

RESOLUTION NO. 2010-31

WHEREAS, Lexington City Code Section 8-19, authorizes the City Council to establish by Resolution a schedule of rates and charges for electric service.

BE IT THEREFORE RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF LEXINGTON, NEBRASKA, that the following electric rates for the following use classifications are established and shall take effect January 1, 2011, to be reflected on billings following such date.

<u>Residential – Basic:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 500 kWh @ \$/kWh	\$0.1100	\$0.0980
Over 500 kWh @ \$/kWh	\$0.0861	\$0.0500
Minimum Bill	\$15.00	\$15.00

<u>Residential – All-Electric:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$13.00	\$13.00
First 500 kWh @ \$/kWh	\$0.1080	\$0.0870
Over 500 kWh @ \$/kWh	\$0.0835	\$0.0450
Minimum Bill	\$13.00	\$13.00

<u>Commercial - Small:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 1000 kWh @ \$/kWh	\$0.1350	\$0.1200
Over 1000 kWh @ \$/kWh	\$0.0870	\$0.0720
Minimum Bill	\$15.00	\$15.00

<u>Commercial – Heat:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 1000 kWh @ \$/kWh	\$0.1330	\$0.1180
Next 4000 kWh @ \$/kWh	\$0.0870	\$0.0670
Over 4000 kWh @ \$/kWh	\$0.0870	\$0.0502
Minimum Bill	\$15.00	\$15.00

<u>Municipal Power &amp; Light:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
Plus All kWh @ \$/kWh	\$0.0575	\$0.0575

<u>Commercial - Large:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$20.00	\$20.00
Plus Demand Charge	\$14.00	\$12.20
Plus All kWh @ \$/kWh	\$0.0430	\$0.0400

<u>Industrial – Non-Interruptible:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$50.00	\$50.00
Plus Demand Charge	\$12.75	\$11.00
Plus All kWh @ \$/kWh	\$0.0410	\$0.0366

High Tension Service:

The High Tension rate shall be based upon a cost-plus calculation obtained from real-time metering. The rate shall include the actual cost of wholesale electricity purchased plus a percentage added to cover the required electric utility margin. The High Tension rate will be calculated, charged, and managed by the City Manager.

<u>Irrigation – Non-Interruptible:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Horsepower Charge @ \$/HP	\$64.00	\$64.00
Plus All HP @ \$/HP	\$0.0612	\$0.0612

<u>Municipal Street Lights:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$2,500.00	\$2,500.00
Plus All kWh @ \$/kWh	\$0.0575	\$0.0575

<u>Yard Lights:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$10.00	\$10.00

PASSED AND APPROVED this \_\_\_\_\_ day of December, 2010.

CITY OF LEXINGTON, NEBRASKA

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President of Council

ATTEST:

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Deputy City Clerk

# 2010 COST OF SERVICE / RATE DESIGN STUDY

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CITY OF LEXINGTON, NEBRASKA  
ELECTRIC UTILITY

FINAL

DECEMBER 14, 2010

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**JK** *Energy  
Consulting  
LLC*

## TABLE OF CONTENTS

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Executive Summary .....	2
Purpose and Approach .....	4
Background.....	4
Projected Financial Results.....	5
Cost of Service.....	10
Rate Design.....	17
Conclusions.....	22
Recommendations.....	22
Appendix A – Rate Ordinance.....	A-1
Appendix B – Rate Comparisons.....	B-1

## EXECUTIVE SUMMARY

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This study was prepared by JK Energy Consulting, LLC for the City of Lexington (City). The purpose of the study was to review the electric rates for the City electric utility (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 less revenue than projected revenue requirements in fiscal year (FY) 2011 and beyond on a cash basis. Projected retail revenues for FY 2011 were approximately \$13.8 million (see Table 5, line 12), while projected cash-basis revenue requirements (operating expenses, debt service and capital improvements less non-retail revenues) were approximately \$14.7 million (see Table 5, line 12). This indicates a rate increase of 6.9% would be necessary in FY 2011 to ensure sufficient revenue to cover projected expenses on a cash basis.

The necessary rate increase was also calculated on a utility basis, which calculates the return on rate base for the Utility. This approach tends to reduce year-to-year rate fluctuations caused by changes in capital improvement programs and non-recurring expenses that may occur in the test year. Using a utility-base approach to rate-making and a 6.2% return on rate base, a rate increase of 8.6% would be necessary. This approach would result in a cash shortfall that would require more use of reserve funds than the recommended rate plan.

Of the projected revenue requirements, approximately \$11.6 million was for purchased power from the Nebraska Public Power District (NPPD), including transmission service to deliver these purchases. This represents approximately 78.7% of projected revenue requirements (see Table 3, lines 12 and 13). Purchased power costs are projected to increase by 10.3% in 2011, 6.5% in 2012 and 3.0% annually in 2013 through 2016. The primary cause of the Utility's necessary retail rate increases is to pay for increased purchased power expense from NPPD.

By FY 2013, a cumulative rate increase of approximately 17.0% would be necessary to cover projected operating expenses. The analyses completed indicated that annual rate increases of approximately 7.3% in FY 2011, 5.0% in FY 2012 and 3.0% in FY 2013 and FY 2014 would recover sufficient revenue for projected expenses on a cash basis (see Table 2a, line 6). The return on rate base would increase to 7.0% by FY 2014, which is above the target of 6.2% (see Table 2b).

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. The analysis also indicated how much revenue is collected in each season compared to the cost of service in the respective season. In general, it appeared that future rate increases should be directed more towards All-Electric (Residential), Commercial Heat, High Tension Service and Irrigation

customers. Rates should be increased more in the summer season than in the winter season based on the Utility's current cost structure (see 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. The proposed rate ordinance would direct the necessary rate increases more toward summer rates than winter rates. The rate classes that would experience the largest increases would be Irrigation, Industrial, High Tension Service, Municipal Power and Light, and Municipal Street Lights. The primary reason that Industrial and High Tension Service rates would increase more than other classes is because power supply costs make up such a large proportion of the total cost of service. Individual rate class increases would range from 4.0% to 11.0% (see Table 7).

The proposed rates are generally competitive with neighboring utilities, even when the proposed rate increases are included. Rates were compared to Nebraska Public Power District (NPPD), Dawson County Public Power District (Dawson PPD), and the cities of Gothenburg and Cozad. These neighboring utilities are NPPD wholesale customers and are experiencing power supply and operating cost increases. The Utility's rates should continue being competitive with these neighboring utilities (see Tables 8 and 9).

### *Conclusions*

1. The projected revenue requirement for FY 2011 was approximately \$14.7 million.
2. The largest component of the test year budget was purchased power expense, representing 78.7% of the projected test year budget.
3. Projected revenues from existing rates are approximately \$13.8 million.
4. A rate increase of 7.3% in FY 2011 and 5.0% in FY 2012 would help ensure sufficient revenue to cover projected test year expenses by FY 2012.
5. Additional rate increases of 3.0% in FY 2013 and FY 2014 would be necessary to cover projected increases in purchased power expenses.
6. The cost of service analysis indicated rate increases should be directed toward summer usage.
7. The cost of service analysis indicated that All-Electric (Residential and Commercial), Irrigation, High Tension Service, Industrial – Large, Municipal Power and Light, and Commercial - Large customers should receive larger rate increases than other rate classes.
8. The proposed rates for January 2011 would increase the average residential bill by approximately \$3.73 per month.
9. With the proposed rate increases in January 2011, the Utility's residential rates will be competitive with neighboring utilities.

## ***Recommendations***

1. The Utility should adopt a retail rate increase of 7.3% on January 1, 2011. The proposed rate increase for January 1, 2011 would be implemented with the rate ordinance included in Appendix A.
2. In general, rates for All-Electric, Municipal Power and Light, High Tension Service, and Irrigation customers should be increased more than other rate classes.
3. The Utility should consider an additional rate increase of 5.0% on January 1, 2012. This increase is dependent on the NPPD 2012 rate increase, along with changes in other expenses and retail sales.
4. Future rate increases of 3.0% in 2013 and 2014 should be considered, depending on power cost increases from NPPD.

## **PURPOSE AND APPROACH**

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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 established by the Utility. The rate goals established by the Utility included having rates that were competitive with neighboring utilities, 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 collected. Test year expenses for FY 2011 were projected and future revenues and expenses were projected through FY 2014. 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 was developed, establishing new rates that would increase in January 2011. A written report was prepared and will be presented to the City Council for action.

## **BACKGROUND**

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### ***City of Lexington – Electric Utility***

The City of Lexington operates its electric utility, which serves customers located within the City and in some areas adjacent to the City. The Utility serves approximately 3,336 residential customers, 582 commercial, 14 irrigation and 3 industrial customers, along with a number of street and private security lighting accounts.

Tyson Fresh Meats and Cornhusker Energy Lexington, LLC are the two largest customers and account for more than 50% of annual energy sales. These customers are served under the High



Tension rate schedule and take service directly from dedicated 34.5 kV substations located near each respective plant. They both operate at a relatively high load factor when compared to the rest of the City's customer base.

### ***Purchased Power***

The Utility purchases its total electric requirements from NPPD as a Blend rate customer under the General Firm Power Service (GFPS) agreement. In FY 2011, the projected cost of purchased power from NPPD is 5.1¢/kWh, delivered to the Utility. NPPD is implementing a rate increase of 10.3% effective January 1, 2011 and is planning increases of 6.5% in 2012 and 2.5% annually in 2013 through 2016.

Future retail rate increases will be highly dependent on rate increases implemented by NPPD. Purchased power represents approximately 78.7% of the Utility's test year budget, so an increase in power costs will most likely require a rate increase at the retail level. There is also future power cost uncertainty related to environmental restrictions (multi-pollutant control equipment, carbon taxes). These issues could result in a major change to NPPD's future rates and should be monitored for the potential impact to the Utility's retail rates.

## **PROJECTED FINANCIAL RESULTS**

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The purpose of preparing projected financial results is to compare projected revenues with projected expenses, and determining the need for future rate increases. Projections were prepared for the period FY 2011 through FY 2014 based on information provided by NPPD 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 Utility's fiscal year (October 1 through September 30).
2. The FY 2011 budget was used as the basis for the test year budget.
3. NPPD rates were projected to increase 10.3% in FY 2011, 6.5% in FY 2012 and 2.5% annually in 2013 through 2016.
4. Operating and maintenance expenses, administrative costs, and other internal expenses were projected to increase at a rate of 1% annually.
5. Capital improvements of \$400,000 per year were projected through FY 2014, based on the Utility's capital improvement plan. This estimate excluded non-recurring projects and the AMI project, which would produce offsetting operating expense reductions.

6. Projected financial results were presented on a “cash basis” and “utility basis.” Cash basis accounting includes capital improvements and debt service principal as expenses, but does not include depreciation expense. Calculating results on a utility basis includes return on rate base. Depreciation expenses are included but interest expense and other non-operating income and expenses are excluded.

### ***Projected Financial Results***

Tables 1a and 1b (see pages 7 and 8) show the projected financial results for FY 2011 through FY 2014, along with historical financial results for FY 2008 through FY 2010. The projected financial results do not include rate increases or use of available funds for rate stabilization.

Without a rate increase or use of reserve funds, the projected deficit would be approximately \$950,000 FY 2011, increasing to \$2.3 million by FY 2014. The major cause of the deficits is increased purchased power expenses from NPPD, which are projected to increase from \$10.0 million in FY 2010 to \$13.0 million by FY 2014. Existing rates would need to be increased a cumulative total of 17% between now and FY 2014 to cover the projected deficit.

### ***Future Rate Changes***

One of the rate design goals was to spread any major rate increases over a number of years. The proposed rate plan implements annual rate increases comparable to or less than NPPD’s power supply rate increases. Tables 2a and 2b (see page 9 and 10) show projected financial results and return on rate base with rate increases of 7.3% in FY 2011, 5.0% in FY 2012 and 3.0% in FY 2013 and FY 2014.

The proposed rate changes provide sufficient revenue to cover projected purchased power, operating and maintenance, debt service, and administrative and general costs. This plan would provide positive cash flow and an adequate return on rate base of 7.0%.

**Table 1a**  
**Projected Financial Results**  
Existing Rates - Cash Basis  
City of Lexington, NE  
2010 Cost of Service Study

Line	Description	Actual (1)			Test Year	Projected		
		2008	2009	2010	2011	2012	2013	2014
1	<b>Operating Revenues</b>							
2	Retail Sales - Existing Rates	\$ 10,965,092	\$ 12,365,903	\$ 13,703,200	\$ 13,775,478	\$ 13,775,478	\$ 13,775,478	\$ 13,775,478
3	Rate Changes	-	-	-	-	-	-	-
4	Other Operating Revenue	127,684	127,596	150,503	156,900	156,900	156,900	156,900
5	<b>Total Operating Revenue</b>	<b>\$ 11,092,776</b>	<b>\$ 12,493,499</b>	<b>\$ 13,853,703</b>	<b>\$ 13,932,378</b>	<b>\$ 13,932,378</b>	<b>\$ 13,932,378</b>	<b>\$ 13,932,378</b>
6	<b>Operating Expenses</b>							
7	Purchased Power	\$ 8,162,381	\$ 9,103,720	\$ 10,034,000	\$ 11,583,673	\$ 12,336,612	\$ 12,645,027	\$ 12,961,153
8	Personal Services	288,037	296,287	310,652	353,426	356,960	360,530	364,135
9	Electric O&M	1,140,278	861,101	849,641	841,000	849,410	857,904	866,483
10	Administrative and General	1,162,376	1,262,524	1,221,000	1,266,000	1,278,660	1,291,447	1,304,361
11	<b>Total Operating Expenses</b>	<b>\$ 10,753,072</b>	<b>\$ 11,523,632</b>	<b>\$ 12,415,293</b>	<b>\$ 14,044,099</b>	<b>\$ 14,821,642</b>	<b>\$ 15,154,908</b>	<b>\$ 15,496,132</b>
12	<b>Operating Income</b>	<b>\$ 339,704</b>	<b>\$ 969,867</b>	<b>\$ 1,438,410</b>	<b>\$ (111,721)</b>	<b>\$ (889,264)</b>	<b>\$ (1,222,529)</b>	<b>\$ (1,563,754)</b>
13	<b>Non-Operating Expense/(Revenue)</b>							
14	Non-Operating Revenue	\$ (64,296)	\$ (81,741)	\$ (98,525)	\$ (320,000)	(100,000)	(100,000)	(100,000)
15	Debt Service Interest	40,976	119,253	180,736	174,653	170,457	165,498	159,854
16	Debt Service Principal	170,000	441,250	130,906	144,743	154,743	164,743	165,921
17	Capital Improvements (2)	1,296,002	2,042,488	885,834	686,300	400,000	400,000	400,000
18	Non-Operating Expense	-	-	233,000	150,000	150,000	150,000	150,000
19	<b>Total Non-Operating Expense/(Revenue)</b>	<b>\$ 1,442,682</b>	<b>\$ 2,521,250</b>	<b>\$ 1,331,951</b>	<b>\$ 835,696</b>	<b>\$ 775,200</b>	<b>\$ 780,241</b>	<b>\$ 775,776</b>
20	<b>Net Income - Cash Basis</b>	<b>\$ (1,102,978)</b>	<b>\$ (1,551,383)</b>	<b>\$ 106,459</b>	<b>\$ (947,417)</b>	<b>\$ (1,664,464)</b>	<b>\$ (2,002,770)</b>	<b>\$ (2,339,529)</b>
21	<b>Rate Change for Breakeven Cash Flow</b>				6.9%	12.1%	14.5%	17.0%
22	<b>Debt Service Coverage</b>							
23	Net Revenue				\$ 58,279	\$ (939,264)	\$ (1,272,529)	\$ (1,613,754)
24	Debt Service				319,396	325,200	330,241	325,776
25	<b>Debt Service Coverage Ratio (3)</b>				<b>18.25%</b>	<b>-288.83%</b>	<b>-385.33%</b>	<b>-495.36%</b>
26	<b>Required Net Revenue</b>				399,245	406,500	412,801	407,219
27	<b>Rate Change for 125% Debt Coverage</b>				2.5%	9.8%	12.2%	14.7%

Notes:

- (1) Historical expenses based on FY 2010-11 Electric Department Budget Worksheet.
- (2) Excludes non-recurring items and AMI infrastructure expenditures.
- (3) Net revenue divided by annual debt service requirement, expressed as percentage.

**Table 1b**  
**Projected Financial Results - Return on Rate Base**  
Existing Rates  
City of Lexington, NE  
2010 Cost of Service Study

Line	Description	Test Year 2011	Projected		
			2012	2013	2014
1	<b>Estimated Return on Rate Base</b>				
2	Revenue	\$ 13,932,378	\$ 13,932,378	\$ 13,932,378	\$ 13,932,378
3	Operating Expenses (exc. Depreciation)	14,044,099	14,821,642	15,154,908	15,496,132
4	Depreciation	596,652	596,652	596,652	596,652
5	<b>Net Income (excluding Interest Expense)</b>	<b>\$ (708,373)</b>	<b>\$ (1,485,916)</b>	<b>\$ (1,819,181)</b>	<b>\$ (2,160,406)</b>
6	<b>Rate Base</b>				
7	Net Plant in Service	\$ 5,843,129	\$ 5,843,129	\$ 5,843,129	\$ 5,843,129
8	Working Capital	\$ 1,755,512	\$ 1,755,512	\$ 1,755,512	\$ 1,755,512
9	<b>Projected Rate Base</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>
10	<b>Return on Rate Base</b>	-9.32%	-19.56%	-23.94%	-28.43%
11	<b>Target Return on Rate Base</b>	6.24%	6.24%	6.24%	6.24%
12	<b>Rate Change to Achieve Target Return (\$)</b>	1,182,433	1,959,976	2,293,241	2,634,466
13	<b>(%)</b>	8.6%	14.2%	16.6%	19.1%

**Table 2a**  
**Projected Financial Results**  
Proposed Rates - Cash Basis  
City of Lexington, NE  
2010 Cost of Service Study

Line	Description	Actual (1)			Test Year	Projected		
		2008	2009	2010	2011	2012	2013	2014
1	<b>Operating Revenues</b>							
2	Retail Sales - Existing Rates	\$10,965,092	\$12,365,903	\$13,703,200	\$ 13,775,478	\$ 13,775,478	\$ 13,775,478	\$ 13,775,478
3	Rate Changes	-	-	-	1,010,425	1,749,103	2,214,840	2,694,550
4	Other Operating Revenue	127,684	127,596	150,503	156,900	156,900	156,900	156,900
5	<b>Total Operating Revenue</b>	<b>\$11,092,776</b>	<b>\$12,493,499</b>	<b>\$13,853,703</b>	<b>\$ 14,942,804</b>	<b>\$ 15,681,481</b>	<b>\$ 16,147,218</b>	<b>\$ 16,626,928</b>
6	<b>Rate Increase / (Decrease)</b>				<b>7.3%</b>	<b>5.0%</b>	<b>3.0%</b>	<b>3.0%</b>
7	<b>Operating Expenses</b>							
8	Purchased Power	\$ 8,162,381	\$ 9,103,720	\$10,034,000	\$ 11,583,673	\$ 12,336,612	\$ 12,645,027	\$ 12,961,153
9	Personal Services	288,037	296,287	310,652	353,426	356,960	360,530	364,135
10	Electric O&M	1,140,278	861,101	849,641	841,000	849,410	857,904	866,483
11	Administrative and General	1,162,376	1,262,524	1,221,000	1,266,000	1,278,660	1,291,447	1,304,361
12	<b>Total Operating Expenses</b>	<b>\$10,753,072</b>	<b>\$11,523,632</b>	<b>\$12,415,293</b>	<b>\$ 14,044,099</b>	<b>\$ 14,821,642</b>	<b>\$ 15,154,908</b>	<b>\$ 15,496,132</b>
13	<b>Operating Income</b>	<b>\$ 339,704</b>	<b>\$ 969,867</b>	<b>\$ 1,438,410</b>	<b>\$ 898,705</b>	<b>\$ 859,839</b>	<b>\$ 992,311</b>	<b>\$ 1,130,796</b>
14	<b>Non-Operating Expense/(Revenue)</b>							
15	Non-Operating Revenue	\$ (64,296)	\$ (81,741)	\$ (98,525)	\$ (320,000)	(100,000)	(100,000)	(100,000)
16	Debt Service Interest	40,976	119,253	180,736	174,653	170,457	165,498	159,854
17	Debt Service Principal	170,000	441,250	130,906	144,743	154,743	164,743	165,921
18	Capital Improvements	1,296,002	2,042,488	885,834	686,300	400,000	400,000	400,000
19	Non-Operating Expense	-	-	233,000	150,000	150,000	150,000	150,000
20	<b>Total Non-Operating Expense/(Revenue)</b>	<b>\$ 1,442,682</b>	<b>\$ 2,521,250</b>	<b>\$ 1,331,951</b>	<b>\$ 835,696</b>	<b>\$ 775,200</b>	<b>\$ 780,241</b>	<b>\$ 775,776</b>
21	<b>Net Income - Cash Basis</b>	<b>\$ (1,102,978)</b>	<b>\$ (1,551,383)</b>	<b>\$ 106,459</b>	<b>\$ 63,009</b>	<b>\$ 84,639</b>	<b>\$ 212,070</b>	<b>\$ 355,020</b>
22	<b>Rate Change for Breakeven Cash Flow</b>				-0.5%	-0.6%	-1.5%	-2.6%
23	<b>Debt Service Coverage</b>							
24	Net Revenue				\$ 1,068,705	\$ 809,839	\$ 942,311	\$ 1,080,796
25	Debt Service				319,396	325,200	330,241	325,776
26	<b>Debt Service Coverage Ratio (2)</b>				<b>334.60%</b>	<b>249.03%</b>	<b>285.34%</b>	<b>331.76%</b>
27	<b>Required Net Revenue</b>				399,245	406,500	412,801	407,219
28	<b>Rate Change for 125% Debt Coverage</b>				-4.9%	-2.9%	-3.8%	-4.9%

Notes:

- (1) Historical expenses based on FY 2010-11 Electric Department Budget Worksheet.
- (2) Net revenue divided by annual debt service requirement, expressed as percentage.

**Table 2b**  
**Projected Financial Results - Return on Rate Base**  
Proposed Rates  
City of Lexington, NE  
2010 Cost of Service Study

Line	Description	Test Year 2011	Projected		
			2012	2013	2014
1	<b>Estimated Return on Rate Base</b>				
2	Revenue	\$ 14,942,804	\$ 15,681,481	\$ 16,147,218	\$ 16,626,928
3	Operating Expenses (exc. Depreciation)	14,044,099	14,821,642	15,154,908	15,496,132
4	Depreciation	596,652	596,652	596,652	596,652
5	<b>Net Income (excluding Interest Expense)</b>	<b>\$ 302,053</b>	<b>\$ 263,187</b>	<b>\$ 395,659</b>	<b>\$ 534,144</b>
6	<b>Rate Base</b>				
7	Net Plant in Service	\$ 5,843,129	\$ 5,843,129	\$ 5,843,129	\$ 5,843,129
8	Working Capital	1,755,512	1,755,512	1,755,512	1,755,512
9	<b>Projected Rate Base</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>	<b>\$ 7,598,641</b>
10	<b>Return on Rate Base</b>	4.0%	3.5%	5.2%	7.0%
11	<b>Target Return on Rate Base</b>	6.2%	6.2%	6.2%	6.2%
12	<b>Rate Change to Achieve Target Return (\$)</b>	172,008	210,873	78,402	(60,084)
13	<b>(%)</b>	1.2%	1.5%	0.6%	-0.4%

## **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 2011 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 2011 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 adjustments to the FY 2011 purchased power budget to reflect NPPD’s rate proposal, effective January 1, 2011.

The test year budget for FY 2011 was \$14.7 million and is summarized in Table 3. The test year budget 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 interest income and other non-retail revenue.

**Table 3**  
**Test Year Budget by Function**  
 City of Lexington, NE  
 Annual

Line	Rate Class	Production / Transmission	Subtrans/ Distribution	Customer/ Admin	Total
1	Residential	\$ 1,593,338	\$ 414,800	\$ 386,216	\$ 2,394,354
2	Residential - All-Electric	1,398,187	345,540	273,330	2,017,056
3	Commercial - Small	847,744	220,998	191,988	1,260,730
4	Commercial - Heat	119,063	28,903	23,579	171,545
5	Municipal Power and Light	367,291	(42,235)	(24,644)	300,413
6	Commercial - Large	1,107,188	201,513	109,982	1,418,683
7	Industrial - Non-Interruptible	257,306	22,637	22,192	302,136
8	High Tension Service	5,833,987	393,003	510,657	6,737,647
9	Irrigation - Non-Interruptible	15,630	11,611	3,670	30,911
10	Municipal Street Lights	43,939	16,889	21,112	81,940
11	Yard Lights	-	1,531	5,950	7,480
12	<b>Total</b>	<b>\$ 11,583,673</b>	<b>\$ 1,615,192</b>	<b>\$ 1,524,030</b>	<b>\$ 14,722,895</b>
13	<b>Percentage</b>	<b>78.7%</b>	<b>11.0%</b>	<b>10.4%</b>	<b>100.00%</b>

## *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. Purchased power
2. Transmission and sub-transmission service
3. Distribution (primary and secondary)
4. Services
5. Meter reading
6. Billing and customer accounting
7. Street lighting

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 (see page 13) summarizes the classification of test year expenses, including the allocation to the various retail rate classes. Approximately \$900,000 is customer-related, \$6.1 million is energy-related and \$7.7 million is demand-related expense. Based on this classification, 6.1% of the Utility's test year budget is customer-related, 41.2% is energy-related and 52.7% is demand-related.



**Table 4**  
**Classification of Expenses**  
City of Lexington, NE  
Annual

Line	Rate Class	Customer		Energy		Demand		
		(\$)	(\$/mon)	(\$)	(¢/kWh)	(\$)	¢/kWh	\$/kW
1	Residential	\$ 393,559	\$ 15.70	\$ 741,564	2.84	\$ 1,259,231	4.83	
2	Residential - All-Electric	234,939	15.70	732,351	2.79	1,049,766	4.00	
3	Commercial - Small	186,523	31.47	366,358	2.85	707,848	5.51	
4	Commercial - Heat	18,711	28.52	55,885	2.79	96,949	4.85	
5	Municipal Power and Light	(5,011)	(8.46)	136,740	2.48	168,684	3.06	
6	Commercial - Large	12,673	31.84	505,676	2.87	900,333		16.24
7	Industrial - Non-Interruptible	348	29.01	133,023	2.79	168,764		16.32
8	High Tension Service	28,758	1,198.24	3,346,958	2.79	3,361,931		15.97
9	Irrigation - Non-Interruptible	2,638	15.70	5,083	3.18	23,191		14.92
10	Municipal Street Lights	14,137	1,178.12	29,858	3.38	8,086	0.92	
11	Yard Lights	7,480	6.05	-	-	-	-	
12	Total	<b>\$ 894,755</b>		<b>\$ 6,053,497</b>		<b>\$ 7,744,784</b>		
13	Percentage	<b>6.1%</b>		<b>41.2%</b>		<b>52.7%</b>		

### *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 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. Customers that do not use a particular function, like high tension service customers that do not use primary or secondary service, were not allocated costs for those functions. 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, such as 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 15) compares the revenue from existing rates to the calculated cost of service. Overall, the cost of service indicated rates would need to increase 6.9% in FY 2011 to recover the full revenue requirements. The cost of service indicated that residential rates would need to increase approximately 2.1% to recover the cost of service, residential all-electric rates would need to increase 13.9% and other rate classes would need increases of 2.8% to 11.0%.

Table 6 (see page 16) shows the calculated cost of service for the summer and winter season. Summer season rates would require an increase of 8.2% to fully recover the cost of service, while winter season rates would need an increase of 6.1% to fully recover the cost of service. In general, this indicates that rate increases should be directed toward summer usage.

**Table 5**  
**Comparison of Cost of Service**  
**to Revenue from Existing Rates**  
City of Lexington, NE  
Annual

Line	Rate Class	Revenue		Difference	
		Existing Rates	Cost of Service	\$	%
1	Residential	\$ 2,346,210	\$ 2,394,354	\$ 48,144	2.1%
2	Residential - All-Electric	1,770,195	2,017,056	246,861	13.9%
3	Commercial - Small	1,226,890	1,260,730	33,840	2.8%
4	Commercial - Heat	161,200	171,545	10,345	6.4%
5	Municipal Power and Light	300,412	300,413	0	0.0%
6	Commercial - Large	1,375,034	1,418,683	43,649	3.2%
7	Industrial - Non-Interruptible	283,877	302,136	18,259	6.4%
8	High Tension Service	6,197,046	6,737,647	540,602	8.7%
9	Irrigation - Non-Interruptible	27,835	30,911	3,076	11.0%
10	Municipal Street Lights	74,418	81,940	7,522	10.1%
11	Yard Lights	12,360	7,480	(4,880)	-39.5%
12	<b>Total</b>	<b>\$ 13,775,478</b>	<b>\$ 14,722,895</b>	<b>\$ 947,417</b>	<b>6.9%</b>

**Table 6**  
**Comparison of Cost of Service**  
**to Revenue from Existing Rates**  
City of Lexington, NE

Summer

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
1	Residential	\$ 854,802	\$ 861,657	\$ 6,854	0.8%
2	Residential - All-Electric	539,478	583,987	44,509	8.3%
3	Commercial - Small	418,249	466,304	48,055	11.5%
4	Commercial - Heat	52,086	52,439	353	0.7%
5	Municipal Power and Light	107,582	124,025	16,444	15.3%
6	Commercial - Large	509,656	546,138	36,482	7.2%
7	Industrial - Non-Interruptible	83,024	97,988	14,964	18.0%
8	High Tension Service	2,475,901	2,720,699	244,799	9.9%
9	Irrigation - Non-Interruptible	9,438	15,955	6,517	69.1%
10	Municipal Street Lights	22,061	21,354	(707)	-3.2%
11	Yard Lights	4,120	2,493	(1,627)	-39.5%
12	<b>Total</b>	<b>\$ 5,076,395</b>	<b>\$ 5,493,040</b>	<b>\$ 416,645</b>	<b>8.2%</b>

Winter

Line	Rate Class	Revenue Existing Rates	Cost of Service	Difference	
				\$	%
13	Residential	\$ 1,491,407	\$ 1,532,697	\$ 41,290	2.8%
14	Residential - All-Electric	1,230,717	1,433,069	202,352	16.4%
15	Commercial - Small	808,641	794,426	(14,215)	-1.8%
16	Commercial - Heat	109,114	119,106	9,992	9.2%
17	Municipal Power and Light	192,831	176,387	(16,444)	-8.5%
18	Commercial - Large	865,378	872,545	7,167	0.8%
19	Industrial - Non-Interruptible	200,854	204,148	3,294	1.6%
20	High Tension Service	3,721,145	4,016,948	295,803	7.9%
21	Irrigation - Non-Interruptible	18,398	14,956	(3,442)	-18.7%
22	Municipal Street Lights	52,358	60,586	8,229	15.7%
23	Yard Lights	8,240	4,987	(3,253)	-39.5%
24	<b>Total</b>	<b>\$ 8,699,083</b>	<b>\$ 9,229,855</b>	<b>\$ 530,772</b>	<b>6.1%</b>

## **RATE DESIGN**

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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 with neighboring utilities.
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 Major Changes***

The proposed rate ordinance, included as Appendix A, would implement a rate increase that would increase overall revenue by approximately 7.3% on January 1, 2011. The proposed rate increase for FY 2011 was slightly less than the cost of service indicated was necessary.

The proposed rate increases would not be across the board, but would be directed more towards summer usage than winter usage. Residential and general service customers would receive larger rate increases than other rate classes. The proposed rate changes are consistent with the cost of service results. The proposed changes by rate class are shown in Table 7 (see page 18) on an annual basis and Table 8 (see page 19) on a seasonal basis.

The primary structural changes to the rates are listed below. This list includes major rate structure changes and rates that increased significantly more than the system average increase:

1. Rates for irrigation were increased approximately 11.0%. The cost of service indicated that rates for irrigation would need to increase 11.0% to recover the allocated costs to the rate class. The irrigation rate increase is approximately 4.0% more than the overall rate class. The proposed increase is primarily allocated to the horsepower charge.

**Table 7**  
**Proposed Rate Change by Rate Class - January 2011**

City of Lexington, NE  
 2010 Cost of Service Study  
 Annual

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Residential	\$ 2,346,210	\$ 2,439,775	\$ 93,565	4.0%
2	Residential - All-Electric	1,770,195	1,885,050	114,855	6.5%
3	Commercial - Small	1,226,890	1,277,051	50,161	4.1%
4	Commercial - Heat	161,200	171,702	10,502	6.5%
5	Municipal Power and Light	300,412	325,896	25,483	8.5%
6	Commercial - Large	1,375,034	1,457,171	82,137	6.0%
7	Industrial - Non-Interruptible	283,877	303,840	19,963	7.0%
8	High Tension Service	6,197,046	6,801,389	604,343	9.8%
9	Irrigation - Non-Interruptible	27,835	30,893	3,058	11.0%
10	Municipal Street Lights	74,418	80,776	6,358	8.5%
11	Yard Lights	12,360	12,360	-	0.0%
12	<b>Total</b>	<b>\$ 13,775,478</b>	<b>\$ 14,785,904</b>	<b>\$ 1,010,425</b>	<b>7.3%</b>

**Table 8**  
**Proposed Rate Change by Rate Class - January 2011**

City of Lexington, NE  
 2010 Cost of Service Study

**Summer**

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
1	Residential	\$ 854,802	\$ 914,130	\$ 59,327	6.9%
2	Residential - All-Electric	539,478	586,688	47,210	8.8%
3	Commercial - Small	418,249	458,309	40,060	9.6%
4	Commercial - Heat	52,086	49,888	(2,198)	-4.2%
5	Municipal Power and Light	107,582	116,683	9,102	8.5%
6	Commercial - Large	509,656	550,785	41,129	8.1%
7	Industrial - Non-Interruptible	83,024	89,488	6,464	7.8%
8	High Tension Service	2,475,901	2,627,629	151,729	6.1%
9	Irrigation - Non-Interruptible	9,438	9,773	335	3.6%
10	Municipal Street Lights	22,061	23,787	1,726	7.8%
11	Yard Lights	4,120	4,120	-	0.0%
12	<b>Total</b>	<b>\$ 5,076,395</b>	<b>\$ 5,431,280</b>	<b>\$ 354,885</b>	<b>7.0%</b>

**Winter**

Line	Rate Class	Revenue Existing Rates	Revenue Proposed Rates	Difference	
				\$	%
13	Residential	\$ 1,491,407	\$ 1,525,645	\$ 34,238	2.3%
14	Residential - All-Electric	1,230,717	1,298,362	67,645	5.5%
15	Commercial - Small	808,641	818,742	10,100	1.2%
16	Commercial - Heat	109,114	121,815	12,700	11.6%
17	Municipal Power and Light	192,831	209,213	16,382	8.5%
18	Commercial - Large	865,378	906,386	41,008	4.7%
19	Industrial - Non-Interruptible	200,854	214,352	13,499	6.7%
20	High Tension Service	3,721,145	4,173,760	452,614	12.2%
21	Irrigation - Non-Interruptible	18,398	21,120	2,723	14.8%
22	Municipal Street Lights	52,358	56,989	4,632	8.8%
23	Yard Lights	8,240	8,240	-	0.0%
24	<b>Total</b>	<b>\$ 8,699,083</b>	<b>\$ 9,354,624</b>	<b>\$ 655,541</b>	<b>7.5%</b>

2. The proposed rates would adjust the adder for high tension service to 13.25%, a decrease from approximately 13.75%. This approach would still result in sufficient revenue to cover the projected cost of service for this rate class.
3. The cost of service indicated rates for Residential – All-Electric and Commercial Heat customers should increase more than the average. These rate classes are proposed to experience a rate increase of 6.5%, which is approximately 2.5% higher than the corresponding residential or commercial rate increase. The proposed rate increases will help to bring revenues for these classes closer to the cost of service.
4. The proposed rate structure will continue previous rate design changes that moved toward single block rates in the summer season. Currently, the Utility uses a declining energy block rate, which provides for lower energy costs as the customer uses more energy. This provides a price signal that increased use results in lower costs, which is not consistent with NPPD’s rate structure in the summer season. In particular, higher usage during peak periods can result in higher demand charges and ratcheted transmission charges, increasing power costs for the Utility.

### *Rate Comparisons*

With the proposed rate increases, the Utility’s electric rates will still be competitive with neighboring utilities. The Utility’s rates were compared to four neighboring utilities: NPPD, Dawson PPD, Cozad and Gothenburg. Table 9 compares residential rates and Table 10 compares general service rates at various usage levels for the summer and winter seasons. The proposed rates are competitive with neighboring utilities, even when considering the proposed rate increases. These neighboring utilities are experiencing power supply and operating cost increases, which may result in retail rate increases in the future comparable to the Utility’s proposed increases.

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 Dawson served the City’s retail customers. Municipally-owned utilities may transfer funds to the City as an in-lieu-of tax payment and provide discounted service to municipal accounts, or share labor costs associated with meter reading and other services. Rate comparisons were based on existing rate schedules for 2010 and do not consider 2011 rate changes that may be implemented by other utilities. Neighboring utilities are experiencing similar cost increases for purchased power and general cost escalation.



**Table 9**  
**Typical Bill Comparison**  
Rate Comparisons - January 2011 Proposed  
Residential

Summer Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
Gothenburg	46.75	Gothenburg	82.50	Gothenburg	189.75
Cozad	51.69	Cozad	96.64	Cozad	231.49
Dawson PPD	64.40	<b>Lexington</b>	<b>113.05</b>	<b>Lexington</b>	<b>242.20</b>
NPPD	71.57	Dawson PPD	118.33	Dawson PPD	280.14
<b>Lexington</b>	<b>70.00</b>	NPPD	125.06	NPPD	285.54
Winter Comparisons					
Utility	500 kWh	Utility	1,000 kWh	Utility	2,500 kWh
Gothenburg	43.50	Gothenburg	71.25	Cozad	139.19
Cozad	48.89	Cozad	77.99	Gothenburg	140.25
Dawson PPD	62.03	<b>Lexington</b>	<b>89.00</b>	<b>Lexington</b>	<b>164.00</b>
<b>Lexington</b>	<b>64.00</b>	Dawson PPD	104.15	NPPD	194.03
NPPD	71.57	NPPD	111.99	Dawson PPD	230.51

**Table 10**  
**Typical Bill Comparison**  
Rate Comparisons - January 2011 Proposed  
General Service

Summer Comparisons					
Utility	1,000 kWh	Utility	5,000 kWh	Utility	10,000 kWh
Gothenburg	96.00	Gothenburg	412.00	Gothenburg	807.00
Cozad	110.42	Cozad	487.62	<b>Lexington</b>	<b>933.00</b>
Dawson PPD	119.28	<b>Lexington</b>	<b>498.00</b>	Cozad	959.12
NPPD	133.49	Dawson PPD	533.37	Dawson PPD	1,049.92
<b>Lexington</b>	<b>150.00</b>	NPPD	585.53	NPPD	1,150.58
Winter Comparisons					
Utility	1,000 kWh	Utility	5,000 kWh	Utility	10,000 kWh
Gothenburg	96.00	Gothenburg	345.50	Dawson PPD	602.12
Cozad	104.72	Cozad	346.62	Gothenburg	607.50
NPPD	111.68	NPPD	408.07	NPPD	769.51
Dawson PPD	119.28	<b>Lexington</b>	<b>423.00</b>	<b>Lexington</b>	<b>783.00</b>
<b>Lexington</b>	<b>135.00</b>	Dawson PPD	440.28	Cozad	837.50

## CONCLUSIONS

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

1. The projected revenue requirement for FY 2011 was approximately \$14.7 million.
2. The largest component of the test year budget was purchased power expense, representing 78.7% of the projected test year budget.
3. Projected revenues from existing rates are approximately \$13.8 million.
4. A rate increase of 7.3% in FY 2011 and 5.0% in FY 2012 would help ensure sufficient revenue to cover projected test year expenses by FY 2012.
5. Additional rate increases of 3.0% in FY 2013 and FY 2014 would be necessary to cover projected increases in purchased power expenses.
6. The cost of service analysis indicated rate increases should be directed toward summer usage.
7. The cost of service analysis indicated that All-Electric (Residential and Commercial), Irrigation, High Tension Service, Industrial – Large, Municipal Power and Light, and Commercial - Large customers should receive larger rate increases than other rate classes.
8. The proposed rates for January 2011 would increase the average residential bill by approximately \$3.73 per month.
9. With the proposed rate increases in January 2011, the Utility's residential rates will be competitive with neighboring utilities.

## RECOMMENDATIONS

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

1. The Utility should adopt a retail rate increase of 7.3% on January 1, 2011. The proposed rate increase for January 1, 2011 would be implemented with the rate ordinance included in Appendix A.
2. In general, rates for All-Electric, Municipal Power and Light, High Tension Service, and Irrigation customers should be increased more than other rate classes.
3. The Utility should consider an additional rate increase of 5.0% on January 1, 2012. This increase is dependent on the NPPD 2012 rate increase, along with changes in other expenses and retail sales.
4. Future rate increases of 3.0% in 2013 and 2014 should be considered, depending on power cost increases from NPPD.

## APPENDIX A – RATE ORDINANCE

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RESOLUTION NO. 10-XX

WHEREAS, Lexington City Code Section 8-19, authorizes the City Council to establish by Resolution a schedule of rates and charges for electric service.

BE IT THEREFORE RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF LEXINGTON, NEBRASKA, that the following electric rates for the following use classifications are established and shall take effect January 1, 2011, to be reflected on billings following such date.

<u>Residential – Basic:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 500 kWh @ \$/kWh	\$0.1100	\$0.0980
Over 500 kWh @ \$/kWh	\$0.0861	\$0.0500
Minimum Bill	\$15.00	\$15.00

<u>Residential – All-Electric:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$13.00	\$13.00
First 500 kWh @ \$/kWh	\$0.1080	\$0.0870
Over 500 kWh @ \$/kWh	\$0.0835	\$0.0450
Minimum Bill	\$13.00	\$13.00

<u>Commercial - Small:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 1000 kWh @ \$/kWh	\$0.1350	\$0.1200
Over 1000 kWh @ \$/kWh	\$0.0870	\$0.0720
Minimum Bill	\$15.00	\$15.00

<u>Commercial – Heat:</u>	Summer <u>May 1 – Sept. 30</u>	Winter <u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
First 1000 kWh @ \$/kWh	\$0.1330	\$0.1180
Next 4000 kWh @ \$/kWh	\$0.0870	\$0.0670
Over 4000 kWh @ \$/kWh	\$0.0870	\$0.0502
Minimum Bill	\$15.00	\$15.00

<u>Municipal Power &amp; Light:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$15.00	\$15.00
Plus All kWh @ \$/kWh	\$0.0575	\$0.0575

<u>Commercial - Large:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$20.00	\$20.00
Plus Demand Charge	\$14.00	\$12.20
Plus All kWh @ \$/kWh	\$0.0430	\$0.0400

<u>Industrial – Non-Interruptible:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$50.00	\$50.00
Plus Demand Charge	\$12.75	\$11.00
Plus All kWh @ \$/kWh	\$0.0410	\$0.0366

High Tension Service:

The High Tension rate shall be based upon a cost-plus calculation obtained from real-time metering. The rate shall include the actual cost of wholesale electricity purchased plus a percentage added to cover the required electric utility margin. The High Tension rate will be calculated, charged, and managed by the City Manager.

<u>Irrigation – Non-Interruptible:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Horsepower Charge @ \$/HP	\$64.00	\$64.00
Plus All HP @ \$/HP	\$0.0612	\$0.0612

<u>Municipal Street Lights:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$2,500.00	\$2,500.00
Plus All kWh @ \$/kWh	\$0.0575	\$0.0575

<u>Yard Lights:</u>	Summer	Winter
	<u>May 1 – Sept. 30</u>	<u>Oct. 1 – Apr. 30</u>
Base Charge per Month	\$10.00	\$10.00

PASSED AND APPROVED this \_\_\_\_\_ day of December, 2010.

CITY OF LEXINGTON, NEBRASKA

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President of Council

ATTEST:

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Deputy City Clerk

## APPENDIX B – RATE COMPARISONS

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**Appendix Table B-1  
Typical Bill Comparison  
Existing vs. Proposed Rates  
Residential**

Line	Summer Rates			
	Existing		Proposed	
1	Minimum Bill	\$ -	Minimum Bill	\$ -
2	Customer Charge	\$ 15.00	Customer Charge	\$ 15.00
3	Discount	0.00%	Discount	0.00%
4	Energy	cts/kWh	Energy	cts/kWh
5	First 500 kWh	11.400	500 kWh	11.000
6	Next 0 kWh	-	0 kWh	-
7	Next 0 kWh	-	0 kWh	-
8	Next 0 kWh	-	0 kWh	-
9	Excess	6.940		8.610

Line	Winter Rates			
	Existing		Proposed	
1	Minimum Bill	\$ -	Minimum Bill	\$ -
2	Customer Charge	\$ 15.00	Customer Charge	\$ 15.00
3	Discount	0.00%	Discount	0.00%
4	Energy	cts/kWh	Energy	cts/kWh
5	First 500 kWh	9.790	500 kWh	9.800
6	Next 0 kWh	-	0 kWh	-
7	Next 0 kWh	-	0 kWh	-
8	Next 0 kWh	-	0 kWh	-
9	Excess	4.740		5.000

Line	Monthly Usage (kWh)	Summer Monthly Bill		% Inc. / (Dec.)
		Existing	Proposed	
10	50	\$ 20.70	\$ 20.50	-1.0%
11	100	26.40	26.00	-1.5%
12	200	37.80	37.00	-2.1%
13	300	49.20	48.00	-2.4%
14	400	60.60	59.00	-2.6%
15	500	72.00	70.00	-2.8%
16	600	78.94	78.61	-0.4%
17	700	85.88	87.22	1.6%
18	800	92.82	95.83	3.2%
19	900	99.76	104.44	4.7%
20	1,000	106.70	113.05	6.0%
21	1,200	120.58	130.27	8.0%
22	1,400	134.46	147.49	9.7%
23	1,600	148.34	164.71	11.0%
24	1,800	162.22	181.93	12.2%
25	2,000	176.10	199.15	13.1%
26	2,500	210.80	242.20	14.9%
27	3,000	245.50	285.25	16.2%
28	4,000	314.90	371.35	17.9%

Line	Monthly Usage (kWh)	Winter Monthly Bill		% Inc. / (Dec.)
		Existing	Proposed	
10	50	\$ 19.90	\$ 19.90	0.0%
11	100	24.79	24.80	0.0%
12	200	34.58	34.60	0.1%
13	300	44.37	44.40	0.1%
14	400	54.16	54.20	0.1%
15	500	63.95	64.00	0.1%
16	600	68.69	69.00	0.5%
17	700	73.43	74.00	0.8%
18	800	78.17	79.00	1.1%
19	900	82.91	84.00	1.3%
20	1,000	87.65	89.00	1.5%
21	1,200	97.13	99.00	1.9%
22	1,400	106.61	109.00	2.2%
23	1,600	116.09	119.00	2.5%
24	1,800	125.57	129.00	2.7%
25	2,000	135.05	139.00	2.9%
26	2,500	158.75	164.00	3.3%
27	3,000	182.45	189.00	3.6%
28	4,000	229.85	239.00	4.0%



**Appendix Table B-2**  
**Typical Bill Comparison**  
**Dawson PPD / NPPD**  
**Residential**

Line	Dawson PPD				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ -	Customer Charge	\$ -	
3	GRT / Lease	17.00%	GRT / Lease	17.00%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	100 kWh	16.000	100 kWh	16.000
6	Next	300 kWh	9.940	300 kWh	9.940
7	Next	0 kWh		0 kWh	
8	Next	0 kWh		0 kWh	
9	Excess		9.220		7.200

Line	NPPD				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 15.00	Customer Charge	\$ 15.00	
3	GRT / Lease	20.48%	GRT / Lease	20.48%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	750 kWh	8.880	750 kWh	8.880
6	Next	0 kWh	-	0 kWh	-
7	Next	0 kWh	-	0 kWh	-
8	Next	0 kWh	-	0 kWh	-
9	Excess		8.880		4.540

Line	Monthly Usage (kWh)	Summer Monthly Bill	
		Summer	Winter
10	50	\$ 9.36	\$ 9.36
11	100	18.72	18.72
12	200	30.35	30.35
13	300	41.98	41.98
14	400	53.61	53.61
15	500	64.40	62.03
16	600	75.18	70.46
17	700	85.97	78.88
18	800	96.76	87.31
19	900	107.55	95.73
20	1,000	118.33	104.15
21	1,200	139.91	121.00
22	1,400	161.48	137.85
23	1,600	183.06	154.70
24	1,800	204.63	171.55
25	2,000	226.21	188.39
26	2,500	280.14	230.51
27	3,000	334.08	272.63
28	4,000	441.96	356.87

Line	Monthly Usage (kWh)	Winter Monthly Bill	
		Summer	Winter
10	50	\$ 23.42	\$ 23.42
11	100	28.77	28.77
12	200	39.47	39.47
13	300	50.17	50.17
14	400	60.87	60.87
15	500	71.57	71.57
16	600	82.26	82.26
17	700	92.96	92.96
18	800	103.66	101.05
19	900	114.36	106.52
20	1,000	125.06	111.99
21	1,200	146.46	122.93
22	1,400	167.85	133.87
23	1,600	189.25	144.80
24	1,800	210.65	155.74
25	2,000	232.04	166.68
26	2,500	285.54	194.03
27	3,000	339.03	221.38
28	4,000	446.02	276.08

**Appendix Table B-3  
Typical Bill Comparison  
Cozad / Gothenburg  
Residential**

Line	Cozad				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 6.74	Customer Charge	\$ 6.74	
3	Discount	0.00%	Discount	0.00%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	700 kWh	8.990	700 kWh	8.430
6	Next	kWh		kWh	
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		8.990		4.080

Line	Gothenburg				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 11.00	Customer Charge	\$ 11.00	
3	Discount	0.00%	Discount	0.00%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	750 kWh	7.150	750 kWh	6.500
6	Next	kWh		kWh	
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		7.150		4.600

Line	Monthly Usage (kWh)	Summer Monthly Bill		
		Summer	Winter	
10	50	\$ 11.24	\$ 10.96	
11	100	15.73	15.17	
12	200	24.72	23.60	
13	300	33.71	32.03	
14	400	42.70	40.46	
15	500	51.69	48.89	
16	600	60.68	57.32	
17	700	69.67	65.75	
18	800	78.66	69.83	
19	900	87.65	73.91	
20	1,000	96.64	77.99	
21	1,200	114.62	86.15	
22	1,400	132.60	94.31	
23	1,600	150.58	102.47	
24	1,800	168.56	110.63	
25	2,000	186.54	118.79	
26	2,500	231.49	139.19	
27	3,000	276.44	159.59	
28	4,000	366.34	200.39	

Line	Monthly Usage (kWh)	Winter Monthly Bill		
		Summer	Winter	
10	50	\$ 14.58	\$ 14.25	
11	100	18.15	17.50	
12	200	25.30	24.00	
13	300	32.45	30.50	
14	400	39.60	37.00	
15	500	46.75	43.50	
16	600	53.90	50.00	
17	700	61.05	56.50	
18	800	68.20	62.05	
19	900	75.35	66.65	
20	1,000	82.50	71.25	
21	1,200	96.80	80.45	
22	1,400	111.10	89.65	
23	1,600	125.40	98.85	
24	1,800	139.70	108.05	
25	2,000	154.00	117.25	
26	2,500	189.75	140.25	
27	3,000	225.50	163.25	
28	4,000	297.00	209.25	

**Appendix Table B-4**  
**Typical Bill Comparison**  
**Existing vs. Proposed Rates**  
**Commercial - Small**

Line	Summer Rates			
	Existing		Proposed	
1	Minimum Bill	\$ -	Minimum Bill	\$ -
2	Customer Charge	\$ 15.00	Customer Charge	\$ 15.00
3	Discount	\$ -	Discount	0.00%
4	Energy	cts/kWh	Energy	cts/kWh
5	First 1000 kWh	13.200	1000 kWh	13.500
6	Next 0 kWh	-	0 kWh	-
7	Next 0 kWh	-	0 kWh	-
8	Next 0 kWh	-	0 kWh	-
9	Excess	7.500		8.700

Line	Winter Rates			
	Existing		Proposed	
1	Minimum Bill	\$ -	Minimum Bill	\$ -
2	Customer Charge	\$ 15.00	Customer Charge	\$ 15.00
3	Discount	\$ -	Discount	0.00%
4	Energy	cts/kWh	Energy	cts/kWh
5	First 1000 kWh	12.280	1000 kWh	12.000
6	Next 0 kWh	-	0 kWh	-
7	Next 0 kWh	-	0 kWh	-
8	Next 0 kWh	-	0 kWh	-
9	Excess	7.030		7.200

Line	Monthly Usage (kWh)	Summer Monthly Bill		% Inc. / (Dec.)
		Existing	Proposed	
10	500	\$ 81.00	\$ 82.50	1.9%
11	1,000	147.00	150.00	2.0%
12	2,500	259.50	280.50	8.1%
13	5,000	447.00	498.00	11.4%
14	10,000	822.00	933.00	13.5%
15	20,000	1,572.00	1,803.00	14.7%
16	30,000	2,322.00	2,673.00	15.1%
17	40,000	3,072.00	3,543.00	15.3%
18	50,000	3,822.00	4,413.00	15.5%
19	60,000	4,572.00	5,283.00	15.6%
20	70,000	5,322.00	6,153.00	15.6%
21	80,000	6,072.00	7,023.00	15.7%
22	90,000	6,822.00	7,893.00	15.7%
23	100,000	7,572.00	8,763.00	15.7%
24	110,000	8,322.00	9,633.00	15.8%
25	120,000	9,072.00	10,503.00	15.8%
26	130,000	9,822.00	11,373.00	15.8%
27	140,000	10,572.00	12,243.00	15.8%
28	150,000	11,322.00	13,113.00	15.8%

Line	Monthly Usage (kWh)	Winter Monthly Bill		% Inc. / (Dec.)
		Existing	Proposed	
10	500	\$ 76.40	\$ 75.00	-1.8%
11	1,000	137.80	135.00	-2.0%
12	2,500	243.25	243.00	-0.1%
13	5,000	419.00	423.00	1.0%
14	10,000	770.50	783.00	1.6%
15	20,000	1,473.50	1,503.00	2.0%
16	30,000	2,176.50	2,223.00	2.1%
17	40,000	2,879.50	2,943.00	2.2%
18	50,000	3,582.50	3,663.00	2.2%
19	60,000	4,285.50	4,383.00	2.3%
20	70,000	4,988.50	5,103.00	2.3%
21	80,000	5,691.50	5,823.00	2.3%
22	90,000	6,394.50	6,543.00	2.3%
23	100,000	7,097.50	7,263.00	2.3%
24	110,000	7,800.50	7,983.00	2.3%
25	120,000	8,503.50	8,703.00	2.3%
26	130,000	9,206.50	9,423.00	2.4%
27	140,000	9,909.50	10,143.00	2.4%
28	150,000	10,612.50	10,863.00	2.4%

**Appendix Table B-5  
Typical Bill Comparison  
Dawson PPD / NPPD  
Commercial - Small**

Line	Dawson PPD				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ -	Customer Charge	\$ -	
3	Gross Receipts Tax	17.00%	Gross Receipts Tax	17.00%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	100 kWh	16.000	100 kWh	16.000
6	Next	1000 kWh	9.550	1000 kWh	9.550
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		8.830		6.790

Line	NPPD				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 17.00	Customer Charge	\$ 17.00	
3	Gross Receipts Tax	20.48%	GRT/Lease	20.48%	
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	1000 kWh	9.380	1000 kWh	7.570
6	Next	2000 kWh	9.380	2000 kWh	6.300
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		9.380		6.000

Line	Monthly Usage (kWh)	Summer Monthly Bill	
		Summer	Winter
10	500	\$ 63.41	\$ 63.41
11	1,000	119.28	119.28
12	2,500	275.09	241.68
13	5,000	533.37	440.28
14	10,000	1,049.92	837.50
15	20,000	2,083.03	1,631.93
16	30,000	3,116.14	2,426.36
17	40,000	4,149.25	3,220.79
18	50,000	5,182.36	4,015.22
19	60,000	6,215.47	4,809.65
20	70,000	7,248.58	5,604.08
21	80,000	8,281.69	6,398.51
22	90,000	9,314.80	7,192.94
23	100,000	10,347.91	7,987.37
24	110,000	11,381.02	8,781.80
25	120,000	12,414.13	9,576.23
26	130,000	13,447.24	10,370.66
27	140,000	14,480.35	11,165.09
28	150,000	15,513.46	11,959.52

Line	Monthly Usage (kWh)	Winter Monthly Bill	
		Summer	Winter
10	500	\$ 76.99	\$ 66.08
11	1,000	133.49	111.68
12	2,500	303.01	225.54
13	5,000	585.53	408.07
14	10,000	1,150.58	769.51
15	20,000	2,280.69	1,492.39
16	30,000	3,410.79	2,215.27
17	40,000	4,540.89	2,938.15
18	50,000	5,670.99	3,661.03
19	60,000	6,801.10	4,383.91
20	70,000	7,931.20	5,106.79
21	80,000	9,061.30	5,829.67
22	90,000	10,191.40	6,552.55
23	100,000	11,321.51	7,275.43
24	110,000	12,451.61	7,998.31
25	120,000	13,581.71	8,721.19
26	130,000	14,711.81	9,444.07
27	140,000	15,841.92	10,166.95
28	150,000	16,972.02	10,889.83

**Appendix Table B-6  
Typical Bill Comparison  
Cozad / Gothenburg  
Commercial - Small**

Line	Cozad				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 16.12	Customer Charge	\$ 16.12	
3	Discount 0.00%		Discount 0.00%		
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	2000 kWh	9.430	2000 kWh	8.860
6	Next	kWh		kWh	
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		9.430		5.110

Line	Gothenburg				
	Summer		Winter		
1	Minimum Bill		Minimum Bill		
2	Customer Charge	\$ 17.00	Customer Charge	\$ 17.00	
3	Discount 0.00%		Discount 0.00%		
4	Energy	cts/kWh	Energy	cts/kWh	
5	First	2500 kWh	7.900	2500 kWh	7.900
6	Next	kWh		kWh	
7	Next	kWh		kWh	
8	Next	kWh		kWh	
9	Excess		7.900		5.240

Line	Monthly Usage (kWh)	Summer Monthly Bill	
		Summer	Winter
10	500	\$ 63.27	\$ 60.42
11	1,000	110.42	104.72
12	2,500	251.87	218.87
13	5,000	487.62	346.62
14	10,000	959.12	602.12
15	20,000	1,902.12	1,113.12
16	30,000	2,845.12	1,624.12
17	40,000	3,788.12	2,135.12
18	50,000	4,731.12	2,646.12
19	60,000	5,674.12	3,157.12
20	70,000	6,617.12	3,668.12
21	80,000	7,560.12	4,179.12
22	90,000	8,503.12	4,690.12
23	100,000	9,446.12	5,201.12
24	110,000	10,389.12	5,712.12
25	120,000	11,332.12	6,223.12
26	130,000	12,275.12	6,734.12
27	140,000	13,218.12	7,245.12
28	150,000	14,161.12	7,756.12

Line	Monthly Usage (kWh)	Winter Monthly Bill	
		Summer	Winter
10	500	\$ 56.50	\$ 56.50
11	1,000	96.00	96.00
12	2,500	214.50	214.50
13	5,000	412.00	345.50
14	10,000	807.00	607.50
15	20,000	1,597.00	1,131.50
16	30,000	2,387.00	1,655.50
17	40,000	3,177.00	2,179.50
18	50,000	3,967.00	2,703.50
19	60,000	4,757.00	3,227.50
20	70,000	5,547.00	3,751.50
21	80,000	6,337.00	4,275.50
22	90,000	7,127.00	4,799.50
23	100,000	7,917.00	5,323.50
24	110,000	8,707.00	5,847.50
25	120,000	9,497.00	6,371.50
26	130,000	10,287.00	6,895.50
27	140,000	11,077.00	7,419.50
28	150,000	11,867.00	7,943.50