



Madison City Council Chambers
211 S. Lincoln Street
Madison, NE 68748

**CITY COUNCIL
SPECIAL MEETING AGENDA**

March 16, 2026

Welcome and reminder to turn off electronic devices.

ACKNOWLEDGEMENT OF OPEN MEETINGS ACT

ROLL CALL

PLEDGE OF ALLEGIANCE

REGULAR AGENDA

1. Presentation of 2026 Cost of Service and Rate Design Study by JK Energy Consulting, LLC.

ADJOURN

The City Council will review the above matters and take such action as they deem appropriate and necessary.
The City Council reserves the right to enter executive session on certain matters authorized under the Nebraska Open Meetings Act.

**PUBLIC NOTICE
MADISON CITY COUNCIL
SPECIAL MEETING**

Notice is hereby given that a special meeting of the City Council will be held Monday March 16th, 2026, at 5:30p.m. in the Council Chambers, at 211 South Lincoln Street, in Madison, Nebraska. This meeting will be open to the public. An agenda for such meeting kept continuously current, is available for public inspection at the office of the City Clerk at City Hall.

Ruth Yuman
City Clerk
City of Madison

Cost of Service / Rate Design Study

City of Madison
March 16, 2026

Presented by:
John A. Krajewski, P.E.

Overview of Presentation

- Introduction
- Projected Financial Results
- Cost of Service
- Rate Design
- Comparison to Neighboring Utilities
- Recommendations

Purpose of Study

- Review financial performance of electric utility
- Develop rates that reflect the cost of service and accomplish other goals established by the City
 - Rates that provide sufficient revenues to cover projected operating expenses
 - Rates that reflect the cost of service for each rate class
 - Rates that are competitive with neighboring utilities

Projected Financial Results

- Purpose
 - Compare revenues and expenses for current budget and future years through FY 2029
 - Determine need for future rate increases
- On a cash basis, there is projected deficit
 - \$1.1 million in FY 2026
 - \$1.7 million by FY 2029
 - Between now and FY 2029, rates would need to increase 24.9% to cover projected deficit

Projected Financial Results

- Reasons for deficit
 - Increased purchased power expenses
 - Funding of City's capital improvement plan
 - General cost escalation

Cost of Service

- Purpose
 - Determine which rate classes cause the City to incur costs
 - Compare cost of service to revenue under existing rates
 - Determine need for rate changes

Cost of Service

- Rate increases needed
 - FY 2026: 7.6%
 - FY 2027: 7.6%
 - FY 2028: 6.0%
 - FY 2029: 3.0%
- Cost of service for customer-related service is \$32.72/month for residential
 - Currently, minimum charge is \$13.00/month
- All rate classes are less than the cost of service

Rate Design

- Goals
 - Long-term financial integrity
 - Fair, reasonable and non-discriminatory rates
 - Competitive rates compared to neighboring utilities
 - Encourage use during low-cost periods
 - Discourage use during high-cost periods
 - Recognize the cost of service for each rate class and season

Proposed Rate Design Changes

- Rate changes directed based on cost of service
 - Residential: ~10%
 - General Service: ~6%
 - General Service Demand: ~10%
 - Large Power: ~7%
- Increase customer charge a greater percentage than energy and demand rates
 - Residential: \$13.00 existing, \$17.10 proposed

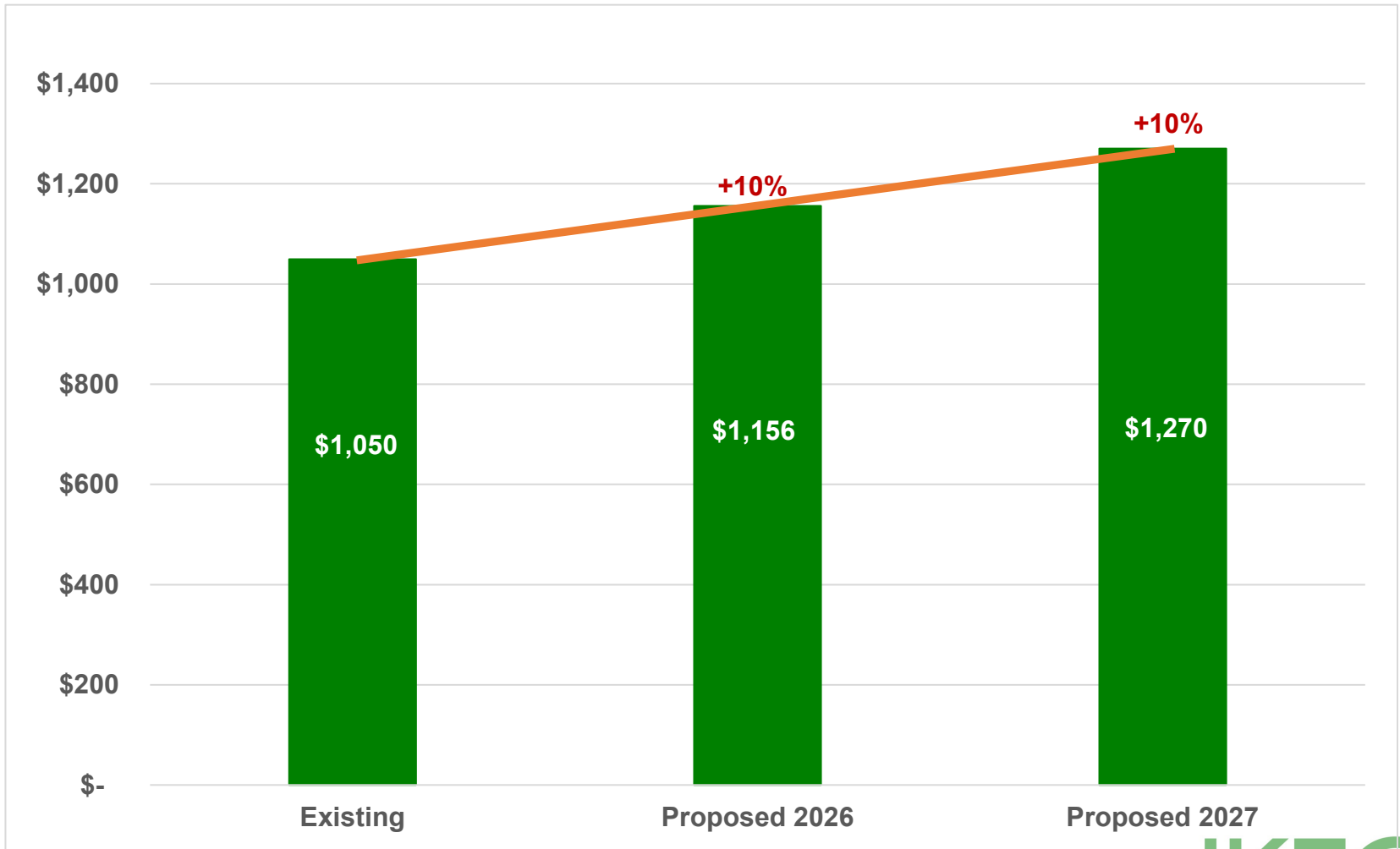
Proposed Rate Design Changes

- Rate structure simplification
 - Consolidate rate classes with similar rates
 - Reduce number of energy rate blocks
 - Reduce the use of declining-block rates
- Add language to clarify how and when customers are classified as either General Service Demand or General Service Electric

Proposed Rate Design Changes

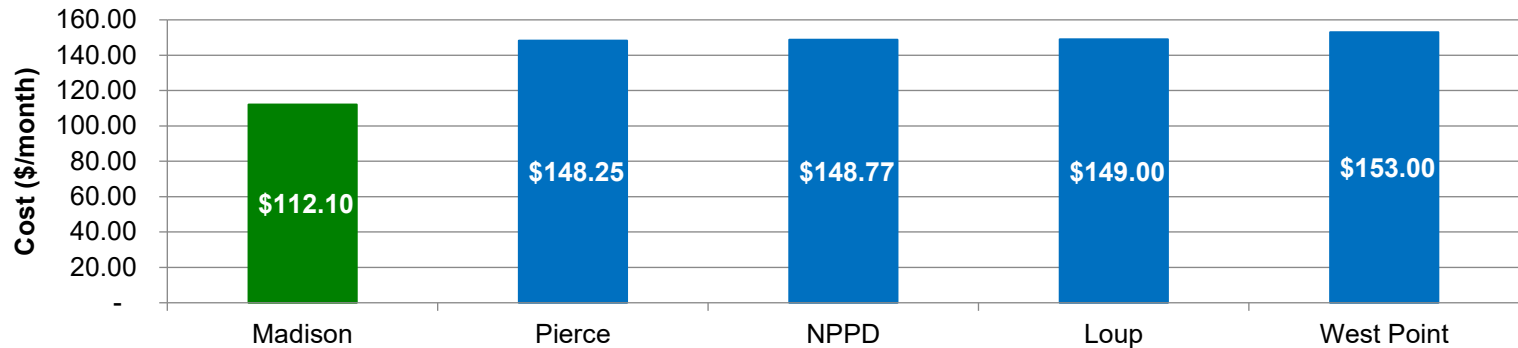
- Proposed residential rate would result in \$8.77/month increase for typical customer in April 2026 and \$9.59/month in January 2027

Annual Cost for Typical Residential Customer

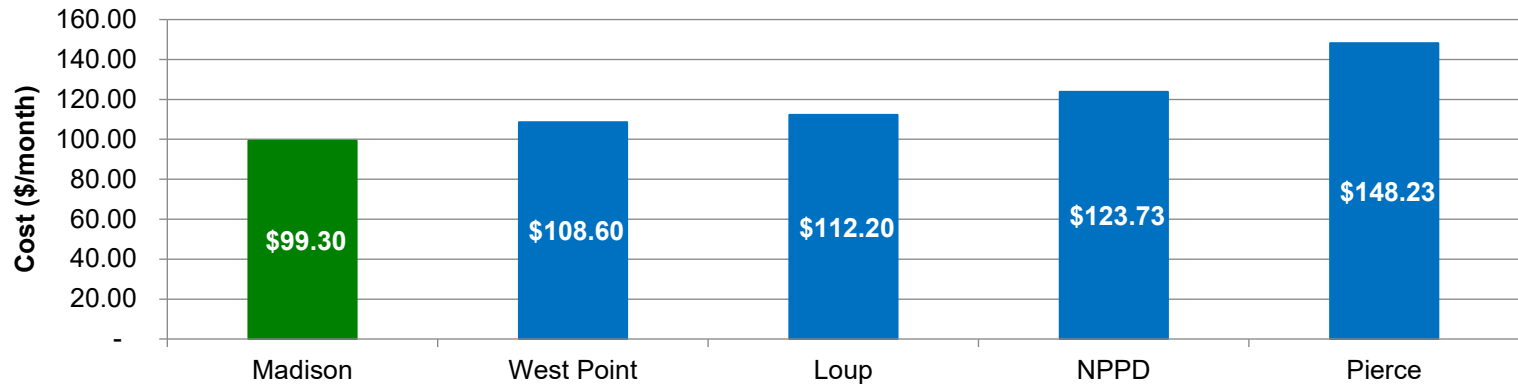


Rate Comparisons - Residential

Summer Comparison - 1,000 kWh

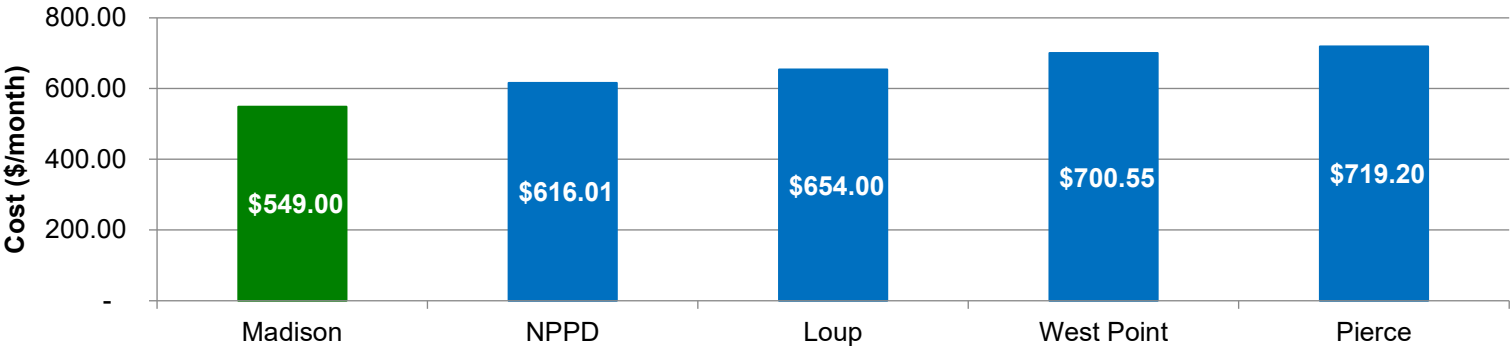


Winter Comparison - 1,000 kWh

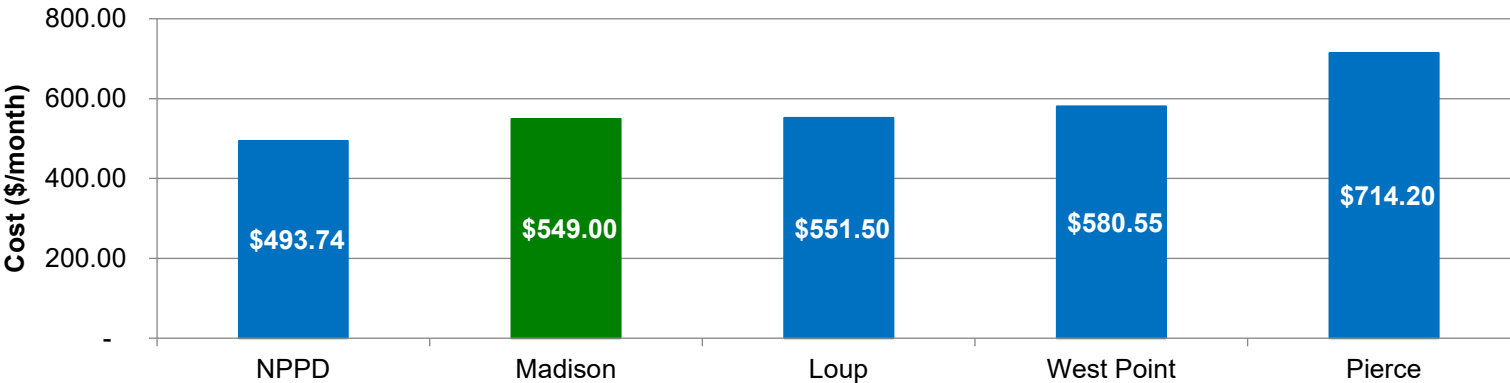


Rate Comparisons – General Service

Summer Comparison - 5,000 kWh



Winter Comparison - 5,000 kWh



Conclusions

- Rate increases of 7.6% in FY 2026 and FY 2027 are necessary to ensure sufficient revenue to cover projected expenses
- Rate increases should be implemented for all rate classes and directed toward summer season
- City Use customers should receive larger rate increase than other rate classes
- Customer charge is less than the cost of service for residential customers
- Rate structure is somewhat complex
 - Multiple rate schedules with similar rates and service
 - Multiple energy blocks

Recommendations

- Adopt rate schedule in Appendix A to implement a 7.6% rate increase on April 1, 2026 and 7.6% rate increase on January 1, 2027
- City should consider implementing a 6.0% rate increase in FY 2028 and 3.0% rate increase in FY 2029
- City should simplify its rate structure by eliminating duplicative rates and reducing the number of energy blocks
- Review rates on a regular basis, particularly as purchased power or internal operating costs increase

Contact Information

John A. Krajewski
JK Energy Consulting, LLC
74408 Road 433
Smithfield, Nebraska 68976
jk@jkenergyconsulting.com
Phone: 402-440-0227

2026 Cost of Service / Rate Design Study

City of Madison, Nebraska Electric Utility

City Council Review Draft

March 16, 2026

JKEC

JK Energy Consulting, LLC

John A. Krajewski, P.E.

74408 Road 433

Smithfield, Nebraska 68976

402-440-0227

jk@jkenergyconsulting.com

www.jkenergyconsulting.com

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Appendix A - Rate Schedule

Executive Summary

This study was prepared by JK Energy Consulting, LLC for the City of Madison, Nebraska (City). The purpose of the study was to review the electric rates for the City and its electric utility (Utility) and ensure that electric rates are adequate to pay for projected expenses.

Based on the analysis completed, the existing rates are projected to collect less revenue than projected revenue requirements in fiscal year (FY) 2026 and beyond. Projected retail revenue for FY 2026 was approximately \$6.7 million (Table 5, Line 15), while projected revenue requirements (operating expenses and capital improvements less non-retail revenues) were approximately \$7.2 million (Table 3, Line 15). The projected operating results indicated that a cumulative rate increase of approximately 24.9% would be necessary by FY 2029 (Table 1, Line 30).

Of the projected revenue requirements, approximately \$5.8 million (Table 3, Line 15) is for purchased power from the Nebraska Public Power District (NPPD), Western Area Power Administration (Western), and Bluestem Energy Solutions (Bluestem), including transmission service to deliver these purchases. This represents approximately 80% of projected revenue requirements. For projection purposes, Western rates are projected to remain stable through the study period. NPPD rates are projected to increase 1% annually while Bluestem rates are projected to increase 3% annually through the study period.

The analyses indicated that rate increases of 7.6% in FY 2026 and FY 2027, 6.0% in FY 2028 and 3.0% in FY 2029 (Table 2, Line 6) would recover sufficient revenue for projected expenses. These increases will be dependent on power supply cost increases and how much reserve margin the City maintains for capital expenses and other needs. It is proposed to implement a rate schedule that would increase rates 7.6% on April 1, 2026, and 7.6% on January 1, 2027. Future rate changes should be implemented based on future operating results and cost of service analyses.

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 5). The analysis also indicated how much revenue is collected in each season compared to the cost of service in the respective season (Table 6). It appears that all rate classes are collecting less than the calculated cost of service. One of the key findings of the cost of service analysis is that the existing customer charge for all rate classes, except Large Power Primary, are lower than the cost of service (Table 4). For example, the existing Domestic Electric customer charge of \$13.00 per month is lower than the cost of service of approximately \$32.72 per month (Table 4, Line 1).

The purpose of rate design is to develop rates that reflect the cost of service and accomplish other goals established by the City. While the overall rate change is 7.6%, a higher rate increase is proposed for all rate classes except General Service and Large Power Primary. Based on the cost of service results, customer charges would increase by a greater percentage than other rate components.

The City has a complicated rate structure for the size of the system. Rate structure changes are being proposed to reduce the number of rate classes and the number of energy blocks.

1. Consolidate the Rural Heat Pump and Rural All-Electric rate classes into one rate class called "Rural Electric Heat."
2. Eliminate the General Service Heat Pump rate as the revenues under that rate were comparable to revenue under the General Service Electric rate.
3. Reduce the Domestic Electric Heat energy blocks from three to two.
4. Reduce the General Service energy blocks from four to two.
5. Reduce the General Service Demand energy blocks from four to two.
6. Add language to clarify how and when customers are classified as either General Service Demand or General Service Electric customers.

The proposed rates tend to be lower than or competitive with the City's peer group (see Tables 10 and 11). Rates were compared to Nebraska Public Power District (NPPD), Loup Power District (Loup), and the cities of Pierce and West Point, Nebraska. These neighboring utilities may be experiencing power supply and operating cost increases over the next few years. For example, NPPD is projecting increased wholesale rates in future years, which are likely to be passed through to retail customers served by the NPPD retail division and NPPD's wholesale customers. West Point purchases power from the Municipal Energy Agency of Nebraska (MEAN) and will likely need rate increases if MEAN's wholesale rates increase in the future.

Conclusions

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

1. In FY 2026, the projected deficit was approximately \$1.1 million, increasing to approximately \$1.7 million by FY 2029.
2. A rate plan consisting of 7.6% rate increases in FY 2026 and FY 2027, a 6.0% rate increase in FY 2028, and a 3.0% rate increase in FY 2029 would provide sufficient revenue to cover projected operating costs and capital expenditures.
3. The primary drivers for the proposed rate increase are increased purchased power costs and capital projects.
4. The cost of service analysis indicated that rate increases for all rate classes would be reasonable. The City Use rate class should receive a larger rate increase than other rate classes.
5. The City's rate structure is somewhat complex, with multiple rate schedules providing similar rates and service and multiple energy blocks.
6. With the proposed rate increases, the projected typical bill for a Domestic Electric customer would increase approximately \$8.77 per month in FY 2026 and \$9.59 per month in FY 2027.

Recommendations

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

1. The City should adopt retail rate increases of 7.6% on April 1, 2026 (FY 2026) and April 1, 2027 (FY 2027). The proposed rate increases would be implemented with the rate schedule included in Appendix A.
2. The City should consider implementing a 6.0% rate increase in FY 2028 and a 3.0% rate increase in FY 2029. These rate increases will be dependent on future purchased power, operating and maintenance, and capital improvement costs.
3. The City should simplify its rate structure by eliminating duplicative rates and reducing the number of energy blocks.
4. The City should review its rates on a regular basis, particularly as purchased power and other operating costs increase.

Purpose and Approach

The purpose of this study was to review the electrical rates charged by the City and develop rates that were consistent with a number of goals established by the City. The rate goals established by the City included having rates that provide sufficient revenues to cover projected operating expenses and having rates that reflect 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 collected. Test year expenses for FY 2026 were projected, and future revenues and expenses were projected through FY 2029. A rate plan was developed to meet the financial goals established by the City. 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 City. A rate schedule was developed establishing new rates effective April 1, 2026 (FY 2026) and January 1, 2027 (FY 2027). A written report was prepared and presented to staff prior to submitting it to the City Council.

Background

City of Madison – Electric Utility

The City operates its electric utility, which serves customers located within the City and in some areas adjacent to the City. The Utility serves approximately 1,100 customers, including a mix of residential, rural, general service and lighting.

Purchased Power

The City purchases its total electric requirements from NPPD, Western and Bluestem. Western supplies approximately 21% of the City's energy requirements from hydro-electric resources while Bluestem supplies approximately .05% of the City's energy requirements from solar resources. NPPD supplies the City's supplemental capacity and energy requirements. In FY 2026, the projected cost of purchased power from NPPD, Western and Bluestem is approximately 6.7¢/kWh, delivered to the City.

Projected Financial Results

The purpose of preparing projected financial results is to compare projected revenues with projected expenses and determine the need for future rate increases. Projections were prepared for the period FY 2025 through FY 2029 based on information provided by NPPD, Western, Bluestem and the Utility.

Parameters

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

1. Historical and projected results were prepared based on the City's fiscal year (October through September).
2. The FY 2026 budget was used as the basis for the test year budget, with adjustments for known changes and to ensure consistency with historical actual expenditures.
3. Western rates were projected to remain stable during the study period.
4. NPPD rates were projected to increase 1% annually while Bluestem rates were projected to increase 3% annually through FY 2029. The existing PCA credit was projected to phase out over the next two calendar years.
5. Transmission rates were projected to increase 3% annually through the study period.
6. Operating and maintenance expenses, administrative costs, and other internal expenses were projected to increase at a rate of 3% annually. This is in addition to cost escalation that was built into the current budget projections.
7. Capital expenditures of \$300,000 per year were included beginning in FY 2026, escalating 3% annually through FY 2029.
8. Projected financial results were presented on a "cash basis" as opposed to "accrual basis." Cash basis accounting includes capital improvements and debt service principal as expenses but does not include depreciation expense.
9. Rate changes were developed using the cash basis operating results.

Projected Financial Results

Table 1 (see page 6) shows the projected financial results for FY 2025 through FY 2029, along with actual financial results for FY 2024. The projected financial results do not include rate increases.

Without a rate increase or use of reserve funds, the projected deficit on a cash basis would be approximately \$1.1 million in FY 2026, increasing to approximately \$1.7 million in FY 2029. Between now and FY 2029, retail rates would need to be increased by approximately 24.9% to cover the projected deficit. The major cause of the deficit is the funding of increases in purchased power costs and ensuring sufficient revenue to cover future capital improvement needs.

Future Rate Changes

One of the rate design goals was to spread any major rate increases over a number of years. Table 2 (see page 7) shows projected financial results, and proposed rate increases of 7.6% in FY 2026 and FY 2027, 6.0% in FY 2028 and 3.0% in FY 2029. The proposed rate changes provide sufficient revenue to cover projected purchased power, operating and maintenance, and administrative and general costs.

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Table 1
2026 Cost of Service Study
City of Madison, Nebraska
Projected Financial Results
Existing Rates - Cash Basis

Line	Description	Test Year				Projected	
		2024	2025	2026	2027	2028	2029
1	Operating Revenues						
2	Charges for Services	\$ 6,495,277	\$ 6,696,290	\$ 6,696,290	\$ 6,696,290	\$ 6,696,290	\$ 6,696,290
3	Other Operating Revenue	83,688	39,380	30,974	30,974	30,974	30,974
4	Total Operating Revenue	\$ 6,578,965	\$ 6,735,670	\$ 6,727,264	\$ 6,727,264	\$ 6,727,264	\$ 6,727,264
5	Operating Expenses						
6	Purchased Power	\$ 5,299,789	\$ 5,529,718	\$ 5,766,772	\$ 5,906,035	\$ 6,048,592	\$ 6,135,055
7	Franchise Fee	765,390	878,474	783,000	806,490	830,685	855,605
8	Personnel Costs	339,201	311,698	365,089	376,042	387,323	398,943
9	Contract Services	2,735	1,794	-	-	-	-
10	Utilities	14,680	13,689	26,622	27,421	28,243	29,091
11	Fuel & Transportation	5,576	816	7,140	7,354	7,575	7,802
12	Dues, Memberships & Training	3,472	4,363	6,396	6,588	6,786	6,989
13	Professional Fees	24,805	12,574	88,536	91,192	93,928	96,746
14	Insurance	59,628	56,037	134,000	138,020	142,161	146,425
15	Repairs & Maintenance	84,376	109,741	100,525	103,541	106,647	109,846
16	Supplies	172,157	146,820	156,860	161,566	166,413	171,405
17	Other Expenses	6,147	50,103	99,034	102,005	105,065	108,217
18	Total Operating Expenses	\$ 6,777,956	\$ 7,115,826	\$ 7,533,974	\$ 7,726,253	\$ 7,923,416	\$ 8,066,124
19	Operating Income	\$ (198,991)	\$ (380,156)	\$ (806,709)	\$ (998,989)	\$ (1,196,152)	\$ (1,338,860)
20	Non-Operating Expense/(Revenue)						
21	Interest Income	\$ (6,275)	\$ -	\$ -	\$ -	\$ -	\$ -
22	Gain (Loss) on Sale of Assets	(1,135)	(1,135)	-	-	-	-
23	Other Non-Operating Expenses	-	-	-	-	-	-
24	Capital Improvements	-	(26,032)	300,000	309,000	318,270	327,818
25	Debt Service	-	-	-	-	-	-
26	Total Non-Operating Expense/(Revenue)	\$ (7,410)	\$ (27,166)	\$ 300,000	\$ 309,000	\$ 318,270	\$ 327,818
27	Net Income Before Transfers	\$ (191,581)	\$ (352,989)	\$ (1,106,709)	\$ (1,307,989)	\$ (1,514,422)	\$ (1,666,678)
28	Transfers	\$ (30,000)	\$ -	\$ -	\$ -	\$ -	\$ -
29	Net Income - Cash Basis	\$ (221,581)	\$ (352,989)	\$ (1,106,709)	\$ (1,307,989)	\$ (1,514,422)	\$ (1,666,678)
30	Rate Change for Breakeven Cash Flow			16.5%	19.5%	22.6%	24.9%

Notes:
(1) Based on audited financial statements.



Table 2
2026 Cost of Service Study
City of Madison, Nebraska
Projected Financial Results
Proposed Rates - Cash Basis

Line	Description	Test Year	Projected		
		2026	2027	2028	2029
1	Operating Revenues				
2	Charges for Services	\$ 6,696,290	\$ 6,696,290	\$ 6,696,290	\$ 6,696,290
3	Rate Change	510,761	1,058,432	1,523,715	1,770,315
4	Other Operating Revenue	30,974	30,974	30,974	30,974
5	Total Operating Revenue	\$ 7,238,025	\$ 7,785,696	\$ 8,250,979	\$ 8,497,579
6	Rate Change (%)	7.6%	7.6%	6.0%	3.0%
7	Operating Expenses				
8	Purchased Power	\$ 5,766,772	\$ 5,906,035	\$ 6,048,592	\$ 6,135,055
9	Internal Operating	1,767,202	1,820,218	1,874,825	1,931,069
10	Total Operating Expenses	\$ 7,533,974	\$ 7,726,253	\$ 7,923,416	\$ 8,066,124
11	Operating Income	\$ (295,948)	\$ 59,443	\$ 327,563	\$ 431,455
12	Non-Operating Expense/(Revenue)				
13	Interest Income	\$ -	\$ -	\$ -	\$ -
14	Gain (Loss) on Sale of Assets	-	-	-	-
15	Other Non-Operating Expense	-	-	-	-
16	Capital Improvements	300,000	309,000	318,270	327,818
17	Debt Service	-	-	-	-
18	Total Non-Operating Expense/(Revenue)	\$ 300,000	\$ 309,000	\$ 318,270	\$ 327,818
19	Net Income Before Transfers	\$ (595,948)	\$ (249,557)	\$ 9,293	\$ 103,637
20	Transfers	\$ -	\$ -	\$ -	\$ -
21	Net Income - Cash Basis	\$ (595,948)	\$ (249,557)	\$ 9,293	\$ 103,637
22	Rate Change for Breakeven Cash Flow	8.9%	3.7%	-0.1%	-1.5%

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 taken to prepare the cost of service analysis. A test year budget was prepared based on the FY 2026 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.” The costs related to each function are then allocated to each customer class 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 used as a factor in designing rates.

Test Year Budget

The FY 2026 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 to the FY 2026 operating budget:

- A reduction in internal budgeted operating costs was applied to normalize costs based on historical actual expenditures.
- Adjusted purchased power costs for NPPD, Western and Bluestem to match projected rates.
- A capital improvement plan of \$300,000 was included in the test year budget.
- Revenue based on actual retail sales for the period October 2024 through September 2025 was used to calculate revenues based on “existing rates” for the FY 2026 test year budget.
- A rate stabilization adjustment of approximately \$521,000 was added to the revenue requirement based on the proposed rate plan to implement a 7.6% rate increase in FY 2026.

The test year budget for FY 2026 was approximately \$7.2 million and is summarized in Table 3 (see page 9). This figure represents the amount that needs to be collected from retail rates. It includes all operating expenses and is reduced for revenue from interest income and other non-retail revenue.

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Table 3
2026 Cost of Service Study
City of Madison, Nebraska
Test Year Budget by Function
Annual

Line	Rate Class	Production / Transmission	Subtrans/ Distribution	Customer/ Admin	Total
1	Domestic Electric (6, 9)	\$ 444,154	\$ 319,533	\$ 58,409	\$ 822,097
2	Domestic All-Electric (8)	112,044	54,999	8,104	175,147
3	Domestic Heat Pump (7)	4,177	2,695	490	7,362
4	Rural Electric (16, 28)	38,711	25,355	5,941	70,007
5	Rural All-Electric (18)	10,245	5,243	1,076	16,564
6	Rural Heat Pump (17)	-	-	-	-
7	General Service (1, 4)	203,344	109,611	14,983	327,938
8	General Service Heat Pump (2)	495	545	105	1,145
9	General Service Demand (10)	358,792	82,867	4,232	445,891
10	City Use	89,123	39,323	7,850	136,295
11	Large Power Primary	4,480,322	669,843	1,582	5,151,748
12	Lighting	-	991	785	1,776
13	Irrigation	2,118	3,178	524	5,821
14	General Service All-Electric (3)	23,245	11,158	2,317	36,720
15	Total	\$ 5,766,772	\$ 1,325,341	\$ 106,399	\$ 7,198,512
16	Percentage	80.1%	18.4%	1.5%	100.0%

Functionalization and Classification

Functionalization and classification involve 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:

- Purchased power
- Transmission and sub-transmission service
- Distribution (primary and secondary)
- Services
- Meter reading
- 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, are spread between the demand-related and customer-related classifications. The classifications were based on cost causation and how the costs should be recovered from the Utility’s retail rate classes.

Table 4 summarizes the classification of test year expenses, including the allocation to the various retail rate classes. Approximately \$496,000 is customer-related, \$2.3 million is energy-related, and \$4.4 million is demand-related expense. Based on this classification, 6.9% of the Utility’s test year budget is customer-related, 31.3% is energy-related, and 61.8% is demand-related.

Table 4
2026 Cost of Service Study
City of Madison, Nebraska
Classification of Expenses
Annual

Line	Rate Class	Customer		Energy		Demand	
		(\$)	(\$/mon)	(\$)	(¢/kWh)	(\$)	¢/kWh
1	Domestic Electric (6, 9)	\$ 280,755	\$ 32.72	\$ 207,551	2.67	\$ 333,792	4.30
2	Domestic All-Electric (8)	38,955	32.79	51,316	2.64	84,876	4.37
3	Domestic Heat Pump (7)	2,357	32.73	1,890	2.66	3,115	4.39
4	Rural Electric (16, 28)	23,407	44.08	17,044	2.66	29,556	4.62
5	Rural All-Electric (18)	4,238	44.14	4,402	2.66	7,924	4.79
6	Rural Heat Pump (17)	-	-	-	-	-	-
7	General Service (1, 4)	79,502	46.55	68,116	2.67	180,320	7.07
8	General Service Heat Pump (2)	557	46.40	191	2.66	397	5.53
9	General Service Demand (10)	17,365	72.66	153,566	2.66	274,960	4.77
10	City Use	32,212	72.06	40,330	2.66	63,754	4.20
11	Large Power Primary	3,013	251.10	1,699,599	2.55	3,449,135	5.18
12	Lighting	1,776	9.86	-	-	-	-
13	Irrigation	2,782	46.37	785	2.65	2,254	7.62
14	General Service All-Electric (3)	9,506	72.02	7,988	2.67	19,226	6.43
15	Total	\$ 496,425		\$ 2,252,777		\$ 4,449,309	
16	Percentage	6.9%		31.3%		61.8%	

Of note, the cost of service for customer-related service is \$32.72 per month for Domestic Electric rates (Table 4, Line 1). This compares to the existing Domestic Electric customer charge of \$13.00 per month. It is recommended that the customer charge be increased to more closely reflect the cost of service.

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 City is required to follow. There are a number of 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.

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 at the same ratio as expenses that were directly assigned to functions, 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 5 (see page 12) compares the revenue from existing rates to the calculated cost of service. On an annual basis, the most significant deviation is for City Use, Irrigation, Lighting and Domestic rate classes. Excluding the discounted City Use rate class, if the rate increases were implemented to cover the cost of service they would range between 3.4% and 16.2%.

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Table 5
2026 Cost of Service Study
City of Madison, Nebraska
Comparison of Cost of Service
to Revenue from Existing Rates
Annual

Line	Rate Class	Revenue		Difference	
		Existing Rates	Cost of Service	\$	%
1	Domestic Electric (6, 9)	\$ 750,663	\$ 822,097	\$ 71,435	9.5%
2	Domestic All-Electric (8)	159,751	175,147	15,396	9.6%
3	Domestic Heat Pump (7)	6,681	7,362	681	10.2%
4	Rural Electric (16, 28)	66,068	70,007	3,939	6.0%
5	Rural All-Electric (18)	15,627	16,564	937	6.0%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	317,159	327,938	10,779	3.4%
8	General Service Heat Pump (2)	1,100	1,145	45	4.1%
9	General Service Demand (10)	425,749	445,891	20,143	4.7%
10	City Use	63,702	136,295	72,593	114.0%
11	Large Power Primary	4,848,801	5,151,748	302,947	6.2%
12	Lighting	1,552	1,776	223	14.4%
13	Irrigation	5,010	5,821	811	16.2%
14	General Service All-Electric (3)	34,429	36,720	2,292	6.7%
15	Total	\$ 6,696,290	\$ 7,198,512	\$ 502,221	7.5%

Table 6 (see page 13) shows the calculated cost of service for the summer and winter season. Summer season rates would require an increase of 8.9% to recover the cost of service, while winter season rates would need to increase approximately 6.7% to recover the cost of service. This result indicates that rate increases should be directed more toward the summer season than the winter season.

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Table 6
2026 Cost of Service Study
City of Madison, Nebraska
Comparison of Cost of Service
to Revenue from Existing Rates
Summer

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 290,146	\$ 306,681	\$ 16,535	5.7%
2	Domestic All-Electric (8)	42,424	51,976	9,552	22.5%
3	Domestic Heat Pump (7)	2,276	2,598	323	14.2%
4	Rural Electric (16, 28)	23,746	25,073	1,327	5.6%
5	Rural All-Electric (18)	5,461	5,633	172	3.1%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	112,983	123,239	10,256	9.1%
8	General Service Heat Pump (2)	341	393	52	15.1%
9	General Service Demand (10)	147,120	155,965	8,845	6.0%
10	City Use	18,473	46,498	28,025	151.7%
11	Large Power Primary	1,833,236	1,979,996	146,760	8.0%
12	Lighting	517	592	74	14.4%
13	Irrigation	3,557	2,143	(1,413)	-39.7%
14	General Service All-Electric (3)	12,090	13,284	1,194	9.9%
15	Total	\$ 2,492,368	\$ 2,714,070	\$ 221,702	8.9%

Winter

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 460,517	\$ 515,416	\$ 54,899	11.9%
2	Domestic All-Electric (8)	117,327	123,171	5,844	5.0%
3	Domestic Heat Pump (7)	4,406	4,764	359	8.1%
4	Rural Electric (16, 28)	42,323	44,934	2,612	6.2%
5	Rural All-Electric (18)	10,166	10,931	765	7.5%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	204,176	204,699	523	0.3%
8	General Service Heat Pump (2)	758	752	(7)	-0.9%
9	General Service Demand (10)	278,629	289,927	11,298	4.1%
10	City Use	45,229	89,797	44,568	98.5%
11	Large Power Primary	3,015,565	3,171,752	156,187	5.2%
12	Lighting	1,035	1,184	149	14.4%
13	Irrigation	1,453	3,678	2,225	153.1%
14	General Service All-Electric (3)	22,338	23,436	1,098	4.9%
15	Total	\$ 4,203,922	\$ 4,484,441	\$ 280,519	6.7%

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:

- Ensuring the long-term financial integrity of the utility.
- Establishing rates that are fair, reasonable, and non-discriminatory.
- Developing rates that are competitive with neighboring utilities.
- Encouraging usage during low cost time periods, while discouraging usage during high cost periods.
- Recognizing the cost of service for rate classes and seasons.

Summary of Major Changes

The proposed rate schedule, included in Appendix A, would implement rate increases of 7.6% on April 1, 2026 (FY 2026) and January 1, 2027 (FY 2027). The proposed rate changes are consistent with the cost of service results. The proposed rate changes by rate class, effective April 1, 2026, are shown in Table 7 (see page 15). Table 8 (see page 16) shows the proposed rate increases broken out by summer and winter seasons. Table 9 (see page 17) shows the proposed rate changes by rate class for FY 2027, effective January 1, 2027.

The proposed changes to the rate design include:

1. Customer charges would be increased at a greater percentage than the energy rate. It is proposed to increase the Domestic Electric customer charge from \$13.00 to \$17.10 in FY 2026 and \$21.00 in FY 2027. All other rate classes would increase a similar percentage in their customer charges.
2. Based on the cost of service results, the proposed rate increases would be higher for City Use, Domestic, Rural, General Service Demand and Lighting rate classes than other rate classes.

The City has a complicated rate structure for the size of the system. Some rate classes have similar rates and could easily be combined with other rate classes. In addition, the trend in the industry in recent years is to reduce the number of energy rate blocks and reduce the use of declining-block rates which may encourage additional usage by offering a lower rate for higher energy usage.

The following rate structure changes are proposed:

1. Consolidate the Rural Heat Pump and Rural All-Electric rate classes into one rate class called "Rural Electric Heat."
2. Eliminate the General Service Heat Pump rate as the revenues under that rate were comparable to revenue under the General Service Electric rate.
3. Reduce the Domestic Electric Heat energy blocks from three to two.
4. Reduce the General Service energy blocks from four to two.
5. Reduce the General Service Demand energy blocks from four to two.
6. Add language to clarify how and when customers are classified as either General Service Demand or General Service Electric customers. A review will be completed on an annual basis in October with reclassification effective the immediately succeeding January 1.

Table 7
2026 Cost of Service Study
City of Madison, Nebraska
Proposed Rate Change by Rate Class - April 2026
Annual

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 750,663	\$ 825,956	\$ 75,294	10.0%
2	Domestic All-Electric (8)	159,751	176,193	16,442	10.3%
3	Domestic Heat Pump (7)	6,681	7,378	697	10.4%
4	Rural Electric (16, 28)	66,068	72,707	6,639	10.0%
5	Rural All-Electric (18)	15,627	17,222	1,595	10.2%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	317,159	336,987	19,828	6.3%
8	General Service Heat Pump (2)	1,100	1,148	48	4.4%
9	General Service Demand (10)	425,749	468,672	42,923	10.1%
10	City Use	63,702	72,012	8,310	13.0%
11	Large Power Primary	4,848,801	5,184,841	336,041	6.9%
12	Lighting	1,552	1,708	155	10.0%
13	Irrigation	5,010	5,514	504	10.1%
14	General Service All-Electric (3)	34,429	36,714	2,285	6.6%
15	Total	\$ 6,696,290	\$ 7,207,051	\$ 510,761	7.6%

Table 8
2026 Cost of Service Study
City of Madison, Nebraska
Proposed Rate Change by Rate Class - April 2026
Summer

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 290,146	\$ 316,165	\$ 26,020	9.0%
2	Domestic All-Electric (8)	42,424	45,580	3,157	7.4%
3	Domestic Heat Pump (7)	2,276	2,474	198	8.7%
4	Rural Electric (16, 28)	23,746	26,791	3,046	12.8%
5	Rural All-Electric (18)	5,461	5,920	459	8.4%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	112,983	120,565	7,582	6.7%
8	General Service Heat Pump (2)	341	357	16	4.7%
9	General Service Demand (10)	147,120	158,368	11,248	7.6%
10	City Use	18,473	20,972	2,499	13.5%
11	Large Power Primary	1,833,236	1,939,726	106,491	5.8%
12	Lighting	517	569	52	10.0%
13	Irrigation	3,557	3,938	381	10.7%
14	General Service All-Electric (3)	12,090	12,887	796	6.6%
15	Total	\$ 2,492,368	\$ 2,654,313	\$ 161,945	6.5%

Winter

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 460,517	\$ 509,791	\$ 49,274	10.7%
2	Domestic All-Electric (8)	117,327	130,612	13,285	11.3%
3	Domestic Heat Pump (7)	4,406	4,905	499	11.3%
4	Rural Electric (16, 28)	42,323	45,915	3,593	8.5%
5	Rural All-Electric (18)	10,166	11,302	1,136	11.2%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	204,176	216,422	12,246	6.0%
8	General Service Heat Pump (2)	758	790	32	4.2%
9	General Service Demand (10)	278,629	310,304	31,675	11.4%
10	City Use	45,229	51,040	5,811	12.8%
11	Large Power Primary	3,015,565	3,245,115	229,550	7.6%
12	Lighting	1,035	1,138	103	10.0%
13	Irrigation	1,453	1,576	123	8.5%
14	General Service All-Electric (3)	22,338	23,827	1,489	6.7%
15	Total	\$ 4,203,922	\$ 4,552,738	\$ 348,816	8.3%

Table 9
2026 Cost of Service Study
City of Madison, Nebraska
Proposed Rate Change by Rate Class - January 2027
Annual

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Domestic Electric (6, 9)	\$ 825,956	\$ 908,281	\$ 82,325	10.0%
2	Domestic All-Electric (8)	176,193	193,481	17,288	9.8%
3	Domestic Heat Pump (7)	7,378	8,112	734	9.9%
4	Rural Electric (16, 28)	72,707	80,131	7,424	10.2%
5	Rural All-Electric (18)	17,222	18,991	1,769	10.3%
6	Rural Heat Pump (17)	-	-	-	0.0%
7	General Service (1, 4)	336,987	360,222	23,235	6.9%
8	General Service Heat Pump (2)	1,148	1,251	103	9.0%
9	General Service Demand (10)	468,672	515,792	47,121	10.1%
10	City Use	72,012	81,217	9,204	12.8%
11	Large Power Primary	5,184,841	5,540,303	355,461	6.9%
12	Lighting	1,708	1,878	171	10.0%
13	Irrigation	5,514	6,066	552	10.0%
14	General Service All-Electric (3)	36,714	38,997	2,283	6.2%
15	Total	\$ 7,207,051	\$ 7,754,722	\$ 547,671	7.6%

Rate Comparisons

With the proposed rate increases, the Utility’s electric rates will still be lower than or competitive with neighboring utilities. Rates were compared to NPPD, Loup, and the cities of Pierce and West Point, Nebraska. Table 10 compares Domestic Electric rates and Table 11 (see page 18) compares General Service rates at various usage levels for the summer and winter seasons.

The proposed rates are competitive with neighboring utilities for Domestic Electric and General Service in both seasons even when considering the proposed rate increases. These neighboring utilities may be experiencing power supply and operating cost increases, which may result in retail rate increases in the future comparable to the Utility’s proposed increases.

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Table 10
2026 Cost of Service Study
City of Madison, Nebraska
Typical Bill Comparison
Domestic Electric (6, 9)

Summer Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
Madison	64.60	Madison	112.10	Madison	254.60
Pierce	88.65	Pierce	148.25	Pierce	314.90
West Point	89.50	NPPD	148.77	Loup	315.50
NPPD	90.03	Loup	149.00	NPPD	324.97
Loup	91.00	West Point	153.00	West Point	343.50
Winter Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
Madison	59.80	Madison	99.30	Madison	217.80
West Point	65.50	West Point	108.60	Loup	244.20
Loup	68.00	Loup	112.20	West Point	254.10
NPPD	77.51	NPPD	123.73	NPPD	262.37
Pierce	88.65	Pierce	148.23	Pierce	314.73

Table 11
2026 Cost of Service Study
City of Madison, Nebraska
Typical Bill Comparison
General Service (1, 4)

Summer Comparisons					
Utility	1,000 kWh	Utility	5,000 kWh	Utility	10,000 kWh
Madison	143.00	Madison	549.00	Madison	974.00
NPPD	155.96	NPPD	616.01	NPPD	1,191.06
Loup	170.00	Loup	654.00	Loup	1,254.00
West Point	172.11	West Point	700.55	Pierce	1,345.20
Pierce	179.60	Pierce	719.20	West Point	1,361.10
Winter Comparisons					
Utility	1,000 kWh	Utility	5,000 kWh	Utility	10,000 kWh
NPPD	131.51	NPPD	493.74	NPPD	946.53
Madison	143.00	Madison	549.00	Madison	974.00
Loup	140.00	Loup	551.50	Loup	1,064.00
West Point	172.11	West Point	580.55	West Point	1,091.10
Pierce	174.60	Pierce	714.20	Pierce	1,340.20

Rate comparisons are important but do not take into account multiple factors that cause rate differences. For example, NPPD provides a fixed lease payment and does not provide discounted electric service to governmental entities. Municipally owned utilities may transfer funds to the City as an in-lieu-of tax payment and, in some cases, provide free or discounted labor and equipment to the City or other enterprise funds. Rate comparisons were based on existing rate schedules for neighboring utilities and do not consider future rate changes that may be implemented by those utilities.

Conclusions

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

1. In FY 2026, the projected deficit was approximately \$1.1 million, increasing to approximately \$1.7 million by FY 2029.
2. A rate plan consisting of 7.6% rate increases in FY 2026 and FY 2027, a 6.0% rate increase in FY 2028, and a 3.0% rate increase in FY 2029 would provide sufficient revenue to cover projected operating costs and capital expenditures.
3. The primary drivers for the proposed rate increase are increased purchased power costs and capital projects.
4. The cost of service analysis indicated that rate increases for all rate classes would be reasonable. The City Use rate class should receive a larger rate increase than other rate classes.
5. The City's rate structure is somewhat complex, with multiple rate schedules providing similar rates and service and multiple energy blocks.
6. With the proposed rate increases, the projected typical bill for a Domestic Electric customer would increase approximately \$8.77 per month in FY 2026 and \$9.59 per month in FY 2027.

Recommendations

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

1. The City should adopt retail rate increases of 7.6% on April 1, 2026 (FY 2026) and April 1, 2027 (FY 2027). The proposed rate increases would be implemented with the rate schedule included in Appendix A.
2. The City should consider implementing a 6.0% rate increase in FY 2028 and a 3.0% rate increase in FY 2029. These rate increases will be dependent on future purchased power, operating and maintenance, and capital improvement costs.
3. The City should simplify its rate structure by eliminating duplicative rates and reducing the number of energy blocks.
4. The City should review its rates on a regular basis, particularly as purchased power and other operating costs increase.

Appendix A – Rate Schedule

APPENDIX A
CITY OF MADISON, NEBRASKA
ELECTRIC RATES
(Passed by City Council on _____, 2026)

Summer months are June through September. Winter months are October through May.

DOMESTIC ELECTRIC

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$17.10	\$21.00
Energy Rate		
Summer		
First 200 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0950	\$0.0980
Winter		
First 200 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0790	\$0.0890

DOMESTIC ELECTRIC HEAT*

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$17.10	\$21.00
Energy Rate		
Summer		
First 600 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0950	\$0.0980
Winter		
First 600 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0740	\$0.0820

DOMESTIC HEAT PUMP*

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$17.10	\$21.00
Energy Rate		
Summer		
First 600 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0950	\$0.0980
Winter		
First 600 kWh, per kWh	\$0.0950	\$0.0980
Excess	\$0.0800	\$0.0890

RURAL ELECTRIC

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$19.00	\$23.00
Energy Rate		
Summer		
First 250 kWh, per kWh	\$0.1200	\$0.1200
Excess	\$0.1150	\$0.1200

Winter		
First 250 kWh, per kWh	\$0.1200	\$0.1200
Excess	\$0.0810	\$0.0940

RURAL ELECTRIC HEAT (INCLUDING HEAT PUMP)*

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$19.00	\$23.00
Energy Rate		
Summer		
First 600 kWh, per kWh	\$0.1200	\$0.1200
Excess	\$0.1080	\$0.1200
Winter		
First 600 kWh, per kWh	\$0.1200	\$0.1200
Excess	\$0.0720	\$0.0830

IRRIGATION

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$30.00	\$30.00
Demand Rate, per horsepower at season	\$20.50	\$24.15
Energy Rate		
All kWh, per kWh	\$0.0680	\$0.0750

CITY USE (including Countryside Home)

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$15.00	\$22.00
Energy Rate		
All kWh, per kWh	\$0.0430	\$0.0470

LIGHTING

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Domestic Electric, per light	\$6.78	\$7.45
Rural Electric, per light	\$6.78	\$7.45
General Service, per light	\$8.13	\$8.94
General Service Non-Tax, per light	\$10.84	\$11.93
General Service All-Electric, per light	\$20.33	\$22.36

GENERAL SERVICE ELECTRIC**

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$25.00	\$30.00
Energy Rate		
First 3,000 kWh, per kWh	\$0.1180	\$0.1240
Excess	\$0.0850	\$0.0880

GENERAL SERVICE DEMAND**

If the Large Power Service rate is not applicable, the General Service Demand rate is as follows:

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$50.00	\$60.00
Demand Rate, per kW		
Summer	\$13.75	\$15.00
Winter	\$10.00	\$11.50
Energy Rate		
First 5,000 kWh, per kWh	\$0.0700	\$0.0750
Excess	\$0.0420	\$0.0460

When service is metered at primary voltage, the metered kWh will be multiplied by a factor of 1.028 and the metered kW will be multiplied by a factor of 1.032.

LARGE POWER PRIMARY SERVICE (TYSON)**

The Large Power Service rate is applicable when demand exceeds 2,000 kW per month in any billing period in the previous twelve (12) billing periods. Service is provided at a primary voltage as determined by the City.

Summer months are June through September. Winter months are October through May.

Effective First Full Billing Cycle After:	April 1, 2026	January 1, 2027
Customer Charge, per month	\$350.00	\$400.00
Demand Rate, per kW		
Summer	\$17.00	\$18.00
Winter	\$13.50	\$15.00
Energy Rate		
Summer		
All kWh, per kWh	\$0.0480	\$0.0500
Winter		
All kWh, per kWh	\$0.0415	\$0.0439

Monthly Billing Demand:

The Monthly Billing Demand shall be either (a), (b) or (c), whichever is higher.

- (a) The maximum demand occurring during the billing period.
- (b) Seventy-five percent (75%) of the highest maximum demand established for the bills rendered in June, July, August or September of the preceding eleven (11) months.
- (c) 2,000 kW.

**** APPLICABILITY OF GENERAL SERVICE ELECTRIC AND GENERAL SERVICE DEMAND RATES**

For new accounts, the City will estimate the expected kWh and kW amounts for determination of applicable rate schedule. A demand meter may be installed on any existing or new customer with energy usage greater than 10,000 kWh per month in any billing period in the previous twelve (12) billing periods.

Each year in October, the City will review the applicability of either the General Service Electric or General Service Demand rate for all General Service customers not served under the Large Power Service rate. The City will complete this review based on the monthly peak demands occurring in the twelve (12) billing periods immediately preceding October 1. Any customer (excluding Large Power Service customers) that established a peak demand of 50 kW or greater in two (2) separate months will be placed into the General Service Demand rate. If a customer already served under the General Service Demand rate does not establish a peak of 50 kW in two (2) separate months, it will be placed on the General Service Electric rate schedule.