



CITY COUNCIL/ELECTRICAL
ADVISORY COMMITTEE

February 8, 2012 – 6:00 p.m.

Regular Meeting

CITY COUNCIL

Leo Evans, Mayor

Brady Nelson, Mayor Pro-tem

Patricia Baribeau, Council Member

Ronald Beauchamp, Council Member

Walter Baker, Council Member

ADMINISTRATION

James V. O'Toole, City Manager

Robert S. Richards, CMC, City Clerk

Ralph B.K. Peterson, City Attorney

Mike Furmanski, Electrical Superintendent

Michael Dewar, City Controller

Thomas Butz, Power System Engineering

ELECTRICAL ADVISORY COMMITTEE

Tim Wilson, Chairperson

Ann Bissell, Vice Chairperson

Larry Arkens, Committee Member

Glendon Brown, Committee Member

Donald Racicot, Committee Member

Gilbert Cheves, Committee Member

John Anthony, Committee Member

Vacant Seat

Escanaba City Council Chambers: 410 Ludington Street - Escanaba, MI 49829

Regular Meeting Agenda

Wednesday, February 8, 2012

CALL TO ORDER

ROLL CALL

APPROVAL/ADJUSTMENTS TO THE AGENDA

CONFLICT OF INTEREST DECLARATION

NEW BUSINESS

1. Update - Electric Department –Distribution Operations.

Explanation: Electrical Superintendent Mike Furmanski will discuss current departmental activities and operations.

2. Update– Operation and Maintenance of Power Plant – Pro Energy Services, Inc.

Explanation: Pro Energy Services, Inc. will update the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the power plant.

3. Discussion – Power Purchase Update.

Explanation: Administration will provide an update on the NextEra power purchase agreement and provide a review summary on how the MISO and NextEra invoices are processed.

4. Discussion– Plant Sale Update.

Explanation: Administration will provide an update on prospective plant sale opportunities.

Agenda -February 8, 2012

5. **Discussion – Plant Operating Cost Overview.**

Explanation: Administration will present a case study review of plant operating costs using various scenarios associated with the MISO Attachment “Y” filing and power plant sale opportunities.

6. **Discussion – Request for Proposal - Electric Rate Review and Study Analysis.**

Explanation: Administration will discuss the concept of retaining the professional services of a firm to assist the City in completing a comprehensive review and study analysis of the current electric utility rate structure.

7. **Approval – Great Lakes Utilities (GLU) Resolution Amendment.**

Explanation: Administration is seeking Council approval to amend the December 15, 2011 Great Lakes Utilities membership agreement, Section 5, by naming the City Council as the final authority on matters regarding GLU.

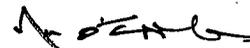
GENERAL PUBLIC COMMENT

COMMISSION/STAFF COMMENT AND ANNOUNCEMENTS

ADJOURNMENT

The City of Escanaba will provide all necessary, reasonable aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting to individuals with disabilities at the meeting/hearing upon five days notice to the City of Escanaba. Individuals with disabilities requiring auxiliary aids or services should contact the City of Escanaba by writing or calling City Hall at (906) 786-9402.

Respectfully Submitted,



James V. O'Toole
City Manager

OFFICIAL PROCEEDINGS
CITY COUNCIL
ELECTRICAL ADVISORY COMMITTEE
CITY OF ESCANABA, MICHIGAN
Special Joint Meeting
Wednesday, January 11, 2012

Pursuit to a special meeting posted January 6, 2012, the meeting was called to order by the Mayor Leo J. Evans at 6:00 p.m. in the Council Chambers of City Hall located at 410 Ludington Street.

Present: Mayor Leo J. Evans, Council Members, Patricia A. Baribeau, Ronald J. Beauchamp, and Brady L. Nelson.

Absent: Walter A. "Pete" Baker

Nelson moved, Beauchamp seconded, **CARRIED UNANIMOUSLY**, to excuse Council Member Baker.

Present: Electrical Advisory Committee Members: Chairperson Tim Wilson, Larry Arkens, Don Racicot, Gilbert Cheves, John Anthony, and Glendon Brown.

Absent: Ann Bissell, One vacancy

Also Present: City Manager James V. O'Toole, Electric Superintendent Mike Furmanski, City Controller Mike Dewar, City Attorney Ralph B.K. Peterson, Power Plant Manager Jerry Pirkola, PSE Consultant Tom Butz, guests, and Media.

Council Member Beauchamp asked to discuss the power and authority of the Electrical Advisory Committee.

Beauchamp moved, Nelson seconded, **CARRIED UNANIMOUSLY**, to approve the agenda as amended.

UNFINISHED BUSINESS - None

CONFLICT OF INTEREST - None

PUBLIC HEARING - None

NEW BUSINESS

Update - Electric Department –Distribution Operations

Electric Superintendent Mike Furmanski discussed current departmental activities and operations. The following was reviewed:

- American Transmission Company (ATC) update on the Chandler – 18th Road Project;
- Board Member Brown made a presentation on the history and projects ATC was working on;
- Power Plant power costs;
- Removal of Christmas lights.

Update– Operation and Maintenance of Power Plant – Pro Energy Services, Inc.

Pro Energy Services Inc. Power Plant Manager Jerry Pirkola, updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the operation and maintenance of the power plant. The following was reviewed.

- A December 2011 Monthly Report was made available to Council and Committee Members;
- CT did not run in December 2011, and was taken out of service for two weeks to replace its oil;
- Power Plant had not run since Mid December. The Power was idle. Five Pro Service Employees were laid off and heaters were brought in to heat the plant.

Update – Purchase Power Agreement.

Administration provided an update on the NextEra power purchase in terms of logistics of setting up the transaction, cooperation with UPPCO and early indications of MISO settlements showing the deal was properly structured.

- PSE Consultant Tom Butz reviewed various meetings held with NextEra regarding contracts and statements which needed to be provided to MISO;
- Reviewed transition of UPPCO to Lake States, and the Load Forecast UPPCO was providing to MISO;

Discussion– Plant Sale Update.

City Manager O'Toole advised the City received a letter of interest from ReCast Energy to purchase the Power Plant. Administration would like to perform an analysis of the letter and bring the information to the February 2012 Joint Meeting of Council and Electrical Advisory Committee.

- Committee Members were advised that this was not a proposal, only a letter of interest;
- City Administration wanted to make sure that there was going to be an actual proposal to purchase;
- Committee Members encouraged Administration to proceed aggressively and cautiously.

Bid Approval – Tree Trimming Contractor.

Administration sought approval to hire a tree trimming contractor for tree trimming near the power lines within the electrical distribution system. Six bids were sent out with three bids received on December 27, 2011. After reviewing the three bids received, who were all qualified contractors, Administration recommended Council approval from Bugle

Contracting of Gladstone, Michigan, for a not to exceed amount of \$10,000.

NB-5 Nelson moved, Beauchamp seconded, to approve the bid to hire a tree trimming contractor for tree trimming near the power lines within the electrical distribution system, from Bugle Contracting of Gladstone, Michigan, for a not to exceed amount of \$10,000.

Upon a call of the roll, the vote was follows:

Ayes: Nelson, Beauchamp, Baribeau, Evans

Nays: None

MOTION CARRIED.

Bid Approval – Distribution Pole Replacement Contractor.

Administration sought approval to hire an electrical distribution pole replacement contractor to replace defective wooden distribution poles. Bids were sent to five pole replacement contractors with three bids received and opened on January 3, 2012. Administration recommended the bid from MJ Electric of Iron Mountain, Michigan, for a not to exceed amount of \$150,000. Funds were budgeted in the current fiscal year budget.

NB-6 After review of poles being replaced, Beauchamp moved, Nelson seconded, to approve the bid to hire an electrical distribution pole replacement contractor to replace defective wooden distribution poles from MJ Electric of Iron Mountain, Michigan, for a not to exceed amount of \$150,000.

Upon a call of the roll, the vote was follows:

Ayes: Beauchamp, Nelson, Baribeau, Evans

Nays: None

MOTION CARRIED.

Electric Advisory Committee power and authority

Council Member Beauchamp stated that on December 15, 2011, Council approved a resolution regarding the City of Escanaba joining Great Lake Utilities (GLU). Mr. Beauchamp questioned what power and authority the Electric Advisory Committee had. Part of the resolution stated as follows:

“Section Five. That the City Council hereby delegates power and authority to represent the City in any matter regarding GLU to the Electric Advisory Committee and the City’s Director shall report to the Electric Advisory Committee.”

After discussion, it was the consensus of City Council and Electrical Advisory Committee that the Electrical Advisory Committee was created by Council and did not have any power or authority to make decisions for the City of Escanaba. And further more, the Electrical Advisory Committee was only advisory in nature, and could only make recommendations to City Council. It was also the consensus to contact legal Counsel so a letter of understanding could be forwarded to GLU regarding December 15, 2011 resolution.

GENERAL PUBLIC COMMENT

Mr. James Sovey stated that ATC was partnering with Blue Energy, and reviewed some of their proposed future projects.

COUNCIL/COMMITTEE, STAFF REPORTS

Manager O'Toole advised the Electrical Advisory Committee 2012 Meeting Calendar was handed out to Board Members. Manager O'Toole asked that each member keep the schedule for their reference and that the schedule be part of the minutes.

ADJOURNMENT

Hearing no further public comment, or further reports from the Electrical Advisory Committee or Council, the meeting adjourned at 6:55 p.m.

Respectfully submitted,

Robert S. Richards, CMC
City Clerk

Approved: _____

Leo J. Evans, Mayor

Joint City Council & Electrical Advisory Minutes
January 11, 2012 – cont.

Attachment - A

NOTICE OF REGULAR PUBLIC MEETINGS
ELECTRICAL ADVISORY COMMITTEE

PLEASE TAKE NOTICE that the regular meetings of the Escanaba Electrical Advisory Committee are scheduled for 6:00 p.m. in Room C101, the Council Chambers of the City Hall, 410 Ludington Street, in the City of Escanaba, MI, on the following dates as listed below:

ELECTRICAL ADVISORY COMMITTEE MEETINGS – 2012
Room C101, City Hall, 6:00 p.m.

January 11, 2012
February 8, 2012
March 14, 2012
April 11, 2012
May 9, 2012
June 13, 2012
July 11, 2012
August 8, 2012
September 12, 2012
October 10, 2012
November 14, 2012
December 12, 2012

Public notice will be given regarding any changes in the above meeting dates. Minutes of the Electrical Advisory Committee Meetings are available at the City Clerk's Office, City Hall, 410 Ludington Street. Phone (906) 786-1194.

Committee Contact Person:
Mike Furmanski
1711 Sheridan Road
Escanaba, MI
(906) 786-0061

Escanaba Operating Services

PO Box 249

Wells, MI 49894

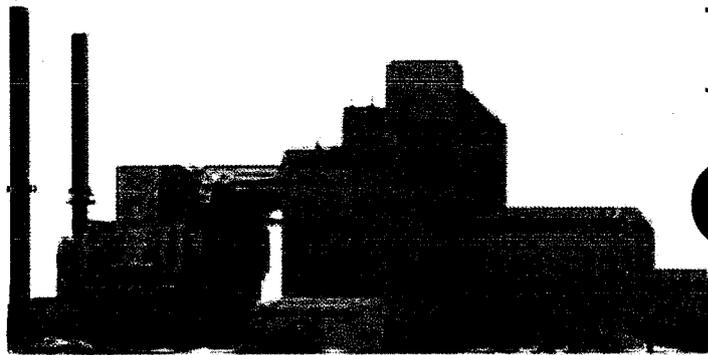
PHONE: 906-217-3100

FAX- 906-217-3103

Escanaba Operating Services

Monthly Report

January 2011



Escanaba Generating Station

**Escanaba
Operating
Services**

Escanaba Operating Services

PO Box 249
Wells, MI 49894
PHONE: 906-217-3100
FAX- 906-217-3103

Executive Summary

All the Escanaba Units began the month off-line. One of the Escanaba units was dispatched and came on-line on January 23 and one unit remained on-line at the end of the month. The Combustion Turbine did not operate during the month.

Short maintenance outages were taken on each steam unit to repair Condenser Tube leaks.

On January 2 three (3) Oilers and two (2) Coal Handlers were laid off. On January 30 one laid-off employee was recalled to fill a vacancy created by an employee with work restrictions.

There were no OSHA safety incidences in January. The OSHA Lost Time Rate remains at zero (0).

Key Performance Indicators (Note: This table is for the City's fiscal year July 2011 through June 2012.)

Measure	Units	Month	Year to Date
Steam Plant Gross Electrical Generation	MWH	1,317	35,954
Unit 1 Net Electrical Generation	MWH	543	20,991
Unit 2 Net Electrical Generation	MWH	629	11,693
Unit 1 Hours of Operation	Hours	95	3,135
Unit 2 Hours of Operation	Hours	119	1,662
Coal Consumption	Tons	424	20,503
Steam Plant Net Heat Rate	BTU/KWH	15,794	15,645
Plant Availability	%	94.1%	94.3%
Combustion Turbine Gross Electrical Generation	MWH	0	219
Combustion Turbine Station Service	MWH	40	166
Combustion Turbine Hours of Operation	Hours	0	30
Fuel Oil Consumption	Gallons	135	33,185
Combustion Turbine Availability	%	100%	92.8%

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Operations Summary

Unit 1 was called to be on-line for January 23. During the start-up process Condenser leaks were identified and a maintenance outage was taken for the needed repairs. Unit 2 was brought on-line in its place. During the time that Unit 2 was on-line the Lab Tech identified the possibilities of Condenser Tube leaks in Unit 2. An outage was taken for those repairs and the unit made available again.

Unit Start-Ups and Shut Downs

Unit	Date	On-Line Time	Off-Line Time	Reason
2	1/23	0349		MISO Request
1	1/28	0057		MISO Request
2	1/28		0231	Outage request to repair condenser tube leaks

Unit Trips and Unplanned Outages

Unit	Date	Breaker Open Time	Breaker Close Time	Duration (Hours)	Cause

Planned Outages

Unit	Start Date	Start Time	End Date	End Time	Cause
1	01/22	1407	1/23	1600	Condenser Tube Leaks
2	01/28	0100	1/30	1700	Condenser Tube Leaks

Reduced Load Events

Start Date	Start Time	End Date	End Time	Actual Load	Cause
N/A					

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Maintenance Activities

During the month no Maintenance callouts were experienced.

Work Orders:

Closed this Month	Awaiting Outage	Awaiting Parts	Back-Log
32	0	5	30

Major Repairs Made:

Unit 1

- 1) Boiler Drum Hydrastep bottom electrode leaks during normal operation.
Corrective Action: Installed a new Hydrastep vessel and placed back in service.
- 2) During a hydro of the #1 Boiler, a Superheater Tube leak was identified.
Corrective Action: Jamar was brought in and repairs were made.
- 3) Unit 1 Condenser tubes leaks were discovered during the last start-up.
Corrective Action: Plugged eighteen (18) leaking tubes with brass plugs.

Unit 2

- 1) Unit 2 Condenser tube leaks were identified by the Lab Tech during routine water sampling.
Corrective Action: Plugged 33 leaking tubes with brass plugs.

Combustion Turbine

- 1) None

Plant Outstanding Issues:

Unit 1

None

Unit 2

None

General Plant

- 1) The hydraulic actuators on the Circulating Water Pump discharge valves are original equipment and have been malfunctioning. They are being replaced with pneumatic actuators.
Corrective Action: Installation of new equipment is continuing as time permits.
- 2) Yearly Station Service Transformer oil testing is due.
Corrective Action: The Plant is currently working with the City to have the oil analyzed in the three Station Service Transformers and the substation transformers.

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- 3) The Ash System Air Washer base has corroded and developed holes.
Corrective Action: A new base has been ordered and delivery is expected in mid-February. Contractors were contacted to provide bids to install the base during the spring maintenance outage.

Emissions Compliance Overview

Air

- There were no deviations for the month of January.
Corrective Action: N/A

Air Monitoring Deviations

Start Date	Start Time	End Date	End Time	Parameter	Cause

Water – NPDES

- There were no deviations for the month of January.

Water – Groundwater

- 1) The plant was over its 12 month calculated discharge limit.
Corrective Action: During the month of September, an application for a new groundwater discharge permit has been submitted for a higher limit for plant effluent.
- 2) The plant had 7 deviations over its 10,000 gallons of water per day limit.
Corrective Action: An application for a new groundwater discharge permit was submitted in September 2011 requesting a higher limit for plant effluent to meet normal power plant operations.

Water Monitoring Deviations

Start Date	End Date	Parameter	Cause
1/23	1/23	Flow	Rain Event and draining of boilers for light off.
1/25	1/27	Flow	Work on Condenser #1
1/29	1/31	Flow	Work on Condenser #2

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Occupational Health Overview

- 1) There were no OSHA recordable injuries or illnesses at the site during the month of January. Safe man hours worked to date is 2880.8 since January 1st. The 2012 I&I rate remains at zero (0).

OSHA Summary of Work Related Injuries and Illnesses

There were no OSHA related incidents during the month of January.

EH&S Incidents – (Near Misses and Property Damage)

There were no EH&S Incidents for the month of January

Labor Statistics

- Four (4) Oiler positions and two (2) Coal Handler positions were laid off on January 2, 2012 due to operational changes at the plant.
- One (1) employee is away from work due to medical limitations that is restricting the employee from performing the duties required of the job.
- Recalled one (1) employee to fill the vacancy created by the employee with work restrictions.

Labor Statistics(Note: These statistics are for the 2012 calendar year from Jan1 through December 31.)

Item	Month	Year to Date
Total Man-hours Worked	2880.8	2880.8
Total Number of Standard Time (ST) Hours	2458.8	2458.8
Total Number of Overtime (OT) Hours	165	165
Total Number of Double Time (DT) Hours	257	257

Report on
Revenue Requirements, Cost of Service and Rates
for
Escanaba Electric Department

1997



BLACK & VEATCH_{LLP}

September 1997

Contents

	<u>Page</u>
1.0 Introduction	1
2.0 Summary of Findings and Recommendations	2
3.0 Revenue and Revenue Requirements	3
3.1 Sales Revenue Under Existing Rates	3
3.2 Other Revenue	3
3.3 Operation and Maintenance Expenses	8
3.4 Capital Improvements	8
3.5 Operating Transfer to City General Fund	8
3.6 Debt Service Requirements	9
3.7 Adequacy of Revenue Under Existing Rates	9
4.0 Cost of Service	10
4.1 Allocation of Costs to Functional Components	10
4.2 Allocation of Functionalized Costs to Customer Classes	13
5.0 Electric Rates	15
5.1 Existing Rates	15
5.2 Recommended Rates	15
Residential	16
Low Use Residential and Medical Use Rider	16
Commercial	16
Separately Metered Water Heating and Space Conditioning	17
Large Power	17
Economic Development	17
Municipal and Lighting	17
Power Supply Cost Adjustment	17
5.3 Typical Bill Comparison	18
Appendix A Recommended Rates	A-1
Appendix B Existing Rates	B-1

Contents (Continued)
List of Tables

		<u>Page</u>
Table 1	Historical and Projected Electric Sales	4
Table 2	Historical and Projected Electric Sales Revenues Under Existing Rates	5
Table 3	Summary of Historical Revenue and Revenue Requirements	6
Table 4	Summary of Projected Revenue and Revenue Requirements	7
Table 5	Test Year Revenue Requirements	11
Table 6	Allocation of test Year Revenue Requirements to Customer Class	12
Table 7	Comparison of Cost of Service with Revenue Under Present Rates	14
Table 8	Comparison of Revenue Under Existing and Proposed Rates	19
Table 9	Comparison of Typical Monthly Electric Bills Under Existing and Proposed Rates	20

Revenue Requirements Cost of Service and Rates for Electric Service

1.0 Introduction

The City of Escanaba, Michigan engaged Black & Veatch to perform a cost of service study and design rates for electric service for its Electric Department. This report is part of an overall planning study of the electric system addressed in the Electric Supply & Distribution Systems Plan Report.

The Electric Department's existing rates were designed in the early 1980's. Rate levels were subsequently decreased across the board as follows: 4 percent in 1986, 5 percent in 1989, and 5 percent in 1993.

The rate study includes projection of revenues and revenue requirements, allocation of costs to customer classes, and design of a schedule of rates to equitably recover the costs of service from the various classes of customers.

Revenue requirements are projected for the study period FY 1997 through FY 2001 (Fiscal year ending June 30), recognizing anticipated growth in numbers of customers and sales throughout the service area. Revenue requirements include projected operation and maintenance expenses, City government common costs allocated to the Electric Department, transfers to the General Fund, and capital improvement expenditures. Comparison of projected revenues under existing rates with total forecast revenue requirements provides the basis for deriving the overall level of revenue adjustment needed to meet future annual obligations. For the purposes of this report, these studies are based on the traditional cash basis of establishing utility revenue requirements.

After revenue requirements are determined, a detailed costs of service analysis is performed. Allocation of the functional costs of service to customer classes provides the basis for designing electric service rates.

Several changes in rate structures and rate schedules are proposed to provide customers with a greater choice of service options, to better reflect the cost of service, and to compete with the more modern rate structures of neighboring electric utilities.

All references to years in this report are to fiscal year unless otherwise noted.

2.0 Summary of Findings and Recommendations

- Existing rates were designed in the early 1980's and were adjusted with across-the-board decreases in 1986, 1989, and 1993.
- Electric Department sales are forecast to increase from 124.5 MWh in 1996 to 141.1 MWh in 2001 or about 2.3 percent annually.
- Revenue requirements associated with Electric Department operations are forecast to increase from \$7.5 million in FY 1997 to \$9.1 million in FY 2001.
- Operating revenue, including the effects of a proposed 4.0 percent revenue decrease with electric rates effective January 1, 1998, is forecast to rise from \$9.6 million in FY 1997 to \$10.1 million in FY 2001.
- Revenue under proposed rate levels, including a 4 percent revenue decrease, and forecast sales is projected to be sufficient to fund the cash revenue requirements of the Electric Department through 2001.
- Allocation of 1996 test year revenue requirements to customer classes indicates that rate level adjustments to rate classes is needed to reasonably recover costs associated with serving existing customer classes. Based on the results of cost of service analysis, it is recommended that revenue levels by customer class be adjusted to reflect the indicated cost of service levels.
- The existing electric rate structures of the residential and commercial rates include unnecessary energy blocks. Existing rates contain outdated tariff language and formats.
- Proposed rates are presented to more appropriately reflect the utility's competitive cost structure and to better reflect current industry rate practices.
- Under recommended rates, class rate decreases should be on the order of: residential, a 2.6 percent rate decrease; commercial, a 1.1 percent rate decrease; and large power, a 14.8 percent decrease.
- Recommended low use residential, medical rate rider, and economic development rates are intended to further enhance the community service image of the Electric Department.
- Recommended rate schedules are presented in Appendix A of this report.

3.0 Revenue and Revenue Requirements

The principal source of revenue for the Electric Department (Department) to meet annual costs of electric service is from charges for service to electric customers. Additional revenue is derived from miscellaneous charges and interest income. Annual cash revenue requirements include operation and maintenance expenses, capital improvement expenditures, transfers to the City General Fund, and debt service payments, if any.

3.1 Sales Revenue Under Existing Rates

Historical and projected electric energy sales and electric revenues under existing rates, by customer class, are shown in Tables 1 and 2. Projected energy sales for each customer class, Table 1, are based on the mid-range forecast of system energy sales growth contained in the Electric Supply & Distribution System Plans Report. Dusk to Dawn security lighting energy use estimated by the Department for the historical years shown. As shown in Table 1, electric sales are forecast to increase from 128,864 MWh in 1997 to 141,056 MWh in 2001. This equates to a nominal annual growth rate of 2.3 percent.

Projected electric revenues, Table 2, are based on projected energy sales and 1996 unit rate revenues under existing rates. Existing rates went into effect in 1993. The projected increase in electric sales revenue is due to the forecast increase in energy sales. As shown in Table 2, electric sales revenues under existing rates are forecast to increase from \$8,229,000 in 1997 to \$8,999,000 in 2001.

3.2 Other Revenue

Tables 3 and 4 show summaries of historical and projected revenue and revenue requirements, respectively. Total revenue is the summation of sales revenue and other revenue. Other revenue includes interest income as well as revenue from miscellaneous sources.

Sources of miscellaneous revenue include pole attachment fees, service fees, and other charges. Miscellaneous revenue has varied from \$81,640 in 1995 to \$130,181 in 1994 during the five year historical period shown on Table 3, Line 2, and is projected at \$120,000 each year as shown on Table 4, Line 3. Before 1996, interdepartmental sales were recorded as a separate revenue item as shown on Line 3, Table 3. Beginning in 1996, these revenues are included under revenue from rates, Line 1.

For the period 1992 through 1996, interest income has averaged approximately \$1 million per year as shown in Table 3, Line 4. Interest income is earned primarily on the Electric Utility Fund balance, Line 22, which grew from \$15.1 million in 1992 to \$19.5 million in 1996. Projected interest income, Table 4, Line 4, is calculated at 6.0 percent of the Electric Utility Fund

TABLE I

ESCANABA ELECTRIC DEPARTMENT
HISTORICAL AND PROJECTED ELECTRIC SALES
Fiscal Year Ending June 30

Line No.	Year	(1) Residential kWh	(2) Water Heating kWh	(3) Space Conditioning kWh	(4) Commercial kWh	(5) Large Power kWh	(6) Municipal kWh	(7) Street Lighting kWh	(8) Dusk to Dawn Lighting kWh	(9) Total kWh
		Historical								
1	1992	29,053,090	1,389,129	974,707	39,647,540	29,993,168	4,348,311	1,930,831	(a)	107,336,776
2	1993	29,517,928	1,345,666	986,620	38,783,832	31,497,862	4,621,398	1,938,727	632,180	109,324,213
3	1994	30,256,090	1,312,999	1,007,319	39,995,029	33,715,443	4,780,143	1,939,647	699,194	113,705,864
4	1995	29,876,942	1,093,053	778,237	41,420,409	36,466,325	4,997,969	1,930,443	578,598	117,141,976
5	1996	31,553,909	994,233	898,513	43,795,212	39,466,734	5,416,479	1,999,777	328,500	124,453,357
		Projected								
6	1997	31,542,000	1,000,000	900,000	46,039,000	41,489,000	5,524,000	2,040,000	330,000	128,864,000
7	1998	32,047,000	1,000,000	900,000	47,390,000	42,706,000	5,586,000	2,062,000	337,000	132,028,000
8	1999	32,566,000	1,000,000	900,000	48,695,000	43,883,000	5,647,000	2,085,000	344,000	135,120,000
9	2000	33,099,000	1,000,000	900,000	49,951,000	45,015,000	5,708,000	2,107,000	351,000	138,131,000
10	2001	33,650,000	1,000,000	900,000	51,152,000	46,097,000	5,769,000	2,130,000	358,000	141,056,000

(a) Information not available.

TABLE 2

ESCANABA ELECTRIC DEPARTMENT
 HISTORICAL AND PROJECTED ELECTRIC SALES REVENUES
 UNDER EXISTING RATES
 Fiscal Year Ending June 30

Line No.	Year	(1) Residential \$	(2) Water Heating \$	(3) Space Conditioning \$	(4) Commercial \$	(5) Large Power \$	(6) Municipal \$	(7) Street Lighting \$	(8) Dusk to Dawn Lighting \$	(9) Total \$
		Historical								
1	1992	2,228,671	92,296	62,419	2,697,048	1,724,383	164,809	110,432	50,399	7,130,457
2	1993	2,106,740	83,356	59,336	2,501,609	1,731,652	154,612	103,919	47,287	6,788,511
3	1994	2,177,345	77,180	61,133	2,588,747	1,820,132	150,476	104,552	42,462	7,022,027
4	1995	2,168,055	68,345	47,709	2,710,709	1,990,974	203,381	104,846	45,196	7,339,215
5	1996	2,262,743	62,598	52,325	2,844,427	2,249,017	337,242	108,052	45,235	7,961,639
		Projected								
6	1997	2,262,000	63,000	52,000	2,988,000	2,365,000	344,000	110,000	45,000	8,229,000
7	1998	2,298,000	63,000	52,000	3,076,000	2,434,000	348,000	111,000	46,000	8,428,000
8	1999	2,335,000	63,000	52,000	3,160,000	2,501,000	352,000	113,000	47,000	8,623,000
9	2000	2,373,000	63,000	52,000	3,242,000	2,566,000	356,000	114,000	48,000	8,814,000
10	2001	2,413,000	63,000	52,000	3,320,000	2,628,000	359,000	115,000	49,000	8,999,000

TABLE 3

**ESCANABA ELECTRIC DEPARTMENT
SUMMARY OF HISTORICAL REVENUE AND REVENUE REQUIREMENTS**

Line No.	Description	(1)	(2)	(3)	(4)	(5)
		Fiscal Year Ending June 30				
		1992	1993	1994	1995	1996
		\$	\$	\$	\$	\$
OPERATING FUND						
Operating Revenue						
1	Revenue From Existing Rates	7,130,457	6,788,511	7,022,027	7,339,215	7,961,639
2	Miscellaneous Revenue	100,122	95,937	130,181	81,640	122,862
3	Interdepartmental Sales (a)	236,353	227,386	254,459	222,460	0
4	Interest Income	<u>1,121,608</u>	<u>938,253</u>	<u>942,518</u>	<u>1,011,588</u>	<u>1,118,593</u>
5	Total Revenue	<u>8,588,540</u>	<u>8,050,087</u>	<u>8,349,185</u>	<u>8,654,903</u>	<u>9,203,094</u>
Revenue Requirements						
Operation and Maintenance Expenses						
6	Production	5,273,333	5,147,396	5,549,974	5,630,364	5,588,313
7	Transmission and Distribution	560,058	533,333	315,536	368,802	351,296
8	Collection	162,326	171,645	0	0	0
9	Administrative and General	307,291	306,774	463,052	469,542	456,738
10	Customer Service	0	0	0	12,693	12,713
11	Overhead	0	0	340,870	343,712	337,239
12	Taxes Paid to City Corporate	<u>76,897</u>	<u>78,584</u>	<u>92,586</u>	<u>85,000</u>	<u>76,440</u>
13	Subtotal Operation and Maintenance	<u>6,379,905</u>	<u>6,237,732</u>	<u>6,762,018</u>	<u>6,910,113</u>	<u>6,822,739</u>
14	Capital Improvements	1,578,182	575,232	182,407	339,055	203,745
15	Operating Transfer (Out)	405,964	400,000	450,000	450,000	450,000
Debt Service						
16	Existing	179,878	807,648	0	0	0
17	Proposed	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
18	Total Debt Service	<u>179,878</u>	<u>807,648</u>	<u>0</u>	<u>0</u>	<u>0</u>
19	Total Revenue Requirements	<u>8,543,929</u>	<u>8,020,612</u>	<u>7,394,425</u>	<u>7,699,168</u>	<u>7,476,484</u>
20	Annual Operating Balance (Deficit)	44,611	29,475	954,760	955,735	1,726,610
Annual Operating Balance (Deficit)						
21	Excluding Interest Income	(1,076,997)	(908,778)	12,242	(55,853)	608,017
22	End of Year Electric Utility Fund Balance (b)	15,109,315	15,689,159	17,722,154	17,860,267	19,547,039

(a) Recorded in revenue from existing rates, Line 1, beginning in 1996.

(b) Investments as stated on balance sheet.

TABLE 4

**ESCANABA ELECTRIC DEPARTMENT
SUMMARY OF PROJECTED REVENUE AND REVENUE REQUIREMENTS**

Line No.	Description	(1)	(2)	(3)	(4)	(5)
		Fiscal Year Ending June 30				
		1997	1998	1999	2000	2001
		\$	\$	\$	\$	\$
OPERATING FUND						
Operating Revenue						
1	Revenue From Existing Rates	8,229,000	8,428,000	8,623,000	8,814,000	8,999,000
2	Proposed Rate Adjustment (a)		(169,000)	(345,000)	(353,000)	(360,000)
3	Miscellaneous Revenue	120,000	120,000	120,000	120,000	120,000
4	Interest Income	<u>1,234,000</u>	<u>1,279,000</u>	<u>1,313,000</u>	<u>1,319,000</u>	<u>1,302,000</u>
5	Total Revenue	9,583,000	9,658,000	9,711,000	9,900,000	10,061,000
Revenue Requirements						
Operation and Maintenance Expenses						
6	Production	5,568,000	5,740,000	5,941,000	6,728,000	7,016,000
7	Transmission and Distribution	360,000	369,000	378,000	387,000	397,000
8	Administrative and General	468,000	480,000	492,000	504,000	517,000
9	Customer Service	13,000	13,000	13,000	13,000	13,000
10	Overhead	346,000	355,000	364,000	373,000	382,000
11	Taxes Paid to City Corporate	<u>78,000</u>	<u>80,000</u>	<u>82,000</u>	<u>84,000</u>	<u>86,000</u>
12	Subtotal Operation and Maintenance	6,833,000	7,037,000	7,270,000	8,089,000	8,411,000
13	Normal Annual Capital Improvements	250,000	250,000	250,000	250,000	250,000
14	Major Capital Improvements	0	0	0	0	0
15	Operating Transfer (Out)	450,000	450,000	450,000	450,000	450,000
Debt Service						
16	Existing	0	0	0	0	0
17	Proposed	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
18	Total Debt Service	0	0	0	0	0
19	Total Revenue Requirements	<u>7,533,000</u>	<u>7,737,000</u>	<u>7,970,000</u>	<u>8,789,000</u>	<u>9,111,000</u>
20	Annual Operating Balance (Deficit)	2,050,000	1,921,000	1,741,000	1,111,000	950,000
Annual Operating Balance (Deficit)						
21	Excluding Interest Income	816,000	642,000	428,000	(208,000)	(352,000)
22	End of Year Electric Utility Fund Balance	20,363,000	21,005,000	21,433,000	21,225,000	20,873,000

(a) Assumes an overall 4 percent revenue decrease with rates effective January 1, 1998.

balances available for investment, shown on Line 22 of Table 4. Interest income is forecast to increase from \$1.2 million to \$1.3 million from 1997 through 2001.

As shown in Table 4, Line 5, total Department revenue is projected to increase from \$9,583,000 in 1997 to \$10,061,000 in 2001.

3.3 Operation and Maintenance Expenses

Operation and maintenance expenses consist of production, transmission and distribution, administrative and general, customer service, overhead, and tax related expenditures.

Projected production expenses, Table 4, Line 6, are based on forecast of these expenses made in the power supply study for the status quo case [Reference, Electric Supply & Distribution System Plans Report, Table 4-5]. Production expenses include the cost of operation and maintenance of the power plant and purchased power expense. Production expenses are forecast to increase at approximately a 6 percent compound rate. Projections of other operation and maintenance expenses for transmission and distribution, customer service, overhead, and taxes paid to the City consider the past trend in these expenses and are based on increasing actual 1996 expenses at 2.5 percent per year for the period 1997 through 2001. Estimated increases in operating costs are due to anticipated inflationary increases in the cost of labor, materials and supplies, and the estimated system sales growth.

Total operation and maintenance expense, Table 4, Line 12, is projected to increase from \$6,833,000 in 1997 to \$8,411,000 in 2001.

3.4 Capital Improvements

Normal capital additions and replacements are capital expenditures which are expected to recur on an annual basis, such as normal distribution system expansion due to customer growth and annual replacements of the existing system due to wear and inadequacy. Since these routine capital improvements are reasonably uniform each year, it is considered sound utility practice to finance them from annual revenues. These normal annual expenditures are projected to average \$250,000 each year as shown in Table 4, Line 13. This reflects the average level of routine expenditures for the past three fiscal years.

Major capital improvements are generally larger, nonrecurring projects, and as such may be financed through issuance of long term debt to spread the cost of the project over a number of years. No major capital improvements, Line 14, are projected for the period 1997 through 2001. This reflects the status quo findings of the electric system planning study.

3.5 Operating Transfer to City General Fund

Transfers to the General Fund have been \$450,000 each year since 1994. This level of transfer is projected for the period 1997 through 2001 as shown on Line 15, Table 4.

3.6 Debt Service Requirements

At the present time, the Electric Department has no outstanding debt. No major capital improvements are forecast in the next five years which are expected to require debt financing. The Electric Utility Fund Balance, Line 22, is forecast to remain comfortably above \$20 million. A substantial portion of this fund balance could be used to fund capital improvements in lieu of debt financing.

3.7 Adequacy of Revenue Under Existing Rates

Based on the adequacy of sales revenues under existing rates and the contribution of interest income a 4.0 percent revenue decrease is recommended. Projected annual operating balance including and excluding interest income is shown on Lines 20 and 21, respectively, of Table 4. These balances include the effect of a 4.0 percent overall revenue decrease effective January 1, 1998, as shown on Line 2 of the table. As shown on Line 21, revenues from existing rates decreased 4.0 percent overall and excluding interest income, provides a positive annual operating balance in years 1997 through 1999. Including interest income, Line 20, the forecast annual operating balance ranges from \$2.0 million to \$945,000.

The proposed 4 percent revenue decrease is in line with past rate adjustments in years 1986, 1989, and 1993.

4.0 Cost of Service

The primary function of the Electric Department (Department) is to supply electric power and energy when and where customers want it and in sufficient amounts to meet the needs of the customers. In providing this service, the utility experiences costs in relation to the operating expenses and capital investment needed to meet the service expectations of all customer classes. Allocation of these costs between customer classes takes into account relative customer responsibility for capacity required, energy used, customer related requirements, and other relevant factors.

The fiscal year ended June 30, 1996, is adopted as the test year for the purpose of allocating revenue requirements to customer classes to evaluate the adequacy of existing rates by customer class. Total test year revenue requirements are shown in Table 5. The only proforma adjustment made to actual 1996 revenue requirements is the \$318,466 reduction to return on operations, shown on Line 10, to recognize the proposed 4.0 percent revenue decrease.

The cost of service to be allocated to the various customer classes consists of the 1996 proforma test year revenue requirements less other revenue and income credits. Other revenues, Lines 13 and 14, are deducted from total revenue requirements, Line 12, to achieve the net revenues to be recovered from rates. Net revenue requirements from rates equals the test year cost of service in the amount of \$7,643,173, Line 15.

4.1 Allocation of Costs to Functional Components

The allocation of test year costs of service to customer classes is shown on Table 6. The test year cost of service is first allocated to functional cost components, as shown in Column 1 of Table 6. The allocation of functionalized costs to customer classes is made in proportion to each class's responsibility for energy, capacity, and customer related units of service. Capacity costs are subdivided into a shared system capacity function, Capacity 1, and a line transformer capacity function, Capacity 2.

Total purchased power expense, Line 1, is assigned 70 percent to capacity and 30 percent to energy components based on analysis of test year purchased power invoices. Production expenses are assigned entirely to capacity. Total transmission and distribution expenses are assigned to capacity, customer, line transformer, and streetlight components based on analysis of test year operation and maintenance expenses. Customer service expenses are customer related. Overheads and administrative and general expenses are related to subtotals of other expense categories. Taxes paid to the City in lieu of property taxes are related to plant in service. Capital improvements, return on operations, and operating transfers are also plant in service related. Test year plant in service is functionalized to capacity, customer, or direct assignment functions based on the nature of its use.

TABLE 5

ESCANABA ELECTRIC DEPARTMENT
 TEST YEAR REVENUE REQUIREMENTS
 1996 Test Year

Line No.	Description	(1)	(2)	(3)
		1996 Revenue Requirements	Pro Forma Adjustments	Test Year Revenue Requirements
		\$	\$	\$
	Operating Expenses		(a)	
1	Purchased Power	5,521,996		5,521,996
2	Production	66,317		66,317
3	Transmission and Distribution	351,296		351,296
4	Customer Service	12,713		12,713
5	Customer Accounting	337,239		337,239
6	Administrative and General	456,738		456,738
7	Taxes Paid to City	<u>76,440</u>		<u>76,440</u>
8	Total Operating Expenses	6,822,739		6,822,739
9	Capital Improvements	203,745		203,745
10	Return on Operations	1,726,610	(318,466)	1,408,144
11	Operating Transfers	<u>450,000</u>		<u>450,000</u>
12	Total Revenue Requirements	9,203,094	(318,466)	8,884,628
	Other Revenue and Income Credits			
13	Miscellaneous Revenue	122,862		122,862
14	Interest Income	<u>1,118,593</u>		<u>1,118,593</u>
15	Net Revenue Requirements from Rates	7,961,639	(318,466)	7,643,173

(a) Return adjusted to reflect 4 percent revenue decrease.

TABLE 6

ESCANABA ELECTRIC DEPARTMENT
ALLOCATION OF TEST YEAR REVENUE REQUIREMENTS
TO CUSTOMER CLASS

1996 Test Year

Line No.	Revenue Requirement	Cost Function	Functional Allocation %	(1) Total \$	(2) Residential \$	(3) Water Heating \$	(4) Space Conditioning \$	(5) Commercial \$	(6) Large Power \$	(7) Municipal \$	(8) Street Lighting \$	(9) Dusk to Dawn Lighting \$
1	Purchased Power		100.00%	5,521,996	1,451,550	37,773	36,972	2,118,593	1,539,818	261,887	64,777	10,626
2	Capacity Related	Capacity 1	70.00%	3,865,397	1,026,838	24,498	24,975	1,536,837	1,018,248	189,937	37,860	6,204
3	Energy Related	Energy	30.00%	1,656,599	424,712	13,275	11,997	581,756	521,570	71,950	26,917	4,422
4	Production	Capacity 1		66,317	17,617	420	428	26,367	17,470	3,259	650	106
5	Transmission and Distribution		100.00%	351,296	116,804	3,306	2,053	102,113	53,523	13,256	57,968	2,273
6	Capacity Related	Capacity 1	43.92%	154,286	40,986	978	997	61,342	40,643	7,581	1,511	248
7	Customer Related	Customer	32.92%	115,653	68,954	2,174	895	30,326	6,397	4,384	581	1,942
8	Line Transformers	Capacity 2	7.40%	25,986	6,864	154	161	10,445	6,484	1,291	504	83
9	Street Light	Direct	15.76%	55,372							55,372	
10	Customer Service	Customer		12,713	7,580	239	98	3,334	703	482	64	213
11	Overhead to Utilities	Overhead		337,239	155,385	4,637	2,397	103,983	44,516	13,974	8,122	4,225
12	Subtotal, Supervised Expenses			767,565	297,386	8,602	4,976	235,797	116,212	30,971	66,804	6,817
13	Administrative and General			456,738	176,959	5,119	2,961	140,311	69,151	18,429	39,752	4,056
14	Taxes Paid to City	Supv O&M (a)		76,440	23,332	609	485	27,400	16,639	3,452	3,951	572
15	Total Operating Expenses	Total Plant		6,822,739	1,949,227	52,103	45,394	2,522,101	1,741,820	314,739	175,284	22,071
16	Capital Improvements	TD&G Plant		203,745	70,575	1,971	1,269	64,739	34,652	8,360	19,408	2,771
17	Return on Operations	Total Plant		1,408,144	429,808	11,227	8,938	504,745	306,499	63,598	72,788	10,541
18	Operating Transfers	Total Plant		450,000	137,354	3,588	2,856	161,301	97,947	20,324	23,261	3,369
19	Total Revenue Requirements			8,884,628	2,586,964	68,889	58,457	3,252,886	2,180,918	407,021	290,741	38,752
20	Other Revenue and Income Credits											
21	Miscellaneous Revenue	TD&G Plant		122,862	42,558	1,188	765	39,039	20,897	5,041	11,703	1,671
21	Interest Income	Plant		1,118,593	341,428	8,918	7,100	400,956	243,476	50,520	57,821	8,374
22	Net Revenue Requirements from Rates			7,643,173	2,202,978	58,783	50,592	2,812,891	1,916,545	351,460	221,217	28,707

(a) Supervised O&M, Line 12, consists of Production, Transmission and Distribution, Customer Service, and Overhead to Utilities expenses.

4.2 Allocation of Functionalized Costs to Customer Classes

The amounts for each of the functionalized categories of revenue requirements and plant investment is allocated to customer classes directly or in proportion to each class's energy, capacity, and customer units of service to determine each class's responsibility for test year cost of service.

Customer class responsibility for energy related costs is based on class energy sales adjusted to recognize system energy losses. Customer class responsibility for shared system capacity, Capacity 1 cost function, is based on average and excess demand allocation methodology which recognizes both the average system capacity required to provide total energy use at the average demand rate and the additional or excess capacity required by each class to serve each class's annual peak demand.

Street lighting and dusk to dawn security lighting customer classes are not assessed excess capacity responsibility to recognize the off-peak nature of lighting service. Customer class responsibility for line transformer related costs is based on each class's annual maximum demand.

Customer class responsibility for customer related costs is based on the number of customers in each class weighted to recognize customer related cost differences between classes due to customer size. For example, large customers require more investment and associated operating expenses in services and meters per customer than do small customers.

A comparison of customer class cost of service with revenue under existing rates is shown on Table 7. The proposed overall rate revenue decrease of 4.0 percent is indicated on Line 9. The indicated revenue increase or decrease for each customer class is shown in Column 4 of this table. A 2.6 percent decrease is indicated for the residential class. A 1.1 percent decrease is indicated for the commercial class. A 14.8 percent decrease is indicated for the large power class. A 104.7 percent increase is indicated for the street lighting class. Proposed rate adjustments are designed to achieve indicated revenue adjustments and allow proposed electric rates to be more competitive with neighboring systems' electric rates.

TABLE 7

ESCANABA ELECTRIC DEPARTMENT
 COMPARISON OF COST OF SERVICE
 WITH REVENUE UNDER EXISTING RATES
 1996 Test Year

Line No.	Customer Class	(1)	(2)	(3)	(4)
		Allocated Cost of Service	Revenue Under Existing Rates	Indicated Revenue Increase or (Decrease)	
		\$	\$	\$	%
				(1)-(2)	
1	Residential	2,202,978	2,262,743	(59,765)	(2.6)
2	Water Heating (Sep. Metered)	58,783	62,598	(3,815)	(6.1)
3	Space Conditioning (Sep. Metered)	50,592	52,325	(1,733)	(3.3)
4	Commercial	2,812,891	2,844,427	(31,536)	(1.1)
5	Large Power	1,916,545	2,249,017	(332,472)	(14.8)
6	Municipal	351,460	337,242	14,218	4.2
7	Street Lighting	221,217	108,052	113,165	104.7
8	Dusk to Dawn	28,707	45,235	(16,528)	(36.5)
9	Total Retail Service	7,643,173	7,961,639	(318,466)	(4.0)

5.0 Electric Rates

A principal consideration in developing fair and equitable electric rate schedules is to offer rates to customers which reasonably reflect the cost of providing electric service. Theoretically, the only method of establishing strict cost based rates for any utility service would be to determine each customer's bill based upon his particular service requirements and costs. Since this is impractical, schedules of rates are normally designed to meet average conditions for groups of customers having similar service requirements and cost characteristics. Practicality also dictates the use of a rate schedule which is subject to as few misinterpretations as possible. Recommended rate schedules are presented in Appendix A. Existing rate schedules are presented in Appendix B.

5.1 Existing Rates

Existing electric rates are fixed by City Ordinance No. 911, which was approved June 30, 1996, and became effective on bills after that date. The existing rate design dates from the early 1980's. Existing rate classifications include Residential, Small Commercial, Separately Metered Water Heating and Space Heating, Large Power, Municipal, Dusk to Dawn Lights, City Street Lights, and Special Standby Service. Water Heating and Space Heating rates apply for both residential and nonresidential customers. Availability of Service Charges, which are monthly customer charges, are applicable for Residential, Small Commercial, Water Heating, Space Heating, and Municipal customers with separate charges for City and Suburban service except for Municipal service. In addition to Availability of Service Charges, the Residential rate has two energy blocks; the Small Commercial rate has three energy blocks. The Large Power rate includes two demand blocks and three energy blocks. Energy rates for other classifications are flat energy rates except Dusk to Dawn Lights which includes monthly charges per light for two sizes of fixtures. Existing rates include provisions for a Fuel Adjustment Clause which is not currently applied. City Ordinance No. 911 also includes provisions for Connection, Reconnection, and Service Extension charges. The ordinance also specifies Conditions of Service and other Electric Department service policies.

5.2 Recommended Rates

Recommended rates are presented in Appendix A. Key features include simplified rate forms for the current rate classifications; two special circumstance residential rates; and an economic development rate rider for new Large Power customers. Recommended rates are presented in individual rate schedule format.

The proposed rates reflect traditional rate design and are a first step in positioning the Department for the competitive environment which deregulation of the electric industry will bring. In Michigan, legislation is being considered which will likely result in retail wheeling and customer choice, at least for investor-owned utilities, around the turn of the century. Its impact on municipal electric utilities is currently uncertain. However, it is likely that between now and the year 2000 the Department will need to develop "unbundled" rates to address retail wheeling initiative. The importance of rate design is increasing and rate management will become a primary element of risk management in the new era. The cost of service analysis used to support the design of the proposed rates provides a foundation upon which unbundled rates can be designed.

Innovative rate forms were considered in this study, such as time-of-use rates. In general these rate forms could be deployed on a customer specific basis for large-load customers. However, broad deployment to residential and small commercial classes likely would not be cost effective to the Department or the consumer. In addition, the City's computerized billing system is problematic and would not readily adapt to innovative rate forms.

Residential

A 2.6 percent rate revenue decrease is indicated by the cost of service study for the Residential class. The proposed Residential Rate - R eliminates the energy block of the existing rate with all energy priced at the existing over 400 kWh rate of \$.061 per kWh. Customer charges have been increased to better reflect the allocated customer cost requirement. The existing customer charge differential between Inside and Outside City customers is maintained.

Low Use Residential and Medical Use Rider

The proposed Low Use Residential Rate - LUR is applicable to residential customers whose average monthly energy use does not exceed 300 kWh. Lower customer charges and energy charge provide a total bill that is approximately 10 percent lower than the standard rate. The proposed Residential Medical Use Rider - RMU is applicable to residential customers that require essential life support electric powered devices. Service under this rate rider is provided under Residential Rate - R except for 600 kWh are billed at the Low Use Residential Rate - LUR. This rider provides a \$4.20 per month discount to the standard residential rate. Both rates provide a proactive opportunity for the Electric Department to benefit small and critical need customers and enhance its image in the community.

Commercial

A 1.1 percent rate revenue decrease is indicated by the cost of service study for the Commercial class. The proposed Commercial Rate - C eliminates one energy block resulting

in an initial energy block of 2,000 kWh. All monthly energy use over the first block is priced at the Residential Rate - R energy rate. The customer charges are increased to provide a \$1.20 differential to the residential customer charges. The initial energy block is priced to collect the allocated cost requirement.

Separately Metered Water Heating and Space Conditioning

The rate revenue decreases indicated for Separately Metered Water Heating and Space Conditioning customers are 6.1 and 3.3 percents, respectively. The proposed Separately Metered Water Heating and Space Conditioning Rate - SM restructures the existing rate charges to provide a monthly customer charge of \$1.25 per meter per month. Existing energy rates have been lowered \$0.004 for each service which maintains the existing \$0.002 rate differential between these two charges.

Large Power

A 14.8 percent rate revenue decrease is indicated for the Large Power class. The proposed Large Power Rate - LP maintains the rate form of the existing rate. However, the pricing of the demand and energy charges are adjusted to collect more capacity related costs in the demand charge. Having a higher demand charge and lower energy charge makes the rate design more competitive with neighboring utilities.

Economic Development

The Economic Development Rate Rider - EDR applies to existing or new customers who will be served under the Large Power Rate - LP. Existing customers who add at least 200 kW of new load and new customers whose loads are expected to exceed 500 kW who meet the required criteria will be eligible to receive discounts on the otherwise applicable bills based on the Large Power Rate - LP of 15, 10, and 5 percents during the three years following the addition of required load. Service under this rider requires a signed contract making the Electric Department the sole electric service provider for a period of five years.

Municipal and Lighting

The proposed Municipal Use Energy Rate - M, City Street Light Rate - SL, and Dusk to Dawn Security Lighting - DL rates have the same rate forms as the existing rates. The rate charges are adjusted to collect or move toward collecting the allocated cost requirements. The large percentage increase for street lighting reflects a return to cost of service after a prior administration halved this rate.

Power Supply Cost Adjustment

The proposed Power Supply Cost Adjustment (PCA) replaces the existing Fuel Adjustment Clause. It is proposed that the PCA be held in abeyance until such time it is deemed needed.

5.3 Typical Bill Comparison

Table 8 presents a comparison of revenue under existing and proposed rates and the percents of increase or decrease for each customer class. A comparison of typical monthly electric bills under existing and proposed standard rates is shown in Table 9.

The comparison of typical bills for the standard residential rate, urban, under existing and proposed rates is shown on Lines 1 through 8 of Table 9. The customer charge increase of \$1.60 per bill and elimination of the 400 kWh first energy block of the existing rate increases bills less than 200 kWh per month. For small use customers this impact will be offset by transfer to the proposed low use rate. For energy use over 400 kWh per month, bills under proposed rates are decreased \$1.60 per month.

The comparison of typical bills for the commercial rate, urban, under existing and proposed rates is shown on Lines 9 through 14 of Table 9. The customer charge increase of \$2.80 per bill, elimination of the 500 kWh first energy block, and price consolidation for the new 2,000 kWh first energy block increases bills less than 150 kWh per month. For energy use over 2,000 kWh per month, bills under proposed rates are decreased \$3.70 per month which represents smaller percent decreases for increasing monthly energy use above 2,000 kWh per month.

The comparison of typical bills for the large power rate under existing and proposed rates is shown on lines 15 through 31 of Table 9. Bills are shown for billing demands of 50, 250, 500, and 1,000 kW at 300, 400, and 500 monthly hours use of billing demand. For monthly energy use of 400 kWh/kW (55 percent monthly billing load factor) typical bills under the proposed rate are approximately 14 percent less than bills under the existing rate, or the overall decrease in revenue for the large power class. Monthly bills representing lower monthly billing load factors will produce revenue decreases less than 14 percent and monthly bills representing higher monthly billing load factors will produce revenue decreases greater than 14 percent.

TABLE 8
COMPARISON OF REVENUE UNDER
EXISTING AND PROPOSED RATES
1996 Test Year

Line No.	Customer Class	(1)	(2)	(3)
		Revenue Under Existing Rates	Revenue Under Proposed Rates	Percent Increase
		\$	\$	%
1	Residential	2,262,743	2,203,962	(2.6)
2	Water Heating (Sep. Metered)	62,598	58,789	(6.1)
3	Space Conditioning (Sep. Metered)	52,325	48,877	(6.6)
4	Commercial	2,844,427	2,812,094	(1.1)
5	Large Power	2,249,017	1,916,865	(14.8)
6	Municipal	337,242	351,484	4.2
7	Street Lighting	108,052	211,976	96.2
8	Dusk to Dawn	<u>45,235</u>	<u>38,788</u>	(14.3)
9	Total Retail Service	7,961,639	7,642,836	(4.0)

TABLE 9

ELECTRIC UTILITY
 COMPARISON OF TYPICAL MONTHLY ELECTRIC BILLS
 UNDER EXISTING AND PROPOSED RATES

Line No.	(1) Monthly Energy Use	(2) Existing Rate \$	(3) Proposed Rate \$	(4) Change		(5)
				Amount \$ (3)-(2)	Percent % (4)/(2)	
1	Standard Residential Rate - Urban					
2	0	2.30	3.90	1.60		69.6
3	100	9.20	10.00	0.80		8.7
4	500	36.00	34.40	(1.60)		(4.4)
5	850	57.35	55.75	(1.60)		(2.8)
6	1,000	66.50	64.90	(1.60)		(2.4)
7	1,200	78.70	77.10	(1.60)		(2.0)
8	2,000	127.50	125.90	(1.60)		(1.3)
9	Commercial Rate - Urban					
10	0	2.30	5.10	2.80		121.7
11	2,000	142.80	139.10	(3.70)		(2.6)
12	5,000	325.80	322.10	(3.70)		(1.1)
13	10,000	630.80	627.10	(3.70)		(0.6)
14	15,000	935.80	932.10	(3.70)		(0.4)
15	Large Power Rate					
16	50 kW Billing Demand					
17	15,000	946.00	842.50	(103.50)		(10.9)
18	20,000	1,221.00	1,047.50	(173.50)		(14.2)
19	25,000	1,496.00	1,252.50	(243.50)		(16.3)
20	250 kW Billing Demand					
21	75,000	4,630.00	4,137.50	(492.50)		(10.6)
22	100,000	5,905.00	5,087.50	(817.50)		(13.8)
23	125,000	7,180.00	6,037.50	(1,142.50)		(15.9)
24	500 kW Billing Demand					
25	150,000	8,885.00	7,862.50	(1,022.50)		(11.5)
26	200,000	11,435.00	9,762.50	(1,672.50)		(14.6)
27	250,000	13,835.00	11,512.50	(2,322.50)		(16.8)
28	1,000 kW Billing Demand					
29	300,000	17,095.00	15,012.50	(2,082.50)		(12.2)
30	400,000	21,895.00	18,512.50	(3,382.50)		(15.4)
31	500,000	26,695.00	22,012.50	(4,682.50)		(17.5)

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22
23
24
25

Appendix A
Recommended Rates

Appendix A

Contents

	Page
Residential Rate - R	A-1
Low Use Residential Rate - LUR	A-2
Residential Medical Use Rider - RMU	A-4
Commercial Rate - C	A-5
Separately Metered Water Heating and Space Conditioning Rate-SM	A-6
Large Power Rate - LP	A-7
Economic Development Rate Rider - EDR	A-9
Municipal and School Use Energy Rate - M	A-11
City Street Light Rate - SL	A-12
Dusk to Dawn Security Lighting - DL	A-13
Power Supply Cost Adjustment - PCA	A-14

City of Escanaba - Electric Rate Schedule

Residential Rate - R

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current service for domestic use in residence or apartment. No commercial, resale, breakdown, or auxiliary service permitted. Where multi-family residences, mobile home parks and other residences are served through one meter, whether occupied or unoccupied, the applicable Customer Charge shall be multiplied by the number of units in the complex. Residences in which more than 50 percent of the rooms are held for rent shall not be served under this schedule, but under the applicable commercial service rate.

Rate:

Customer Charge:	
Inside City	\$3.90 per customer per month
Outside City	\$4.45 per customer per month
Energy Charge:	
All kWh	\$0.061 per kWh

Minimum Bill: The minimum monthly bill shall be the Customer Charge.

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Low Use Residential Rate - LUR

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current service for domestic use in a single occupancy residence or apartment. No commercial, resale, breakdown, or auxiliary service permitted.

Special Conditions of Service:

1. Electric service will be provided to each customer whose monthly kWh consumption at the present and/or previous Escanaba address during the 12 month period ending with the current month does not exceed 300 kWh per month, subject to the provisions stated in (2) and (3) below.
2. Customer's monthly consumption may exceed 300 kWh per month not more than two times during the 12 month period ending with the current month as long as the usage does not exceed 400 kWh in any month.
3. The customer is disqualified from being served under this rate schedule when either:
 - a. the consumption in any month exceeds 400 kWh; or
 - b. the monthly consumption exceeds 300 kWh a third time during the 12 month period ending with the current month.

Upon being disqualified, the customer shall be automatically transferred to Residential Rate-R schedule effective with the current month until such time as the customer is able to requalify for this rate schedule.

Rate:

Customer Charge:	
Inside City	\$3.40 per customer per month
Outside City	\$3.95 per customer per month
Energy Charge:	
All kWh	\$0.054 per kWh

Minimum Bill: The minimum monthly bill shall be the Customer Charge.

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Residential Medical Use Rider - RMU

Effective In: All territory served by the City of Escanaba.

Availability: Available to Residential Rate - R customers in a separately metered single occupancy residence or apartment when satisfactory proof has been provided to the City that a full-time resident, on the premises served, regularly requires the use of an essential life support electric powered device such as a respirator, oxygen concentrator, or kidney dialysis machine.

Application: The first 600 kWh used in any month will be billed at the energy charge of the Low Use Residential Rate - LUR. All additional monthly charges including the Customer Charge will be billed at the Residential Rate - R.

City of Escanaba - Electric Rate Schedule

Commercial Rate - C

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current single-phase and three-phase at available voltage, for commercial, industrial and other non-residential service.

No resale, breakdown, or auxiliary service permitted. Where commercial and residential service are served through one meter, the Commercial Rate shall apply to the entire load. Where multiple commercial units are served through one meter, whether occupied or unoccupied, the blocks of this rate shall be multiplied by the number of units in the building.

Applicability: The application of this rate schedule is limited to consumers meeting the following criteria:

1. The sum of the kilowatt hours consumed during the customer's 3 highest energy usage months of the 12 months ending with the current month divided by 3 shall not exceed 15,000 kWh.
2. The monthly kWh consumption shall not exceed 16,500 kWh during any month of the prior 12 months ending with the current month.

Consumers not meeting the above criteria will be served under the Large Power Rate - LP.

Rate:

Customer Charge:	
Inside City	\$5.10 per customer per month
Outside City	\$5.65 per customer per month
Energy Charge:	
First 2000 kWh	\$0.067 per kWh
Additional kWh	\$0.061 per kWh

Minimum Bill: The minimum monthly bill shall be the Customer Charge.

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Separately Metered Water Heating and Space Conditioning Rate-SM

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current single-phase and three-phase at available voltage, to any customer currently being served under another applicable rate schedule for service to separately metered controlled water heating and space conditioning equipment upon application for this service and approval of permanently installed equipment subject to rules and regulations established by the City.

Rate:

Water Heating:

Customer Charge:	\$1.25 per meter per month
Energy Charge:	\$0.054 per kWh for all energy used

Space Conditioning:

Customer Charge:	\$1.25 per meter per month
Energy Charge:	\$0.056 per kWh for all energy used

Minimum Bill: The minimum monthly bill shall be the Customer Charge.

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Large Power Rate - LP

Effective In: All territory served by the City of Escanaba.

Availability: To any commercial or industrial customer for all electric service supplied at one point of delivery and measured through one meter.

Single or three-phase, alternating current, at standard voltage available from the City's distribution system.

Applicability: The application of this rate schedule is limited to consumers meeting at least one of the following conditions:

1. Metered demand of 50 kW or greater.
2. The sum of kilowatt hours consumed through the 3 months ending with the current month divided by 3 is equal to or exceeds 15,000 kWh.
3. No consumption history exists on the account, and consumption is estimated to meet or exceed 16,500 kWh in a month and/or 50 kW.

Rate:

Demand Charge:

First 250 kW of Billing Demand	\$4.55 per kW
Additional kW of Billing Demand	\$3.50 per kW

Energy Charge:

First 50,000 kWh per month	\$0.041 per kWh
Next 150,000 kWh per month	\$0.038 per kWh
Additional kWh per month	\$0.035 per kWh

Billing Demand: The Billing Demand shall be the highest of the following:

1. The metered Maximum Demand for the current month.
2. Sixty percent (60%) of the highest Billing Demand established during the previous or current summer season revenue months of June through October.
3. Fifty (50) kilowatts.

Determination of Maximum Demand: The customer's maximum demand shall be the maximum rate at which energy is used for any period of 15 consecutive minutes of the month for which the bill is rendered, as shown by the customer's demand meter.

Minimum Bill: The minimum monthly bill shall be the applicable demand charges as computed under the above schedule.

Power Factor Clause: Consumers shall at all times take and use power in such a manner that the power factor shall be as nearly one hundred percent (100%) as practicable. When the average power factor as determined by continuous measurement of lagging reactive kilovolt ampere hours or test measurement is less than ninety percent (90%), the Billing Demand may be determined by multiplying the maximum metered demand shown by the demand meter for the billing period by 90 and dividing the product thus obtained by the actual average power factor expressed in percent. The City may, at its option, use for adjustment the power factor as determined by tests during periods of normal operation of the consumer's equipment instead of the average power factor.

Metering Clause: The City reserves the right to meter power on the secondary side of a customer owned transformer and, in doing so, will add two percent (2%) to the total energy and demand metered. Multiple metering of commercial or industrial loads will be treated as individual meters and will not be combined to calculate charges under this rate.

Adjustment for Cost of Purchased Power: In accordance with Power Supply Adjustment.

Contract Period: Not less than one year.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Economic Development Rate Rider - EDR

Effective In: All territory served by the City of Escanaba.

Availability: Alternating three-phase current at available voltage, for new customers contracting for at least 500 kW of new load and existing customers who add and contract for at least 200 kW of new load which results in a total load of 500 kW or greater will be served under Large Power Rate - LP as more fully set forth herein. This rider is available only when, in the sole opinion of the City, there is sufficient system capacity and fuel to serve the requirements of its other customers and to maintain its reserve requirements. This rate is not applicable to customers who are not full requirements customers of the City or for temporary service for construction power. This rider is not applicable to relocations or transfers of load within the territory served by the City. This rider is not applicable for loads under existing contract or for facilities under construction prior to the original effective date of this rider.

Applicability: This rider applies to a new customer, or the additional load of an existing customer who is, or may be, in the opinion of the City, qualified for service under the Large Power Rate - LP and who meets the following criteria:

1. Makes application for the rider which includes a notarized affidavit from an officer of the customer confirming that this rider was an important contributing factor in the customer's decision to add new or additional load.
2. New or additional load creates at least 10 new jobs.
3. The added monthly electrical demand of new customers is estimated to be at least 500 kW and of existing customers is estimated to be at least 200 kW.
4. Application for service under this rider shall be accompanied by sufficiently detailed information to enable the City to determine whether the new customer or additional load meets the above criteria. Service under this rider is subject to a contract between the customer and the City containing such terms and conditions as may be required by the City.
5. The additional energy use of existing customers is expected to be at least 20 percent of current energy use.
6. The customer agrees that the City shall be the sole source of electricity used at the facility for a term of at least five years.

Rate:

Customer's monthly billing will be calculated at the then current Large Power Rate - LP, based on 500 kW minimum demand, then the following discounts shall apply:

Year 1 of service	15% discount
Year 2 of service	10% discount
Year 3 of service	5% discount

Discounts shall be calculated on total bill basis.

City of Escanaba - Electric Rate Schedule

Municipal and School Use Energy Rate - M

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current single-phase and three-phase at available voltage, for all use by Escanaba Public Schools, Parochial Schools, Bay de Noc College, and the City of Escanaba.

Rate:

Customer Charge: \$5.20 per customer per month

Energy Charge:
All kWh \$0.062 per kWh

Minimum Bill: The minimum monthly bill shall be the Customer Charge.

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

City Street Light Rate - SL

Effective In: All territory served by the City of Escanaba.

Availability: Alternating current single-phase and three-phase at available voltage, for City street light energy.

Rate

Energy Charge:	
All kWh	\$0.106 per kWh

Adjustment for Cost of Power Supply: In accordance with Power Supply Cost Adjustment.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule

Dusk to Dawn Security Lighting - DL

Effective In: All territory served by the City of Escanaba.

Availability: Available, upon application, to City of Escanaba customers.

Applicability: It is understood that the service request will be for a period of not less than one (1) year, and that said service will be installed only on existing utility facilities. If a new pole is required, the customer will furnish the pole, and the City will install the pole.

Rate:

175 watt lamp	\$ 7.60 per fixture per month
400 watt lamp	\$12.20 per fixture per month

Service Provisions: The City will provide the necessary fixtures and apparatus, will replace lamps, and keep fixtures properly maintained. The City does, however, reserve the right to discontinue service to any location which shows an excessive amount of damage resulting from vandalism or neglect.

Prompt Payment Provisions: The monthly bill will be rendered at the above rate and a 1.5% penalty amount will be added on any unpaid account balance at the due date stated on the bill in accordance with City policy.

City of Escanaba - Electric Rate Schedule**Power Supply Cost Adjustment - PCA****[To be held in Abeyance]**

Adjustment for Cost of Purchased Power: All bills shall be increased or decreased by the amount in cents, or fraction thereof, by which the average cost of power per kWh purchased was paid to suppliers of power during the previous month exceeds or is less than \$0.043 per kWh, and calculated in accordance with the following formula:

$$PCA = (A - B)(1.0331)$$

Where:

- PCA = Power cost adjustment to be applied to customer's energy billing, in cents per kWh.
- A = Cost of power in cents per kWh purchased for the most recent month for which data is available. Power cost is calculated as total invoiced power cost from UPPCO divided by net system input energy.
- B = Base cost of power (equals \$0.043 per kWh).
- 1.0331 = Factor to account for system energy losses.

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Appendix B
Existing Rates

ORDINANCE NO. 911

AN ORDINANCE FIXING THE RATES TO BE CHARGED BY THE CITY OF ESCANABA FOR ELECTRIC ENERGY DEMAND AND AVAILABILITY OF SERVICE, TO BE IN FULL FORCE AND EFFECT ON THE BILLINGS PROCESSED AFTER JUNE 30, 1996, AND ALL BILLINGS THEREAFTER UNTIL FURTHER AMENDED BY THE COUNCIL.

THE CITY OF ESCANABA ORDAINS:

CHAPTER I

RATES

Section 50.01. General Purpose - Rate Classification:

(A) Residential Energy Rate:

Applicable: To residential customers for all purposes except those otherwise specially rated.

\$.069 net per KWH for the first 400 KWH used per customer per month.

\$.061 net per KWH for all over 400 KWH used per customer per month.

(B) Commercial Energy Rate:

Applicable: To commercial customers for all purposes except those otherwise specially rated.

\$.086 net per KWH for the first 500 KWH used per customer per month.

\$.065 net per KWH for the next 1,500 KWH used per customer per month.

\$.061 net per KWH for all over 2,000 KWH used per customer per month.

(C) Water Heating Energy Rate:

Applicable: To any customer for separately metered controlled water heating, subject to such wiring rules and regulations as are established by the utility.

\$.058 net per KWH used per customer per month.

(D) Electric Heat Rate:

Applicable: To all customers for such service when separately metered upon application therefore and approval of permanently installed equipment; subject to such rules and regulations as are established by the utility. When air conditioning is installed in an electrically heated area, it may be connected to the same meter for space conditioning purposes.

\$.060 net per KWH per customer per month.

Upon application, the total annual charge for this energy may be paid in the following manner:

The estimated annual cost shall be divided into twelve (12) equal payments. Starting in July of each year, these payments shall become due and payable on the date indicated on the monthly bill. The payment for June of each year shall include an adjustment to correct the estimated annual cost to the actual annual cost. A three percent (3%) penalty

Ordinance No. 911 - continued
Electric Rate Ordinance

charge will be made on all payments delinquent after date indicated on the bill.

(E) Special Municipal Energy Rates:

Applicable: For all use by the Escanaba Public Schools, Parochial Schools, Bay de Noc College, and the City of Escanaba.

\$.054 net per KWH for City street lighting.

\$.061 minimum rate all other uses.

(F) Temporary Service-Single Phase 120 or 240 volt: Temporary service will be supplied to a customer upon written application and advance payment of \$40. Equipment for such installation will be supplied by the City in consideration of this charge. Other temporary services will be supplied on a private, work order basis.

Energy used for such installations will be metered and billed under the commercial rate schedule. The City reserves the right to determine the necessity for type of installation and duration of temporary service.

In no event will said temporary service be allowed to remain after such time as it is practical to install permanent service. The City reserves the right to terminate said temporary service when, in their judgement, any provision herein is violated.

(G) Multiple Use: In the event that a single customer uses energy for more than one of the above uses with a different rate for each, the higher rate will be charged unless the wiring is separated for metering purposes to the satisfaction of the City.

Section 50.02. Availability of Service Charge

(A) To be added to the monthly billings for energy in Section 50.01. The following availability of service charge which will also constitute a minimum billing if no energy is utilized. This charge will be computed as follows:

RESIDENTIAL

City: Intra-City \$2.30 per service.

Suburban: Out-City \$2.88 per month, minimum of \$34.56 per year per service

WATER HEATING

City: Intra-City, \$1.16 per service.

Suburban: Out-City, \$1.72 per month, minimum of \$20.64 per year per service.

SPACE HEATING

City: Intra-City \$1.16 per service.

Suburban: Out-City \$1.72 per month, minimum of \$20.64 per year per service.

SMALL COMMERCIAL

City: Intra-City \$2.30 per service

Suburban: Out-City \$2.88 per month, minimum of \$34.56 per year per service.

Ordinance No. 911 - continued
Electric Rate Ordinance

MUNICIPAL

\$2.30 per service

Section 50.03. Special Standby Service Rates:

- (A) A standby or breakdown 60 cycle A. C. electric service will be furnished under this classification to any customer qualifying for the large power rate who desires to self-produce all of part of the energy used in his operation.

The City will install transformers, meters, and service connections at the customer's expense to deliver energy to the customer during periods when his generating equipment is wholly or partially out of use at the following rates and conditions.

- (B) Transformer KVA capacity, as used in these rates, shall be the sizes of the nearest standard rated transformers that will serve the customer's greatest use of electric energy, measured over a 15-minute period and called the yearly kilowatt peak demand for standby rate purposes.

Section 50.04. Standby Equipment Rate.

- (A) The charge for equipment installed for standby or breakdown service and not used shall be \$2.55 per month for each KVA of transformer capacity determined by subtracting the monthly measured kilowatt peak demand of the partial energy used in any month from the KVA capacity as determined in Section 50.03 (B).

All energy supplied to the customer shall be charged at the regular rates applicable to the service rendered.

- (B) The minimum charge shall be the demand charge created by his use, if such use is applicable to the large power rate, plus a kilowatt hour charge determined by multiplying the month peak demand by 200 hours, the result being kilowatt hours at the regular rate.
- (C) The customer must agree to isolate the self-produced energy from the City's electrical distribution system. Change-over to City distribution energy shall be accomplished through City approved double-throw switches furnished by the customer. The Electrical Department shall have the authority and access to inspect and seal or padlock the double-throw switch or switches to insure correct operation of the same.
- (D) Where the City has previously installed transformers, meters, and service connections, and where said equipment is not used, the charge for such equipment installed for standby or breakdown service shall be \$2.17 per month for each KVA of transformer capacity determined by subtracting the monthly measured kilowatt peak demand of the partial energy used in any month from the KVA capacity as determined in Section 50.03 (B) of this ordinance.

Section 50.05. Dusk to Dawn Rate:

- (A) Applicable: It is understood that the service request will be for a period of not less than one (1) year, and that said service will be installed only on existing utility facilities. If a new pole is required, the customer will furnish the pole, and the City will install the pole. The monthly charges for dusk to dawn lighting service will be:

Urban or Rural

\$ 9.22 per month per 175 watt lamp.

Ordinance No. 911 - continued
Electric Rate Ordinance

\$13.81 per month per 400 watt lamp.

(B) Use and Reservations

The City will provide the necessary fixtures and apparatus; will replace lamps and keep this fixture properly maintained. The City does, however, reserve the right to discontinue service to any location which shows an excessive amount of damage resulting from vandalism or neglect.

Section 50.06. Large Power Rated:

Applicable: To any customer desiring power and incidental lighting service for large power use who has a monthly demand of 50KW or more, provided that the minimum monthly bill for such service shall be the minimum demand charge of \$127.50, plus the actual consumption charges. The nature of such service is 24-hour alternating current, 60 cycle, three-phase 240 or 480 volts, and is metered on the primary side of the transformer. The City reserves the right to meter power on the secondary side of the transformer and in doing so, will add two percent (2%) to the total energy and demand so used. For the purposes of computing rates under this section, each individual meter will be calculated separately, and under no circumstances will meter readings be combined to figure extra charges.

\$.055 net per KWH for the first 50,000 KWH used per customer per month.

\$.051 net per KWH for the next 150,000 KWH used per customer per month.

\$.048 net per KWH for all over 200,000 KWH used per customer per month.

Plus Demand Charges of:

\$2.42 net per KW for the first 250 KW used per customer per month.

\$1.72 net per KW for all over 250 KW used per customer per month.

Monthly maximum KW demand measured over an interval of fifteen (15) minutes.

Section 50.07. Fuel Adjustment Clause:

Billings for electric energy will be adjusted monthly if the cost of fuel for the Electric Generating Plant exceeds \$2.17 per 10⁶ B.T.U. Adjustments will be made on the following basis:

KW charge to increase .15 mills per KWH for each 1¢ increase in cost of coal over \$2.17 per 10⁶.

Only those factors which the contract between the Upper Peninsula Power Company and the City of Escanaba include as items of fuel cost will be utilized in the computation of the fuel adjustment.

The fuel adjustment will be added to each KWH sold, but in no event will less than .5 mill be added. Notice of any adjustment will be published in a newspaper of general circulation within the City of Escanaba not less than seven (7) days prior to the modification of the rate for fuel adjustment.

The fuel adjustment will be added to utility bills on the first of the month next, following the receipt of billing from the power company.

Section 50.08. Connection Charge:

Ordinance No. 911 - continued
Electric Rate Ordinance

For every meter set at the customer's request, there shall be a charge of \$5. This shall include new meters, reconnection due to changes of address, or transferring of utilities from one address to another. Reconnections for nonpay which do not require the Electric Department service truck and a two-man service crew, will be \$30. Reconnections for nonpay which do require the Electric Department service truck and a two-man service crew, will be \$40 per hour for each hour the truck and crew are required. Nonpay reconnections outside of normal business hours shall be billed at \$60.

This charge shall not apply when meters are reset for rotation, for meters reset for high bill complaints unless said meters are found to be accurate within two percent (2%) of registration and for meters reset for the convenience of the City (landlords, lessors, etc.).

The maximum charge per service for multiple metering such as domestic use, house heating water heating, or commercial use, shall be \$5.

Section 50.09. Reconnection Charge:

The reconnection charge for seasonal service requested by any customer, such as summer cottages, seasonal businesses, or seasonal industries, shall be \$15 if the meter is reconnected at the same premises by the same user within one (1) year of disconnection.

The maximum charge per service for multiple metering, such as domestic service, house heating, water heating or commercial, shall be \$15.

Section 50.10. Service Extensions

The City of Escanaba will finance the costs necessary to provide the facilities as requested by its customers except in those instances when, in the opinion of the Electrical Superintendent, the initial investment will not be recovered in the first five (5) years of service. In those instances, the City will have the option of denying the requested services or of installing the services and billing the customer for any actual costs incurred which are in excess of the five (5) year recovery calculation.

If, after one (1) year of service, but prior to six (6) years of service, the customer can demonstrate that consumption exceeded that as used in the calculation for contribution in aid of construction, the City will refund, at the customer's request, the difference between the original contribution and the latest contribution calculation. No refunds will be available to customers after six (6) years or to any new customers who might rent or purchase the facilities from the original customer.

If, in the Electrical Superintendent's opinion, the service is not expected to be used for a period of at least five (5) years, the recovery calculation will be based on the anticipated service life. Refunds for these services, if applicable, will be calculated in the same manner as for services anticipated to be in service for more than five (5) years.

CHAPTER II

CONDITIONS OF SERVICE

Section 50.20. Billing:

Meters of all customers shall be read or estimated monthly and a three percent (3%) penalty charge will be made on all bills unpaid after the date indicated on bill. The penalty charge will be computed as of date of payment and will be computed on the amount of payment applied to the delinquent balance. The penalty charges may be waived at the discretion of the City for good reason, when the interest of the City would be best served by waiving said penalty, or if the customer proves that extraordinary circumstances intervened to prevent payment of the bill on

Ordinance No. 911 - continued
Electric Rate Ordinance

the due date; in all cases, it will be the exclusive right of the City to determine the facts and judge the validity of the request to waive penalty payments.

Section 50.21. Enforcement:

Charges for electric services applied by the system shall constitute a lien on the premises served and if not paid within six (6) months, shall be certified by the official in charge of the collection thereof to the tax assessing officer and shall then be entered upon the next tax roll as a charge against such premises and shall be collected and the lien thereof enforced in the same manner as general City taxes against such premises are collected and the lien thereof enforced. All provisions of the laws of Michigan and the City Charter applicable to the time and manner of certification and collection of delinquent City taxes levied against real estate in the City shall be observed in the certification and collection of such charges, provided, however, that in all cases where a tenant is responsible for the payment of any such charge and the Utility Billing Office is so notified in writing, which notification shall include a true copy of the lease of the affected premises, if there be one, then no such charge shall become a lien against such premises from and after the date of such notice. In the event of the filing of such notice and after the date of such notice, the City shall render no further service to such premises until a cash deposit in an amount of the projected billing for not less than a one-month period and not more than a three-month period is received, said determination of deposit to be solely at the discretion of the City.

In addition to all other lawful enforcement methods, the City agrees and covenants to enforce all charges for electric energy supplied to any premises, if any such charges shall remain unpaid past the due date.

Section 50.22. Restrictions:

- (A) The City shall not be obligated to furnish service to a customer using equipment having a power factor lower than eighty-five percent (85%), which equipment can be improved by reasonable changes to a minimum of eighty-five percent (85%) lagging. Improvement of the power factor shall be at the customer's expense. The City reserves the right to measure power factor at any time by means of test or permanently installed metering equipment, and if the customer's power factor is found to be less than eighty-five percent (85%) lagging, the billing demand will be increased by the ratio that eighty-five percent (85%) bears to the customer's actual power factor.

(B) Discontinuation of Service:

The City may discontinue service following written notice in case the meter or wiring on the customer's premises is tampered with in any manner to allow unmetered current to be used. The customer shall pay to the City the estimated cost of the unmetered energy used as determined by the City, and shall, at his own expense, place the wiring in such condition and meter box in such place as is approved by the City. The unauthorized connection to a utility power source or the bypassing of an electric meter will be construed as a theft of electricity and will be appropriately prosecuted. The City may also discontinue service when an account remains unpaid past the due date. The customer shall pay the full amount of arrears, plus a reconnect fee in order to restore service.

(C) Location:

All meters must be located in such manner as to provide accessibility for reading; and refusal to provide access for authorized City personnel in the performance of their duties will be sufficient cause for discontinuance of service.

(D) Rules and Regulations:

All wiring and electrical equipment must be installed, maintained, and operated in a safe manner so that it is not a hazard to life, health, or property. Wiring must be done in accordance with the latest edition of the National Electric Code and the rules and regulations of the City Electric Utility.

Ordinance No. 911 - continued
Electric Rate Ordinance

Section 50.23. Experience - Good Faith Deposit Requirement:

If a customer of the City of Escanaba, whether he be a tenant, owner, or an owner by land contract, has a history of delinquent payments, or if the City has no history of customer's payments, or if owner or tenant customer service is located outside the corporate limits of the City of Escanaba, or if, in the judgement of the City, the existing deposit is insufficient based on current billings, the City may require a sum not to exceed the projected billing in an average three-month period as a good faith deposit, the amount of said deposit to be not less than \$150. This deposit will be held for twelve (12) consecutive months of payments without delinquency. Deposits for commercial accounts will be estimated on an individual basis. Commercial accounts will pay a deposit of an estimate of three months' utility bills based on the estimated usage for the type of business. Interest will be paid on deposits at a rate to be established July 1, 1995, based on the market rate the City receives on certificates of deposit on that date. If a deposit of over \$500 is demanded from a commercial or large power customer, this deposit may be held in a special escrow account at the bank of the customer's choice, and interest will accrue to the benefit of the customer. In no event will a deposit be less than \$80.

Section 50.24. Qualification for Rate:

A customer, once placed in a rate classification, will remain in this rate classification unless, in the City's opinion, another rate classification becomes more appropriate. Customers desiring to change from one classification to another must notify the City in writing. It shall not be the City's responsibility to determine the most economical rate classification unless and until said written notice is received. In the event a change in rate classification results in reduced charges, there will be no retroactive adjustments beyond afore-referenced date of application.

In placing a customer in a rate classification, it is understood that such rate classification will remain in effect for said customer until, in the City's judgement, the rate classification is not applicable. Short duration transfers between rate classifications by customers will not be permitted. The City reserves the right of final determination as to when and whom a rate classification may be assigned or changed.

CHAPTER III

Section 50.30. Liability:

In case the supply of electricity shall be interrupted or fail, the City shall not be liable for damages by reason of such failure.

CHAPTER IV

Section 50.40. Other Ordinances:

All rules, regulations, and provisions which have heretofore been enacted by ordinance or otherwise, continue to be in full force and effect until modified or amended.

CHAPTER V

Section 50.50. Savings Clause:

If any section, subsection, sentence, clause, or phrase of this ordinance, is, for any reason, held unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

CHAPTER VI

Ordinance No. 911 - continued
Electric Rate Ordinance

Section 50.60. Effective Date:

In compliance with Section 4 of Chapter XVI of the City Charter, this ordinance shall be in full force and effect on bills for electric energy processed beginning July 1, 1995.

APPROVED:

APPROVED:

Ralph B. K. Peterson
City Attorney

Jeanne M. Rose
Mayor

Date Approved: June 3, 1996

Attest:

Date Published: June , 1996

Robert S. Richards
City Clerk

I hereby certify that the above and foregoing Ordinance was duly passed and adopted at a meeting of the Council held on June 3, 1996, and was published in the Daily Press, a newspaper of general circulation in the City of Escanaba, on June , 1996.

Robert S. Richards
City Clerk



DRAFT
2/6/12

1711 Sheridan Road • Escanaba, MI 49829 • 906-786-0061 • Fax 906-786-0791

**City of Escanaba, Michigan
Cost of Service and Electric Rate Study**

PURPOSE

The purpose of the Request for Qualification (RFQ) is to solicit proposals and qualifications from consultants to provide a cost of service and electric rate study for the City of Escanaba's electric utility operations.

BACKGROUND

The City of Escanaba has been providing electric service since 1894 to the residents of Escanaba, Michigan and part of a neighboring township. The City has seen a decline in sales the past few years but that trend is reversing this year. Currently, the City has 6100 residential customers, 1100 commercial customers and 36 large power customers. The City provides 145,000 MWh yearly to its customers. The City saw a peak of 30 MW in 2011.

Prior to December 2009, most of the City load was generated from the City-owned Escanaba Generating Station, with supplemental purchases made from the MISO market. In December 2009, the City became a MISO market participant. From December 2009 through December 2011, the City purchased energy from the MISO market in the Day Ahead and Real Time markets. The City recently signed a 5 year, fixed price, all-requirements contract with NextEra Energy Resources that went into effect on January 1, 2012.

The Escanaba Generating Station has been for sale since August 2009. The City negotiated the sale of the station with 2 different parties, but neither led to a closing. The station is still for sale at this time.

RATE STUDY & CURRENT RATES

The purpose of this Cost of Service and Electric Rate Study is to analyze existing rates and recommend rate changes as necessary through the completion of a comprehensive rate study, based upon current rates and charges, current city electric department budget, and the 5 year capital improvement budget. Current electric utility rates are attached.

CONTACT INFORMATION

All questions concerning this Request for Qualification should be directed to the City of Escanaba's Electric Superintendent, Michael Furmanski, at (906) 786-0061 or by email at mfurmanski@escanaba.org.

PROPOSAL FORMAT

Proposals should be submitted in the following format:

1. Management & Firm Profile
2. Staff Assignments & Qualifications
3. Cost of Service/Rate Study Experience
4. Project Methodology/Scope, Timetable
5. Project Cost
6. List of Rate Study Clients/References

SELECTION CRITERIA

The award of this contract shall be made using the following criteria: proposed method to accomplish the project, past record of performance, capacity of the firm to accomplish the project within the timetable, qualifications of assigned personnel, the quality of the proposal, and the total cost of the project. The City of Escanaba reserves the right to reject any or all proposals. Please send two (2) copies of the proposal, no later than 2:00pm, March 6, 2012 to:

**Michael Furmanski, Electric Superintendent
City of Escanaba
1711 Sheridan Road
Escanaba, MI 49829**

NB # 7

CC/EAC

2/8/12

**REVISED DRAFT - RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF ESCANABA, MICHIGAN
TO JOIN GREAT LAKES UTILITIES,
A MUNICIPAL ELECTRIC COMPANY**

WHEREAS, City of Escanaba, Michigan (the City) owns and operates an electric utility pursuant to Michigan law, and through such utility distributes and sells electric power and energy at retail;

WHEREAS, the Wisconsin legislature has found in that, in order to ensure the stability and continued viability of municipal electric utilities, there is a need to provide a means by which the municipalities which operate such utilities, including municipalities located outside the state of Wisconsin, may act jointly in all ways possible, including development of coordinated bulk power supply and fuel programs;

WHEREAS, sec. 66.0825(4), Wis. Stats., provides that any combination of Wisconsin and non-Wisconsin municipalities which operate facilities for the generation or transmission or distribution of electric power and energy may, by contract with each other, establish a separate governmental entity to be known as a municipal electric company (MEC);

WHEREAS, an MEC is to be used by such municipalities to effect joint development of electric energy resources for the production, distribution and transmission of electric power and energy in whole or in part for the benefit of the contracting municipalities;

WHEREAS, a number of municipalities are currently members of Great Lakes Utilities ("GLU"), an MEC formed in 2000 pursuant to sec. 66.0825, Wis. Stats., for the purpose of, among other things, implementing joint action strategies on behalf of its municipal members and developing its own bulk power supply utility; and

WHEREAS, GLU's members are all parties to the Contract for the Establishment and Operation of Great Lakes Utilities, as amended ("Establishment Contract"), which is on file with the Secretary of State of the State of Wisconsin;

WHEREAS, the City has reviewed the Establishment Contract, and has examined all other matters deemed relevant by the City; and

WHEREAS, the Escanaba Electric Advisory Committee has recommended that the City become a member of GLU; and

WHEREAS, the Escanaba City Council has determined that it is in the best interests of the City and its electric ratepayers for the City to become a party to the Establishment Contract and thereby become a member of GLU;

NOW, THEREFORE, it is resolved by the Escanaba City Council:

Section One. The City agrees to be bound as a party by all the terms and conditions of the Establishment Contract in order to become a member of GLU.

Section Two. That the appropriate City officials are authorized and directed to execute an agreement on behalf of the City to be bound by the contract and file the agreement with GLU together with an application for membership in GLU and to take all other steps necessary and appropriate to become a member of GLU.

Section Three. That Michael Furmanski, Electrical Department Superintendent is hereby appointed to be the City's initial Director on the Board of Directors of GLU. Ronald Beauchamp, City Council Member shall be the Alternate Director.

Section Four. That the City's Director shall receive and give on behalf of the City, any and all notices to and from GLU required or allowed under the contract except that written notice of the change of Director or Alternate Director shall be given by the City Clerk.

~~Section Five. That the City Council hereby delegates power and authority to represent the City in any matter regarding GLU to the Electric Advisory Committee and the City's Director shall report to the Electric Advisory Committee.~~

Introduced by: _____

Moved by:

Seconded by:

Passed by the City Council on the ____ day of _____, 20__, and submitted to the Mayor on the ____ day of _____, 20__.

Approved this ____ day of _____, 20__.

Mayor

CERTIFICATION

I, _____, City Clerk of the City of Escanaba, Michigan, do hereby certify that I have compared the above resolution with the original instrument on file in my office and that the same is a true, complete and correct copy of said document.

IN WITNESS HEREOF, I have hereunto set my hand and affixed the Corporation Seal of the City of Escanaba, Michigan this ____ day of _____, 20__.

City Clerk

12/15/11
EXCERPT

Excerpt of the minutes of a regular meeting of the Escanaba City Council held on December 15, 2011, at the Council Chambers of City Hall, 410 Ludington Street, Escanaba, Michigan, at 7:00 p.m.

PRESENT: Mayor Leo J. Evans, Mayor Pro Tem Brady L. Nelson, Council Members Patricia A. Baribeau, Walter A. Baker and Ronald J. Beauchamp,

ABSENT: None

NB-4 "By Council Member Baker, seconded by Council Member Nelson;

**RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF ESCANABA, MICHIGAN
TO JOIN GREAT LAKES UTILITIES,
A MUNICIPAL ELECTRIC COMPANY**

WHEREAS, City of Escanaba, Michigan (the City) owns and operates an electric utility pursuant to Michigan law, and through such utility distributes and sells electric power and energy at retail;

WHEREAS, the Wisconsin legislature has found in that, in order to ensure the stability and continued viability of municipal electric utilities, there is a need to provide a means by which the municipalities which operate such utilities, including municipalities located outside the state of Wisconsin, may act jointly in all ways possible, including development of coordinated bulk power supply and fuel programs;

WHEREAS, sec. 66.0825(4), Wis. Stats., provides that any combination of Wisconsin and non-Wisconsin municipalities which operate facilities for the generation or transmission or distribution of electric power and energy may, by contract with each other, establish a separate governmental entity to be known as a municipal electric company (MEC);

WHEREAS, an MEC is to be used by such municipalities to effect joint development of electric energy resources for the production, distribution and transmission of electric power and energy in whole or in part for the benefit of the contracting municipalities;

WHEREAS, a number of municipalities are currently members of Great Lakes Utilities ("GLU"), an MEC formed in 2000 pursuant to sec. 66.0825, Wis. Stats., for the purpose of, among other things, implementing joint action strategies on behalf of its municipal members and developing its own bulk power supply utility; and

WHEREAS, GLU's members are all parties to the Contract for the Establishment and Operation of Great Lakes Utilities, as amended ("Establishment Contract"), which is on file with the Secretary of State of the State of Wisconsin;

WHEREAS, the City has reviewed the Establishment Contract, and has examined all other matters deemed relevant by the City; and

WHEREAS, the Escanaba Electric Advisory Committee has recommended that the City become a member of GLU; and

WHEREAS, the Escanaba City Council has determined that it is in the best interests of the City and its electric ratepayers for the City to become a party to the Establishment Contract and thereby become a member of GLU;

NOW, THEREFORE, it is resolved by the Escanaba City Council:

Section One. The City agrees to be bound as a party by all the terms and conditions of the Establishment Contract in order to become a member of GLU.

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Section Three. That City Electric Superintendent Mike Furmanski is hereby appointed to be the City's initial Director on the Board of Directors of GLU. City Council Member Ronald Beauchamp shall be the Alternate Director.

Section Four. That the City's Director shall receive and give on behalf of the City, any and all notices to and from GLU required or allowed under the contract except that written notice of the change of Director or Alternate Director shall be given by the City Clerk.

Section Five. That the City Council hereby delegates power and authority to represent the City in any matter regarding GLU to the Electric Advisory Committee and the City's Director shall report to the Electric Advisory Committee.

Upon a call of the roll, the vote was as follows:

Ayes: Baker, Nelson, Baribeau, Beauchamp, Evans

Nays: None

RESOLUTION DECLARED ADOPTED.

STATE OF MICHIGAN)

ss)

COUNTY OF DELTA)

I the undersigned, being duly qualified and acting City Clerk of the City of Escanaba, do hereby certify that the foregoing constitutes a true and complete excerpt of the Escanaba City Council Minutes of the City of Escanaba, County of Delta, Michigan, at a regular City Council Meeting held on December 15, 2011, and that said meeting was conducted and public notice was given pursuant to and in full compliance with the Open Meetings Act, Act 267, Public Acts of Michigan, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.



Robert S. Richards, CMC, City Clerk