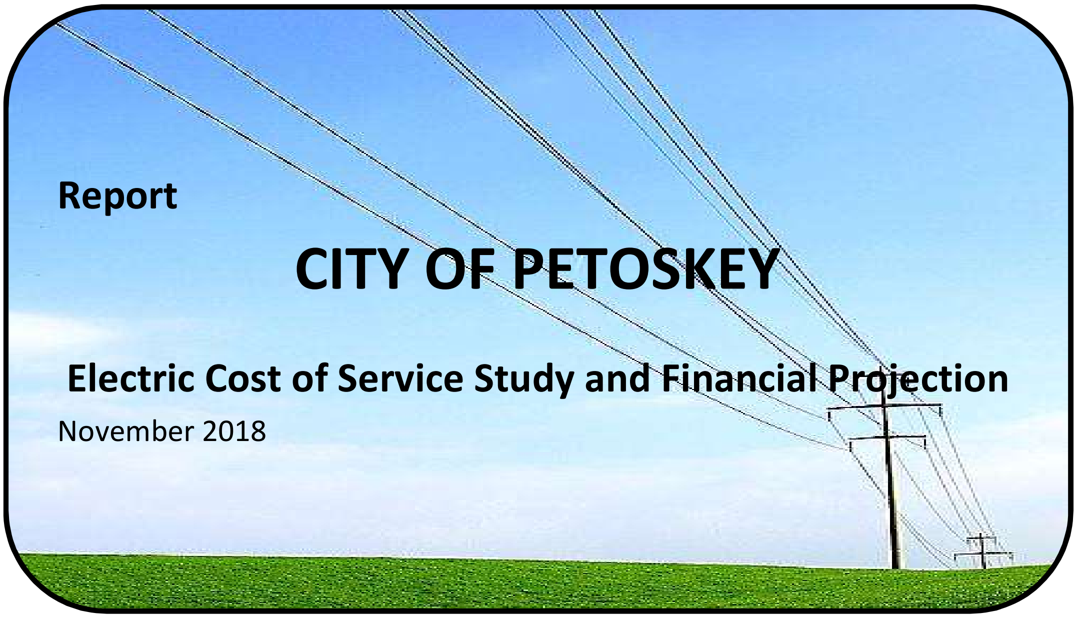

Report

CITY OF PETOSKEY

Electric Cost of Service Study and Financial Projection

November 2018

UFS
Utility Financial Solutions, LLC

Specializing in Cost of Service, Rate Design, and Financial Analysis

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Utility Financial Solutions, LLC

November 2018

Alan Terry
Director of Finance
City of Petoskey
101 East Lake Street
Petoskey, MI 49770

Dear Mr. Terry;

We are pleased to present the Report for the electric cost of service study and financial projection for the City of Petoskey (Petoskey). This report was prepared to provide the Petoskey with a comprehensive examination of its existing rate structure by an outside party.

The specific purposes of this rate study are:

- Determine electric utility's revenue requirements for fiscal year 2019
- Identify cross-subsidies that may exist between rate classes
- Recommend rate adjustments needed to meet targeted revenue requirements
- Identify the appropriate monthly customer charge for each customer class

This report includes results of the electric cost of service study and financial projection and recommendations on future rate designs.

This report is intended for information and use by the utility and management for the purposes stated above and is not intended to be used by anyone except the specified parties.

Sincerely,

Utility Financial Solutions, LLC
Mark Beauchamp
CPA, MBA, CMA
185 Sun Meadow Ct
Holland, MI 49424

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Utility Financial Solutions, LLC

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1. Introduction

This report was prepared to provide the City of Petoskey (Petoskey) with an electric cost of service study and financial projection and a comprehensive examination of its existing rate structure by an outside party. The specific purposes of the study are identified below:

1) **Determine electric utility's revenue requirements for fiscal year 2019.** Petoskey's revenue requirements were projected for the period from 2019 – 2023 and included adjustments for the following:
    a. Projected power costs
    b. Projected changes in staffing levels
    c. Capital improvement plan projected over next five years

2) ***Identify cross-subsidies that may exist between rate classes.*** Cross-subsidies exist when certain customer classes subsidize the electric costs of other customers. The rate study identifies if cross-subsidies exist and practical ways to reduce the subsidies. The cost of service study was completed using 2019 projected revenues and expenses. The financial projections are for the period from 2019 – 2023.

3) ***Recommend rate adjustments needed to meet targeted revenue requirements.*** The primary purpose of this study is to identify appropriate revenue requirements and the rate adjustments needed to meet targeted revenue requirements. The report includes a long-term rate track for Petoskey to help ensure the financial stability of the utility in future years.

4) ***Unbundled electric rates.*** The cost of providing electricity to customers consists of several components, including power generation, distribution, customer services, transmission, and transfers to the general fund. Electric unbundling identifies the cost of each component to assists the utility in preparing for electric restructuring and understanding its cost structure.

5) ***Identify the appropriate monthly customer charge for each customer class.*** The monthly customer charge consists of fixed costs to service customers that do not vary based on the amount of electricity used.

2. Cost of Service Summary

Utility Rate Process

Petoskey retained Utility Financial Solutions to review utility rates and cost of service and make recommendations on the appropriate course of action. This report includes results of the electric cost of service and unbundling study and recommendations on future rate designs.

Utility Revenue Requirements

To determine revenue requirements, the revenues and expenses for Fiscal Years 2016 and 2017, 2018/2019 budget were analyzed, with adjustments made to reflect projected operating characteristics. ***The projected financial statements are for cost of service purposes only.***

Table 1 is the projected financial statement for the Electric Department from 2019-2023. The 2019 rate of return calculation established an operating income target of $890k (See Table 5).

Operating income for 2019 is projected at $(178k) and decreases to $(130k) in 2023. Operating income is one target that helps to determine if rate adjustments are needed. The following pages review cash flow and debt coverage ratio which are also important indicators.

Table 1 – Financial Statements (without rate adjustments)

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Operating Revenues:					
Electric Sales					
Residential (RE)	$ 2,690,312	$ 2,712,530	$ 2,732,519	$ 2,750,231	$ 2,763,982
Residential (REM)	894	902	908	914	919
Commercial (COM)	2,979,463	3,004,070	3,026,207	3,045,823	3,061,052
School (SCH)	473,634	477,546	481,065	484,183	486,604
Traffic Lights (606, 801)	7,309	7,369	7,424	7,472	7,509
Yard Lighting (YL/OYL)	12,291	12,393	12,484	12,565	12,628
Street Lighting	46,200	46,582	46,925	47,229	47,465
Medium Secondary Power (MSPR)	824,783	831,595	837,723	843,153	847,369
Large Secondary Power (LSPR)	853,915	860,968	867,312	872,934	877,299
Large Primary Power (LPPR)	2,236,486	2,254,956	2,271,573	2,286,297	2,297,729
Energy Optimization Plan	139,332	140,483	141,518	142,435	143,147
Penalties	61,480	61,987	62,444	62,849	63,163
Other Rev	22,212	22,396	22,561	22,707	22,821
Project Jobbing	131,775	132,863	133,842	134,710	135,383
Public Works Buidling Rent	128,725	129,788	130,745	131,592	132,250
Additional PCA Revenues	-	130,831	206,892	198,204	434,284
Operating Revenue	$ 10,608,811	$ 10,827,258	$ 10,982,142	$ 11,043,298	$ 11,333,604
Total Operating Revenues	**$ 10,608,811**	**$ 10,827,258**	**$ 10,982,142**	**$ 11,043,298**	**$ 11,333,604**

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Operating Expenses:					
Purchases					
Purchased Power - MPPA	6,483,514	6,612,021	6,685,992	6,675,452	6,910,094
Total Power Supply Expense	$ 6,483,514	$ 6,612,021	$ 6,685,992	$ 6,675,452	$ 6,910,094
Transmission and Distribution					
T&D	18,553	$ 19,016	$ 19,492	$ 19,979	$ 20,478
Sys Maint	575,435	$ 589,821	$ 604,566	$ 619,681	$ 635,173
Total Distribution Expense	$ 593,988	$ 608,837	$ 624,058	$ 639,660	$ 655,651
Other Operating Expenses (Revenues)					
Depreciation Expense	1,190,289	1,212,289	1,307,109	1,461,809	1,561,369
Admin	1,613,520	$ 1,653,858	$ 1,695,204	$ 1,137,585	$ 1,166,024
Pub Works	235,853	241,749	247,793	253,987	260,337
Community	29,828	30,573	31,338	32,121	32,924
Jobbing Cost	67,138	68,816	70,536	72,300	74,107
Contribution to General Fund	226,667	232,334	238,142	244,095	250,198
Contrib. to General Streets	346,400	355,060	363,937	373,035	382,361
Total Other Operating Expenses	$ 3,709,694	$ 3,794,679	$ 3,954,059	$ 3,574,932	$ 3,727,321
Total Operating Expenses	$ 10,787,196	$ 11,015,537	$ 11,264,108	$ 10,890,044	$ 11,293,065
Operating Income	$ (178,384)	$ (188,279)	$ (281,967)	$ 153,254	$ 40,538

(178,384.07)

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Nonoperating Revenues					
Interest Income	40,420	44,217	44,647	49,927	36,968
Other NOR	19,475	19,962	20,461	20,972	21,497
Interest on Debt	-	-	-	(175,440)	(170,134)
Contribution Repayment	387,568	97,851	97,851	97,851	97,851
Non Operating Income/Expense	**$ 447,463**	**$ 162,030**	**$ 162,959**	**$ (6,690)**	**$ (13,819)**
Net Income	**$ 269,079**	**$ (26,249)**	**$ (119,008)**	**$ 146,564**	**$ 26,719**
Adjusted Operating Income	**$ (178,384)**	**$ (188,279)**	**$ (281,967)**	**$ (22,186)**	**$ (129,596)**

Projected Cash Flow

Table 2 is the projected cash flow for 2019-2023, including projections of capital improvements as provided by the Petoskey. Changes in the capital improvement plan can greatly affect the cash balance and recommended minimum cash reserve target. The cash balance for 2019 is projected at $8.8M and $8M in 2023. The recommended minimum cash reserve level for 2019 is $6.5M and $6.75M for 2023.

Table 2 – Projected Cash Flows (without rate adjustments)

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Projected Cash Flows					
Net Income	$ 269,079	$ (26,249)	$ (119,008)	$ 146,564	$ 26,719
Depreciation Expense/Amortization	1,190,289	1,212,289	1,307,109	1,461,809	1,561,369
Subtract Debt Principal	-	-	-	(106,115)	(111,421)
Add Bond Sale Proceeds	-	-	3,508,800	-	-
Cash Available from Operations	$ 1,459,368	$ 1,186,040	$ 4,696,901	$ 1,502,258	$ 1,476,668
Estimated Annual Capital Additions	700,000	1,100,000	3,641,000	4,094,000	884,000
Net Cash From Operations	$ 759,368	$ 86,040	$ 1,055,901	$ (2,591,742)	$ 592,668
Beginning Cash Balance	$ 8,084,025	$ 8,843,394	$ 8,929,434	$ 9,985,335	$ 7,393,593
Ending Cash Balance	$ 8,843,394	$ 8,929,434	$ 9,985,335	$ 7,393,593	$ 7,986,261
Total Cash Available	**$ 8,843,394**	**$ 8,929,434**	**$ 9,985,335**	**$ 7,393,593**	**$ 7,986,261**
Recommended Minimum	**$ 6,456,574**	**$ 6,820,963**	**$ 7,145,912**	**$ 6,894,206**	**$ 6,743,906**

Cash balances are strong. The infrastructure in total is approximately 50% depreciated compared with the national average of 50%.

Minimum Cash Reserve

Table 3 details the minimum level of cash reserves required to help ensure timely replacement of assets and to provide financial stability of the utility. The methodology used to establish this target is based on an assessment of working capital needs to fund operating expenses, capital improvements, annual debt service payments and utilities exposure to risks related to catastrophic events, exposure to market risks, changes in fuel costs, loss of major customers and utilities ability to timely recover changes in power supply expenses. Based on these assumptions, Petoskey should maintain a minimum of $6.5M in cash reserves for 2019 and $6.75M in 2023.

Table 3 – Minimum Cash Reserves (without rate adjustments)

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Minimum Cash Reserve Allocation					
Operation & Maintenance Less Depreciation Expense	25.0%	25.0%	25.0%	25.0%	25.0%
Purchase Power Expense	25.0%	25.0%	25.0%	25.0%	25.0%
Historical Rate Base	1%	2%	2%	1%	2%
Current Portion of Debt Service Payment	83%	83%	83%	83%	83%
Rate Stabilization Power Supply Risk	15%	15%	15%	15%	15%
Five Year Capital Improvements - Net of bond proceeds	20%	20%	20%	20%	20%
% Plant Depreciated	50%	52%	50%	49%	52%
Calculated Minimum Cash Level					
Operation & Maintenance Less Depreciation Expense	$ 778,348	$ 797,807	$ 817,752	$ 688,196	$ 705,401
Purchase Power Expense	1,620,879	1,653,005	1,671,498	1,668,863	1,727,523
Historical Rate Base	286,604	595,208	668,028	374,954	767,588
Current Portion of Debt Service Reserve	-	-	233,691	233,691	233,691
Rate Stabilization Power Supply Risk	2,388,703	2,388,703	2,388,703	2,388,703	2,388,703
Five Year Capital Improvements - Net of bond proceeds	1,382,040	1,386,240	1,366,240	1,539,800	921,000
Minimum Cash Reserve Levels	**$ 6,456,574**	**$ 6,820,963**	**$ 7,145,912**	**$ 6,894,206**	**$ 6,743,906**
Projected Cash Reserves	**$ 8,843,394**	**$ 8,929,434**	**$ 9,985,335**	**$ 7,393,593**	**$ 7,986,261**

Projected cash balances are above the recommended minimums for the projection period.

Debt Coverage Ratio

Table 4 is the projected debt coverage ratios with capital additions as provided by Petoskey. The coverage required in bond ordinances is typically 1.15 – 1.20, however the minimum recommended debt coverage ratio is established at 1.35 – 1.40 for projection purposes a 0.20 premium to ordinance. Maintaining a higher debt coverage ratio is good business practice and helps to achieve the following:

- Helps to ensure adequate funds are available to meet debt service payments in years when sales are low due to temperature fluctuations.
- Obtain higher bond rating, if revenue bonds are sold in the future, to lower interest cost.

Included in the debt coverage calculation is a Fixed Cost Coverage ratio (FCC). The FCC is an assessment recently used by bond rating agencies in determination of bond ratings. The FCC calculation varies by rating agency and considers "take or pay" provisions of power supply contracts as debt service. For purposes of our estimate we consider 26% of the power supply costs as "take or pay", the percentage often used when direct "take or pay" is not clearly identified.

Table 4 – Projected Debt Coverage Ratios (without rate adjustments)

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Debt Coverage Ratio					
Net Income	$ 269,079	$ (26,249)	$ (119,008)	$ 146,564	$ 26,719
Add Depreciation/Amortization Expense	1,190,289	1,212,289	1,307,109	1,461,809	1,561,369
Add Interest Expense	-	-	-	175,440	170,134
Cash Generated from Operations	$ 1,459,368	$ 1,186,040	$ 1,188,101	$ 1,783,813	$ 1,758,223
Debt Principal and Interest	$ -	$ -	$ -	$ 281,555	$ 281,555
Projected Debt Coverage Ratio (Covenants)	**-**	**-**	**-**	**6.34**	**6.24**
Minimum Debt Coverage Ratio	**0**	**0**	**0**	**1.4**	**1.4**

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Fixed Cost Coverage Ratio					
Cash Available for Debt Service	$ 1,459,368	$ 1,186,040	$ 1,188,101	$ 1,783,813	$ 1,758,223
Off System Debt	1,685,714	1,719,125	1,738,358	1,735,617	1,796,624
Total Available	$ 3,145,082	$ 2,905,165	$ 2,926,459	$ 3,519,431	$ 3,554,847
Debt Service Including Off System Debt	$ 1,685,714	$ 1,719,125	$ 1,738,358	$ 2,017,173	$ 2,078,180
Fixed Costs Coverage Ratio	**1.87**	**1.69**	**1.68**	**1.74**	**1.71**
Minimum Fixed Costs Coverage Ratio	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

Debt coverage and fixed cost coverage are adequate for the projection period without changes in rates.

Rate of Return

The optimal target for setting rates is the establishment of a target operating income to help ensure the following:

A. Funding of interest expense on the outstanding principal on debt. Interest expense is below the operating income line and needs to be recouped through the operating income balance.
B. Funding of the inflationary increase on the assets invested in the system. The inflation on the replacement of assets invested in the utility should be recouped through the Operating Income.
C. Funding of depreciation expense.
D. Adequate rate of return on investment to help ensure current customers are paying their fair share of the use of the infrastructure and not deferring the charge to future generations.
E. The rate of return identifies the target operating income and is used to identify the appropriate funding for replacement of existing infrastructure to recover in rates charged to customers.

As improvements are made to the system, the optimal operating income target will increase unless annual depreciation expense is greater than yearly capital improvements. The revenue requirements for the study are set on the utility basis. Table 5 identifies the utility basis target established for 2019 is $890k and increases to $1.15M in 2023.

Table 5 – Rate of Return Calculation

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Target Operating Income Determinants					
Net Book Value/Working Capital	$ 14,330,721	$ 14,218,432	$ 16,552,322	$ 19,184,513	$ 18,507,143
Outstanding Principal on Debt	-	-	3,508,800	3,402,685	3,291,264
System Equity	$ 14,330,721	$ 14,218,432	$ 13,043,522	$ 15,781,828	$ 15,215,880
Debt:Equity Ratio	0%	0%	21%	18%	18%
Target Operating Income Allocation					
Interest on Debt	0.00%	0.00%	0.00%	5.16%	5.17%
System Equity	6.20%	6.49%	6.26%	6.06%	6.43%
Target Operating Income					
Interest on Debt	$ -	$ -	$ -	$ 175,440	$ 170,134
System Equity	$ 888,472	$ 922,572	$ 815,947	$ 956,194	$ 978,177
Target Operating Income	**$ 888,472**	**$ 922,572**	**$ 815,947**	**$ 1,131,634**	**$ 1,148,311**
Projected Operating Income	**$ (178,384)**	**$ (188,279)**	**$ (281,967)**	**$ (22,186)**	**$ (129,596)**
Rate of Return in %	**6.2%**	**6.5%**	**4.9%**	**5.9%**	**6.2%**

Current operating income is not projected to meet the target operating income for each year.

Recommended Rate Track

The study identifies increasing current revenues in 2019, and increase annually thereafter to maintain debt coverage ratios and minimum cash targets. Table 6 is a summary of the financial results detailing the recommended revenue adjustments required to meet target operating income.

Table 6 – Recommended Revenue Adjustments

Fiscal Year	Projected Rate Adjustments	Debt Coverage Ratio	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Projected Cash Balances	Recommended Minimum Cash
2019	2.3%	-	$ 10,787,196	$ 10,841,693	$ 54,498	$ 888,472	$ 9,076,275	$ 6,456,574
2020	1.0%	-	11,015,537	11,171,375	$ 155,838	922,572	$ 9,507,597	6,820,963
2021	1.0%	-	11,264,108	11,440,014	$ 175,905	815,947	$ 11,024,261	7,145,912
2022	1.0%	8.39	10,890,044	11,617,197	$ 551,713	1,131,634	$ 9,011,613	6,894,206
2023	1.0%	8.73	11,293,065	12,025,133	$ 561,934	1,148,311	$ 10,303,901	6,743,906

Debt to Equity Ratio

Debt to equity identifies the amount of existing infrastructure financed through debt and is used to determine the amount the system is leveraged in debt. For distribution system the debt to equity ratio is normally between 30% and 35% with an upper range of 50% and a lower range of 0%. Table 7 details the debt/equity ratio.

Table 7 – Debt/Equity Ration

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Target Operating Income Determinants					
Net Book Value/Working Capital	$ 14,330,721	$ 14,218,432	$ 16,552,322	$ 19,184,513	$ 18,507,143
Outstanding Principal on Debt	-	-	3,508,800	3,402,685	3,291,264
System Equity	$ 14,330,721	$ 14,218,432	$ 13,043,522	$ 15,781,828	$ 15,215,880
Debt:Equity Ratio	0%	0%	21%	18%	18%

Petoskey debt to equity ratio is within normal ranges and is below the average for similar utilities.

Age of Infrastructure

Petoskey is currently 50% depreciated compared with similar utilities around the nation. An average distribution only infrastructure is approximately 50% to 55% depreciated, indicating Petoskey has consistently funded replacement of infrastructure. Replacement of infrastructure tends to indicate the utilities ability to consistently provide a reliable system to customers, its ability to withstand catastrophic weather events and unexpected replacement of system infrastructure. Petoskey system age indicates it will remain in the lower to average ranges of infrastructure age. Table 8 identifies the depreciated plant.

Table 8 – Age of Infrastructure

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Asset Investments	37,605,052	39,405,032	40,113,064	40,806,662	43,254,370
NBV	$ 19,947,376	$ 20,503,708	$ 19,917,931	$ 19,289,688	$ 20,352,729
% Depreciated	47%	48%	50%	53%	53%

Cost of Service Summary Results

A cost of service study was completed to determine the cost of providing service to each class of customers and to assist in design of electric rates for customers. A cost of service study consists of the following general steps:

1) Determine utility revenue requirement for test year 2019
2) Classify utility expenses into common cost pools
3) Allocate costs to customer classes based on the classes' contribution to utility expenses
4) Compare revenues received from each class to the cost of service

The cost of service summary is included as Table 9 which compares the projected cost to serve each class with the revenue received from each class. The "% change" column is the revenue adjustment necessary to meet projected cost of service requirements. The cost of service summary uses the current rates including any adjustment factors.

No utility charges 100% cost of service-based rates because retail rates are based on customers usage patterns that are largely driven by variations in weather. Due to these variations it is recommended that rates move toward cost of service slowly with a general tolerance of a 10% variation between projected revenue and cost of service. The cost of service summary "% change" column indicates all major customer classes fall within this variation, except residential.

Table 9 – Cost of Service Summary

Customer Class	Cost of Service	Projected Revenues	% Change
Residential (RE)	$ 3,253,622	$ 2,690,312	20.9%
Residential (REM)	1,275	894	42.6%
Commercial (COM)	3,320,224	2,979,463	11.4%
School (SCH)	552,839	473,634	16.7%
Traffic Lights (606, 801)	6,542	7,309	-10.5%
Yard Lighting (YL/OYL)	13,749	12,291	11.9%
Street Lighting	71,903	46,200	55.6%
Medium Secondary Power (MSPR)	929,468	824,783	12.7%
Large Secondary Power (LSPR)	887,503	853,915	3.9%
Large Primary Power (LPPR)	2,145,018	2,236,486	-4.1%
Total	$ 11,182,144	$ 10,125,288	10.4%

Cost of Service Results

Table 10 shows the average cost of service per kWh and compares the cost to the average revenue per kWh for each customer class. This table is for information purposes only and is not used in the setting of rates. Average cost per kWh varies due to fixed costs recoveries such as meter costs and infrastructure needs of the customer. In general customer classes that use energy consistently have a lower average kWh cost to serve compared with customer classes that use energy only part of the day or year.

Table 10 – Average Cost per kWh vs. Average Revenue per kWh

Customer Class	Cost of Service $/kWh	Projected Revenues $/kWh
Residential (RE)	$ 0.1305	$ 0.1079
Residential (REM)	0.1958	0.1373
Commercial (COM)	0.1258	0.1129
School (SCH)	0.1221	0.1046
Traffic Lights (606, 801)	0.1303	0.1455
Yard Lighting (YL/OYL)	0.0888	0.0794
Street Lighting	0.2141	0.1375
Medium Secondary Power (MSPR)	0.0891	0.0791
Large Secondary Power (LSPR)	0.0856	0.0824
Large Primary Power (LPPR)	0.0806	0.0841

Cost differences result from usage patterns of customers and how efficiently each class of customer use facilities based on load data provided by Petoskey.

Distribution Costs

Separation of distribution cost helps identify distribution charges for each customer class and the fixed monthly customer charge. Distribution rates include separation of the following costs:

- Operation and maintenance of distribution & transmission system
- Contributions to general fund
- Customer service
- Customer accounting
- Meter reading
- Billing
- Meter operation & maintenance
- Administrative expenses

The distribution rates consist of two components:

- Monthly customer charge to recover the costs of meter reading, billing, customer service, and a portion of maintenance and operations of the distribution system.

- Distribution rate based on billing parameter, (kW or kWh) to recover the cost to operate and maintain the distribution system. Table 11 identifies the cost-based distribution rates for customer classes.

Table 11 – Distribution Costs by Customer Class (COS)

Customer Class	Monthly Customer Charge	Distribution Rate	Billing Basis
Residential (RE)	$ 17.04	$ 0.0333	kWh
Residential (REM)	17.04	0.0412	kWh
Commercial (COM)	31.64	0.0428	kWh
School (SCH)	31.64	0.0424	kWh
Traffic Lights (606, 801)	17.04	0.0223	kWh
Yard Lighting (YL/OYL)	1.46	0.0363	kWh
Street Lighting	-	0.1694	kWh
Medium Secondary Power (MSPR)	85.21	10.38	kW
Large Secondary Power (LSPR)	187.40	11.38	kW
Large Primary Power (LPPR)	187.40	10.36	kW

The cost of service based monthly customer charge for residential customers recovers 52% of the fixed cost of delivery of electricity. This is consistent with UFS averages around the United States.

Power Supply Costs

Table 12 identifies the average cost of providing power supply to customers of Petoskey.

Table 12 – Power Supply Costs by Customer Class

Customer Class	Demand	Billing Basis	Energy	Billing Basis
Residential (RE)	$ 0.0160	kWh	$ 0.0444	kWh
Residential (REM)	0.0160	kWh	0.0444	kWh
Commercial (COM)	0.0254	kWh	0.0445	kWh
School (SCH)	0.0270	kWh	0.0445	kWh
Traffic Lights (606, 801)	0.0187	kWh	0.0445	kWh
Yard Lighting (YL/OYL)	-	kWh	0.0446	kWh
Street Lighting	-	kWh	0.0446	kWh
Medium Secondary Power (MSPR)	6.67	KW	0.0444	kWh
Large Secondary Power (LSPR)	7.04	KW	0.0445	kWh
Large Primary Power (LPPR)	6.72	KW	0.0430	kWh

Demand recovers costs for power supply and transmission fixed demand related costs. Energy is cost recovery for variable power supply costs.

Combined Cost Summary

Table 13 identifies the cost of service rates for each customer class. Charging these rates would directly match the cost of providing service to customers identified in this study.

Table 13 – Total Costs by Customer Class

Customer Class	Current Average Customer Charge	COS Customer Charge	Demand	Energy
Residential (RE)	$ 7.95	$ 17.04	$ -	$ 0.0937
Residential (REM)	7.95	17.04	-	0.1016
Commercial (COM)	17.00	31.64	-	0.1127
School (SCH)	15.50	31.64	-	0.1139
Traffic Lights (606, 801)	15.50	17.04	-	0.0855
Yard Lighting (YL/OYL)	-	1.46	-	0.0809
Street Lighting	3,850.00	-	-	0.2141
Medium Secondary Power (MSPR)	65.00	85.21	17.05	0.0444
Large Secondary Power (LSPR)	160.00	187.40	18.42	0.0445
Large Primary Power (LPPR)	120.00	187.40	17.07	0.0430

Residential Customer Charge

The customer charge consists of expenses related to, 1) providing a minimum amount of electricity to the residential customer, and 2) expenses related to servicing a meter on the customer's premise; together they reflect the cost to deliver a single kWh of electricity to the customer. The methodology used in this study is consistent with methodologies and practices used in the electric industry.

The customer charge includes two types of charges called minimum system charges and direct charges.

Minimum System Charges:

The cost to provide the minimum level of service. Petoskey provides wires to connect the transmission system to the customers' homes and businesses. This wire is required to provide even the minimal amount of service to a customer. For cost of service purposes, the total cost of the distribution infrastructure is broken into two components: 1) the minimum system costs, in effect to provide a customer with a single kWh of electricity which should be recovered through the customer charge, and 2) demand related costs to recover the additional infrastructure costs for when a customer uses more than a single kWh, which should be recovered through the usage component. The distribution system is sized to handle the customers' peak demands and the cost above the minimum system is recovered through the usage component (for residential customers this is included in the kWh charge).

The first step in identifying the cost related to the minimum system is obtaining information on the number and current replacement costs of Petoskey distribution system. For example: UFS used information on the number and size of all the poles and the cost to replace the poles. The minimum size pole was identified and the cost to construct Petoskey's system at the minimum sizing was determined. This process was completed for all Petoskey's distribution system including overhead and underground conductors and devices, line transformers, etc. Based on this methodology 71% of Petoskey's total distribution costs should be recovered by the usage component and 29% recovered in the fixed customer charge component.

Direct Charges

Costs related to maintaining a customer's account. These costs include the cost to operate and maintain the meter, including meter installation, meter repair and replacement costs, the cost to read the meter, billings and collections, customer service personnel to assist with questions and maintain the account and the cost of the "service drop" to connect the home to the distribution line. These costs are direct costs of serving a residential account.

3. Functionalization of Costs

Delivery of electricity consists of many components that bring electricity from the power supply facilities to the communities and eventually into customer facilities. The facilities consist of four major components: transmission, distribution, customer-related services, and administration. Following are general descriptions of each of these facilities and the sub-breakdowns within each category.

Transmission

The transmission system is comprised of four types of subsystems that operate together:

1) Backbone and inter-tie transmission facilities are the network of high voltage facilities through which a utility's major production sources are integrated.
2) Generation set-up facilities are the substations through which power is transformed from a utility's generation voltages to its various transmission voltages.
3) Sub-transmission plant consists of lower voltage facilities to transfer electric energy from convenient points on a utility's backbone system to its distribution system.
4) Radial transmission facilities are those that are not networked with other transmission lines but are used to serve specific loads directly.

Operation of the transmission system also consists of providing certain services that ensure a stable supply of power. These services are typically referred to as ancillary services. The Federal Energy Regulatory Commission (FERC) has defined six ancillary service charges for the use of transmission facilities. For Petoskey, these charges will be passed-through charges by the control area operator. Ancillary services consist of the following:

- **Mandatory Ancillary Service Charges:**

  Reactive Supply and Voltage Control
  Regulation and Frequency Response Service
  Energy Imbalance Charges
  Operating Reserves Spinning
  Operating Reserves Supplemental
  Reactive Power Supply

Terminology of Cost of Service

FUNCTIONALIZATION – Cost data arranged by functional category (e.g. power supply, transmission, distribution

CLASSIFICATION – Assignment of functionalized costs to cost components (e.g. demand, energy and customer related).

ALLOCATION – Allocating classified costs to each class of service based on each class's contribution to that specific cost component.

DEMAND COSTS – Costs that vary with the maximum or peak usage. Measured in kilowatts (kW)

ENERGY COSTS – Costs that vary over an extended period of time. Measured in kilowatt-hours (kWh)

CUSTOMER COSTS – Costs that vary with the number of customers on the system, e.g. metering costs.

DIRECT ASSIGNMENT – Costs identified as belonging to a specific customer or group of customers.

Power losses from use of transmission system

Distribution

The distribution facilities connect the customer with the transmission grid to provide the customer with access to the electrical power that has been generated and transmitted. The distribution plant includes substations, primary and secondary conductors, poles, and line transformers that are jointly used and in the public right-of-way.

Substations typically separate the distribution plant from the transmission system. The substation power transformer "steps down" the voltage to a level that is more practical to install on and under city streets.

Distribution circuits are divided into primary and secondary voltages with the primary voltages usually ranging between 35 kV and 4 kV and the secondary below 4 kV.

Distribution Customer Types

Sub-transmission customers are served directly from the substation feeder and bypass both the secondary and primary distribution lines. The charges for this type of customer should reflect the cost of the substation and not include the cost of primary or secondary line charges.

Primary customers are typically referred to as customers who have purchased, owned, and maintained their own transformers that convert the voltage to the secondary voltage level. The rates for these customers should reflect the cost of substations and the cost of primary distribution lines and not include the cost of secondary line extensions.

Secondary customers have the services provided by the utilities directly into their facilities. The utility provides the customer with the transformer and the connection on the customers' facilities.

Customer-Related Services

Certain administrative-type services are necessary to ensure customers are provided service connections and disconnections in a timely manner and the facilities are in place to read meters and bill for customer usages. These services typically consist of the following components:

- Customer Services – The cost of providing personnel to assist customers with questions and dispatch personnel to connect and disconnect meters.
- Billing and Collections – The cost of billing and collections personnel, postage, and supplies.
- Meter Reading – The cost of reading customers' meters.
- Meter Operation and Maintenance – The cost of installing and maintaining customer meters.

Administrative Services

These costs are sometimes referred to as overhead costs and relate to functions that cannot be directly-attributed to any service. These costs are spread to the other services through an allocator such as labor, expenses, or total rate base. These costs may consist of City Commission expenses, property insurance, and wages for higher level management of the utility.

System Losses

As energy moves through each component of the transmission and distribution system, some of the power is lost and cannot be sold to customers. Losses vary based on time of day and season. Typically, as system usage increases or ambient temperature increases, the percentages of losses that occur also increase. These losses are recovered from distribution customers through an analysis of the peak losses that occur in the system. The average system losses and unaccounted for energy for Petoskey are approximately 5.2%. (Typical municipal system losses are approximately 5.4%)

Low average system losses are an indication of Petoskey's continual reinvestment in the electric system and results in lower power supply costs for customers of approximately 0.2%.

4. Unbundling Process

The cost of power supply, distribution, and customer services are identified as part of the unbundling process and are the first step in determining unbundled charges to customers. The total revenue requirements of $11.3M are separated into three categories identified in Table 14.

Table 14 – Breakdown of Petoskey Cost Structure

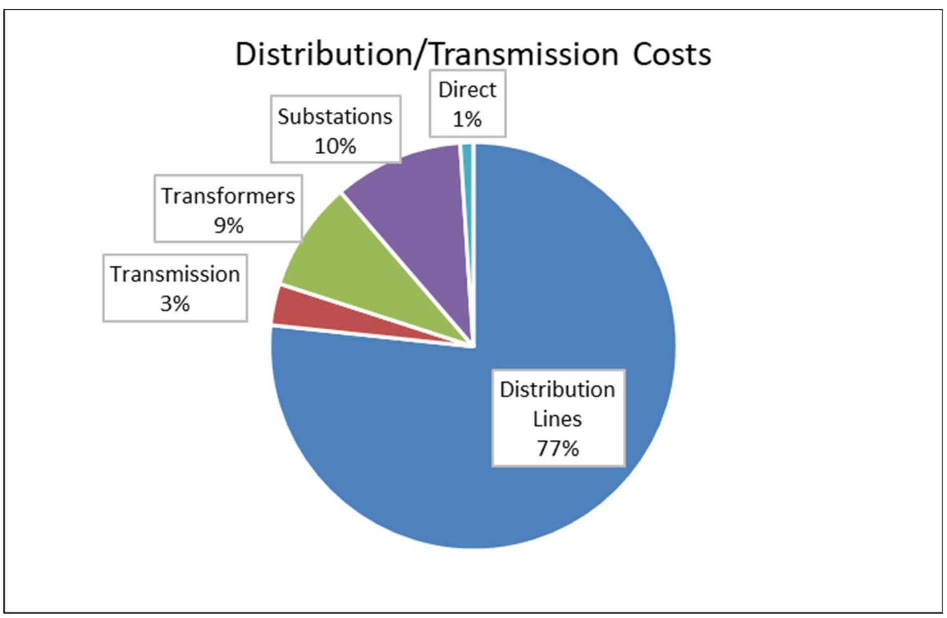
Utility Costs	
Power Supply	$ 6,483,514
Distribution/Transmiss	$ 4,335,456
Customer	$ 502,506
	$ 11,321,476

Petoskey is projected to expend 57% of its total costs toward power supply. Distribution/transmission-related costs are 38%; and customer service 5%. These components are broken down into each of the subcomponents and are identified in the following sections.

Distribution Breakdown

Distribution rates consist of a number of different components. Total distribution-related costs of $4.3M for 2019 are broken down into the main components including substations, transformers, transmission, and distribution lines. Figure 1 shows the breakdown of distribution components identified in the study.

Figure 1 – Breakdown of Distribution Costs

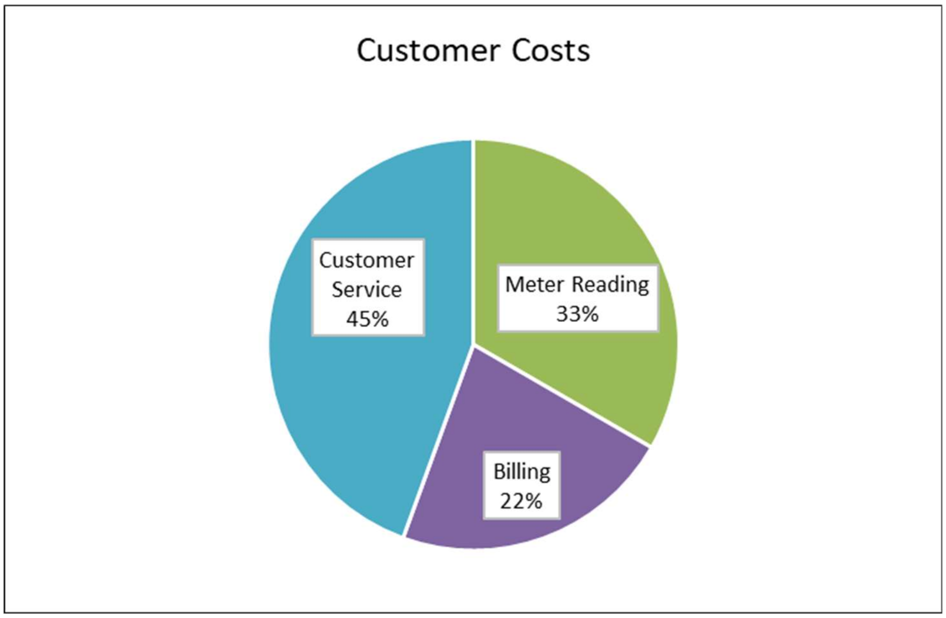


Each of these components is allocated to customer groups based on certain factors established in the study. These factors are based on the efficiency of each customer class and the time of day or the season the electricity is used. Other factors are also considered, such as the length of line extensions to reach certain customer classes.

Customer-Related Cost Breakdown

Petoskey total expenses for customer-related costs are $0.5M for 2019. The cost is broken down into the components identified in Figure 2.

Figure 2 – Breakdown of Customer Costs



Power Supply Cost Breakdown

Power supply costs for 2019 were made up of purchased power expenses.

5. Significant Assumptions

This section outlines the procedures used to develop the cost of service and unbundling study for Petoskey and the related significant assumptions.

Forecasted Operating Expenses

Forecasted expenses were based on 2016 and 2017, 2018/2019 budget adjusted for power supply costs and inflation. The table below is a summary of the expenses used in the analysis; the projected operating expenses include an adjustment for any city contributions.

Table 15 – Projected Operating Expenses for 2019– 2023

Description	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
Operating Expenses:					
Purchases					
Purchased Power - MPPA	6,483,514	6,612,021	6,685,992	6,675,452	6,910,094
Total Power Supply Expense	$ 6,483,514	$ 6,612,021	$ 6,685,992	$ 6,675,452	$ 6,910,094
Transmission and Distribution					
T&D	18,553	$ 19,016	$ 19,492	$ 19,979	$ 20,478
Sys Maint	575,435	$ 589,821	$ 604,566	$ 619,681	$ 635,173
Total Distribution Expense	$ 593,988	$ 608,837	$ 624,058	$ 639,660	$ 655,651
Other Operating Expenses (Revenues)					
Depreciation Expense	1,190,289	1,212,289	1,307,109	1,461,809	1,561,369
Admin	1,613,520	$ 1,653,858	$ 1,695,204	$ 1,137,585	$ 1,166,024
Pub Works	235,853	241,749	247,793	253,987	260,337
Community	29,828	30,573	31,338	32,121	32,924
Jobbing Cost	67,138	68,816	70,536	72,300	74,107
Contribution to General Fund	226,667	232,334	238,142	244,095	250,198
Contrib. to General Streets	346,400	355,060	363,937	373,035	382,361
Total Other Operating Expenses	$ 3,709,694	$ 3,794,679	$ 3,954,059	$ 3,574,932	$ 3,727,321
Total Operating Expenses	$ 10,787,196	$ 11,015,537	$ 11,264,108	$ 10,890,044	$ 11,293,065

Power supply costs from 2019 – 2023 are based on Petoskey's current charges adjusted for system growth factors and inflation.

Load Data

Load data is one of the most critical components of a cost of service study. Information from the billing statistics were used to determine the usage patterns of each customer class after reconciling revenues with financial statements to ensure a good basis for development of the study.

Annual Projection Assumptions

The kWh sales forecast is based on FY2017 actual adjusted for growth. Table 16 details growth, inflation of expenses, changes in purchase power costs and interest earned on investments.

Table 16 – Projection Annual Escalation Factors 2019– 2023

Fiscal Year	Inflation	Growth	Purchase Power Change	Investment Income
2019	2.5%	1.0%	1.5%	0.5%
2020	2.5%	0.8%	1.1%	0.5%
2021	2.5%	0.7%	0.4%	0.5%
2022	2.5%	0.6%	-0.8%	0.5%
2023	2.5%	0.5%	3.0%	0.5%

System Loss Factors

Losses occurring from the transmission and distribution of electricity can vary from year to year depending upon weather and system loading.

Revenue Forecast

The revenue forecast was based on FY2017 usages adjusted for growth rate assumptions.

Debt Issuance

The forecast includes debt issuance of 40% of $8.6M in 2021 payable over 20 years at a 5% interest rate..

6. Recommendations and Additional Information

Petoskey Financial Considerations

Petoskey is exceptionally financially stable as shown by the following:

1. Cash balances are strong and increasing due to lower than average capital improvement program. Projected cash balances are above the recommended minimums during the projection period
2. Debt Coverage Ratio and Fixed Cost Coverage Ratio are above recommended minimum levels throughout the projection period without changes in rates.
3. Petoskey system losses are below Michigan averages resulting in lower power supply cost for customers. The average system losses and unaccounted for energy for Petoskey are approximately 5.2% compared to typical municipal system losses of approximately 5.4%
4. Petoskey uses a power cost adjustment mechanism to ensure changes in power costs are recovered from customers. This is a major consideration in an electric utilities current and future financial stability
5. Petoskey serves several large customers at various voltage levels such as transmission service or primary service. Petoskey has minimal exposure to lost fixed cost recovery from loss of a single major customer.

Rate-Related Considerations

1. The cost-based residential customer charge represents 52% of the fixed cost of delivery of electricity. This is consistent with UFS averages around the United States
2. Customer charges are under-recovering and energy rates are over-recovering for most customer classes. The table below compares the current customer charges with the cost-based customer charge. It is recommended that movements toward the cost-based customer charge occur with the additional revenue used to lower the energy rates for customers in the class.

Customer Class	COS Customer Charge	Current Average Customer Charge	Cost Based Difference
Residential (RE)	$ 17.04	$ 7.95	$ 9.09
Residential (REM)	17.04	7.95	9.09
Commercial (COM)	31.64	17.00	14.64
School (SCH)	31.64	15.50	16.14
Medium Secondary Power (MSPR)	85.21	65.00	20.21
Large Secondary Power (LSPR)	187.40	160.00	27.40
Large Primary Power (LPPR)	187.40	120.00	67.40

3. Demand Charges for demand metered accounts are below cost of service. These costs are currently recovered in the energy rates charged to customers. Shifting costs recovery from demand charges to energy charges tends to result in high load factor (24 hour per day operations) paying above cost of service and less efficient operations not fully recovering costs. Petoskey may consider rate designs to move demand charges upwards and using the additional revenue to lower energy rates. Current demand charges average $13.50/kW and cost-based demand charges are between $17 and $18.50/kW.

4. Petoskey may consider movements toward cost of service. The cost of service study indicates a variance exists between revenues and costs for certain rate classes. The study results are listed below:

Customer Class	Cost of Service	Projected Revenues	% Change
Residential (RE)	$ 3,253,622	$ 2,690,312	20.9%
Residential (REM)	1,275	894	42.6%
Commercial (COM)	3,320,224	2,979,463	11.4%
School (SCH)	552,839	473,634	16.7%
Traffic Lights (606, 801)	6,542	7,309	-10.5%
Yard Lighting (YL/OYL)	13,749	12,291	11.9%
Street Lighting	71,903	46,200	55.6%
Medium Secondary Power (MSPR)	929,468	824,783	12.7%
Large Secondary Power (LSPR)	887,503	853,915	3.9%
Large Primary Power (LPPR)	2,145,018	2,236,486	-4.1%
Total	$ 11,182,144	$ 10,125,288	10.4%

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Holland, MI 49424
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Accountant's Compilation Report

Governing Body
City of Petoskey

The accompanying forecasted statements of revenues and expenses of the City of Petoskey (utility) were compiled for the year ending December 31, 2019 in accordance with guidelines established by the American Institute of Certified Public Accountants.

The purpose of this report is to assist management in forecasting revenue requirements and determining the cost to service each customer class. This report should not be used for any other purpose.

A compilation is limited to presenting, in the form of a forecast; information represented by management and does not include evaluation of support for any assumptions used in projecting revenue requirements. We have not audited the forecast and, accordingly, do not express an opinion or any other form of assurance on the statements or assumptions accompanying this report.

Differences between forecasted and actual results will occur since some assumptions may not materialize and events and circumstances may occur that were not anticipated. Some of these variations may be material. Utility Financial Solutions has no responsibility to update this report after the date of this report.

This report is intended for information and use by the governing body and management for the purposes stated above. This report is not intended to be used by anyone except the specified parties.

UTILITY FINANCIAL SOLUTIONS

Mark Beauchamp, CPA, CMA, MBA
Holland, MI
November 2018

City of Petoskey
Rate Design

11/29/2018

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Submitted Respectfully by:
Mike Johnson
Manager, Utility Financial Solutions

UFS
Utility Financial Solutions, LLC

City of Petoskey
Rate Design
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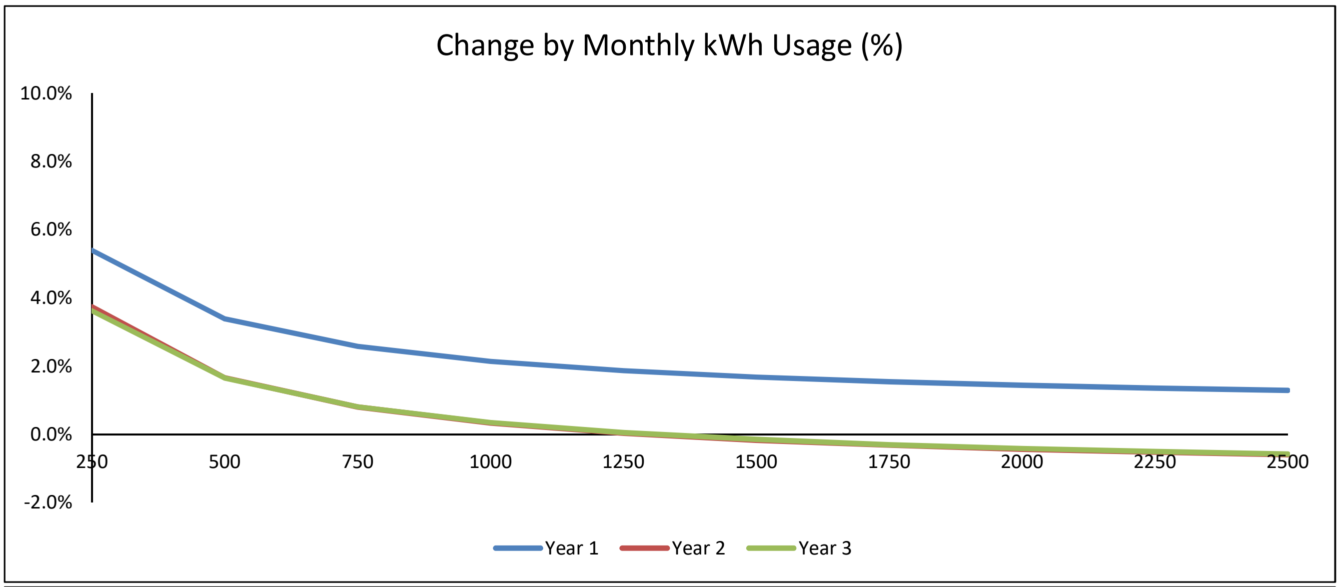
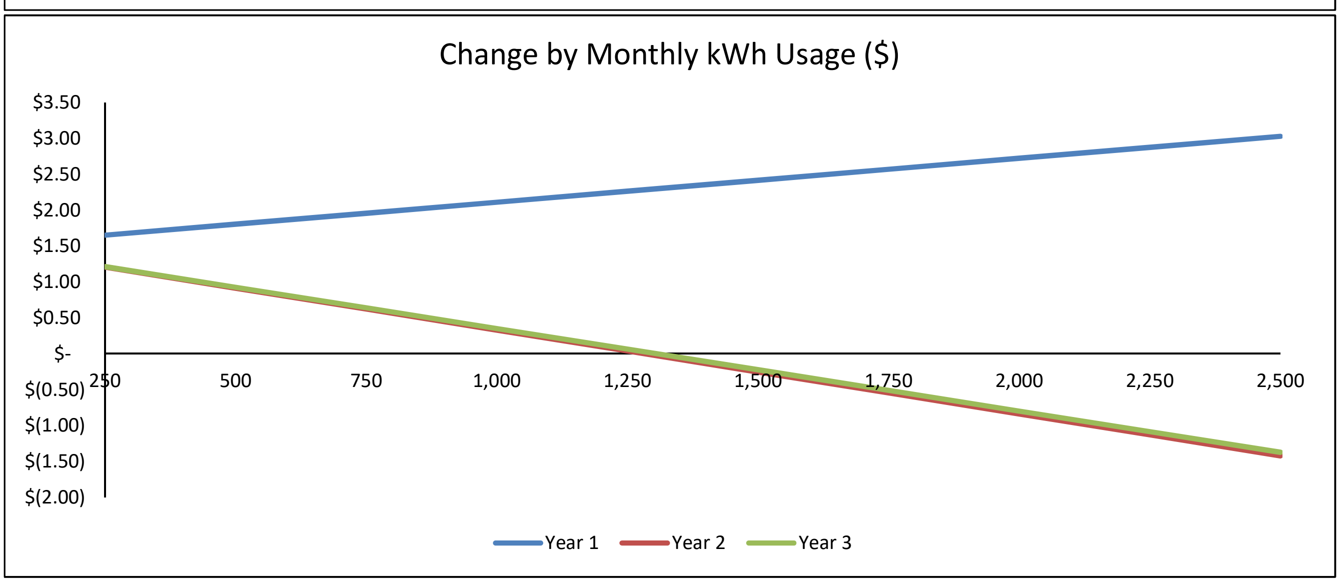
City of Petoskey
Rate Design
Rate Design Summary

Customer Class	Projected Revenues Under Current Rates	Projected Revenues Under Proposed Rates Year 1	Projected Revenues Under Proposed Rates Year 2	Projected Revenues Under Proposed Rates Year 3	Projected Percentage Change Year 1	Projected Percentage Change Year 2	Projected Percentage Change Year 3
Residential (RE)	$ 2,690,312	$ 2,786,342	$ 2,838,030	$ 2,890,201	3.57%	1.86%	1.84%
Residential (REM)	894	952	999	1,045	6.48%	4.87%	4.66%
Commercial (COM)	2,979,463	3,047,991	3,078,471	3,109,256	2.30%	1.00%	1.00%
School (SCH)	473,634	485,475	492,757	500,148	2.50%	1.50%	1.50%
Traffic Lights (606, 801)	7,309	7,331	7,331	7,331	0.30%	0.00%	0.00%
Yard Lighting (YL/OYL)	12,291	12,574	12,700	12,827	2.30%	1.00%	1.00%
Street Lighting	46,200	48,187	49,391	50,626	4.30%	2.50%	2.50%
Medium Secondary Power (MSPR)	822,770	841,693	850,110	858,611	2.30%	1.00%	1.00%
Large Secondary Power (LSPR)	853,915	866,724	871,058	875,413	1.50%	0.50%	0.50%
Large Primary Power (LPPR)	2,236,486	2,258,851	2,258,851	2,258,851	1.00%	0.00%	0.00%
Totals	$ 10,123,274	$ 10,356,120	$ 10,459,697	$ 10,564,308	2.30%	1.00%	1.00%

City of Petoskey
Rate Design
Projected Residential (RE) Rates

Rates	Current	Year 1	Year 2	Year 3
Customer Charge:				
All Customers	$ 7.95	$ 9.45	$ 10.95	$ 12.45
Energy Charge:				
Winter Energy	$ 0.08400	$ 0.08461	$ 0.08344	$ 0.08229
Summer Energy	$ 0.11250	$ 0.11311	$ 0.11194	$ 0.11079
Power Cost Adjustment:				
All Energy	$ (0.00270)	$ (0.00270)	$ (0.00270)	$ (0.00270)
Revenue from Rate	$ 2,690,312	$ 2,786,342	$ 2,838,030	$ 2,890,201
Change from Previous	-	3.6%	1.9%	1.8%





City of Petoskey
Rate Design
Projected Residential (RE) Rates

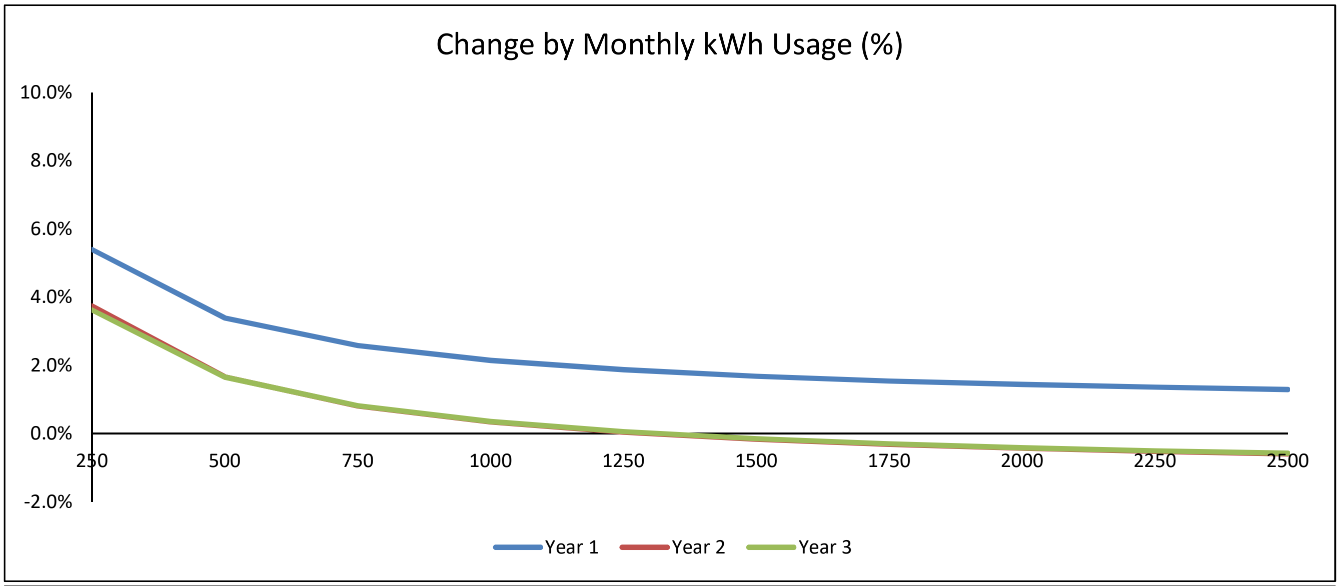
Energy	Annual Bill by Usage Current $	Year 1 $	Year 2 $	Year 3 $
250	$ 368	$ 388	$ 402	$ 417
500	$ 640	$ 662	$ 673	$ 684
750	$ 913	$ 936	$ 944	$ 951
1000	$ 1,185	$ 1,210	$ 1,214	$ 1,218
1250	$ 1,457	$ 1,485	$ 1,485	$ 1,486
1500	$ 1,730	$ 1,759	$ 1,756	$ 1,753
1750	$ 2,002	$ 2,033	$ 2,026	$ 2,020
2000	$ 2,275	$ 2,307	$ 2,297	$ 2,288
2250	$ 2,547	$ 2,581	$ 2,568	$ 2,555
2500	$ 2,819	$ 2,856	$ 2,839	$ 2,822

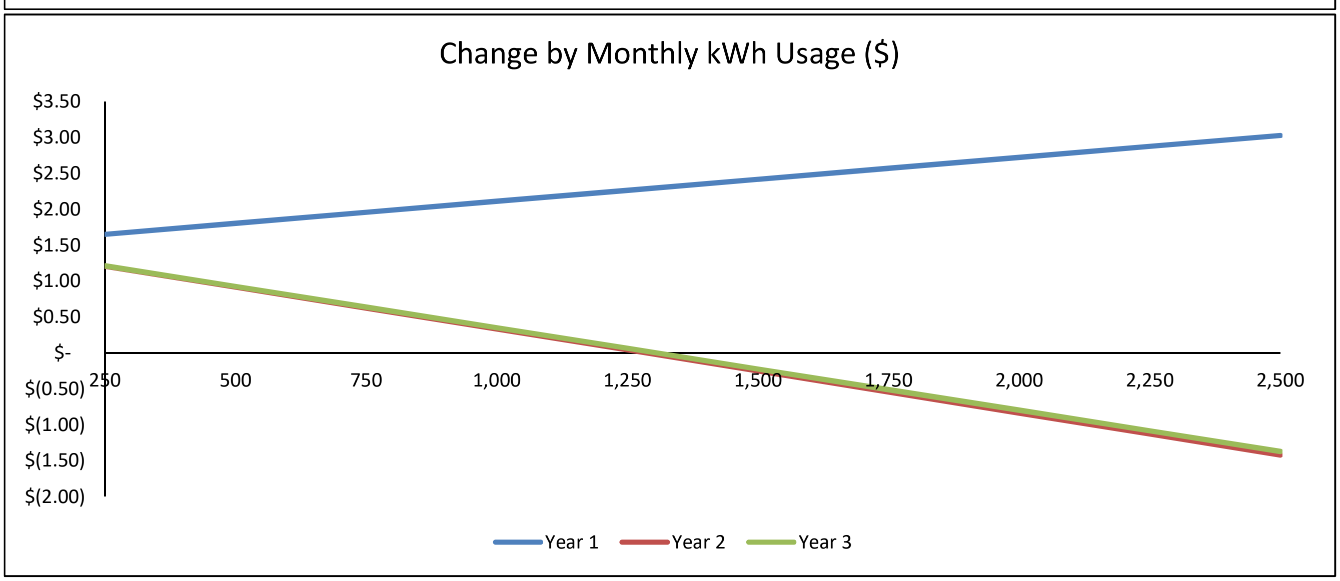
Energy	Change by Monthly kWh Usage (%) Summer Energy	Year 1	Year 2	Year 3
250	250	5.4%	3.7%	3.6%
500	500	3.4%	1.7%	1.7%
750	750	2.6%	0.8%	0.8%
1000	1,000	2.1%	0.3%	0.3%
1250	1,250	1.9%	0.0%	0.1%
1500	1,500	1.7%	-0.2%	-0.2%
1750	1,750	1.5%	-0.3%	-0.3%
2000	2,000	1.4%	-0.4%	-0.4%
2250	2,250	1.4%	-0.5%	-0.5%
2500	2,500	1.3%	-0.6%	-0.6%

Energy	Change by Monthly kWh Usage ($) Summer Energy	Year 1	Year 2	Year 3
250	250	$ 1.65	$ 1.21	$ 1.21
500	500	$ 1.81	$ 0.92	$ 0.93
750	750	$ 1.96	$ 0.62	$ 0.64
1,000	1,000	$ 2.11	$ 0.33	$ 0.35
1,250	1,250	$ 2.26	$ 0.04	$ 0.06
1,500	1,500	$ 2.42	$ (0.25)	$ (0.22)
1,750	1,750	$ 2.57	$ (0.54)	$ (0.51)
2,000	2,000	$ 2.72	$ (0.84)	$ (0.80)
2,250	2,250	$ 2.87	$ (1.13)	$ (1.08)
2,500	2,500	$ 3.03	$ (1.42)	$ (1.37)

City of Petoskey
Rate Design
Projected Residential (REM) Rates

Rates	Current	Year 1	Year 2	Year 3
Customer Charge:				
All Customers	$ 7.95	$ 9.45	$ 10.95	$ 12.45
Energy Charge:				
Winter Energy	$ 0.08400	$ 0.08461	$ 0.08344	$ 0.08229
Summer Energy	$ 0.11250	$ 0.11311	$ 0.11194	$ 0.11079
Power Cost Adjustment:				
All Energy	$ (0.00270)	$ (0.00270)	$ (0.00270)	$ (0.00270)
Revenue from Rate	$ 894	$ 952	$ 999	$ 1,045
Change from Previous	-	6.5%	4.9%	4.7%





City of Petoskey

Rate Design

Projected Residential (REM) Rates

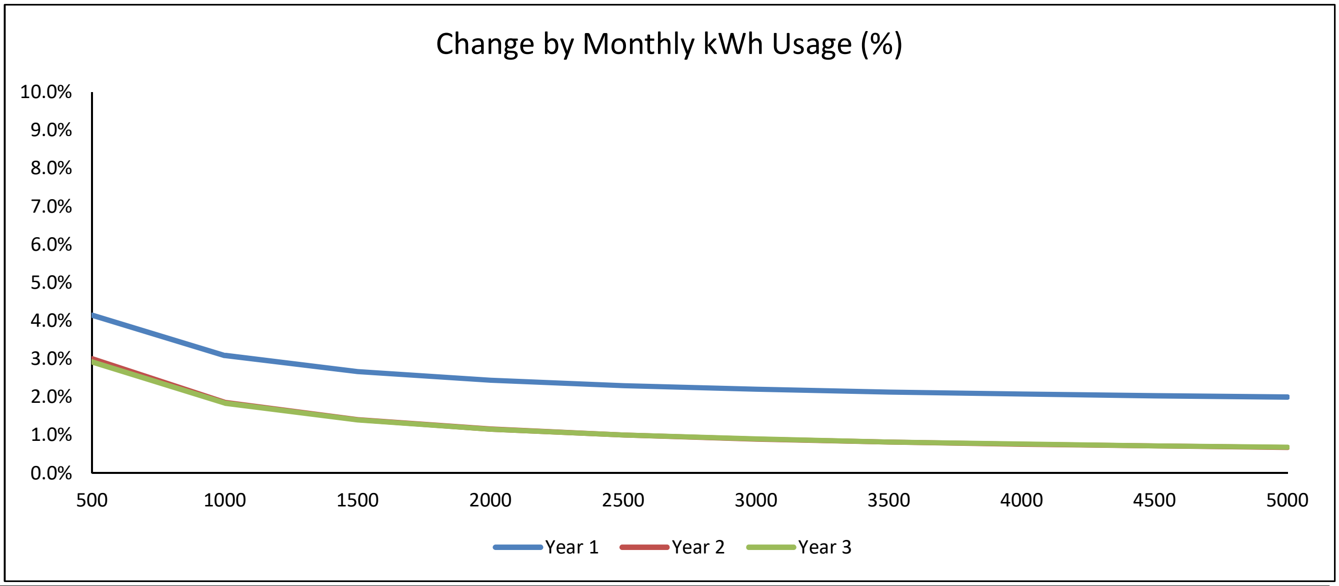
Energy	Annual Bill by Usage Current $	Year 1 $	Year 2 $	Year 3 $
250	$ 368	$ 388	$ 402	$ 417
500	$ 640	$ 662	$ 673	$ 684
750	$ 913	$ 936	$ 944	$ 951
1000	$ 1,185	$ 1,210	$ 1,214	$ 1,218
1250	$ 1,457	$ 1,485	$ 1,485	$ 1,486
1500	$ 1,730	$ 1,759	$ 1,756	$ 1,753
1750	$ 2,002	$ 2,033	$ 2,026	$ 2,020
2000	$ 2,275	$ 2,307	$ 2,297	$ 2,288
2250	$ 2,547	$ 2,581	$ 2,568	$ 2,555
2500	$ 2,819	$ 2,856	$ 2,839	$ 2,822

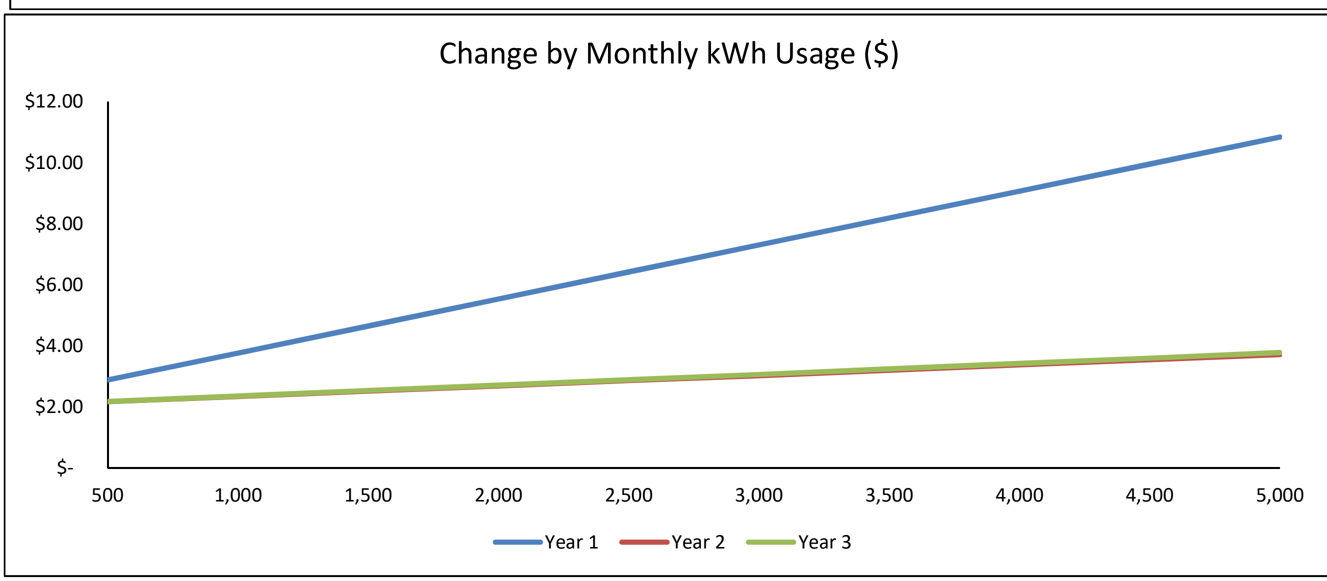
Energy	Change by Monthly kWh Usage (%) Summer Energy	Year 1	Year 2	Year 3
250	250	5.4%	3.7%	3.6%
500	500	3.4%	1.7%	1.7%
750	750	2.6%	0.8%	0.8%
1000	1,000	2.1%	0.3%	0.3%
1250	1,250	1.9%	0.0%	0.1%
1500	1,500	1.7%	-0.2%	-0.2%
1750	1,750	1.5%	-0.3%	-0.3%
2000	2,000	1.4%	-0.4%	-0.4%
2250	2,250	1.4%	-0.5%	-0.5%
2500	2,500	1.3%	-0.6%	-0.6%

Energy	Change by Monthly kWh Usage ($) Summer Energy	Year 1	Year 2	Year 3
250	250	$ 1.65	$ 1.21	$ 1.21
500	500	$ 1.81	$ 0.92	$ 0.93
750	750	$ 1.96	$ 0.62	$ 0.64
1,000	1,000	$ 2.11	$ 0.33	$ 0.35
1,250	1,250	$ 2.26	$ 0.04	$ 0.06
1,500	1,500	$ 2.42	$ (0.25)	$ (0.22)
1,750	1,750	$ 2.57	$ (0.54)	$ (0.51)
2,000	2,000	$ 2.72	$ (0.84)	$ (0.80)
2,250	2,250	$ 2.87	$ (1.13)	$ (1.08)
2,500	2,500	$ 3.03	$ (1.42)	$ (1.37)

City of Petoskey
Rate Design
Projected Commercial (COM) Rates

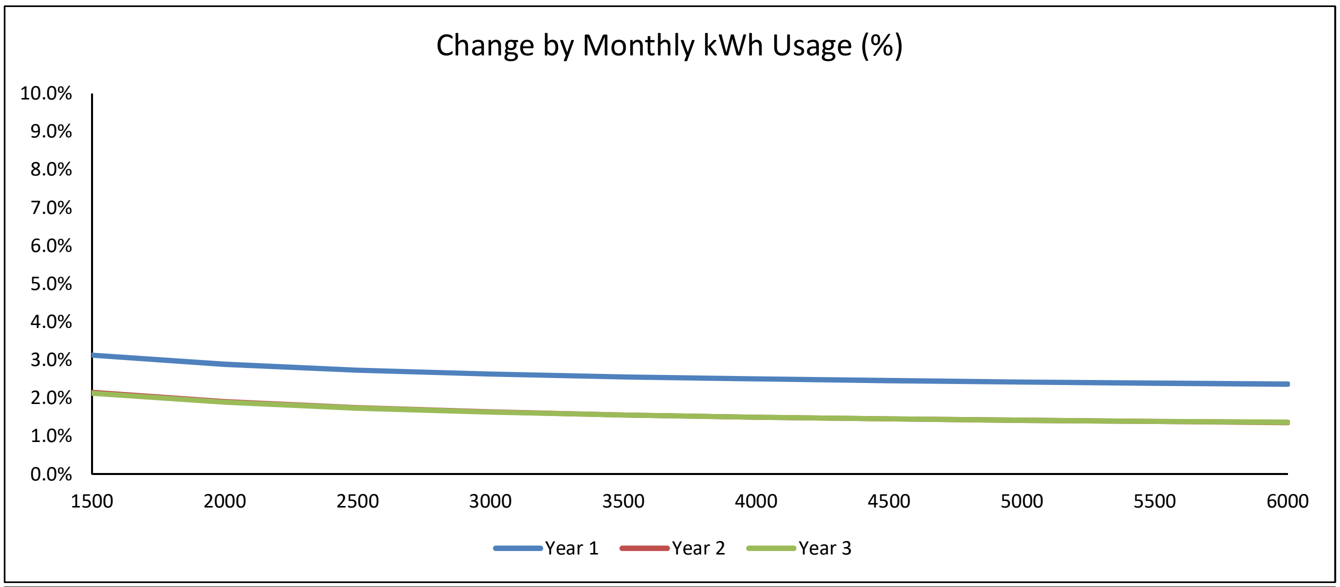
Rates	Current	Year 1	Year 2	Year 3
Customer Charge:				
All Customers	$ 17.00	$ 19.00	$ 21.00	$ 23.00
Energy Charge:				
Winter Energy	$ 0.10250	$ 0.10427	$ 0.10478	$ 0.10532
Summer Energy	$ 0.11900	$ 0.12077	$ 0.12077	$ 0.12077
Power Cost Adjustment:				
All Energy	$ (0.00270)	$ (0.00270)	$ (0.00270)	$ (0.00270)
Revenue from Rate	$ 2,979,463	$ 3,047,991	$ 3,078,471	$ 3,109,256
Change from Previous	-	2.3%	1.0%	1.0%

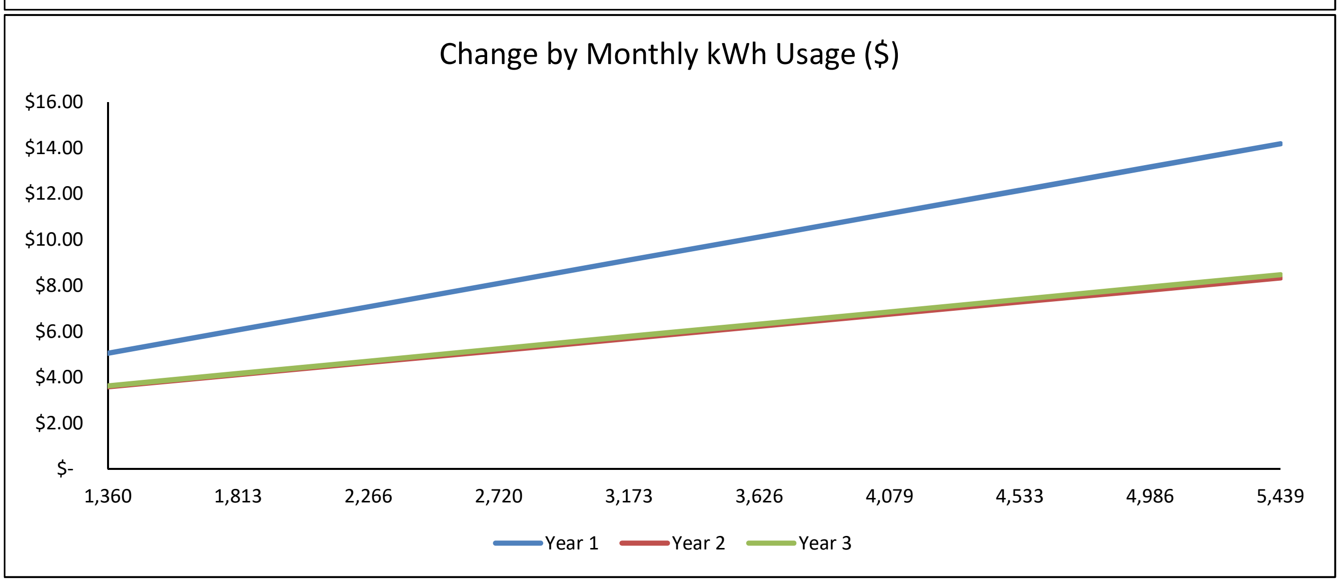




City of Petoskey
Rate Design
Projected School (SCH) Rates

Rates		Current		Year 1		Year 2		Year 3
Customer Charge:								
All Customers	$	15.50	$	17.50	$	19.50	$	21.50
Energy Charge:								
Winter Energy	$	0.10080	$	0.10290	$	0.10448	$	0.10610
Summer Energy	$	0.10880	$	0.11090	$	0.11090	$	0.11090
Power Cost Adjustment:								
All Energy	$	(0.00270)	$	(0.00270)	$	(0.00270)	$	(0.00270)
Revenue from Rate	$	473,634	$	485,475	$	492,757	$	500,148
Change from Previous		-		2.5%		1.5%		1.5%





City of Petoskey

Rate Design

Projected Traffic Lights (606, 801) Rates

Rates	Current	Year 1	Year 2	Year 3
Customer Charge:				
Solar Powered	$ -	$ -	$ -	$ -
Other	$ 15.50	$ 17.50	$ 19.50	$ 21.50
All Customers	$ 15.50	$ 17.50	$ 19.50	$ 21.50
Energy Charge:				
All Energy	$ 0.10480	$ 0.09998	$ 0.09472	$ 0.08947
Power Cost Adjustment:				
All Energy	$ -	$ -	$ -	$ -
Revenue from Rate	$ 7,309	$ 7,331	$ 7,331	$ 7,331
Change from Previous	-	0.3%	0.0%	0.0%

City of Petoskey

Rate Design

Projected Yard Lighting (YL/OYL) Rates

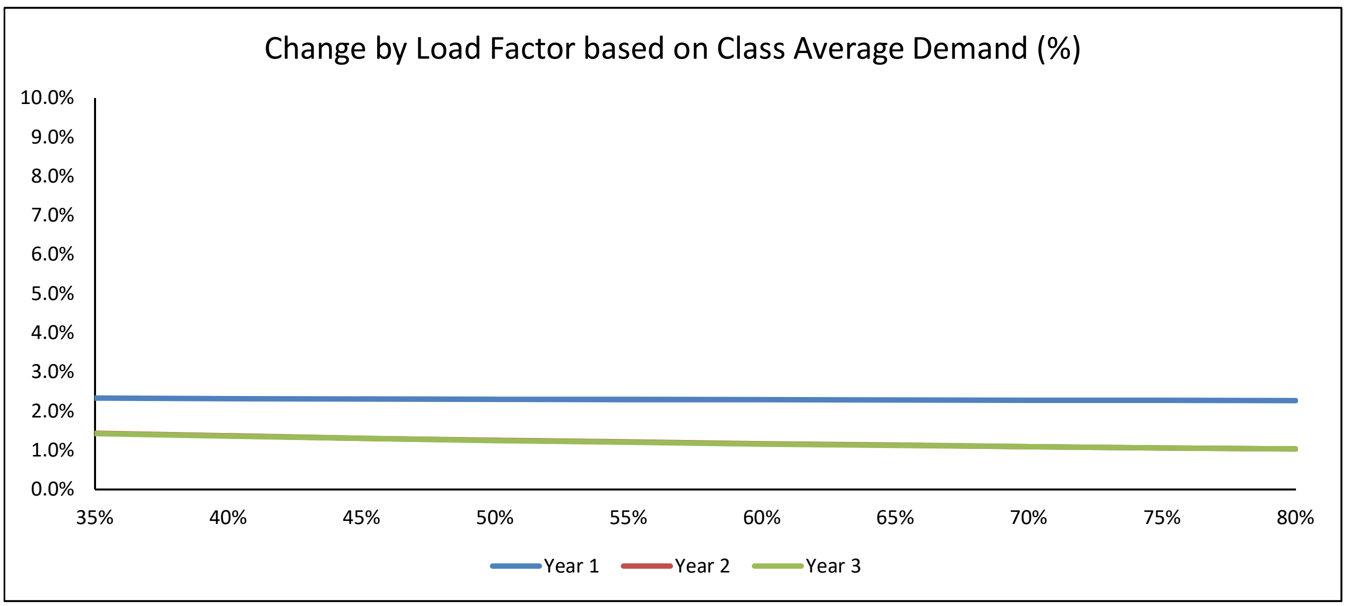
Rates	Current	Year 1	Year 2	Year 3
Monthly Facilities Charge:				
175-250 Watt lamps (Schedule YL)	$ 7.08	$ 7.24	$ 7.32	$ 7.39
400 Watt lamps (Schedule YL)	$ 11.23	$ 11.49	$ 11.60	$ 11.72
Fixture (Schedule OYL)	$ 12.20	$ 12.48	$ 12.61	$ 12.73
Bay View	$ 12.20	$ 12.48	$ 12.61	$ 12.73
Revenue from Rate	$ 12,291	$ 12,574	$ 12,700	$ 12,827
Change from Previous	-	2.3%	1.0%	1.0%

City of Petoskey
Rate Design
Projected Street Lighting Rates

Rates	Current	Year 1	Year 2	Year 3
Monthly Facilities Charge:				
All Customers	$ 3,850.00	$ 4,015.55	$ 4,115.94	$ 4,218.84
Revenue from Rate	$ 46,200	$ 48,187	$ 49,391	$ 50,626
Change from Previous	-	4.3%	2.5%	2.5%

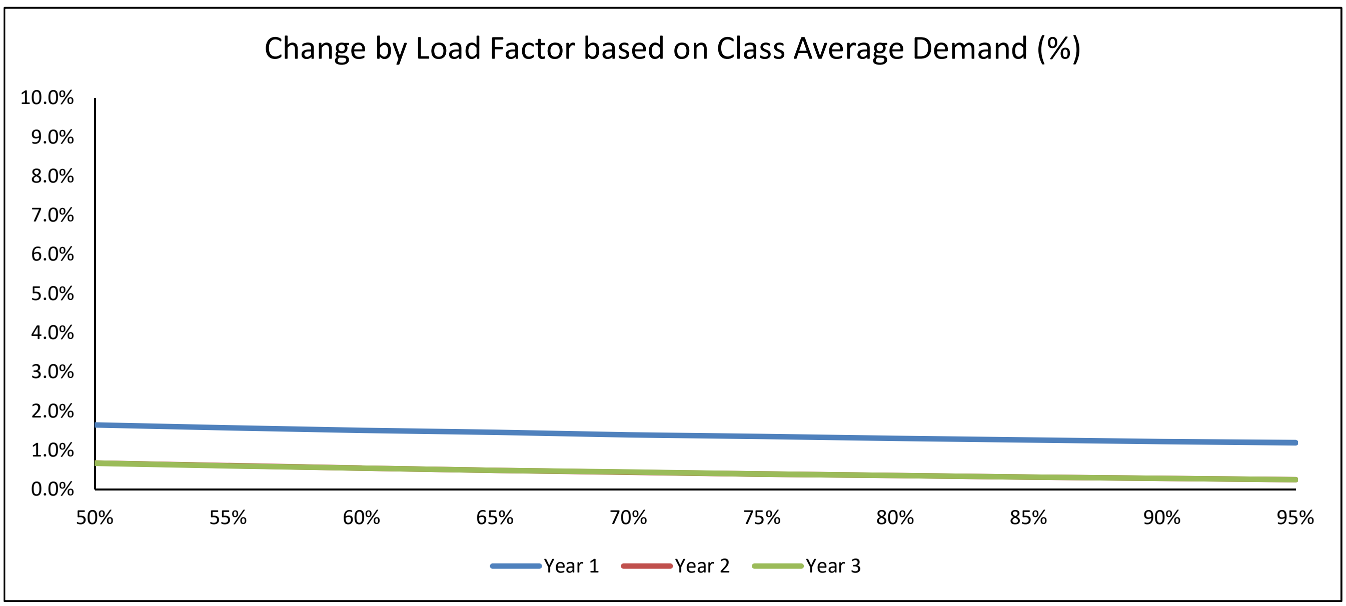
City of Petoskey
Rate Design
Projected Medium Secondary Power (MSPR) Rates

Rates		Current		Year 1		Year 2		Year 3
Monthly Facilities Charge:								
All Customers	$	65.00	$	70.00	$	75.00	$	80.00
Energy Charge:								
All Energy	$	0.05550	$	0.05664	$	0.05685	$	0.05706
Demand Charge:								
Winter Demand	$	13.20	$	13.50	$	13.80	$	14.10
Summer Demand	$	14.30	$	14.60	$	14.90	$	15.20
Power Cost Adjustment:								
All Energy	$	(0.00270)	$	(0.00270)	$	(0.00270)	$	(0.00270)
Revenue from Rate	$	822,770	$	841,693	$	850,110	$	858,611
Change from Previous	$	-		2.3%		1.0%		1.0%



City of Petoskey
Rate Design
Projected Large Secondary Power (LSPR) Rates

Rates		Current		Year 1		Year 2		Year 3
Monthly Facilities Charge:								
All Customers	$	160.00	$	170.00	$	180.00	$	190.00
Energy Charge:								
All Energy	$	0.05450	$	0.05466	$	0.05435	$	0.05404
Demand Charge:								
Winter Demand	$	13.20	$	13.50	$	13.80	$	14.10
Summer Demand	$	14.35	$	15.10	$	15.40	$	15.70
Power Cost Adjustment:								
All Energy	$	(0.00270)	$	(0.00270)	$	(0.00270)	$	(0.00270)
Revenue from Rate	$	853,915	$	866,724	$	871,058	$	875,413
Change from Previous	$	-		1.5%		0.5%		0.5%



City of Petoskey
Rate Design
Projected Large Primary Power (LPPR) Rates

Rates		Current		Year 1		Year 2		Year 3
Monthly Facilities Charge:								
All Customers	$	120.00	$	140.00	$	160.00	$	180.00
Energy Charge:								
All Energy	$	0.05720	$	0.05657	$	0.05584	$	0.05511
Demand Charge:								
Winter Demand	$	13.10	$	13.40	$	13.70	$	14.00
Summer Demand	$	14.10	$	15.35	$	15.65	$	15.95
Power Cost Adjustment:								
All Energy	$	(0.00270)	$	(0.00270)	$	(0.00270)	$	(0.00270)
Revenue from Rate	$	2,236,486	$	2,258,851	$	2,258,851	$	2,258,851
Change from Previous	$	-		1.0%		0.0%		0.0%