



City of Grand Island

Tuesday, August 28, 2018

Council Session

Item F-3

#9704 - Consideration of Updating Chapter 15 of the Grand Island City Code Relative to Electricity including Electrical Rates

Staff Contact: Tim Luchsinger, Jerry Janulewicz

Council Agenda Memo

From: Timothy Luchsinger, Utilities Director
Jerry Janulewicz, City Attorney

Meeting: August 28, 2018

Subject: Ordinance #9704 - Consideration of Updating Chapter 15 of the City Code – Electricity

Presenter(s): Timothy Luchsinger, Utilities Director

Background

The City is required by statute to set rates for its utility customers that are non-discriminatory and reflect the actual cost of service. Cost of service/rate design studies for a utility of the size of Grand Island are recommended to be conducted every three to five years. The last completed study was performed in 2004, but because of power capacity additions through the partnership of construction of new power plants and of major changes to the regional power grid operation, dynamic economic conditions did not provide for a stable review of the utility's rate structure.

On December 12, 2017 council authorized an agreement with JK Energy Consulting Services which included the preparation of a cost of services/rate structure study, which was presented to council at a study session on August 7, 2018.

Discussion

The recommendations of the study have been incorporated as revisions to Chapter 15, Electricity, as indicated in the attached markup. Noted revisions include the following.

- Raising the monthly residential customer service charge from \$5.00 to \$8.00.
- Increasing demand rates for large commercial/industrial customers based on current cost of service.
- Simplifying energy rate blocks and eliminating redundant blocks.
- Changing the power cost adjustment basis to reallocate energy costs to the base rates and minimize the power cost adjustment.
- Revising the winter and summer rates to better reflect the cost of service for these periods.
- Changing the streetlight rates from a wattage basis to a fixture basis to promote the use of energy saving LED lights.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand.
The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends that the Council approve Ordinance #9704 revising Chapter 15, Electricity, of the City Code regarding electric rate changes.

Sample Motion

Move to approve Ordinance #9704 revising Chapter 15, Electricity, of the City Code regarding electric rate changes.

August 23, 2018

Mr. Ryan Schmitz
Assistant Utility Director
City of Grand Island Utilities Department
100 E. First Street
Grand Island, NE 68801

RE: Revisions to Proposed Rate Ordinance

Dear Ryan:

On July 26, 2018, JK Energy Consulting, LLC (JKEC) submitted the 2018 Cost of Service and Rate Design Study (COS/RDS), including the proposed rate ordinance, in draft review format. The City Council is scheduled to review the COS/RDS and approve the proposed rate ordinance at their meeting on August 28.

Over the past three weeks, we have had various conversations regarding the rate ordinance. Based on those conversations, the rate ordinance that will be presented to the City Council for approval was revised accordingly. Attached is the most current version of the proposed rate ordinance for submittal to the City Council. It is also included in the revised draft report that is being submitted concurrently with this letter.

Following is a recap of the changes made to the rate ordinance since it was originally submitted on July 26:

- 050 Three-Phase Commercial (see Section 3 of attachment)
 - JKEC and GIUD staff discussed simplification of the Minimum Bill section. This change will reduce workload for City staff and simplify the billing process without a material impact on revenue from this rate class. The following is the revised section:

Minimum Bill: The minimum monthly bill shall be the larger of the following:

1. Customer Charge, or
2. Total connected HP x \$0.70

If questions arise as to the actual billing HP, the City Utilities Department may, at its option, install demand meters. The kilowatt reading shall determine the HP on the basis of 0.75 kilowatt = 1.0 HP.

It is the responsibility of the customer to inform the City Utilities Department of changes that may affect minimum billings.

- 100 Three-Phase Power Service (see Section 4 of attachment)
 - JKEC recommended a minor wording change to reflect actual billing practices. The energy charge is based on kWh per kW of demand, and the wording change reflects this practice.
- Demand Billing (see Section 5 of attachment)
 - GIUD staff asked if the language for billing demand could be simplified, as there have been some rate implementation issues with the current language in the customer billing system. The prior version of the rate ordinance proposed no changes to §15-64. After reviewing data and the cost of service analysis, the following change to the existing rate schedule was recommended:

§15-64. Billing Demand

The Monthly Demand shall be the highest integrated demand (in kW) during a 15-minute time interval in the billing period. For purposes of this section, Summer Months shall be June through October. Winter Months shall be November through May. The Billing Demand shall be the greater of:

1. The Monthly Demand
 2. 65% of the Monthly Demand in the five (5) most recent Summer Months
- Power Cost Adjustment (see Section 7 of attached document)
 - The PCA was adjusted from 38 mills per kWh to 35 mills per kWh based on power supply costs over the last three months. This information was unavailable to the consultant when the original analysis was completed. This change is accompanied by a corresponding change in all energy rates and results in no change in total revenue from customers.

- Interdepartmental; Streetlights (see Section 8 of attachment)
 - GIUD staff suggested clarifying the applicability language by including the following:

If installed lamp is not listed on the rate schedule, the rate for the nearest sized lamp of the same type shall be charged.

- There was a question regarding the increase in revenue attributable to street lighting and how it may affect costs for the City's general fund. After discussions with GIUD staff, it was decided to reduce the rate for several fixtures to ensure no rate increase for street lighting. The proposed rate changes were as follows:
 - Mercury Vapor
 - 175 watt lamp from \$5.24 to \$5.00
 - High Pressure Sodium
 - 100 watt lamp from \$4.92 to \$3.75
 - 250 watt lamp from \$6.67 to \$6.19
 - Metal Halide
 - 100 watt lamp from \$6.75 to \$4.50

The accompanying revised draft report includes the effect of these proposed changes. In the professional opinion of JKEC, these changes are necessary and will help ensure that GIUD's rates are fair, reasonable and non-discriminatory. Further, the changes will make the rates simpler to administer and address the concern about the previously-proposed rate increase for street lighting.

Also, with regard to rate comparisons (see pages 25-27 of the revised draft report), the previous draft report was based on a single month analysis: July for summer and January for winter. The revised draft report uses the average projected Power Cost Adjustment over the full summer or winter season. This change does not have a material impact on the rate comparison tables.

If you have any questions, please feel free to contact me.

Sincerely yours,



John A. Krajewski, P.E.
JK Energy Consulting, LLC

Attachments

COST OF SERVICE / RATE DESIGN STUDY UPDATE

CITY OF GRAND ISLAND UTILITIES
DEPARTMENT

CITY COUNCIL FINAL DRAFT -
REVISED

AUGUST 23, 2018

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JK *Energy
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EXECUTIVE SUMMARY

This study was prepared by JK Energy Consulting, LLC for the City of Grand Island Utilities Department (GIUD or Utility). The purpose of the study was to review the electric rates for the Utility and ensure that electric rates are adequate to pay for projected expenses.

Based on the analysis completed, it appears the existing rates are projected to collect sufficient revenue in fiscal year (FY) 2018 (Table 6, Line 22). Projected retail revenue for FY 2018 was approximately \$64.9 million while projected revenue requirements (operating expenses, debt service and capital improvements less non-retail revenues) were approximately \$64.9 million. This indicates no rate increase would be necessary in FY 2018 to ensure sufficient revenue to cover projected expenses and provide adequate return on rate base.

Of the projected revenue requirements, approximately \$54.5 million (Table 4, Line 22) was for local generation and purchased power, including transmission service to deliver these purchases. This represents approximately 84% of project revenue requirements. The analysis completed indicated that a rate increase would not be necessary in FY 2018. A series of 1.0% rate increases may be necessary in FY 2020 through 2022 to ensure positive cash flow through the end of the study period.

An assessment of the Utility's cash reserve policy was completed. It was recommended to add an additional amount to the cash reserve calculation to cover unexpected costs related to a "Catastrophic Event." This was added to cover the costs related to damage from an event, such as a tornado or ice storm, that causes damage to a significant portion of the overhead distribution system. The proposed amount for this line item would be approximately \$4.6 million, increasing the total cash reserve requirement to \$36.7 million (Table 3).

The proposed cash reserve amount represents approximately 200 days of liquidity, which is based on how many days of operating expenses current cash and unrestricted investments would be able to cover. Based on the Moody's rating methodology for municipal utilities, current cash reserves are consistent with an Aa rating, which is one notch above the Utility's current rate of A1 (stable).

The cost of service analysis was completed to assess the amount that each rate class should be paying compared to the revenue that is being collected from existing rates (Table 6). The analysis also indicated how much revenue is collected in each season compared to the cost of service in the respective season (Table 7). In general, it appeared that future rate changes should be implemented by increasing Residential and Single Phase Commercial rates more than the rates for other rate classes. Summer season rates tend to be less than the cost of service while winter season rates are higher than the indicated cost of service. Customer charges are generally lower than the indicated cost of service and should be increased for all rate classes (Table 5).

The purpose of rate design is to develop rates that reflect the cost of service and accomplish other goals established by the Utility. Customer charges would be increased for Residential and Commercial customers. Rates would be simplified by reducing the number of blocks for Residential and Commercial customers. For demand-billed customers, demand rates were increased somewhat to more accurately reflect the cost of service. With the proposed rate changes, the change in the typical monthly bill for a Residential customer would be negligible. The proposed rate changes were consistent with the cost of service analysis.

Two other rate design changes were proposed. The first would increase the Fuel Cost Adjustment base from 1.5¢/kWh to 3.5¢/kWh. This change would be accompanied by an increase in the energy cost for each block of 2.0¢/kWh. This proposed change would not have any effect on total revenue but would decrease the amount billed through the Fuel Cost Adjustment.

The second change would be to modify the billing structure for Street Lighting and Area Lighting. The current rate structure is based on the wattage of the light fixture. In recent years, the rated wattage for new fixtures, such as LED lights, has decreased while the capital cost is higher than that of high pressure sodium fixtures that provide similar lighting patterns. This results in under-recovery using a wattage-based rate. It was recommended to modify the Street Lighting and Area Lighting rate to be based on the capital cost of the fixture, estimated O&M, and projected energy cost. The Street Lighting rate includes recovery of incremental energy costs, while the Area Lighting rate includes full recovery of demand-related costs.

The proposed rates are comparable to the rates of the City's peer group. Rates were compared to Nebraska Public Power District (NPPD), Lincoln Electric System (LES), Omaha Public Power District (OPPD), and the City of Hastings, which is a similarly-sized municipal utility located in central Nebraska. Hastings has comparable rates for similar Residential services. NPPD and OPPD tend to have higher rates. Most neighboring utilities are experiencing power supply and operating cost increases, which will help keep the Utility's rates competitive.

Conclusions

The following conclusions were reached, based on the information provided and analyses completed:

1. The projected revenue requirement for FY 2018 was \$64.9 million.
2. Projected revenues from existing rates are approximately \$64.9 million.
3. The existing cash reserve policy does not include a category related to the cost of a catastrophic event, such as an ice storm or tornado, that causes significant damage to the distribution system.
4. The potential cost of a catastrophic event, consisting of destruction of 10% of the distribution system and loss of 20% of revenue for 15 days, is approximately \$4.6 million.

5. Customer charges for Residential and Commercial customers are less than the calculated cost of service.
6. The existing rate structure for Residential and Commercial customers is relatively complicated, with three to six energy usage blocks and a declining block rate structure. In recent years, utilities have tended to reduce rate blocks and decrease use of declining block rate structures.
7. For demand-billed customers, the existing demand rate is somewhat less than the cost of service.
8. The existing billing methodology for Street Lighting and Area Lights does not properly recover the cost of newer high-efficiency fixtures, such as LED street lighting.
9. With the proposed rate changes in October 2018, the Utility's rates would be comparable to the City's peer group.

Recommendations

The following recommendations were developed based on the analyses completed and conclusions reached:

1. The Utility should adopt the rate ordinance included in Appendix A.
2. The Utility should consider 1.0% annual rate increases in FY 2020 through FY 2022 to ensure adequate revenues to cover projected operating expenses, debt service and capital improvements.
3. The cash reserve policy should be amended to include a reserve for a Catastrophic Event. The amount that should be included initially is approximately \$4.6 million.
4. Customer charges should be increased for Residential and Commercial customers to reflect the cost of service.
5. Residential and Commercial rates should be simplified by reducing the number of rate blocks. The proposed rate structure would result in no more than three energy blocks for any rate class.
6. Demand rates should be increased for demand-billed customers.
7. The billing structure for Street Lighting and Area Lighting should be changed from a wattage-based structure to a fixture-based rate that considers capital cost, ongoing maintenance and energy cost. The recommended Street Lighting rate would be revenue neutral.
8. The Utility should review its rates on a regular basis, particularly as fuel costs, off-system sales revenues and capital improvement expenses change in the future.

PURPOSE AND APPROACH

The purpose of this study was to review the electrical rates charged by the Utility and develop rates that were consistent with a number of goals. These goals included having rates that were competitive, providing sufficient revenues to cover projected operating expenses, and having rates that reflected the cost of service for each rate class.

The approach to the study involved completing several tasks. Retail sales, purchased power, operating expenses, capital project, and financial information was updated. Test year expenses for FY 2018 were projected and future revenues and expenses were projected through FY 2022. A rate plan was developed to meet the financial goals established by the Utility. The allocated cost of service for each rate class was calculated and compared to revenue from existing rates. Rates for each rate class were developed based on the cost of service and other goals established by the Utility.

A rate ordinance for FY 2019 was developed, establishing new rates that would not increase overall rates, but would include adjustments based on the cost of service results. A written report was prepared and presented to the GIUD staff for review.

BACKGROUND

Grand Island Utilities Department – Electric Utility

The Grand Island Utilities Department operates its electric utility, which serves customers located within the City and in some areas adjacent to the City. The Utility serves approximately 21,000 Residential customers, 5,600 Commercial customers, and 110 Large Power service customers, along with street lighting, private security lighting, and City-owned accounts.

Power Supply

The Utility owns and operates two power stations for a combined 181 MW of accredited generation, including 100 MW of coal-fired generation and 81 MW of combustion turbine capacity. GIUD also participates in several jointly utilized facilities, including Nebraska City Unit 2, Whelan Energy Center Unit 2 and various wind projects. Approximately 9 MW of capacity and energy is purchased from the Western Area Power Administration (Western) under long-term agreements.

PROJECTED FINANCIAL RESULTS

The purpose of preparing projected financial results is to compare projected revenues with projected expenses, and to determine the need for future rate increases. Projections were prepared for the period FY 2018 through FY 2022 based on information provided by the Utility.

Parameters

The following parameters were used to develop the projected financial results:

1. Historical and projected results were prepared based on the Utility's fiscal year (October 1 through September 30).
2. The FY 2018 budget was used as the basis for the test year budget, with adjustments to ensure projected expenses were consistent with actual historical expenditures.
3. Western rates were projected to remain stable in FY 2019 through FY 2022.
4. Expenses associated with Tenaska purchases, Southwest Power Pool (SPP) transmission costs, and other purchased power expenses were projected to increase 3.0% annually.
5. O&M expenses, administrative costs, and other internal expenses were projected to increase at a rate of 3.0% annually.
6. Projected financial results were presented on a "cash basis" and an "accrual basis." Cash basis accounting includes capital improvements and debt service principal as expenses but does not include depreciation expense. Rate of return on a "utility basis" was calculated for information purposes but was not a determining factor in calculating the necessary rate change.
7. Debt service costs were based on existing repayment schedules for the 2012 Series and 2013 Series bonds, and no additional debt would be issued during the study period.

Projected Financial Results

Tables 1a (see page 7) and 1b (see page 8) show the projected financial results for FY 2018 through FY 2022, on an accrual basis and cash basis, respectively, along with historical financial results for FY 2015 through FY 2017. The projected financial results do not include rate increases or use of available reserve funds.

On an accrual basis, without a rate increase or use of reserve funds, the projected deficit would be approximately \$781,000 in FY 2018, increasing to approximately \$3.1 million by FY 2022 (Table 1a, Line 25). Existing rates would need to be increased by 4.8% between now and FY 2022 to cover the projected deficit (Table 1a, Line 26).

On a cash basis, without a rate increase or use of reserve funds, the projected deficit would be approximately \$16,000 in FY 2018, increasing to \$1.3 million by FY 2022 (Table 1b, Line 24). Existing rates would need to be increased by approximately 2.0% between now and FY 2022 to cover the projected cash-basis deficit (Table 1b, Line 25).

Table 1a
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Accrual Basis
Existing Rates

Line	Description	Actual		Test Year		Projected		
		2016	2017	2018	2019	2020	2021	2022
1	Operating Revenues							
2	Retail Sales - Existing Rates	\$ 62,545,863	\$ 64,528,587	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776
3	Wholesale Revenue	2,769,498	18,946,068	20,768,000	20,768,000	20,768,000	20,768,000	20,768,000
4	Fuel Cost Adjustment	-	-	1,409,209	3,217,090	5,001,449	6,839,339	8,732,365
5	Rate Changes	-	-	-	-	-	-	-
6	Other Operating Revenue	1,025,855	616,198	892,700	919,481	947,065	975,477	1,004,742
7	Total Operating Revenue	\$ 66,341,216	\$ 84,090,853	\$ 87,929,685	\$ 89,764,347	\$ 91,576,290	\$ 93,442,592	\$ 95,364,883
8	Operating Expenses							
9	Cost of Power	\$ 36,386,482	\$ 54,439,616	57,746,250	59,478,638	61,262,997	63,100,887	64,993,913
10	Operation & Maintenance of System	5,194,186	5,500,569	5,668,875	5,838,941	6,014,109	6,194,533	6,380,369
11	Customer Accounting / Collections	1,498,808	1,498,600	1,536,625	1,582,724	1,630,205	1,679,112	1,729,485
12	Administrative & General	3,495,959	3,479,663	3,649,383	3,758,864	3,871,630	3,987,779	4,107,413
13	Depreciation & Amortization	11,385,645	12,603,461	12,767,000	13,150,010	13,544,510	13,950,846	14,369,371
14	Total Operating Expenses	\$ 57,961,080	\$ 77,521,909	\$ 81,368,133	\$ 83,809,177	\$ 86,323,452	\$ 88,913,156	\$ 91,580,551
15	Operating Income	\$ 8,380,136	\$ 6,568,944	\$ 6,561,552	\$ 5,955,170	\$ 5,252,838	\$ 4,529,436	\$ 3,784,333
16	Non-Operating Expense/(Revenue)							
17	Interest Income	\$ (405,413)	\$ (341,352)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)
18	Loss/(Gain) on Sale of Assets	222,647	86,576	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
19	Allocated Debt on Power Purchases	5,795,172	5,775,493	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000
20	Payments in Lieu of Taxes	675,217	639,461	700,000	700,000	700,000	700,000	700,000
21	Interest Expense	1,880,397	1,822,659	1,751,867	1,693,450	1,583,550	1,454,550	1,320,750
22	Bond Premium Amortization	(451,059)	(436,163)	(418,927)	(418,927)	(418,927)	(418,927)	(418,927)
23	Debt Service Interest - Proposed	-	-	-	-	-	-	-
24	Total Non-Operating - Accrual Basis	7,716,961	7,546,674	7,342,940	7,284,523	7,174,623	7,045,623	6,911,823
25	Net Income - Accrual Basis	\$ 663,175	\$ (977,730)	\$ (781,388)	\$ (1,329,353)	\$ (1,921,785)	\$ (2,516,187)	\$ (3,127,490)
26	Rate Change for Breakeven Accrual		1.52%	1.20%	2.05%	2.96%	3.88%	4.82%

Table 1b
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Cash Basis
Existing Rates

Line	Description	Actual		Test Year			Projected		
		2016	2017	2018	2019	2020	2021	2022	
1	Operating Revenues								
2	Retail Sales - Existing Rates	\$ 62,545,863	\$ 64,528,587	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	
3	Wholesale Revenue	2,769,498	18,946,068	20,768,000	20,768,000	20,768,000	20,768,000	20,768,000	
4	Fuel Cost Adjustment	-	-	1,409,209	3,141,597	4,925,956	6,763,846	8,656,872	
5	Rate Changes	-	-	-	-	-	-	-	
6	Other Operating Revenue	1,025,855	616,198	892,700	919,481	947,065	975,477	1,004,742	
7	Total Operating Revenue	\$ 66,341,216	\$ 84,090,853	\$ 87,929,685	\$ 89,688,854	\$ 91,500,797	\$ 93,367,099	\$ 95,289,390	
8	Operating Expenses								
9	Cost of Power	\$ 42,181,654	\$ 60,215,109	63,446,250	65,178,638	66,962,997	68,800,887	70,693,913	
10	Operation & Maintenance of System	5,194,186	5,500,569	5,668,875	5,838,941	6,014,109	6,194,533	6,380,369	
11	Customer Accounting / Collections	1,498,808	1,498,600	1,536,625	1,582,724	1,630,205	1,679,112	1,729,485	
12	Administrative & General	3,495,959	3,479,663	3,649,383	3,758,864	3,871,630	3,987,779	4,107,413	
13	Total Operating Expenses	\$ 52,370,607	\$ 70,693,941	\$ 74,301,133	\$ 76,359,167	\$ 78,478,942	\$ 80,662,310	\$ 82,911,180	
14	Operating Income	\$ 13,970,609	\$ 13,396,912	\$ 13,628,552	\$ 13,329,687	\$ 13,021,855	\$ 12,704,789	\$ 12,378,211	
15	Non-Operating Expense/(Revenue)								
16	Interest Income	\$ (405,413)	\$ (341,352)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)	
17	Loss/(Gain) on Sale of Assets	222,647	86,576	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	
18	Payments in Lieu of Taxes	675,217	639,461	700,000	700,000	700,000	700,000	700,000	
19	Interest Expense	1,880,397	1,822,659	1,751,867	1,693,450	1,583,550	1,454,550	1,320,750	
20	Debt Service Principal - Existing	2,915,000	2,975,000	3,035,000	3,110,000	3,225,000	3,345,000	3,485,000	
21	Capital Improvements	10,361,628	10,143,787	8,547,702	8,547,702	8,547,702	8,547,702	8,547,702	
22	Debt Service Interest - Proposed	-	-	-	-	-	-	-	
23	Debt Service Principal - Proposed	-	-	-	-	-	-	-	
24	Total Non-Operating - Cash Basis	15,649,476	15,326,131	13,644,569	13,661,152	13,666,252	13,657,252	13,663,452	
25	Net Income - Cash Basis	\$ (1,678,867)	\$ (1,929,219)	\$ (16,017)	\$ (331,465)	\$ (644,397)	\$ (952,463)	\$ (1,285,241)	
26	Rate Change for Breakeven Cash Basis		2.99%	0.02%	0.51%	0.99%	1.47%	1.98%	
27	Debt Service Coverage								
28	Net Revenue	\$ 13,478,158	\$ 13,012,227	\$ 13,318,552	\$ 13,019,687	\$ 12,711,855	\$ 12,394,789	\$ 12,068,211	
29	Debt Service	\$ 4,795,397	\$ 4,797,659	\$ 4,786,867	\$ 4,803,450	\$ 4,808,550	\$ 4,799,550	\$ 4,805,750	
	Calculated Debt Service Coverage	2.81	2.71	2.78	2.71	2.64	2.58	2.51	

Return on rate base is a measure of rate adequacy typically used by investor-owned utilities to demonstrate the rate of return the utility is collecting on its investments in facilities. For municipal utilities, an adequate return on rate base ensures that new customers are paying their fair share for previous investments made by the utility and its ratepayers. The target return on rate base is typically based on the weighted cost of equity and debt. For GIUD, the weighted cost of capital was 6.11%, based on 6.50% return on equity and 4.47% long-term interest cost. Without a rate increase, the return on rate base is below the targeted level of 6.11% (Table 1c, Line 9). Although a rate adjustment to increase the return on rate base to the targeted level is not proposed at this time, the Utility may want to consider this in the future.

Table 1c
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Return on Rate Base and Projected Cash on Hand
Existing Rates

Line	Description	Actual	Test Year	Projected		
		2017	2018	2019	2020	2021
1	Estimated Return on Rate Base					
2	Revenue	\$ 84,090,853	\$ 87,929,685	\$ 89,764,347	\$ 91,576,290	\$ 93,442,592
3	Operating Expenses	77,521,909	81,368,133	83,809,177	86,323,452	88,913,156
4	Net Income (excluding Interest Expense)	\$ 6,568,944	\$ 6,561,552	\$ 5,955,170	\$ 5,252,838	\$ 4,529,436
5	Rate Base					
6	Net Plant in Service	\$ 148,019,548	\$ 148,019,548	\$ 148,019,548	\$ 148,019,548	\$ 148,019,548
7	Working Capital	\$ 8,836,743	\$ 9,287,642	\$ 9,544,896	\$ 9,809,868	\$ 10,082,789
8	Projected Rate Base	\$ 156,856,291	\$ 157,307,190	\$ 157,564,444	\$ 157,829,416	\$ 158,102,337
9	Return on Rate Base	4.19%	4.17%	3.78%	3.33%	2.86%
10	Target Return on Rate Base	6.11%	6.11%	6.11%	6.11%	6.11%
11	Rate Change to Achieve Target Return (\$)	3,014,838	3,049,779	3,671,879	4,390,401	5,130,478
12	(%)	4.67%	4.70%	5.66%	6.77%	7.91%
13	Projected Cash on Hand					
14	Starting Balance		41,235,711	41,219,694	40,888,229	40,243,832
15	Increase / Decrease		(16,017)	(331,465)	(644,397)	(952,463)
16	Ending Balance		41,219,694	40,888,229	40,243,832	39,291,369
17	Cash Operating Expenses		74,301,133	76,359,167	78,478,942	80,662,310
18	Days of Operating Expenses		202	195	187	178

Future Rate Changes

Tables 2a (see page 10) and 2b (see page 11) show projected financial results on an accrual and cash basis with the proposed rate design, which includes no substantive revenue change. Rate increases of 1.0% may be needed in 2020 through 2022 to fund increases in operating costs not covered by the fuel cost adjustment. These increases can be assessed in the future if cost increases materialize. The proposed rate design provides sufficient revenue to cover projected purchased power, O&M, debt service, and administrative and general costs while maintaining compliance with the Utility's cash reserve policy and without issuing additional debt.

Table 2a
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Accrual Basis
Projected Rates

Line	Description	Actual		Test Year 2018	Projected		
		2016	2017		2019	2020	2021
1	Operating Revenues						
2	Retail Sales - Existing Rates	\$ 62,545,863	\$ 64,528,587	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776
3	Wholesale Revenue	2,769,498	18,946,068	20,768,000	20,768,000	20,768,000	20,768,000
4	Fuel Cost Adjustment	-	-	1,409,209	3,217,090	5,001,449	6,839,339
5	Rate Changes	-	-	(41,639)	(41,639)	606,543	1,261,206
6	Other Operating Revenue	1,025,855	616,198	892,700	919,481	947,065	975,477
7	Total Operating Revenue	\$ 66,341,216	\$ 84,090,853	\$ 87,888,047	\$ 89,722,708	\$ 92,182,833	\$ 94,703,798
8	Proposed Rate Change			-0.1%	0.0%	1.0%	1.0%
9	Operating Expenses						
10	Cost of Power	\$ 36,386,482	\$ 54,439,616	\$ 57,746,250	\$ 59,478,638	\$ 61,262,997	\$ 63,100,887
11	Operations & Maintenance of System	5,194,186	5,500,569	5,668,875	5,838,941	6,014,109	6,194,533
12	Customer Accounting / Collections	1,498,808	1,498,600	1,536,625	1,582,724	1,630,205	1,679,112
13	Administrative & General	3,495,959	3,479,663	3,649,383	3,758,864	3,871,630	3,987,779
14	Depreciation & Amortization	11,385,645	12,603,461	12,767,000	13,150,010	13,544,510	13,950,846
15	Total Operating Expenses	\$ 57,961,080	\$ 77,521,909	\$ 81,368,133	\$ 83,809,177	\$ 86,323,452	\$ 88,913,156
16	Operating Income	\$ 8,380,136	\$ 6,568,944	\$ 6,519,914	\$ 5,913,531	\$ 5,859,381	\$ 5,790,642
17	Non-Operating Expense/(Revenue)						
18	Interest Income	\$ (405,413)	\$ (341,352)	(350,000)	(350,000)	(350,000)	(350,000)
19	Loss/(Gain) on Sale of Assets	222,647	86,576	(40,000)	(40,000)	(40,000)	(40,000)
20	Allocated Debt on Power Purchases	5,795,172	5,775,493	5,700,000	5,700,000	5,700,000	5,700,000
21	Payments in Lieu of Taxes	675,217	639,461	700,000	700,000	700,000	700,000
22	Interest Expense	1,880,397	1,822,659	1,751,867	1,693,450	1,583,550	1,454,550
23	Bond Premium Amortization	(451,059)	(436,163)	(418,658)	(418,658)	(422,845)	(427,073)
24	Debt Service Interest - Proposed	-	-	-	-	-	-
25	Total Expenses - Accrual Basis	\$ 7,716,961	\$ 7,546,674	\$ 7,342,940	\$ 7,284,523	\$ 7,174,623	\$ 7,045,623
26	Net Income - Accrual Basis	\$ 663,175	\$ (977,730)	\$ (823,026)	\$ (1,370,992)	\$ (1,315,242)	\$ (1,254,981)
27	Rate Change for Breakeven		1.52%	1.27%	2.11%	2.03%	1.93%
							2.88%

Table 2b
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Cash Basis
Projected Rates

Line	Description	Actual		Test Year		Projected		
		2016	2017	2018	2019	2020	2021	2022
1	Operating Revenues							
2	Retail Sales - Existing Rates	\$ 62,545,863	\$ 64,528,587	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776	\$ 64,859,776
3	Wholesale Revenue	2,769,498	18,946,068	20,768,000	20,768,000	20,768,000	20,768,000	20,768,000
4	Fuel Cost Adjustment	-	-	1,409,209	3,217,090	5,001,449	6,839,339	8,732,365
5	Rate Changes	-	-	(41,639)	(41,639)	606,543	1,261,206	1,261,206
6	Other Operating Revenue	1,025,855	616,198	892,700	919,481	947,065	975,477	1,004,742
7	Total Operating Revenue	\$ 66,341,216	\$ 84,090,853	\$ 87,888,047	\$ 89,722,708	\$ 92,182,833	\$ 94,703,798	\$ 96,626,089
8	Proposed Rate Change			0.0%	0.0%	1.0%	1.0%	1.0%
9	Operating Expenses							
10	Cost of Power	\$ 42,181,654	\$ 60,215,109	\$ 63,446,250	\$ 65,178,638	\$ 66,962,997	\$ 68,800,887	\$ 70,693,913
11	Operations & Maintenance of System	5,194,186	5,500,569	5,668,875	5,838,941	6,014,109	6,194,533	6,380,369
12	Customer Accounting / Collections	1,498,808	1,498,600	1,536,625	1,582,724	1,630,205	1,679,112	1,729,485
13	Administrative & General	3,495,959	3,479,663	3,649,383	3,758,864	3,871,630	3,987,779	4,107,413
14	Total Operating Expenses	\$ 52,370,607	\$ 70,693,941	\$ 74,301,133	\$ 76,359,167	\$ 78,478,942	\$ 80,662,310	\$ 82,911,180
15	Operating Income	\$ 13,970,609	\$ 13,396,912	\$ 13,586,914	\$ 13,363,541	\$ 13,703,891	\$ 14,041,488	\$ 13,714,910
16	Non-Operating Expense/(Revenue)							
17	Interest Income	\$ (405,413)	\$ (341,352)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)	\$ (350,000)
18	Loss/(Gain) on Sale of Assets	222,647	86,576	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
19	Payments in Lieu of Taxes	675,217	639,461	700,000	700,000	700,000	700,000	700,000
20	Interest Expense	1,880,397	1,822,659	1,751,867	1,693,450	1,583,550	1,454,550	1,320,750
21	Debt Service Principal - Existing	2,915,000	2,975,000	3,035,000	3,110,000	3,225,000	3,345,000	3,485,000
22	Capital Improvements	10,361,628	10,143,787	8,547,702	8,547,702	8,547,702	8,547,702	8,547,702
23	Debt Service Interest - Proposed	-	-	-	-	-	-	-
24	Debt Service Principal - Proposed	-	-	-	-	-	-	-
25	Total Expenses - Cash Basis	15,649,476	15,326,131	13,644,569	13,661,152	13,666,252	13,657,252	13,663,452
26	Net Income - Cash Basis	\$ (1,678,867)	\$ (1,929,219)	\$ (57,655)	\$ (297,611)	\$ 37,639	\$ 384,236	\$ 51,458
27	Rate Change for Breakeven Cash Basis		2.99%	0.09%	0.46%	-0.06%	-0.59%	-0.08%
28	Debt Service Coverage							
29	Net Revenue	\$ 13,478,158	\$ 13,012,227	\$ 13,276,914	\$ 13,053,541	\$ 13,393,891	\$ 13,731,488	\$ 13,404,910
30	Debt Service	\$ 4,795,397	\$ 4,797,659	\$ 4,786,867	\$ 4,803,450	\$ 4,808,550	\$ 4,799,550	\$ 4,805,750
31	Calculated Debt Service Coverage	2.81	2.71	2.77	2.72	2.79	2.86	2.79

The Utility is required to maintain debt service coverage of at least 1.30 under the terms of its bond indenture. As shown in Table 2b (see page 11), debt service coverage is above 2.0 through 2022. The primary cause of the proposed rate change is the need to maintain positive cash flow to fund O&M expenses along with capital improvements necessary to maintain the existing system.

Table 2c shows the projected return on rate base and cash on hand with the proposed rate design. The projected return on rate base would decrease to 4.14% in 2018, which is less than the targeted level (see Table 2c, Line 9). An additional rate increase of 4.77% would be necessary to increase the return on rate base to the targeted level (see Table 2c, Line 12).

Table 2c
Grand Island Utilities Department
2018 Cost of Service Study
Projected Financial Results - Return on Rate Base and Projected Cash on Hand
Projected Rates

Line	Description	Actual	Test Year	Projected		
		2017	2018	2019	2020	2021
1	Estimated Return on Rate Base					
2	Revenue	\$ 84,090,853	\$ 87,888,047	\$ 89,722,708	\$ 92,182,833	\$ 94,703,798
3	Operating Expenses	77,521,909	81,368,133	83,809,177	86,323,452	88,913,156
4	Net Income (excluding Interest Expense)	\$ 6,568,944	\$ 6,519,914	\$ 5,913,531	\$ 5,859,381	\$ 5,790,642
5	Rate Base					
6	Net Plant in Service	\$148,019,548	\$148,019,548	\$148,019,548	\$148,019,548	\$148,019,548
7	Working Capital	8,836,743	9,287,642	9,544,896	9,809,868	10,082,789
8	Projected Rate Base	\$156,856,291	\$157,307,190	\$157,564,444	\$157,829,416	\$158,102,337
9	Return on Rate Base	4.19%	4.14%	3.75%	3.71%	3.66%
10	Target Return on Rate Base	6.11%	6.11%	6.11%	6.11%	6.11%
11	Rate Change to Achieve Target Return (\$)	3,014,838	3,091,417	3,713,518	3,783,858	3,869,272
12	(%)	4.67%	4.77%	5.73%	5.83%	5.97%
13	Projected Cash on Hand					
14	Starting Balance		41,235,711	41,178,056	40,880,445	40,918,084
15	Increase / Decrease		(57,655)	(297,611)	37,639	384,236
16	Ending Balance		41,178,056	40,880,445	40,918,084	41,302,320
17	Cash Operating Expenses		74,301,133	76,359,167	78,478,942	80,662,310
18	Days of Operating Expenses		202	195	190	187

Minimum Cash Reserve Policy

The Utility has developed a minimum cash reserve policy that consists of several components. The current policy includes amounts for the following five categories, with the minimum cash reserve calculated as the total:

1. **Operational:** Based on operating expenses and lag in revenue collection compared to expenditures of 45 days. Excludes power costs.
2. **Power Cost:** Based on power costs and lag in revenue collection compared to expenditures of 45 days.
3. **Asset:** Based on risk that Utility will need to replace given assets, calculated by multiplying total plant assets by a risk factor.
4. **Capital Improvement:** Based on capital improvements for a projected 5-year period.

5. **Debt Service:** Based on largest debt service payment, net of sinking funds available to make debt service payment.

These proposed categories of cash reserves are reasonable and prudent for the Utility's risk profile. The current calculation results in a minimum cash reserve requirement of \$31.9 million.

One potential improvement to the cash reserve policy would be to add a catastrophic risk component. The component would cover the cost of an unexpected event, such as a tornado or ice storm, that causes damage to a significant portion of the Utility's distribution system without having to borrow funds. The analysis consisted of the following components:

1. **Loss of Revenue:** Loss of retail revenue associated with 20% of Utility's retail customers for a period of 15 days, net of a reduction in variable energy costs for a similar period. The cost of this component was \$387,000.
2. **Cost of System Replacement:** Assumed need to completely replace 10% of Utility's overhead three phase and single phase distribution system, based on new construction cost of \$120,000 per mile for three phase lines and \$80,000 per mile for single phase lines. The cost of this component was \$4.29 million.

The sum of the two components was \$4.67 million. Because this potential cost is not incorporated into any of the existing cash reserve components, it would be added to the current calculation as a separate line item. The proposed calculation for the new category will be forwarded to Utility staff upon completion of the study.

Table 3 (see page 14) shows the proposed cash reserve requirement with the new Catastrophic Event category included. The revised minimum cash reserve requirement would increase to \$41.2 million. As of December 31, 2017, the Utility had sufficient cash reserves to meet this revised requirement.

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Table 3
Grand Island Utilities Department
2018 Cost of Service Study
Minimum Cash Reserve

Line		Test Year 2018
1	Risk Reserve	
2	Operational	\$ 1,303,007
3	Power Cost	7,423,781
4	Asset	11,488,530
5	Capital Improvement	8,652,800
6	Debt Service	3,112,458
7	Catastrophic Event	4,674,536
8	Minimum Cash Reserved Needed	\$ 36,655,111
9		
10	Total Unrestricted Cash Available	\$ 41,235,711
11	Minimum Cash Reserved Needed	36,655,111
12		
13	Excess Over Minimum Required	\$ 4,580,600

COST OF SERVICE

The purpose of the cost of service analysis is to identify the costs related to serving each class of customers. Several steps were completed to prepare the cost of service analysis. A test year budget was prepared based on the FY 2018 operating budget with adjustments for known changes. Each expense item was identified and assigned to a utility function, and further classified as a demand, energy or customer related expense. This process is called “functionalization” and “classification.” Costs related to each function were then allocated to customer classes based on generally accepted cost allocation principles for municipal electric utilities. The allocated costs were compared to revenues based on existing rates. The comparison of the cost of service to revenue from existing rates was considered in designing rates.

Test Year Budget

The FY 2018 operating budget was used as the basis for the test year budget. The purpose of preparing a test year budget is to create a scenario that is as close to “normal” operating conditions as possible, reflecting known changes for the utility. The test year budget included the following adjustments from the FY 2018 operating budget:

1. Revenue for each rate class was based on sales in FY 2017 from provided billing data.

2. Internal transmission and distribution O&M expenses were reduced to a level consistent with recent actual expenditures to ensure that a normalized budget was used.
3. Revenues were increased to reflect the projected fuel cost adjustment for FY 2018, based on the increase in fuel and purchased power costs between FY 2017 and FY 2018.

The test year budget for FY 2018 was approximately \$64.9 million and is summarized in Table 4. This figure represents the amount that needs to be collected from retail rates. It includes all operating expenses, debt service payments, capital improvements funded from rates and is reduced for revenue from wholesale revenue, interest income and other non-retail revenue.

Table 4
Grand Island Utilities Department
2018 Cost of Service Study
Test Year Budget by Function
Annual

Line	Rate Class	Production / Transmission	Subtrans/ Distribution	Customer/ Admin	Total
1	E10 Residential	\$ 15,740,355	\$ 3,721,933	\$ 1,108,758	\$ 20,571,046
2	E30 Single Phase Commercial	1,816,732	373,264	93,476	2,283,472
3	E50 Three Phase Commercial	12,112,006	2,187,547	246,440	14,545,993
4	E00 Three Phase Power	8,627,180	953,431	6,946	9,587,557
5	Interdepartmental	-	-	-	-
6	E20 Residential Suburb	3,089	720	175	3,983
7	ENM Net Meter, Residential	6,976	1,420	144	8,540
8	E35 Single Phase Commercial	299,372	76,971	29,682	406,025
9	E34 Single Phase Commercial	46,353	17,978	8,206	72,536
10	E51 Three Phase Commercial 1%	239,404	42,413	2,868	284,684
11	E33 Single Phase Commercial 5%	11,057	1,657	57	12,770
12	E59 Three Phase Comm Service	78,348	16,897	2,350	97,596
13	E52 Three Phase Commercial 2%	356,340	48,897	396	405,634
14	E54 Three Phase Commercial 5%	32,840	2,730	113	35,683
15	E01 Three Phase Power 3%	11,432,675	764,007	1,141	12,197,823
16	E03 Three Phase Power 3%	2,320,879	172,226	570	2,493,675
17	IE1 Three Phase Power (ID)	90,529	8,845	143	99,517
18	IE2 Three Phase Power (ID) - 750	461,185	53,777	143	515,104
19	Area Flood Lighting	96,193	26,525	47,871	170,588
20	Street Lights	228,356	42,974	267,956	539,286
21	IE3 Three Phase Power (ID) - 3%	500,715	43,422	143	544,279
22	Total	\$ 54,500,583	\$ 8,557,633	\$ 1,817,577	\$ 64,875,793
23	Percentage	84.01%	13.19%	2.80%	100.00%

Functionalization and Classification

Functionalization and classification involves assigning the expense items to a function and classifying those expenses by allocation method. Functions vary by utility and are based on power supply arrangements, size, and type of utility. The following functions were used for the Utility:

1. Production and purchased power
 - a. Demand
 - b. Energy
2. Transmission and sub-transmission service
3. Distribution (primary and secondary)
4. Services
5. Meter reading
6. Billing and customer accounting

Expenses were classified into demand-related, energy-related, and customer-related classifications. Some costs are allocated solely to a single classification. For example, transmission service is classified as demand-related. Other functions, including primary distribution, were spread between the demand-related and customer-related classifications. The classifications were based on cost causation and the appropriate way to recover the costs under the Utility's retail rate structure.

Table 5 (see page 17) summarizes the classification of test year expenses, including the allocation to the various retail rate classes. Approximately \$3.8 million is customer-related, \$20.4 million is energy-related, and \$40.7 million is demand-related expense. Based on this classification, 5.9% of the Utility's test year budget is customer-related, 31.4% is energy-related, and 62.7% is demand-related.

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Table 5
Grand Island Utilities Department
2018 Cost of Service Study
Classification of Expenses
Annual

Line	Rate Class	Customer		Energy		Demand		
		(\$)	(\$/mon)	(\$)	(¢/kWh)	(\$)	(\$/kW)	¢/kWh
1	E10 Residential	\$2,576,064	\$ 10.14	\$ 5,945,255	2.86	\$ 12,049,727		5.80
2	E30 Single Phase Commercial	216,126	10.91	620,025	2.78	1,447,321		6.49
3	E50 Three Phase Commercial	575,610	14.35	4,210,240	2.87	9,760,143		6.66
4	E00 Three Phase Power	16,225	14.35	3,273,079	2.85	6,298,253		5.49
5	Interdepartmental	-	-	-	-	-		-
6	E20 Residential Suburb	405	10.14	1,146	2.95	2,432		6.26
7	ENM Net Meter, Residential	335	10.14	2,130	2.55	6,075		7.26
8	E35 Single Phase Commercial	68,627	10.91	98,725	2.74	238,673		6.61
9	E34 Single Phase Commercial	18,973	10.91	15,690	2.92	37,873		7.05
10	E51 Three Phase Commercial 1%	6,699	14.35	86,235	2.95	191,750		6.55
11	E33 Single Phase Commercial 5%	131	10.91	2,914	2.25	9,726		7.49
12	E59 Three Phase Comm Service	6,435	12.92	27,271	2.97	63,889		6.96
13	E52 Three Phase Commercial 2%	1,085	12.92	128,083	2.73	276,465		5.89
14	E54 Three Phase Commercial 5%	310	12.92	10,731	2.63	24,642		6.03
15	Not Used	-	-	-	-	-		-
15	E01 Three Phase Power 3%	2,523	26.28	4,640,547	2.74	7,554,752	23.57	4.47
16	E03 Three Phase Power 3%	1,262	26.28	760,907	2.76	1,731,507	24.01	6.28
17	IE1 Three Phase Power (ID)	315	26.28	34,593	2.57	64,609	24.27	4.80
18	IE2 Three Phase Power (ID) - 750	315	26.28	198,513	2.85	316,276	35.14	4.54
19	Area Flood Lighting	61,667	2.89	41,080	2.85	67,841		
20	Street Lights	280,714	4.64	97,522	2.85	161,050		
21	IE3 Three Phase Power (ID) - 3%	315	26.28	184,866	2.72	359,097	28.00	5.29
22	Total	\$3,834,139		\$ 20,379,553		\$ 40,662,102		
23	Percentage	5.9%		31.4%		62.7%		

One of the key findings shown in Table 5 is related to the customer component of the projected cost of service. This represents the cost of service for a customer that uses no energy. It includes costs such as meter reading, meter O&M, the service, a portion of the service transformer, and a portion of other distribution facilities necessary to ensure minimal service is available.

For Residential customers, the estimated customer-related cost is \$10.14 per month (see Table 5, Line 1). This is double the current customer charge of \$5.00 per month. Similarly, the customer charge for Single and Three Phase Commercial customers is lower than the calculated cost of service. The Utility should consider a plan to increase the customer charge over time to recover the calculated cost of service. The proposed rate ordinance includes an increase in the monthly customer charge for Residential and Commercial customers.

Cost Allocation

The functionalized costs were allocated to the various rate classes using generally accepted methods for preparing embedded cost of service studies. There is no standard cost of service methodology set by a regulatory agency that the Utility is required to follow. There are several guidelines that municipal utilities typically follow, including publications

and guidelines from the American Public Power Association, the National Association of Regulatory Utility Commissioners, and the Federal Energy Regulatory Commission.

Demand-related costs were allocated on the basis of coincident or non-coincident demands, depending on the function, and adjusted for losses. Energy-related costs were allocated on the basis of energy sales, adjusted for losses. Customer-related costs were allocated on the basis of the weighted number of customers within each rate class, with weighting factors determined based on the cost of metering, customer billing or services. Costs were further allocated into summer season and winter season related costs to assist in rate design.

Some expenses are not easily assigned to a particular function. Examples of expenses that are not easily assigned include interest income, general administrative expenses, and miscellaneous operating revenue. These expenses were assigned to functions based on net plant in service, which is one of several generally accepted methods for assigning these costs to the appropriate function.

Comparison of Revenues to Cost of Service

Revenues collected from existing rates were compared to the allocated cost of service. The purpose of this comparison was to provide guidance on the adequacy of existing rates for each rate class. This comparison can be used to assess the general magnitude of rate changes needed for each rate class and is one factor in determining the need for rate adjustments for individual rate classes.

Table 6 (see page 19) compares the revenue from existing rates to the calculated cost of service. Overall, the cost of service indicated rates would not need to increase in FY 2018. The cost of service indicated that individual rate classes would require rate changes ranging from 0.9% to 7.8% to recover the cost of service (excluding net metering). Some rate classes, including Single Phase Commercial, some Three Phase Commercial rate classes, and Street Lighting are paying more than the cost of service.

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Table 6
Grand Island Utilities Department
2018 Cost of Service Study
Comparison of Cost of Service
to Revenue from Existing Rates
Annual

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	E10 Residential	\$ 20,380,759	\$ 20,571,046	\$ 190,288	0.9%
2	E30 Single Phase Commercial	2,399,484	2,283,472	(116,012)	-4.8%
3	E50 Three Phase Commercial	14,259,402	14,545,993	286,591	2.0%
4	E00 Three Phase Power	9,408,767	9,587,557	178,790	1.9%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	3,696	3,983	288	7.8%
7	ENM Net Meter, Residential	6,664	8,540	1,876	28.1%
8	E35 Single Phase Commercial	425,375	406,025	(19,350)	-4.5%
9	E34 Single Phase Commercial	69,635	72,536	2,901	4.2%
10	E51 Three Phase Commercial 1%	279,425	284,684	5,259	1.9%
11	E33 Single Phase Commercial 5%	11,862	12,770	909	7.7%
12	E59 Three Phase Comm Service	95,369	97,596	2,226	2.3%
13	E52 Three Phase Commercial 2%	421,693	405,634	(16,059)	-3.8%
14	E54 Three Phase Commercial 5%	37,814	35,683	(2,130)	-5.6%
15	E01 Three Phase Power 3%	12,774,616	12,197,823	(576,793)	-4.5%
16	E03 Three Phase Power 3%	2,623,038	2,493,675	(129,363)	-4.9%
17	IE1 Three Phase Power (ID)	106,813	99,517	(7,296)	-6.8%
18	IE2 Three Phase Power (ID) - 750	483,495	515,104	31,609	6.5%
19	Area Flood Lighting	254,320	170,588	(83,732)	-32.9%
20	Street Lights	301,870	539,286	237,416	78.6%
21	IE3 Three Phase Power (ID) - 3%	515,677	544,279	28,602	5.5%
22	Total	\$ 64,859,776	\$ 64,875,793	\$ 16,017	0.0%

Table 7 (see page 20) shows the calculated cost of service for the summer and winter seasons. To fully recover the cost of service, summer season rates would require an increase of 4.0% while winter season rates would need to decrease 3.6%. In general, this indicates that rates in the summer are less than the cost of service while rates in the winter are greater than the cost of service.

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Table 7
Grand Island Utilities Department
2018 Cost of Service Study
Comparison of Cost of Service
to Revenue from Existing Rates
Summer

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	E10 Residential	\$ 9,873,432	\$ 10,313,401	\$ 439,968	4.5%
2	E30 Single Phase Commercial	1,026,517	1,098,203	71,687	7.0%
3	E50 Three Phase Commercial	7,049,613	7,610,732	561,119	8.0%
4	E00 Three Phase Power	4,429,989	4,524,523	94,534	2.1%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	2,037	2,206	169	8.3%
7	ENM Net Meter, Residential	2,312	3,379	1,067	46.2%
8	E35 Single Phase Commercial	171,907	181,545	9,638	5.6%
9	E34 Single Phase Commercial	34,239	36,920	2,681	7.8%
10	E51 Three Phase Commercial 1%	150,564	160,795	10,231	6.8%
11	E33 Single Phase Commercial 5%	2,009	2,658	649	32.3%
12	E59 Three Phase Comm Service	51,939	54,658	2,719	5.2%
13	E52 Three Phase Commercial 2%	196,403	202,380	5,977	3.0%
14	E54 Three Phase Commercial 5%	15,310	15,384	74	0.5%
15	E01 Three Phase Power 3%	5,862,204	5,907,118	44,914	0.8%
16	E03 Three Phase Power 3%	1,202,271	1,153,822	(48,449)	-4.0%
17	IE1 Three Phase Power (ID)	39,626	42,712	3,086	7.8%
18	IE2 Three Phase Power (ID) - 750	244,330	286,650	42,321	17.3%
19	Area Flood Lighting	105,967	56,971	(48,996)	-46.2%
20	Street Lights	125,779	191,212	65,433	52.0%
21	IE3 Three Phase Power (ID) - 3%	237,066	225,620	(11,445)	-4.8%
22	Total	\$ 30,823,513	\$ 32,070,889	\$ 1,247,376	4.0%

Winter

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	E10 Residential	\$ 10,507,326	\$ 10,257,646	\$ (249,681)	-2.4%
2	E30 Single Phase Commercial	1,372,968	1,185,269	(187,699)	-13.7%
3	E50 Three Phase Commercial	7,209,789	6,935,261	(274,529)	-3.8%
4	E00 Three Phase Power	4,978,778	5,063,034	84,256	1.7%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	1,658	1,777	119	7.2%
7	ENM Net Meter, Residential	4,353	5,162	809	18.6%
8	E35 Single Phase Commercial	253,468	224,480	(28,988)	-11.4%
9	E34 Single Phase Commercial	35,396	35,616	220	0.6%
10	E51 Three Phase Commercial 1%	128,862	123,890	(4,972)	-3.9%
11	E33 Single Phase Commercial 5%	9,853	10,113	260	2.6%
12	E59 Three Phase Comm Service	43,430	42,938	(492)	-1.1%
13	E52 Three Phase Commercial 2%	225,290	203,254	(22,036)	-9.8%
14	E54 Three Phase Commercial 5%	22,504	20,299	(2,204)	-9.8%
15	E01 Three Phase Power 3%	6,912,412	6,290,705	(621,707)	-9.0%
16	E03 Three Phase Power 3%	1,420,767	1,339,853	(80,914)	-5.7%
17	IE1 Three Phase Power (ID)	67,188	56,805	(10,382)	-15.5%
18	IE2 Three Phase Power (ID) - 750	239,165	228,454	(10,711)	-4.5%
19	Area Flood Lighting	148,354	113,617	(34,736)	-23.4%
20	Street Lights	176,091	348,074	171,983	97.7%
21	IE3 Three Phase Power (ID) - 3%	278,611	318,658	40,047	14.4%
22	Total	\$ 34,036,263	\$ 32,804,904	\$ (1,231,360)	-3.6%

RATE DESIGN

The purpose of rate design is to develop rates that help achieve established revenue and financial performance goals while balancing other rate goals established by the Utility. This process involves meeting goals that sometimes conflict with each other. For example, a goal to have competitive rates may conflict with the need to have rates that recover sufficient revenue to pay for projected expenses.

The rates were designed to best meet several goals that were established by the Utility and its consultant. These goals included:

1. Ensuring the long-term financial integrity of the utility.
2. Establishing rates that are fair, reasonable and non-discriminatory.
3. Developing rates that are competitive.
4. Encouraging usage during low cost time periods, while discouraging usage during high cost periods.
5. Recognizing the cost of service for rate classes and seasons.
6. Phasing in large rate increases to minimize rate impacts to customers.

Summary of Rate Changes

The proposed rate ordinance, included as Appendix A, would implement the proposed rate design changes on October 1, 2018 resulting in negligible revenue changes on an overall basis. The proposed rate changes are consistent with the cost of service results.

The proposed changes by rate class are shown in Table 8 (see page 22) on an annual basis and Table 9 (see page 23) on a seasonal basis. The proposed rate changes would be negligible for a Residential customer.

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Table 8
Grand Island Utilities Department
2018 Cost of Service Study
Proposed Rate Change by Rate Class - October 2018
Annual

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	E10 Residential	\$ 20,380,759	\$ 20,384,372	\$ 3,614	0.0%
2	E30 Single Phase Commercial	2,399,484	2,393,574	(5,910)	-0.2%
3	E50 Three Phase Commercial	14,259,402	14,292,663	33,261	0.2%
4	E00 Three Phase Power	9,408,767	9,496,504	87,737	0.9%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	3,696	3,692	(4)	-0.1%
7	ENM Net Meter, Residential	6,664	6,470	(194)	-2.9%
8	E35 Single Phase Commercial	425,375	446,184	20,808	4.9%
9	E34 Single Phase Commercial	69,635	76,070	6,435	9.2%
10	E51 Three Phase Commercial 1%	279,425	278,805	(621)	-0.2%
11	E33 Single Phase Commercial 5%	11,862	11,346	(516)	-4.4%
12	E59 Three Phase Comm Service	95,369	96,776	1,407	1.5%
13	E52 Three Phase Commercial 2%	421,693	421,693	-	0.0%
14	E54 Three Phase Commercial 5%	37,814	37,383	(431)	-1.1%
15	E01 Three Phase Power 3%	12,774,616	12,623,481	(151,136)	-1.2%
16	E03 Three Phase Power 3%	2,623,038	2,671,309	48,271	1.8%
17	IE1 Three Phase Power (ID)	106,813	105,441	(1,372)	-1.3%
18	IE2 Three Phase Power (ID) - 750	483,495	460,434	(23,061)	-4.8%
19	Area Flood Lighting	254,320	197,644	(56,677)	-22.3%
20	Street Lights	301,870	301,953	83	0.0%
21	IE3 Three Phase Power (ID) - 3%	515,677	512,345	(3,333)	-0.6%
22	Total	\$ 64,859,776	\$ 64,818,138	\$ (41,639)	-0.1%

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Table 9
Grand Island Utilities Department
2018 Cost of Service Study
Proposed Rate Change by Rate Class - October 2018

Line	Rate Class	Summer			
		Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	E10 Residential	\$ 9,873,432	\$ 10,247,313	\$ 373,881	3.8%
2	E30 Single Phase Commercial	1,026,517	1,022,522	(3,995)	-0.4%
3	E50 Three Phase Commercial	7,049,613	7,081,769	32,157	0.5%
4	E00 Three Phase Power	4,429,989	4,880,673	450,684	10.2%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	2,037	2,110	73	3.6%
7	ENM Net Meter, Residential	2,312	2,317	5	0.2%
8	E35 Single Phase Commercial	171,907	180,860	8,953	5.2%
9	E34 Single Phase Commercial	34,239	36,624	2,384	7.0%
10	E51 Three Phase Commercial 1%	150,564	150,846	282	0.2%
11	E33 Single Phase Commercial 5%	2,009	1,876	(133)	-6.6%
12	E59 Three Phase Comm Service	51,939	52,860	921	1.8%
13	E52 Three Phase Commercial 2%	196,403	196,403	-	0.0%
14	E54 Three Phase Commercial 5%	15,310	15,198	(112)	-0.7%
15	E01 Three Phase Power 3%	5,862,204	6,302,516	440,312	7.5%
16	E03 Three Phase Power 3%	1,202,271	1,329,106	126,835	10.5%
17	IE1 Three Phase Power (ID)	39,626	43,900	4,275	10.8%
18	IE2 Three Phase Power (ID) - 750	244,330	244,942	612	0.3%
19	Area Flood Lighting	105,967	82,352	(23,615)	-22.3%
20	Street Lights	125,779	125,814	35	0.0%
21	IE3 Three Phase Power (ID) - 3%	237,066	259,013	21,947	9.3%
22	Total	\$ 30,823,513	\$ 32,259,013	\$ 1,435,500	4.7%

Line	Rate Class	Winter			
		Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	E10 Residential	\$ 10,507,326	\$ 10,137,059	\$ (370,267)	-3.5%
2	E30 Single Phase Commercial	1,372,968	1,371,053	(1,915)	-0.1%
3	E50 Three Phase Commercial	7,209,789	7,210,894	1,104	0.0%
4	E00 Three Phase Power	4,978,778	4,615,831	(362,947)	-7.3%
5	Interdepartmental	-	-	-	0.0%
6	E20 Residential Suburb	1,658	1,582	(77)	-4.6%
7	ENM Net Meter, Residential	4,353	4,153	(199)	-4.6%
8	E35 Single Phase Commercial	253,468	265,324	11,855	4.7%
9	E34 Single Phase Commercial	35,396	39,447	4,050	11.4%
10	E51 Three Phase Commercial 1%	128,862	127,959	(903)	-0.7%
11	E33 Single Phase Commercial 5%	9,853	9,470	(383)	-3.9%
12	E59 Three Phase Comm Service	43,430	43,916	486	1.1%
13	E52 Three Phase Commercial 2%	225,290	225,290	-	0.0%
14	E54 Three Phase Commercial 5%	22,504	22,185	(319)	-1.4%
15	E01 Three Phase Power 3%	6,912,412	6,320,965	(591,448)	-8.6%
16	E03 Three Phase Power 3%	1,420,767	1,342,203	(78,564)	-5.5%
17	IE1 Three Phase Power (ID)	67,188	61,541	(5,647)	-8.4%
18	IE2 Three Phase Power (ID) - 750	239,165	215,492	(23,673)	-9.9%
19	Area Flood Lighting	148,354	115,292	(33,061)	-22.3%
20	Street Lights	176,091	176,139	48	0.0%
21	IE3 Three Phase Power (ID) - 3%	278,611	253,332	(25,280)	-9.1%
22	Total	\$ 34,036,263	\$ 32,559,125	\$ (1,477,139)	-4.3%

Specific Rate Design Issues

In general, the Utility's rate structure is reasonable for its size and customer base. Offering discounts for primary metering, ownership of transformation or both is common and consistent with cost of service principles. A number of specific rate design issues were identified based on the cost of service results, a review of the existing rate structure, and industry trends in ratemaking.

Specifically, the following rate design changes are recommended and included in the rate ordinance included in Attachment A.

1. **Increase Customer Charges for Residential and Commercial Customers:** The cost of service analysis indicated that the customer-related costs for Residential and Commercial customers is greater than the customer charge. This indicates that a very low usage customer, such as a net-metering customer or someone who leaves a residence unattended for a length of time, may be paying less than what it costs the Utility to provide service. It is recommended that Residential and Commercial customer charges be increased.
2. **Increase Demand Charges:** For customers with a demand rate component, the demand charge is currently less than the cost of service. It is proposed to increase the rate somewhat to more accurately reflect the cost of service.
3. **Simplify Energy Blocks:** In recent years, many utilities have attempted to reduce the number of rate blocks. Multiple rate blocks are difficult for customers to understand and can be more difficult to administer. Multiple rate blocks can sometimes result in mixed signals to customers, particularly when there is a decrease in rates from one block to the next, followed by an increase in a later block. In general, when it was practical, the number of rate blocks was reduced in the proposed rate ordinance, particularly with Commercial customers.
4. **Change to Fixture-based Lighting Rates:** The current rate structure for Street Lighting and Area Lighting is based on the wattage of the light fixture. In recent years, the rated wattage for new fixtures, such as LED lights, has decreased while the capital cost is higher than that of high pressure sodium fixtures that provide similar lighting patterns. The current structure does not adequately address these differences in capital costs. It was recommended to modify the Street Lighting and Area Lighting rates to be based on the capital cost of the fixture, estimated O&M, and projected energy cost. A different fixed rate was developed for each common size of mercury vapor, high pressure sodium metal halide, and LED fixture. The proposed rate would be revenue neutral while helping to ensure adequate revenue recovery, particularly for LED fixtures that are predominantly used in new installations.

5. **Increase Base Power Cost:** The Power Cost Adjustment is designed to cover the cost of increases in fuel and purchased power cost. In recent years, the cost of power has steadily increased to where the average cost of fuel and purchased power is typically approximately 3.8¢/kWh. The base power cost used to calculate the Power Cost Adjustment is 1.5¢/kWh. This results in Power Cost Adjustment charges that are more than 2.3¢/kWh, which means the Utility is recovering more from the Power Cost Adjustment than from the base power cost already included in rates. It was recommended to increase the base power cost to 3.5¢/kWh and to increase the amount of fuel and purchased power recovered from base rates by 2.0¢/kWh. This should result in the Power Cost Adjustment line on customer bills being closer to zero upon implementation of the change.
6. **Simplify Billing Demand Calculation:** Staff indicated there have been issues with implementing the current billing demand methodology. It is recommended to simplify the billing demand calculation to the higher of (a) current month billing demand or (b) 65% of the highest summer season peak during the previous 12 months. This approach is consistent with neighboring utilities and will have minimal effect on demand revenues.

Rate Comparisons

Rate comparisons with the City's peer group, consisting of NPPD, LES, OPPD and the City of Hastings, were prepared for Residential and Single Phase Commercial customers. These four utilities have a similar customer make-up, own and operate the vast majority of generating resources used to supply retail customers, and operate transmission (> 100 kV) facilities.

For the Residential rate class (see Table 10, page 26), GIUD has either the lowest or second-lowest rates among the peer group. There are differences between seasons and usage levels, but these trends tend to be consistent for the Residential class.

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Table 10
Grand Island Utilities Department
2018 Cost of Service Study
Typical Bill Comparison
Rate Comparisons - October 2018 Proposed
E10 Residential

Summer Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
Hastings	55.81	GIUD	103.66	LES	234.50
GIUD	59.13	LES	105.80	GIUD	237.26
LES	62.90	Hastings	106.79	Hastings	259.73
OPPD	67.02	OPPD	117.32	OPPD	268.22
NPPD	72.55	NPPD	124.35	NPPD	279.75
Winter Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
LES	49.30	LES	78.60	LES	166.50
GIUD	54.22	GIUD	88.13	GIUD	179.38
Hastings	55.81	NPPD	99.08	OPPD	191.61
NPPD	62.60	Hastings	100.49	NPPD	192.38
OPPD	66.41	OPPD	106.56	Hastings	210.03

For Commercial customers (see Table 11), summer season rates are the lowest with the peer group. Winter season rates are at the midpoint among the peer group. Commercial rate comparisons have a tendency to vary widely based on usage patterns, seasonal factors and the cost structure of the utility. GIUD has Commercial rates that are reasonable compared to its peer group.

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Table 11
Grand Island Utilities Department
2018 Cost of Service Study
Typical Bill Comparison
Rate Comparisons - October 2018 Proposed
E30 Single Phase Commercial

Summer Comparisons					
Utility	5,000 kWh	Utility	10,000 kWh	Utility	20,000 kWh
GIUD	469.32	GIUD	899.64	GIUD	1,329.96
LES	477.10	LES	931.10	LES	1,839.10
Hastings	485.74	Hastings	939.04	Hastings	1,845.64
OPPD	503.48	OPPD	969.68	OPPD	1,902.08
NPPD	639.49	NPPD	1,247.56	NPPD	2,463.68
Winter Comparisons					
Utility	5,000 kWh	Utility	10,000 kWh	Utility	20,000 kWh
LES	326.10	LES	629.10	LES	1,235.10
OPPD	403.73	OPPD	683.55	OPPD	1,243.20
GIUD	458.16	GIUD	877.31	GIUD	1,296.47
Hastings	485.74	Hastings	939.04	Hastings	1,845.64
NPPD	488.51	NPPD	945.58	NPPD	1,859.73

Rate comparisons are important but cannot take into account other factors that cause rate differences. For example, transfers and discounted services to municipal accounts would not be available if NPPD or OPPD served the Utility's retail customers. Municipally-owned utilities may transfer funds to the City as an in-lieu-of tax payment, as is currently done for economic development funding, or provide free or discounted labor and equipment to the City. Rate comparisons were based on existing rate schedules for 2018 and do not consider future rate changes that may be implemented by other utilities. The four utilities used in the rate comparisons are experiencing similar cost pressures related to new resources, fuel and purchased power cost increases, and general cost escalation.

CONCLUSIONS

The following conclusions were reached, based on the information provided and analyses completed:

1. The projected revenue requirement for FY 2018 was \$64.9 million.
2. Projected revenues from existing rates are approximately \$64.9 million.
3. The existing cash reserve policy does not include a category related to the cost of a catastrophic event, such as an ice storm or tornado, that causes significant damage to the distribution system.

4. The potential cost of a catastrophic event, consisting of destruction of 10% of the distribution system and loss of 20% of revenue for 15 days, is approximately \$4.6 million.
5. Customer charges for Residential and Commercial customers are less than the calculated cost of service.
6. The existing rate structure for Residential and Commercial customers is relatively complicated, with three to six energy usage blocks and a declining block rate structure. In recent years, utilities have tended to reduce rate blocks and decrease use of declining block rate structures.
7. For demand-billed customers, the existing demand rate is somewhat less than the cost of service.
8. The existing billing methodology for Street Lighting and Area Lights does not properly recover the cost of newer high-efficiency fixtures, such as LED street lighting.
9. With the proposed rate changes in October 2018, the Utility's rates would be comparable to the City's peer group.

RECOMMENDATIONS

The following recommendations were developed based on the analyses completed and conclusions reached:

1. The Utility should adopt the rate ordinance included in Appendix A.
2. The Utility should consider 1.0% annual rate increases in FY 2020 through FY 2022 to ensure adequate revenues to cover projected operating expenses, debt service and capital improvements.
3. The cash reserve policy should be amended to include a reserve for a Catastrophic Event. The amount that should be included initially is approximately \$4.6 million.
4. Customer charges should be increased for Residential and Commercial customers to reflect the cost of service.
5. Residential and Commercial rates should be simplified by reducing the number of rate blocks. The proposed rate structure would result in no more than three energy blocks for any rate class.
6. Demand rates should be increased for demand-billed customers.
7. The billing structure for Street Lighting and Area Lighting should be changed from a wattage-based structure to a fixture-based rate that considers capital cost, ongoing maintenance and energy cost. The recommended Street Lighting rate would be revenue neutral.
8. The Utility should review its rates on a regular basis, particularly as fuel costs, off-system sales revenues and capital improvement expenses change in the future.

CHAPTER 15

ELECTRICITY

Article I. Licenses; Installations; Inspections

Division 1. Generally

§15-1. Applicability of Article

This article shall apply to all structures, constructed, assembled or placed within the City zoning jurisdiction, and provides standards for electrical wiring as identified in the Nebraska State Electrical Act.

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9578, effective 03-29-2016

§15-2. National Electrical Code Adopted

(A) There is hereby adopted by the City of Grand Island for the purpose of safeguarding persons and buildings from hazards arising from the use of electricity for light, heat, power, radio, signaling, and other purposes, that certain code known as the National Electrical Code, 2017 Edition, recommended by the National Fire Protection Association, except as modified by this section.

(B) The National Electrical Code is modified by deleting Article 210-52C Subsection 2 and 3. Articles 320 and 330 are amended by §15-3 of the Grand Island City Code.

(C) One copy of the National Electrical Code, 2017 Edition, shall be on file in the City Clerk's office for public use and inspection as provided by law.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9194, effective 11-01-2008

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9508, effective 12-31-2014

Amended by Ordinance No. 9578, effective 03-29-2016

Amended by Ordinance No. 9667, effective 01-01-2018

§15-3. Amendments to National Electrical Code, 2017 Edition

The following sections are adopted as amendments to the same numbered sections of the National Electrical Code, 2017 Edition:

Article 210.11(C)(3) Shall be limited to two bathrooms.

Article 320 – Armored cable (type AC)

Anti short bushings shall be used.

Article 330 - Metal-Clad Cable (Type MC)

Anti short bushings shall be used.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9194, effective 11-01-2008

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9508, effective 12-31-2014

Amended by Ordinance No. 9578, effective 03-29-2016

Amended by Ordinance No. 9667, effective 01-01-2018

§15-4. Electrical Plans

Wherever the Building Code of the City requires that plans be filed with the Building Department for the construction and alteration of dwellings and all other buildings and structures in the City, there shall also be filed a detailed plan of the electrical work to be done on such structures which plan shall show the outlets, connections, and

all fixtures and appliances to be installed. If deviations are made from an approved set of plans, then the changes shall be submitted for approval. When the electrical work to be done is for additional wiring only, the Electrical Inspector may approve the same without plans therefor.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-5. Installation of Service Conductors

All electrical service conductors shall be installed according to the National Electrical Code with the following additional requirements. The point of entrance in all cases shall be determined by the Grand Island Utilities Department:

Overhead Service

Where the service mast is used for the sole support of the service drop, the minimum size shall be two-inch intermediate or galvanized rigid metal conduit. The service mast shall be continuous with no interruptions. The point of attachment shall be a minimum height of twelve (12) feet.

Underground Service

The service conductors shall be installed in a continuous approved conduit system from the service head, transformer or secondary tap box to the main meter socket or service disconnect. The first ten feet of conduit out of the ground attaching to a utility pole shall be schedule 40 G.R.C. conduit.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-6. Service Entrances

Each service entrance with 2,000 amperes capacity or less shall be provided with a readily accessible main disconnecting device with appropriate overcurrent protection; provided, each service entrance larger than 2,000 amperes capacity shall comply with the provisions of the National Electric Code. The device shall disconnect all ungrounded conductors from the source of supply in one motion or operation of the hand. For overhead services, said overcurrent protection shall be installed within twenty-five (25) feet from the weatherhead, and within ten (10) feet from where the conductors enter the building. For underground services, said overcurrent protection shall be installed within ten (10) feet from where the conductors enter the building.

(A) *Provisions for Metering.* The meter socket shall be the "ring type" meter socket for 200 amp services and below. Meter sockets shall be mounted on the outside of a building with the centerline located between five (5) and six (6) feet above finished grade unless prior approval is given by the Utilities Department and Building Department. Additional provisions for metering can be found in the Metering Standards set out by the Grand Island Utilities Department.

(B) Single family switches shall be grouped to disconnect them with one motion of the hand. (C)

Multiple Family Units. New multiple family units constructed in compliance with Chapter 8 of the Grand Island Code may be allowed up to 6 switches, one switch per unit. All switches shall be grouped together in one listed and approved assembly.

(D) *Number of Services.* One electrical service shall be provided for each tract or parcel of land, except upon written request and approval by the Utilities Director and Building Department Director, and/or their respective designee, and in conformance with this Code.

(E) *Electric Meter Location.* The electric meter shall be located on the property that it is supplying power to, unless prior approval by the Utilities Department and Building Department.

(F) *Meter Tampering.* Pursuant to Nebraska Revised Statute 25-21,275, tampering or bypassing a meter is strictly prohibited and will result in immediate disconnection.

(F) *Grade Changes.* The property owner shall be responsible for any repairs or modifications to City owned equipment damaged or deemed unsafe due to grade changes, settlement or erosion.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9194, effective 11-01-2008

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9578, effective 03-29-2016

§15-7. Wiring In Commercial Buildings

(A) Nonmetallic cable shall not be used for the installation of wiring for lights, heat, air conditioning power, or power in all commercial buildings. These include, but are not limited to, asylums, hospitals, hotels, motels, theaters, schools, factories, churches, warehouses, mills, grain elevators, food stores, office buildings, retail sales, stables, garages, meeting halls, buildings of fireproof or mill construction.

Exception: Tray cable systems installed in accordance with Article 392 NEC and permission of the Electrical Inspector.

(B) All dwelling units located within any commercial type building shall be wired to the same commercial standard.

(C) Wiring above suspended ceilings – all permanent raceways, boxes, cabinets, and fittings shall be securely fastened to the building structure.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9194, effective 11-01-2008

Amended by Ordinance No. 9578, effective 03-29-2016

§15-8. Wiring In Single and Multiple-Family Units

(A) Multiple family units may have branch circuits in individual units wired with nonmetallic sheathed cable if construction complies with Chapter 8 of the Grand Island City Code.

(B) Existing residential buildings containing more than six family units not having a two-hour fire wall rating separation as provided in Chapter 8 of the Grand Island City Code shall not be wired with nonmetallic cable.

(C) No wiring in basements below the floor joist on exterior walls shall be wired with unprotected nonmetallic cable.

(D) Smoke alarms shall be installed to comply with Section R314 of the 2015 International Residential Code.

(E) Carbon monoxide alarms shall be installed to comply with Section R315 of the 2015 International Residential Code.

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9508, effective 12-31-2014

Amended by Ordinance No. 9578, effective 03-29-2016

Amended by Ordinance No. 9667, effective 01-01-2018

§15-9. Repairs In Building Damaged by Fire

Whenever the wiring of any building in the City has been damaged by fire, the Electrical Inspector shall be notified before permanent repairs to this wiring are started. In replacing such wiring, all the rules of this article shall be observed.

§15-10. Existing Electrical Installations

(A) *Extensions to Existing Installations.* Extensions to existing installations shall not be made, attached or connected to any existing wiring where the existing wiring does not conform to the minimum requirements as set forth by this article.

(B) *Removal of Unused Electrical Wiring.* All unused and abandoned electrical equipment, wiring, conduits, and devices shall be removed from all buildings and structures.

(C) *Existing Electrical Wiring.* All existing electrical wiring, conduits, equipment, and devices in existing buildings shall be compliant with the code at the time of installation. Remodeled areas of buildings shall comply with the current code.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-11. Requirements for Electrical Installations

(A) Aluminum Conductors – aluminum conductors may be used for service entrance and feeders only.

(B) Equipment grounding conductors – an equipment grounding conductor will be required in all conduit systems except for rigid metal conduit systems with threaded hubs, couplings or fittings.

(C) CSST gas piping shall be bonded to comply with section 1312.2 of the 2015 Uniform Mechanical Code.

(D) Non-grounding receptacles shall not be installed, either in new work or for replacement, after December 31, 2014.

Amended by Ordinance No. 9194, effective 11-01-2008

Amended by Ordinance No. 9508, effective 12-31-2014

Amended by Ordinance No. 9667, effective 01-01-2018

§15-12. Reserved.

§15-13. Reserved.

Division 2. Permits

§15-14. Permit for Work; Required

No electrical wiring work, unless excepted in this section, shall be undertaken prior to the issuance of a permit therefor by the Building Department. Such permit shall be issued only to a registered contracting electrician.

No permit shall be required for minor repair work such as repairing flush and snap switches, replacing fuses, changing lamp sockets and receptacles, taping bare wires and joints, and repairing drop cords.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-15. Permit; Application

(A) No permit shall be issued to any person to do or cause to be done any work regulated by this Code, except to a person holding a valid unexpired and unrevoked registration as required by this chapter, except when and as otherwise hereinafter provided in this section.

(B) A permit may be issued to a properly registered person not acting in violation of any current contractor licensing law.

(C) Any permit by this Code may be issued to any person to do any work regulated by this Code in a single family dwelling used exclusively for living purposes, including the usual accessory buildings and quarters in connection with such buildings in the event that any such person is the bona fide owner of any such dwelling and accessory buildings and quarters, and that the same is currently occupied by said owner, provided, that said owner shall personally purchase all material and shall personally perform all labor in connection therein. No permit shall be issued to said owner for the installation of a new electrical service and panel.

(D) If work is done by other than said owner the permit will be voided and said owner will be subject to possible legal action.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9578, effective 03-29-2016

§15-16. Permit Fees

Upon the granting of a permit for electrical work requiring an inspection, the applicant shall pay a fee to the City in accordance with the City of Grand Island Fee Schedule.

§15-17. Electrical Work; Permit Required; Fee

The person to whom such registration is issued under this division shall be required to first secure permits to do any electrical work on the premises of such registration as required by ordinances of the City. Fees for the issuance of such permit shall be the same as now in force and required by ordinance.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-18. Investigation Fees; Work Without a Permit

(A) Whenever any work for which a permit is required by this Code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work.

(B) An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be in accordance with the City of Grand Island Fee Schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this Code, nor from penalty prescribed by law.

(C) This provision shall not apply to emergency work when it shall be proven to the satisfaction of the Building Department Director that such work was urgently necessary and that it was not practical to obtain a permit before the commencement of the work. In such cases, a permit must be obtained as soon as it is practical to do so.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-19. Reinspection; Fees

A reinspection fee in accordance with the City of Grand Island Fee Schedule may be assessed for each inspection when such portion of work for which inspection is called is not complete or when required corrections have not been made.

Amended by Ordinance No. 9194, effective 11-1-2008

§15-20. Reserved.

§15-21. Reserved.

Division 3. Electrical Inspections; Electrical Board

§15-22. Inspections; Required

All electric apparatus, wires or conduits that are to be hidden from view shall be inspected before concealment, and any person installing such wires shall notify the Electrical Inspector, giving him twenty-four hours in which to make the required inspection before such wires are concealed. For residential installations not exceeding four units per structure, power shall be permitted to be connected under the terms of a Temporary Electrical Hookup Agreement. This permit shall be obtained from the Building Department before a request is made to connect power.

Amended by Ordinance No. 8990, effective 08-10-2005

Amended by Ordinance No. 9578, effective 03-29-2016

§15-23. Inspection of Electrical Work

Any electrical work performed under the provisions of this division shall be inspected by the Electrical Inspector if the ordinances of the City provide for inspections.

§15-24. Violations

Any electrician, agent, or owner who shall construct, or cause to be constructed, wiring in any building, or part of such building or structure or device, in violation of any of the provisions of this article, and any architect, or other person, designing, drawing plans for, or having charge of such building, or part of such building or structure or device, who shall permit it to be so constructed, shall be deemed guilty of a misdemeanor.

§15-25. Designation of Electrical Inspector

Electrical inspections shall be under the supervision of the Building Department Director. The inspector in charge of these inspections shall be referred to in this article as the Electrical Inspector.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-26. Records

The Electrical Inspector shall keep complete records of all permits issued and inspections made and other official work performed under the provisions of this article.

§15-27. Review of Decisions; Electrical Board

When the Electrical Inspector condemns all or part of any electrical installation, the owner may, within five days after receiving written notice from the electrical inspector, file a petition for review of such action of the Electrical Inspector with the City Electrical Board, on receipt of which the Board shall at once proceed to determine whether such electrical installation complies with this article, and within three days shall make a decision in accordance with its findings.

§15-28. Right of Entry; Inspections; Disconnection

The Electrical Inspector shall have the right, during reasonable hours, to enter any building in the discharge of official duties, or for the purpose of making any inspection or test of the installation of electric wiring, electric device, or electric material contained therein, and the electrical inspector shall have the authority to cause the turning off of all electrical currents and to cut or disconnect, in case of emergency, any wire where such electrical currents are dangerous to life or property.

If electrical wiring is found to be hazardous, it shall be the responsibility of the property owner to have the needed repair work started as soon as possible or within forty-eight (48) hours. Extended time may be given by the Electrical Inspector.

If the service is disconnected for six (6) months or longer, an inspection shall be performed prior to reconnection. The City of Grand Island shall not be responsible for any damage to customer's property as a result of disconnection or reconnection.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-29. Disconnection or Removal During Fire

The Chief of the Fire Department or the Electrical Inspector, or a competent person delegated by them, or either of them, shall have the power to at once cause the removal of all wires or the turning off of all electrical currents

where such wires or current interfere with the work of the Fire Department during the progress of a fire. Any reconnection of a disconnected service shall be inspected by the Electrical Inspector prior to reconnection.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-30. Electrical Board; Appointment

The Electrical Board shall be appointed by the Mayor annually, with the approval of the City Council, and shall consist of a master electrician, a journeyman electrician, a representative of the Grand Island Utilities Department, a representative of the public at large, and the Building Department Director or delegated Electrical Inspector, who shall act as ex officio chairman of such Board. Three members of the Electrical Board shall constitute a quorum.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-31. Electrical Board; Duties

The Electrical Board shall establish standards and procedures for the qualification and registration of master electricians and journeyman electricians and shall issue an appropriate registration to each person who meets the qualifications therefor. The Board shall keep an official record of all its transactions and registrations.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-32. Reserved.

§15-33. Reserved.

Division 4. Electrical Contractors; Licenses, Registration

§15-34. Intent of Division

It is the intent of this division that no person shall engage in the business of installing, repairing or altering electrical wiring unless the work performed in the course of such business is under the direct supervision of a contracting or master electrician licensed by the State of Nebraska and registered with the City of Grand Island.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-35. Registration Required

No person shall engage in the business of installing, altering, or repairing any electrical wiring, fixtures, or apparatus for any purpose whatsoever in the City of Grand Island without first obtaining a Certificate of Registration as an electrical contractor.

Amended by Ordinance No. 9265, effective 08-17-2010

§15-36. Registration and Insurance Required

(1) Every registrant shall maintain in full force and effect insurance policies written by a company or companies authorized to do business in the State of Nebraska, with the following coverages, amounts, and provisions:

- (a) Comprehensive General Liability Insurance covering the operations of the registrant, including coverage for completed operations, with limits of not less than \$1,000,000 per occurrence for bodily injury and property damage.
- (b) A provision making the City of Grand Island an additional insured for any third party claims for bodily injury or property damage based upon occurrences in connection with the registrant's operations, including completed operations, within the City's zoning jurisdiction.
- (c) The registrant shall furnish the City of Grand Island Building Department a certificate or certificates of insurance for the above insurance coverage.
- (d) Any registration certificate issued under the provisions of this chapter shall be revoked should the registrant permit the insurance policy herein required to expire or lapse.

Amended by Ordinance No. 9144, effective 01-01-2008

Amended by Ordinance No. 9265, effective 08-17-2010

§15-37. Reserved

Deleted by Ordinance No. 9578, effective 03-29-2016

§15-38. Use of Name; Change of Address

No person or concern who has obtained a contracting electrician's registration shall allow his name to be used by another person or concern, either for the purpose of obtaining permits, or for doing business or work under such registration. Every person registered pursuant to this article shall notify the Electrical Board of any change to their street address.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-39. Reserved

§15-40. Reserved

Division 5. Master, Journeyman, Apprentice; Electricians

§15-41. Registration; Required

No person shall be engaged in the installation of any electrical wiring, fixtures, equipment, or devices for any purpose whatsoever in the City without having registered in the office of the Building Department.

(A) *Required.* Any applicant for a registration certificate shall be the holder of a valid State of Nebraska Electricians License.

(B) *Renewal.* All journeyman electrician's and master electrician's certificates of registration issued by the Electrical Board shall expire on December 31 of the year in which such certificates are issued, but such certificates may be renewed within thirty days thereafter upon application and payment of fees in accordance with the City of Grand Island Fee Schedule.

Any master electrician or journeyman electrician who does not renew his or her certificate of registration pursuant to this article within the thirty day grace period provided by this section shall automatically forfeit such certificate.

Amended by Ordinance No. 9366, effective 03-30-2012

Amended by Ordinance No. 9578, effective 03-29-2016

§15-42. Reserved

Deleted by Ordinance No. 9578, effective 03-29-2016

§15-43. Apprentice Electrician

Apprentice electricians shall be required to have a valid State of Nebraska registration and work under the direct supervision of a contracting, master, or journeyman electrician.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-44. Reserved.

§15-45. Reserved.

Division 6. Registration Certificate Revocation

§15-46. Registration Certificate; Revocation

(A) *Registration Certificate; Revocation.* The City Council, by a majority vote, shall have the power to revoke the certificate of any contracting, master, or journeyman electrician issued pursuant to this article, upon the recommendation of the Electrical Board, if such registration was obtained through error or fraud, or if the recipient thereof is shown to be grossly incompetent, or has a second time willfully violated any of the provisions of this article. This penalty shall be cumulative and in addition to the penalties prescribed for the violation of the provisions of this article.

(B) *Registration; Revocation.* If any person's qualifications for a registration certificate under this article shall fail at any time during the term thereof, such certificate shall be revoked and canceled immediately by the Building Department Director, who shall serve notice of such action by registered mail to the holder of the certificate.

(C) *Registration Certificate; Notice and Hearing.* Before a registration issued pursuant to this article may be revoked, the registrant shall have notice in writing, enumerating the reasons for revocation, and shall be entitled to

a hearing before the City Council not sooner than five days from the date of receipt of the notice. The registrant shall be given an opportunity to present testimony, oral or written, and shall have the right of cross-examination. All such testimony before the City Council shall be given under oath. The City Council shall have the power to administer oaths, issue subpoenas, and compel the attendance of witnesses in such cases.

(D) *Decision of Council Final; Reapplication.* The decision of the City Council relative to the revocation of a registration issued pursuant to this article shall be based upon the evidence produced at the hearing, and such decision shall be final. A person whose registration has been revoked shall not be permitted to reapply for another such registration within one year from the date of such revocation.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-47. Reserved

§15-48. Reserved

Article II. Municipal Service

Division 1. Generally

§15-49. Interconnection Devices

Any energy conservation device generating electricity to be used for domestic purposes shall be interconnected with the electrical supply of the household, business, or industry finished by the Grand Island Utilities Department in accordance with plans, specifications, rules and regulations approved by the Utilities Director or his designated representative and subject to the inspection of the Grand Island Utilities Department prior to the conservation device being energized and put into operation.

A customer that has a generation facility (or facilities) that uses as its energy source methane, wind, solar, biomass, hydropower, or geothermal resources and is interconnected behind their service meter with an aggregate nameplate of 25 kW or less may be considered as a Qualified Facility (QF) and eligible for participation in a net metering program. The program will be available for QF customers until the aggregate nameplate capacity of the participating QF customers meets one percent (1%) of the peak annual demand of the Utilities Department. The installation of equipment by the QF customer must meet all applicable safety, interconnection, and reliability standards established by the National Electrical Code filed with the Secretary of State and adopted by the State Electrical Board under subdivision (5) of section 81-2104, the National Electrical safety Code, the Institute of Electrical and Electronics Engineers, and the Underwriters Laboratories; and must be equipped to automatically isolate the QF from the electrical system in the event of an electrical power outage or other conditions where the line is de-energized. An outside-mounted visible device shall be installed on the customer's side of the point of delivery/receipt that must be capable of preventing energizing the Utilities Department's service line and provide for a means for the Department to operate and lock in place. The Utilities Department will provide a bi-directional meter for measurement of the flow of electricity in both directions. Energy produced by the QF during the billing period will be credited at the applicable retail rate for the customer, not including the customer charge. Energy produced by the QF in excess of the customer's usage will be applied as a credit to the customer's account at the current month cost of energy per kilowatt-hour as defined in Division 6. At the end of the calendar year, any excess credits may be paid to the customer.

It shall be unlawful for any person to connect an electric generating source to a system supplied electricity by the Grand Island Utilities Department without obtaining the aforesaid approval and inspection.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-50. Deposit Requirements

(A) Except as provided below, all electric service accounts established under the commercial rate structure shall be required to maintain a deposit in an amount to be determined by the Utilities Department as set forth in this section.

(B) Deposits for accounts in existence before September 1, 1983, shall be maintained in the amount established under the ordinances in effect at the time of the initial deposit, unless said deposit has been distributed under the provisions of this section.

(C) Deposits for any account created on or after September 1, 1983, and deposits for all accounts for which service has been reinstated after being disconnected for nonpayment shall be maintained in an amount of not less than Two Hundred Dollars (\$200), nor more than Two Thousand Dollars (\$2,000), as determined by the Utilities Department. The amount of the deposit required shall be equal to two times the highest billed period of the last 12 billing periods, not to exceed Two Thousand Dollars (\$2,000). For new construction or properties that have been

unoccupied for the last 12 billing periods, a similar property from an identically zoned business shall be used in establishing the required deposit amount.

(D) From and after October 1, 2010, all deposits required herein shall accrue interest at the annually adjusted interest rate based on the 3 month LIBOR as of October 1, or the next business day. Interest shall be payable to the customer only at the time the deposit is refundable as provided in subsection E below.

(E) The deposit required herein shall be refunded to the customer as follows:

(1) When the electric service has been disconnected, whether at the request of the customer or for nonpayment of the customer's electric bill, or a new account has been created for said service with a different customer, and a final reading has been taken, any deposit on hand plus the accrued interest thereon, and minus the amount of any unpaid billing statement and other charges, shall be refunded to the customer; or

(2) After at least two years of continuous service to the customer, if the monthly payments for the account have been made promptly, with no more than two delinquent payments during the twenty-four (24) month period immediately preceding the request, the customer may request the Utilities Department in writing to refund the deposit. Upon receipt of the request, and if the above conditions of prompt payment have been met, the Utilities Department shall refund any deposit on hand, plus the accrued interest to the customer. For the purposes of this subsection, a payment shall be deemed delinquent if made more than fifteen (15) days after the date set forth on the monthly billing statement.

Amended by Ordinance No. 9275, effective 09-29-2010

Amended by Ordinance No. 9523, effective 03-17-2015

Amended by Ordinance No. 9578, effective 03-29-2016

§15-51. Payment Conditions

(1) All bills are due when received.

(2) If full payment is not received by the due date stated on the bill, a late payment charge shall be assessed in accordance with the City of Grand Island Fee Schedule.

(3) A service charge shall be collected before reconnection, in each instance of disconnection for nonpayment of billing. If reconnection is demanded after business hours, an additional fee shall apply. The charges for reconnection shall be in accordance with the City of Grand Island Fee Schedule.

(4) A service charge in accordance with the City of Grand Island Fee Schedule will be assessed for each check returned for insufficient funds. This charge is in addition to any other charges.

(5) A service charge in accordance to the City of Grand Island Fee Schedule shall be collected, before all new connections are made by the Utilities Department.

(6) A service charge in accordance with the City of Grand Island Fee Schedule shall be collected, to transfer service from one occupant to another occupant at the same location.

(7) Service periods are normally for periods of one year or longer. If it appears that services are being disconnected and reconnected within a twelve-month period, in order to avoid minimum billing charges; an amount equivalent to the minimum billings for the disconnected period (not to exceed eleven months) must be paid before the service is reconnected. This is in addition to the normal connection charges.

Amended by Ordinance No. 9523, effective 3-17-2015

§15-52. Rate Assignment

The Grand Island Utilities Department will attempt to assign customers to the lowest applicable rate. It is the customer's responsibility to inform the Utilities Department of any changes that may affect the assignment or billing conditions within a given rate.

The customer is in a better position than the Utilities Department to analyze electric usage. When more than one rate assignment is applicable, the customer may select the rate considered the most beneficial. Customer-requested rate re-assignments will not be made more frequently than once every twelve months. In no event will the Utilities Department be responsible for losses incurred due to improper rate assignment.

At customer request, demand metering will be installed by the Utilities Department. The Utilities Department may, at its option, assess a one-time charge of \$200.00 to pay the additional metering facilities.

§15-53. Power Factor

The customer shall install power-factor correction equipment, if necessary, to ensure a power factor of no less than 90%, lagging or leading.

§15-54. Arc Welders and X-Ray Units

Electric transformer type arc welders or x-ray units shall not be used on Residential or Single Phase Commercial Services. When used on Three Phase Services, the welder or x-ray unit KVA may be converted to horsepower for determination of connected horsepower at the rate of 746 watts per horsepower, minimum connection five horsepower.

Division 2. Residential Service

§15-55. 010 Residential Service

Applicable in urban and rural distribution areas. Available at single phase, through a single meter, to residential consumers for domestic use in a single-family dwelling unit; but is not available for commercial or non-domestic use.

Individual single-phase motors, not to exceed 10 HP each, may be connected; however, the Utilities Department must be notified in writing, if a motor over 5 HP is installed.

This schedule has two sets of rates: one for the summer period of five months, beginning with the June meter reading; and the second for the winter season of seven months, beginning with the November meter reading.

Summer Rate Beginning October 1, 2007	
Kilowatt-Hours Used Per Month	(June—October)
First 300 KWH.....	\$0.085 per KWH
Next 700 KWH.....	\$0.060 per KWH
All additional KWH.....	\$0.067 per KWH

_____ Plus a customer charge of \$5.00 per month, in addition to that charged for the

Rate:

<u>Effective Date:</u>	<u>October 1, 2018</u>	
	<u>Summer</u> <u>(June-October)</u>	<u>Winter</u> <u>(November-May)</u>
<u>Customer Charge, per month</u>	<u>\$8.00</u>	<u>\$8.00</u>
<u>Energy Charge</u>		
<u>First 300 kWh, per kWh</u>	<u>\$0.105</u>	<u>\$0.105</u>
<u>Next 700 kWh, per kWh</u>	<u>0.083</u>	<u>0.064</u>
<u>All additional kWh, per kWh</u>	<u>0.083</u>	<u>0.057</u>

_____ Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the monthly customer charge.

~~electrical energy used, plus the applicable Power Cost Adjustment charge. The minimum monthly bill shall be \$5.00 prior to the Power Cost Adjustment.~~

Winter Rate Beginning October 1, 2007	
Kilowatt-Hours Used Per Month	(November - May)
First 300 KWH.....	\$0.085 per KWH
Next 700 KWH.....	\$0.060 per KWH
Additional KWH.....	\$0.039 per KWH

_____ ~~Plus a customer charge of \$5.00 per month, in addition to that charged for the electrical energy used, plus the applicable Power Cost Adjustment charge. The minimum monthly bill shall be \$5.00 prior to the Power Cost Adjustment.~~

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 8946, effective 1-5-2005
Amended by Ord. No. 9133, effective 09-18-2007
Amended by Ord. No. 9523, effective 03-17-2015

§15-56. Service Specifications

Residential Service shall be supplied at a nominal voltage of 120/240 Volts or 120/208 Volts single phase.

Amended by Ordinance No. 9578, effective 03-29-2016

Division 3. Commercial Service

§15-57. 030 Single-Phase Commercial Service

Applicable in urban and rural distribution areas. Available for commercial customers, for lighting and small appliances. Available for single meter apartment units, and combined residential-commercial use, where the Residential Rate is not applicable. Service shall be through a single meter.

Individual single-phase motors, not to exceed 10 HP each, may be connected; however, the Utilities Department must be notified in writing, if a motor over 5 HP is installed.

Kilowatt Hours Used Per Month

**Rates Beginning
October 1, 2007**

First 350 KWH.....	\$0.090 per KWH
Next 650 KWH.....	\$0.080 per KWH
Next 1,500 KWH.....	\$0.074 per KWH
Next 2,500 KWH.....	\$0.070 per KWH
Next 5,000 KWH.....	\$0.064 per KWH
Over 10,000 KWH.....	\$0.061 per KWH

Plus a customer charge of \$7.00 per month, in addition to that charged for the electrical energy used, plus the applicable Power Adjustment charge. The minimum monthly bill shall be \$7.00 prior to the Power Adjustment.

Rate:

<u>Effective Date:</u>	<u>October 1, 2018</u>
<u>Customer Charge, per month</u>	<u>\$12.00</u>
<u>Energy Charge</u>	
<u>First 1,000 kWh, per kWh</u>	<u>\$0.107</u>
<u>All additional kWh, per kWh</u>	<u>0.080</u>

Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the monthly customer charge.

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 9133, effective 09-18-2007

§15-58. Service Specifications

Single-Phase Commercial service shall be supplied at a nominal voltage of 120/240 Volts or 120/208 Volts single phase.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-59. Discounts for Primary Service

If the Single-Phase Commercial user owns and maintains all necessary transformation equipment and

structures, a 3% reduction will be made in the energy billed. If energy is metered on the primary side (7.2 KV or above) of the service, a 2% reduction will be made in the energy billed. These discounts, however, do not apply to the minimum stated.

§15-60. 050 Three-Phase Commercial Service

Applicable in the territory served by the City of Grand Island; and is available through a single meter at three phase, for any electric service uses where three-phase service is available.

This schedule has two sets of rates: one for the summer period of five months, beginning with the June meter reading; and the second for the winter season of seven months, beginning with the November meter reading.

Summer Rate Beginning October 1, 2007	
Kilowatt-Hours Used Per Month	(June – October)
First 1,000 KWH.....	\$0.087 per KWH
Next 1,500 KWH.....	\$0.079 per KWH
Next 2,500 KWH.....	\$0.075 per KWH
Next 15,000 KWH.....	\$0.069 per KWH
Over 20,000 KWH.....	\$0.066 per KWH

Plus a customer charge of \$10.00 per month, in addition to that charged for the electrical energy used, plus the applicable Power Cost Adjustment charge.

Winter Rate Beginning October 1, 2007	
Kilowatt-Hours Used Per Month	(November – May)
First 500 KWH.....	\$0.087 per KWH
Next 1,000 KWH.....	0.079 per KWH
Next 2,500 KWH.....	\$0.066 per KWH
Over 4,000 KWH.....	\$0.063 per KWH

Plus a customer charge of \$10.00 per month, in addition to that charged for the electrical energy used, plus the applicable Power Cost Adjustment charge.

Minimum

—The minimum monthly charge shall be no less than \$10.00. The minimum shall in no event be less than \$0.70 per month per connected horsepower.

The billing horsepower shall be determined as follows:

- 1. Total connected horsepower, if total connected horsepower is less than 20 HP.
- 2. If total connected horsepower exceeds 20 HP, then the billing horsepower shall be the larger of 20 HP, or the largest single connected motor.
- 3. If questions arise as to the actual billing horsepower, the Utilities Department may, at its option, install demand meters. The Kilowatt reading shall determine the billing horsepower on the basis of 0.75 Kilowatt = 1.0 HP. Rate:

Rate:

Effective Date:	October 1, 2018	
	Summer (June-October)	Winter (November-May)
<u>Customer Charge, per month</u>	<u>\$16.00</u>	<u>\$16.00</u>
<u>Energy Charge</u>		
<u>First 1,000 kWh, per kWh</u>	<u>\$0.107</u>	
<u>Next 4,000 kWh, per kWh</u>	<u>0.095</u>	
<u>All additional kWh, per kWh</u>	<u>0.087</u>	
<u>First 500 kWh, per kWh</u>		<u>\$ 0.107</u>
<u>Next 1,000 kWh, per kWh</u>		<u>0.095</u>
<u>All additional kWh, per kWh</u>		<u>0.082</u>

Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the larger of the following:

1. Customer Charge, or

2. Total connected HP x \$0.70

If questions arise as to the actual billing HP, the City Utilities Department may, at its option, install demand meters. The kilowatt reading shall determine the HP on the basis of 0.75 kilowatt = 1.0 HP.

It is the responsibility of the customer, to inform the Utilities Department of changes that may affect minimum billings.

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 8946, effective 1-5-2005
Amended by Ord. No. 9133, effective 09-18-2007
Amended by Ord. No. 9523, effective 03-17-2015

§15-61. Service Specifications

New Three-Phase Commercial Services are supplied at three phase, four wire wye, at 120/208 Volts or 277/480 Volts. Delta services must operate ungrounded, unless prior written approval is obtained by the customer from the City Utilities Department.

Current unbalance between phases should not exceed 15%.

Amended by Ordinance No. 9578, effective 03-29-2016

§15-62. Discounts for Primary Service

If the Three-Phase Commercial user owns and maintains all necessary transformation equipment and structures, a 3% reduction will be made in the energy billed. If energy is metered on the primary side (7.2 KV or above) of the service, a 2% reduction will be made in the energy billed. These discounts, however, do not apply to the minimum stated.

Division 4. Power Service

§15-63. 100 Three-Phase Power Service

Applicable in the territory served by the City of Grand Island, available through a single meter at three phase. Available for any commercial or industrial use of energy.

**Beginning
October 1, 2007**

~~Demand Charge~~

~~—\$8.50— per KW of billing demand—~~

~~Energy Charge~~

~~—\$0.0355— per KWH for the first 450 hours of monthly demand—~~

~~—\$0.0290—~~ per KWH for all additional usage; plus applicable Power Cost Adjustment charge.

~~—\$300.00—~~ **Customer Charge**
per month.

~~—The minimum monthly bill shall be no less than \$700. The Power Cost Adjustment charge is applied to energy consumption only.~~

Rate:

<u>Effective Date:</u>	<u>October 1, 2018</u>	
	<u>Summer</u> <u>(June-October)</u>	<u>Winter</u> <u>(November-May)</u>
<u>Customer Charge, per month</u>	<u>\$300.00</u>	<u>\$300.00</u>
<u>Demand Charge, per kW</u>	<u>14.30</u>	<u>9.70</u>
<u>Energy Charge, per kWh</u>		
<u>First 450 kWh per kW of demand</u>	<u>\$0.051</u>	<u>\$0.047</u>
<u>All additional energy</u>	<u>0.042</u>	<u>0.039</u>

Plus the applicable Power Cost Adjustment charge (applied to energy consumption only).

Minimum Bill: The minimum monthly bill shall be no less than \$700.

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 8946, effective 1-5-2005
Amended by Ord. No. 9133, effective 09-18-2007

§15-64. Billing Demand

~~During the months of June through October, the Billing Demand shall be the Summer Demand. During the months of November through May, the Billing Demand shall be the measured Monthly Demand, but not more than the Summer Demand nor less than 65% of the Summer Demand.~~

~~—The Monthly Demand shall be the highest rate of use in KW during a time interval of the meter reading period as established by the Utilities Department, based upon the nature of the business of the customer. In no event shall the Monthly Demand be less than 50 KW.~~

~~—The Summer Demand shall be defined as the maximum of the Monthly Demands established during June through October but not less than the Summer Demand established during the previous eleven months.~~

The Monthly Demand shall be the highest integrated demand (in kW) during a 15-minute time interval in the billing period. For purposes of this section, Summer Months shall be June through October. Winter Months shall be November through May. The Billing Demand shall be the greater of:

1. The Monthly Demand

2. 65% of the Monthly Demand in the five (5) most recent Summer Months

Amended by Ord. No. 9523, effective 03-17-2015

§15-65. Service Specifications

Any standard, nationally recognized, three-phase voltage will be supplied if transformation is available.

§15-66. Discounts for Primary Service

If Three-Phase Power energy is metered on the primary side (7.2 KV or above) of the service, a 3% reduction will be made in the energy billed. In addition, if the user owns and maintains all necessary transformation equipment and structures, a 5% reduction will be made in the demand billed. These discounts, however, do not apply to the minimum stated.

§15-67. Waiver of Demand Charge

For customers developing a new site or significantly expanding an existing facility, the Utilities Department may waive the charge on the incremental demand for the first twelve months of service. Customers developing a new site must have an anticipated load of at least 500 KW; these customers will have the entire demand charge waived for the twelve month period.

An expansion must result in at least 300 KW additional load, based on largest historical Summer Demand at the facility. During the months from June through October, the demand charge in excess of this historical Summer Demand will be waived. During the months from November through May, the Billing Demand for the corresponding month of the previous year will be used as the Billing Demand.

Customers applying for this waiver must remain on Rate 100 for at least twelve months after resumption of full demand billing. For the twelve months after resumption of full demand billing, the Summer Demand will reflect the waived demand. The Summer Demand for new customers will be not less than 500 KW. The Summer Demand for plant expansions will be not less than 300 KW above the historical Summer Demand.

Written application for waiver of demand charge must be made prior to connection of such new load to the City electric system, and shall be subject to the approval of the Utilities Director.

Amended by Ordinance No. 9578, effective 03-29-2016

Division 5. Area Flood Lighting

§15-68. 114 Area Floodlighting

~~Applicable in the territory served by the City of Grand Island; and is available for any outdoor area floodlighting of consumer's property from dusk to dawn, where such service can be rendered directly from existing secondary distribution lines of the City.~~

~~Luminare will be selected by Utilities Department and provided from Utilities Department stock. For installation on an existing wood pole, and connected to existing overhead secondary conductors on such pole, the rate is \$0.76 per watt per year billed on a monthly basis beginning October 1, 2006.~~

~~Power Cost Adjustment is not applicable to the Area Floodlighting Rate.~~

Applicable in the territory served by the City of Grand Island; and is available for any outdoor area floodlighting of consumer's property from dusk to dawn, where such service can be rendered directly from existing secondary distribution lines of the City.

Luminaire will be selected by Utilities Department and provided from Utilities Department stock. Installation will be on an existing wood pole and connected to existing secondary conductors on such pole. If installed lamp is not listed on the rate schedule, the rate for the nearest sized lamp of the same type shall be charged.

Monthly Rate per Lamp:

<u>Effective Date:</u>	<u>October 1, 2018</u>
Mercury Vapor:	
<u>175 watt lamp</u>	<u>\$8.41</u>
<u>400 watt lamp</u>	<u>\$14.32</u>
<u>1,000 watt lamp</u>	<u>\$28.19</u>
High Pressure Sodium:	
<u>100 watt lamp</u>	<u>\$7.50</u>
<u>250 watt lamp</u>	<u>\$10.03</u>
<u>400 watt lamp</u>	<u>\$11.10</u>
Metal Halide:	
<u>100 watt lamp</u>	<u>\$9.33</u>
<u>400 watt lamp</u>	<u>\$16.98</u>
<u>1,000 watt lamp</u>	<u>\$31.26</u>
LED:	
<u>25 watt lamp</u>	<u>\$4.60</u>
<u>50 watt lamp</u>	<u>\$5.70</u>
<u>100 watt lamp</u>	<u>\$7.37</u>
Halogen:	
<u>500 watt lamp</u>	<u>\$19.26</u>

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 8946, effective 1-5-2005
Amended by Ord. No. 9064, effective 9-6-2006
Amended by Ordinance No. 9578, effective 03-29-2016

§15-69. Contract Period and Conditions

Service under Rate 114 is available for a minimum period of 24 months and thereafter until terminated by thirty (30) days notice in writing.

The City of Grand Island will install, own, and operate and maintain all area lighting equipment under this schedule. If underground service is desired, approval of the City must be obtained and the additional cost therefor shall be paid in advance to the City by the consumer on a nonrefundable basis.

The burning of the lamps shall be controlled by automatic control equipment installed by the City and burning time shall be approximately thirty minutes after sunset to approximately thirty minutes before sunrise.

The City shall be notified by the consumer of any operational failure of lamps. Lamp replacement or repairs will be performed only during regular working hours.

Non-Standard Installations: If underground service is desired or extension of overhead secondary facilities is required or special materials are requested, approval of the City must be obtained. All additional cost for materials and labor shall be paid in advance to the City, by the consumer, on a nonrefundable basis.

Amended by Ord. No. 8940, effective 1-1-2005

Division 6. Power Cost Adjustment

§15-70. Power Cost Adjustment

~~The rates set out in this chapter are predicated upon a base power cost of 15.00 mills per kilowatt-hour. When the City's cost of energy per kilowatt-hour shall temporarily be greater than 15.00 mills per kilowatt-hour, there shall be added to the consumer's monthly charge for electricity used; an amount equal to the number of kilowatt-hours used during the month to which the consumer's charge applies, multiplied by the amount by which the cost of energy for kilowatt-hour shall be greater than 15.00 mills per kilowatt-hour.~~

~~The rates set out are predicated upon a base power cost of 3835.00 mills per kilowatt-hour. When the City's cost of energy per kilowatt-hour shall temporarily be greater than 3835.00 mills per kilowatt-hour, there shall be added to the consumer's monthly charge for electricity used an amount equal to the number of kilowatt-hours used during~~

the month to which the consumer's charge applies, multiplied by the amount by which the cost of energy for kilowatt-hour shall be greater than ~~3835.00~~ mills per kilowatt-hour.

~~Cost of energy per kilowatt-hour as determined for any month shall be applicable to all charges rendered to consumers after the last day of the following month, without any City Council action.~~

The cost of energy per kilowatt-hour applied to the consumer's monthly charge shall be an average of the previous six-months cost of energy per kilowatt-hour.

~~If a permanent increase in the contract cost of energy to the City occurs, beginning with the month that the cost increase becomes effective, the six-month average of the cost of energy per kilowatt-hour may be recalculated; using the new increased cost of energy, to compute the affected components of the cost of energy for the previous six months. This revised six-month average of the cost of energy per kilowatt-hour shall then be applied to the consumer's monthly charge for electricity used without any City Council action.~~

For purposes of this section, the following words shall have the following meanings:

~~Cost of Energy~~ shall mean the power cost for the generating plants owned by the City, consisting of the monthly natural gas cost and the cost of any fuel oil consumed; the cost of coal and air quality reagents consumed, including freight and handling charges; plus costs of payments by the City for power and energy purchased from other power suppliers, less receipts from energy sold to other electric utilities.

Cost of Energy per Kilowatt-Hour shall mean "Cost of Energy" as above defined, divided by 95 percent of the total kilowatt hours; consisting of the kilowatt hour output of the City's electric generating plants, plus the kilowatt hours purchased from other power suppliers, less the kilowatt hours of energy sold to other electric utilities.

Amended by Ord. No. 8940, effective 1-1-2005

Amended by Ord. No. 8946, effective 1-5-2005

Amended by Ordinance No. 9578, effective 03-29-2016

Division 7. Interdepartmental Rates

§15-71. Interdepartmental Rates

Municipal accounts shall be assigned to standard retail Rate 30 or Rate 50 as appropriate. An Interdepartmental discount shall be assigned to non-enterprise accounts. The discount for calendar year 2005 is \$0.01 per kWh for Rate 50 Interdepartmental accounts and \$0.03 per kWh for Rate 30 Interdepartmental accounts. The discount beginning calendar year 2006 is \$0.003 per kWh for both Rate 50 and Rate 30 Interdepartmental accounts.

Amended by Ord. No. 8940, effective 1-1-2005

Amended by Ord. No. 8946, effective 1-5-2005

§15-72. Reserved

Deleted by Ord. No. 8940, effective 1-1-2005

§15-73. Reserved

Deleted by Ord. No. 8940, effective 1-1-2005

§15-74. Rate 116; Interdepartmental; Streetlights

~~The monthly charge for various size lights used for public street lighting and public parks lighting, whether City or privately owned shall be \$0.38 per watt per year billed on a monthly basis beginning October 1, 2007. Power Cost Adjustment is not applicable to the Interdepartmental Streetlights Rate.~~

Applicable for various size lights used for public street lighting and public parks lighting, whether City or privately owned. If installed lamp is not listed on the rate schedule, the rate for the nearest sized lamp of the same type shall be charged.

Monthly Rate per Lamp:

Effective Date:

October 1, 2018

Mercury Vapor:

<u>175 watt lamp</u>	<u>\$5.00</u>
<u>400 watt lamp</u>	<u>\$9.39</u>
<u>1,000 watt lamp</u>	<u>\$18.55</u>
<u>High Pressure Sodium:</u>	
<u>100 watt lamp</u>	<u>\$3.75</u>
<u>250 watt lamp</u>	<u>\$6.19</u>
<u>400 watt lamp</u>	<u>\$7.34</u>
<u>Metal Halide:</u>	
<u>100 watt lamp</u>	<u>\$4.50</u>
<u>400 watt lamp</u>	<u>\$12.05</u>
<u>1,000 watt lamp</u>	<u>\$21.63</u>
<u>LED:</u>	
<u>50 watt lamp</u>	<u>\$3.50</u>
<u>100 watt lamp</u>	<u>\$4.78</u>

Power Cost Adjustment is not applicable to the Interdepartmental Streetlights rate.

Amended by Ord. No. 8940, effective 1-1-2005
Amended by Ord. No. 8946, effective 1-5-2005
Amended by Ord. No. 9133, effective 09-18-2007

§15-75. Reserved

Deleted by Ord. No. 8940, effective 1-1-2005

§15-76. Reserved

ORDINANCE NO. 9704

An ordinance to amend the Grand Island City Code; Sections 15-55, 15-57, 15-60, 15-63, 15-64, 15-68, 15-70 and 15-74, pertaining to electric utility rates; to repeal Sections 15-55, 15-57, 15-60, 15-63, 15-64, 15-68, 15-70 and 15-74, as now existing, and any ordinance or parts of ordinances in conflict herewith; and to provide for publication and the effective date of this ordinance.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA:

SECTION 1. Section 15-55 of the Grand Island City Code is hereby amended to read as follows:

§15-55. 010 Residential Service

Applicable in urban and rural distribution areas. Available at single phase, through a single meter, to residential consumers for domestic use in a single-family dwelling unit; but is not available for commercial or non-domestic use.

Individual single-phase motors, not to exceed 10 HP each, may be connected; however, the City Utilities Department must be notified in writing, if a motor over 5 HP is installed.

This schedule has two sets of rates: one for the summer period of five months, beginning with the June billing; and the second for the winter season of seven months, beginning with the November billing.

Rate:

Effective Date:	October 1, 2018	
	Summer (June-October)	Winter (November-May)
Customer Charge, per month	\$8.00	\$8.00
Energy Charge		
First 300 kWh, per kWh	\$0.105	\$0.105
Next 700 kWh, per kWh	0.083	0.064
All additional kWh, per kWh	0.083	0.057

Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the monthly customer charge.

Approved as to Form	□ _____
August 23, 2018	□ City Attorney

SECTION 2. Section 15-57 of the Grand Island City Code is hereby amended to read as follows:

§15-57. 030 Single-Phase Commercial Service

Applicable in urban and rural distribution areas. Available for commercial customers, for lighting and small appliances. Available for single meter apartment units, and combined residential-commercial use, where the Residential Rate is not applicable. Service shall be through a single meter.

Individual single-phase motors, not to exceed 10 HP each, may be connected; however, the City Utilities Department must be notified in writing if a motor over 5 HP is installed.

Rate:

Effective Date:	October 1, 2018
Customer Charge, per month	\$12.00
Energy Charge	
First 1,000 kWh, per kWh	\$0.107
All additional kWh, per kWh	0.080

Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the monthly customer charge.

SECTION 3. Section 15-60 of the Grand Island City Code is hereby amended to read as follows:

§15-60. 050 Three-Phase Commercial Service

Applicable in the territory served by the City of Grand Island; and is available through a single meter at three-phase for any electric service uses where three-phase service is available.

This schedule has two sets of rates: one for the summer period of five months, beginning with the June billing; and the second for the winter season of seven months, beginning with the November billing.

Rate:

Effective Date:	October 1, 2018	
	Summer (June-October)	Winter (November-May)
Customer Charge, per month	\$16.00	\$16.00
Energy Charge		
First 1,000 kWh, per kWh	\$0.107	
Next 4,000 kWh, per kWh	0.095	
All additional kWh, per kWh	0.087	
First 500 kWh, per kWh		\$ 0.107
Next 1,000 kWh, per kWh		0.095
All additional kWh, per kWh		0.082

Plus the applicable Power Cost Adjustment charge.

Minimum Bill: The minimum monthly bill shall be the larger of the following:

1. Customer Charge, or
2. Total connected HP x \$0.70

If questions arise as to the actual billing HP, the City Utilities Department may, at its option, install demand meters. The kilowatt reading shall determine the HP on the basis of 0.75 kilowatt = 1.0 HP.

It is the responsibility of the customer to inform the City Utilities Department of changes that may affect minimum billings.

SECTION 4. Section 15-63 of the Grand Island City Code is hereby amended to read as follows:

§15-63. 100 Three-Phase Power Service

Applicable in the territory served by the City of Grand Island, available through a single meter at three-phase. Available for any commercial or industrial use of energy.

Rate:

Effective Date:	October 1, 2018	
	Summer (June-October)	Winter (November-May)
Customer Charge, per month	\$300.00	\$300.00
Demand Charge, per kW	14.30	9.70
Energy Charge, per kWh		
First 450 kWh per kW of demand	\$0.051	\$0.047
All additional energy	0.042	0.039

Plus the applicable Power Cost Adjustment charge (applied to energy consumption only).

Minimum Bill: The minimum monthly bill shall be no less than \$700.

SECTION 5. Section 15-64 of the Grand Island City Code is hereby amended to read as follows:

§15-64. Billing Demand

The Monthly Demand shall be the highest integrated demand (in kW) during a 15-minute time interval in the billing period. For purposes of this section, Summer Months shall be June through October. Winter Months shall be November through May. The Billing Demand shall be the greater of:

1. The Monthly Demand
2. 65% of the Monthly Demand in the five (5) most recent Summer Months

SECTION 6. Section 15-68 of the Grand Island City Code is hereby amended to read as follows:

§15-68. Rate 114 Area Floodlighting

Applicable in the territory served by the City of Grand Island; and is available for any outdoor area floodlighting of consumer's property from dusk to dawn, where such service can be rendered directly from existing secondary distribution lines of the City.

Luminaire will be selected by Utilities Department and provided from Utilities Department stock. Installation will be on an existing wood pole and connected to existing secondary conductors on such pole. If installed lamp is not listed on the rate schedule, the rate for the nearest sized lamp of the same type shall be charged.

Monthly Rate per Lamp:

Effective Date:	October 1, 2018
Mercury Vapor:	
175 watt lamp	\$8.41
400 watt lamp	\$14.32
1,000 watt lamp	\$28.19
High Pressure Sodium:	
100 watt lamp	\$7.50
250 watt lamp	\$10.03
400 watt lamp	\$11.10
Metal Halide:	
100 watt lamp	\$9.33
400 watt lamp	\$16.98
1,000 watt lamp	\$31.26
LED:	
25 watt lamp	\$4.60
50 watt lamp	\$5.70
100 watt lamp	\$7.37
Halogen:	
500 watt lamp	\$19.26

SECTION 7. Section 15-70 of the Grand Island City Code is hereby amended to read as follows:

§15-70. Power Cost Adjustment

The rates set out are predicated upon a base power cost of 35.00 mills per kilowatt-hour. When the City's cost of energy per kilowatt-hour shall temporarily be greater than 35.00 mills per kilowatt-hour, there shall be added to the consumer's monthly charge for electricity used an amount equal to the number of kilowatt-hours used during the month to which the consumer's charge applies, multiplied by the amount by which the cost of energy for kilowatt-hour shall be greater than 35.00 mills per kilowatt-hour.

Cost of energy per kilowatt-hour as determined for any month shall be applicable to all charges rendered to consumers after the last day of the following month, without any City Council action.

The cost of energy per kilowatt-hour applied to the consumer's monthly charge shall be an average of the previous six-months cost of energy per kilowatt-hour.

For purposes of this section, the following words shall have the following meanings:

Cost of Energy shall mean the power cost for the generating plants owned by the City, consisting of the monthly natural gas cost and the cost of any fuel oil consumed; the cost of coal and air quality reagents consumed, including freight and handling charges; plus costs of payments by the City for power, energy, and transmission purchased from other power suppliers, less receipts from energy sold to other electric utilities.

Cost of Energy per Kilowatt-Hour shall mean “Cost of Energy” as above defined, divided by 95 percent (95%) of the total kilowatt-hours; consisting of the kilowatt-hour output of the City’s electric generating plants, plus the kilowatt-hours purchased from other power suppliers, less the kilowatt hours of energy sold to other electric utilities.

SECTION 8. Section 15-74 of the Grand Island City Code is hereby amended to read as follows:

§15-74. Rate 116; Interdepartmental; Streetlights

Applicable for various size lights used for public street lighting and public parks lighting, whether City or privately-owned. If installed lamp is not listed on the rate schedule, the rate for the nearest sized lamp of the same type shall be charged.

Monthly Rate per Lamp:

Effective Date:	October 1, 2018
Mercury Vapor:	
175 watt lamp	\$5.00
400 watt lamp	\$9.39
1,000 watt lamp	\$18.55
High Pressure Sodium:	
100 watt lamp	\$3.75
250 watt lamp	\$6.19
400 watt lamp	\$7.34
Metal Halide:	
100 watt lamp	\$4.50
400 watt lamp	\$12.05
1,000 watt lamp	\$21.63
LED:	
50 watt lamp	\$3.50
100 watt lamp	\$4.78

Power Cost Adjustment is not applicable to the Interdepartmental Streetlights rate.

ORDINANCE NO. 9704 (Cont.)

SECTION 9. Those portions of Sections 15-55; 15-57; 15-60; 15-63, 15-64, 15-68, 15-70 and 15-74 as now existing, and any ordinances or parts of ordinances in conflict herewith be, and hereby are, repealed.

SECTION 10. The validity of any section, subsection, sentence, clause or phrase of this ordinance shall not affect the validity or enforceability of any other section, subsection, sentence, clause or phrase thereof.

SECTION 11. That this ordinance shall be in force and take effect from and after its passage and publication, in pamphlet form, with fifteen (15) days in one issue of the Grand Island Independent as provided by law.

Enacted: August 28, 2018

Jeremy L. Jensen, Mayor

ATTEST:

RaNae Edwards, City Clerk