

Cost of Service and Rate Design Study



Frankfort Plant Board

FPB ELECTRIC COST OF SERVICE AND RATE DESIGN STUDY
Project No. 152760

5/4/2023



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1.0 INTRODUCTION

This report delivers the outcomes of a comprehensive Cost of Service and Rate Design Study executed by 1898 & Co. on behalf of the Frankfort Plant Board (FPB), a municipal utility situated in Frankfort, Kentucky. FPB provides an array of critical services, including electricity, water, cable television, and high-speed internet, primarily catering to the residents of the city of Frankfort. The utility's electric distribution system serves over 21,000 customers including residential, commercial, and industrial customers. FPB operates on a fiscal year (FY) calendar that ends on June 30th.

1.2 Purpose

The purpose of this report is to evaluate the adequacy of FPB's existing rate charges based on cost of service and to recommend fair and equitable adjustments to the rates, if deemed necessary. 1898 & Co. designs utility rate studies to encompass three principal steps, each intended to answer questions typically asked by Boards and utility management. These steps are:

- 1) Revenue Requirement Focuses on determining the overall adjustment in rates needed to meet forecast revenue requirements of the utility to cover operating and administrative expenses. For FPB, test year revenue requirements are developed on a utility basis and include power supply costs, operating and administrative expenses, and depreciation expenses. Gross revenue requirements are reduced by other revenue sources to determine the net revenue requirement to be recovered in rates.
- 2) Cost of Service Focuses on assigning cost responsibility to customer classes. Each customer class is allocated an appropriate share of the overall system costs based on cost causation principles and the level of service provided. The net revenue requirements (costs to be recovered from rates) identified in step 1 are allocated to customers in accordance with industry standards, cost causation principles, and system specifics.

The cost of service analysis was developed in the following steps:

- a. Determine the net revenue requirements to be recovered from user charges for a test year.
- b. Functionalize and classify test period operating costs using industry standard methods.
- c. Estimate the system test period units of service and develop class allocation factors.
- d. Allocate the functionalized and classified costs to customer classes using industry standard allocation methods.
- e. Compare class allocated costs to revenue under existing rates by class.
- f. Develop unit costs of service by class.
- 3) **Rate Design** Focuses on recommending revised rates and rate schedules that reflect cost of service considerations and practical rate implementation constraints.

The rate design was developed for the FPB to progress towards the following goals:

Frankfort Plant Board 1 1898 & Co.

- a. Rates should provide for a reasonable relationship to the cost of providing service.
- b. Rates should be simple and understandable.
- c. Rates should improve the recovery of fixed costs in fixed charges and variable costs in variable charges.

1.3 Principal Findings & Recommendations

The principal findings and recommendations resulting from this Study are:

- The cost-of-service study conducted by 1898 & Co. has identified a need for a 7.8% rate increase to meet the overall cost of service and achieve a 7.0% return on net plant. Following consideration and consultation with the FPB management team, we recommend implementing this increase over a two-year period, commencing on July 1, 2023, and July 1, 2024. This would entail an annual rate increase of 3.9% for each of the next two years.
- The cost of service (COS) study indicates the Residential, Municipal/Gratis and Lighting classes are under-recovering their allocated costs the most and should receive a larger percentage rate increase relative to the other rate classes. The Large Power and Large Industrial classes are both over-recovering their allocated costs to serve and should receive less than the system average increase.
- 1898 & Co. recommends the creation of a new General Service Demand rate class for medium sized customers with peak demands between 50 and 500 kilowatts (kW).
- 1898 & Co. recommends the elimination of the Municipal and Gratis rate classes and suggests they be moved to the applicable commercial or industrial rate class based on their load profile. Should the Board decide to keep the current Municipal and Gratis classes, we recommend the creation of a Municipal Demand rate class.
- 1898 & Co. recommends a number of rate restructuring actions to make improvements in aligning fixed and variable cost recovery with fixed and variable rate charges, as well as improving intra- and inter-class equity, and modernize its rate design to be more in line with current and future customer needs.

2.0 REVENUE & REVENUE REQUIREMENTS

The Frankfort Plant Board (FPB) is a self-owned and self-operated electric distribution system that serves a diverse customer base, including residential, commercial, lighting, and institutional service customers. As of 2023, the electric utility serves around 21,000 customers, and the projected rate revenues under the current rates for FY 2024 are estimated to be \$62.0 million. FPB forecasts the total retail energy sales to be 652,292 megawatt-hours (MWh) in 2024. This section presents the electric utility revenue and revenue requirements of FPB for the test year 2024.

The overall adequacy of existing rates is tested by comparing revenues under existing rates with test year revenue requirements. To test the reasonableness of cost recovery by customer class rate schedules, electric utility revenue requirements are allocated to cost functions and to customer classes and compared to class revenues. The cost of service analysis for the utility is presented in Section 3.0.

2.2 Financial Operations Under Existing Rates

The revenue forecast under existing rates was generated by applying the existing retail rates to the forecast of rate class billing determinants.

Over the FY 2020-2023 period, the electric utility experienced an average customer growth rate of approximately 0.4% per year, and energy sales rose at a compound average growth rate of 1.1% per year. The sales forecast for rate class billing determinants was provided by FPB and assumes no growth in FY 2024 from the FY 2023 projection. A summary of forecast annual energy sales is shown in Table 2-1.

Table 2-1 Annual Electric Energy Sales

Projected Energy Sales (kWh)

Frojected Lifergy Sales (KWII)					
Customer Class		Historical	Budget	Test Year	
Fiscal Year July 1 - June 30	2020	2021	2022	2023	2024
Residential	208,810,039	214,591,301	211,963,781	212,937,428	212,937,428
General Service	72,983,864	69,868,950	76,374,788	76,098,716	76,098,716
Large Power	160,692,566	164,305,877	154,139,991	153,819,892	153,819,892
Large Industrial HLF	148,247,820	149,042,440	159,625,010	169,319,400	169,319,400
Gratis Elect/Water	13,470,270	12,998,377	13,080,892	13,449,400	13,449,400
Municipal	23,354,169	22,225,144	23,123,396	22,630,035	22,630,035
Lighting	4,092,169	3,984,360	3,979,619	4,037,468	4,037,468
Total Energy Sales	631,650,897	637,016,449	642,287,477	652,292,339	652,292,339

Customer Class Historical Budget **Test Year** 2020 2021 Fiscal Year July 1 - June 30 2022 2023 2024 Residential \$ 21,915,338 \$ 22,486,028 \$ 22,170,182 \$ 23,579,428 \$ 22,335,957 General Service \$ 7,966,884 \$ 7,642,296 \$ 8,262,426 \$ 8,718,484 \$ 8,273,595 \$ 15,354,576 \$ 15,340,561 \$ 14,450,939 \$ 15,364,050 \$ 14,509,374 Large Power Large Industrial HLF \$ 11,604,163 \$ 11,480,095 \$ 12,525,648 \$ 14,112,469 \$ 13,164,816 Gratis Elect/Water 1,205,589 \$ 1,163,355 \$ 1,166,831 \$ 1,276,744 \$ 1,203,721 Municipal 2,035,289 \$ 2,108,970 \$ 2,197,305 2,135,856 \$ 2,072,193 Lighting \$454,796 \$446,607 \$446,442 \$474,632 \$454,729 **Total Electric Sales Revenue** \$ 60,637,202 \$ 60,594,232 \$ 61,131,439 \$ 65,723,112 \$ 62,014,386

Table 2-2 Annual Electric Sales Revenue Under Existing Rates (\$)

The Electric System generates revenue through the sale of electricity, as well as through various fees, charges, and miscellaneous sources of income. The projected total revenue from user rates under existing rates for the Electric System is expected to decrease from \$65.7 million in 2023 to approximately \$62.0 million in 2024. Revenue was higher in FY 2023 due to a Power Cost Adjustment. The FY 2024 revenue forecast is based on the existing rates, while excluding the power cost adjustment implemented in FY 2023 in accordance with FPB's guidance.

In addition to electric sales, the Electric System generates revenue from various sources such as contributions to capital, miscellaneous sales and services, and interest income. For FY 2024, the budgeted amount for other operating revenues is estimated to be approximately \$435,000. For a detailed breakdown of revenue requirements for the same fiscal year, refer to Table 2-3.

2.3 Revenue Requirements

In order to assess the overall adequacy of existing rates, a thorough evaluation is performed by comparing the revenue generated from current rates against the annual revenue requirements. The revenue requirements, which include operating and maintenance (O&M) expenses as well as general and administrative expenses, are established on a utility basis. A summary of the annual revenue requirements for Test Year 2024 is provided in Table 2-3.

The FPB is an all-requirements member of the Kentucky Municipal Energy Agency (KYMEA), through which it procures the energy provided to its customers. It is estimated that the expenditure on Power Supply will increase from \$41.8 million in 2023 to \$46.7 million in 2024, due to rate increases from KYMEA.

FPB's O&M expenses are divided into two categories: Administration and Operations. O&M expenses are based on the FY 2024 proposed budget. O&M expenses are summarized on lines 1 through 17 of Table 2-3.

In FY 2024, the revenue to be recovered through rates, or the annual net revenue requirements, is estimated to be \$63.6 million, as indicated on line 20 of Table 2-3. The net annual cash flow (net income) is calculated by subtracting revenue under existing rates from the net revenue requirements listed on line 20. The resulting value, which is shown on line 22, indicates that annual revenue is less than the test year revenue requirements, resulting in a deficiency of \$1.6 million.

Table 2-3 Test Year Revenue Requirements

Line	Description	Test Year	Test Year Adjustments	Adjusted Test Year
	Fiscal Year July 1 - June 30		2024	

	REVENUE	E REQUIREMENTS		
1	Operations and Maintenance			
2	Power Cost	\$46,704,318	\$0	\$46,704,318
3	Payroll	\$2,536,041	\$0	\$2,536,041
4	Employee Benefits	\$1,655,790	\$0	\$1,655,790
5	Distribution Station	\$90,352	\$0	\$90,352
6	Overhead Lines	\$1,072,500	\$0	\$1,072,500
7	Underground Lines	\$61,235	\$0	\$61,235
8	Street Lights	\$40,489	\$0	\$40,489
9	Security Lights	\$19,338	\$0	\$19,338
10	Transmission	\$10,000	\$0	\$10,000
11	Total Operations and Maintenance	\$52,190,062	\$0	\$52,190,062
12	General and Administration Expenses			
13	Payroll	\$803,611	\$0	\$803,611
14	Employee Benefits	\$1,116,626	\$0	\$1,116,626
15	Other G&A Expenses	\$7,498,273	\$0	\$7,498,273
16	Depreciation	\$2,395,724	\$0	\$2,395,724
17	Total General and Admin Expenses	\$11,814,233	\$0	\$11,814,233
18	Gross Cost of Service	\$64,004,296	\$0	\$64,004,296
19	Less Other Revenue	(\$998,674)	\$563,674	(\$435,000)
20	Net Revenue Requirement	\$63,005,622	\$563,674	\$63,569,296
	F	REVENUE		
21	Revenue Under Existing Rates	\$62,014,386		\$62,014,386
22	Net Income	(\$991,236)	(\$563,674)	(\$1,554,910)

3.0 ELECTRIC COST OF SERVICE

The overall adequacy of rates is tested by comparing class revenues under existing rates for a test year with the class allocated test year revenue requirements. The Electric Utility's cost of service requirements are set equal to the net revenue requirements of the utility to be recovered from rates. Test year costs of service are first functionalized and classified to cost categories, and then allocated to customer classes on appropriate allocation bases, and finally the allocated class cost of service is compared to test year class revenue. This section presents the unbundled class cost of service analysis for the FPB electric system based on the projected FY 2024 revenues and costs. The functionalization, classification, and allocation major groups are shown on Table 3-1.

Functionalization	Classification	Allocation
Power Supply	Energy	Residential
Transmission	Demand	General Service
Distribution	Customer	Large Power
Customer	Direct Assignment	Large Industrial HLF
Direct Assignment		Gratis Electric/Water
		Municipal
		Lighting

Table 3-1: Cost of Service Cost Functions, Classifications, & Allocations

3.1 Test Year Cost of Service

This section presents the class cost of service analysis for the FPB Electric System based on the Test Year 2024. Allocation of test year revenue requirements to rate classes provides a measure of the proportionate responsibility of each class for the total cost of utility service provided by FPB. A comparison of the class net cost of service or net revenue requirements with class revenues under existing rates provides a guide for the development of fair and equitable class rate adjustments.

Table 3-2 presents a summary of the utility basis revenue requirements to be allocated to customer classes for the test year. Utility basis revenue requirements includes power supply costs, O&M expenditures, administrative and general costs, depreciation and target return but does not include debt service obligations, renewal and replacement capital spending, and other capital project funding. Credits for all other income sources include capital contributions, miscellaneous revenue from fees and charges, and pole rental income. Test year adjustments were made to Other Income to remove intercompany transfers from other FPB utilities to the Electric System. Other income is credited to total system revenue requirements to determine net revenue requirements to be recovered in rates. The net revenue requirement is the test year cost of service and the amount to be collected from rates. As shown in Table 3-2 Line 20, the FY 2024 test year net cost of service is \$63.6 million. Of FPB's total net revenue requirement for FY 2024, \$46.7 million, or approximately 73% of the FPB's test year net revenue requirement is related to Power Supply costs.

Table 3-2: FY 2024 Test Year Cost of Service

Line	Description	Test Year	Test Year Adjustments	Adjusted Test Year
	Fiscal Year July 1 - June 30		2024	

	REVENUE	REQUIREMENTS		
1	Operations and Maintenance			
2	Power Cost	\$46,704,318	\$0	\$46,704,318
3	Payroll	\$2,536,041	\$0	\$2,536,041
4	Employee Benefits	\$1,655,790	\$0	\$1,655,790
5	Distribution Station	\$90,352	\$0	\$90,352
6	Overhead Lines	\$1,072,500	\$0	\$1,072,500
7	Underground Lines	\$61,235	\$0	\$61,235
8	Street Lights	\$40,489	\$0	\$40,489
9	Security Lights	\$19,338	\$0	\$19,338
10	Transmission	\$10,000	\$0	\$10,000
11	Total Operations and Maintenance	\$52,190,062	\$0	\$52,190,062
12	General and Administration Expenses			
13	Payroll	\$803,611	\$0	\$803,611
14	Employee Benefits	\$1,116,626	\$0	\$1,116,626
15	Other G&A Expenses	\$7,498,273	\$0	\$7,498,273
16	Depreciation	\$2,395,724	\$0	\$2,395,724
17	Total General and Admin Expenses	\$11,814,233	\$0	\$11,814,233
18	Gross Cost of Service	\$64,004,296	\$0	\$64,004,296
19	Less Other Revenue	(\$998,674)	\$563,674	(\$435,000)
20	Net Revenue Requirement	\$63,005,622	\$563,674	\$63,569,296

3.2 Functionalization & Classification of Revenue Requirements

1898 & Co. uses a systematic process for identifying functions based on the traditional utility categories of production (generation), transmission, distribution, and customer. 1898 & Co. further splits customer between onsite distribution and general customer. This latter split is useful for assuring that rate design at least recovers the onsite costs (meter, service line, transformer investment and customer service and billing) and direct costs in the customer component of rates. General customer related costs for the distribution system are tracked separately as well as the customer components of general plant and non-payroll related overheads (which are allocated on direct payroll).

Cost classification is driven by as detailed an analysis as the accounting and load data permits. Costs are classified as demand, energy, and customer. Only costs that vary with energy are classified as energy.

3.2.1 Functionalization of Test Year Cost of Service

Multiple functional services were identified while analyzing the FPB's cost categories. Each cost category is summarized below.

- Power Supply
- Transmission
- Distribution
- Customer

The **power supply** function consists of the power supply costs purchased from the Kentucky Municipal Energy Agency (KYMEA).

The **transmission** function consists of the transmission charges from KYMEA as well as assets and expenses associated with the high voltage system used by the electric system (69 kV and above) to interconnect with the grid and to move power around the FPB grid to distribution substations.

The **distribution** function includes the system that connects transmission to loads. Different customers use different components of the distribution system. Thus, it is common for the distribution system to be divided into sub-functions such as primary and secondary. In addition, some distribution facilities serve a customer function and are further subdivided based on the type of facilities used by customer groups.

The **customer** function includes plant and expenses associated with individual customers and includes meter, services, along with meter reading and billing (accounts and services) for example.

3.2.2 Classification of Test Year Cost of Service

Costs are classified as energy, demand, and customer. **Energy** costs are those costs that vary generally with the production of energy such as fuel costs, purchased power expense, or other variable generation costs. **Demand** costs are those costs that vary generally with some measure of maximum demand. Measures of maximum demand include coincident peak (CP) demand, class non-coincident peak (NCP) demand, and customer NCP demand. **Customer** costs are those costs that vary generally with the number of customers, such as meters and

service lines. Some costs may be classified into more than one category. For example, some distribution costs may have both a demand and a customer cost component. For example, overhead conductor is a function of customers because the miles of line required changes with customer density. That is, some portion of the system is directly related to the number of customers per mile of line. The actual size of line is related to either the class non-coincident peak demand for lines remote from customers or to the customer non-coincident peak for lines in close proximity to the customer. The difference in classification results from the increased level of diversity occurring in customer loads as facilities become more remote from the customer. The classification of costs have now been added to the list of functions below.

- Power Supply
 - Power Supply Energy
 - o Power Supply Demand
- Transmission
 - Transmission Demand
- Distribution
 - o Distribution Demand
 - Distribution Customer
 - o Distribution Lighting
- Customer
 - Customer Service & Accounts
 - Revenue

3.2.3 Functionalization and Classification of Plant

Before functionalizing and classifying the test year revenue requirement, the first step is to functionalize and classify FPB's electric fixed assets, or plant in service. FPB records its plant assets using the account numbers used in the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts (USoA), which subdivides each function into more detailed components such as poles, overhead and underground conductor, and meters. The assignment of each plant account to one (or multiple) of the classification categories provides a basis to allocate related test year expenses. The decisions on how to classify each plant account are guided by the Electric Utility Cost Allocation Manual published by the National Association of Regulatory Utility Commissioners (NARUC). The NARUC Manual is the gold standard for supporting allocation methodologies used by electric utilities of all sizes across the United States. FPB's functionalized and classified plant in services is shown in Table 3-3.

3.2.4 Revenue Requirement Classification

The way each component was assigned to the functional services varied based on the nature of the item. 1898 & Co. developed the proposed unbundling of the components of the FY 2024 revenue requirement based on its understanding of the types of associated costs. Unlike its plant in service accounting, FPB does not use the FERC USoA to record operating expenses. This limits our ability to assign costs by function (transmission and distribution) and subfunction (distribution lines, transformers, meters, etc.). Some detail was available, including a breakout of expenses between the categories of substation, overhead lines, underground lines, and streetlights.

A summary of the assignment of each component of the test year revenue requirement is presented in Table 3-4. A more detailed presentation of the functionalization and classification of FPB's test year revenue requirement is shown in Appendix A.

Cost of Service and Rate Design

Electric Cost of Service

Table 3-3: Functionalization and Classification of Plant in Service

Balance			Pov	ver Su	upply	Т	Transmission			Distribution				Customer				
06/30/22 B	Balance			Energy		Demand		Demand		Demand		Customer		Lighting		Customer	Rev	enue
Description	FERC Account	:		POWER-ENG	i i	POWER-DEM		TRANS-DEM		DIST-DEM	[DIST-CUST	[DIST-LIGHTS		CUST	R	EV
Electric Plant in Service																		
Transmission Plant				_					_		_							
ELECTRIC TRANS LAND-DO NOT USE	351	\$	117,477	\$ -	- 7		\$	117,477		-	\$	-	\$	-	\$	-	\$	-
ELECTRIC TRANSMISSION STRUCTUR	352	\$	5,680,231	\$ -	7		\$	5,680,231		-	\$	-	\$	-	\$	-	\$	-
ELECTRIC STATION EQUIPMENT	353	\$	6,151,937	\$ -	Ψ.	•	\$	6,151,937	_	-	\$	-	\$	-	\$	-	\$	-
ELECTRIC TRANS POLES TOWERS &F	355	\$	1,145,365	\$ -	7		\$	1,145,365	-	-	\$	-	\$	-	\$	-	\$	-
ELECTRIC TRANS OVERHEAD CONDUC	356	\$	2,028,347	\$ -	~		\$	2,028,347	_	-	\$	-	\$	-	\$	-	\$	-
Subtotal		\$	15,123,357	\$ -	\$	-	\$	15,123,357	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Plant																		
ELECTRIC DISTRIBUTION LAND	360	\$	64,364	\$ -	\$	-	\$	-	\$	64,364	\$	-	\$	-	\$	-	\$	-
ELECTRIC DIST STRUCT & IMP	361	\$	556,612	\$ -	\$	-	\$	-	\$	556,612	\$	-	\$	-	\$	-	\$	-
ELECTRIC DIST STATION EQUIPMEN	362	\$	13,990,627	\$ -	\$	-	\$	-	\$	13,990,627	\$	-	\$	-	\$	-	\$	-
ELECTRIC DIST STORAGE BAT EQUI	363	\$	36,040	\$ -	\$	-	\$	-	\$	36,040	\$	-	\$	_	\$	-	\$	-
ELECTRIC DISTRIBUTION POLES	364	\$	3,408,126	\$ -	\$	-	\$	-	\$	2,385,688	-	1,022,438	\$	-	\$	-	\$	-
ELECTRIC DIST OVERHEAD CONDUCT	365	\$	8,253,215	\$ -	Ś	-	Ś	-	Ś	5,777,251	Ś	2,475,965	Ś	_	\$	-	\$	-
ELECTRIC DIST UGRND CONDUIT	366	\$	3,999,119	\$ -	\$	-	\$	-	\$	2,799,383	-	1,199,736	-	_	\$	-	\$	-
ELECTRIC DIST UGRND CONDUCTORS	367	Ś	7,389,300	\$ -	Ś	-	\$	-	Ś	5,172,510	•	2,216,790	-	-	\$	-	\$	_
ELECTRIC DIST LINE TRANSFORMER	368	Ś	11,147,780	\$ -	Ś	-	Ś	_	Ś	7,803,446	•	3,344,334		_	Ś	_	\$	_
ELECTRIC DIST. SERVICES	369	Ś	3,440,324	\$ -	Ś	-	Ś	_	Ś	-	\$	3,440,324	-	_	Ś	_	Ś	_
ELECTRIC DISTRIBUTION METERS	370	Ś	1,963,313	\$ -			Ś	_	\$	-	\$	1,963,313	-	_	Ś	_	Ś	_
ELECTRIC SECURITY LIGHT	371	Ś	481,108	\$ -	- :		\$	_	Ś	_	Ś	-	Ś	481.108			Ś	
ELECTRIC STREET LIGHTS & SIGNA	373	Ś	1,104,539	Ś -		-	\$	_	Ś	_	Ś	_	Ś	1,104,539		_	Ś	
ELECTRIC TRANSPORT EQUIPMENT	376	Ś	3,210,143	\$ -		•	Ś		Ś	2,218,456	•	900,521	-	91,165	-	_	Ś	
ELECTRIC POWER OPERATED EQUIP	377	Ś	813,138	Ś -			Ś	_	\$		\$	228,104	-	23,092	\$		\$	
Subtotal	377	\$	59,857,748	\$ -			\$	-	\$		\$	16,791,524	_	1,699,905	-	-	\$	_
General Plant																		
Distribution to Electric Department	100%			_														
GENERAL LAND	389	\$	195,681	\$ -	7	-	\$	-	\$	125,442	•	41,449	-	390		28,399		-
GENERAL STRUCTURES AND IMPROVE	390	\$	27,658,946	\$ -	7		\$	-	\$, ,	\$	5,858,666	-	55,195	\$	4,014,168		-
GENERAL OFFICE FURN & EQUIP	391	\$	7,816,200	\$ -	7		\$	-	\$	5,010,617		1,655,613		15,598		1,134,372		-
GENERAL TRANSPORT EQUIPMENT	392	\$	407,543	\$ -	\$	-	\$	-	\$	261,258	•	86,325	-	813	\$	59,147		-
GENERAL STORES EQUIPMENT	393	\$	77,315	\$ -	7		\$	-	\$	49,563	-	16,377	_	154	-	11,221	-	-
GENERAL TOOLS SHOP & GARAGE EQ	394	\$	408,630	\$ -	7		\$	-	\$	261,954	•	86,555	-	815	-	59,305	-	-
GENERAL LABORATORY EQUIPMENT	395	\$	65,151	\$ -	\$	-	\$	-	\$	41,766		13,800	-	130	-	9,455		-
GENERAL POWER OPERATED EQUIP	396	\$	477,556	\$ -	\$	-	\$	-	\$	306,140	-	101,155	-	953	\$	69,308	\$	-
GENERAL COMMUNICATIONS EQUIP	397	\$	565,322	\$ -	\$	-	\$	-	\$	362,403	\$	119,745	\$	1,128	\$	82,046	\$	-
GENERAL MISCELLANEOUS EQUIP	398	\$	2,659,302	\$ -	\$	-	\$	-	\$	1,704,760	\$	563,288	\$	5,307	\$	385,947	\$	-
GENERAL COMPUTER EQUIPMENT	399	\$	4,063,128	\$ -	\$	-	\$	_	\$	2,604,690	\$	860,644	\$	8,108	\$	589,685	\$	-
Subtotal		\$	44,394,774	\$ -	\$	-	\$	-	\$	28,459,511	\$	9,403,617	\$	88,592	\$	6,443,053	\$	-
Total Plant in Service		Ś	119,375,878	¢ -	Ś	<u> </u>	Ś	15,123,357	Ś	69,825,830	Ġ	26,195,142	Ġ	1,788,496	Ġ	6,443,053	¢	

Cost of Service and Rate Design

Electric Cost of Service

Table 3-4: Summary of Functionalization and Classification of Test Year Revenue Requirements

Description	Test Year Revenue Requirement	Power	· Supply	Transmission		Distribution	Customer				
	Requirement	Energy	Demand	Demand	Demand	Customer	Lighting	Customer	Revenue		
		POWER-ENG	POWER-DEM	TRANS-DEM	DIST-DEM	DIST-CUST	DIST-LIGHTS	CUST	REV		
Revenue Requirements											
Power Supply	\$ 46,704,318	\$ 21,214,574	\$ 16,554,028	\$ 8,935,717	\$ -	\$ -	\$ -	\$ -	\$ -		
Operations and Maintenance	\$ 5,485,744	\$ -	\$ -	\$ 10,000	\$ 4,027,366	\$ 1,378,766	\$ 69,612	\$ -	\$ -		
General and Admin Expenses	\$ 5,031,831	\$ -	\$ -	\$ 332,432	\$ 3,155,936	\$ 1,111,440	\$ 44,360	\$ 387,663	\$ -		
CORPORATE ALLOCATION	\$ 6,782,402	\$ -	\$ -	\$ 65,030	\$ 3,583,140	\$ 1,522,714	\$ 17,910	\$ 1,593,609	\$ -		
Total Cost of Service	\$ 64,004,296	\$ 21,214,574	\$ 16,554,028	\$ 9,343,178	\$ 10,766,442	\$ 4,012,920	\$ 131,882	\$ 1,981,272	\$ -		
Less Other Revenue:											
Other Revenue	\$ (435,000)) \$ -	\$ -	\$ (633)	\$ (23,925)	\$ (10,097)	\$ (75)	\$ (400,270)	\$ -		
Total Revenue Adjustments	\$ (435,000)	\$ -	\$ -	\$ (633)	\$ (23,925)	\$ (10,097)	\$ (75)	\$ (400,270)	\$ -		
Net Revenue Requirement	\$ 63,569,296	\$ 21,214,574	\$ 16,554,028	\$ 9,342,545	\$ 10,742,518	\$ 4,002,822	\$ 131,807	\$ 1,581,002	\$ -		

3.3 Revenue Requirement Allocation

Following the unbundling of the various components of the test year revenue requirement to the functional utility services, the unbundled test year revenue requirement is allocated to the electric utility's retail rate classes. These allocations were developed to reflect the relative impact each rate class will have on the level of each component of the test year revenue requirement. The test year revenue requirements are allocated to the Residential, General Service, Large Power, Large Industrial High Load Factor, Gratis or Electric Interdepartmental, Municipal, and Lighting classes. The process to develop these allocation factors is discussed in the following sections.

3.4 Development of Allocation Factors

1898 & Co. utilized billing history data and projections of future sales and loads to develop a series of allocation factors. The allocation factors were developed based on billing determinants, estimates of the contributions of each rate classification to the FPB's total annual system energy requirements, estimated coincident system peak demand, and estimated class non-coincident system peak demand. In addition, the total number of customers in each rate category were determined. Ratios were calculated of each class's contribution for each statistic to the corresponding total. These ratios were used as cost allocation factors to allocate each unbundled component of the test year revenue requirement to the rate classes. These allocation factors are presented in Table 3-5 and the basis for their development are provided in the following sections.

3.4.1 Energy Allocation Factors

An energy allocation factor was developed for use in the apportionment of all energy related expenses. Based on the billing data provided, energy sales to each of the FPB's rate classes were determined. The energy sales for each class were factored up to the system level. System losses were assumed to occur at secondary level. The ratios of the resulting estimated contributions of each class to the total system energy requirements represented the energy allocation factor.

3.4.2 Demand Allocation Factors

The determination of system demand contributions for each rate class required a more complex process. For each class, maximum demands were estimated based on proxy load factors from regional utilities and our experience with similar systems. The load factors were applied to the corresponding test year energy sales for each class to determine the coincident and non-coincident peaks for each class. Ratios of each class's peak demands to the total for all classes were calculated. These ratios represent the factors to be used in allocating system CP and NCP demand costs among the various rate classes. Consistent with how KYMEA bills FPB for power costs, power supply demand and transmission demand costs are allocated using a CP allocator. An NCP allocation factor is used to allocate distribution demand costs.

3.4.3 Customer Allocation Factors

Customer allocation factors were developed to allocate the costs of billing, distribution customer costs, and other administrative costs to the various rate classifications. Customer allocation factors were based on relative weighting of the number of customers included in each rate class served by FPB. Relative weights were estimated to reflect differences in the

effort required and the cost incurred to provide customer services to customers in the different rate classes.

Table 3-5: Summary of Class Allocation Factors

			_		Laure			
	Total System	Residential	General Service	Large Power	Large Industrial HLF	Gratis/Elec Dept	Municipal Rates	Lighting Rates
Energy Factors								
Total Energy Requirement	661,796,268	216,039,936	77,207,478	156,061,055	171,786,391	13,645,358	22,959,756	4,096,294
Energy Factor	1.000	0.326	0.117	0.236	0.260	0.021	0.035	0.006
Demand Factors								
Coincident Peak Contribution	128,352	49,314	16,021	29,686	24,508	3,115	5,241	468
Coincident Peak Factor	1.000	0.384	0.125	0.231	0.191	0.024	0.041	0.004
Non-Coincident Peaks	165,946	70,449	22,030	37,107	26,142	3,461	5,823	935
NCP Factor	1.000	0.425	0.133	0.224	0.158	0.021	0.035	0.006
Primary NCP	165,128	70,101	21,921	36,924	26,013	3,444	5,794	930
Primary NCP Factor	1.000	0.425	0.133	0.224	0.158	0.021	0.035	0.006
Secondary NCP	165,128	70,101	21,921	36,924	26,013	3,444	5,794	930
Secondary NCP Factor	1.000	0.425	0.133	0.224	0.158	0.021	0.035	0.006
Secondary NCP Factor	1.000	0.423	0.133	0.224	0.136	0.021	0.055	0.006
Customer Factors								
customer ractors								
Number of Customers	274,329	202,606	49,657	2,683	155	1	2,530	16,697
Customer Factor	1.000	0.739	0.181	0.010	0.001	0.000	0.009	0.061
Customer Weighting Factor		1.00	1.50	10.00	10.00	1.00	1.00	0.20
Weighted No. of Customers	311,342	202,606	74,486	26,830	1,550	1	2,530	3,339
Weighted Customer Factor	1.000	0.651	0.239	0.086	0.005	0.000	0.008	0.011
Meter Weighting Factor		126.03	337.31	337.31	337.31	337.31	337.31	0.00
Weighted Meter Investment	44,095,254	25,534,434	16,749,803	905,003	52,283	337	853,394	-
Weighted Customer Factor	1.000	0.579	0.380	0.021	0.001	0.000	0.019	0.000
Other Factors								
Revenue	61,808,503	22,335,957	8,273,595	14,509,374	13,164,816	1,203,721	2,072,193	248,847
Revenue Allocation Factors	1.000	0.361	0.134	0.235	0.213	0.019	0.034	0.004
Street Lights	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
Allocation Factor Summary								
A. Total Energy	100.00%	32.64%	11.67%	23.58%	25.96%	2.06%	3.47%	0.62%
B. Coincident Peak	100.00%	38.42%	12.48%	23.13%	19.09%	2.43%	4.08%	0.36%
C. NCP	100.00%	42.45%	13.28%	22.36%	15.75%	2.09%	3.51%	0.56%
D. NCP-Primary	100.00%	42.45%	13.28%	22.36%	15.75%	2.09%	3.51%	0.56%
E. NCP-Secondary	100.00%	42.45%	13.28%	22.36%	15.75%	2.09%	3.51%	0.56%
F. Customers	100.00%	73.86%	18.10%	0.98%	0.06%	0.00%	0.92%	6.09%
G. Weighted Customers	100.00%	65.08%	23.92%	8.62%	0.50%	0.00%	0.81%	1.07%
H. Revenue	100.00%	36.14%	13.39%	23.47%	21.30%	1.95%	3.35%	0.40%
I. Lighting	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%

3.5 Cost of Service Study Results

Each component item of the FY 2024 test year revenue requirement, which was functionalized and classified to the various functional utility services, was allocated to the appropriate customer rate classifications using the corresponding allocation factors described previously. The allocated amounts were summarized for each rate class. The total amounts for each unbundled service within each component of the test year revenue requirement were carried forward from Table 3-2.

Table 3-6 provides a high-level summary of each rate class and their corresponding cost of service. The class cost of service shows the required revenue from each class to recover their costs in the 2024 test year. Note that net income is negative for the system, so a rate adjustment will be required regardless of class COS results.

	Total System	Residential	General Service	Laı	rge Power	In	Large dustrial HLF	Gratis/Elec Dept		ı	Municipal Rates	Ligh	nting Rates
Revenue Requirement Summary													
Revenue Requirement Summary													
Test Year Revenue	\$ 62,014,386	\$ 22,335,957	\$ 8,273,595	\$ 1	14,509,374	\$	13,164,816	\$	1,203,721	\$	2,072,193	\$	454,729
Gross Revenue Requirements	\$ 64,004,296	\$ 25,346,672	\$ 8,570,877	\$ 1	13,916,355	\$	12,177,548	\$	1,290,420	\$	2,219,945	\$	482,479
Less Other Revenue	\$ (435,000)	\$ (277,447)	\$ (101,431)	\$	(40,860)	\$	(5,933)	\$	(516)	\$	(4,200)	\$	(4,614)
Net Revenue Requirements	\$ 63,569,296	\$ 25,069,225	\$ 8,469,446	\$ 1	13,875,496	\$	12,171,615	\$	1,289,904	\$	2,215,745	\$	477,865
Net Operating Income	\$ (1,554,910)	\$ (2,733,268)	\$ (195,851)	\$	633,879	\$	993,201	\$	(86,183)	\$	(143,551)	\$	(23,136)

Table 3-6: Cost of Service Summary by Rate Class

3.5.1 Adequacy of Existing Rates

As the FPB test year revenue requirement was developed on a utility basis, the adequacy of existing revenues is based on rate of return. For most investor-owned utilities (IOUs) and other regulated utilities, revenue adequacy is measured on "return on rate base" where "return" is equivalent to test year net income and is expressed as a percentage resulting from dividing net income by rate base. Rate base is comprised primarily of net plant in service (original cost less accumulated depreciation), with additions or subtractions for items such as regulatory assets, inventories, and deferred taxes. For FPB, net plant is an appropriate approximation of rate base. For IOU's, the rate of return (ROR) is based on the utility's weighted average cost of capital (WACC) which includes the average cost of debt and a regulated return on equity (ROE).

Return and ROR are not to be confused with profit. The return portion of a utility's revenue requirement is used for funding the capital needs of the utility including debt service payments and any capital projects funded with annual operating revenues. As FPB is a not-for-profit municipal utility, all return is reinvested in the system through capital investment or building and maintaining appropriate cash reserve funds.

Table 3-7 shows the rate of return for the system as a whole and for each rate class. The system average ROR is a negative 3.3%. Each class's ROR is also shown. The lowest returns are for the Residential and Gratis/Municipal classes. Both the Large Power and Large

Industrial HLF classes have a positive ROR despite the system average negative return. This indicates these classes rates are over-recovering their allocated cost of service. The "Relative ROR" indicates the degree of differences for each class relative to the system ROR. For example, the Residential value of 3.59 indicates the class ROR is 3.5 times lower than the system average.

Table 3-7: Return at Present Rates

	Total System	R	Residential	General Service	La	arge Power	Inc	Large dustrial HLF	G	ratis/Elec Dept	I	Municipal Rates	Ligi	hting Rates
Return at Present Rates														
Net Plant	\$ 46,970,509	\$	22,980,036	\$ 7,691,138	\$	8,370,555	\$	5,048,658	\$	660,698	\$	1,228,286	\$	991,137
Net Income at Present Rates	\$ (1,554,910)) \$	(2,733,268)	\$ (195,851)	\$	633,879	\$	993,201	\$	(86,183)	\$	(143,551)	\$	(23,136)
Rate of Return at Present Rates	-3.3%	6	-11.9%	-2.5%		7.6%		19.7%		-13.0%		-11.7%		-2.3%
Relative ROR	1.00		3.59	0.77		(2.29)		(5.94)		3.94		3.53		0.71

To determine the overall rate adjustment needed based on a cost of service study, an appropriate ROR must be developed for the FPB. We have observed recent rate cases for regulated utilities using a ROR in the 7.0% to 8.0% range. As a proxy for FPB, we used 7.0%. Table 3-8 presents the overall results of the COS Study and the indicated rate adjustment to bring the system to an overall ROR of 7.0%.

Table 3-8: Indicated Rate Adjustment and Class COS Results

	Total System	R	Residential	General Service	L	arge Power	ln	Large ndustrial HLF	G	Gratis/Elec Dept	Municipal Rates	Lig	hting Rates
Equalized Rate of Return													
Net Plant	\$ 46,970,509	\$	22,980,036	\$ 7,691,138	\$	8,370,555	\$	5,048,658	\$	660,698	\$ 1,228,286	\$	991,137
Equalized Rate of Return	7.00%		7.00%	7.00%		7.00%		7.00%		7.00%	7.00%		7.00%
Return @ Equalized Rate of Return	\$ 3,287,936	\$	1,608,603	\$ 538,380	\$	585,939	\$	353,406	\$	46,249	\$ 85,980	\$	69,380
Revenue Deficiency @ Present Rates	\$ 4,842,846	\$	4,341,871	\$ 734,230	\$	(47,940)	\$	(639,795)	\$	132,432	\$ 229,531	\$	92,515
Revenue Under Present Rates	\$ 62,014,386	\$	22,335,957	\$ 8,273,595	\$	14,509,374	\$	13,164,816	\$	1,203,721	\$ 2,072,193	\$	454,729
Indicated % Adjustment	7.8%		19.4%	8.9%		-0.3%		-4.9%		11.0%	11.1%		20.3%

The indicated system rate adjustment to increase net income to produce an ROR of 7.0% of net plant is 7.8%. For each rate class, we also determine the share of this increase for each class to have a 7.0% return as well (equalized rate of return). The "Indicated % Adjustment" for each class can be interpreted as the rate increase (or decrease) that would be required to adjust rates to meet the allocated cost of service.

The results show that the Residential and Lighting classes are under-recovering their allocated share of cost more than any other classes, followed by the Gratis and Municipal rate classes. The Large Power and Large Industrial HLF classes indicate the need for no rate change, or a rate decrease to match cost of service.

Cost of service results are used as a guideline for making targeted changes by class in rate design and are not generally intended to be applied directly to exactly match cost of service.

3.5.2 Planned Rate Adjustments

The cost of service study indicates the need for a 7.8% increase to bring the system to a 7.0% return on net plant. FPB leadership made the decision to split this increase over two years to limit the impact on customers. This is an acceptable plan provided FPB has sufficient operating reserves to cover any operating expenses in excess of rate revenue. The planned rate increases are 3.9% in both FY 2024 and FY 2025, each planned to be effective on July 1 of the fiscal year.

3.5.3 Unit Costs of Service

Another key outcome of a fully unbundled cost of service study is breaking down the unbundled costs into unit costs of service. By dividing the unbundled costs by the applicable billing units the allocation was based on (\$/kWh, \$/kW, or \$/bill), FPB will gain a better understanding of the underlying components that are built up into a bundled rate design. Much like the cost of service results in general, the unit costs of service are used as a guideline for appropriate rate design, not a direct application.

The following tables present the unit costs of service for FPB in two ways. Table 3-9 shows the units cost by classification (energy, demand, or customer). Unit costs by classification are the truest, cost-based rate design, if each class was billed only energy related costs in energy charges, full demand costs in demand charges, and all customer related costs in fixed monthly charges. Table 3-10 presents the unit costs by function (power supply, transmission, distribution, and customer) with sub-classifications.

Table 3-9: Unit Costs of Service by Classification

Units Costs Of Service		Total System	R	tesidential	General Service	La	irge Power	Large Industrial HLF		(Gratis/Elec Dept		Municipal Rates	Lig	hting Rates
Test Year Billing Units															
Customer Bills		274,329		202,606	49,657		2,683		155		1		2,530		16,697
Energy Sales (kWh)	6	52,292,339	2	12,937,428	76,098,716	1	.53,819,892	1	69,319,400		13,449,400		22,630,035		4,037,468
Billed Demand (kW)		784,800		,,	.,,		434,920		349,880		13,443,400		,,		, ,
Unit Costs of Service by Classification															
Total Energy Costs															
Total Cost	\$	21,214,574	\$	6,925,387	\$ 2,474,967	\$	5,002,701	\$	5,506,793	\$	437,416	\$	735,999	\$	131,311
\$/kWh	\$	0.0325	\$	0.0325	\$ 0.0325	\$	0.0325	\$	0.0325	\$	0.0325	\$	0.0325	\$	0.0325
Total Demand Costs															
Total Cost	\$	36,639,091	\$	14,510,160	\$ 4,658,604	\$	8,391,607	\$	6,637,023	\$	852,470	\$	1,434,371	\$	154,856
\$/kW	\$	160.95		n/a	n/a	\$	19.29	\$	18.97		n/a		n/a		n/a
\$/kWh	\$	0.0562	\$	0.0681	\$ 0.0612	\$	0.0546	\$	0.0392	\$	0.0634	\$	0.0634	\$	0.0384
Total Customers Costs															
Total Cost	\$	5,715,631	\$	3,633,679	\$ 1,335,875	\$	481,188	\$	27,799	\$	18	\$	45,375	\$	191,698
Monthly Cost Per Consumer	\$	20.83	\$	17.93	\$ 26.90	\$	179.35	\$	179.35	\$	17.93	\$	17.93	\$	11.48
Test Year Revenue Requirements		63,569,296		25,069,225	8,469,446		13,875,496		12,171,615		1,289,904		2,215,745		477,865

Table 3-10: Unit Costs of Service by Function

Units Costs Of Service	Total			General		_		Large	(Gratis/Elec	Municipal		
T . V . B.W U .	System	K	Residential	Service	Lâ	arge Power	Inc	dustrial HLF		Dept	Rates	Ligh	nting Rates
Test Year Billing Units	Π												
Customer Bills Energy Sales (kWh)	274,329 652,292,339	2	202,606 212,937,428	49,657 76,098,716	1	2,683 153,819,892	1	155 .69,319,400		1 13,449,400	2,530 22,630,035		16,697 4,037,468
Billed Demand (kW)	784,800					434,920		349,880					
Unit Costs of Service by Function													
Power Supply													
Power Supply - Energy													
Total Cost	\$ 21,214,574	\$	6,925,387	\$ 2,474,967	\$	5,002,701	\$	5,506,793	\$	437,416	\$ 735,999	\$	131,311
\$/kWh	\$ 0.0325	\$	0.0325	\$ 0.0325	\$	0.0325	\$	0.0325	\$	0.0325	\$ 0.0325	\$	0.0325
Power Supply - Demand													
Total Cost	\$ 16,554,028	\$	6,360,193	\$ 2,066,345	\$	3,828,684	\$	3,160,858	\$	401,718	\$ 675,933	\$	60,297
\$/kWh	\$ 0.0254	\$	0.0299	\$ 0.0272	\$	0.0249	\$	0.0187	\$	0.0299	\$ 0.0299	\$	0.0149
\$/kW	\$ 21.09	\$	-	\$ -	\$	8.80	\$	9.03	\$	-	\$ -	\$	-
Transmission - Demand													
Total Cost	\$ 9,342,545	\$	3,589,482	\$ 1,166,177	\$	2,160,782	\$	1,783,884	\$	226,716	\$ 381,474	\$	34,030
\$/kWh	\$ 0.0143	\$	0.0169	\$ 0.0153	\$	0.0140	\$	0.0105	\$	0.0169	\$ 0.0169	\$	0.0084
\$/kW	\$ 0.44	\$	-	\$ -	\$	4.97	\$	5.10	\$	-	\$ -	\$	-
Distribution													
Distribution - Demand													
Total Cost	\$ 10,742,518	\$	4,560,485	\$ 1,426,082	\$	2,402,140	\$	1,692,281	\$	224,036	\$ 376,964	\$	60,529
\$/kWh	\$ 0.0165	\$	0.0214	\$ 0.0187	\$	0.0156	\$	0.0100	\$	0.0167	\$ 0.0167	\$	0.0150
\$/kW	13.69		0.00	0.00		5.52		4.84		0.00	0.00		0.00
Distribution - Lighting													
Total Cost	\$ 131,807	\$	-	\$ -	\$	-	\$	-	\$	-	\$ -	\$	131,807
Monthly Cost Per Consumer	\$ 0.48	\$	-	\$ -	\$	-	\$	-	\$	-	\$ -	\$	7.89
\$/kWh	\$ 0.0002	\$	-	\$ -	\$	-	\$	-	\$	-	\$ -	\$	0.0326
Distribution - Customer													
Total Cost	\$ 4,002,822	\$	2,604,840	\$ 957,636	\$	344,945	\$	19,928	\$	13	\$ 32,527	\$	42,934
Monthly Cost Per Consumer	\$ 14.59	\$	12.86	\$ 19.29	\$	128.57	\$	128.57	\$	12.86	\$ 12.86	\$	2.57
\$/kWh	\$ 0.0061	\$	0.0122	\$ 0.0126	\$	0.0022	\$	0.0001	\$	0.0000	\$ 0.0014	\$	0.0106
Customer Service													
Customer Service													
Total Cost	\$ 1,581,002	\$	1,028,838	\$,	\$	136,243		7,871	\$	5	\$ 12,847	\$	16,958
Monthly Cost Per Consumer	\$ 5.76	\$	5.08	\$ 7.62		50.78	\$	50.78	\$	5.08	\$	\$	1.02
\$/kWh	\$ 0.0024	\$	0.0048	\$ 0.0050	\$	0.0009	\$	0.0000	\$	0.0000	\$ 0.0006	\$	0.0042
Test Year Revenue Requirement	\$ 63,569,296	\$	25,069,225	\$ 8,469,446	\$	13,875,496	\$	12,171,615	\$	1,289,904	\$ 2,215,745	\$	477,865

4.0 RATE DESIGN

A number of rate design principles or objectives find broad acceptance in regulatory and policy literature. These include:

- 1) Efficiency
- 2) Cost of Service
- 3) Value of Service
- 4) Stability
- 5) Non-Discrimination
- 6) Administrative Simplicity
- 7) Balanced Budget

These rate design principles draw heavily on the "Attributes of a Sound Rate Structure" developed by James Bonbright in Principles of Public Utility Rates. Each of these principles plays an important role in analyzing the rate proposals developed in this section. To understand the role these principles play, the following discusses each of the principles.

The principle of efficiency broadly incorporates both economic and technical efficiency. As such, this principle has both a pricing dimension and an engineering dimension. Economically efficient pricing promotes good decision-making by electric producers and consumers, fosters efficient expansion of production and delivery capacity, results in efficient capital investment in customer facilities and facilitates the efficient use of existing electric supply and delivery resources. The efficiency principle benefits stakeholders by creating outcomes for regulation consistent with the long-run benefits of competition while permitting the economies of scale consistent with the best cost of service. Technical efficiency means that the development of the system is designed and constructed to meet the peak load requirements of customers using the most economic equipment and technology to deliver low cost energy. Efficiency recognizes that load diversity increases as the facilities move further away from the customer.

The principles of cost of service and value of service each relate to designing rates that recover the total revenue requirement without causing inefficient choices by consumers. The cost of service principle contrasts with the value of service principle when certain transactions do not occur at price levels determined by embedded cost of service. In essence, the value of service acts as a ceiling on prices. Where prices are set at levels higher than the value of service, consumers will not purchase the service.

The calculation of a "true" cost of service is complicated by the fact that for network industries like the electric industry, the provision of public utility service often involves joint and common costs which must be allocated (rather than directly assigned) to specific customer classes or rate schedules to develop a full cost of service study. While a good fully distributed cost of service analysis can be performed using principles of cost causation, informed judgment is nonetheless required to perform such a study. A fully distributed cost of service study, properly reflecting cost causation principles and employing sound methods, provides a reasonable tool for the allocation of the total revenue requirement to customer classes (interclass distribution) and within the customer classes (intraclass distribution).

The principle of stability typically applies to customer rates. This principle suggests that reasonably stable and predictable prices are important objectives of a proper rate design. This principle also means avoiding unreasonable changes in bills resulting from redesigning rates.

The concept of non-discrimination requires prices designed to promote fairness and avoid undue discrimination. Fairness requires no undue subsidization either between customers in the same class or across different classes of customers. This principle recognizes that the ratemaking process requires discrimination where there are factors at work that cause the discrimination to be useful in accomplishing other objectives. For example, things like the location, type of meter and service, demand characteristics, size, and a variety of other considerations are often recognized in the design of utility rates to properly distribute the total cost of service to and within customer classes.

The principle of administrative simplicity as it relates to rate design requires prices reasonably simple to administer and understand. This concept includes price transparency within the constraints of the ratemaking process. Prices are transparent when customers are able to reasonably calculate and predict bill levels and interpret details about the charges resulting from the application of the tariff.

Finally, there is the critical principle that rate design permits the utility a reasonable opportunity to recover the approved revenue requirement based on the cost of service. This is the principle of a balanced budget. Proper design of utility rates is a necessary condition to enable an effective opportunity to recover the cost of providing service included in the revenue authorized by the regulatory authority. This principle is similar to the stability objective previously discussed from the perspective of customer rates.

At times these principles, like most principles that have broad application, can compete with each other. This competition or tension requires further judgment to strike the right balance between the principles. Detailed evaluation of rate design alternatives and rate design recommendations must recognize the potential and actual competition between these principles. Indeed, Bonbright discusses this tension in detail. Rate design recommendations must deal effectively with such tension. For example, as noted above, there are tensions between cost and value of service principles.

The conflict between good price signals based on marginal cost and a balanced budget or revenue recovery principle arises because marginal cost is below average cost due to economies of scale. Where fixed delivery service costs do not vary with kilowatt-hours sold, marginal costs for delivery equal zero. Marginal customer costs equal the additional cost of providing the entire delivery service to the customer. Marginal cost tends to be either above or below average cost in both the short run and the long run. This means that marginal cost-based pricing will produce either too much or too little revenue to support the revenue requirement. This suggests that efficient price signals may require a multi-part tariff designed to meet the revenue requirements while sending marginal cost price signals related to consumption decisions. Properly designed, a multi-part tariff may include elements such as customer charges, facilities demand charges, demand charges, consumption charges and the potential for revenue credits. For residential and small general service customers, the combination of a customer charge and seasonally differentiated kilowatt-hour charges are

sufficient elements of the multi-part rate. For larger customers, a combination of these elements permits good price signals and revenue recovery; however, the tariff design becomes more difficult to structure and likely will no longer meet the requirements of simplicity. Therefore, sacrificing some economic efficiency for a customer class in order to maintain simplicity represents a reasonable compromise. For larger customers, the added complexity of a demand charge is not a concern.

There are potential conflicts between simplicity and non-discrimination and between value of service and non-discrimination. Other potential conflicts arise where companies face unique circumstances that must be considered as part of the rate design process.

The process of developing rates within the context of these principles and conflicts requires a detailed understanding of all the factors that impact rate design. These factors include:

- 1) System cost characteristics such as the embedded customer, demand, and energy related costs by type of service.
- 2) Customer load characteristics such as peak demand, load factor, seasonality of loads, and quality of service.
- 3) Market considerations such as elasticity of demand, competitive fuel prices and enduse load characteristics.
- 4) Other considerations such as the value of service ceiling/marginal cost floor, unique customer requirements, areas of under-utilized facilities, opportunities to offer new services and the status of competitive market development.

In addition, the development of rates must consider existing rates and the customer impact of modification to the rates.

In each case, a rate design seeks to recover the authorized level of revenue based on the actual billing determinants occurring during the test period used to develop the rates. Critical to the rate making process is the requirement that the rates based on the test year provide an opportunity for the utility to recover its approved costs in the "rate effective period," which is typically the first twelve months after the new rates take effect.

4.2 Target Class Revenue Adjustments

The rate design process begins with a review of the class cost of service results. For classes with indicated increases larger than the system average, a larger percentage increase has been proposed. For classes recovering more than the allocated cost of service or are near their cost of service, a lower increase has been proposed. In each case the proposed increase is a target, and the actual increase will be slightly different. The process of rounding and truncating rate elements always causes slight deviations from target revenue. As long as these differences are small it is reasonable to consider them immaterial.

Using the results of the cost-of-service study as a guideline, Table 4-1 presents the recommended class adjustments for each rate class for FY 2024 and FY 2025. The COS study indicates that the Residential, Gratis, Municipal, and Lighting rate classes are under recovering their allocated costs, with Residential being the class that is furthest from cost of service. The

Large Power and Large Industrial classes are both over-recovering their respective cost to serve.

As discussed in Section 3.5.1, cost of service results are used as a guideline to make directions changes to improve equitable cost recovery and are not to be used to adjust rates to fully match cost of service result in a single year. It is a generally accepted practice to limit the impact of any single rate class to a range above or below the system average increase. For FPB, considering the magnitude of the overall increase and the relative range of cost of service results, we recommend not class receive more than 150% of the system average increase of 3.9%. For the Residential and Lighting classes, this results in a 5.85% increase for FY 2024 and FY 2025.

The Municipal and Gratis classes, should they remain in effect, we recommend an above the system average increase of 5.0% in FY 2024 and FY 2025. For commercial and industrial classes, we recommend General Service receive the system average increase of 3.9% both fiscal years and the Large Power and Large Industrial classes receive below the system average by an amount to fully recover the remaining target revenue, which is 2.16% in FY 2024 and 2.01% in FY 2025. In addition, the newly proposed General Service Demand class is recommended a 2.50% increase in FY 2025.

Target Rate A	Adjustments	
Class	2024	2025
Residential	5.85%	5.85%
General Service	3.90%	3.90%
General Service Demand	n/a	2.50%
Large Power	2.16%	2.01%
Large Industrial HLF	2.16%	2.01%
Gratis/Elec Dept	5.00%	5.00%
Municipal Rates	5.00%	5.00%
Lighting Rates	5.85%	5.85%
System Average	3.90%	3.90%

Table 4-1: Target Class Revenue Adjustments

As the table illustrates, the increases are designed to move the various rate classes toward cost of service over time while avoiding disruptively large increases relative to the 3.90% increases in FY 2024 and FY 2025.

4.3 Recommended Changes to Rate Class Structure

In addition to updating existing rate components to meet the target revenue for each existing rate class, 1898 & Co. is making additional recommendations related to our 2022 Rate Design Services project and the resulting recommendations documented in the Project Memorandum dated February 14, 2022. Three of the recommendations from the study are presented in this section to become effective July 1, 2023. These changes include:

- 1. Creation of a new General Service Demand (GSD) class for customers with a peak demand between 50 and 500 kW to bridge the gap between the existing General Service and Large Power classes.
- 2. Eliminate the Gratis and Municipal classes and charge these customers based on the applicable rate class they would otherwise qualify for. Should the board decide not to move forward with this recommendation, we recommended at a minimum the creation of a Municipal Demand rate class that would apply to both Gratis and Municipal classes with a demand of greater than 50 kW.
- 3. Restructure the Large Industrial HLF class to have a higher demand charge and lower energy charge than the Large Power class.

The recommendation to create the GSD class is intended to limit the rate impacts of a customer that is borderline between the GS and LP classes (around 50 kW). The proposed GSD class has a more moderate demand charge and an energy charge that is between the existing GS and LP classes.

The recommendation to eliminate the Municipal and Gratis classes is more of an issue of fairness and equity among customer classes. An excerpt from the 2022 Rate Design memo expands on this:

When evaluating the appropriateness of providing free or discounted service to internal users, it is important to consider the overall financial model that FPB operates under. That is, FPB is a not-for-profit enterprise and once the revenue requirement is determined as to what total revenue should be recovered in rates, any discounts provided to one group of customers must be recovered through higher charges to other customer classes, all else equal. The fact is there is not a cost-based justification to charge lower rates to municipal customers. That being said, it is not inherently wrong to do so as a policy decision. As long as the rate is priced above the marginal cost of service and a contribution is being made to fixed cost recovery, a rate is deemed non-discriminatory.

While it is not uncommon for municipal utilities that operate as enterprise funds to charge lower rates to themselves, it is less common in IOU's and electric cooperative utilities.

4.4 Recommended Rate Design

In practice, rates must be redesigned to recover the target revenues during the rate effective period. The design or rates includes not only the determination of the rate elements but also various rate provisions. Recommended changes to the include the following common themes:

- Increasing the Customer Charge more than other charges based on the unit cost of customer-related costs for each rate class. This fits with proper ratemaking principles by increasing the recovery of fixed costs through fixed charges.
- After adjusting towards a cost based Customer charge, the next focus is to increase Demand Chares more than Energy Charges again with an intention of improving the alignment of cost recovery with cost causation.

Table 4-2: Rate Component Descriptions

Typical Bill Components	Description
Customer Charge	Provides for a recovery of costs incurred in providing service to customers. Represents a portion of the cost of system access and customer service including the cost of meter reading, bill calculation, postage and the expenses associated with the basic plant investment at each service location, such as meters, transformers, service lines, etc.
Demand Charge	Applied to a customer's billing demand expressed in Kilowatts (kW). Primarily for recovery of production and transmission costs, but also a portion of distribution costs.
Energy Charge	Applied to the amount of energy used by a customer, expressed in Kilowatt-hours (kWh). Recovers variable costs plus fixed costs not recovered in demand or customer charges.

4.4.1 Residential Class

The results of the cost of service analysis indicate that the residential rate class is currently under-recovering and would require a 19.4% increase to match cost of service. To address this shortfall, we recommend implementing a 5.85% rate increase for FY 2024 and FY 2025, which includes a shift in the weighting of revenues towards the customer charge. This will involve increasing the monthly customer charge by \$4.05 in FY 2024, and \$2.50 in FY 2025. The energy charge is increased to recover the remaining target revenue. A comparison of the current and proposed rates is shown below.

Table 4-3: Residential Rate Design

Rate Class:	Residential (Rate 10)									
	Present	Recommended Rate								
Description	Rate		FY 2024		FY 2025					
Residential (Rate 10) Customer Charge (\$/bill)	\$ 11.45	\$	15.50	\$	18.00					
Energy Charge (\$/kWh)	\$ 0.09400	\$	0.09629	\$	0.10041					

Our recommendation to increase the Customer Charge for all customer classes is based on the need to recover fixed customer and distribution costs from customers in a manner that accurately reflects their usage of utility services. The Residential class, in particular, requires attention as more customers are transitioning to partial requirements customers with onsite self-generation, such as photovoltaic (PV) solar. To effectively recover costs, we generally recommend that utilities set their residential customer charges at or near the unit cost of service for customer-related expenses. For FPB, this cost basis would be \$17.93 per month in Test Year 2024. As FPB's current charge is below the cost basis, we suggest an increase of \$4.05 for FY2024, bringing the FPB Residential Basic Monthly Charge to \$15.50.

The impact of the proposed rate changes on a typical customer's bill can be seen in Table 4-4.

Typical Customer Bills Under Existing and Recommended Rates												
		Existing	Recommended 2024 Rate									
Rate Class	Energy	Bill	Bill	Change								
	kWh	\$	\$	\$								
	Monthly											
Residential (Rate 10)	600	\$67.85	\$73.27	\$5.42								
Residential (Rate 10)	800	\$86.65	\$92.53	\$5.88								
Residential (Rate 10)	1,000	\$105.45	\$111.79	\$6.34								
Residential (Rate 10)	1,500	\$152.45	\$159.94	\$7.49								
Residential (Rate 10)	2,000	\$199.45	\$208.08	\$8.63								

Table 4-4: Residential Typical Bill Analysis

4.4.2 Addition of a New Rate Class

One of the core recommendations in this study is the creation of a new General Service Demand rate class. While this is a simple task conceptually, it is more complicated to understand the impact on individual customers and determine who stays in the existing class or moves to a new class. 1898 & Co. evaluated monthly customer billing data for each of the current GS and LP classes to determine the projected billing units for each rate class for the purposes of rate design. Customer were assigned to classes based on the following parameters:

- Peak demand < 50 kW stays in General Service class
- Peak demand >= 50 kW but < 500 kW moves to new GSD class
- Peak demand > 500 kW stays in Large Power class

The following sections present the rate design recommendation for the new rate classes.

4.4.3 General Service

Based on the cost of service analysis, the General Service (GS) class indicates the need for an 8.9% increase, which is near the system average. In response, we are proposing a system average increase of 3.90% in FY 2024 and FY 2025. Our recommendation is to increase the Customer Charge to \$24.00 per month in 2024 and \$27.00 in 2025, resulting in a \$5.50 increase in FY2024 and a \$3.00 increase in FY2025. We do not recommend any energy charge increase in FY2024, as this approach assists in closing the fixed cost of service gap with minimal impact on customer bills. However, in FY 2025 we recommend a \$0.0021 increase in the energy charge to meet the class target revenue. We have included the recommended rate increase for the class in Table 4-5, and Table 4-6 demonstrates how the proposed change will affect typical customers in FY2024.

Table 4-5: General Service Rate Design

Rate Class:	General Service (Rate 15 and 18)								
	Present	Recommended Rate							
Description	Rate		FY 2024	FY 2025					
General Service (Rate 15 and 18) Customer Charge (\$/bill)	\$ 18.50	\$	24.00	\$	27.00				
Energy Charge (\$/kWh)	\$ 0.09665	\$	0.09665	\$	0.09879				

Table 4-6: General Service Typical Bill Analysis

Typical Customer Bills Under Existing and Recommended Rates											
		Existing	Recommended 2024 Rates								
Rate Class	Energy	Bill	Bill	Change							
	kWh	\$	\$	\$							
	Monthly										
General Service (Rate 15 and 18)	1,000	\$115.15	\$120.65	\$5.50							
General Service (Rate 15 and 18)	2,000	\$211.80	\$217.30	\$5.50							
General Service (Rate 15 and 18)	4,000	\$405.10	\$410.60	\$5.50							
General Service (Rate 15 and 18)	7,500	\$743.38	\$748.88	\$5.50							
General Service (Rate 15 and 18)	10,000	\$985.00	\$990.50	\$5.50							

4.4.4 General Service Demand

The creation of the General Service Demand (GSD) class will result in a division between the GS and Large Power (LP) classes. The recommended threshold requirement to qualify for the General Service Demand classification will be set between 50 and 500 kW. As a consequence, there will be an alteration in the threshold requirement for the Large Power class, which will now require a demand exceeding 500 kW.

The rate design for the GSD class reflects a lower demand charge than the LP class and an energy charge that is between the GS and LP classes. This should make the transition for a smaller customer to a demand class less impactful.

Table 4-7 shows the FYs 2024 and 2025 recommended customer, demand, and energy charge for the class. We propose a 2.50% rate increase in FY 2025, resulting in a \$5 increase in the customer charge, a \$0.25 increase in the demand charge and a \$0.0016 increase in the energy charge. Table 4-8 shows how the proposed class will impact typical customer bills compared to current customer rate structure in FY2024. Note there is an additional column in this table to clarify whether comparison to the existing GS or LP rates. For customers with on a rate with a demand charge, the typical bill impact will vary based on the load factor of the customer.

Table 4-7: General Service Demand Rate Design

Rate Class:	General Service Demand								
	Present	Recommended Rate							
Description	Rate		FY 2024		FY 2025				
General Service Demand Customer Charge (\$/bill)	n/a	\$	75.00	\$	80.00				
Demand Charge (\$ kW)	n/a	\$	7.50	\$	7.75				
Energy Charge (\$/kWh)	n/a	\$	0.07403	\$	0.07560				

Table 4-8: General Service Demand Typical Bill Analysis

Typical Customer Bills Under Existing and Recommended Rates											
Typical	Customer Bi	lls Under Exi	sting and R	Recommended	Rates						
		Billed Bill Existing Recommended 20									
Rate Class	Energy	Demand	Comp	Bill	Bill	Change					
	kWh	kW		\$	\$	\$					
		Mon	thly								
General Service Demand	15,000	50	GS	\$1,468.25	\$1,560.45	\$92.20					
General Service Demand	20,000	50	GS	\$1,951.50	\$1,930.60	(\$20.90)					
General Service Demand	45,000	150	LP	\$4,536.75	\$4,531.35	(\$5.40)					
General Service Demand	60,000	150	LP	\$5,418.00	\$5,641.80	\$223.80					
General Service Demand	90,000	300	LP	\$8,998.50	\$8,987.70	(\$10.80)					
General Service Demand	120,000	300	LP	\$10,761.00	\$11,208.60	\$447.60					
General Service Demand	150,000	500	LP	\$14,947.50	\$14,929.50	(\$18.00)					
General Service Demand	200,000	500	LP	\$17,885.00	\$18,631.00	\$746.00					

4.4.5 Large Power

The Large Power (LP) class cost of service indicates a rate decrease of 0.3%. As a result, a proposal has been put forth to impose a lower than average rate increase of 2.16% in FY 2024 and 2.01% in FY 2025. As shown in Table 4-9, we recommend is to increasing the customer charge to \$150.00 per month in 2024 and \$175.00 in FY 2025. Additionally, we recommend an increase in the demand charge to \$12.75 in FY 2024 and \$13.25 in FY 2025. We do not recommend any energy charge increase in FY2024. However, a slight increase of \$0.0005 in FY 2025 is proposed. The rate increases result in an overall targeted rate change of 2.16% in FY 2024, this rate design strategy aids in closing the fixed cost of service gap with minimal impact on customer bills. Table 4-10 shows how the proposed change will impact typical customers in FY2024.

Table 4-9: Large Power Rate Design

Rate Class:	Large Power (Rate 20)											
		Present		Recomme	commended Rate							
Description	Rate			FY 2024		FY 2025						
<u>Large Power (Rate 20)</u> Customer Charge (\$/bill)	\$	75.00	\$	150.00	\$	175.00						
Demand Charge (\$ kW)	\$	12.12	\$	12.75	\$	13.25						
Energy Charge (\$/kWh)	\$	0.05875	\$	0.05875	\$	0.05920						

Table 4-10: Large Power Typical Bill Analysis

Typical Custo	mer Bills Und	der Existing a	and Recomme	ended Rates	
		Billed	Existing	Recommende	d 2024 Rates
Rate Class	Energy	Demand	Bill	Bill	Change
	kWh	kW	\$	\$	\$
		Monthly			
Large Power (Rate 20)	150,000	500	\$14,948	\$15,338	\$390
Large Power (Rate 20)	200,000	500	\$17,885	\$18,275	\$390
Large Power (Rate 20)	225,000	750	\$22,384	\$22,931	\$548
Large Power (Rate 20)	300,000	750	\$26,790	\$27,338	\$548
Large Power (Rate 20)	300,000	1,000	\$29,820	\$30,525	\$705
Large Power (Rate 20)	375,000	1,000	\$34,226	\$34,931	\$705
Large Power (Rate 20)	400,000	1,500	\$41,755	\$42 <i>,</i> 775	\$1,020
Large Power (Rate 20)	550,000	1,500	\$50,568	\$51,588	\$1,020

4.4.6 Large Power High Load Factor

The Large Industrial High Load Factor (LI HLF) class cost of service indicates a rate decrease of 4.9%. We recommend a lower than average rate increase of 2.16% in FY 2024 and 2.01% in FY 2025. As recommended in the 2022 Rate Design memo, we recommend restructuring the relationship between the Demand and Energy charges. Currently, the LI HLF charges are simply lower than the equivalent LP rate. While this does result in a lower bill for higher load factor customers, it does not change the benefit as load factor improves. By restructuring with a higher demand charge and a lower energy charge, the average all-in rate paid by LI HLF customers will decrease as load factor increases, which is appropriate as these customer load profiles generally benefit the whole system. The recommended rates are shown in Table 4-11

Table 4-12 shows how the proposed changes will impact customers at various usage and load factors levels in FY2024.

Table 4-11: Large Industrial HLF Rate Design

Rate Class:	Large	Industrial HLF (Rate 21)							
	Present		Recomme	nded Rate					
Description	Rate		FY 2024		FY 2025				
Large Industrial HLF (Rate 21) Customer Charge (\$/bill)	\$ 225.00	\$	250.00	\$	260.00				
Demand Charge (\$/kW)	\$ 11.83	\$	17.00	\$	17.50				
Energy Charge (\$/kWh)	\$ 0.05310	\$	0.04408	\$	0.04464				

Table 4-12: Large Industrial HLF Typical Bill Analysis

Typical Custo	omer Bills Un	der Existing a	mand Bill Change kW \$ \$ 1,000 \$37,278 \$38,188 \$911 1,000 \$41,260 \$41,494 \$234 2,000 \$71,675 \$73,922 \$2,247 2,000 \$82,295 \$82,738 \$443 4,000 \$153,745 \$156,410 \$2,665 4,000 \$164,365 \$165,226 \$861		
		Billed	Existing	Recommende	d 2024 Rates
Rate Class	Energy	Demand	Bill	Bill	Change
	kWh	kW	\$	\$	\$
		Monthly			
Large Industrial HLF (Rate 21)	475,000	1,000	\$37,278	\$38,188	\$911
Large Industrial HLF (Rate 21)	550,000	1,000	\$41,260	\$41,494	\$234
Large Industrial HLF (Rate 21)	900,000	2,000	\$71,675	\$73,922	\$2,247
Large Industrial HLF (Rate 21)	1,100,000	2,000	\$82,295	\$82,738	\$443
Large Industrial HLF (Rate 21)	2,000,000	4,000	\$153,745	\$156,410	\$2,665
Large Industrial HLF (Rate 21)	2,200,000	4,000	\$164,365	\$165,226	\$861
Large Industrial HLF (Rate 21)	3,000,000	6,000	\$230,505	\$234,490	\$3,985
Large Industrial HLF (Rate 21)	3,300,000	6,000	\$246,435	\$247,714	\$1,279

4.4.7 Municipal and Gratis Electric/Water Department Rates

Consistent with the recommendations from the 2022 Rate Design report, 1898 & Co. recommends the elimination of rate class for interdepartmental usage (Gratis) and rate class for Municipal facilities.

Should the Board decide to continue with the Gratis and Municipal rate classes, we recommend application of the rates presented in this section, which included the creation of a Municipal/Gratis Demand rate. There is less of a concern for under-recovery of costs when cost recovery for customers with peak demands greater than 50 kW are charged based on both peak demand (kW) and energy usage (kWh). This is especially important if electric vehicle (EV) chargers are on Municipal rates as they tend to severely under-recover costs on an energy-only rate design.

The rates presented in Table 4-13 would be applicable to both the Municipal and Gratis rate classes. The Demand rate is based on the new GSD rate class with a 5% discount to the Demand and Energy charges.

Table 4-13: Municipal and Gratis Rate Design

Rate Class:	Municipal Rates (Rate 2 and 19) Gratis/Elec Dept (Rate 17 and 3)												
		Present		Recomme	nde	d Rate							
Description		Rate		FY 2024		FY 2025							
Municipal Rates (Rate 2 and 19) Gratis/Elec Dept (Rate 17 and 3) Customer Charge (\$/bill)	\$	18.50	\$	21.50	\$	22.00							
Energy Charge (\$/kWh)	\$	0.08950	\$	0.09383	\$	0.09856							
Municipal/Gratis Demand Rate Customer Charge (\$/bill)		n/a	\$	21.50	\$	22.00							
Demand Charge (\$/kW)		n/a	\$	7.13	\$	7.36							
Energy Charge (\$/kWh)		n/a	\$	0.07033	\$	0.07182							

4.4.8 Lighting Rates

The cost-of-service results indicate the need for a rate increase of 20.3% for the Lighting classes. As such, we have recommended the maximum 5.85% increase for each rate component for FY 2024 and FY 2025. The recommended rate design for Street/Signal Lights, Security Lights, and Area Lights are presented in detail in Table 4-14, Table 4-15, and Table 4-16, respectively.

Table 4-14: Street/Signal Lights Rate Design

Rate Class:	Street/Signal Lights (Rate 1)									
		Present		Recomme	commended Rate					
Description		Rate		FY 2024		FY 2025				
Street/Signal Lights (Rate 1)										
Customer Charge (\$/bill)	\$	18.50	\$	19.58	\$	20.73				
Energy Charge (\$/kWh)	\$	0.09364	\$	0.09912	\$	0.10492				

Table 4-15: Security Lights Rate Design

Rate Class:	Security Lights											
		Present		Recomme	nded Rate							
Description		Rate		FY 2024		FY 2025						
Security Lights												
91 Watt LED-Sec Light	\$	13.06	\$	13.82	\$	14.63						
100 Watt Light (HPS)	\$	9.40	\$	9.95	\$	10.53						
129 Watt Light (LED)	\$	13.06	\$	13.82	\$	14.63						
175 Watt Light (HPS)	\$	11.28	\$	11.94	\$	12.64						
250 Watt Light (HPS)	\$	13.06	\$	13.82	\$	14.63						
400 Watt Light (HPS)	\$	14.54	\$	15.39	\$	16.29						

Table 4-16: Area Lights Rate Design

Rate Class:		1	Area Lighting			
	Present		Recomme	nde	d Rate	
Description	Rate		FY 2024	FY 2025		
Area Lighting						
53 Watt LED-Sec Light	\$ 9.40	\$	9.95	\$	10.53	
141 Watt LED Directional Fixture	\$ 14.21	\$	15.04	\$	15.92	
250 Watt (MH) - Direction Fixture Only	\$ 10.08	\$	10.67	\$	11.29	
250 Watt MH with 35' Metal Pole	\$ 15.15	\$	16.04	\$	16.98	
250 Watt MH with 35' Wood Pole	\$ 12.29	\$	13.01	\$	13.77	
320 Watt Directional Fixture	\$ 14.21	\$	15.04	\$	15.92	
320 Watt MH with 35' Metal Pole	\$ 19.27	\$	20.40	\$	21.59	
320 Watt MH with 35' Wood Pole	\$ 16.43	\$	17.39	\$	18.41	
371 Watt LED Directional Fixture	\$ 9.40	\$	9.95	\$	10.53	
400 Watt (HPS) Direction Fixture Only	\$ 14.21	\$	15.04	\$	15.92	
400 Watt Directional Fixture MH	\$ 14.21	\$	15.04	\$	15.92	
400 Watt HPS with 35' Metal Pole	\$ 19.27	\$	20.40	\$	21.59	
400 Watt HPS with 35' Wood Pole	\$ 16.43	\$	17.39	\$	18.41	
400 Watt MH with 35' Metal Pole	\$ 19.27	\$	20.40	\$	21.59	
400 Watt MH with 35' Wood Pole	\$ 16.43	\$	17.39	\$	18.41	
1000 Watt (MH) Direction Fixture Only	\$ 29.15	\$	30.86	\$	32.67	
1000 Watt MH with 35' Metal Pole	\$ 34.20	\$	36.20	\$	38.32	
1000 Watt MH with 35' Wood Pole	\$ 31.38	\$	33.22	\$	35.16	
1000 Watt MH with 45' Metal Pole	\$ 38.79	\$	41.06	\$	43.46	

4.5 Summary of FY 2024 Rate Design

Table 4-17 presents the summary of revenue generated by the proposed rates for FY 2024 and Table 4-17 presents the summary for FY 2025. While some classes may be slightly above or below the target revenue increase percentage due to rounding the table demonstrates that the aggregate changes to rate design produce an overall revenue increase of 3.90% both years.

Table 4-17: FY 2024 Rate Design Summary

Description	2024 Revenue er 2023 Rates	Revenues Under Proposed Rates		enue Change	Revenue % Change
Rate Design Summary					
Residential	\$ 22,335,957	\$ 23,644,138	\$	1,308,181	5.86%
General Service	\$ 6,836,189	\$ 7,102,788	\$	266,599	3.90%
General Service Demand	\$ 10,642,523	\$ 10,897,320	\$	254,797	2.39%
Large Power	\$ 5,304,258	\$ 5,418,893	\$	114,635	2.16%
Large Industrial HLF	\$ 13,164,816	\$ 13,450,309	\$	285,494	2.17%
Gratis/Elec Dept	\$ 1,203,721	\$ 1,261,957	\$	58,236	4.84%
Municipal Rates	\$ 2,072,193	\$ 2,177,771	\$	105,578	5.09%
Lighting Rates	\$ 454,729	\$ 481,319	\$	26,589	5.85%
Total	\$ 62,014,386	\$ 64,434,495	\$	2,420,109	3.90%

Table 4-18: FY 2025 Rate Design Summary

Description	25 Revenues der 2024 Rates	Revenues Under Proposed Rates		venue Change	Revenue % Change
Rate Design Summary					
Residential	\$ 23,644,138	\$ 25,027,955	\$	1,383,817	5.85%
General Service	\$ 7,102,788	\$ 7,379,715	\$	276,927	3.90%
General Service Demand	\$ 10,897,320	\$ 11,170,373	\$	273,053	2.51%
Large Power	\$ 5,418,893	\$ 5,528,360	\$	109,467	2.02%
Large Industrial HLF	\$ 13,450,309	\$ 13,721,618	\$	271,309	2.02%
Gratis/Elec Dept	\$ 1,261,957	\$ 1,325,613	\$	63,656	5.04%
Municipal Rates	\$ 2,177,771	\$ 2,286,144	\$	108,373	4.98%
Lighting Rates	\$ 481,319	\$ 509,475	\$	28,156	5.85%
Total	\$ 64,434,495	\$ 66,949,253	\$	2,514,758	3.90%

Note that the proposed revenues do not include the impact of the potential elimination of the Municipal or Gratis classes, nor the impact of a Municipal Demand rate, as the billing determinants were unavailable.



Unbundled Revenue Requirement Detail (Page 1 of 2)

			Adjusted Test									
Description	Test Year	Adjustment	Year	Powers	Supply	Transmission		Distribution		Custon	ner	
	2024		2024	Energy	Demand	Demand	Demand	Customer	Lighting	Customer	Revenue	Allocator
				POWER-ENG	POWER-DEM	TRANS-DEM	DIST-DEM	DIST-CUST	DIST-LIGHTS	CUST	REV	
ower Supply												
KW GENERATION DEMAND	\$ 16,554,028		\$ 16,554,028			\$ -			•	\$ - \$		PS-Demand
KW TRANSMISSION DEMAND	\$ 8,935,717		,,	T		\$ 8,935,717				\$ - \$		Transmission
COST PER KWH PURCHASED	\$ 24,817,360	\$ -	\$ 24,817,360	\$ 24,817,360			\$ -			\$ - \$		PS-Energy
SEPA POWER ADJUSTMENT	\$ (3,602,786)	\$ -	\$ (3,602,786)	\$ (3,602,786)		Υ	\$ -					PS-Energy
	\$ 46,704,318	\$ -	\$ 46,704,318	\$ 21,214,574	\$ 16,554,028	\$ 8,935,717	\$ -	\$ -	\$ -	\$ - \$	-	
perations and Maintenance												
HEALTH INSURANCE - FIELD	\$ 432,068	¢ .	\$ 432,068	s -	\$ -	\$ -	\$ 324.002	\$ 107,057	\$ 1,009	\$ - \$		TD Labor
LIFE INSURANCE - FIELD	\$ 11,011	Š.	\$ 11,011	11.5		\$ -				\$ - 5		TD Labor
PENSION EXPENSE - FIELD	\$ 879,068	ė -	II '	ll '	\$ -					\$ - 5		TD Labor
SOCIAL SECURITY EXP - FIELD	\$ 248,571	ė .	\$ 248,571	ll '	Š -			, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	\$ - 5		TD Labor
UNEMPLOYMENT INSURANCE -FIELD	\$ 6,308	ė -	\$ 6,308	II :	\$ -					\$ - \$		TD Labor
UNIFORMS - FIELD	\$ 58,500	ζ -	\$ 58,500	II :	\$ - \$ -		\$ 43,868			\$ - \$		TD Labor
WORKER'S COMP - FIELD		\$ - \$ -	II '	II 1	\$ - \$ -					\$ - \$		TD Labor
ELECT TRANS EXPENSE	\$ 20,264	۔ ۔	\$ 20,264	II 3	\$ - \$ -		\$ 15,196			\$ - \$		Transmission
ELECT TRAINS EXPENSE ELECT DIST STATION EQUIPMENT	\$ 10,000	۔ ۔	\$ 10,000	II :	\$ - \$ -			•	*	\$ - \$		Dist-Dem
ELECT DIST STATION EQUIPMENT	\$ 548,272		\$ 548,272	II :			\$ 548,272			\$ - 5		Dist-Dem
ELECT DIST STATION EQ PATROLL	\$ 1,072,500			II 1	\$ - \$ -				Ÿ	\$ - \$		Min Systen
LECT DIST OVERHEAD LINES				11.5								
	, , , , , , , ,			~		\$ -			τ			Min Systen
ELECT DIST UNDERGROUND LINES	\$ 61,235 \$ 498,295		\$ 61,235	T	\$ -		, , , , , , ,			\$ - \$		Min Systen
ELECT DIST UNDERGROUND PAYROLL	, , , , , , ,	\$ -	\$ 498,295	*	T	7	\$ 348,807			\$ - \$		Min Syster
ELECT DIST STREET LIGHTS & SIG	\$ 40,489	\$ -	II '	\$ -						\$ - \$		Lighting
LECT DIST PAYROLL OT	\$ 267,083	Ş -	\$ 267,083	T	\$ -					\$ - \$		Dist Plant
ELECT DIST SECURITY LIGHTS	\$ 19,338	\$ -	\$ 19,338	II :	\$ -				,	\$ - \$		Lighting
Electric Labor Charged to Capital	\$ (713,253) \$ 5,485,744	\$ -	\$ (713,253) \$ 5.485.744	7	т	т	\$ (534,860) \$ 4,027,366			\$ - \$		TD Labor
tal Operations and Maintenance	\$ 5,485,744	\$ -	\$ 5,485,744	\$ -	, -	\$ 10,000	\$ 4,027,366	\$ 1,378,766	\$ 69,612	\$ - \$, -	
eneral and Admin Expenses												
ENGINEERING EXPENSE ACCOUNT	\$ 5,000	\$ -		\$ -	\$ -	\$ 633						TD Plant
ENGINEERING PAYROLL	\$ 475,390	\$ -	\$ 475,390	T	\$ -	\$ -			-,	\$ - \$	-	TD Labor
lealth Insurance - Eng	\$ 67,511	\$ -	\$ 67,511	T	\$ -	\$ -			\$ 158	\$ - \$	-	TD Labor
ife Insurance - Eng	\$ 1,775	\$ -	\$ 1,775	T	\$ -	\$ -	\$ 1,331			\$ - \$	-	TD Labor
Pension Expense - Eng	T ==-,,=	\$ -	\$ 127,442	\$ -	\$ -	\$ -	\$ 95,567	\$ 31,577	\$ 297	\$ - \$	-	TD Labor
ocial Security - Eng	\$ 36,367	\$ -	\$ 36,367	\$ -	\$ -	\$ -	\$ 27,271	\$ 9,011	\$ 85	\$ - \$	-	TD Labor
Jnemployment - Eng	\$ 927	\$ -	\$ 927	\$ -	\$ -	\$ -	\$ 695	\$ 230	\$ 2	\$ - \$	-	TD Labor
NGINEERING WORKERS COMP	\$ 3,104	\$ -	\$ 3,104	\$ -	\$ -	\$ -	\$ 2,327	\$ 769	\$ 7	\$ - \$	-	TD Labor
OFFICE SUPPLIES EXPENSE	\$ 1,500	\$ -	\$ 1,500	\$ -	\$ -	\$ -	\$ 962	\$ 318	\$ 3	\$ 218 \$	-	Total Payro
OFTWARE SERVICES	\$ 17,500	\$ -	\$ 17,500	\$ -	\$ -	\$ -	\$ 11,218	\$ 3,707	\$ 35	\$ 2,540 \$	-	Total Payro
PUBLISHING EXPENSE	\$ 1,000	\$ -	\$ 1,000	\$ -	\$ -	\$ -	\$ 641	\$ 212	\$ 2	\$ 145 \$	-	Total Payro
DUES AND SUBSCRIPTIONS	\$ 43,550	\$ -	\$ 43,550	\$ -	\$ -	\$ -	\$ 27,918	\$ 9,225	\$ 87	\$ 6,320 \$	-	Total Payro
CELL PHONE EXPENSE	\$ 15,000	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 9,616	\$ 3,177	\$ 30	\$ 2,177	-	Total Payro
ADMINISTRATIVE PAYROLL	\$ 328,221	\$ -	\$ 328,221	\$ -	\$ -	\$ -	\$ 210,408	\$ 69,523	\$ 655	\$ 47,635	-	Total Payro
SAFETY EXPENSE	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ 38,463	\$ 12,709	\$ 120	\$ 8,708 \$	-	Total Payro
RAVEL AND TRAINING EXPENSE	\$ 58,600		\$ 58,600	\$ -	, \$ -	\$ -	1		\$ 117		-	Total Payro
NERGY EFFICIENCY & ASSISTANCE	\$ 90,000	\$ -	\$ 90,000	s -	\$ -	\$ -			\$ 180	\$ 13,062		Total Payro
SOCIAL SECURITY EXPENSE	\$ 25,109	s -	\$ 25,109	II T	Š -					\$ 3,644		Total Payro
OTHER CONSULTING FEES	\$ 100,000	s -	\$ 100,000	ll '			\$ 64,106			\$ 14,513		Total Payro
OTHER LEGAL AND ACCOUNTING	\$ 60,000	š -	\$ 60,000	ll '	Š -	7				\$ 8,708 \$		Total Payro
JNEMPLOYMENT INSURANCE	\$ 626	š -	\$ 626	ll '	\$ -					\$ 91 5		Total Payro
EMPLOYEE INSURANCE	\$ 40,506	Š .		ll '	\$ -					\$ 5,879		Total Payro
				11.5	*							
EMPLOYEE LIFE INSURANCE	\$ 1,215	-	\$ 1,215	\$ -	,	\$ -	\$ 779	\$ 257	\$ 2	\$ 176 \$	-	Total Payro

Unbundled Revenue Requirement Detail (Page 2 of 2)

			Adjusted Test									
Description	Test Year	Adjustment	Year	Power Su	ipply	Transmission		Distribution		Custo	mer	
	2024		2024	Energy	Demand	Demand	Demand	Customer	Lighting	Customer	Revenue	Allocator
				POWER-ENG	POWER-DEM	TRANS-DEM	DIST-DEM	DIST-CUST	DIST-LIGHTS	CUST	REV	
Workers Comp - Admin	\$ 1,196	II '	\$ 1,196									Total Payroll
EMPLOYEE ACTIVITY EXPENSE	\$ 400	\$ -	\$ 400	\$ - \$		•		\$ 85	\$ 1 5		\$ -	Total Payroll
UNIFORM EXPENSE	\$ -	\$ -	\$ -	\$ - \$	-	•		•	\$ - 5		\$ -	Total Payroll
COMPANY CONTRIBUTION TO EMP PE	\$ 86,031	\$ -	\$ 86,031	\$ - \$	-	\$ -	\$ 55,150	\$ 18,223	\$ 172 5	12,486	\$ -	Total Payroll
OTHER CO PAID PENSION EXPENSES	\$ -	\$ -	\$ -	\$ - \$	-	\$ -	\$ -	\$ -	\$ - 5	; -	\$ -	Total Payroll
CERS Pension Expense	\$ 724,817	\$ -	\$ 724,817	\$ - \$	-	\$ -	\$ 464,648	\$ 153,529	\$ 1,446 \$	105,193	\$ -	Total Payroll
FPB Marketing	\$ 5,000	\$ -	\$ 5,000	\$ - \$	-	\$ -	\$ 3,205	\$ 1,059	\$ 10 5	726	\$ -	Total Payroll
REPAIR & MAINTENANCE EXPENSE	\$ 26,925	\$ -	\$ 26,925	\$ - \$	-	\$ 3,411	\$ 15,749	\$ 5,908	\$ 403 5	1,453	\$ -	TD Plant
MAINTENANCE SMALL TOOLS/SUPP	\$ 35,000	s -	\$ 35,000	s - s	-	\$ -	\$ 22,437	\$ 7,414	\$ 70 9	5,080	\$ -	Total Payroll
UTILITIES	\$ 28,500	II '	\$ 28,500	\$ - \$	-						\$ -	TPIS
DEPRECIATION EXPENSE	\$ 2,395,724		11 ' 1	\$ - \$					\$ 35,893	,	\$ -	TPIS
FREIGHT & OTHER ADJ.	\$ 500			\$ - \$	-							TPIS
AUTO & TRUCK REPAIR EXPENSE	\$ 16,896		\$ 16,896	š - š	-			\$ 3,708			\$ -	TPIS
AUTO & TRUCK GAS & OIL	\$ 150,500	ė -	\$ 150,500	s - s					\$ 2.255		\$ -	TPIS
General and Admin Expenses	1,	\$ -	\$ 5,031,831	\$ - \$		\$ 332,432		\$ 1,111,440		-, -		IPIS
deneral and Admin Expenses	\$ 5,051,651	, -	3 3,031,631	, - ,		3 332,432	\$ 3,133,330	3 1,111,440	\$ 44,500	3 307,003	•	
CORDODATE ALLOCATION												
CORPORATE ALLOCATION	4 204 446	_	4 254 445				6 072 742	ć 200.272		407.504		T
General	\$ 1,361,416	II '	\$ 1,361,416									Total Payroll
Administration	' ' '	\$ -	\$ 1,324,711	\$ - \$	-	•			\$ 2,644			Total Payroll
BOD	7	Ş -	\$ 56,202	\$ - \$		•			\$ 112 \$			Total Payroll
Customer Service	\$ 822,678			\$ - \$	-							Customer Svc
Finance	\$ 438,598	II '		\$ - \$	-	•			\$ 875		\$ -	Total Payroll
Fleet Services	\$ 271,413	\$ -	\$ 271,413	\$ - \$	-	\$ -	\$ 173,991	\$ 57,490	\$ 542 5	39,390	\$ -	Total Payroll
Human Resources	\$ 142,259	\$ -	\$ 142,259	\$ - \$	-	\$ -	\$ 91,196	\$ 30,133	\$ 284 5	20,646	\$ -	Total Payroll
Information Technologies	\$ 564,712	\$ -	\$ 564,712	\$ - \$	-	\$ -	\$ 362,012	\$ 119,616	\$ 1,127 5	81,957	\$ -	Total Payroll
Meter Reading	\$ 325,340	\$ -	\$ 325,340	\$ - \$	-	\$ -	\$ -	\$ 325,340	\$ - 5	-	\$ -	Dist-Cust
Safety	\$ 80,721	\$ -	\$ 80,721	\$ - \$	-	\$ -	\$ 51,747	\$ 17,098	\$ 161 5	11,715	\$ -	Total Payroll
Support Services	\$ 881,042	\$ -	\$ 881,042	\$ - \$	-	\$ -	\$ 564,797	\$ 186,621	\$ 1,758 5	127,866	\$ -	Total Payroll
Network Operations Center	\$ 513,310	\$ -	\$ 513,310	\$ - \$				\$ 112,638			\$ -	TD Plant
Total CORPORATE ALLOCATION	\$ 6,782,402	\$ -	\$ 6,782,402	\$ - \$	-			\$ 1,522,714				
		'					,,			, ,,		
Gross Revenue Requirement	\$ 17,299,977	\$ -	\$ 64,004,296	\$ 21,214,574 \$	16,554,028	\$ 9,343,178	\$ 10,766,442	\$ 4,012,920	\$ 131,882	1,981,272	\$ -	
O&M Expense Ratio				33.1%	25.9%	14.6%	16.8%	6.3%	0.2%	3.1%	0.0%	6
Other Revenue												
INTERCO INT INC-KIA	\$ (49,026)	\$ 49,026	\$ -	\$ - \$	-	\$ -	\$ -	\$ -	\$ - 5	; -	\$ -	TPIS
INTERCO INT INC-ADMIN BLDG	\$ (79,593)	\$ 79,593	s -	s - s	-	\$ -	\$ -	\$ -	\$ - 9	-	\$ -	TPIS
INTERCO INT INC-RESERVOIR	\$ (76,218)			\$ - \$	-	\$ -	\$ -	\$ -	\$ - 5	-	\$ -	TPIS
INTERCO INT INC-AMI	\$ (29,444)			š - š	-				Š - 5		š -	TPIS
INTERCO INT INC-NEXTBAND	\$ (96,894)			s - s	-			T	\$ - 5		\$ -	TPIS
SALES OF MATERIAL	\$ (5,000)		\$ (5,000)	7	_							TPIS
MISCELLANEOUS INCOME	\$ (5,000)		\$ (175,000)		-	,			\$ (75)	, ,		-
	+ (=:=/===/				-	•		•		,,		Customer Svc
CAPITAL CONTRIBUTIONS	\$ (232,500)			٧ ٢		•		•			\$ -	TPIS
ELECTRIC COLLECTION CHARGES	\$ (225,000)	, -	\$ (225,000)						\$ - 5	,		Customer Svc
MISCELLANEOUS ELECTRIC POLE RE	\$ (30,000)	> -	\$ (30,000)	\$ - \$			\$ (21,000)				\$ -	Min System
Total Other Revenue	(998,674)	\$ 563,674	\$ (435,000)	\$ - \$	-	\$ (633)	\$ (23,925)	\$ (10,097)	\$ (75)	(400,270)	\$ -	1
Net Revenue Requirement	\$ 16,301,304	\$ 563,674	\$ 63,569,296	\$ 21,214,574 \$	16,554,028	\$ 9,342,545	\$ 10,742,518	\$ 4,002,822	\$ 131,807	1,581,002	\$ -	

Class Cost Allocation

		Total System	Residential		eneral ervice	Large Power	Large Industrial HLF	C	Gratis/Elec Dept	Municipal Rates	Ligi	hting Rates	Allocation Code
		oystem.	nesiaenna		er vice	Edige Fower	in a de la contraction de la c		Берг	naces	- 8	irenig naces	7 modulion code
UMMARY BY FUNCTI	ION												
ower Supply													
POWER-ENG		\$ 21,214,574	\$ 6,925,387		2,474,967	\$ 5,002,701	\$ 5,506,793		437,416	\$ 735,999	\$		A. Total Energy
POWER-DEM		\$ 16,554,028	\$ 6,360,193		2,066,345	\$ 3,828,684	\$ 3,160,858	\$	401,718	\$ 675,933	\$		B. Coincident Peak
TRANS-DEM Total		\$ 8,935,717 \$ 46,704,318	\$ 3,433,175 \$ 16,718,755		1,115,395	\$ 2,066,689 \$ 10,898,074	\$ 1,706,203 \$ 10,373,854	\$	1,055,978	\$ 364,862 \$ 1,776,794	\$	32,548 224,156	B. Coincident Peak
Total		\$ 40,704,318	\$ 10,/18,/55	ت د	5,050,707	\$ 10,898,074	\$ 10,373,834	Ş	1,055,978	\$ 1,776,794	Ş	224,150	
perations and Main													
POWER-ENG		\$ -	\$ -		-	\$ -	\$ -	- T	-	\$ -	\$		A. Total Energy
POWER-DEM		\$ -	\$ -	- 7	-	\$ -	\$ -	\$	-	\$ -	\$		B. Coincident Peak
TRANS-DEM		\$ 10,000	\$ 3,842		1,248	\$ 2,313	\$ 1,909	\$	243	\$ 408	\$		B. Coincident Peak
DIST-DEM		\$ 4,027,366	\$ 1,709,724	\$	534,638	\$ 900,562	\$ 634,436	\$	83,991	\$ 141,324	\$		E. NCP-Secondary
DIST-CUST		\$ 1,378,766	\$ 897,233	\$	329,856	\$ 118,816	\$ 6,864	\$	4	\$ 11,204	\$	14,788	G. Weighted Customer
DIST-LIGHTS		\$ 69,612	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	69,612	I. Lighting
CUST		\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	G. Weighted Customer
REV		\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	H. Revenue
Total		\$ 5,485,744	\$ 2,610,799	\$	865,742	\$ 1,021,690	\$ 643,209	\$	84,238	\$ 152,936	\$	107,129	
ieneral and Admin Ex	xpenses												
POWER-ENG		\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$		A. Total Energy
POWER-DEM		\$ -	s -		-	\$ -	\$ -	-	-	\$ -	\$		B. Coincident Peak
TRANS-DEM		\$ 332,432	\$ 127,723		41,496		\$ 63,475	\$	8,067	\$ 13,574	\$		B. Coincident Peak
DIST-DEM				-									
		\$ 3,155,936	\$ 1,339,779	\$	418,954	\$ 705,701		\$	65,817	\$ 110,744	\$		E. NCP-Secondary
DIST-CUST		\$ 1,111,440	\$ 723,271	\$	265,901	\$ 95,779	\$ 5,533	\$	4	\$ 9,032	\$		G. Weighted Customer
DIST-LIGHTS		\$ 44,360	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$		I. Lighting
CUST		\$ 387,663	\$ 252,272	\$	92,745	\$ 33,407	\$ 1,930	\$	1	\$ 3,150	\$	4,158	G. Weighted Customer
REV		\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	H. Revenue
Total		\$ 5,031,831	\$ 2,443,045	\$	819,096	\$ 911,773	\$ 568,097	\$	73,889	\$ 136,500	\$	79,432	
ORPORATE ALLOCATI	ION												
POWER-ENG		\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	A. Total Energy
POWER-DEM		\$ -	Ś -	\$	-	\$ -	\$ -	Ś	-	\$ -	\$		B. Coincident Peak
TRANS-DEM		\$ 65,030	\$ 24,985	-	8,117	\$ 15,040	\$ 12,417	-	1,578	\$ 2,655	\$	237	B. Coincident Peak
DIST-DEM		\$ 3,583,140	\$ 1,521,138	\$	475,666	\$ 801,228	\$ 564,456	\$	74,727	\$ 125,735	\$		E. NCP-Secondary
DIST-CUST		\$ 1,522,714	\$ 990,907	\$		\$ 131,220	\$ 7,581	\$	5	\$ 12,374	\$		G. Weighted Customer
DIST-LIGHTS					304,234	\$ 131,220		\$	-	\$ 12,574			
		\$ 17,910	\$ -	\$			\$ -	_			\$		I. Lighting
CUST		\$ 1,593,609	\$ 1,037,042		381,255				5	\$ 12,950			G. Weighted Customer
Total		\$ - \$ 6,782,402	\$ 3,574,073	\$ \$ 1	1,229,333	\$ - \$ 1,084,818	\$ - \$ 592,388	\$	76,315	\$ - \$ 153,714	\$	71,761	H. Revenue
ross Revenue Requi	irement	\$ 64,004,296	\$ 25,346,672	\$ 8	3,570,877	\$ 13,916,355	\$ 12,177,548	Ş	1,290,420	\$ 2,219,945	\$	482,479	
ess Other Revenue So	ources:												
ther Revenue						•							
POWER-ENG		\$ -	\$ -	Y	-	\$ -	\$ -	Ψ.	-	\$ -	\$	-	A. Total Energy
POWER-DEM		\$ -	\$ -	- 7	-	\$ -	\$ -	\$	-	\$ -	\$	-	B. Coincident Peak
TRANS-DEM		\$ (633)	\$ (243		(79)				(15)				B. Coincident Peak
DIST-DEM		\$ (23,925)	\$ (10,157		(3,176)	,			(499)				E. NCP-Secondary
DIST-CUST		\$ (10,097)	\$ (6,571	\$	(2,416)	\$ (870)	\$ (50)	\$	(0)	\$ (82)	\$	(108)	G. Weighted Customer
DIST-LIGHTS		\$ (75)	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	(75)	I. Lighting
CUST		\$ (400,270)							(1)				G. Weighted Customer
		\$ -		\$	-			\$			\$		H. Revenue
REV		\$ (435,000)	\$ (277,447	\$	(101,431)	\$ (40,860)	\$ (5,933)	\$	(516)	\$ (4,200)	\$	(4,614)	
REV Total							*	-					
REV Total	ement	\$ 63,569,296 \$	\$ 25,069,225	\$ 8	3,469,446	\$ 13,875,496	\$ 12,171,615	\$	1,289,904	\$ 2,215,745	\$	477,865	
REV Total et Revenue Require	ement	\$ -		\$ 8				\$					
REV Total Let Revenue Require est Year Cost of Serv	ement	\$ -	Res		GS	LP	LI HLF		Gratis	Muni		Lighting	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG	ement	Total \$ 21,214,574	Res \$ 6,925,387	\$ 2	GS 2,474,967	LP \$ 5,002,701	LI HLF \$ 5,506,793	\$	Gratis 437,416	Muni \$ 735,999	\$	Lighting 131,311	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM	ement	Total \$ 21,214,574 \$ 16,554,028	Res \$ 6,925,387 \$ 6,360,193	\$ 2 \$ 2	GS 2,474,967 2,066,345	LP \$ 5,002,701 \$ 3,828,684	\$ 5,506,793 \$ 3,160,858	\$	Gratis 437,416 401,718	Muni \$ 735,999 \$ 675,933	\$ \$	Lighting 131,311 60,297	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM TRANS-DEM	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482	\$ 2 \$ 2 \$ 1	GS 2,474,967 2,066,345 1,166,177	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782	\$ 5,506,793 \$ 3,160,858 \$ 1,783,884	\$ \$ \$	Gratis 437,416 401,718 226,716	Muni \$ 735,999 \$ 675,933 \$ 381,474	\$ \$ \$	Lighting 131,311 60,297 34,030	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM TRANS-DEM DIST-DEM	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545 \$ 10,742,518	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482 \$ 4,560,485	\$ 2 \$ 2 \$ 1 \$ 1	GS 2,474,967 2,066,345 1,166,177 1,426,082	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782 \$ 2,402,140	LI HLF \$ 5,506,793 \$ 3,160,858 \$ 1,783,884 \$ 1,692,281	\$ \$ \$ \$	Gratis 437,416 401,718 226,716 224,036	Muni \$ 735,999 \$ 675,933 \$ 381,474 \$ 376,964	\$ \$ \$ \$	Lighting 131,311 60,297 34,030 60,529	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM DIST-DEM DIST-DEM DIST-CUST	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545 \$ 10,742,518 \$ 4,002,822	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482 \$ 4,560,485 \$ 2,604,840	\$ 2 \$ 2 \$ 1 \$ 1	GS 2,474,967 2,066,345 1,166,177 1,426,082 957,636	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782 \$ 2,402,140 \$ 344,945	\$ 5,506,793 \$ 3,160,858 \$ 1,783,884 \$ 1,692,281 \$ 19,928	\$ \$ \$ \$ \$	Gratis 437,416 401,718 226,716 224,036 13	Muni \$ 735,999 \$ 675,933 \$ 381,474 \$ 376,964 \$ 32,527	\$ \$ \$ \$ \$	Lighting 131,311 60,297 34,030 60,529 42,934	
REV Total Let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM TRANS-DEM DIST-DEM DIST-CUST DIST-LIGHTS	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545 \$ 10,742,518 \$ 4,002,822 \$ 131,807	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482 \$ 4,560,485 \$ 2,604,840 \$	\$ 2 \$ 2 \$ 1 \$ 1 \$ 5	GS 2,474,967 2,066,345 1,166,177 1,426,082 957,636	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782 \$ 2,402,140 \$ 344,945 \$ -	LI HLF \$ 5,506,793 \$ 3,160,858 \$ 1,783,884 \$ 1,692,281 \$ 19,928 \$ -	\$ \$ \$ \$ \$ \$	Gratis 437,416 401,718 226,716 224,036 13	Muni \$ 735,999 \$ 675,933 \$ 381,474 \$ 376,964 \$ 32,527 \$ -	\$ \$ \$ \$ \$	Lighting 131,311 60,297 34,030 60,529 42,934 131,807	
REV Total let Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM TRANS-DEM DIST-DEM DIST-CUST DIST-UGHTS CUST	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545 \$ 10,742,518 \$ 4,002,822 \$ 131,807 \$ 1,581,002	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482 \$ 4,560,485 \$ 2,604,840 \$ - \$ 1,028,838	\$ 2 \$ 2 \$ 1 \$ 1 \$ 5	GS 2,474,967 2,066,345 1,166,177 1,426,082 957,636 - 378,239	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782 \$ 2,402,140 \$ 344,945 \$ - \$ 136,243	\$ 5,506,793 \$ 3,160,858 \$ 1,783,884 \$ 1,692,281 \$ 19,928 \$ - \$ 7,871	\$ \$ \$ \$ \$ \$	Gratis 437,416 401,718 226,716 224,036 13 - 5	Muni \$ 735,999 \$ 675,933 \$ 381,474 \$ 376,964 \$ 32,527 \$ - \$ 12,847	\$ \$ \$ \$ \$ \$	Lighting 131,311 60,297 34,030 60,529 42,934	
REV Total et Revenue Require est Year Cost of Serv POWER-ENG POWER-DEM TRANS-DEM DIST-DEM DIST-CUST DIST-LIGHTS	ement	Total \$ 21,214,574 \$ 16,554,028 \$ 9,342,545 \$ 10,742,518 \$ 4,002,822 \$ 131,807	Res \$ 6,925,387 \$ 6,360,193 \$ 3,589,482 \$ 4,560,485 \$ 2,604,840 \$ - \$ 1,028,838	\$ 2 \$ 2 \$ 1 \$ 1 \$ 5	GS 2,474,967 2,066,345 1,166,177 1,426,082 957,636	LP \$ 5,002,701 \$ 3,828,684 \$ 2,160,782 \$ 2,402,140 \$ 344,945 \$ - \$ 136,243	\$ 5,506,793 \$ 3,160,858 \$ 1,783,884 \$ 1,692,281 \$ 19,928 \$ - \$ 7,871	\$ \$ \$ \$ \$ \$	Gratis 437,416 401,718 226,716 224,036 13 - 5	Muni \$ 735,999 \$ 675,933 \$ 381,474 \$ 376,964 \$ 32,527 \$ - \$ 12,847	\$ \$ \$ \$ \$	Lighting 131,311 60,297 34,030 60,529 42,934 131,807	

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