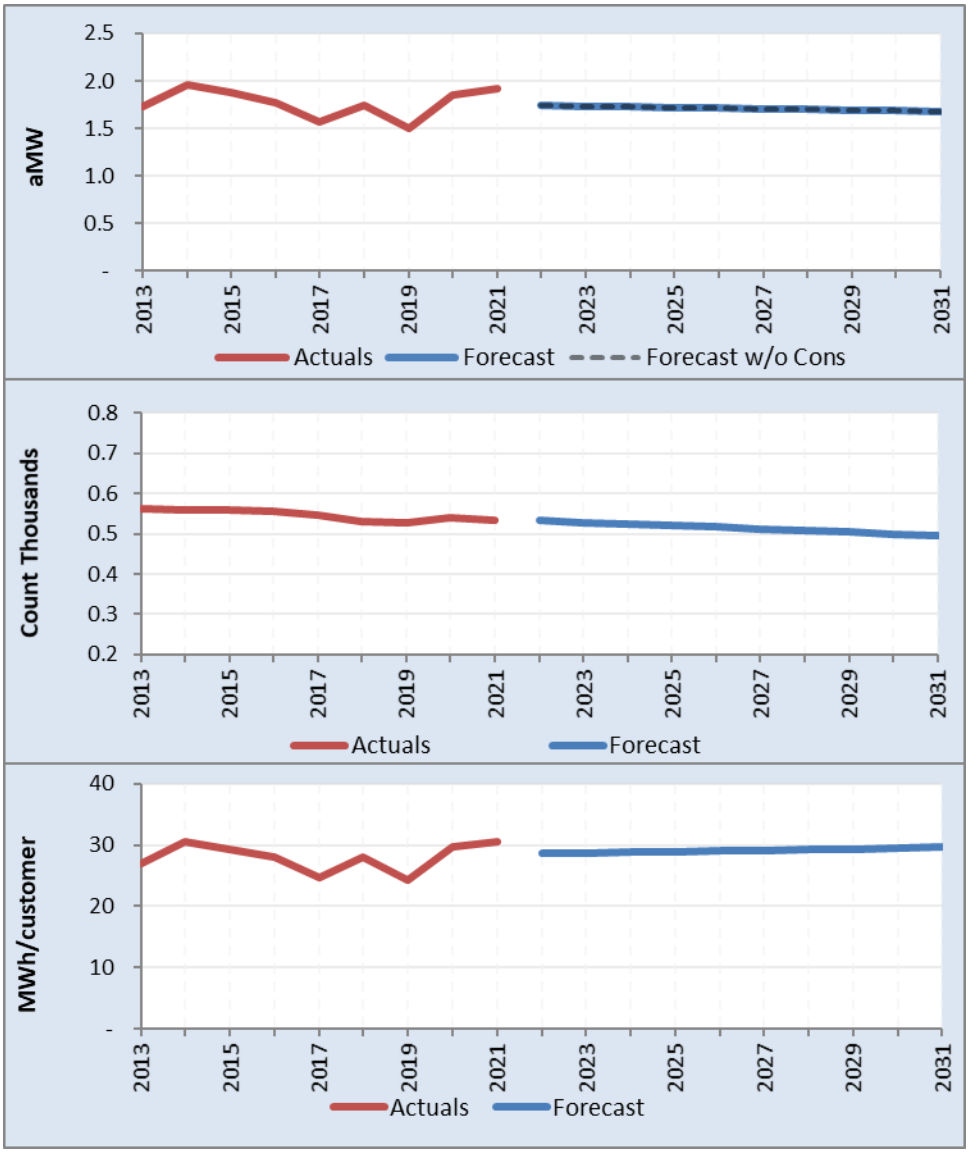


Figure 6-6 – Small Irrigation forecast of retail load, customers and usage per customer

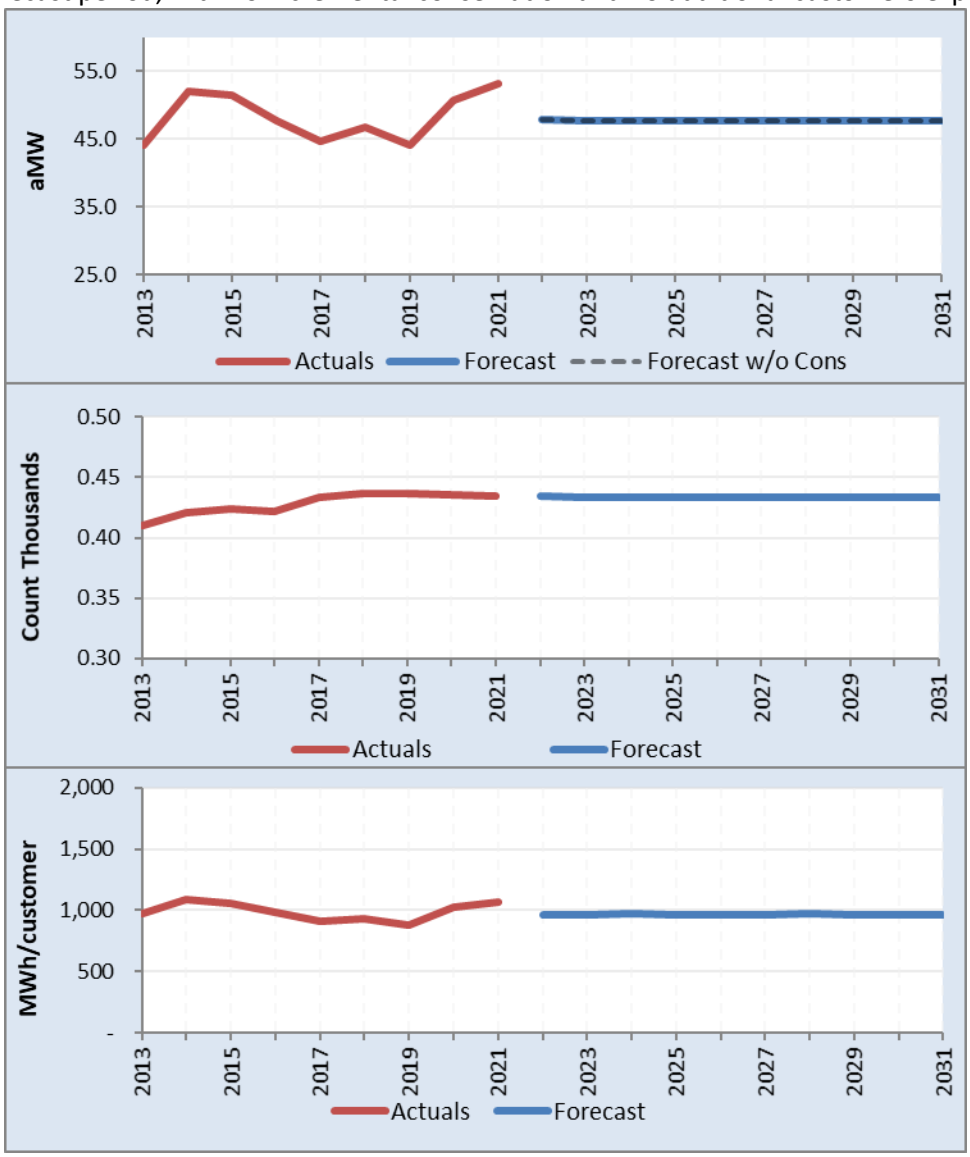
Table 6-6 – Small Irrigation forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	15,724	#N/A	1.80	4.62%	#N/A	#N/A	619	#N/A	#N/A	622	25.280
2006	14,305	#N/A	1.63	-9.03%	#N/A	#N/A	602	-17	-2.75%	614	23.298
2007	15,849	#N/A	1.81	10.79%	#N/A	#N/A	609	7	1.16%	607	26.110
2008	16,043	#N/A	1.83	0.95%	#N/A	#N/A	615	6	0.99%	615	26.086
2009	16,884	#N/A	1.93	5.53%	#N/A	#N/A	610	-5	-0.81%	615	27.453
2010	14,446	#N/A	1.65	-14.44%	#N/A	#N/A	594	-16	-2.62%	602	23.997
2011	14,607	#N/A	1.67	1.11%	#N/A	#N/A	573	-21	-3.54%	582	25.097
2012	15,165	#N/A	1.73	3.54%	#N/A	#N/A	555	-18	-3.14%	563	26.936
2013	15,211	#N/A	1.74	0.58%	#N/A	#N/A	563	8	1.44%	564	26.970
2014	17,209	#N/A	1.96	13.13%	#N/A	#N/A	559	-4	-0.71%	563	30.566
2015	16,425	#N/A	1.87	-4.56%	#N/A	#N/A	558	-1	-0.18%	560	29.330
2016	15,597	#N/A	1.78	-5.30%	#N/A	#N/A	556	-2	-0.36%	558	27.952
2017	13,754	#N/A	1.57	-11.57%	#N/A	#N/A	546	-10	-1.80%	557	24.694
2018	15,312	#N/A	1.75	11.32%	#N/A	#N/A	529	-17	-3.11%	546	28.043
2019	13,199	#N/A	1.51	-13.79%	#N/A	#N/A	528	-1	-0.19%	542	24.353
2020	16,316	#N/A	1.86	23.28%	#N/A	#N/A	540	12	2.27%	548	29.774
2021	16,768	#N/A	1.91	3.05%	#N/A	#N/A	535	-5	-0.93%	549	30.543
2022	#N/A	15,267	1.74	-8.95%	15,267	1.74	532	-3	-0.56%	534	28.617
2023	#N/A	15,198	1.73	-0.45%	15,198	1.73	528	-4	-0.75%	530	28.703
2024	#N/A	15,192	1.73	-0.31%	15,192	1.73	524	-4	-0.76%	526	28.909
2025	#N/A	15,067	1.72	-0.55%	15,067	1.72	520	-4	-0.76%	522	28.891
2026	#N/A	15,004	1.71	-0.41%	15,004	1.71	516	-4	-0.77%	518	28.993
2027	#N/A	14,944	1.71	-0.40%	14,944	1.71	512	-4	-0.78%	514	29.102
2028	#N/A	14,949	1.70	-0.24%	14,949	1.70	508	-4	-0.78%	510	29.341
2029	#N/A	14,830	1.69	-0.53%	14,830	1.69	504	-4	-0.79%	506	29.336
2030	#N/A	14,776	1.69	-0.36%	14,776	1.69	500	-4	-0.79%	502	29.463
2031	#N/A	14,724	1.68	-0.35%	14,724	1.68	496	-4	-0.80%	498	29.596
AARG %[1] (2022-2026)			-0.43%								0.33%
AARG %[1] (2022-2031)			-0.40%								0.37%

1) AARG % = Annual Average Rate of Growth Percentage

6.7 Large Irrigation

The forecast for large irrigation retail load is 47.9 aMW in 2022 and declines to 47.8 aMW in 2023 after 1 customer is expected to transfer to City of Richland (COR). It is estimated to remain roughly flat over the ten-year forecast period, with no incremental conservation and no additional customers expected to be added. See **Figure** 6-7 and **Table 6-7** for the ten-year forecast detail.



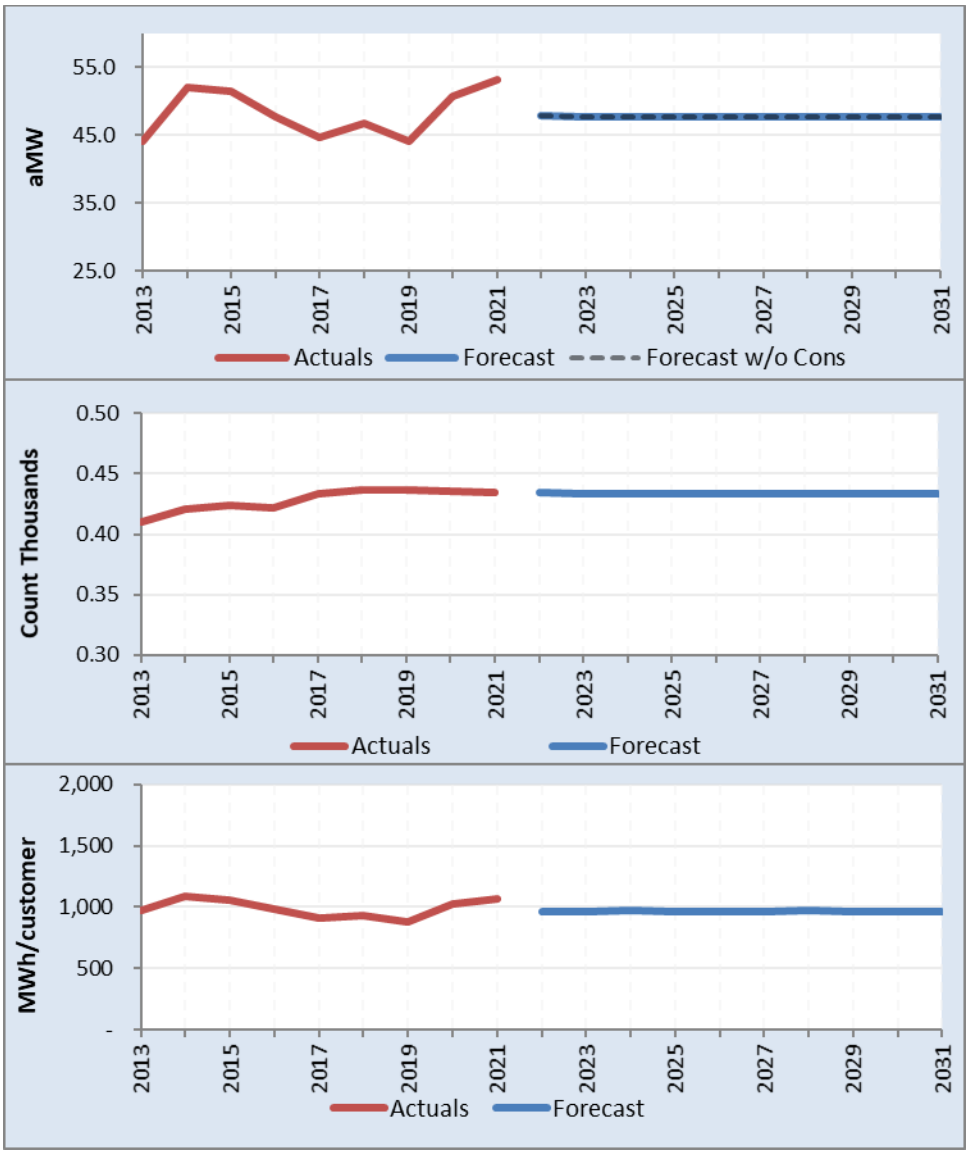


Figure 6-7 – Large Irrigation forecast of retail load, customers and usage per customer

Table 6-7 – Large Irrigation forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	381,927	#N/A	43.60	6.30%	#N/A	#N/A	288	#N/A	#N/A	288	1,326.136
2006	353,743	#N/A	40.38	-7.38%	#N/A	#N/A	293	5	1.74%	291	1,215.612
2007	386,402	#N/A	44.11	9.23%	#N/A	#N/A	308	15	5.12%	302	1,279.477
2008	391,389	#N/A	44.56	1.01%	#N/A	#N/A	316	8	2.60%	313	1,250.444
2009	410,386	#N/A	46.85	5.14%	#N/A	#N/A	325	9	2.85%	323	1,270.544
2010	356,875	#N/A	40.74	-13.04%	#N/A	#N/A	322	-3	-0.92%	326	1,094.709
2011	367,393	#N/A	41.94	2.95%	#N/A	#N/A	334	12	3.73%	332	1,106.605
2012	370,573	#N/A	42.19	0.59%	#N/A	#N/A	355	21	6.29%	350	1,058.781
2013	387,408	#N/A	44.22	4.83%	#N/A	#N/A	410	55	15.49%	400	968.520
2014	455,435	#N/A	51.99	17.56%	#N/A	#N/A	421	11	2.68%	417	1,092.169
2015	451,777	#N/A	51.57	-0.80%	#N/A	#N/A	424	3	0.71%	426	1,060.510
2016	419,588	#N/A	47.77	-7.38%	#N/A	#N/A	422	-2	-0.47%	425	987.267
2017	392,051	#N/A	44.75	-6.31%	#N/A	#N/A	433	11	2.61%	430	911.746
2018	409,299	#N/A	46.72	4.40%	#N/A	#N/A	437	4	0.92%	437	936.611
2019	385,979	#N/A	44.06	-5.70%	#N/A	#N/A	437	0	0.00%	437	883.247
2020	444,958	#N/A	50.66	14.97%	#N/A	#N/A	436	-1	-0.23%	436	1,020.546
2021	465,974	#N/A	53.19	5.01%	#N/A	#N/A	434	-2	-0.46%	437	1,066.301
2022	#N/A	419,232	47.86	-10.03%	419,232	47.86	434	0	0.00%	434	965.973
2023	#N/A	418,652	47.79	-0.14%	418,652	47.79	433	-1	-0.23%	433	965.935
2024	#N/A	419,787	47.79	0.00%	419,787	47.79	433	0	0.00%	433	969.486
2025	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
2026	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
2027	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
2028	#N/A	419,787	47.79	0.00%	419,787	47.79	433	0	0.00%	433	969.486
2029	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
2030	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
2031	#N/A	418,640	47.79	0.00%	418,640	47.79	433	0	0.00%	433	966.837
AARG %[1] (2022-2026)			-0.04%								0.02%
AARG %[1] (2022-2031)			-0.02%								0.01%

6.8 Street Lighting

The forecast for street lighting retail load is 0.27 aMW in 2022 and is estimated to remain flat over the ten-year forecast period, with no conservation measures and no additional customers expected be added. Note that new street lighting installations are typically metered and therefore would be classified as small general service. See **Figure 6-8** and **Table 6-8** for the ten-year forecast detail.

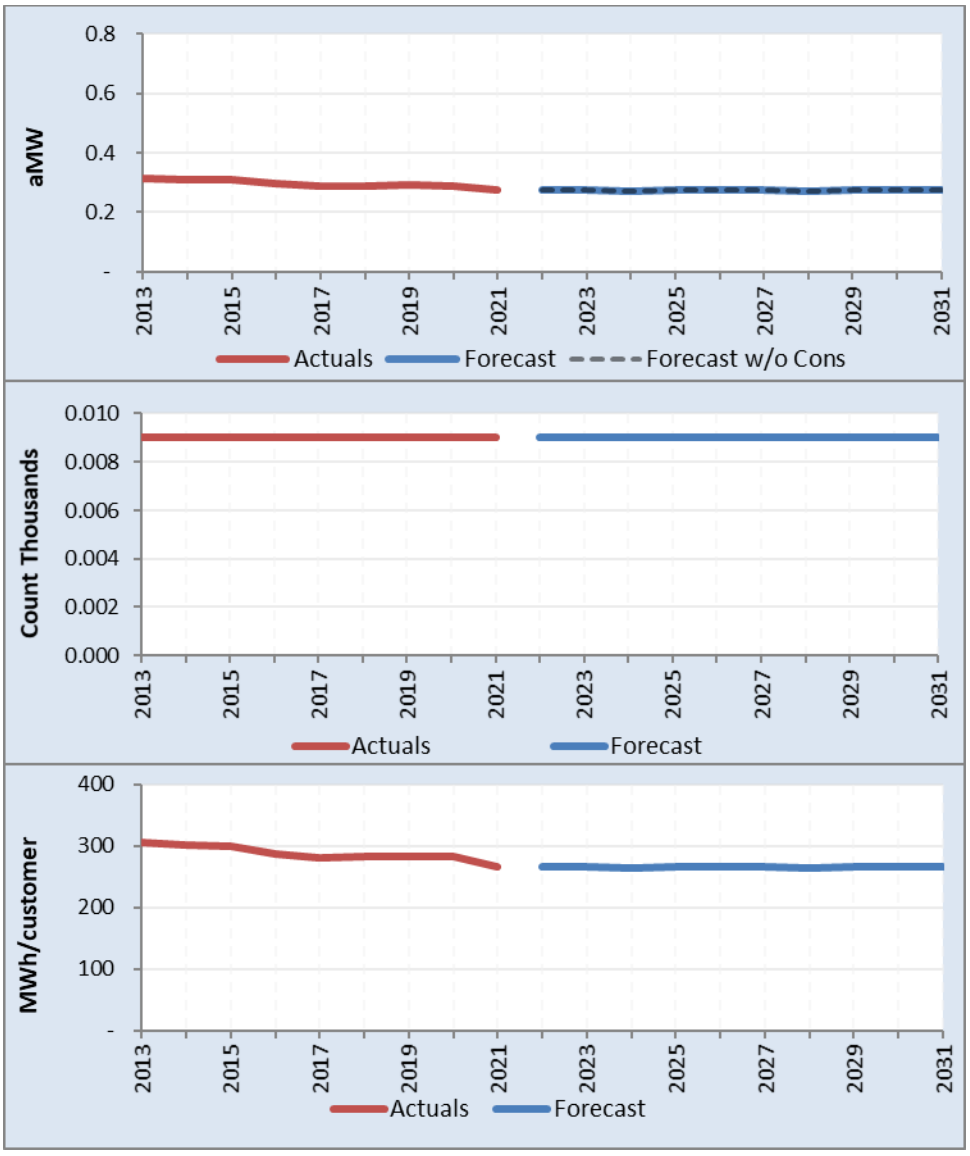


Figure 6-8 – Street Lighting forecast of retail load, customers and usage per customer

Table 6-8 – Street Lighting forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	4,067	#N/A	0.46	3.06%	#N/A	#N/A	9	#N/A	#N/A	9	451.882
2006	4,084	#N/A	0.47	0.41%	#N/A	#N/A	9	0	0.00%	9	453.740
2007	4,151	#N/A	0.47	1.66%	#N/A	#N/A	9	0	0.00%	9	461.266
2008	4,218	#N/A	0.48	1.33%	#N/A	#N/A	9	0	0.00%	9	468.669
2009	4,268	#N/A	0.49	1.46%	#N/A	#N/A	9	0	0.00%	9	474.203
2010	4,339	#N/A	0.50	1.68%	#N/A	#N/A	9	0	0.00%	9	482.159
2011	5,532	#N/A	0.63	27.48%	#N/A	#N/A	9	0	0.00%	9	614.671
2012	4,136	#N/A	0.47	-25.43%	#N/A	#N/A	9	0	0.00%	9	459.597
2013	2,751	#N/A	0.31	-33.31%	#N/A	#N/A	9	0	0.00%	9	305.647
2014	2,721	#N/A	0.31	-1.10%	#N/A	#N/A	9	0	0.00%	9	302.278
2015	2,704	#N/A	0.31	-0.62%	#N/A	#N/A	9	0	0.00%	9	300.405
2016	2,589	#N/A	0.29	-4.50%	#N/A	#N/A	9	0	0.00%	9	287.682
2017	2,535	#N/A	0.29	-1.83%	#N/A	#N/A	9	0	0.00%	9	281.642
2018	2,537	#N/A	0.29	0.10%	#N/A	#N/A	9	0	0.00%	9	281.920
2019	2,546	#N/A	0.29	0.34%	#N/A	#N/A	9	0	0.00%	9	282.868
2020	2,547	#N/A	0.29	-0.22%	#N/A	#N/A	9	0	0.00%	9	283.029
2021	2,393	#N/A	0.27	-5.80%	#N/A	#N/A	9	0	0.00%	9	265.894
2022	#N/A	2,392	0.27	-0.06%	2,392	0.27	9	0	0.00%	9	265.723
2023	#N/A	2,392	0.27	0.00%	2,392	0.27	9	0	0.00%	9	265.723
2024	#N/A	2,391	0.27	-0.30%	2,391	0.27	9	0	0.00%	9	265.640
2025	#N/A	2,392	0.27	0.31%	2,392	0.27	9	0	0.00%	9	265.723
2026	#N/A	2,392	0.27	0.00%	2,392	0.27	9	0	0.00%	9	265.723
2027	#N/A	2,392	0.27	0.00%	2,392	0.27	9	0	0.00%	9	265.723
2028	#N/A	2,391	0.27	-0.30%	2,391	0.27	9	0	0.00%	9	265.640
2029	#N/A	2,392	0.27	0.31%	2,392	0.27	9	0	0.00%	9	265.723
2030	#N/A	2,392	0.27	0.00%	2,392	0.27	9	0	0.00%	9	265.723
2031	#N/A	2,392	0.27	0.00%	2,392	0.27	9	0	0.00%	9	265.723
AARG %[1] (2022-2026)			0.00%								0.00%
AARG %[1] (2022-2031)			0.00%								0.00%

1) AARG % = Annual Average Rate of Growth Percentage

6.9 Security Lighting

The forecast for security lighting retail load is 0.10 aMW in 2022. The five and ten-year average annual rates of growth are -2.15% and -1.96% respectively. No conservation measures and no additional customers are expected to be added. See **Figure 6-9** and **Table 6-9** for the ten-year forecast detail.

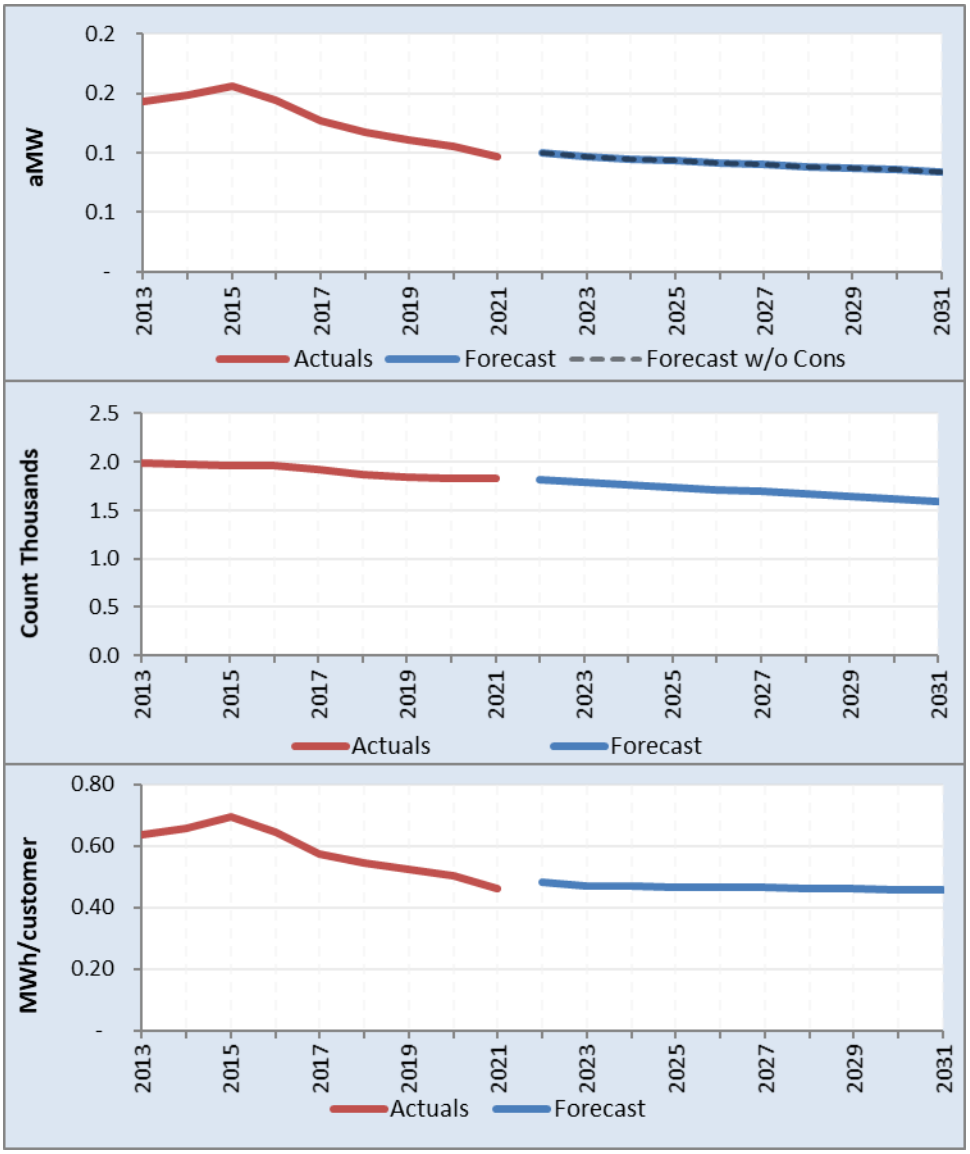


Figure 6-9 – Security Lighting forecast of retail load, customers and usage per customer

Table 6-9 – Security Lighting forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	1,066	#N/A	0.12	-1.99%	#N/A	#N/A	1,920	#N/A	#N/A	1,925	0.554
2006	1,025	#N/A	0.12	-3.92%	#N/A	#N/A	1,916	-4	-0.21%	1,914	0.535
2007	1,028	#N/A	0.12	0.29%	#N/A	#N/A	1,933	17	0.89%	1,925	0.534
2008	1,036	#N/A	0.12	0.52%	#N/A	#N/A	1,928	-5	-0.26%	1,936	0.535
2009	1,045	#N/A	0.12	1.19%	#N/A	#N/A	1,947	19	0.99%	1,938	0.539
2010	1,068	#N/A	0.12	2.22%	#N/A	#N/A	1,963	16	0.82%	1,953	0.547
2011	1,087	#N/A	0.12	1.72%	#N/A	#N/A	1,966	3	0.15%	1,967	0.553
2012	1,084	#N/A	0.12	-0.56%	#N/A	#N/A	1,968	2	0.10%	1,965	0.552
2013	1,257	#N/A	0.14	16.34%	#N/A	#N/A	1,985	17	0.86%	1,973	0.637
2014	1,297	#N/A	0.15	3.12%	#N/A	#N/A	1,974	-11	-0.55%	1,978	0.656
2015	1,364	#N/A	0.16	5.19%	#N/A	#N/A	1,963	-11	-0.56%	1,967	0.693
2016	1,263	#N/A	0.14	-7.64%	#N/A	#N/A	1,958	-5	-0.25%	1,961	0.644
2017	1,112	#N/A	0.13	-11.72%	#N/A	#N/A	1,929	-29	-1.48%	1,943	0.572
2018	1,028	#N/A	0.12	-7.60%	#N/A	#N/A	1,870	-59	-3.06%	1,888	0.544
2019	969	#N/A	0.11	-5.68%	#N/A	#N/A	1,837	-33	-1.76%	1,854	0.523
2020	924	#N/A	0.11	-4.92%	#N/A	#N/A	1,826	-11	-0.60%	1,829	0.505
2021	847	#N/A	0.10	-8.12%	#N/A	#N/A	1,836	10	0.55%	1,833	0.462
2022	#N/A	878	0.10	3.65%	878	0.10	1,812	-24	-1.31%	1,823	0.481
2023	#N/A	846	0.10	-3.54%	846	0.10	1,788	-24	-1.32%	1,799	0.471
2024	#N/A	832	0.09	-1.98%	832	0.09	1,764	-24	-1.34%	1,775	0.469
2025	#N/A	819	0.09	-1.35%	819	0.09	1,740	-24	-1.36%	1,751	0.467
2026	#N/A	805	0.09	-1.71%	805	0.09	1,716	-24	-1.38%	1,727	0.466
2027	#N/A	791	0.09	-1.74%	791	0.09	1,692	-24	-1.40%	1,703	0.464
2028	#N/A	776	0.09	-2.11%	776	0.09	1,668	-24	-1.42%	1,679	0.462
2029	#N/A	763	0.09	-1.46%	763	0.09	1,644	-24	-1.44%	1,655	0.461
2030	#N/A	749	0.09	-1.83%	749	0.09	1,620	-24	-1.46%	1,631	0.459
2031	#N/A	735	0.08	-1.87%	735	0.08	1,596	-24	-1.48%	1,607	0.457
AARG %[1] (2022-2026)			-2.15%								-0.82%
AARG %[1] (2022-2031)			-1.96%								-0.57%

1) AARG % = Annual Average Rate of Growth Percentage

6.10 Unmetered Flats

The forecast for unmetered flats retail load is 0.34 aMW in 2022 and is estimated to increase slowly over the ten-year forecast period to 0.36 by 2031. There are no expected conservation measures and approximately 2 additional customers are expected to be added annually. See **Figure 6-10** and **Table 6-10** for the ten-year forecast detail.

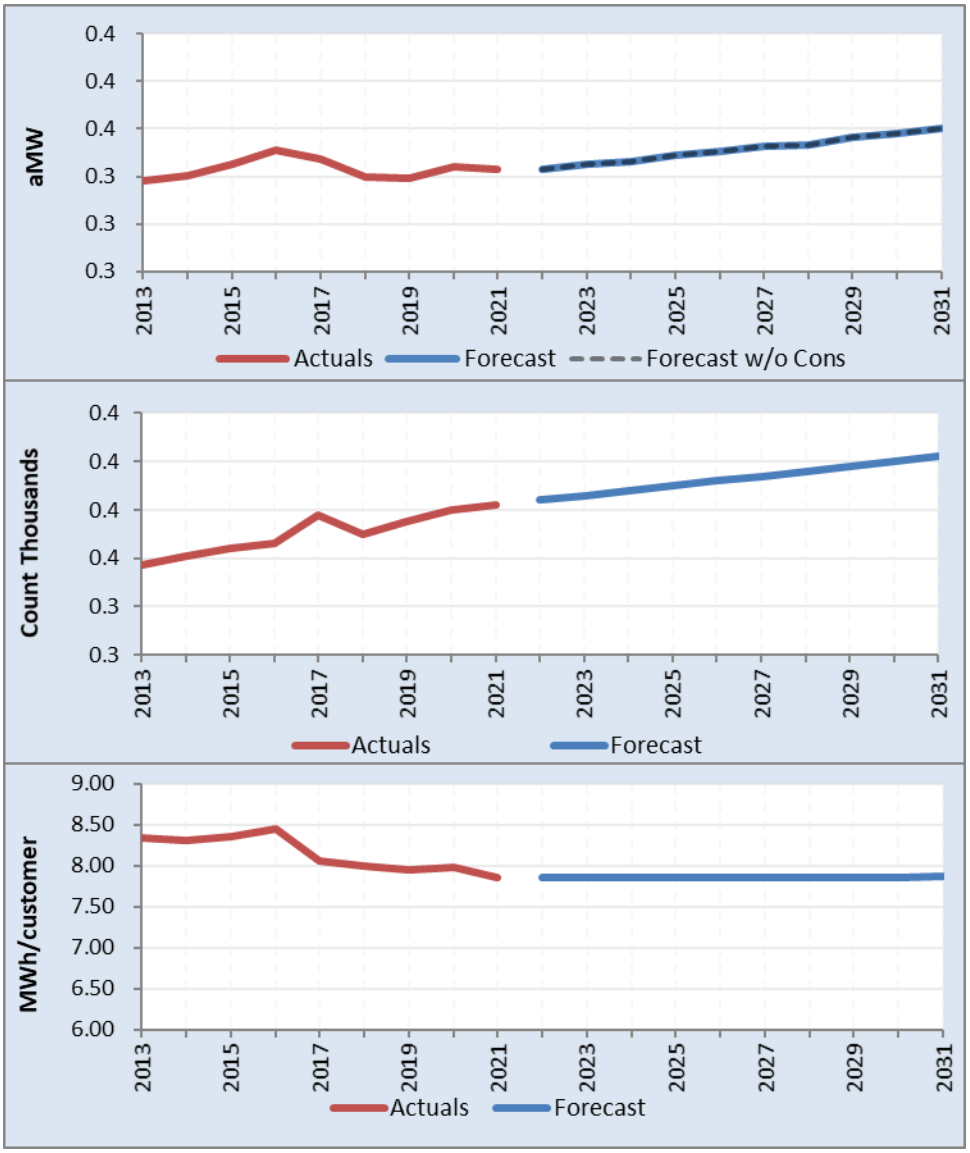


Figure 6-10 – Unmetered Flats forecast of retail load, customers and usage per customer

Table 6-10 – Unmetered Flats forecast of retail load, customers and usage per customer

Calendar Year	Historical Energy (MWh)	Forecast Energy (MWh)	Average Power (aMW)	Average Power % Change	Forecast without Conservation (MWh)	Forecast without Conservation (aMW)	Year-End Customer Count	Year-End Customer Change	1-Year % Change	Average Customer Count	Usage Per Customer (MWh)
2005	2,492	#N/A	0.28	4.56%	#N/A	#N/A	352	#N/A	#N/A	353	7.059
2006	2,833	#N/A	0.32	13.70%	#N/A	#N/A	354	2	0.57%	353	8.026
2007	2,846	#N/A	0.32	0.47%	#N/A	#N/A	354	0	0.00%	354	8.041
2008	2,848	#N/A	0.32	-0.21%	#N/A	#N/A	354	0	0.00%	354	8.046
2009	2,875	#N/A	0.33	1.22%	#N/A	#N/A	355	1	0.28%	354	8.122
2010	2,896	#N/A	0.33	0.72%	#N/A	#N/A	362	7	1.97%	358	8.089
2011	2,909	#N/A	0.33	0.46%	#N/A	#N/A	351	-11	-3.04%	359	8.103
2012	2,928	#N/A	0.33	0.36%	#N/A	#N/A	354	3	0.85%	353	8.294
2013	2,964	#N/A	0.34	1.50%	#N/A	#N/A	357	3	0.85%	355	8.348
2014	2,981	#N/A	0.34	0.57%	#N/A	#N/A	361	4	1.12%	359	8.302
2015	3,023	#N/A	0.35	1.41%	#N/A	#N/A	364	3	0.83%	362	8.350
2016	3,083	#N/A	0.35	1.72%	#N/A	#N/A	366	2	0.55%	365	8.447
2017	3,044	#N/A	0.35	-0.98%	#N/A	#N/A	378	12	3.28%	378	8.054
2018	2,975	#N/A	0.34	-2.28%	#N/A	#N/A	370	-8	-2.12%	372	7.997
2019	2,971	#N/A	0.34	-0.12%	#N/A	#N/A	375	5	1.35%	374	7.944
2020	3,023	#N/A	0.34	1.47%	#N/A	#N/A	380	5	1.33%	379	7.977
2021	3,003	#N/A	0.34	-0.39%	#N/A	#N/A	382	2	0.53%	382	7.862
2022	#N/A	3,004	0.34	0.03%	3,004	0.34	384	2	0.52%	383	7.850
2023	#N/A	3,023	0.35	0.63%	3,023	0.35	386	2	0.52%	385	7.852
2024	#N/A	3,039	0.35	0.25%	3,039	0.35	388	2	0.52%	387	7.853
2025	#N/A	3,056	0.35	0.82%	3,056	0.35	390	2	0.52%	389	7.855
2026	#N/A	3,072	0.35	0.53%	3,072	0.35	392	2	0.51%	391	7.857
2027	#N/A	3,088	0.35	0.53%	3,088	0.35	394	2	0.51%	393	7.858
2028	#N/A	3,104	0.35	0.24%	3,104	0.35	396	2	0.51%	395	7.859
2029	#N/A	3,121	0.36	0.81%	3,121	0.36	398	2	0.51%	397	7.861
2030	#N/A	3,137	0.36	0.52%	3,137	0.36	400	2	0.50%	399	7.863
2031	#N/A	3,153	0.36	0.52%	3,153	0.36	402	2	0.50%	401	7.864
AARG %[1] (2022-2026)			0.56%								0.02%
AARG %[1] (2022-2031)			0.54%								0.02%

1) AARG % = Annual Average Rate of Growth Percentage

7. Appendix A – Summary Tables

Appendix A

Table 7-1 – Total system historical and forecast of annual load, losses and peak demand

Calendar Year	Total Retail Load (aMW)			+ BPUD T&D[1] System Losses (aMW)	(%)	= Total Load at BPA Point-of-Delivery (aMW)			+ BPA Trans.[2] Loss Returns (aMW)	(%)	= Total Power Supply Requirement (aMW)			System Peak Hourly Demand (MW)		
2005	182.9			4.5	2.4%	187.5			#N/A	#N/A	#N/A			366.5		
2006	177.6			5.3	2.9%	182.9			#N/A	#N/A	#N/A			373.3		
2007	183.5			6.7	3.5%	190.2			#N/A	#N/A	#N/A			384.3		
2008	186.7			7.3	3.8%	194.0			#N/A	#N/A	#N/A			396.9		
2009	197.1			6.2	3.1%	203.3			#N/A	#N/A	#N/A			402.1		
2010	181.8			7.0	3.7%	188.9			#N/A	#N/A	#N/A			392.1		
2011	188.2			6.2	3.2%	194.3			#N/A	#N/A	#N/A			379.5		
2012	187.3			5.8	3.0%	193.1			3.5	1.8%	196.7			394.0		
2013	193.7			8.7	4.3%	202.4			3.3	1.6%	205.7			414.5		
2014	203.3			5.1	2.4%	208.4			3.5	1.7%	211.9			430.5		
2015	198.4			7.5	3.6%	205.9			3.4	1.7%	209.3			429.5		
2016	192.9			7.4	3.7%	200.3			3.2	1.6%	203.4			425.1		
2017	203.8			7.1	3.4%	210.9			3.2	1.5%	214.1			426.0		
2018	198.7			5.9	2.9%	204.7			3.2	1.6%	207.9			419.0		
2019	201.6			7.5	3.6%	209.1			4.1	1.9%	213.2			407.7		
2020	198.0			7.5	3.6%	205.5			3.2	1.5%	208.6			437.0		
2021	206.3			8.3	3.9%	214.6			3.1	1.4%	217.7			489.6		
Forecast	**Low**	**Base**	**High**	**aMW**	**%**	**Low**	**Base**	**High**	**aMW**	**%**	**Low**	**Base**	**High**	**Low**	**Base**	**High**
2022	193.6	202.9	212.1	7.0	3.4%	200.6	209.9	219.1	4.3	2.0%	204.9	214.2	223.4	405.7	424.1	442.6
2023	194.5	203.8	213.1	7.0	3.4%	201.6	210.8	220.1	4.3	2.0%	205.9	215.2	224.4	407.7	426.1	444.5
2024	195.1	204.4	213.7	7.0	3.4%	202.1	211.4	220.7	4.3	2.0%	206.4	215.8	225.0	410.1	428.4	446.8
2025	196.1	205.4	214.7	7.1	3.4%	203.1	212.5	221.8	4.3	2.0%	207.5	216.9	226.2	411.1	429.4	447.8
2026	196.4	205.8	215.1	7.1	3.4%	203.5	212.8	222.2	4.3	2.0%	207.8	217.3	226.5	411.9	430.2	448.5
2027	197.0	206.4	215.8	7.1	3.4%	204.1	213.5	222.9	4.4	2.0%	208.5	217.9	227.2	413.3	431.5	449.8
2028	197.2	206.6	216.0	7.1	3.4%	204.3	213.8	223.2	4.4	2.0%	208.7	218.2	227.5	415.0	433.3	451.6
2029	197.9	207.3	216.8	7.1	3.4%	205.0	214.5	223.9	4.4	2.0%	209.4	218.9	228.3	415.4	433.6	451.8
2030	198.1	207.6	217.0	7.2	3.4%	205.3	214.7	224.2	4.4	2.0%	209.7	219.2	228.6	416.0	434.2	452.4
2031	198.7	208.2	217.6	7.2	3.4%	205.9	215.3	224.8	4.4	2.0%	210.3	219.8	229.2	417.2	435.4	453.6

1) BPUD T&D = Benton P.U.D. Transmission & Distribution; Forecast loss factor is equal to the 10-year historical average.

2) BPA Trans. = Bonneville Power Administration Transmission; Forecast loss factor is per Schedule 11 of BPA's Open Access Transmission Tariff (OATT).

Table 7-2 – Historical & BASE case forecast of annual retail load (aMW) by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System	Annual % Change
2005	71.1	13.1	18.7	27.7	6.1	1.8	43.6	0.5	0.1	0.3	182.9	0.62%
2006	72.2	12.9	18.3	27.0	4.3	1.6	40.4	0.5	0.1	0.3	177.6	-2.92%
2007	73.6	13.1	18.9	25.5	5.6	1.8	44.1	0.5	0.1	0.3	183.5	3.31%
2008	75.9	13.2	19.3	25.6	5.4	1.8	44.6	0.5	0.1	0.3	186.7	1.75%
2009	82.4	13.9	20.0	26.6	4.4	1.9	46.8	0.5	0.1	0.3	197.1	5.56%
2010	74.7	13.0	19.5	25.0	6.3	1.6	40.7	0.5	0.1	0.3	181.8	-7.74%
2011	78.5	13.5	20.0	23.9	7.5	1.7	41.9	0.6	0.1	0.3	188.2	3.49%
2012	76.0	13.6	20.0	24.7	8.0	1.7	42.2	0.5	0.1	0.3	187.3	-0.46%
2013	79.7	14.0	20.2	25.0	8.0	1.7	44.2	0.3	0.1	0.3	193.7	3.41%
2014	79.5	14.2	20.8	25.9	8.2	2.0	52.0	0.3	0.1	0.3	203.3	4.98%
2015	76.0	13.9	20.8	25.8	7.6	1.9	51.6	0.3	0.2	0.3	198.4	-2.43%
2016	75.3	13.9	20.5	25.4	7.4	1.8	47.8	0.3	0.1	0.4	192.9	-2.79%
2017	86.7	14.7	21.3	26.3	7.7	1.6	44.8	0.3	0.1	0.3	203.8	5.66%
2018	79.6	14.3	20.9	27.2	7.5	1.7	46.7	0.3	0.1	0.3	198.7	-2.48%
2019	85.7	14.7	21.1	26.4	7.3	1.5	44.1	0.3	0.1	0.3	201.6	1.45%
2020	80.2	12.7	19.6	25.0	7.2	1.9	50.7	0.3	0.1	0.3	198.0	-1.78%
2021	81.3	13.3	20.9	27.6	7.4	1.9	53.2	0.3	0.1	0.3	206.3	4.19%
2022	83.1	13.5	20.8	27.8	7.3	1.7	47.9	0.3	0.1	0.3	202.9	-1.67%
2023	83.7	13.4	21.0	28.2	7.3	1.7	47.8	0.3	0.1	0.3	203.8	0.47%
2024	84.2	13.3	21.0	28.3	7.3	1.7	47.8	0.3	0.1	0.3	204.4	0.27%
2025	84.7	13.2	21.1	28.8	7.3	1.7	47.8	0.3	0.1	0.3	205.4	0.51%
2026	85.3	13.1	21.0	28.8	7.3	1.7	47.8	0.3	0.1	0.4	205.8	0.17%
2027	85.8	13.1	21.0	28.9	7.3	1.7	47.8	0.3	0.1	0.4	206.4	0.30%
2028	86.3	13.0	20.9	28.9	7.3	1.7	47.8	0.3	0.1	0.4	206.6	0.12%
2029	86.9	12.9	20.9	29.1	7.3	1.7	47.8	0.3	0.1	0.4	207.3	0.34%
2030	87.4	12.8	20.8	29.0	7.3	1.7	47.8	0.3	0.1	0.4	207.6	0.12%
2031	87.9	12.7	20.8	29.2	7.3	1.7	47.8	0.3	0.1	0.4	208.2	0.29%
AARG %[1] 2022-2026	**0.64%**	**-0.67%**	**0.23%**	**0.89%**	**0.00%**	**-0.43%**	**-0.04%**	**0.00%**	**-2.15%**	**0.56%**	**0.35%**	
AARG %[1] 2022-2031	**0.63%**	**-0.68%**	**0.01%**	**0.55%**	**0.00%**	**-0.40%**	**-0.02%**	**0.00%**	**-1.96%**	**0.54%**	**0.29%**	

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-3 – HIGH case forecast of annual retail load (aMW) by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System
2022	87.2	14.0	21.5	28.6	7.3	1.8	51.0	0.3	0.1	0.3	212.1
2023	87.7	13.9	21.7	29.0	7.3	1.8	50.9	0.3	0.1	0.3	213.1
2024	88.3	13.8	21.7	29.2	7.3	1.8	50.9	0.3	0.1	0.3	213.7
2025	88.8	13.7	21.8	29.7	7.3	1.8	50.9	0.3	0.1	0.3	214.7
2026	89.4	13.6	21.7	29.7	7.3	1.8	50.9	0.3	0.1	0.4	215.1
2027	90.0	13.5	21.7	29.8	7.3	1.8	50.9	0.3	0.1	0.4	215.8
2028	90.5	13.4	21.6	29.8	7.3	1.8	50.9	0.3	0.1	0.4	216.0
2029	91.1	13.3	21.7	30.0	7.3	1.8	50.9	0.3	0.1	0.4	216.8
2030	91.6	13.2	21.5	29.9	7.3	1.8	50.9	0.3	0.1	0.4	217.0
2031	92.2	13.1	21.5	30.1	7.3	1.8	50.9	0.3	0.1	0.4	217.6
AARG %[1] 2022-2026	**0.64%**	**-0.67%**	**0.23%**	**0.89%**	**0.00%**	**-0.43%**	**-0.04%**	**0.00%**	**-2.15%**	**0.56%**	**0.35%**
AARG %[1] 2022-2031	**0.63%**	**-0.68%**	**0.01%**	**0.55%**	**0.00%**	**-0.40%**	**-0.02%**	**0.00%**	**-1.96%**	**0.54%**	**0.29%**

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-4 – LOW case forecast of annual retail load (aMW) by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System
2022	79.1	13.0	20.1	26.9	7.3	1.7	44.8	0.3	0.1	0.3	193.6
2023	79.6	13.0	20.3	27.3	7.3	1.6	44.7	0.3	0.1	0.3	194.5
2024	80.1	12.9	20.2	27.5	7.3	1.6	44.7	0.3	0.1	0.3	195.1
2025	80.6	12.8	20.4	27.9	7.3	1.6	44.7	0.3	0.1	0.3	196.1
2026	81.1	12.7	20.3	27.9	7.3	1.6	44.7	0.3	0.1	0.4	196.4
2027	81.6	12.6	20.3	28.1	7.3	1.6	44.7	0.3	0.1	0.4	197.0
2028	82.1	12.5	20.2	28.0	7.3	1.6	44.7	0.3	0.1	0.4	197.2
2029	82.6	12.4	20.2	28.2	7.3	1.6	44.7	0.3	0.1	0.4	197.9
2030	83.2	12.3	20.1	28.2	7.3	1.6	44.7	0.3	0.1	0.4	198.1
2031	83.7	12.3	20.1	28.3	7.3	1.6	44.7	0.3	0.1	0.4	198.7
AARG %[1] 2022-2026	**0.64%**	**-0.67%**	**0.23%**	**0.89%**	**0.00%**	**-0.43%**	**-0.04%**	**0.00%**	**-2.15%**	**0.56%**	**0.35%**
AARG %[1] 2022-2031	**0.63%**	**-0.68%**	**0.01%**	**0.55%**	**0.00%**	**-0.40%**	**-0.02%**	**0.00%**	**-1.96%**	**0.54%**	**0.29%**

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-5 – Total System Historical BASE case forecast of MONTHLY and annual retail load (aMW)

Calendar Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2005	188.8	165.8	163.5	168.1	177.3	229.3	255.6	251.2	170.2	124.0	134.7	164.2	182.9
2006	167.3	162.9	155.4	151.7	177.2	221.6	250.4	233.4	171.8	131.1	135.0	171.0	177.6
2007	182.2	185.4	148.3	155.5	187.7	235.0	254.1	236.0	187.5	127.6	143.7	158.6	183.5
2008	176.4	188.5	147.5	182.2	191.7	228.2	262.4	234.6	177.5	149.1	127.3	174.0	186.7
2009	201.8	185.2	161.9	172.6	209.5	258.3	267.4	250.3	187.6	144.4	142.3	181.6	197.1
2010	191.9	157.1	150.6	180.6	175.6	204.6	253.5	250.5	167.1	133.4	129.5	183.6	181.8
2011	186.4	180.8	156.1	173.6	174.5	221.0	247.3	253.8	209.0	136.1	136.1	182.3	188.2
2012	190.0	188.1	145.8	165.4	205.4	207.7	245.0	258.7	197.4	141.2	146.8	155.2	187.3
2013	185.8	187.3	150.1	167.3	206.6	234.1	274.0	249.5	186.1	148.6	148.8	184.3	193.7
2014	194.0	207.4	161.0	184.7	210.4	265.2	283.5	255.1	199.3	161.9	145.4	172.1	203.3
2015	178.8	178.2	148.2	181.5	201.0	288.8	296.2	248.9	197.7	154.4	136.6	168.9	198.4
2016	191.6	175.0	145.0	193.5	205.2	257.1	258.1	249.9	190.4	143.8	135.2	168.4	192.9
2017	228.0	221.2	169.4	160.9	191.5	266.3	289.6	261.5	193.4	148.1	148.5	167.1	203.8
2018	194.5	177.9	163.2	170.5	210.0	260.7	285.1	263.1	191.1	146.0	148.8	171.1	198.7
2019	178.1	215.8	192.3	168.6	193.8	271.3	259.8	257.0	195.7	151.1	160.2	176.8	201.6
2020	178.9	181.0	163.8	194.3	188.1	243.0	274.6	277.4	201.8	152.4	149.3	170.4	198.0
2021	179.4	195.6	169.2	197.3	227.1	283.6	313.9	260.5	195.1	153.6	145.6	153.9	206.3
Min. 2005-2021	**167.3**	**157.1**	**145.0**	**151.7**	**174.5**	**204.6**	**245.0**	**233.4**	**167.1**	**124.0**	**127.3**	**153.9**	**177.6**
Avg. 2017-2021	**191.8**	**198.3**	**171.6**	**178.3**	**202.1**	**265.0**	**284.6**	**263.9**	**195.4**	**150.2**	**150.5**	**167.9**	**201.7**
Max. 2005-2021	**228.0**	**221.2**	**192.3**	**197.3**	**227.1**	**288.8**	**313.9**	**277.4**	**209.0**	**161.9**	**160.2**	**184.3**	**206.3**
2022	184.6	187.7	161.3	166.8	194.3	239.8	294.8	271.5	205.9	161.2	174.0	190.3	202.9
2023	186.1	188.3	161.8	167.4	195.5	241.1	296.5	272.8	206.2	161.6	174.5	191.6	203.8
2024	187.2	183.5	161.4	168.1	198.2	244.8	299.9	271.9	205.0	161.4	175.6	193.2	204.4
2025	188.5	189.0	162.1	167.9	196.9	244.0	300.1	275.3	207.0	162.0	175.2	194.3	205.4
2026	189.4	189.0	162.0	167.9	197.2	244.9	301.3	276.0	207.0	161.6	175.0	195.1	205.8
2027	190.5	189.3	162.0	167.9	197.9	246.0	302.9	277.1	207.1	161.7	175.2	196.3	206.4
2028	191.4	185.9	161.4	168.4	200.2	248.9	305.5	275.6	205.3	161.1	176.0	197.7	206.6
2029	192.5	190.9	161.9	167.9	198.5	247.9	305.3	278.6	207.1	161.3	175.1	198.3	207.3
2030	193.2	191.3	161.5	167.6	198.8	248.4	306.4	279.2	206.8	160.9	175.0	199.1	207.6
2031	194.3	192.2	161.6	167.6	199.2	249.4	307.8	280.1	206.8	160.9	175.2	200.2	208.2

Table 7-6 – 2022 BASE case forecast of MONTHLY and annual retail load (aMW) by customer class

Customer Class	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Small Irrigation	0.0	0.2	0.6	1.4	2.4	3.4	4.5	4.1	2.7	1.2	0.3	0.0	1.7
Large Irrigation	0.0	3.5	12.3	32.7	64.9	98.9	135.5	119.5	70.2	26.9	6.2	0.0	47.9
Residential	115.1	109.0	82.1	65.5	60.0	65.5	79.9	74.6	62.7	67.3	97.4	119.6	83.1
Small General	14.5	14.9	12.5	12.0	12.1	13.5	15.2	14.5	12.8	11.8	13.6	14.8	13.5
Medium General	20.9	22.4	19.7	19.8	19.7	21.2	22.2	21.7	20.7	19.4	20.9	21.3	20.8
Large General	25.9	28.8	26.3	27.5	27.4	29.3	29.6	29.2	28.9	26.9	27.3	26.4	27.8
Large Industrial	7.5	8.1	7.2	7.3	7.0	7.3	7.3	7.2	7.2	7.1	7.5	7.5	7.3
Street Lights	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Security Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unmetered Flats	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
System Total	**184.6**	**187.7**	**161.3**	**166.8**	**194.3**	**239.8**	**294.8**	**271.5**	**205.9**	**161.2**	**174.0**	**190.3**	**202.9**

Figure 7-1 – 2021 BASE case forecast of MONTHLY and annual retail load (aMW) by customer class

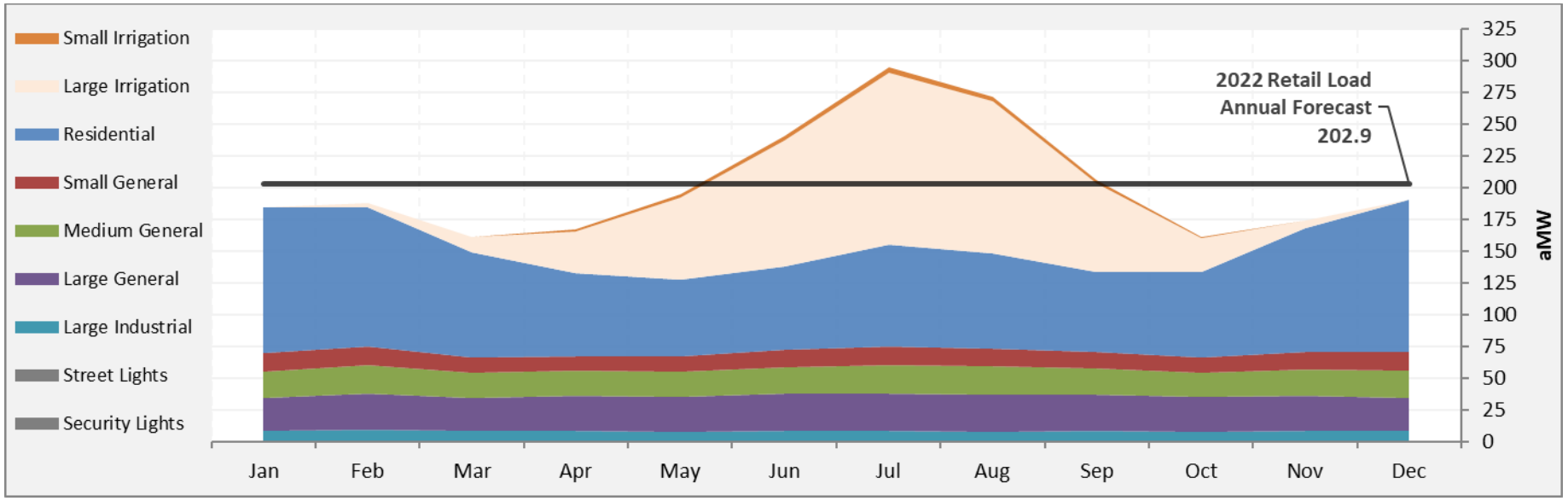


Table 7-7 – Historical and forecast of annual average number of customers by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System	Annual % Change
2005	36,963	4,144	637	122	5	622	288	9	1,925	353	45,068	#N/A
2006	37,418	4,169	636	126	5	614	291	9	1,914	353	45,535	1.04%
2007	37,969	4,295	654	128	5	607	302	9	1,925	354	46,248	1.57%
2008	38,855	4,385	676	131	5	615	313	9	1,936	354	47,279	2.23%
2009	39,220	4,460	695	134	5	615	323	9	1,938	354	47,753	1.00%
2010	39,687	4,503	718	135	5	602	326	9	1,953	358	48,296	1.14%
2011	40,201	4,553	732	136	5	582	332	9	1,967	359	48,876	1.20%
2012	40,645	4,610	747	142	5	563	350	9	1,965	353	49,389	1.05%
2013	41,321	4,682	746	144	5	564	400	9	1,973	355	50,199	1.64%
2014	41,758	4,741	754	148	5	563	417	9	1,978	359	50,732	1.06%
2015	42,375	4,828	758	151	5	560	426	9	1,967	362	51,441	1.40%
2016	43,157	4,915	768	157	5	558	425	9	1,961	365	52,320	1.71%
2017	43,870	4,977	782	160	5	557	430	9	1,943	378	53,111	1.51%
2018	44,550	4,972	803	162	5	546	437	9	1,888	372	53,744	1.19%
2019	45,319	5,055	820	166	5	542	437	9	1,854	374	54,581	1.56%
2020	46,027	5,134	806	169	5	548	436	9	1,829	379	55,342	1.39%
2021	46,690	5,169	821	177	5	549	437	9	1,833	382	56,072	1.32%
2022	47,305	5,169	831	181	5	534	434	9	1,823	383	56,672	1.07%
2023	47,939	5,204	843	185	5	530	433	9	1,799	385	57,332	1.16%
2024	48,588	5,240	855	190	5	526	433	9	1,775	387	58,006	1.18%
2025	49,272	5,276	867	195	5	522	433	9	1,751	389	58,717	1.23%
2026	49,956	5,312	879	200	5	518	433	9	1,727	391	59,428	1.21%
2027	50,640	5,348	891	204	5	514	433	9	1,703	393	60,138	1.20%
2028	51,324	5,384	903	209	5	510	433	9	1,679	395	60,849	1.18%
2029	52,008	5,420	915	214	5	506	433	9	1,655	397	61,560	1.17%
2030	52,692	5,456	927	218	5	502	433	9	1,631	399	62,270	1.15%
2031	53,376	5,492	939	223	5	498	433	9	1,607	401	62,981	1.14%
AARG %[1] 2022-2026	**1.37%**	**0.68%**	**1.41%**	**2.52%**	**0.00%**	**-0.76%**	**-0.06%**	**0.00%**	**-1.34%**	**0.54%**	**1.19%**	
AARG %[1] 2022-2031	**1.35%**	**0.68%**	**1.37%**	**2.37%**	**0.00%**	**-0.77%**	**-0.03%**	**0.00%**	**-1.39%**	**0.52%**	**1.18%**	

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-8 – Historical and BASE case forecast of annual usage per customer (kWh) by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System	Annual % Change
2005	16,845	27,681	257,524	1,988,160	10,657,159	25,280	1,326,136	451,882	554	7,059	35,558	#N/A
2006	16,896	27,034	252,263	1,880,220	7,491,183	23,298	1,215,612	453,740	535	8,026	34,165	-3.92%
2007	16,972	26,787	252,577	1,744,660	9,809,030	26,110	1,279,477	461,266	534	8,041	34,753	1.72%
2008	17,151	26,366	250,845	1,717,234	9,552,059	26,086	1,250,444	468,669	535	8,046	34,685	-0.20%
2009	18,402	27,260	252,179	1,741,869	7,781,815	27,453	1,270,544	474,203	539	8,122	36,151	4.23%
2010	16,498	25,202	237,977	1,619,899	11,072,932	23,997	1,094,709	482,159	547	8,089	32,980	-8.77%
2011	17,113	25,991	239,704	1,541,682	13,082,162	25,097	1,106,605	614,671	553	8,103	33,725	2.26%
2012	16,435	25,905	235,607	1,530,826	14,115,033	26,936	1,058,781	459,597	552	8,294	33,313	-1.22%
2013	16,889	26,255	237,601	1,523,024	13,960,556	26,970	968,520	305,647	637	8,348	33,801	1.47%
2014	16,687	26,215	241,437	1,531,617	14,373,897	30,566	1,092,169	302,278	656	8,302	35,112	3.88%
2015	15,705	25,165	240,911	1,497,847	13,388,377	29,330	1,060,510	300,405	693	8,350	33,787	-3.78%
2016	15,333	24,795	234,983	1,422,089	12,922,450	27,952	987,267	287,682	644	8,447	32,379	-4.17%
2017	17,316	25,930	238,050	1,441,715	13,416,822	24,694	911,746	281,642	572	8,054	33,611	3.80%
2018	15,648	25,114	228,051	1,472,877	13,199,344	28,043	936,611	281,920	544	7,997	32,392	-3.63%
2019	16,574	25,487	225,362	1,394,263	12,863,616	24,353	883,247	282,868	523	7,944	32,359	-0.10%
2020	15,304	21,766	214,110	1,297,712	12,725,056	29,774	1,020,546	283,029	505	7,977	31,431	-2.87%
2021	15,246	22,483	223,171	1,367,123	13,016,760	30,543	1,066,301	265,894	462	7,862	32,232	2.55%
2022	15,392	22,889	219,533	1,345,792	12,859,003	28,617	965,973	265,723	481	7,850	31,359	-2.71%
2023	15,286	22,589	218,280	1,332,147	12,859,699	28,703	965,935	265,723	471	7,852	31,143	-0.69%
2024	15,220	22,345	215,361	1,308,325	12,894,064	28,909	969,486	265,640	469	7,853	30,947	-0.63%
2025	15,062	21,983	213,376	1,290,919	12,859,337	28,891	966,837	265,723	467	7,855	30,644	-0.98%
2026	14,950	21,685	209,485	1,262,375	12,860,032	28,993	966,837	265,723	466	7,857	30,330	-1.02%
2027	14,841	21,384	206,950	1,241,469	12,858,975	29,102	966,837	265,723	464	7,858	30,063	-0.88%
2028	14,775	21,159	203,209	1,213,456	12,895,059	29,341	969,486	265,640	462	7,859	29,828	-0.78%
2029	14,631	20,814	200,616	1,192,826	12,860,365	29,336	966,837	265,723	461	7,861	29,503	-1.09%
2030	14,529	20,532	196,850	1,165,467	12,859,308	29,463	966,837	265,723	459	7,863	29,200	-1.03%
2031	14,432	20,254	194,366	1,145,005	12,860,003	29,596	966,837	265,723	457	7,864	28,953	-0.85%
AARG %[1] 2022-2026	**-0.73%**	**-1.34%**	**-1.16%**	**-1.59%**	**0.00%**	**0.33%**	**0.02%**	**0.00%**	**-0.82%**	**0.02%**	**-0.83%**	
AARG %[1] 2022-2031	**-0.71%**	**-1.35%**	**-1.34%**	**-1.78%**	**0.00%**	**0.37%**	**0.01%**	**0.00%**	**-0.57%**	**0.02%**	**-0.88%**	

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-9 – Historical and forecast annual year-end number of customers by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System	Annual % Change
2005	37,236	4,128	627	123	5	619	288	9	1,920	352	45,307	#N/A
2006	37,802	4,232	641	127	5	602	293	9	1,916	354	45,981	1.49%
2007	38,285	4,324	665	131	5	609	308	9	1,933	354	46,623	1.40%
2008	39,095	4,445	683	132	5	615	316	9	1,928	354	47,582	2.06%
2009	39,430	4,484	707	135	5	610	325	9	1,947	355	48,007	0.89%
2010	39,973	4,528	725	135	5	594	322	9	1,963	362	48,616	1.27%
2011	40,432	4,576	747	141	5	573	334	9	1,966	351	49,134	1.07%
2012	40,955	4,652	742	143	5	555	355	9	1,968	354	49,738	1.23%
2013	41,561	4,709	750	146	5	563	410	9	1,985	357	50,495	1.52%
2014	42,039	4,784	758	151	5	559	421	9	1,974	361	51,061	1.12%
2015	42,724	4,883	762	153	5	558	424	9	1,963	364	51,845	1.54%
2016	43,574	4,949	775	160	5	556	422	9	1,958	366	52,774	1.79%
2017	44,177	5,011	785	160	5	546	433	9	1,929	378	53,433	1.25%
2018	44,946	4,991	815	164	5	529	437	9	1,870	370	54,136	1.32%
2019	45,666	5,081	821	167	5	528	437	9	1,837	375	54,926	1.46%
2020	46,398	5,146	809	176	5	540	436	9	1,826	380	55,725	1.45%
2021	46,936	5,148	825	179	5	535	434	9	1,836	382	56,289	1.01%
2022	47,618	5,185	836	183	5	532	434	9	1,812	384	56,998	1.26%
2023	48,217	5,220	848	187	5	528	433	9	1,788	386	57,621	1.09%
2024	48,901	5,256	860	191	5	524	433	9	1,764	388	58,331	1.23%
2025	49,585	5,292	872	197	5	520	433	9	1,740	390	59,043	1.22%
2026	50,269	5,328	884	201	5	516	433	9	1,716	392	59,753	1.20%
2027	50,953	5,364	896	206	5	512	433	9	1,692	394	60,464	1.19%
2028	51,637	5,400	908	211	5	508	433	9	1,668	396	61,175	1.18%
2029	52,321	5,436	920	215	5	504	433	9	1,644	398	61,885	1.16%
2030	53,005	5,472	932	220	5	500	433	9	1,620	400	62,596	1.15%
2031	53,689	5,508	944	225	5	496	433	9	1,596	402	63,307	1.14%
AARG %[1] 2022-2026	**1.36%**	**0.68%**	**1.41%**	**2.37%**	**0.00%**	**-0.76%**	**-0.06%**	**0.00%**	**-1.35%**	**0.52%**	**1.19%**	
AARG %[1] 2022-2026	**1.34%**	**0.67%**	**1.36%**	**2.32%**	**0.00%**	**-0.78%**	**-0.03%**	**0.00%**	**-1.40%**	**0.51%**	**1.17%**	

1) AARG % = Annual Average Rate of Growth Percentage

Table 7-10 – Historical and forecast annual change in number of customers by customer class

Calendar Year	Residential	Small General	Medium General	Large General	Large Industrial	Small Irrigation	Large Irrigation	Street Lights	Security Lights	Unmetered Flats	Total System	Annual % Change
2005	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2006	566	104	14	4	0	(17)	5	0	(4)	2	674	#N/A
2007	483	92	24	4	0	7	15	0	17	0	642	-4.75%
2008	810	121	18	1	0	6	8	0	(5)	0	959	49.38%
2009	335	39	24	3	0	(5)	9	0	19	1	425	-55.68%
2010	543	44	18	0	0	(16)	(3)	0	16	7	609	43.29%
2011	459	48	22	6	0	(21)	12	0	3	(11)	518	-14.94%
2012	523	76	(5)	2	0	(18)	21	0	2	3	604	16.60%
2013	606	57	8	3	0	8	55	0	17	3	757	25.33%
2014	478	75	8	5	0	(4)	11	0	(11)	4	566	-25.23%
2015	685	99	4	2	0	(1)	3	0	(11)	3	784	38.52%
2016	850	66	13	7	0	(2)	(2)	0	(5)	2	929	18.49%
2017	603	62	10	0	0	(10)	11	0	(29)	12	659	-29.06%
2018	769	(20)	30	4	0	(17)	4	0	(59)	(8)	703	6.68%
2019	720	90	6	3	0	(1)	0	0	(33)	5	790	12.38%
2020	732	65	(12)	9	0	12	(1)	0	(11)	5	799	1.14%
2021	538	2	16	3	0	(5)	(2)	0	10	2	564	-29.41%
2022	682	37	11	4	0	(3)	0	0	(24)	2	709	25.71%
2023	599	35	12	4	0	(4)	(1)	0	(24)	2	623	-12.13%
2024	684	36	12	4	0	(4)	0	0	(24)	2	710	13.96%
2025	684	36	12	6	0	(4)	0	0	(24)	2	712	0.28%
2026	684	36	12	4	0	(4)	0	0	(24)	2	710	-0.28%
2027	684	36	12	5	0	(4)	0	0	(24)	2	711	0.14%
2028	684	36	12	5	0	(4)	0	0	(24)	2	711	0.00%
2029	684	36	12	4	0	(4)	0	0	(24)	2	710	-0.14%
2030	684	36	12	5	0	(4)	0	0	(24)	2	711	0.14%
2031	684	36	12	5	0	(4)	0	0	(24)	2	711	0.00%

Capital Requirements Plan

Tab 9

Capital Requirements Plan - Combined Summary - 2024 Budget

Capital Category	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Transmission	$8,534,445	$3,261,910	$5,803,910	$1,976,345	$1,542,783	$2,800,000	$2,800,000
Distribution	$15,824,476	$18,868,512	$19,388,862	$16,147,132	$14,037,522	$14,313,846	$13,110,707
Broadband	$1,775,213	$1,671,697	$1,425,054	$1,099,359	$1,037,597	$1,101,850	$1,103,116
General Plant	$1,818,300	$948,656	$1,368,500	$1,290,500	$1,183,500	$877,500	$757,500
IT	$901,332	$749,799	$986,750	$889,266	$800,000	$800,000	$800,000
Security	$1,014,999	$199,999	$2,945,200	$266,666	$250,000	$250,000	$250,000
Contributions in Aid	($3,113,466)	($3,597,917)	($3,571,055)	($3,561,769)	($3,561,719)	($3,561,769)	($3,561,769)
Grand Total	**$26,755,299**	**$22,102,655**	**$28,347,221**	**$18,107,499**	**$15,289,683**	**$16,581,427**	**$15,259,554**

Capital Requirements Plan
Transmission - 2024 Budget

Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Switch Upgrade/Additions	137	$82,349	$103,249	$268,000	$75,000	$75,000	$75,000	$75,000
WO# 511742 - Transmission Line-Phillips to Spaw	212	$5,325,911	$2,523,396	$4,352,278				
WO# 625844 - Spaw Phillips 115kV Breaker	334	$533,333	$68,664	$441,915				
WO# 608670 - McNary POD	300	$455,550	$209,946	$183,098				
WO# 503229 - Transmission Line-Sunset Rd to Dallas Rd	413	$1,805,416	$68,212		$1,342,783	$1,342,783		
Poles & Fixtures, Misc Repairs	75	$125,000		$134,000	$125,000	$125,000	$125,000	$125,000
WO# XXXXXX - Hedges 115kV Metering Point	169	$206,886			$221,886			
WO#667629 - Install New Switch N/O Chevron Tap	137		$105,838					
WO#624486 - Relocate/Replace BC130	137		$88,999					
WO#559938 - Berrian Switch Installation (BC1525)	137		$48,630					
WO#640824 - Replace BC169	137		$44,978					
WO#XXXXXX- Prior Tap Switches	137			$212,309	$211,676			
WO#XXXXXX- Install New Switch W/O Reata Sub	137			$106,155				
WO#XXXXXX- Install New Switch N/O Sunset Tap	137			$106,155				
WO# 646873 - Weber Canyon to Prosser Tie	353						$2,600,000	$2,600,000
Grand Total		**$8,534,445**	**$3,261,910**	**$5,803,910**	**$1,976,345**	**$1,542,783**	**$2,800,000**	**$2,800,000**

Capital Requirements Plan
Distribution - 2024 Budget

Project Group	Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Capacity & Reliability	9 - Dist. 5 Year Plan	POS#58 - WO# XXXXXX - BEC-3, new feeder to east to tie with S..	205	$915,277	$27,535	$1,175,203				
		POS#11 - WO# 647875 - GUM-4, HED-3, recond. 3/0, Bowles Rd.	331	$181,444	$6,884	$479,817				
		POS#13 - WO# 647881 - GUM - 4 Reconductor #4 ACSR, Game F..	369	$471,975	$772,505					
		POS#12 - WO# 639878 - GUM - 4 Reconductor #4 ACSR, Oak St.	362	$352,912	$48,021					
		POS#36A - WO#XXXXXX - SSR-3 Reconductor (DNR Land) WEST	395	$152,581			$178,919			
		POS#81 - WO# XXXXXX - PHI-8, new feeder north to Cochrane	297			$582,252				
		POS#41 - WO# XXXXXX - ZEH-4, new OH tie to GUM-4 at Game F..	206			$364,996				
		POS#102 - WO#XXXXXX - HED-4 Getaway Reconductor	288			$125,667				
		POS#39 - WO# XXXXXX - ZEH-1, new OH line and UG tie with E7	Null				$359,454			
		POS#XXX - WO# XXXXXX - KEN-8 to HED-4 tie Haney and Schuster	Null				$267,112			
		POS#20 - WO# XXXXXX - HED - 4 Reconductor 3/0 ACSR, Perkins ..	204					$506,398		
		POS#105 - WO#XXXXXX - KEN-9 Reconductor down Washington	Null					$402,951		
		POS#38 - WO#505924 - VIS-1 to Vis-6 Across Quinault	152					$253,403		
		POS#119 - WO#XXXXXX - PSR-3 Reconductor	332						$361,900	
		POS#95 - WO# XXXXXX - HED-2, recond #266.8, Finley Rd	Null						$306,100	
		POS#19 - WO# XXXXXX - HED-3 , Reconductor #4 Terril Rd.	Null						$294,100	
		POS#122 - WO#XXXXXX - ANG-3 Recon. btw Morain & Perry	Null						$200,000	
		POS#15 - WO# 615372 - HIG-4, recond. 3/0, W. 10th Ave.	309							$375,948
		POS#54 - WO# XXXXXX ZEH-3, recond. 1/0 to serve GUM-3	Null							$307,674
		POS#14 - WO# 615367 - GUM-4, Hed-3 Tie, Game Farm to Terrill	308							$300,839
		POS#79 - WO# XXXXXX RTA-2, Recond. Badger Rd. Btwn L766A ..	Null							$161,000
		Total		**$2,074,190**	**$854,945**	**$2,727,936**	**$805,485**	**$1,162,752**	**$1,162,100**	**$1,145,461**
	17 - Dist. System Improvement	Fire Mitigation - OH Line Reconstruction	312	$250,000	$193,211	$250,000	$250,000	$250,000	$250,000	$250,000
		Dist. System Improvements	141	$706,840	$1,630,342	$997,697				
		WO# 672667 - Vista Substation Feeder Getaways (OH)	296		$114,168	$111,142				
		WO# XXXXXX - Voltage Optimization	151		$32,340		$300,000		$300,000	
		WO# 662093- COK - CBB & Deschutes Realignment	363		$312,868					
		WO# 639387- COK - Steptoe and Gage Realignment Complete	363		$120,127					
		WO# 675760 Southridge 3 Feeder completion	363		$118,768					
		WO# 503528 - Voltage Optimization	151		$25,000					
		Total		**$956,840**	**$2,546,823**	**$1,358,839**	**$550,000**	**$250,000**	**$550,000**	**$250,000**
	22 - Scada	WO# XXXXXX - SCADA Communications Network Study	333	$150,000	$99,885	$299,770				
		Fiber to Substations & Line Devices	144	$31,250	$33,500	$33,500				
		Distribution Line Equipment SCADA	143	$25,000	$26,800	$26,800				
		WO#XXXXXX - Fiber Backbone to Carma	144	$339,735	$347,652					
		WO#613715 - Highlands Sub SCADA Upgrades	202	$36,601	$15,028					
		WO#566834- Fiber to H2F2 Reservoir Sub	144	$84,761		$31,568				
		WO# XXXXXX - Vista Substation Scada Upgrades	202	$60,881						
		WO#XXXXXX - VREG RTAC SYSTEM Upgrade (37 REGS-Com Line ..	427		$17,626	$70,764				
		WO#676824 - Vista Bay 2 SCADA Prep	202		$126,813					

Capital Requirements Plan
Distribution - 2024 Budget

Project Group	Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Capacity & Reliability	22 - Scada	WO#566821 - Fiber to Prior #1	144		$28,679					
		WO#XXXXXX - Prior #1 RTU Replacement	425		$24,845					
		WO# 662927 - Prosser Substation Scada Upgrades	202		$10,611					
		WO#684584 - VREG RTAC Pilot	421		$6,301					
		WO#XXXXXX - SCADA Alarm Standard Implementation	435			$6,989	$8,850			
		WO#XXXXXX - Fiber to Paterson 1&2, SunHeaven River	144			$137,755				
		WO#XXXXXX - Fiber to Sandpiper	144			$85,970				
		WO#XXXXXX - Fiber to Whitcomb	144			$47,029				
		WO#XXXXXX - Fiber to Carma	144			$41,324				
		WO#613714 - Zephyr Height SCADA Upgrades	202			$36,199				
		WO#XXXXXX - H2F2 Reservoir RTU Replacement	425			$24,904				
		WO#XXXXXX - Berrian Tap Meter Point RTU upgrade	435			$16,898				
		WO#XXXXXX - H2F Tap Metering Point RTU upgrade	425			$16,898				
		WO#XXXXXX - Paterson Tap Metering Point RTU upgrade	425			$16,898				
		WO#XXXXXX - Chevron RTU Upgrade	425			$16,368				
		WO# XXXXXX- Fiber Back Bone to Prior #4	Null				$400,000			
		WO#XXXXXX -Nine Canyon Scada Upgrades	Null				$35,993			
		WO#XXXXXX - Columbia Crest Meter Point RTU Upgrade	425				$16,326			
		WO#XXXXXX - Cold Creek Meter Point RTU Upgrade	425				$16,326			
		WO#XXXXXX - 251 Meter Point RTU Upgrade	425				$16,306			
		WO# XXXXXX- Sunset Rd SCADA Upgrades	Null					$150,000		
		WO#XXXXXX- Fiber to Carma Metering point (KPUD)	144							$35,000
		Total		**$728,227**	**$737,741**	**$909,634**	**$493,800**	**$150,000**		**$35,000**
	23 - Substations	Substation Misc. Aux Equip, Relays/Controls	148	$25,000	$25,000	$40,000	$25,000	$25,000	$25,000	$25,000
		WO# 653625 - Vista Bay #1 Metalclad Switchgear Replacement	375	$1,059,222	$650,405	$561,735				
		WO# 671615 - Angus Bay #3 Feeder Breaker & Relay Replaceme..	402	$219,912	$120,552					
		WO#XXXXXX - Prosser Bay #2 Voltage Reg Replacement	373	$700,291		$700,496				
		WO#639055 - Carma Power Transformer Replacement	367		$614,493					
		WO#638807 - Prior #4 Power Transformer Replacement	359		$562,595					
		WO#666086 - Ridgeline Property Fence/Grading	325		$188,248					
		WO#671095 - Highlands Bay 2 Regulator Replacement	325		$158,398					
		WO# 672039- Hedges Substation Upgrades	417		$133,194					
		WO# 686840 - River Front Battery Bank Replacement	422		$17,294					
		WO#668758 & 668760 Prosser bay 1 & 2 DC to Reclosers	414		$15,227					
		WO# XXXXXX- New Badger Canyon Substation	434			$300,000				
		WO#XXXXXX - Aged Transformer Replacement (50-59 years)	Null				$900,000		$900,000	
		WO# XXXXXX - Vista Bay #2 Metalclad Switchgear Replacement	436				$1,144,502			
		WO# XXXXXX- Prosser Bay #2 CS & Diff Addition	Null				$353,100			
		WO# XXXXXX- Prosser Bay #1 CS & Diff Addition	Null					$353,100		
		WO# XXXXXX- Relay Upgrades River Front Substation	Null					$237,778		

Capital Requirements Plan
Distribution - 2024 Budget

Project Group	Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Capacity & Reliability	23 - Substations	WO# XXXXXX- Relay Upgrades Sunset Rd Substation	Null					$101,823		
		WO#XXXXXX - Angus Bay #2 Bay Protection Upgrades	Null					$101,823		
		Total		**$2,004,425**	**$2,485,407**	**$1,602,231**	**$2,422,602**	**$819,524**	**$925,000**	**$25,000**
	Capacity & Reliability	Distribution Regulators	323	$75,000	$75,000	$75,000	$150,000	$150,000	$150,000	$150,000
		Total		**$75,000**	**$75,000**	**$75,000**	**$150,000**	**$150,000**	**$150,000**	**$150,000**
	Total			**$5,838,682**	**$6,699,916**	**$6,673,639**	**$4,421,886**	**$2,532,276**	**$2,787,100**	**$1,605,461**
Customer Growth	20 - Service Poles	Service Poles	93	$37,500	$44,898	$44,843	$37,500	$37,500	$37,500	$37,500
		Total		**$37,500**	**$44,898**	**$44,843**	**$37,500**	**$37,500**	**$37,500**	**$37,500**
	30 - Sum Base Growth	Dist. Base Growth	140	$3,467,437	$3,844,973	$4,061,771	$4,050,846	$4,050,846	$4,050,846	$4,050,846
		Total		**$3,467,437**	**$3,844,973**	**$4,061,771**	**$4,050,846**	**$4,050,846**	**$4,050,846**	**$4,050,846**
	42 - Service Work	Services, Set Xfmrs, Run Secondary	94	$2,636,773	$2,909,905	$4,477,547	$3,500,000	$3,500,000	$3,500,000	$3,500,000
		Total		**$2,636,773**	**$2,909,905**	**$4,477,547**	**$3,500,000**	**$3,500,000**	**$3,500,000**	**$3,500,000**
	Land & Land Rights	New Permits (Crossing, Etc.)	140	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
		County Recording Fees - Easements	140	$30,000	$30,000	$15,000	$15,000	$15,000	$15,000	$15,000
		Title Reports for Construction Projects	140	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
		Total		**$72,500**	**$72,500**	**$57,500**	**$57,500**	**$57,500**	**$57,500**	**$57,500**
	Total			**$6,214,210**	**$6,872,277**	**$8,641,661**	**$7,645,846**	**$7,645,846**	**$7,645,846**	**$7,645,846**
General Plant	Meters	Meter Change-Outs	336	$430,000	$350,000	$430,000	$430,000	$430,000	$430,000	$430,000
		Meters	86	$250,000	$250,000	$300,000	$300,000	$300,000	$300,000	$300,000
		Total		**$680,000**	**$600,000**	**$730,000**	**$730,000**	**$730,000**	**$730,000**	**$730,000**
	Total			**$680,000**	**$600,000**	**$730,000**	**$730,000**	**$730,000**	**$730,000**	**$730,000**
Other	19 - NESC Standards Compliance	JU - NESC Compliance Program	145	$118,750	$127,302	$188,760	$187,500	$187,500	$187,500	$187,500
		Total		**$118,750**	**$127,302**	**$188,760**	**$187,500**	**$187,500**	**$187,500**	**$187,500**
	Other	Equipment Overhead Allocation	122	$530,000	$407,958					
		WO# 674329 - City of Richland Vista Sub Center Park Way - Stee..	368		$739,921					
		WO# 679816- City of Richland Vista Sub Center Park Way - Grou..	368		$210,616					
		GPS Equipment (Survey Equipment)	426		$50,000					
		Total		**$530,000**	**$1,408,496**					
	Total			**$648,750**	**$1,535,797**	**$188,760**	**$187,500**	**$187,500**	**$187,500**	**$187,500**
Repair & Replace	12 - Dist. Cable Replacement Projects	Repair & Replacement - Cable	147	$1,555,847	$1,602,314	$1,624,960	$1,618,400	$1,618,400	$1,618,400	$1,618,400
		Farm Cable Replacement	424		$110,000	$177,080	$220,000			
		Total		**$1,555,847**	**$1,712,314**	**$1,802,040**	**$1,838,400**	**$1,618,400**	**$1,618,400**	**$1,618,400**
	14 - Dist. Other Maintenance	Trouble Orders	149	$517,291	$833,173	$837,604	$800,000	$800,000	$800,000	$800,000
		Repair & Replacement - Other	92	$331,250	$565,645	$471,912	$478,500	$478,500	$500,000	$478,500
		Total		**$848,541**	**$1,398,819**	**$1,309,516**	**$1,278,500**	**$1,278,500**	**$1,300,000**	**$1,278,500**
	16 - Dist. Pole Replacement	Distribution Pole Replacement	160	$38,446	$49,389	$43,245	$45,000	$45,000	$45,000	$45,000
		Total		**$38,446**	**$49,389**	**$43,245**	**$45,000**	**$45,000**	**$45,000**	**$45,000**
	Total			**$2,442,834**	**$3,160,522**	**$3,154,801**	**$3,161,900**	**$2,941,900**	**$2,963,400**	**$2,941,900**
Grand Total				**$15,824,476**	**$18,868,512**	**$19,388,862**	**$16,147,132**	**$14,037,522**	**$14,313,846**	**$13,110,707**

Capital Requirements Plan
Broadband - 2024 Budget

Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Fiber Customer Connects - LEC	135	$456,875	$468,350	$468,350	$468,350	$468,350	$468,350	$468,350
NoaNET NCS and District Labor	22	$219,826	$235,257	$242,901	$243,569	$244,807	$246,060	$247,326
System Improvement Projects	349	$107,500	$110,200	$110,200	$110,200	$47,200	$110,200	$110,200
Fiber Backbone & Laterals	134	$107,500	$110,200	$110,200	$110,200	$110,200	$110,200	$110,200
WO#559986 - Backbone System Electronics	133	$75,000	$265,000	$75,000	$75,000	$75,000	$75,000	$75,000
WO#560002 - Premise Electronics	136	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Fiber Conduit	19	$21,500	$22,040	$22,040	$22,040	$22,040	$22,040	$22,040
Franchise BB Facility Relocations	252	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
Advanced Wireless/Small Cell	214	$717,013	$390,650	$326,363				
Grand Total		**$1,775,213**	**$1,671,697**	**$1,425,054**	**$1,099,359**	**$1,037,597**	**$1,101,850**	**$1,103,116**

Capital Requirements Plan
General Plant - 2024 Budget

Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Facilities	Admin HVAC Controls	391	$300,000	$300,000					
	Ely Property Fence	386	$72,000	$72,000					
	Admin Window Replacement	380	$40,000	$40,000					
	Zephyr Substation Gate	403	$7,000	$7,000					
	Ultraviolet Lights (virus killer)	400	$5,000						
	Tree Replacement Along HWY 395	419		$26,000					
	Remodel Main Restrooms in Admin	Null				$110,000			
	Remodel Auditorium Restrooms	Null				$110,000			
	Remodel Customer Restrooms in Admin	Null				$60,000			
	Remodel Auditorium Entry	Null				$35,000			
	Remodel Auditorium (Conference Room)	Null				$33,000			
	Dist. System Improvements/Projected Capital Facilities	Null					$200,000	$200,000	$200,000
	Total		**$424,000**	**$445,000**		**$348,000**	**$200,000**	**$200,000**	**$200,000**
Transportation	Back Hoe (Replaces #62) (Under Contract)	381	$160,000	$126,000					
	Meter Shop Half Ton Pickup (replace #58) Delivered)	392	$70,000	$70,000					
	Engineering Half ton Pick Up (Replaces #121) (Delivered)	387	$70,000	$70,000					
	Vac Truck (Under Contract)	401	$600,000		$537,000				
	Service Truck - Kennewick (Replaces #184) (Under Contract)	398	$180,000			$235,000			
	Snowmobile - Insurance Replacement (Delivered)	415		$11,044					
	Kennewick Bucket Truck (Replace #149) (Under Contract)	342			$342,000				
	Bucket Truck - Prosser (Replacing #73) (Under Contract)	347			$340,000				
	Dump Truck	Null				$300,000			
	Foreman Truck - Prosser	Null				$120,000			
	Maintenance Truck - (replacing #158)	Null				$90,000			
	80' High Reach Bucket - Kennewick (to replace #90)	Null					$360,000		
	Bucket Truck - Kennewick	Null					$300,000		
	Foreman Truck - Kennewick (Replacing #175)	Null					$120,000		
	Warehouse Forklift (Replacing #108)	Null						$300,000	
	Yard Dump Truck (Replacing #100)	Null						$180,000	
	Service Truck - Kennewick (Replaces #198)	Null							$240,000
	Meter Shop 2,500 Pickup (replace #174)	Null							$120,000
	Total		**$1,080,000**	**$277,044**	**$1,219,000**	**$745,000**	**$780,000**	**$480,000**	**$360,000**
Line Department	Misc. Construction Capital Expense - Line Department	60	$67,500	$67,500	$67,500	$67,500	$67,500	$67,500	$67,500
	Pole Stubbing	64	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	Load block	404	$8,000	$10,777					
	Hot Arms (50)	390	$30,000						

Capital Requirements Plan
General Plant - 2024 Budget

Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Line Department	Anderson Presses (3 @ $5000 each)	429			$15,000	$10,000	$10,000	$10,000	$10,000
	115kV Phasing Set	428			$7,000				
	Projected Capital Equip - Line	60				$45,000	$45,000	$45,000	$45,000
	Total		**$115,500**	**$88,277**	**$99,500**	**$132,500**	**$132,500**	**$132,500**	**$132,500**
Meter Shop	Communications Equipment/800 MHz Radios	49	$5,000	$21,042	$5,000	$5,000	$5,000	$5,000	$5,000
	Single Polyphase Meter tester	399	$18,000	$18,000					
	Phenolic Label Maker	393	$10,000	$10,000					
	Power Quality Recorder/Meter Base Use	396	$5,800				$6,000		
	Electronic Recloser Test simulator	385	$25,000						
	Power Metrix CT Load Box (instead of Electronic Recloser Test Si..	385		$12,817					
	Probe well Meter Test Equipment	431			$15,000				
	Three Phase PMI Meter Socket Power Quality Recorder	433			$15,000				
	Projected Capital - Meter Shop	Null				$20,000	$20,000	$20,000	$20,000
	Total		**$63,800**	**$61,859**	**$35,000**	**$25,000**	**$31,000**	**$25,000**	**$25,000**
XFMR Shop	Misc. Construction Capital Expense - Transformer Shop	61	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	TTR and Winding Resistance Tester	276	$26,000	$26,000					
	Infrared Camera - XFMR Shop	335	$25,000	$29,275					
	Gas Analyzer	389	$10,000	$6,201					
	Mobile Spare Battery Bank/Trailer and Equipment	340	$64,000						
	Projected Capital - Transformer Shop	Null				$25,000	$25,000	$25,000	$25,000
	Total		**$135,000**	**$71,476**	**$10,000**	**$35,000**	**$35,000**	**$35,000**	**$35,000**
Other	Projected Capital Equip - Ops	66		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
	Total			**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**	**$5,000**
Grand Total			**$1,818,300**	**$948,656**	**$1,368,500**	**$1,290,500**	**$1,183,500**	**$877,500**	**$757,500**

Capital Requirements Plan
Information Technology - 2024 Budget

Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Enterprise Applications	iVUE Enhancements	31	$118,666	$109,666	$43,493	$69,266			
	Doble Test Assistant License & Implementation	383	$60,133	$60,133					
	Survalent ICCP Software Plug-In	408	$44,200		$44,258				
	WindMil Upgrade	268	$3,333						
	Total		**$226,332**	**$169,799**	**$87,750**	**$69,266**			
Network Infrastructure	Cisco Blade Server	44	$175,000	$175,000	$250,000	$250,000	$250,000	$350,000	$400,000
	Network Switch Purchase	33	$40,000	$40,000	$40,000	$50,000	$50,000	$55,000	$55,000
	Windows Datacenter Licenses	38	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
	Multi-Function Printer	302	$15,000	$15,000	$30,000	$30,000	$15,000	$30,000	$15,000
	Storage Area Network (SAN) Upgrade	267	$300,000	$225,000			$150,000		
	Phone System Upgrade	394	$80,000	$80,000					
	Datacenter Redesign	269	$20,000	$20,000					
	Video Conference Room Upgrades	24	$20,000						
	Fabric Interconnects	388			$120,000	$120,000			
	TGB Expansion	432			$100,000				
	Data Center	430			$334,000				
	Backup replacement	Null				$220,000			
	Next Gen Wi-Fi	Null				$125,000			
	External Firewalls	Null					$150,000		
	Data Loss Prevention	Null						$75,000	
	Total		**$675,000**	**$580,000**	**$899,000**	**$820,000**	**$640,000**	**$535,000**	**$495,000**
Other	Adjustment to Annual Minimum of $800,000	Null					$160,000	$265,000	$305,000
	Total						**$160,000**	**$265,000**	**$305,000**
Grand Total			**$901,332**	**$749,799**	**$986,750**	**$889,266**	**$800,000**	**$800,000**	**$800,000**

Capital Requirements Plan
Security - 2024 Budget

Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Enterprise Security System	222	$374,999	$199,999	$285,200				
Facility Fencing and Gates	326	$500,000		$810,000				
Wiring - Camera System	222	$100,000		$100,000				
Physical Key Lock Changes	305	$40,000						
Kennewick Lobby Remodel	420			$1,500,000				
Operations Gate Overhaul	326			$250,000				
Security Systems - Substations	Null				$266,666	$250,000	$250,000	
Projected Security	Null							$250,000
Grand Total		**$1,014,999**	**$199,999**	**$2,945,200**	**$266,666**	**$250,000**	**$250,000**	**$250,000**

Capital Requirements Plan
Capital Contributions - 2024 Budget

Project Group	Project	Project Name	BU Project	2023 Original Budget	2023 Amended Budget	2024	2025	2026	2027	2028
Transmission	24 - Transmission	Angus Franklin - Tower Upgrade (Contract 95-23-01)	Null	($43,550)	($43,550)	($43,550)	($43,550)	($43,500)	($43,550)	($43,550)
	Total			**($43,550)**	**($43,550)**	**($43,550)**	**($43,550)**	**($43,500)**	**($43,550)**	**($43,550)**
Customer Growth	30 - Sum Base Growth	Dist. Base Growth	140	($2,948,616)	($3,268,227)	($3,452,505)	($3,443,219)	($3,443,219)	($3,443,219)	($3,443,219)
	Total			**($2,948,616)**	**($3,268,227)**	**($3,452,505)**	**($3,443,219)**	**($3,443,219)**	**($3,443,219)**	**($3,443,219)**
Other	19 - NESC Standards Compliance	JU - NESC Compliance Program	145	($62,500)	($62,500)	($75,000)	($75,000)	($75,000)	($75,000)	($75,000)
	Other	WO# 674329 - City of Richland Vista Sub Center Park ..	368		($165,640)					
	Total			**($62,500)**	**($228,140)**	**($75,000)**	**($75,000)**	**($75,000)**	**($75,000)**	**($75,000)**
Broadband	5 - BB Fiber Line Extension	Advanced Wireless/Small Cell	214	($58,800)	($58,000)					
	Total			**($58,800)**	**($58,000)**					
Grand Total				**($3,113,466)**	**($3,597,917)**	**($3,571,055)**	**($3,561,769)**	**($3,561,719)**	**($3,561,769)**	**($3,561,769)**

Power Supply Plan

Tab 10

Public Utility District No. 1 of Benton County

Power Supply Plan

2024

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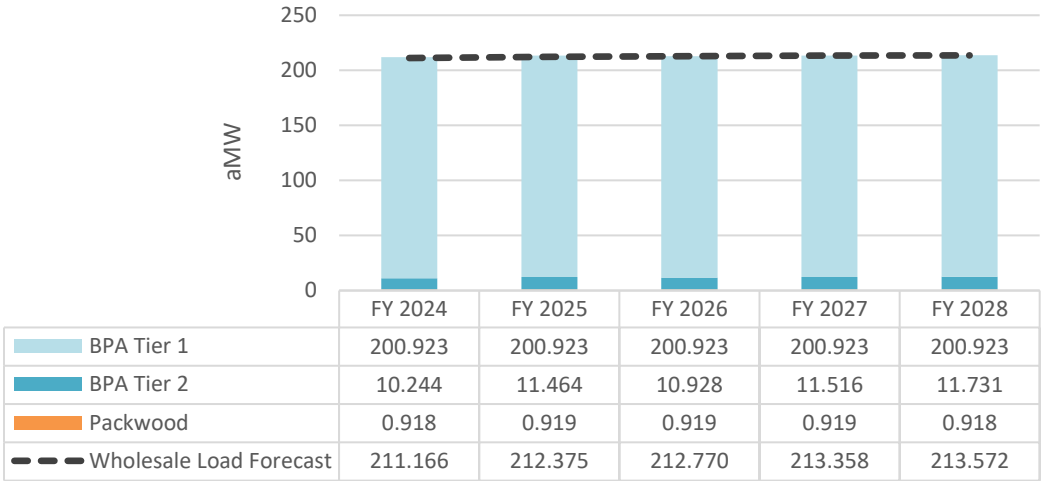
EXECUTIVE SUMMARY

The Power Supply Plan is prepared annually to determine the District's power supply budget for the upcoming five calendar years. Its purpose is to provide background, highlight key data assumptions, and synthesize conclusions to inform the District's five-year financial plan. Power Management staff worked with The Energy Authority (TEA) to develop a list of power supply assumptions for 2024-2028, which will be covered in detail in the sections to follow.

Starting October 1, 2023, the District converted its Bonneville Power Administration (BPA) Power Sales Agreement from Slice/Block to the Load Following product through the contract end date of September 30, 2028. Additionally, the District has elected to serve its above Rate Period High Water Mark (RHWM) load using BPA's Tier 2 product through the end of the contract. With BPA serving 100% of the District's net load requirement, BPA will take on the responsibility for ensuring hourly resource adequacy. The District's Packwood hydroelectric will continue as a dedicated resource serving load. The District's Nine Canyon and White Creek Wind will be sold into the market, rather than used to serve load. The revenue from the wind sales is budgeted at $2.5 million in calendar year 2024, but may vary with market prices.

Figure 1 below represents the District's five-year resource strategy by BPA fiscal year. The values for Fiscal Years (FY) 2024 and 2025, except for the load forecast values, equal the final outputs from BPA's FY2024-2025 Rate Period High Water Mark (RHWM) process, whereas the remaining years are estimates. The load forecast is based on the District's 2022 load forecast model.



	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
BPA Tier 1	200.923	200.923	200.923	200.923	200.923
BPA Tier 2	10.244	11.464	10.928	11.516	11.731
Packwood	0.918	0.919	0.919	0.919	0.918
Wholesale Load Forecast	211.166	212.375	212.770	213.358	213.572

Figure 1: *Five-Year Resource Plan by BPA Fiscal Year*

Table 1 below represents the calendar year (CY) budget of net power costs for the next five years.

Category	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
BPA Power	$ 64,379,923	$ 65,261,866	$ 66,961,975	$ 67,279,728	$ 67,538,138
Non-BPA Resources	$ 2,189,438	$ 2,018,349	$ 2,957,569	$ 3,102,946	$ 2,384,677
BPA Transmission	$ 11,379,520	$ 11,659,029	$ 12,578,164	$ 12,614,281	$ 12,630,188
Non-BPA Transmission	$ 79,445	$ 79,148	$ 79,128	$ 50,566	$ (12,168)
Conservation	$ 322,683	$ 456,000	$ 322,683	$ 456,000	$ 322,683
Other Power Costs	$ 1,478,172	$ 1,533,017	$ 1,590,228	$ 1,649,917	$ 1,712,207
Total Net Power Costs	**$ 79,829,181**	**$ 81,007,409**	**$ 84,489,746**	**$ 85,153,437**	**$ 84,575,725**

Table 1*: Five-Year Budget of Net Power Costs*

SECTION I: LOAD FORECAST

The Power Supply Plan is based on the 2023 Load Forecast, which reused the 2022 load forecast results, per Resolution No. 2639 on June 13, 2023. The 10-year forecast from 2024-2033 estimates annual retail sales growth of 0.28% and 0.25% over the five and ten-year planning periods, respectively, which includes adding about 711 customers per year. The 2023 Load Forecast annual retail sales are shown below in **Figure 2.**

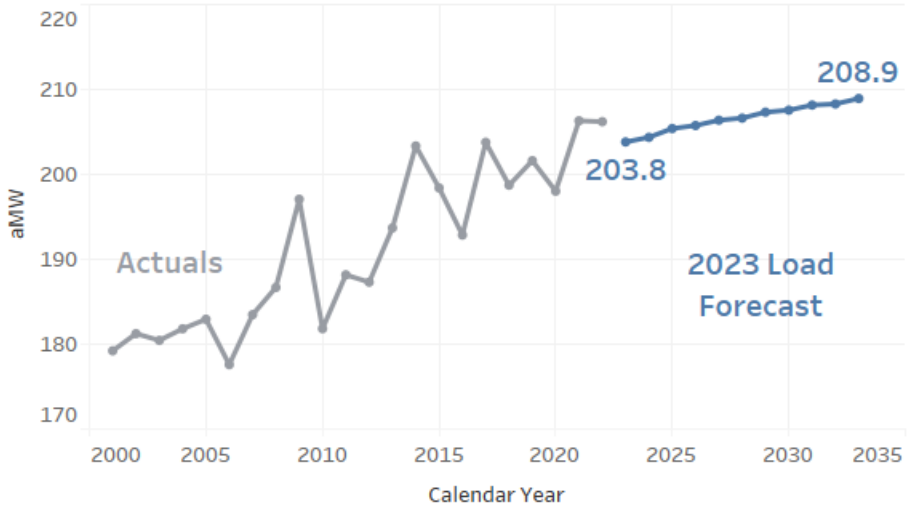


Figure 2: *Forecast of Annual Retail Sales*

The Power Supply Plan's "wholesale" load forecast is derived by increasing the annual "retail" sales forecast by about 3.4% to account for the District's transmission and distribution system losses. The annual retail sales forecast is then shaped monthly to more closely align billed retail sales to calendar month usage. Lastly, the monthly load forecast is split between heavy load hours (HLH) and light load hours (LLH). The wholesale load forecast used for the Power Supply Plan is shown below in **Figure 3.**

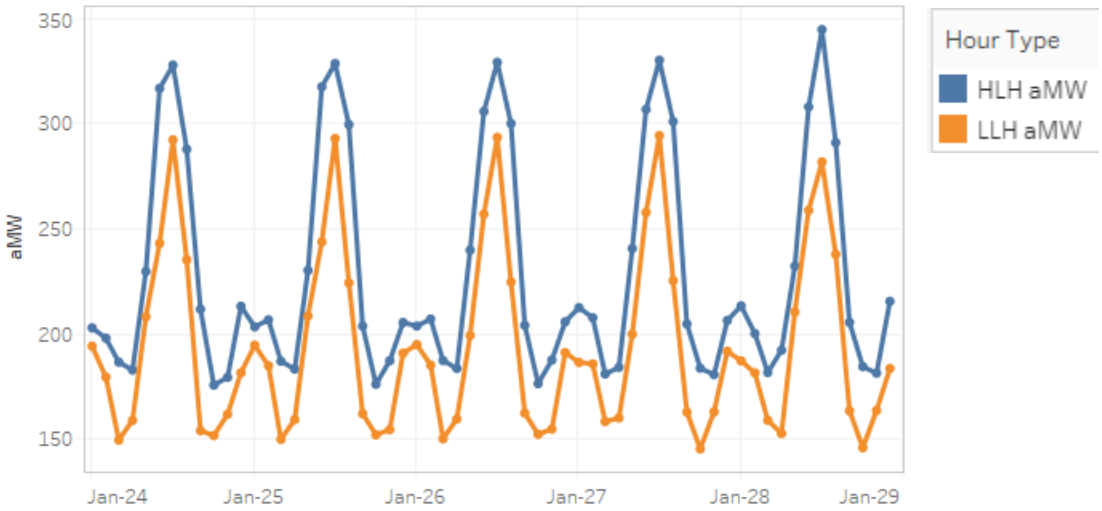


Figure 3: *Forecast of Monthly Wholesale Load*

SECTION II: BPA POWER COSTS

The District's Power Sales Agreement with BPA is the single largest source of power. The District commission approved the staff's recommendation on September 27, 2022 to switch to Load Following effective October 1, 2023. The District will continue to rely on BPA for power resources, but the switch to the Load Following Product will provide greater certainty and less risk of power supply needs going forward. This October 2023 product switch with BPA is modeled throughout this Power Supply Plan.

BPA's current power contracts are 20-year agreements, signed in 2008 and expiring September 30, 2028. In 2020, BPA launched the Provider of Choice initiative to provide a process and framework for Post-2028 BPA power contracts with its customers, and the District is actively participating in this process to consider our future resource portfolio and product options for Post-2028. BPA is anticipating Post-2028 contracts will be signed in 2025, therefore the District will determine which Post-2028 product will be available and select its new 20-year contract at that time. It is assumed for this Power Supply Plan that the District will be served under the load following product through calendar year 2028.

Below are the main BPA Power cost and revenue assumptions used for the District's budget.

1. **Composite Charge**: This charge is designed to collect revenue for BPA based on the majority of its costs. It is based on the District's Tier One Cost Allocator (TOCA) and the BPA Composite rate. TOCA is calculated as the lesser of the District's Net Requirements (NR) and Rate Period High Water Mark (RHWM), divided by the sum of all of BPA's customer's RHWM. The NR is 211.167 aMW and RHWM is 200.923 aMW in FY2024. The District's total retail load forecast for FY2024 is 212.085 aMW, with 200.923 aMW being served with BPA resources in critical water conditions, with an additional 10.244 aMW that the District is responsible for procuring itself. The RHWM is the limiting factor in FY2024-2028 when accounting for expected future load growth. The FY2024 TOCA is 2.844580% and the Composite Charge rate $2,075,946/TOCA%/month. It is assumed the FY2026-2028 rate will be a 3% increase over FY2025. The total charge in CY2024 is expected to be $70,862,334.
2. **Non-Slice Charge:** This "charge" is actually a credit. It is designed to return to customers certain BPA credits, primarily BPA's sale of surplus and forecast resultant wholesale sales revenues. It is based on the District's Non-Slice TOCA (NSTOCA) and the Non-Slice BPA Rate. The NSTOCA is the difference between the District's TOCA (2.844580%) and its Slice percentage (1.36792%). In FY2024, NSTOCA is 1.477250%. The Non-Slice Rate is ($364,823)/NSTOCA %/month in FY2024. The total credit in CY2024 is expected to be ($12,453,219).
3. **Load Shaping:** Under the TRM, the Load Shaping Charge only applies to Load Following and Block Products. The Composite and Non-Slice Rates assume that customers receive monthly diurnal BPA power based on the monthly diurnal critical water shape of the FCRPS. The monthly diurnal difference between the District's load shape and the FCRPS shape will be multiplied by the BPA load shaping rate to determine the load shaping charge or credit. The load shaping rate is BPA's two-year rate case forecast of the Mid-C market, HLH and LLH. Total charges in CY2024 are estimated to be $242,153.
4. **Demand:** Demand charges are based on the monthly peak and monthly average HLH from the 2022 load forecast model. Total charges in CY2024 are estimated to be $3,677,524.
5. **Tier 2 Short Term**: The District has elected to take Tier 2 energy from BPA to serve its above RHWM needs, which for FY2024 is 10.244 aMW. The expected cost for Tier 2 energy is $63.83 per MWh in FY2024 and $60.250 per MWh in FY2025. Total charges in CY2024 are expected to be $5,824,995.

6. **Irrigation Rate Discount:** This credit is received each year from May through September. It is computed based on the energy values in Ex. D of the BPA Contract and a rate of $11.57 per MWh. **Table 2** below displays the monthly and annual credit amounts.

Discount	May	Jun	Jul	Aug	Sep	Annual Total
Energy (kWh)	53,115,401	75,243,324	89,003,560	62,842,958	32,033,957	312,239,200
Discount ($)	($614,545)	($870,565)	($1,029,771)	($727,093)	($370,633)	($3,612,608)

Table 2: *Irrigation Rate Discount*

7. **Prepayment Credit:** The District entered into an agreement with BPA to prepay for the future delivery of power under its existing power sales contract. The District made a lump-sum up-front payment of $6.8 million to receive a total of $9.3 million in credits through September 2028. The variance between the total paid and the credits received results in a credit of $13,348 per month ($161,256 per year) for the remainder of the contract.
8. **BPA Cost Recovery Adjustment Charge (CRAC):** BPA rates have the provision for an adjustment to the base rates if BPA is projecting end of year reserve for risk levels lower than $0M. These EOY forecast are updated in each QBR, but are currently not expected to trigger.
9. **Financial Reserve Policy (FRP) Surcharge:** BPA added the FRP surcharge in the BP-20 rate case. It is a provision to add $30M to rates if power reserves for risk are below 60 days cash on hand. The FRP is not expected to be called.
10. **Reserve Distribution Clause (RDC) Credit:** No RDC credit is assumed for CY2024.
11. **Slice True-Up**: No Slice True-Up charge is assumed for CY2024.

SECTION III: NON-BPA RESOURCE COSTS

Table 3 below summarizes the District's non-BPA resource contracts. The sections to follow include a summary of each non-BPA resource and its budgeted costs.

Contract Name	Contract Amount (MW)	Annual Energy (aMW)	Contract End Date
Packwood Hydroelectric Project	3.7	1	Ongoing
Nine Canyon Phase I Wind Project	3	1	6/30/2030
Nine Canyon Phase III Wind Project	6	2	6/30/2030
White Creek LL&P Wind Energy	3	1	6/30/2027
White Creek Wind I Project	6	2	11/30/2027
Seasonal Capacity Product *(Jul, Aug)* *(Dec, Jan, Feb)*	75 25	n/a	8/31/2025

Table 3: *Summary of Non-BPA Resource Contracts*

PACKWOOD LAKE HYDROELECTRIC PROJECT

The Packwood Lake Hydroelectric Project (Packwood) is a hydroelectric generating facility with a nameplate capacity of 26.125 MW that is owned and operated by Energy Northwest, a State of Washington Joint Operating Agency (JOA). The project is located 5 miles east of Packwood, WA in Gifford Pinchot National Forest. Project participants include Benton PUD, Clallam PUD, Clark County PUD, Ferry County PUD, Franklin PUD, Kittitas PUD, Klickitat PUD, Lewis PUD, Mason PUD No. 3, Skamania PUD, Snohomish PUD, and Wahkiakum PUD. Packwood's fiscal year is July through June.

Benton PUD owns a 14% share of the output from the Packwood Hydroelectric Project, equating to approximately 3.66 MW of generating capacity. The expected average output from Packwood is approximately 1 aMW of energy.

This project currently does not qualify as a renewable resource under State of Washington's EIA. The project is a dedicated resource as specified within the District's BPA load following contract.

Table 4 shows the cost assumptions for the District's share of the Packwood Hydroelectric Project.

Year	Total Cost per MWh	Cost per Month	Total Annual Cost
2024	$55.80	$40,649	$487,785
2025	$57.47	$41,868	$502,418
2026	$59.20	$43,124	$517,491
2027	$60.97	$44,418	$533,015
2028	$61.97	$45,750	$549,006

Table 4: *Packwood Hydroelectric Project Costs*

The District must also pay BPA for Resource Support Services (RSS) related to Packwood. The services include Secondary Crediting Service (SCS) and Transmission Scheduling Service (TSS). The total RSS charges are estimated to be $6,576 per year.

NINE CANYON WIND PROJECT

The Nine Canyon Wind Project is situated on dry land wheat farms approximately eight miles southeast of Kennewick, WA in the Horse Heaven Hills. The District began purchasing renewable energy from Phase I of the project in 2002, when a Power Purchase Agreement was signed with Energy Northwest, a State of Washington Joint Operating Agency (JOA), for 3 MW of generating capacity for a commitment continuing through June 30, 2023. On October 30, 2006, the District signed an Amended and Restated Agreement with Energy Northwest, and the other purchasers, which extended the term of the Agreement through July 1, 2030 (with rights to extend the agreement in additional five-year terms).

In 2008, the District contracted to purchase an additional 6 MW of generating capacity (approximately 2 aMW of energy) from Phase III of the project.

Nine Canyon Wind Project is a renewable energy source with Environmental Attributes that qualify under the State of Washington's Energy Independence Act (EIA) and will help the District meet its renewable energy requirement under this Act. The District intends to sell the energy, rather than take to load, associated with its contractual share of generation and to retain the Environmental Attributes for its EIA compliance.

Table 5 below shows the annual cost of output purchased from each phase of the Nine Canyon Wind Project. In addition to these costs, the District incurs an estimated $125,650 per year transmission cost ($10,471 per month).

Year	Phase I Cost ($/MWh)	Phase III Cost ($/MWh)	Total Cost per MWh	Phase I Cost per Month	Phase III Cost per Month	Total Annual Cost
2024	$41.26	$76.17	$64.53	$30,123	$111,206	$1,695,945
2025	$41.26	$76.17	$64.53	$30,123	$111,206	$1,695,945
2026	$41.26	$76.17	$64.53	$30,123	$111,206	$1,695,945
2027	$41.26	$76.17	$64.53	$30,123	$111,206	$1,695,945
2028	$41.26	$76.17	$64.53	$30,123	$111,206	$1,695,945

Table 5: *Nine Canyon Wind Project Costs*

LL&P WIND ENERGY, INC. AT WHITE CREEK

In 2007 Benton PUD entered a 20-year contract with Lakeview Light & Power (LL&P Wind Energy, Inc.) to purchase 3 MW of generating capacity from the White Creek Wind Project located near Goldendale, WA. This purchase produces approximately 1 aMW of energy.

White Creek Wind Project is a renewable energy source with Environmental Attributes that qualify under the State of Washington's EIA and will help the District meet its renewable energy requirement under this Act. The District intends to sell the energy, rather than take to load, associated with its contractual share of generation and to retain the Environmental Attributes for its EIA compliance.

Table 6 below is a breakdown of the project's fixed cost assumptions through 2027. This contract expires at the end of June 2027.

Year	Est. Cost per MWh	YoY Increase	Cost per Month	Total Annual Cost
2024	$71.34	2%	$52,078	$624,938
2025	$72.77	2%	$53,122	$637,465
2026	$74.23	2%	$54,188	$650,255
2027	$75.71	2%	$55,268	$331,610

Table 6: *LL&P White Creek Wind Costs*

WHITE CREEK WIND I

In 2008 Benton PUD signed an agreement to purchase 6 MW of generating capacity from the White Creek Wind I Project for a period of 19 years, with the option to purchase part of the project beginning in 2017 and each year thereafter. To date, the District has not elected to exercise this option and does not anticipate exercising the option. This purchase produces approximately 2 aMW of energy.

White Creek Wind I is a renewable energy source with Environmental Attributes that qualify under the State of Washington's EIA and will help the District meet its renewable energy requirement under this Act. The District intends to sell the energy, rather than take to load, associated with its contractual share of generation and to retain the Environmental Attributes for its EIA compliance.

Table 7 below s a breakdown of the fixed cost assumptions for White Creek Wind I. Benton PUD paid Klickitat PUD (a project owner) a lump sum for the capital component. Capital costs are fixed, and O&M costs escalate between 2-4% each year. The contract expires at the end of November 2027.

Year	Total Cost per MWh	O&M Cost per MWh	Annual O&M Cost	Annual Fixed Cost	Total Annual Cost
2024	$66.77	$33.76	$591,448	$578,400	$1,169,848
2025	$67.78	$34.77	$609,192	$578,400	$1,187,592
2026	$68.83	$35.72	$627,467	$578,400	$1,205,867
2027	$64.38	$34.02	$597,707	$530,200	$1,127,907

Table 7: *White Creek Wind I Costs*

SEASONAL CAPACITY PRODUCT

Under the BPA Slice/Block product, the District's resource portfolio experienced significant seasonal capacity deficits, depending on the region's hydrological conditions and seasonal temperatures. Renewable energy resources such as wind and solar cannot wholly address these deficits due to the intermittent nature of these technologies, specifically during long duration summer heat and winter cold events that often occur within our service territory.

The seasonal capacity product is a daily call option that provided 75 MW in summer and 25 MW in winter to meet seasonal peaking deficits. The contract period started in December 2022 and ends in August 2025.

With the District's BPA product switch to the Load Following contract, there will no longer be a need to address capacity deficits, as those would fall under the responsibility of BPA. The District has contracted with The Energy Authority, Inc. to resell this capacity at a premium compared to the original contract, resulting in net revenue to the District.

Table 8 below shows the annual cost and revenue for the seasonal capacity product.

Year	Annual Capacity Cost	Annual Capacity Revenue	Annual Net Revenue
2024	$843,750	$(1,378,125)	$(534,375)
2025	$750,000	$(1,281,250)	$(531,250)

Table 8: *Seasonal Capacity Product Cost/(Revenue)*

RENEWABLE ENERGY CREDIT CONTRACTS

To comply with the Renewable Portfolio Standard (RPS) requirements of Washington's Energy Independence Act (EIA), the District must meet at least 15% of its two-year average load with qualifying renewable energy resources, or renewable energy credits (RECs). The District's qualifying EIA resources include Nine Canyon Wind and White Creek Wind. The District intends to retain the RECs generated from these projects, while selling its contractual share of the energy generated. From BPA, the District is entitled to approximately 12,000 wind RECs and 20,000 incremental hydro RECs. BPA's incremental hydro RECs must be used for compliance in the year they are generated. Lastly, the District has the following REC contracts:

1. *Idaho Wind Partners (IWP)* – Contract to purchase ~35,003 unbundled RECs per year from the variable output of the Yahoo Creek Wind Park, from 2015 through 2024, at a cost of $6.75 ea.
2. *Emerald City Renewables (previously Biofuels)* – Contract to purchase ~33,000 unbundled RECs per year from the variable output of the landfill gas plant, from 2016 through 2025, at a cost of $12.83 ea. in 2024 and $13.47 ea. in 2025. The facility qualifies under EIA as distributed generation, therefore, doubling its EIA qualifying RECs to ~66,000 per year.
3. *3Degrees Group, Inc.* - Firm contract to purchase 60,000 unbundled RECs per year, from 2019 through 2028, at a cost of $5.90/REC.
4. *RPS Advisors* - Firm contract to purchase 40,000 unbundled RECs per year, from 2020 through 2029, at a cost of $5.50 ea.

Table 9 below, copied from the 2022 Integrated Resource Plan Progress Report, shows the District expects to meet its RPS requirements in 2024, but starting in 2025, may fall short by 2.8 aMW. However, as allowed by the EIA, the District commonly uses prior year RECs for each compliance period, which is not represented in the table. By using prior year RECs, the District expects to exceed the requirement in 2025 by an estimated 0.77 aMW. In future compliance years, the District may also elect to use the current year and year succeeding RECs to delay the need for a new REC contract. For now, the District's budget conservatively includes a new REC contract starting in 2026, which is not included in the table.

	Calendar Year									
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
RPS Requirement %	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
RPS Load Basis aMW	204.6	203.3	204.1	204.9	205.6	206.1	206.5	207.0	207.4	207.9
RPS Requirement aMW	30.7	30.5	30.6	30.7	30.8	30.9	31.0	31.0	31.1	31.2
REC Contracts										
IWP	4.0	4.0								
Biofuels	7.5	7.5	7.5							
White Creek	2.7	2.7	2.7	2.7	1.8					
BPA	3.7	3.4	3.4	3.4	3.0	2.5				
3Degrees	6.8	6.8	6.8	6.8	6.8	6.8				
RPS Advisors	4.6	4.6	4.6	4.6	4.6	4.6	4.6			
Nine Canyon	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.4		
Contract Total aMW	32.0	31.8	27.8	20.2	18.9	16.6	7.3	1.4		
RPS Net Position	**1.3**	**1.3**	**-2.8**	**-10.5**	**-11.9**	**-14.3**	**-23.7**	**-29.7**	**-31.1**	**-31.2**

Table 9: *Renewable Portfolio Standard Compliance*

As of January 1st 2030, the District will be required by the Clean Energy Transformation Act (CETA) to have a power supply portfolio that is greenhouse gas neutral, which will reduce the quantity of RECs needed compared to RPS compliance. Also beginning in 2030, BPA hydro will qualify for RECs and meeting renewable requirements.

Table 10 below shows the annual budget for the existing REC contracts plus a "Future" REC contract assumed for 101,003 RECs per year, starting in 2026, at a cost of $8.00 ea.

Year	IWP	Emerald City	3 Degrees	RPS Advisors	Future	Annual Total
2024	$236,270	$423,390	$354,000	$220,000	-	$1,233,660
2025	-	$444,510	$354,000	$220,000	-	$1,018,510
2026	-	-	$354,000	$220,000	$808,024	$1,382,024
2027	-	-	$354,000	$220,000	$808,024	$1,382,024
2028	-	-	$354,000	$220,000	$808,024	$1,382,024

Table 10: *Renewable Energy Credit Costs*

Wind generation can vary year to year and therefore REC generation also varies year to year. If RECs are under-delivered during a year, the District may rely on the market to secure the requisite EIA compliant RECs. Buying additional RECs can help mitigate the losses from the poor wind years and increasing curtailments.

SECTION IV: TRANSMISSION COSTS

Below are the main transmission cost and revenue assumptions used for the District's budget. The District has executed BPA's Network Integration (NT) Transmission Service Agreement for transmission service from October 1, 2023 through September 30, 2031. The District previously had a Point-to-Point (PTP) Transmission Agreement, but that contract was converted to NT service in 2023.

BPA TRANSMISSION COSTS

1. **Network Integration (NT) Transmission Service:** NT costs are expected to be $9,144,696 in CY2024. A 10% rate increase is assumed over FY2024-25 for the BPA FY2026-2028 period.
2. **NT Scheduling, Control & Dispatch (SCD):** NT SCD in CY2024 is estimated to be $1,469,953.
3. **Point-to-Point (PTP) Long Term Firm:** The District retains a 1 MW PTP contract for service that was not eligible for conversion to NT. In CY2024, PTP costs are expected to be $23,568.
4. **PTP Long Term Firm SCD:** PTP SCD in CY2024 is estimated to be $3,792.
5. **Regulation & Frequency Response:** $817,083 in CY2024. The Load Regulation rate is expected to increase by 10% in FY2026.
6. **Operating Reserves – Spinning:** $636,622 in CY2024. Spinning Reserves are 3% of total transmission schedules for generation and 3% of schedules for load.
7. **Operating Reserves – Supplemental:** $415,967 in CY2024. Like spinning reserves, supplemental reserves are 3% of total transmission schedules for generation and 3% of schedules for load.
8. **WECC & CAISO RC West:** $148,560 in CY2024.
9. **Energy Imbalance Market (EIM):** Roughly $192,000 per year.
10. **Transfer Service Delivery Charge for DOE-251:** The BPA point-of-delivery that serves the District's Rattlesnake Mountain 13.8 kV distribution circuit is served via BPA transfer service through the Department of Energy (DOE) Richland 251 Substation. The BPA power bill includes a low voltage delivery service charge. Total charges are estimated to be $6,576 per year.

NON-BPA TRANSMISSION COSTS

11. **White Creek to Rock Creek - Klickitat PUD (KPUD)**: $48,369 in CY2024. This captures the cost of transmission from White Creek Wind to Rock Creek Substation.
12. **Nine Canyon Wind Project Transmission -** $125,650 estimated in CY2024.
13. **PTP Short Term Purchases:** Purchase of short-term transmission associated with selling White Creek and Nine Canyon Wind energy. For CY2024, estimated to be $117,157.
14. **PTP Long Term Firm Sales:** Revenue from the sale of the District's 1 MW of PTP transmission. For CY2024, estimated to be ($20,642).
15. **Transfer River System Credit – Benton REA (BREA) & KPUD:** This credit is a line item on the BPA Power bill, related to BPA using the District's river transmission system to provide transfer service to Benton REA and Klickitat PUD. The credit is expected to be ($191,088) per year.

SECTION V: CONSERVATION

Table 11 below shows the District's conservation program costs included in the budget.

Year	Cost of Conservation	BPA Reimbursement	Net Cost of Conservation
2024	$2,362,683	$(2,040,000)	$322,683
2025	$2,258,000	$(1,802,000)	$456,000
2026	$2,362,683	$(2,040,000)	$322,683
2027	$2,258,000	$(1,802,000)	$456,000
2028	$2,362,683	$(2,040,000)	$322,683

Table 11: *Cost of Conservation*

SECTION VI: OTHER POWER COSTS

THE ENERGY AUTHORITY, INC.

The Energy Authority, Inc. (TEA) provides resource management and consulting services to the District. The fee that TEA charges the District for these services is broken into two components:

1. *TEA Resource Management Agreement (RMA)* - Ongoing services where the level of effort is reasonably predictable. The RMA total fee is budgeted at $400,000 in 2024, escalating 6% annually thereafter.
2. *TEA Consulting* - An estimated charge for consulting services is $50,000 per year. Consulting expenditures are for non-recurring work items, and/or work items where the level of effort is more difficult to predict. Consulting charges are billed at TEA's hourly billing rates multiplied by actual hours worked. The consulting charge also includes charges for third-party vendors such as attorneys and some consulting work that is contracted through TEA in support of the District's and possibly others' power and risk management requirements.

INTERNAL COSTS

The District's internal power supply related costs (e.g. labor and benefits, training and travel, industry dues/memberships, audit costs, etc.) are assumed to be $1,028,172 in 2024, increasing to $1,157,217 by 2028.

Table 12 provides additional line-item detail for the District's five-year power supply budget**.**

Category - Description	Account	CY 2024	CY 2025	CY 2026	CY 2027	CY 2028
BPA Power						
Composite Charge - Load Following	555.07	$ 70,862,334	$ 71,393,801	$ 72,988,204	$ 72,988,204	$ 72,988,204
Non-Slice Charge - Load Following	555.08	$ (12,453,219)	$ (12,453,219)	$ (12,453,219)	$ (12,453,219)	$ (12,453,219)
Load Shaping HLH	555.10	$ (335,609)	$ (207,292)	$ (74,938)	$ (23,328)	$ 139,748
Load Shaping LLH	555.11	$ 577,762	$ 617,682	$ 687,842	$ 700,954	$ 766,984
Demand	555.05	$ 3,677,524	$ 3,705,509	$ 3,741,967	$ 3,734,202	$ 3,661,825
Tier 2 Short Term	555.06	$ 5,824,995	$ 5,979,247	$ 5,845,982	$ 6,106,778	$ 6,208,459
Irrigation Rate Discount	555.12	$ (3,612,608)	$ (3,612,608)	$ (3,612,608)	$ (3,612,608)	$ (3,612,608)
Prepayment Credit	555.72	$ (161,256)	$ (161,256)	$ (161,256)	$ (161,256)	$ (161,256)
Slice True-up/CRAC/Power RDC	varies	$ -	$ -	$ -	$ -	$ -
BPA Power - Subtotal		**$ 64,379,923**	**$ 65,261,866**	**$ 66,961,975**	**$ 67,279,728**	**$ 67,538,138**
Non-BPA Resources						
Packwood Hydro	555.50	$ 487,785	$ 502,418	$ 517,491	$ 533,015	$ 549,006
Packwood Support Svcs. (SCS, TSS, etc.)	555.50	$ 6,576	$ 6,576	$ 6,576	$ 6,576	$ 6,576
Nine Canyon Wind Project	555.50	$ 1,695,945	$ 1,695,945	$ 1,695,945	$ 1,695,945	$ 1,695,945
White Creek Wind Project	555.50	$ 1,798,786	$ 1,825,057	$ 1,854,408	$ 1,734,225	$ -
Renewable Energy Credits (RECs)	555.52	$ 1,233,660	$ 1,018,510	$ 1,382,024	$ 1,382,024	$ 1,382,024
WREGIS Annual Dues	555.52	$ 1,061	$ 1,093	$ 1,126	$ 1,159	$ 1,126
Capacity Call Option - Morgan Stanley	555.50	$ 843,750	$ 750,000	$ -	$ -	$ -
Capacity Call Option - Sale to TEA	447.10	$ (1,378,125)	$ (1,281,250)	$ -	$ -	$ -
Nine Canyon & White Creek Wind Sales	447.10	$ (2,500,000)	$ (2,500,000)	$ (2,500,000)	$ (2,250,000)	$ (1,250,000)
Non-BPA Resources - Subtotal		**$ 2,189,438**	**$ 2,018,349**	**$ 2,957,569**	**$ 3,102,946**	**$ 2,384,677**
BPA Transmission						
Network Integration (NT) Service Charge	565.05	$ 7,674,743	$ 7,868,845	$ 8,501,868	$ 8,528,007	$ 8,539,177
NT Scheduling, Control & Dispatch (SCD)	565.05	$ 1,469,953	$ 1,507,130	$ 1,628,373	$ 1,633,380	$ 1,635,519
Point-to-Point (PTP) Long Term Firm	565.05	$ 19,776	$ 20,270	$ 21,754	$ 21,754	$ 21,754
PTP Long Term Firm SCD	565.05	$ 3,792	$ 3,887	$ 4,171	$ 4,171	$ 4,171
Regulation & Frequency Response	565.05	$ 817,083	$ 836,385	$ 902,443	$ 905,188	$ 908,750
Spinning Reserve Requirement	565.05	$ 636,622	$ 651,639	$ 703,068	$ 704,113	$ 703,138
Supplemental Reserve Requirement	565.05	$ 415,965	$ 425,777	$ 459,380	$ 460,063	$ 459,426
WECC & CAISO RC West	565.05	$ 148,560	$ 152,070	$ 164,081	$ 164,580	$ 165,227
Energy Imbalance Market (EIM)	565.05	$ 192,000	$ 192,000	$ 192,000	$ 192,000	$ 192,000
Transfer Service Delivery Charge - DOE-251	565.30	$ 1,026	$ 1,026	$ 1,026	$ 1,026	$ 1,026
BPA Transmission - Subtotal		**$ 11,379,520**	**$ 11,659,029**	**$ 12,578,164**	**$ 12,614,281**	**$ 12,630,188**
Non-BPA Transmission						
White Creek to Rock Creek - Klickitat PUD	565.50	$ 48,369	$ 48,334	$ 48,314	$ 33,495	$ 18,683
Nine Canyon Wind Project Transmission	565.50	$ 125,650	$ 125,650	$ 125,650	$ 125,650	$ 125,650
PTP Short Term Purchases	565.50	$ 117,157	$ 116,838	$ 116,838	$ 103,094	$ 55,229
PTP Long Term Firm Sales	456.10	$ (20,642)	$ (20,586)	$ (20,586)	$ (20,586)	$ (20,642)
Transfer River System - BREA & KPUD	456.10	$ (191,088)	$ (191,088)	$ (191,088)	$ (191,088)	$ (191,088)
Non-BPA Transmission - Subtotal		**$ 79,445**	**$ 79,148**	**$ 79,128**	**$ 50,566**	**$ (12,168)**
Conservation						
BPUD Conservation Program	908.3x	$ 2,362,683	$ 2,258,000	$ 2,362,683	$ 2,258,000	$ 2,362,683
BPA Conservation Reimbursement	555.71	$ (2,040,000)	$ (1,802,000)	$ (2,040,000)	$ (1,802,000)	$ (2,040,000)
Conservation - Subtotal		**$ 322,683**	**$ 456,000**	**$ 322,683**	**$ 456,000**	**$ 322,683**
Other Power Costs						
TEA Resource Management Agreement	557.01	$ 400,000	$ 424,000	$ 449,440	$ 476,406	$ 504,990
TEA Consulting	557.00	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
BPUD Internal Costs	557.00	$ 1,028,172	$ 1,059,017	$ 1,090,788	$ 1,123,511	$ 1,157,217
Other Power Costs - Subtotal		**$ 1,478,172**	**$ 1,533,017**	**$ 1,590,228**	**$ 1,649,917**	**$ 1,712,207**
Total Net Power Costs		**$ 79,829,181**	**$ 81,007,409**	**$ 84,489,746**	**$ 85,153,437**	**$ 84,575,725**

Table 12: *Five-Year Power Supply Budget Detail*