



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

Rate Design, and Financial Analysis

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May 2019

Jason Norlen General Manager Heber Light & Power 31 South 100 West Heber, UT 84032

Dear Mr. Norlen:

We are pleased to present the Final Report for the electric cost of service study and financial projection for Heber Light & Power (HLP). This report was prepared to provide HLP 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 calendar year 2020
- 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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1. Introduction

This report was prepared to provide Heber Light & Power (HLP) 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 calendar year 2020.** HLP's revenue requirements were projected for the period 2020 2024 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 if cross-subsidies 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 2020 projected revenues and expenses. The financial projections are for the period 2020 2024.
- 3) Identify cost-based power supply and distribution rates. The cost of providing electricity to customers consists of several components, including power generation, distribution, customer services, and transmission. Electric unbundling identifies the cost of each component to assist the utility in preparing for electric restructuring and understanding its cost structure.
- 4) *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.
- 5) **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 HLP to help ensure the financial stability of the utility in future years.



2. Cost of Service Summary

Utility Rate Process

HLP retained Utility Financial Solutions, LLC 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 calendar years 2017 and 2018, 2019/2020 budget was 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 2020-2024. The 2020 rate of return calculation established an operating income target of \$2.18M (See Table 7). The operating income target is established to identify full cost recovery of expenses and replacement cost of assets and is the breakeven point for HLP.

Highlights of Projection:

- 1) Revenues are projected to increase from \$17.7 million to \$19.4 million without rate adjustments
- 2) Interest expense on debt is projected to double from \$833,037 to \$1.9 million due to financing to cover projected improvements to the transmission and distribution system of HLP
- 3) Impact fees to recover system impacts created by new customers is projected at \$1.4 million in 2020 and increasing to \$1.5 million in 2024
- 4) Operating income for 2020 is projected at a loss of (\$473k) with losses increasing to (\$2.14M) in 2024
- 5) Net income after adjustment for non-operating revenues and expenses, including impact fee revenues and interest expense on debt, is projected at a positive \$1.7 million in 2020 with net income losses of \$1.3 million projected in 2024
- 6) Cash reserves are projected at \$8.8 million in 2020 decreasing to a negative \$4.5 million in 2024
- 7) Debt to equity ratio used to identify the how leveraged the utility is in debt is projected at 46% in 2020 and increasing to 53% in 2024 (ratio is less than utilities with similar cost characteristics)
- 8) Age of the plant is projected at 30% depreciated compared with the national average of 50% depreciated indicating a newer infrastructure than utilities with similar cost characteristics

The following pages reviews the projected income statement, cash flow, and fixed cost coverage ratios projected for the period between 2020 and 2024.



	Projected	Projected	Projected	Projected	Projected
Description	2020	2021	2022	2023	2024
Operating Revenues:					
Residential	\$ 9,570,665	\$ 9,790,790	\$10,015.978	\$10,246.346	\$10,482,012
Residential Solar	213,018	217,918	222,930	228,057	233,302
CUWCD	69,611	69,611	69,611	69,611	69,611
Yard Lighting	6,942	7,102	7,265	7,432	7,603
Small Commercial	2,276,554	2,328,915	2,382,480	2,437,277	2,493,334
Medium Commercial	3,081,431	3,152,304	3,224,807	3,298,978	3,374,854
Large Commercial	1,893,714	1,937,269	1,981,826	2,027,408	2,074,039
Commercial Solar	5,569	5,697	5,828	5,962	6,099
Pumping	134,580	137,676	140,842	144,082	147,396
Connection Fees	45,000	46,035	47,094	48,177	49,285
Other Income	414,556	424,091	433,845	443,823	454,031
Total Operating Revenues	\$17,711,640	\$18,117,407	\$18,532,506	\$18,957,153	\$19,391,566
Operating Expenses:					
Purchases					
Purchased Power	\$ 8,035,833	\$ 8,426,174	\$ 8,835,475	\$ 9,264,658	\$ 9,714,689
Energy Rebates	164,319	168,427	172,638	176,953	181,377
Production					
Gas Generation Fuel	\$ 682,949	\$ 700,023	\$ 717,524	\$ 735,462	\$ 753,848
Wages	\$ 255,022	\$ 261,398	\$ 267,933	\$ 274,631	\$ 281,497
Other Operating Expenses (Revenues)					
Salaries, Wages, Benefits	\$ 2,107,953	\$ 2,160,652	\$ 2,214,669	\$ 2,270,035	\$ 2,326,786
Professional Services	169,245	173,476	177,813	182,258	186,815
Maintenance and Training	3,007,302	3,082,485	3,159,547	3,238,536	3,319,499
Materials	81,356	83,390	85,475	87,612	89,802
Building Expenses	33,232	34,063	34,915	35,787	36,682
Office Expense and Postage	213,753	219,097	224,574	230,189	235,943
Truck Expense	388,590	398,304	408,262	418,469	428,930
Bad Debt Expense	7,843	8,039	8,240	8,446	8,657
Miscellaneous	162,447	166,508	170,671	174,938	179,311
Depreciation Expense	2,574,982	2,766,862	3,033,142	3,394,422	3,791,302
Total Operating Expenses	\$17,884,828	\$18,648,899	\$19,510,877	\$20,492,396	\$21,535,140
Operating Income	\$ (173,188)	\$ (531,492)	\$ (978,371)	\$ (1,535,244)	\$ (2,143,574)
Other Income & Expense					
Interest and Other Income	86,572	40,231	44,134	28,070	7,992
Interest On Long Term Debt	(833,037)	(1,106,669)	(1,519,353)	(1,466,772)	(1,908,603)
Impact fees	1,401,255	1,433,484	1,466,454	1,500,182	1,534,686
Transfers					
Distribution to Owners	\$ (300,000)	\$ (300,000)	\$ (300,000)	\$ (300,000)	\$ (300,000)
Capital Contributions	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Non Operating Income/Expense	\$ 1,854,789	\$ 1,567,046	\$ 1,191,235	\$ 1,261,480	\$ 834,076
Net Income	\$ 1,681,601	\$ 1,035,554	\$ 212,864	\$ (273,764)	\$ (1,309,498)

Table 1 – Financial Statements (without rate adjustments)



Description	Pro	ojected 2020	Pr	rojected 2021	Pr	ojected 2022	Pr	ojected 2023	Pro	ojected 2024
Operating Revenues:										
Residential	\$	9,953,491	\$	10,589,719	\$	11,158,281	\$	11,757,369	\$	12,388,622
Residential Solar		221,539		235,700		248,354		261,689		275,739
CUWCD		69,611		69,611		69,611		69,611		69,611
Yard Lighting		7,220		7,681		8,094		8,528		8,986
Small Commercial		2,367,616		2,518,954		2,654,197		2,796,701		2,946,856
Medium Commercial		3,204,688		3,409,532		3,592,590		3,785,476		3,988,718
Large Commercial		1,969,462		2,095,350		2,207,850		2,326,389		2,451,293
Commercial Solar		5,792		6,162		6,493		6,841		7,209
Pumping (New)		139,964		148,910		156,905		165,329		174,206
Connection Fees		72,466		74,166		75,908		77,651		79,393
Other Income		414,556		441,054		464,735		489,686		515,977
Total Operating Revenues	\$	18,426,405	\$	19,596,839	\$	20,643,017	\$	21,745,269	\$	22,906,609
Operating Expenses:										
Purchases										
Purchased Power	\$	8,035,833	\$	8,426,174	\$	8,835,475	\$	9,264,658	\$	9,714,689
Energy Rebates		164,319		168,427		172,638		176,953		181,377
Production										
Gas Generation Fuel	\$	682,949	\$	700,023	\$	717,524	\$	735,462	\$	753,848
Wages	\$	255,022	\$	261,398	\$	267,933	\$	274,631	\$	281,497
Other Operating Expenses (Revenues)										
Salaries, Wages, Benefits	\$	2,107,953	\$	2,160,652	\$	2,214,669	\$	2,270,035	\$	2,326,786
Professional Services		169,245		173,476		177,813		182,258		186,815
Maintenance and Training		3,007,302		3,082,485		3,159,547		3,238,536		3,319,499
Materials		81,356		83,390		85,475		87,612		89,802
Building Expenses		33,232		34,063		34,915		35,787		36,682
Office Expense and Postage		213,753		219,097		224,574		230,189		235,943
Truck Expense		388,590		398,304		408,262		418,469		428,930
Bad Debt Expense		7,843		8,039		8,240		8,446		8,657
Miscellaneous		162,447		166,508		170,671		174,938		179,311
Depreciation Expense		2,574,982		2,766,862		3,033,142		3,394,422		3,791,302
Total Operating Expenses	\$	17,884,828	\$	18,648,899	\$	19,510,877	\$	20,492,396	\$	21,535,140
Operating Income	\$	541,577	\$	947,941	\$	1,132,140	\$	1,252,873	\$	1,371,469
Other Income & Expense										
Interest and Other Income		86,572		43,805		55,123		49,666		43,637
Interest On Long Term Debt		(833,037)		(1,106,669)		(1,519,353)		(1,466,772)		(1,908,603)
Impact fees		1,401,255		1,433,484		1,466,454		1,500,182		1,534,686
Transfers										
Distribution to Owners	\$	(300,000)	\$	(300,000)	\$	(300,000)	\$	(300,000)	\$	(300,000)
Capital Contributions		1,500,000		1,500,000		1,500,000		1,500,000		1,500,000
Non Operating Income/Expense	\$	1,854,789	\$	1,570,620	\$	1,202,224	\$	1,283,076	\$	869,721
Net Income	\$	2,396,366	\$	2,518,561	\$	2,334,364	\$	2,535,950	\$	2,241,190

Table 2 – Financial Statements (with rate adjustments)

Heber Light & Power Cost of Service & Electric Unbundling Study



Projected Cash Flows

Table 3 provides the projected cash flows for 2020-2024, including projections of capital improvements as provided by HLP. Changes in the capital improvement plan can greatly affect the cash balance, debt issuances, and recommended minimum cash reserve target. The cash balance for 2020 is projected at \$8.05M decreasing to a negative (\$4.57M) in 2024. Projected cash reserves are falling below recommended minimum cash levels needed to operate the utility between 2022 and 2024.

	F	Projected	l	Projected	F	Projected	I	Projected	F	rojected
Description		2020		2021		2022		2023		2024
Projected Cash Flows										
Net Income	\$	1,681,601	\$	1,035,554	\$	212,864	\$	(273,764)	\$	(1,309,498)
Depreciation Expense/Amortization		2,574,982		2,766,862		3,033,142		3,394,422		3,791,302
Subtract Debt Principal		(722,261)		(927,817)		(1,238,773)		(1,292,236)		(1,654,938)
Add Bond Sale Proceeds		6,000,000		9,000,000		-		10,000,000		-
Cash Available from Operations	\$	9,534,322	\$	11,874,599	\$	2,007,232	\$	11,828,422	\$	826,866
Estimated Annual Capital Additions		6,747,000		9,594,000		3,720,000		14,344,000		5,500,000
Capital Contributions		1,500,000		1,500,000		1,500,000		1,500,000		1,500,000
Net Cash From Operations	\$	1,287,322	\$	780,599	\$	(3,212,768)	\$	(4,015,578)	\$	(6,173,134)
Beginning Cash Balance	\$	6,758,866	\$	8,046,188	\$	8,826,787	\$	5,614,019	\$	1,598,441
Ending Cash Balance	\$	8,046,188	\$	8,826,787	\$	5,614,019	\$	1,598,441	\$	(4,574,694)
Total Cash Available	\$	8,046,188	\$	8,826,787	\$	5,614,019	\$	1,598,441	\$	(4,574,694)
Recommended Minimum	\$	6,246,482	\$	7,619,590	\$	8,753,636	\$	9,628,311	\$1	10,072,511

Table 3 – Projected Cash Flows (without rate adjustments)

Cash balances begin to fall in 2022 due a combination of capital expenditures and increasing debt service payments. The projected "bond sale proceeds" line provides UFS' recommendation for bonding. The funding of capital without rate adjustments is below:

	I	Projected 2020	Projected 2021	I	Projected 2022	Projected 2023	I	Projected 2024	
Capital Expeditures									
Projected Capital Improvements	\$	6,747,000	\$	9,594,000	\$	3,720,000	\$ 14,344,000	\$	5,500,000
Fund Capital Expenditures									
Bond Sale Proceeds		6,000,000		9,000,000		-	10,000,000		-
Rate Funded Capital		747,000		594,000	_	768,459	536,185		(828,073)
Use of Cash Reserves		-		-	۲.,	2,951,541	3,807,815		6,328,073
Total Sources of Funds	\$	6,747,000	\$	9,594,000	\$	3,720,000	\$ 14,344,000	\$	5,500,000



Minimum Cash Reserve

Table 4 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 utility's 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, HLP should maintain a minimum of \$6.25M in cash reserves for 2020 increasing to \$10.1M in 2024. The increases are due to capital improvements and increased debt service payments.

	F	Projected	F	Projected	F	Projected	F	Projected	Pi	rojected
Description		2020		2021		2022		2023		2024
Minimum Cash Reserve Allocation										
Operation & Maintenance Less Depreciation Expense		12.3%		12.3%		12.3%		12.3%		12.3%
Purchase Power Expense		11.8%		11.8%		11.8%		11.8%		11.8%
Historical Rate Base		1%		1%		1%		1%		1%
Current Portion of Debt Service Payment		83%		83%		83%		83%		83%
Five Year Capital Improvements - Net of bond proceeds		20%		20%		20%		20%		20%
% Plant Depreciated		30%		30%		32%		31%		33%
Calculated Minimum Cash Level										
Operation & Maintenance Less Depreciation Expense	\$	876,538	\$	898,451	\$	920,912	\$	943,935	\$	967,534
Purchase Power Expense		967,940		1,014,501		1,063,311		1,114,481		1,168,125
Historical Rate Base		650,916		746,856		784,056		927,496		982,496
Current Portion of Debt Service Reserve		770,088		1,028,182		1,072,556		1,373,599		1,454,357
Five Year Capital Improvements - Net of bond proceeds		2,981,000		3,931,600		4,912,800		5,268,800	!	5,500,000
Minimum Cash Reserve Levels	\$	6,246,482	\$	7,619,590	\$	8,753,636	\$	9,628,311	\$1	0,072,511
Projected Cash Reserves	\$	8,046,188	\$	8,826,787	\$	5,614,019	\$	1,598,441	\$(4,574,694)

Table 4 – Minimum Cash Reserves (without rate adjustments)

Projected cash balances fall below the recommended minimums during the projection period. Age of infrastructure is projected between 30% and 33% depreciated compared with national averages of 50%, indicating consistent and appropriate replacement of infrastructure has occurred and is projected to continue over the projection period.



Debt Coverage Ratio

Table 4 is the projected debt coverage ratios between 2020 and 2024. Two evaluations of debt coverage ratios are reviewed in the study:

1. Debt coverage ratios are based on covenants specified in the bond ordinance violating the coverage ratio places the utility in technical default on the loan. To help ensure bond ordinances are not violated the traditional coverage ratio of 1.20 is increased to 1.40 to protect the utility from sales changes due to weather or unexpected events occurring causing cost increases. Without rate changes HLP is consistently exceeding the minimum coverage ratios specified in the bond ordinance.

Description	Pro	jected 2020	Pro	ojected 2021	Pro	ojected 2022	Pro	jected 2023	Pro	jected 2024
Debt Coverage Ratio										
Net Income	\$	1,681,601	\$	1,035,554	\$	212,864	\$	(273,764)	\$	(1,309,498)
Add Depreciation/Amortization Expense		2,574,982		2,766,862		3,033,142		3,394,422		3,791,302
Add Interest Expense		833,037		1,106,669		1,519,353		1,466,772		1,908,603
Cash Generated from Operations	\$	5,089,621	\$	4,909,084	\$	4,765,359	\$	4,587,430	\$	4,390,407
Debt Principal and Interest	\$	722,261	\$	927,817	\$	1,238,773	\$	1,292,236	\$	1,654,938
Projected Debt Coverage Ratio (Covenants)		7.05		5.29		3.85		3.55		2.65
Minimum Debt Coverage Ratio	1.4	1.4 1.4 1.4				1.4	1.4			

Table 5 – Debt Coverage Ratio (without rate adjustments)

Fixed cost coverage is adequate for the projection period without changes in rates.



Fixed Cost Coverage Ratio

2. Fixed Cost Coverage Ratios are used by Bond Rating Agencies during the evaluation process. The rating agencies review of fixed cost coverage varies and UFS' calculation simulates the typical Fixed Cost Coverage.

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.

The FCC made 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.

	Projected	Projected	Projected	Projected	Projected
Description	2020	2021	2022	2023	2024
Fixed Cost Coverage Ratio					
Cash Available for Debt Service	\$ 5,089,621	\$ 4,909,084	\$ 4,765,359	\$ 4,587,430	\$ 4,390,407
Fixed Costs Total	464,139	487,346	511,714	537,299	564,164
Capacity Costs Total	466,511	489,836	514,328	540,045	567,047
Allotment for Energy Costs	3,117,594	3,117,594	3,117,594	3,117,594	3,117,594
Total Available	\$ 9,137,865	\$ 9,003,861	\$ 8,908,995	\$ 8,782,368	\$ 8,639,212
Debt Service Including Off System Debt	\$ 4,770,505	\$ 5,022,594	\$ 5,382,409	\$ 5,487,174	\$ 5,903,743
Fixed Costs Coverage Ratio	1.92	1.79	1.66	1.60	1.46
Minimum Fixed Costs Coverage Ratio	1.4	1.4	1.4	1.4	1.4

Table 6 – Projected Fixed Cost Coverage Ratios (without rate adjustments)

Fixed cost coverage is 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 7 identifies the utility basis target established for 2020 as \$2.18M and increases to \$3.33M in 2024.

Rate of Return in %		4.8%		4.3%	5.09	6	4.2%		5.1%
Projected Operating Income	\$	(473,188)	\$	(531,492)	\$ (978,371	.) \$	5 (1,535,244)	\$	(2,143,574)
Target Operating Income	\$	2,176,617	\$	2,233,032	\$ 2,672,276	; ;	5 2,698,163	\$	3,334,856
System Equity	\$	861,995	\$	596,235	\$ 663,316	5 \$	5 711,623	\$	851,466
Contributed Capital Estimated		481,585		530,128	489,607	,	519,768		574,787
Interest on Debt	\$	833,037	\$	1,106,669	\$ 1,519,353	s ș	5 1,466,772	\$	1,908,603
Target Operating Income									
System Equity		5.48%		4.41%	4.57	6	4.49%		4.63%
Contributed Capital Estimated		5.48%		5.43%	4.57	6	4.49%		4.63%
Interest on Debt		3.95%		3.79%	5.449	6	4.00%		5.46%
Target Operating Income Allocation									
Debt:Equity Ratio		46%		56%	539	6	57%		53%
System Equity	\$1	15,732,240	\$	13,505,631	\$14,499,698	3 \$	\$15,859,948	\$	18,392,021
Contributed Capital Estimated		8,789,383		9,770,947	10,702,512	<u>)</u>	11,584,076		12,415,641
Outstanding Principal on Debt	2	21,095,279		29,167,461	27,928,688	8	36,636,452		34,981,513
Net Book Value/Working Capital	\$ 4	15,616,901	\$.	52,444,040	\$53,130,898	s ș	64,080,476	\$	65,789,174
Target Operating Income Determinants									
Description		2020		2021	2022		2023		2024
	Ρ	rojected	F	Projected	Projected		Projected	I	Projected

Table 7 – Rate of Return Calculation

Current rates are projected to fall below the target operating income for each year.



Recommended Rate Track

The study identifies increasing current revenues in 2020, and increasing annually thereafter to maintain debt coverage ratios and minimum cash targets. Table 8 is a summary of the financial results detailing the recommended revenue adjustments required to meet target operating income.

	Projected	Fixed			Adjusted	Target	Projected	
Fiscal	Rate	Coverage	Projected	Projected	Operating	Operating	Cash	Recommended
Year	Adjustments	Ratio	Expenses	Revenues	Income	Income	Balances	Minimum Cash
2020	4.0%	2.06	\$17,884,828	\$18,398,939	\$ 214,111	\$ 2,176,617	\$ 8,733,487	\$ 6,246,482
2021	4.0%	2.08	18,648,899	19,570,550	921,651	2,233,032	10,970,665	7,619,590
2022	2.0%	2.01	19,510,877	20,418,060	907,184	2,672,276	9,654,171	8,753,636
2023	2.0%	2.03	20,492,396	21,302,404	810,008	2,698,163	8,004,045	9,628,311
2024	2.0%	1.95	21,535,140	22,225,181	690,041	3,334,856	4,696,554	10,072,511

Table 8 – Recommended Revenue Adjustments

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 systems the debt to equity ratio is normally between 30% and 35%. Table 9 details the debt/equity ratio.

Table 9 – Debt/Equity Ratio

	Projected	Projected	Projected	Projected	Projected
Description	2020	2021	2022	2023	2024
Target Operating Income Determinants					
Net Book Value/Working Capital	\$45,616,901	\$52,444,040	\$53,130,898	\$64,080,476	\$65,789,174
Outstanding Principal on Debt	21,095,279	29,167,461	27,928,688	36,636,452	34,981,513
Contributed Capital Estimated	8,789,383	9,770,947	10,702,512	11,584,076	12,415,641
System Equity	\$15,732,240	\$13,505,631	\$14,499,698	\$15,859,948	\$18,392,021
Debt:Equity Ratio	46%	56%	53%	57%	53%

HLP is a growing utility resulting in higher than normal capital programs to meet demands on the system caused by new customers. A portion of the capital program will be recovered through impact fees from the new customers; however, a timing difference exists between the capital expenditure and recovery of the cost from new customers. It's anticipated that the debt/equity ratio will move to normal ranges over time.



Age of Infrastructure

HLP is currently 30% depreciated compared with similar utilities around the nation. An average distribution only infrastructure is approximately 50% to 55% depreciated, indicating HLP has consistently funded replacement of infrastructure. Replacement of infrastructure tends to indicate the utility's ability to consistently provide a reliable system to customers, its ability to withstand catastrophic weather events, and unexpected replacement of system infrastructure. HLP system age indicates it will remain in the lower to average ranges of infrastructure age. Table 10 identifies the depreciated plant.

	Projected	Projected	Projected	Projected	Projected
Description	2020	2021	2022	2023	2024
Asset Investments	\$65,091,602	\$74,685,602	\$78,405,602	\$92,749,602	\$98,249,602
NBV	45,616,901	52,444,040	53,130,898	64,080,476	65,789,174
% Depreciated	30%	30%	32%	31%	33%

Table 10 – Age of Infrastructure





Cost of Service Summary Results

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

- 1) Determine utility revenue requirement for test year 2020
- 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 11 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.

			Projected	
Customer Class	Cost	t of Service	Revenues	% Change
Residential	\$	11,782,845	\$ 9,570,665	23.1%
Residential Solar		314,406	213,018	47.6%
Street lighting		139,463	-	0.0%
Yard Lighting		5,971	6,942	-14.0%
Small Commercial		2,464,627	2,276,554	8.3%
Medium Commercial		2,915,961	3,081,431	-5.4%
Large Commercial		1,602,373	1,893,714	-15.4%
Commercial Solar		7,227	5,569	29.8%
Pumping		180,018	134,580	33.8%
Total	\$	19,412,891	\$ 17,182,473	13.0%

Table 11 – Cost of Service Summary





Cost of Service Results

Table 12 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.

	Cost of		Pr	ojected
	S	ervice	Re	venues
Customer Class	C T	\$/kWh	Ċ	s/kWh
Residential	\$	0.1237	\$	0.1005
Residential Solar		0.1369		0.0928
Street lighting		0.0817		-
Yard Lighting		0.0558		0.0649
Small Commercial		0.1129		0.1043
Medium Commercial		0.0777		0.0821
Large Commercial		0.0731		0.0864
Commercial Solar		0.1246		0.0960
Pumping		0.0767		0.0573

Table 12 – Average Cost per kWh vs. Average Revenue per kWh

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





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
- 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 13 identifies the cost-based distribution rates for customer classes.

	Monthly Customer		Dis	tribution			
Customer Class	Charge		Charge		Rate		Billing Basis
Residential	\$	14.67	\$	0.0501	kWh		
Residential Solar		27.43		0.0609	kWh		
Street lighting		2.09		0.0413	kWh		
Yard Lighting		2.09		0.0341	kWh		
Small Commercial		28.53		9.37	kW		
Medium Commercial		131.43		9.98	kW		
Large Commercial		324.71		9.80	kW		
Commercial Solar		54.05		9.41	kW		
Pumping		54.46		9.29	kW		

Table 13 – Distribution Costs by Customer Class (COS)





Power Supply Costs

Table 14 identifies the average cost of providing power supply to customers of HLP.

		Billing		Billing
Customer Class	Demand	Basis	Energy	Basis
Residential	\$ 0.0326	kWh	\$ 0.0215	kWh
Residential Solar	0.0319	kWh	0.0215	kWh
Street lighting	0.0190	kWh	0.0215	kWh
Yard Lighting	-	kWh	0.0215	kWh
Small Commercial	6.14	KW	0.0215	kWh
Medium Commercial	6.88	KW	0.0215	kWh
Large Commercial	6.65	KW	0.0215	kWh
Commercial Solar	6.09	KW	0.0215	kWh
Pumping	5.17	KW	0.0215	kWh

Table 14 – Power Supply Costs by Customer Class

Demand recovers costs for power supply and transmission fixed demand-related costs. Energy recovers variable power supply costs.



Combined Cost Summary

Table 15 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.

		Current Average				
	(Customer	СС	OS Customer		
Customer Class		Charge		Charge	Demand	Energy
Residential	\$	12.70	\$	14.67	\$ -	\$ 0.1042
Residential Solar		12.70		27.43	-	0.1143
Street lighting		-		2.09	-	0.0817
Yard Lighting		-		2.09	-	0.0556
Small Commercial		8.00		28.53	15.50	0.0215
Medium Commercial		15.20		131.43	16.86	0.0215
Large Commercial		26.90		324.71	16.46	0.0215
Commercial Solar		8.00		54.05	15.50	0.0215
Pumping		7.88		54.46	14.46	0.0215

Table 15 – Total Costs by Customer Class



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 premises. 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. Each component for the residential class is listed in the table below:

	Customer Charge				
		Components			
Minmum System	\$	7.63			
Direct Charges		7.05			
Total	\$	14.67			

Minimum System Charges:

The cost to provide the minimum level of service. HLP 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 HLP 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 HLP's system at the minimum sizing was determined. This process was completed for all HLP's distribution system, including overhead and underground conductors and devices, line transformers, etc. Based on this methodology, 83% of HLP's total distribution costs should be recovered by the usage component and 17% 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.

Based on UFS' experience with similar size utilities, HLP's residential customer charge, in total, is lower than industry averages.



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 plants 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 HLP, these charges will be passed-through charges by the control area operator. Ancillary services consist of the following:

- Reactive Supply and Voltage Control
- Regulation and Frequency Response Service •
- Energy Imbalance Charges
- Operating Reserves Spinning •
- **Operating Reserves Supplemental**
- Reactive Power Supply
- Power losses from use of transmission system

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.



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 utility 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 directlyattributed 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 HLP are approximately 5.4% and are typical municipal system losses.



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 \$19.4M are separated into three categories identified in Table 16.

Utility Costs								
Expense Type	Amoun	it Percentage						
Power Supply	\$ 8,976,	044 46.2%						
Distribution/Transmission	9,154,	740 47.2%						
Customer	1,282,	107 6.6%						
Total	\$ 19,412,	891 100%						

Table 16 – Breakdown of HLP Cost Structure



HLP is projected to expend 47.0% of its total costs toward power supply. Distribution/transmission-related costs total 46.0% and customer service 7.0%. 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 \$9.15M for 2020 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

HLP total expenses for customer-related costs are \$1.3M for 2020. 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 2020 were made up of purchased power, and fuel and internal generation expenses.





5. Significant Assumptions

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

Forecasted Operating Expenses

Forecasted expenses were based on 2017 and 2018, 2019/2020 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 contribution.

	Projected	Projected	Projected	Projected	Projected
Description	2020	2021	2022	2023	2024
Operating Expenses:					
Purchases					
Purchased Power	\$ 8,035,833	\$ 8,426,174	\$ 8,835,475	\$ 9,264,658	\$ 9,714,689
Energy Rebates	164,319	168,427	172,638	176,953	181,377
Production					
Gas Generation Fuel	\$ 682,949	\$ 700,023	\$ 717,524	\$ 735,462	\$ 753,848
Wages	\$ 255,022	\$ 261,398	\$ 267,933	\$ 274,631	\$ 281,497
Other Operating Expenses (Revenues)					
Salaries, Wages, Benefits	\$ 2,107,953	\$ 2,160,652	\$ 2,214,669	\$ 2,270,035	\$ 2,326,786
Professional Services	169,245	173,476	177,813	182,258	186,815
Maintenance and Training	3,007,302	3,082,485	3,159,547	3,238,536	3,319,499
Materials	81,356	83,390	85,475	87,612	89,802
Building Expenses	33,232	34,063	34,915	35,787	36,682
Office Expense and Postage	213,753	219,097	224,574	230,189	235,943
Truck Expense	388,590	398,304	408,262	418,469	428,930
Bad Debt Expense	7,843	8,039	8,240	8,446	8,657
Miscellaneous	162,447	166,508	170,671	174,938	179,311
Depreciation Expense	2,574,982	2,766,862	3,033,142	3,394,422	3,791,302
Total Operating Expenses	\$17,884,828	\$18,648,899	\$19,510,877	\$20,492,396	\$21,535,140

Table 17 – Projected Operating Expenses for 2020– 2024

Power supply costs from 2020 – 2024 are based on HLP'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 CY2018 actual adjusted for growth. Table 18 details growth, inflation of expenses, changes in purchase power costs, and interest earned on investments.

			Purchase	
Fiscal			Power	Investment
Year	Inflation	Growth	Change	Income
2020	2.5%	2.3%	0.1%	0.5%
2021	2.5%	2.3%	2.5%	0.5%
2022	2.5%	2.3%	2.5%	0.5%
2023	2.5%	2.3%	2.5%	0.5%
2024	2.5%	2.3%	2.5%	0.5%

Table 18 – Projection Annual Escalation Factors 2020– 2024

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 CY2018 usages adjusted for growth rate assumptions.



6. UFS Findings, Conclusions, and Considerations

HLP Financial Considerations

- 1. Cash balances are decreasing due to a higher than average capital improvement program. Projected cash balances fall below the recommended minimums during the projection period.
- 2. Fixed Cost Coverage Ratio is above recommended minimum levels throughout the projection period without changes in rates.
- 3. Current rate related revenues are projected to result in operating income that falls below the target operating income for each year.
- 4. In order to maintain strong cash balances and support the projected capital improvement plan, HLP may consider the following bond issuances. Cash balances below reflect projected bonds.

	R	ate Funded							
		Capital							
Fiscal	Im	provements	Pro	jected Cash	В	ond Issues			
Year		Plan		Balances	Inc	luding Fees	Period		Rate
2020	\$	6,747,000	\$	8,046,188	\$	6,000,000	20)	5.00%
2021		9,594,000		8,826,787		9,000,000	20)	5.00%
2022		3,720,000		5,614,019		-		-	0.00%
2023		14,344,000		1,598,441		10,000,000	20)	5.00%
2024		5,500,000		(4,574,694)		-		-	0.00%

- 5. Infrastructure of HLP is newer than the national average. The infrastructure in total is approximately 30% depreciated compared with the national average between 50% 55%. This indicates HLP has newer infrastructure and capital replacements over the planning horizon.
- 6. The average system losses and unaccounted for energy for HLP are approximately 5.4% consistent with comparable municipal systems.
- 7. HLP may consider implementing a power cost adjustment mechanism to ensure changes in power costs are recovered from customers. This is a major consideration in an electric utility's current and future financial stability
- 8. HLP may consider the following rate track to help ensure the current and future financial stability of HLP.

	Projected	Debt	Fixed		Adjusted	Target				
Fiscal	Rate	Coverage	Coverage	(Operating	Operating	Pr	ojected Cash	Rec	ommended
Year	Adjustments	Ratio	Ratio		Income	Income		Balances	Mir	nimum Cash
2020	4.0%	8.00	2.06	\$	214,111	\$ 2,176,617	\$	8,733,487	\$	6,246,482
2021	4.0%	6.86	2.08	\$	921,651	2,233,032	\$	10,970,665		7,619,590
2022	2.0%	5.38	2.01	\$	907,184	2,672,276	\$	9,654,171		8,753,636
2023	2.0%	5.38	2.03	\$	810,008	2,698,163	\$	8,004,045		9,628,311
2024	4.0%	4.65	2.02	\$	1,124,464	3,334,856	\$	5,130,977		10,072,511

Heber Light & Power Cost of Service & Electric Unbundling Study



Rate-Related Considerations

- 1. The cost-based residential customer charge represents 17% of the fixed cost of delivery of electricity. This is less than UFS averages for comparable distribution systems around the United States
- 2. Customer charges are under-recovering and energy rates are over-recovering for most customer classes. HLP may consider increasing the customer charges as part of future rate adjustments
- 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. HLP may consider rate designs to move demand charges upward and using the additional revenue to lower energy rates.
- 4. HLP may consider movement 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:

			Projected	
Customer Class	Cos	t of Service	Revenues	% Change
Residential	\$	11,782,845	\$ 9,570,665	23.1%
Residential Solar		314,406	213,018	47.6%
Street lighting		139,463	-	0.0%
Yard Lighting		5,971	6,942	-14.0%
Small Commercial		2,464,627	2,276,554	8.3%
Medium Commercial		2,915,961	3,081,431	-5.4%
Large Commercial		1,602,373	1,893,714	-15.4%
Commercial Solar		7,227	5,569	29.8%
Pumping		180,018	134,580	33.8%
Total	\$	19,412,891	\$ 17,182,473	13.0%

5. HLP has several unique customers that do not fit the normal usage profile of other customers in the same class. In review of certain types of customers in the Small Commercial rate class, the customers usage is infrequent and highly unlikely to create additional peak demand requirements for HLP. HLP may consider modifying the small commercial rate class and establishing a blocked demand rate with the block established at below and above 1 kW. This would alleviate the impact demand charges are creating on customers with highly infrequent usage.

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Accountant's Compilation Report

Governing Body Heber Light & Power

The accompanying forecasted statements of revenues and expenses of Heber Light & Power (utility) were compiled for the year ending December 31, 2020 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, LLC 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 May 2019

7. Appendix A: Rate Design

The following pages outline the class rate designs and projected rate impacts.

Heber Light & Power Rate Design Rate Design Summary

				Projected		Projected		Projected		Projected		Projected
		Projected	Rev	venues Under	Re۱	enues Under/	Rev	venues Under	Rev	venues Under	Rev	/enues Under
	Rev	enues Under	Pro	oposed Rates	Pro	oposed Rates	Pro	oposed Rates	Pro	oposed Rates	Pro	oposed Rates
Customer Class	Cu	irrent Rates		Year 1		Year 2		Year 3		Year 4		Year 5
Residential	\$	9,570,665	\$	10,030,742	\$	10,490,818	\$	10,754,225	\$	11,030,355	\$	11,316,008
Residential Solar		213,018		213,018		213,018		213,018		213,018		213,018
Yard Lighting		6,942		7,220		7,508		7,659		7,812		7,968
Small Commercial		2,276,554		2,479,511		2,571,549		2,640,581		2,709,614		2,772,700
Medium Commercial		3,081,431		3,161,514		3,261,859		3,302,020		3,350,477		3,398,895
Large Commercial		1,893,714		1,941,867		1,990,002		2,003,172		2,016,342		2,029,511
Commercial Solar		5,569		5,569		5,569		5,569		5,569		5,569
Residential Pumping		3,237		2,993		3,107	3,308			3,506		3,720
Small Commercial Pumping		52,545	57,540			60,260	62,075		63,78			66,035
Medium Commercial Pumping		78,425	80,511			86,212		88,698		90,998		94,234
Totals	\$	17,182,100	\$	17,980,485	\$	18,689,902	\$	19,080,326	\$	19,491,472	\$	19,907,658

Heber Light & Power

Electric Rate Design

Residential

Rates	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
All Customers	\$ 12.70	\$ 13.70	\$ 14.70	\$ 14.90	\$ 14.90	\$ 14.90
Energy Charge:						
Block 1 (0 - 1,000 kWh)	\$ 0.07980	\$ 0.08330	\$ 0.08680	\$ 0.08930	\$ 0.09220	\$ 0.09520
Block 2 (Excess)	\$ 0.10020	\$ 0.10370	\$ 0.10720	\$ 0.10970	\$ 0.11260	\$ 0.11560
Revenue from Rate	\$ 9,570,665	\$ 10,030,742	\$ 10,490,818	\$ 10,754,225	\$ 11,030,355	\$ 11,316,008
Change from Previous		4.8%	4.6%	2.5%	2.6%	2.6%



\$ Change by Usage Level	Year 1	Year 2	Year 3	Year 4	Year 5
250	\$ 1.88	\$ 1.88	\$ 0.83	\$ 0.73	\$ 0.75
500	\$ 2.75	\$ 2.75	\$ 1.45	\$ 1.45	\$ 1.50
750	\$ 3.63	\$ 3.63	\$ 2.07	\$ 2.18	\$ 2.25
1000	\$ 4.50	\$ 4.50	\$ 2.70	\$ 2.90	\$ 3.00
1250	\$ 5.38	\$ 5.37	\$ 3.33	\$ 3.63	\$ 3.75
1500	\$ 6.25	\$ 6.25	\$ 3.95	\$ 4.35	\$ 4.50
1750	\$ 7.13	\$ 7.13	\$ 4.58	\$ 5.07	\$ 5.25
2000	\$ 8.00	\$ 8.00	\$ 5.20	\$ 5.80	\$ 6.00
2250	\$ 8.88	\$ 8.88	\$ 5.83	\$ 6.52	\$ 6.75
2500	\$ 9.75	\$ 9.75	\$ 6.45	\$ 7.25	\$ 7.50

Heber Light & Power

Electric Rate Design

Small Commercial

Rates	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
Single Phase	\$ 8.00	\$ 11.00	\$ 13.00	\$ 14.00	\$ 15.00	\$ 16.00
Three Phase	\$ 8.00	\$ 13.00	\$ 17.00	\$ 19.00	\$ 21.00	\$ 25.00
Energy Charge:						
Block 1 (0 - 500 kWh)	\$ 0.07800	\$ 0.08400	\$ 0.08300	\$ 0.08100	\$ 0.07900	\$ 0.07700
Block 2 (Excess)	\$ 0.04600	\$ 0.04900	\$ 0.05000	\$ 0.05100	\$ 0.05200	\$ 0.05300
Demand Charge						
Demand B1	\$ 8.90	\$ -	\$ -	\$ -	\$ -	\$ -
Demand B2	\$ 8.90	\$ 9.50	\$ 9.80	\$ 10.10	\$ 10.40	\$ 10.70
Revenue from Rate	\$ 2,276,419	\$ 2,344,341	\$ 2,409,297	\$ 2,447,544	\$ 2,485,791	\$ 2,524,037
Change from Previous		3.0%	2.8%	1.6%	1.6%	1.5%



Heber Light & Power Electric Rate Design

Medium Commercial

Rates		Current		Year 1		Year 2		Year 3		Year 4	Year 5
Monthly Facilities Charge:											
Single Phase	\$	15.20	\$	40.00	\$	66.00	\$	91.00	\$	116.00	\$ 141.00
Energy Charge:											
Block 1 (0 - 500 kWh)	\$	0.06040	\$	0.05740	\$	0.05440	\$	0.04840	\$	0.04470	\$ 0.04270
Block 2 (Excess)	\$	0.04600	\$	0.04570	\$	0.04570	\$	0.04570	\$	0.04470	\$ 0.04270
Demand Charge											
All Demand	\$	10.00	\$	10.80	\$	11.70	\$	12.45	\$	13.20	\$ 13.95
Revenu	e from Rate \$	3,081,431	\$	3,161,514	\$	3,261,859	\$	3,302,020	\$	3,350,477	\$ 3,398,895
Change fro	om Previous	-		2.6%		3.2%		1.2%		1.5%	1.4%
	Change by	Load Fact	or	based on	Cla	ass Averag	e [Demand (9	%)		



Heber Light & Power Electric Rate Design Large Commercial



Heber Light & Power

Electric Rate Design

Residential Pumping Moving First Block to 500

Rates		Current		Year 1		Year 2		Year 3	Year 4	Year 5
Monthly Facilities Charge:										
Single Phase	\$	12.70	\$	13.70	\$	14.00	\$	17.00	\$ 20.00	\$ 23.00
Energy Charge:										
Block 1 (0 - 500 kWh)	\$	0.07980	\$	0.06100	\$	0.06300	\$	0.06300	\$ 0.06300	\$ 0.06300
Block 2 (Excess)	\$	0.10020	\$	0.06100	\$	0.06300	\$	0.06300	\$ 0.06300	\$ 0.06300
Demand Charge										
All Demand	\$	-	\$	8.90	\$	9.60	\$	9.85	\$ 10.05	\$ 10.50
Revenue from	m Rate \$	3,237	\$	2,993	\$	3,107	\$	3,308	\$ 3,506	\$ 3,720
Change from Pr	revious	-		-7.5%		3.8%		6.5%	6.0%	6.1%
	Change	by Load E	act	or based i	h	Average [)er	nand (%)		3
	change	by Load To	act	or based i	511	Average	Jei	nanu (70)		



Heber Light & Power Electric Rate Design

Small Commercial Pumping

Rates	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
Single Phase	\$ 8.00	\$ 13.70	\$ 14.00	\$ 17.00	\$ 20.00	\$ 23.00
Energy Charge:						
Block 1 (0 - 500 kWh)	\$ 0.07800	\$ 0.0610	\$ 0.0630	\$ 0.0630	\$ 0.0630	\$ 0.0630
Block 2 (Excess)	\$ 0.04600	\$ 0.0610	\$ 0.0630	\$ 0.0630	\$ 0.0630	\$ 0.0630
Demand Charge						
All Demand	\$ 8.90	\$ 8.90	\$ 9.60	\$ 9.85	\$ 10.05	\$ 10.50
Revenue from Rate	\$ 52,545	\$ 57,540	\$ 60,260	\$ 62,075	\$ 63,781	\$ 66,035
Change from Previous	-	9.5%	4.7%	3.0%	2.7%	3.5%



Heber Light & Power

Electric Rate Design Medium Commercial Pumping

Rates	Current	Year 1	Year 2	Year 3	Year 4	 Year 5
Monthly Facilities Charge:						
Three Phase	\$ 15.20	\$ 40.00	\$ 66.00	\$ 91.00	\$ 116.00	\$ 141.00
Energy Charge:						
Block 1 (0 - 500 kWh)	\$ 0.06040	\$ 0.0610	\$ 0.0630	\$ 0.0630	\$ 0.0630	\$ 0.0630
Block 2 (Excess)	\$ 0.04600	\$ 0.0610	\$ 0.0630	\$ 0.0630	\$ 0.0630	\$ 0.0630
Demand Charge						
All Demand	\$ 10.00	\$ 8.90	\$ 9.60	\$ 9.85	\$ 10.05	\$ 10.50
Revenue from Rate	\$ 78,425	\$ 80,511	\$ 86,212	\$ 88,698	\$ 90,998	\$ 94,234
Change from Previous	-	2 7%	7 1%	2 9%	2.6%	3.6%



8. Appendix B: Rate Comparison

Appendix B outlines comparisons between bills for HLP average users and neighboring utilities for the Residential, Small Commercial, and Medium Commercial classes. The tables are organized downward in order from lowest to highest bill.





