

A REGULAR MEETING

Of The

TRAVERSE CITY LIGHT AND POWER BOARD

Will Be Held On

TUESDAY, May 10, 2016

At

5:15 p.m.

In The

COMMISSION CHAMBERS
(2nd floor, Governmental Center)
400 Boardman Avenue

Traverse City Light and Power will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon notice to Traverse City Light and Power. Individuals with disabilities requiring auxiliary aids or services should contact the Light and Power Department by writing or calling the following.

Jennifer J. St. Amour
Administrative Assistant
1131 Hastings Street
Traverse City, MI 49686
(231) 922-4940 ext. 201

Traverse City Light and Power
1131 Hastings Street
Traverse City, MI 49686
(231) 922-4940

Posting Date: 05-06-16
2:00 p.m.

AGENDA

Pledge of Allegiance

1. Roll Call

2. Consent Calendar

The purpose of the consent calendar is to expedite business by grouping non-controversial items together to be dealt with by one Board motion without discussion. Any member of the Board, staff or the public may ask that any item on the consent calendar be removed therefrom and placed elsewhere on the agenda for full discussion. Such requests will be automatically respected. If an item is not removed from the consent calendar, the action noted in parentheses on the agenda is approved by a single Board action adopting the consent calendar.

- a. Consideration of approving minutes of the Regular Meeting of April 26, 2016. (Approval recommended) (p.4)
- b. Consideration of rescinding the following policies related to the Coal Dock.
 1. Coal Dock Improvements Policy
 2. Coal Dock Use Policy (Approval recommended) (Myers-Beman) (p.7)
- c. Receive and file minutes of the Executive Director's Performance Evaluation Ad Hoc Committee meeting of April 22, 2016. (Approval recommended) (p.10)

Items Removed From Consent Calendar

a.

3. Unfinished Business

None.

4. New Business

- a. Consideration of a periodic personnel evaluation of Tim Arends, Executive Director. (Taylor/H.R. Ad Hoc Committee) (p.11)
- b. Consideration of approving a change to the employer and employee share of health insurance premiums. (Arends) (p.26)

5. Appointments

None.

6. Reports and Communications

- a. From Legal Counsel.

b. From Staff.

1. Follow up discussion on Advanced Metering Infrastructure.
(Arends/Menhart)(p.31)

c. From Board.

7. Public Comment

/js

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes of Regular Meeting
Held at 5:15 p.m., Commission Chambers, Governmental Center
Tuesday, April 26, 2016

Board Members -

Present: Pat McGuire, Amy Shamroe, Bob Spence, John Taylor, Tim Werner, Jan Geht

Absent: Jeff Palisin

Ex Officio Member -

Present: Marty Colburn, City Manager

Others: Karla Myers-Beman, Kelli Schroeder, Scott Menhart, Jennifer St. Amour, Mark Watson

The meeting was called to order at 5:15 p.m. by Chairman Geht.

W. Peter Doren requested item 2c be removed from the Consent Calendar for full discussion.

Chairman Geht addressed the Public stating that Item 3a was pulled from the Agenda at the request of MPPA.

Item 2 on the Agenda being Consent Calendar

Moved by McGuire, seconded by Shamroe, that the following actions, as recommended on the Consent Calendar portion of the Agenda, as amended be approved:

- a. Minutes of the Regular Meeting of April 12, 2016
- b. Energy Technician and Key Accounts Representative Job Description.
- c. *Removed from the Consent Calendar.*

CARRIED unanimously. (Palisin absent)

Items Removed from the Consent Calendar

- a. Consideration of authorizing revised quit claim deed to the City for surplus coal dock properties.

The following individuals addressed the Board.

W. Peter Doren, General Counsel

Moved by Werner, seconded by Taylor, that the Board Chairman be authorized to execute the revised Quit Claim Deed to the City of Traverse City with modified legal description for Parcel 3 as submitted by General Counsel.

CARRIED unanimously. (Palisin absent)

Item 3 on the Agenda being Unfinished Business

- a. Possible reconsideration of approval and funding of the Garland Street Project lighting components.

The following individuals addressed the Board:

W. Peter Doren, General Counsel
Karla Myers-Beman, Controller
Marty Colburn, City Manager

Moved by Shamroe, seconded by Werner, that the Board authorizes an amendment to the six year capital plan and authorizes the extension of the lighting system to include Garland Street decorative lighting in the amount of \$307,000, more or less, for the underground costs of the system.

The following individuals from the Public addressed the Board:

Rob Bacigalupi, DDA Director

Roll Call:

Yes-Shamroe, Taylor, Werner

No-McGuire, Spence, Geht

FAILED.

Moved by Taylor, seconded by McGuire, that the Board authorizes an amendment to the six year capital plan and authorizes the extension of the lighting system to include Garland Street decorative lighting in the amount of \$169,000, more or less, for the underground costs of the system.

The following individuals addressed the Board:

Karla Myers-Beman, Controller read a statement from the Executive Director.

Roll Call:

Yes- McGuire, Shamroe, Spence, Taylor, Werner, Geht

No- None

CARRIED unanimously.

Item 4 on the Agenda being New Business

None.

Item 5 on the Agenda being Appointments

None.

Item 6 on the Agenda being Reports and Communications

a. From Legal Counsel.

None.

b. From Staff.

1. Jacob Hardy, Energy Advisor, and Jennifer Alvarado, Outreach Lead, of Franklin Energy gave a presentation regarding TCL&P's Energy Efficiency Program.

The following individuals addressed the Board:

Karla Myers-Beman, Controller

c. From Board.

None.

Item 7 on the Agenda being Public Comment

No one from the public commented.

There being no objection, Chairman Geht declared the meeting adjourned at 5:53 p.m.

/js

Tim Arends, Secretary
LIGHT AND POWER BOARD



**TRAVERSE CITY
LIGHT & POWER**

To: Light & Power Board
From: Tim Arends, Executive Director
Date: May 3, 2016
Subject: Repeal of Light & Power Policies

After the transfer of the coal dock to the City on Monday, May 3, 2016 staff is recommending to repeal the two policies relating to the coal dock that are no longer applicable to TCL&P operations. They are:

1. Coal Dock Improvements Policy
2. Coal Dock Use Policy

The policies are included for your review.

Staff recommends approval to repeal the above policies. This item is on the Consent Calendar as it is deemed non-controversial. Approval of this item on the Consent Calendar means you agree with staff's recommendation.

If any member of the Board or the public wishes to discuss this matter, other than clarifying questions, it should be placed on the "Items Removed from the Consent Calendar" portion of the agenda for full discussion. If after Board discussion you agree with staff's recommendation the following motion would be appropriate:

MOVED BY _____, SECONDED BY _____,

**THAT THE BOARD REPEALS THE COAL DOCK IMPROVEMENTS POLICY AND THE
COAL DOCK USE POLICY.**

Light and Power Department
City of Traverse City, MI
Adopted: May 26, 1981

COAL DOCK IMPROVEMENTS POLICY

WHEREAS, the Traverse City Light and Power Board owns and operates a coal dock and coal storage facilities in Elmwood Township which dock and facilities are necessary to the generation of electricity; and

WHEREAS, various plans and recommendations have been prepared regarding improvements and modifications to said dock and facilities, such plans include those prepared by staff, Perla and Stout Engineering, Michael W. Wills, and Traverse Bay Regional Planning; and

WHEREAS, the Traverse City Light and Power Board desires to cooperate with Elmwood Township officials regarding modifications to the coal dock and facilities.

NOW, THEREFORE, BE IT RESOLVED that the Light and Power Board or staff will confer with Elmwood Township officials on any major physical improvement, other than maintenance or emergency repair, to the coal dock when such improvement is over the expenditure amount authorized by the Executive Director (\$3,500), in order to determine if the improvement would affect any plan adopted by Elmwood Township for this area.

BE IT FURTHER RESOLVED that if Elmwood Township has any concerns or objections regarding the relationship of a proposed improvement to an adopted plan, which concerns or objections are timely expressed, they will be considered by the Light and Power Board or staff prior to making the improvement.

BE IT FURTHER RESOLVED that all previous resolutions, including that adopted on April 28, 1981, are hereby rescinded and replaced by this resolution.

I hereby certify that the above Resolution was adopted on Tuesday, May 26, 1981, at a regular meeting of the Traverse City Light and Power Board at the Commission Chambers, Governmental Center, 400 Boardman Avenue, Traverse City, MI.

William Strom

William Strom
Executive Director and Secretary
Traverse City Light and Power Board

Light and Power Department
City of Traverse City, MI
Adopted: January 13, 1987

COAL DOCK USE POLICY

WHEREAS, the Light and Power Board has deemed it necessary and urgent that repairs to its Coal Dock be made without delay; and

WHEREAS, the Department has caused plans to be drawn and application for permits to be made for such repair; and

WHEREAS, the Elmwood Township Planning Commission has expressed concerns regarding possible expanded use of the dock; and

WHEREAS, the Army Corps of Engineers has requested the Department to resolve the questions of Elmwood Township's; and

WHEREAS, the Township has agreed to withdraw its objections to the Army Corps permit, if certain conditions regarding usage of the Coal Dock can be agreed to;

NOW, THEREFORE, BE IT RESOLVED that the Light and Power Board agrees to use the Coal Dock as follows:

There will be no more than 14,000 tons of coal on the dock at any time, and

There will be no other materials handled across the dock except coal, and

There will be no more than six boat-shipments of coal unloaded per year at the dock; and

BE IT FURTHER RESOLVED that the Light and Power Department will adhere to these conditions until and unless the Elmwood Township Planning Commission agrees to any modifications thereof.

I, Thomas W. Richards, Secretary of the Light and Power Board of the City of Traverse City, do hereby certify that the foregoing resolution, proposed by Larry Hardy, Board Member, was duly passed and adopted by the Light and Power Board at a Regular Meeting thereof assembled this 13th day of January, 1987, by the following vote:

Thomas W. Richards

Thomas W. Richards
Executive Director and Secretary
Traverse City Light and Power Board

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes

Executive Director's Performance Evaluation Ad Hoc Committee
Held at 2:00 p.m., Light and Power Service Center via Conference Call
Friday, April 22, 2016

Committee Members -

Present: John Taylor, Pat McGuire, Jeff Palisin

Others: Kelli Schroeder

The meeting was called to order at 2:00 p.m. by John Taylor.

1. Discussion regarding the Executive Director's Performance Evaluation.

Committee members discussed the Executive Director's Performance Evaluation.

2. Public Comment

No one from the public commented.

There being no objection, John Taylor declared the meeting adjourned at 2:17 p.m.

/js

Jan Geht, Chairman
LIGHT AND POWER BOARD



**TRAVERSE CITY
LIGHT & POWER**

To: Light & Power Board
From: Human Resources Ad Hoc Committee
Date: April 25, 2016
Subject: Annual Performance Evaluation of Tim Arends, Executive Director

Consistent with the evaluation process in years past, the Human Resources Ad Hoc Committee (John Taylor, Pat McGuire and Jeff Palisin) met on April 22, 2016 to review and discuss the input collected from each Board member on the performance of the Executive Director (Appendix A). The current Executive Director Contract is also attached (Appendix B).

Based on the input received, we recommend renewal of the employment contract with Tim Arends as Executive Director to include a 3% increase, which was stipulated within his current contract (pending a "satisfactory" rating) in order to decrease the sizable gap between TCL&P's Executive Director salary and that of similarly-sized municipal utilities. Further, we recommend an additional 2% increase for performance. Total annual compensation would be \$124,425.

The Human Resources Ad Hoc Committee notes that the most recent APPA compensation survey (Appendix C) indicates the proposed salary still falls well below the average salary for similarly sized municipal utilities.

If after Board discussion you agree with the Human Resources Ad Hoc Committee's recommendation, the following motion would be appropriate:

MOVED BY _____, SECONDED BY _____,

THAT THE BOARD RENEW THE EMPLOYMENT CONTRACT WITH TIM ARENDS AS EXECUTIVE DIRECTOR, WITH AN EFFECTIVE DATE OF JUNE 9, 2016, TO INCLUDE A 5% INCREASE IN ANNUAL SALARY AS RECOMMENDED BY THE HUMAN RESOURCES AD HOC COMMITTEE, SUBJECT TO FORM BY GENERAL COUNSEL.

APPENDIX A

2016 Interview Responses from TCL&P Board Members Regarding the Performance Evaluation of the Executive Director

1. *What have been the Executive Director's (ED's) (and the organization's) major accomplishments in the past year?*
 - Completion of Wayne St. transmission line; ED took his time, spent time with neighborhood.
 - Wayne Street was a major accomplishment of Tim's: no disasters, no bumps.
 - The successful conclusion of the transmission line through Hickory Meadow; public was invited into the process.
 - The Wayne Street decision and completion without fanfare.
 - Wayne Street transmission, something that had been kicked around for years. Tim kept the neighbors in the information loop and it was done without a hitch. Remediation of the park made it better than it was. Tim did a great job with the whole project.
 - Pine St. undergrounding.
 - Progress on the strategic plan; taking care of the power supply.
 - New transformers, improved line strength and reliability.
 - Board training and institutional understandings are important; Tim has been insistent upon it and has done a good job. He knows his board.
 - Improved relations with the City Commission and the City as a whole are good. Disagreements have been dealt with calmly.

2. *The ED works from home from time to time. Is this arrangement working? Although he's not always in the office, is the ED effectively managing the organization and mentoring his employees? Is he accessible to answer your questions?*
 - Yes, yes and yes. I can't judge accessibility to the employees. There were some complaints but they were more personal than business-related.
 - It's working; Tim is effective and accessible.
 - He's always available to me.
 - I wasn't aware of his working from home!
 - Seems to be working although it's difficult for a Board member to assess how employees are doing. My only concern would be his availability to mentoring, taking the pulse of employees.
 - The organization is doing extremely well and Tim's physical location hasn't seemed to matter. However, some of the staff has resented this arrangement, and misread it. Tim could have handled it better.
 - Yes. It's hard for a board member to assess Tim's relations with staff, but there are no apparent problems.
 - As for overall effectiveness, we need to take a closer look at it. It's hard for the board to judge without looking into it; the board hasn't considered it thoughtfully.

3. *Are the TCL&P administrators, the ED and the Board working together effectively?*
 - Yes. (2)
 - Yes, yes and yes.
 - Yes, this Board works well together and with the ED.
 - Yes. The administrators do a good job providing and presenting information, and it's good that they get to have this experience.
 - Yes. The board doesn't interact with administrators, but they attend meetings and seem to be well prepared.
 - Tim's interaction with the Board is top-notch, one of his strongest characteristics. The union unit is having some problems but it's not the result of HR issues. This challenge was handled well and Tim showed good leadership.

4. *Are the annual budget and financial reporting processes working well?*
 - Yes. (3)
 - Yes; Tim and Karla get information to the Board when they need it, with time to study and consider it.
 - Yes - the reports are helpful.
 - Yes: I like the amount and timeliness of information the Board gets.

- As a whole, yes. In the middle of a CIP discussion there was some confusion.
5. *Last year some Board members said staff reports and contractor presentations were unnecessarily long. Has this improved? Are you getting the information you need to make informed decisions, or are you getting lengthy brain-dumps?*
- No lengthy brain dumps! Getting the information I need. Tim is thoughtful and considerate with agendas so they're well balanced and not too long.
 - I'm satisfied, and if I need more, I ask for it.
 - It's working perfectly now.
 - We occasionally get a brain dump. Presentations should be a maximum of 15 minutes long, with supporting documents.
 - Staff presentations are always good and staff is respectful of our time; contractor presentations are a mixed bag. A half hour is long enough.
 - It has improved, and I'm getting the information I need.
 - It's improved; staff reports are shorter.
6. *The ED has hired new staff, including a certified operations manager. Have these changes made a positive difference in the organization's ability to implement the strategic plan?*
- Too soon to tell. (3)
 - Seems to be on track.
 - The whole staff seems to work very hard, and it's good to develop deeper back-up. Sometimes a quality product requires more people.
 - The new hire is working out fine.
 - The new guy has jumped right in.
 - Yes; I'm pleased with the addition.
7. *Over the last year, what has been your sense of the public's perceptions of TCL&P? Good? Bad? Indifferent?*
- Good.
 - Public perception remains good, not indifferent – people appreciate TCL&P.
 - Public perceptions vary with the issue. The Wayne Street situation and result is an example of good perceptions, and it's much better than in previous years.
 - Although the newspaper's stories about TCL&P are negative, people seem to say we're OK.
 - Although I have no basis for determining the public's perception, there is good objective reporting in the Record-Eagle, and few complaints at our meetings which is a good indication.
 - Tends toward indifference except before, during and after storms. I've heard griping about the Christmas lights downtown.
 - In most areas it seems good. There is occasional pressure from solar proponents but it doesn't make business sense at this point. We have some wind contracts but more wouldn't make sense without a subsidy.
8. *Is there anything that the ED could do to help you be a better Board member?*
- No. (2)
 - No; I get the information I need. Tim's honesty is a strength.
 - Cherryland's local conference was helpful.
 - It varies with the board member; I could dig deeper and the information is available to do so.
 - The orientation and manual are helpful, and the ED is open to questions.
 - To help us know TCL&P better, staff could occasionally give us "fun facts" about the organization.
9. *What is your overall assessment of the performance of the ED this past year? We've tried assigning a letter grade to it, but few were happy with that. The ED's 2015 Employment Agreement says, in ¶4, "If the annual review by the Board shows satisfactory performance by the ED, there shall be a 3% increase in pay as of this Agreement's first anniversary [June 9, 2016]. . ." In your opinion, has the ED's performance been satisfactory?*

- Satisfactory. (Very) (2)
- Yes (4)
- Yes. Tim has some great strengths, e.g. encourages staff, managed well through the storm, and he's very accountable.
- Continuous improvement is always possible, and self-evaluation is valuable. The success of TCL&P depends on the ED, who could share his professional judgment and opinions about the matters we consider. He could be another voice in the discussion, based on his assessment of the facts.

10. *Is there anything else you'd like to tell me about the performance of the Executive Director, the organization, or your experience on the Board?*

- Not much has changed although Tim was out for a while for health reasons. He's hired well and things are under control. Things have been great this past year, going well.
- Going forward, ED will need to be very conscious about relationships with City Commissioners; make it a focus. The formal structure adds a built-in tension between TCL&P's primary purpose and being a source of cash for the City.
- I've enjoyed being on the Board, and with more experience on the Board comes greater confidence.
- Occasionally Tim's emotions get in his way. Dealing with people is hard, and being combative isn't his nature. He should focus on not getting caught up in the politics of the City and keep his eye on the big picture. But I want to make it clear that he's doing a good job.
- Tim has occasionally exhibited a short temper this year, which seems unprofessional.
- We're a City Board/Department; the downtown lights, fiber service and Garland Street projects are all appropriate.
- This has been a trying year for Tim who has worked very hard to be successful and effective. He doesn't shy away from difficult challenges, and this year there were plenty. Although board members are aware of the situation, dealing with employees' concerns about his absences could have been handled differently.
- The organization may be at a decision point about TCL&P's role in the future. Change is happening everywhere and we may need to go beyond "safe, reliable, low cost energy." Do we follow change or should we be out front? Do we want to be reactive or pro-active with "dark fiber"?
- It's been an interesting experience figuring out how board members think and work together.

APPENDIX B

TRAVERSE CITY LIGHT and POWER
EXECUTIVE DIRECTOR
AGREEMENT - 2015

THIS AGREEMENT made this 9th day of June, 2015, by and between the TRAVERSE CITY LIGHT and POWER DEPARTMENT, a Michigan municipal electric utility, 1131 Hastings Street, Traverse City, Michigan 49686, (the Board) and TIMOTHY J. ARENDS, of 10176 Elk Lake Trail, Williamsburg, Michigan 49690, (the Executive Director) it supersedes and replaces all previous agreements between the parties;

WITNESSETH:

WHEREAS, the Board wishes to retain the services of Timothy J. Arends as Executive Director; and

WHEREAS, Timothy J. Arends wishes to be employed by the Board in the capacity of Executive Director; and

WHEREAS, it is to the advantage of both the employer and the employee to specify the conditions under which the employee is to work and to be compensated;

NOW, THEREFORE, it is mutually agreed by the parties as follows:

1. Employment. The Board hereby employs Timothy J. Arends as the Executive Director, and Timothy J. Arends hereby accepts such employment upon the terms and conditions hereinafter set forth. This Agreement supersedes all previous employment agreements between the parties.

2. Applicable Laws. This Agreement is subject to all applicable laws and administrative rules bearing upon the parties and the subject matter of this Agreement as such law may be in effect from time to time, including without limitation, the Charter of the City of Traverse City, and such law is incorporated herein by reference. In the event of conflict between the provisions of this Agreement and such applicable law, such applicable law shall control.

3. Term. This Agreement shall commence on June 9, 2015, and shall continue thereafter until termination, amendment or renegotiation. The parties intend to renegotiate the terms hereof to be effective with the anniversary of this Agreement.

4. Compensation. For all services rendered by the Executive Director under this Agreement, the Board shall pay the Executive Director an annual salary of ONE HUNDRED EIGHTEEN THOUSAND FIVE HUNDRED DOLLARS (\$118,500) effective the first day of the term, to be paid in the same manner and intervals as regular full-time management employees effective as of the commencement date of this Agreement. If the annual review by the Board shows satisfactory performance by the Executive Director, there shall be a 3% increase in pay as of this

Agreement's first anniversary (2016), second anniversary (2017), and third anniversary (2018). Additional annual increases may be given in the Board's discretion based on performance reviews, market salary levels or other utility conditions.

5. Termination. Either party has the right to terminate the employment relationship at any time and in the sole discretion of the party terminating the relationship, upon sixty (60) days advance notice or the equivalent of sixty (60) calendar days pay or a portion thereof, where no notice or less than sixty (60) days notice is given. However, in the event the Executive Director is terminated because of conviction of a felony or any illegal act involving personal gain, the Board shall have no obligation to give advance notice or the alternative severance pay.

6. Duties. In addition to the duties enumerated in the City Charter, the Executive Director shall be the Chief Administrative Officer for the Department and the Board. The Executive Director shall direct all employees of the Department and such others as the Board shall direct. The attached description of the Executive Director's responsibilities, attached hereto as Attachment A, is the present determination and may be relied upon by the Executive Director. However, the Board may from time to time, by resolution, alter this description of the Executive Director's responsibilities, provided that such alterations shall not be effective until a copy of such resolution shall be delivered to the Executive Director.

7. Extent of Services. The Executive Director shall devote his professional time, attention and energies to the business of the Traverse City Light and Power Department. In order to discharge the functions of the office of Executive Director, early morning, luncheon and night-time meetings and activities may occur outside regular office hours that require the Executive Director's attendance.

8. Conventions and Seminars. With the prior approval of the Chairperson of the Board, the Executive Director may attend seminars and conventions relating to utility management for technology and other matters involved in the discharging of the responsibilities of the office of Executive Director. The Department shall pay for or reimburse the Executive Director for expenses in connection with such seminars and conventions as per Board policy up to the amount authorized in the budget. Days used in attending seminars and conventions shall be regarded as days worked.

9. Vacations. The Executive Director shall be entitled to vacation time which shall accrue on the basis of 25 days per year of employment. It may be used during the term of this Agreement. During such vacation time, compensation will be paid in full. Accrued vacation time may be accrued up to a maximum of 200 hours in the same manner as Department ACT employees.

10. Civic Organizations and Responsibilities. The Board encourages membership of the Executive Director in local civic organizations and in executing civic responsibilities. The Board agrees to reimburse the Executive Director for dues and reasonable expenses incurred in membership in one local recognized civic organization involved in public service. In addition, the Executive Director shall have the discretion to expend an amount not to exceed Five Hundred dollars (\$500) per year to participate in, or attend, those civic events or functions which appropriately assist him in meeting these civic responsibilities.

11. Other Benefits. Except as modified herein, the Executive Director shall enjoy all such other fringe benefits afforded to Department ACT employees as of the effective date of this Agreement, including, but not limited to, retirement, deferred compensation plan and short and long term disability coverage.

12. Assignment. This Agreement is not assignable by either party hereto.

13. Waiver of Breach. A waiver by the Board of a breach by the Executive Director of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by the Executive Director.

14. Non-Discrimination. The Executive Director agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, or a matter directly or indirectly related to employment because of their actual or perceived race, color, religion, national origin, age, sex, height, weight, marital status, physical or mental disability, family status, sexual orientation, or gender identity. Breach of this covenant may be regarded as a material breach of this Agreement.

15. Car Allowance. In addition to other compensation, the Executive Director shall receive THREE HUNDRED FIFTY DOLLARS (\$350) per calendar month as car allowance. Mileage reimbursement shall also be paid for travel in accordance with the Board's Use of Personal Vehicle for L&P Business Policy. The Executive Director shall at all times maintain insurance covering property damage and public liability for such motor vehicle in the combined single limit of \$500,000.

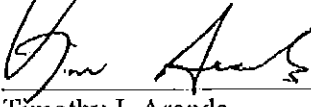
IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

TRAVERSE CITY LIGHT and POWER BOARD



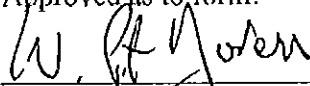
John Taylor, Chairperson

EXECUTIVE DIRECTOR



Timothy J. Arends

Approved as to form:



W. Peter Doren, General Counsel

ATTACHMENT A

TRAVERSE CITY LIGHT AND POWER JOB DESCRIPTION

TITLE: EXECUTIVE DIRECTOR

The City Charter mandates basic duties of the Executive Director. Many of these are contained in Charter Sections 178 and 179.

General Summary:

Provide leadership for Light and Power Department that assures: the highest level of satisfaction and competitive rates for customers, a safe productive and motivated staff, the short-term and long-term strategic direction, a positive and cooperative relationship with all Light and Power stakeholders, and sound management of both human and fiscal resources.

Typical Duties:

1. Create an organizational climate that enables the Utility staff to be productive, motivated, and to work safely and cooperatively.
2. Assist the Board in carrying out its duties to establish policies that lead to excellence in: customer service, operational efficiency, and employee relations. After those policies are established, make sure they are implemented fairly and consistently in the Utility.
3. Develop, implement and maintain Department goals, objectives, policies and priorities; ensure that established goals and priorities are achieved.
4. Prepare and present issues for Board consideration and action, including assistance with agenda preparation and keeping accurate record of Board proceedings.
5. Assure that the Utility's generation, transmission and distribution systems are operationally efficient, reliable and safe. Further, the Utility's purchased power must be reliable, competitively priced, and adequate to meet the future needs of all customers.
6. Demonstrate sound fiscal management including: budgeting, accounting, and real estate and personal property assets.
7. Represent the Utility with all external agencies and regulatory bodies (i.e. Michigan Public Power Agency, Michigan Municipal Electric Association, American Public Power

Association, Michigan Public Service Commission, OSHA, Environmental Protection Agency, Department of Natural Resources, etc.)

8. Complete, with assistance from Light and Power Human Resources, the hiring, training, promotion and termination of Utility staff. Be directly responsible for the performance management and professional development of all directly reporting staff. The Executive Director may appoint or remove a Controller only with a concurring vote of five members of the Board.
9. Contract with, supervise, and coordinate the activities of all external service providers to the Utility (i.e. legal, construction, professional services, etc.)
10. Work cooperatively within the city government framework, especially where other City Departments provide service to the Utility and where the Utility provides services to the City.
11. Regularly and frequently collaborate with and exchange information with the City Manager. This collaboration shall include, but not be limited to, the following:
 - a. The City Manager should be given an opportunity to participate in labor and administrative negotiations.
 - b. The City Manager (or designee) should be encouraged to attend all TCL&P staff meetings and the Director (or designee) is encouraged to attend all City staff meetings.
 - c. The City Manager should be considered the acting TCL&P Director in the event the Director is absent for extended periods.
12. Assure that the activities provided on a contractual basis to other agencies are carried out effectively and efficiently.
13. Act as the chief spokesperson for the Utility with media, customers, city government and other critical stakeholders.
14. Plan for and implement a personal plan for professional development, in conjunction with Board feedback, to assure preparedness for leading the Utility into the future with innovation and creativity.
15. Create and change, as needed, the organizational structure, reporting relationships, and job roles to achieve both staff job satisfaction and organizational effectiveness and efficiency.
16. Perform other duties as may be assigned by the Light and Power Board.

2015

Survey of

Salaries

in Local Publicly Owned
Electric Utilities



2451 Crystal Drive
Arlington, VA 22202
202/467-2900

www.publicpower.org

I. Overview of Survey Respondents

Tables 1A and 1B provide background data on the size of the respondents in each of the classes used. This can be useful to further describe the utilities in a selected class. For example, when making comparisons for a utility in the \$25 to \$50 million class, it shows that for the 54 utilities in that group, the average revenue is \$35.7 million and the average number of customers is 14,226.

Table 1A: Revenue and Customers, by Revenue Class, May 2015

Revenue Class (in millions)	Number of Responses	Average Revenue (in thousands)	Average Number of Customers
Less than \$3	64	1,514	904
\$3 to \$6	46	4,099	1,906
\$6 to \$10	48	8,071	3,904
\$10 to \$15	34	12,749	5,740
\$15 to \$25	28	20,462	7,923
\$25 to \$50	54	35,726	14,226
\$50 to \$100	32	68,909	25,752
\$100 or more	33	388,361	152,068

Table 1B: Revenue and Customers, by Customer Size Class, May 2015

Customers	Number of Responses	Average Revenue (in thousands)	Average Number of Customers
Less than 1,000	41	1,221	602
1,000 to 2,000	51	3,121	1,458
2,000 to 4,000	49	6,947	2,965
4,000 to 10,000	88	17,031	6,338
10,000 to 20,000	45	39,230	14,563
20,000 to 40,000	34	66,206	27,912
40,000 to 100,000	19	171,609	63,112
100,000 or more	12	775,346	312,910

Table 1C provides data on which other utility operations the GM is responsible for. Of the 339 utilities included in this report, 259 are headed by a General Manager, and of these 22 percent (75) provide electric service only. The services provided in addition to electricity are shown in the table below.

Table 1C: Electric Utilities Providing Additional Services, May 2015

Services	Number of Respondents	Percent of Respondents
Water	150	58%
Sewer	79	31%
Wastewater	60	23%
Telecom	52	20%
Gas	51	20%
Cable TV	25	10%
Other	21	8%

II. National Salary Summaries

Table 2A is a national summary of all occupations surveyed based on annual salary. Table 2B summarizes hourly pay occupations.

Table 2A: Annual Salaries, by Occupation Publicly Owned Utilities (Excluding Joint Action Agencies), May 2015					
	Number of Responses	Mean	First Quartile	Median	Third Quartile
General Manager	259	146,186	92,000	131,123	169,452
Assistant General Manager	88	123,007	84,935	110,576	152,952
Chief Engineer	83	122,937	101,018	119,351	140,298
Director of Power Supply Planning	47	142,717	117,991	138,996	161,289
Steam Plant Superintendent*	45	100,405	71,635	100,762	125,242
Supervisory Engineer**	127	98,263	70,221	91,138	110,879
Line Division Superintendent***	207	88,420	69,162	87,579	101,734
Construction Superintendent	101	91,550	75,154	83,707	97,400
Chief Financial Manager	192	106,132	73,921	96,575	125,738
Chief Accountant	90	98,130	67,902	87,456	108,604
Rate Analyst	29	90,779	82,095	87,800	99,960
Personnel Director	85	105,244	78,000	94,670	122,780
Director of Customer Services	116	92,457	65,271	80,025	111,910
Information Systems Manager	99	105,704	82,700	98,809	124,212
Communications Director	51	94,739	67,508	89,683	118,602
Staff Legal Counsel	33	136,973	112,174	133,045	154,213
Fuels Manager	13	126,471	88,240	126,901	150,000
Purchasing Director	81	85,247	64,902	83,000	96,600
Marketing Director	29	109,162	85,200	101,756	128,246
Key Accounts Manager	50	85,996	67,900	85,195	101,276
Safety Specialist	50	72,859	62,254	74,878	80,900
Electric Engineer	73	82,963	70,140	81,994	95,306
Risk Manager	23	97,273	85,222	94,891	112,253
Leg. & Gov. Affairs Manager	16	111,102	87,662	118,560	133,343
Information Technology Analyst	69	69,082	57,283	66,188	80,665
Cyber Security Officer	24	86,791	70,867	86,271	103,855
Physical Security Officer	11	65,135	39,967	66,391	87,881
Telecom/Broadband Manager	35	103,234	82,740	100,359	123,554
Energy Services Director	32	102,781	74,415	97,150	125,334
*Production Superintendent salaries for utilities with \$15 million or less in electric revenues are included in this occupational classification					
**Operations Superintendent salaries for utilities with \$15 million or less in electric revenues are included in this occupational classification					
***Line Superintendent salaries for utilities with \$15 million or less in electric revenues are included in this occupational classification					

General Managers only are reported by revenue class in table 2C and by customers served in table 2D. Please note that for General Managers we now ask for total compensation, including bonuses and other forms of compensation (excluding vehicle allowances).

Table 2C: General Manager Annual Compensation, by Revenue Class Publicly Owned Electric Utilities (Excluding Joint Action Agencies), May 2015					
Revenue Class (in millions)	Number of Responses	Mean	First Quartile	Median	Third Quartile
Less than \$3	27	65,883	54,624	66,539	78,416
\$3 to \$6	25	95,786	69,000	81,702	100,000
\$6 to \$10	32	107,939	89,388	105,105	125,871
\$10 to \$15	29	115,889	96,000	112,000	140,000
\$15 to \$25	28	128,886	105,823	117,067	153,450
\$25 to \$50	54	153,399	132,558	148,088	172,621
\$50 to \$100	31	174,655	152,517	177,477	189,573
\$100 or more	33	289,912	177,150	225,000	325,000

Table 2D: General Manager Annual Compensation by Customer Size Class Publicly Owned Utilities (Excluding Joint Action Agencies), May 2015					
Customers	Number of Responses	Mean	First Quartile	Median	Third Quartile
Less than 1,000	15	55,479	51,990	57,200	66,419
1,000 to 2,000	25	90,337	60,953	78,000	90,000
2,000 to 4,000	33	99,404	81,702	92,000	114,000
4,000 to 10,000	77	121,339	102,485	117,000	140,000
10,000 to 20,000	45	161,738	140,000	153,396	180,000
20,000 to 40,000	33	176,026	155,023	180,001	206,500
40,000 to 100,000	19	208,558	168,500	195,000	223,706
100,000 or more	12	424,860	321,386	391,917	439,639

**Table 3E: Annual Salaries by Revenue Class
Publicly Owned Utilities (Excluding Joint Action Agencies), May 2015**

3E: Revenue Class : \$15 - \$25 Million

Occupation	Number of Responses	Mean	First Quartile	Median	Third Quartile
General Manager	28	128,886	105,823	117,067	153,450
Assistant General Manager	9	95,139	79,310	103,376	123,900
Chief Engineer	7	94,352	73,569	77,100	104,579
Director of Power Supply Planning	5	115,694	b	117,982	b
Line Division Superintendent	23	87,821	75,338	86,600	91,671
Construction Superintendent	16	110,413	b	72,753	b
Chief Financial Manager	15	99,992	79,056	91,766	120,930
Chief Accountant	11	67,595	57,327	63,773	75,345
Personnel Director	8	73,679	b	69,935	b
Director of Customer Services	9	69,160	51,712	62,837	71,906
Information Systems Manager	10	82,952	68,274	81,170	92,613
Purchasing Director	9	57,774	51,154	55,307	60,600
Information Technology Analyst	6	55,021	b	55,160	b

Note b: Quartiles are not calculated for fewer than 9 responses.

**Table 3F: Annual Salaries by Revenue Class
Publicly Owned Utilities (Excluding Joint Action Agencies), May 2015**

3F: Revenue Class : \$25 - \$50 Million

Occupation	Number of Responses	Mean	First Quartile	Median	Third Quartile
General Manager	54	153,399	132,558	148,088	172,621
Assistant General Manager	19	121,667	100,128	116,334	148,723
Chief Engineer	25	115,140	100,164	116,490	129,084
Director of Power Supply Planning	10	130,322	110,185	140,382	148,451
Steam Plant Superintendent	12	106,879	95,931	103,754	114,294
Supervisory Engineer	23	97,735	90,422	101,920	112,638
Line Division Superintendent	46	96,691	86,786	93,930	103,865
Construction Superintendent	37	78,220	67,330	80,664	89,807
Chief Financial Manager	47	109,428	90,237	108,249	126,500
Chief Accountant	27	77,109	63,429	71,601	88,909
Rate Analyst	5	102,894	b	98,997	b
Personnel Director	29	87,926	69,430	85,010	93,350
Director of Customer Services	31	86,903	70,070	77,604	95,246
Information Systems Manager	35	92,853	75,801	84,474	113,325
Communications Director	12	78,023	60,430	80,916	90,617
Staff Legal Counsel	5	127,473	b	132,766	b
Purchasing Director	26	73,482	65,328	72,642	83,791
Marketing Director	5	100,453	b	87,838	b
Key Accounts Manager	11	76,776	61,726	77,991	86,580
Safety Specialist	13	72,262	66,442	74,755	80,205
Electric Engineer	21	79,301	70,137	72,877	91,925
Information Technology Analyst	15	66,529	57,772	63,471	75,538
Telecom/Broadband Manager	11	96,227	77,948	93,226	112,891
Energy Services Director	8	89,012	b	73,032	b

Note b: Quartiles are not calculated for fewer than 9 responses.

**Table 4E: Annual Salaries by Customer Size Class
Publicly Owned Utilities (Excluding Joint Action Agencies), May 2015**


4E: Customer Size Class : 10,000 to 20,000

Occupation	Number of Responses	Mean	First Quartile	Median	Third Quartile
General Manager	45	161,738	140,000	153,396	180,000
Assistant General Manager	13	118,734	102,431	127,317	144,000
Chief Engineer	23	114,473	100,664	116,490	124,900
Director of Power Supply Planning	11	124,701	110,993	125,900	142,683
Steam Plant Superintendent	8	102,616	b	103,754	b
Supervisory Engineer	20	96,797	90,611	101,275	111,573
Line Division Superintendent	38	97,285	89,305	93,950	103,865
Construction Superintendent	29	78,830	70,304	83,158	90,453
Chief Financial Manager	35	113,949	95,940	111,821	125,063
Chief Accountant	23	75,572	63,429	73,790	79,508
Personnel Director	23	82,468	68,999	82,139	89,471
Director of Customer Services	25	87,625	70,400	83,864	97,427
Information Systems Manager	30	90,507	76,532	84,808	97,119
Communications Director	8	64,208	b	65,146	b
Purchasing Director	22	71,967	65,328	71,676	81,308
Marketing Director	7	99,000	b	85,200	b
Key Accounts Manager	11	71,161	54,413	66,627	81,496
Telecom/Broadband Manager	12	107,523	91,692	112,891	121,485
Safety Specialist	10	74,645	66,695	78,430	86,660
Electric Engineer	14	79,294	68,535	75,637	91,023
Information Technology Analyst	15	66,029	58,718	61,805	75,094

Note b: Quartiles are not calculated for fewer than 9 responses.



TRAVERSE CITY
LIGHT & POWER

To: Light & Power Board
From: Timothy Arends, Executive Director 
Date: May 4, 2016
Subject: Employee & Employer Share of Health Premiums

Before you is a request to change the employee and employer cost share for TCL&P's health insurance premiums for both management and union employees. TCL&P uses a cost cap method that currently has the employee share at 31% for double/family coverage and 25% for single coverage.

The City of Traverse City prior to the 2012-13 health plan year, used the cost cap method. However, in 2011, Public Act 152 took affect which placed a limit on what employers could contribute towards health insurance, giving public employers three options:

1. Apply "hard caps", which places a fixed dollar "cap" on the amount an employer would be required to pay. These amounts would be adjusted annually. (No action required);
2. Annually adopt a resolution establishing that the public employer would pay no more than 80% of the cost of the medical insurance plan(s) being offered. (4 affirmative votes required);
3. Annually adopt a resolution opting-out of both the "hard cap" and 80/20 option indicated above, allowing the employer to pay up to 100% of the costs. (5 affirmative votes required).

In December 2011, the City Commission took action and adopted the 80/20 cost share option, and has subsequently adopted an annual resolution continuing this cost share method. TCL&P has been operating under the "hard cap" option.

Staff is proposing the TCL&P Board adopt the attached resolution approving the 80/20 cost share method for both union and non-union employees. This change will result in an increase to the 2016-17 budget of approximately \$16,750.

In addition, I have included a spreadsheet that highlights the **employee** share of health premiums for other utilities in Michigan. As you may recall, one of the Board's past strategic goals focused on recruitment and retention. In order to be effective in this area, the utility should be competitive with the benefits it offers.

(RECOMMENDED MOTIONS ON NEXT PAGE)

FOR THE LIGHT & POWER BOARD MEETING OF MAY 10, 2016

If after Board discussion you agree with staff's recommendation, staff recommends that the following motion be adopted:

MOVED BY _____, SECONDED BY _____,

THAT THE RESOLUTION TO ADOPT THE 80/20 COST SHARING MODEL TO COMPLY WITH THE REQUIREMENTS OF PUBLIC ACT 152 OF 2011 BE APPROVED.

TRAVERSE CITY LIGHT AND POWER DEPARTMENT
RESOLUTION
TO COMPLY WITH THE REQUIREMENTS OF
PUBLIC ACT NO. 152 OF 2011

WHEREAS, Public Act 152 of 2011, was passed by the State Legislature and signed by the Governor to limit a public employer's expenditure for employee medical benefits; and

WHEREAS, the Traverse City Light and Power (TCL&P) Board believes that compensation determinations for TCL&P employees are most properly the responsibility of the TCL&P Board and not the State of Michigan or its officials; and

WHEREAS, the Act provides for three options for complying with the requirements:

1. Apply the "hard caps", which places a fixed dollar "cap" on the amount an employer would be required to pay;
2. Adopt by majority vote the 80%/20% cost-sharing (a public employer shall not pay more than 80% of the total cost of the medical insurance plan(s) being offered);
3. Opt-out by a 2/3 vote of the cost sharing model as set forth in the Act and revisit prior to the next plan year; and

WHEREAS, the TCL&P Board has decided to adopt the 80/20 cost sharing model as its choice in order to comply with the Act for TCL&P and shall apply the 80/20 cost sharing to each employee group (union and non-union) at TCL&P; and

WHEREAS, this Resolution applies to the medical benefit plan coverage years beginning on or after July 1, 2016, and continues until changed by future Resolution or change in State Legislation;

WHEREAS, TCL&P is required to adopt an annual Resolution stating its medical benefit plan in connection with Public Act 152 of 2011;

NOW, THEREFORE BE IT RESOLVED that the TCL&P Board elects to comply with the requirements of the ACT by adopting the 80/20 cost sharing model set forth in Section 4 of Public Act 152 of 2011.

I hereby certify that the above Resolution was adopted on _____, 2016, at the regular TCL&P Board meeting held in the Commission Chambers, Governmental Center, 400 Boardman Avenue, Traverse City, Michigan.

Timothy J. Arends
Secretary
Traverse City Light & Power Board

**Wage & Benefit Data
2015-2016**

Utility	Meters	# of Employees	Generation	Crew Leader/LIneman	Journeyman Lineman	Entry Level Apprentice Lineman	Health - Employee's Monthly Share (Single, Double, Family)	Dental - Employee Share	Vision - Employee Share	DB Pen
Cherryland Electric	34,000	52	Not indicated	\$ 35.54	\$ 34.54	\$ 23.83	15%, 15%, 15%	\$4.21/Family	100%	DB 1.4%, base
Holland	28,532	82	70,896 MWh	\$ 38.47	\$ 34.24	\$ 22.31	20%, 20%, 20%	20%, 20%, 20%	Not offered	No
Bay City	20,056	43	1,562 MWh	\$ 34.26	\$ 32.33	\$ 19.25	20%, 20%, 20%	0%	100%	DB
Marquette	16,515	81	279,107 MWh	\$ 34.53	\$ 33.86	\$ 22.09	11%, 9%, 8%	0%	0%	DB Closed / New Hybrid
Grand Haven	13,716	70	123,831 MWh	\$ 38.17	\$ 35.13	\$ 26.24	11%, 11%, 11%	15%, 15%, 15%	Not offered	DB 2.25%
Traverse City	12,500	39	0	\$ 35.03	\$ 32.68	\$ 21.54	25%, 31%, 31%	0%	0%	DB 2.25% / New 1.5%, base wag
Wyandotte	12,400	78	56,639 MWh	Not indicated	Not indicated	Not indicated	20%, 20%, 20%	Not indicated	Not indicated	No
EsCANaba	7442	13	6,135 MWh	Not indicated	\$ 30.63	\$ 25.43	20%, 20%, 20%	20%, 20%, 20%	20%, 20%, 20%	No
Coldwater	6982	20	155 MWh	\$ 34.64	\$ 33.52	\$ 21.36	0%	0%	Not Offered	DB 2.25% / New
Niles	6968	15	0	\$ 29.65	\$ 28.65	\$ 20.63	0%	0%	0%	No
Zeeland	6171	24	1,026 MWh	\$ 38.00	\$ 34.38	\$ 24.61	20%, 20%, 20%	0%	Not offered	No
Hillsdale	6073	13	0	\$ 29.88	\$ 27.51	\$ 21.83	20%, 20%, 20%	20%, 20%, 20%	20%, 20%, 20%	DB 2.25%
Marshall	4726	22	617 MWh	\$ 36.28	\$ 34.21	\$ 21.07	10%, 10%, 10%	0%	0%	DB 2.5% / New
Dowagiac	3033	10	0	\$ 28.28	Not indicated	\$ 20.36	0%	0%	0%	DB 2.5%
Gladstone	2839	7	0	\$ 27.76	\$ 26.01	\$ 22.11	0%, 0%, 7%	0%	0%	No
Eaton Rapids	2776	5	0	Not indicated	\$ 26.63	\$ 15.98	10%, 10%, 10%	0%	0%	DB 2.5% / New
Lowell	2693	17	0	\$ 34.01	\$ 29.24	Not indicated	10%, 10%, 10%	10%, 10%, 10%	Not offered	DB 2.5% / New
Norway	2101	6	24,693 MWh	\$ 31.21	\$ 29.54	\$ 23.63	15%, 15%, 15%	0%	0%	DB 2.5%
Paw Paw	1540	3	0	\$ 28.68	\$ 27.93	\$ 18.89	8%, 8%, 8%	8%, 8%, 8%	8%, 8%, 8%	DB 2.5%
Clinton	1402	3	0	Not indicated	\$ 28.81	Not indicated	3%, 3%, 3%	0%	0%	DB 2.5%
Hart	1329	5	0	\$ 35.13	\$ 32.67	\$ 26.71	20%, 20%, 20%	20%, 20%, 20%	20%, 20%, 20%	No
Croswell	1222	6	0	\$ 26.44	\$ 23.43	\$ 21.03	0%	0%	0%	DB 2.5%
Sebewaing	1128	10	0	\$ 28.33	\$ 27.33	\$ 19.13	9%, 9%, 9%	9%, 9%, 9%	9%, 9%, 9%	DB 2.5%

SOURCES:

MMEA 2015 Contract Wage & Benefit Survey
 APPA Public Power 2015-16 Directory & Statistical Report
 TCU & ACT 2015 Summary Report

FY 2016 Health Insurance Premiums/Caps

1-Jul-16

Priority Health HMO - High Deductible Health Plan (HDHP) w/ a Health Savings Account (HSA)

Deductible \$1300 single; \$2600 double/family

CONTRACTS	TYPE	Insurance		CAP	TOTAL CITY SHARE	HSA City Share	Hlth Prem City Share	EMPLOYEE SHARE
		Rate includes Fees	Total Hlth Cost (Rate + Deductible)					
L&P Admin, L&P BU	Single	426.05	534.38	266.00	400.19	108.33	291.86	\$134.19
	Double	1,029.21	1,245.88	470.00	857.94	216.67	641.27	\$387.94
	Family	1,136.66	1,353.33	496.00	924.66	216.67	707.99	\$428.66
ACT, Fire	Single	426.05	534.38		427.51	108.33	319.18	\$106.88
GME-CT, GME,	Double	1,029.21	1,245.88		996.70	216.67	780.03	\$249.18
Sergeants, Captains, Patrol - 80/20	Family	1,136.66	1,353.33		1,082.66	216.67	865.99	\$270.67



**TRAVERSE CITY
LIGHT & POWER**

To: Light and Power Board
From: Scott Menhart, Manager of Telecom & Technology
Date: May 3, 2016
Subject: Advanced Metering Infrastructure (AMI) Study Session Follow-Up and Next Steps

Study Session Follow-Up

In December of 2015, TCL&P held a study session that involved an advanced metering infrastructure (AMI) presentation to the Board by TCL&P Staff and General Electric (GE). During the study session, the Board asked questions throughout the presentation, and while many of those questions were addressed during the meeting itself, due to the scale of the project, Staff wanted to document them all and provide answers in written format to the Board to quickly summarize the meeting. These questions, along with their respected answers, are in the packet for your review. In addition, any unanswered questions during the study session were also addressed in the document as well.

AMI Next Steps

Once the Board has a chance to review and analyze the results from the study session contained within the packet, Staff wanted to allow the Board another opportunity for additional input or questions that may arise before requesting any action to be taken. This will give the Board ample time in-between TCL&P Staff presentations and decision making to allow for proper breakdown of the information provided. As a result, Staff will follow the same procedure tonight that was done with the study session. Any additional questions or comments that the Board may have tonight will be documented and presented, along with answers, at a future board meeting. However, during this next presentation, Staff will also bring a project authorization request to the Board for approval.

CITY OF TRAVERSE CITY LIGHT & POWER BOARD – STUDY SESSION- DECEMBER 15, 2015

AMI PRESENTATION

BOARD MEMBER QUESTIONS

- 1. John Taylor - What are the implications for an average C&I customer when we're guessing today vs. having accurate data on peak demand. Is Commercial overpaying or underpaying on peak demand when we are guessing.**

- a. With advanced metering, meter data is provided to TCL&P in programmable intervals (30 minute, 15 minute, 5 minute, etc.) containing a variety of metrology data. During times of peak demand, when the transmission grid may be congested and the power plants may be generating at peak capacity, the rates for C&I customers can be much higher than during off-peak times. These peak pricing plans can be structured to cover the additional costs associated with backup generation and/or incentivize customers to modify behavior and 'flatten their load profile'. With more accurate data, the historical usage information can help customers understand their usage patterns and adjust accordingly.

- 2. John Taylor – With respect to transformers, how do we know when one is overloaded or under loaded? Are we blind out there or are we basing the answer strictly on customer calls?**

- a. Transformer loading programs are an important side benefit of advanced metering. When the customer to transformer relationship is modeled in a GIS or MDMS, historical usage information can be modelled against transformer loading parameters. Using these findings, TCL&P can make more informed decisions on when to replace assets and size the replacement assets based on actual historical usage data. This strategy improves reliability of the system and reduces equipment costs by not 'overbuilding'.

To add, during initial build, we do engineering calculations to base transformer sizing. However, once the transformer is in place, we then change our operating model to a reactive model as we no longer have any supporting or customer data to determine if resizing a transformer is needed. As customers electric demands change, we are not aware of these changes unless customers call us in advance when adding something that would put additional load on our system (which rarely happens). Therefore, in a sense, we do operate blind and solely rely on customer calls for power quality after the initial installation. With AMI, we are able to monitor the customer power quality and load on demand. We will get alerts when anything is outside of the engineering calculations that we define. This will happen well before the customer is aware and will ultimately shift our operating model to a proactive model, giving far better customer reliability than what we have ever had.

- 3. Pat McGuire or Marty Colburn – What is the benefit of renewables going in?**

- a. While there is no exact defined benefits of renewables going into the project, having the ability to analyze electric data in a more reliable and consistent manner would help

future planning of renewable projects. Today we read the meters once a month, often at variable times of the day. AMI would give us consistent reads every 5 minutes if desired, which would help to determine impact of renewable projects.

4. Marty Colburn – Why do utilities wait three to five years to do voltage optimization?

- a. Voltage optimization is typically done after all the entire AMI deployment is complete. In many cases, AMI projects require multiple years to deploy due to the complexity of the software integration, the engineering of the network, the installation of the field assets, and fine-tuning of the system. Another reason for the delay is related to the network design itself and how CVR is implemented. ‘Bellwether’ meters are used for CVR and these meters are located in strategic locations across the system. One of the most important meter locations is the ‘end-of-line’ meter. In a mesh network design, the full installation of the network and meter population is required in order to receive data from these meters. As a result, CVR is usually not achievable until the system is fully deployed. However, once a feeder has been populated with bellwether meters, a CVR analysis can be performed.

5. John Taylor – So, there is no additional infrastructure cost?

- a. TCL&P is looking to deploy the AMI network along with meter data management that is used to analyze the amount of data generated on a weekly basis. At this time, there would be no further infrastructure costs with a full deployment. If TCL&P would like to expand into other areas of an advanced grid, such as distribution automation projects, TCL&P would procure devices that fit into the already deployed network. Therefore, AMI could give TCL&P potential future benefits above what is defined in this document.

There are also different ways to deploy the technology, such as a hosted deployment vs an on-site deployment. This means that our server infrastructure is located at another facility or we would keep it at TCL&P. There are pros and cons of doing either, but the overall cost would remain relatively the same.

6. Tim Arends- Are all these meters going to be matched to the transformers upon the install or is that internally built?

- a. The new AMI electric meters will be replacing existing electric meters using the same form factors and type specified by TCL&P. A detailed inventory of meter types and quantities is required in order to accurately price and configure the correct equipment. All AMI deployments uncover unaccounted meters. A detailed meter pricing sheet is typically provided in the vendor contract and can be added to the project at any time.

7. Jan Geht – What is the average life span of these meters?

- a. The AMI meter has a lifespan of approximately 20 years

8. Jan Geht – Based on your experience with 50,000,000 meters, do they get replaced more frequently or less frequently than every 20 years?

- a. The modern electronic meters often fail either the first few months or toward the end of their useful life (20 years). Failure rates for the i210+ and kV2c meters are the lowest in the industry and have less than 1% premature failure rates.
- 9. Jan Geht – How long have Advanced meters been out for?**
- a. Advanced meters, or electronic meters have been in use for over 15 years. The advanced meters have replaced the older, and less reliable, electromechanical meters with spinning dials. With the advancements in wireless reading and control, advanced meters now make up more than 50% of the US meter population.
- 10. Jan Geht- Has anyone had to replace these first meters yet?**
- a. With any technology, electric failure is likely. As stated before, less than 1% of meter failures is common, which would require the replacement of that specific meter. A meter warranty is offered to cover the first 12 months in the event a meter failure occurs.
- 11. Pat McGuire – Could you describe the communication system that would be required by the AMI System?**
- a. The communications system provided by GE is a mesh network. Mesh networks are most effective from a costs and functional perspective in a medium-to-high meter density. In an urban area, mesh networks are ideal. The meters within a mesh network communicate to each other using a low-power radio frequency (RF) transmitting inside the meter. The meters hop from meter to meter in a neighborhood area network to reach a smaller number of pole-mounted Access Points. Those pole-mounted Access Points then send the meter information to data centers, typically through standard mobile telephone networks or existing fiber communications take out points.
- 12. Pat McGuire – Does this cumulative cost include the communication system that would be required?**
- a. The communications equipment is include in the AMI project costs, however backhaul will be the responsibility of TCL&P. The backhaul would be achieved using TCL&P fiber in various strategic locations throughout the grid. A quick preliminary estimate puts these locations at 10-15, but will be defined further after approval and an advanced engineering analysis can take place.
- 13. Jan Geht- Looking for clarification on the three phases and wanting to know total cost if TCL&P wanted all three phases.**
- a. This was more specific to the individual vendor GE and not necessarily relatable to all vendors. However, preliminary estimates put TCL&P at a total of 5 million for deployment. From a GE standpoint, this would give us all new meters (including installation), the AMI network, and the hardware/software. The software would come with customer portals, meter data management aspects, etc., which are all becoming very generic for deployments.

The only responsibility of TCL&P beyond that would be the backhaul communications defined above in question 12.

14. John Taylor- So, what's being said is that we aren't going to save any money as a community if we don't use both the electric and the water metering upgrade in combination? Also, if we are going to do both, that limits are choice of vendors then?

- a. The financial improvements seen by implementing only the electric metering system will be evident. TCL&P should reduce costs associated with connects/disconnect, meter re-reads, monthly meter reading, accurate usage information, outage restoration efforts, and billing and customer service processes. Since the water system will still require manual meter reading, some field staff cost improvements will remain. The water metering system proposed can utilize the same field network hardware, which reduces the costs of putting in a new water-specific system. The return on invest for adding water to the solution is higher due to the re-use of field network. Both electric and water meters and network infrastructure equipment are considered the best-of-breed technologies. Therefore, it is not necessary to deploy both electric and water for TCL&P to see an immediate advantage.

While doing both does limit our choice of vendors, TCL&P does see a local community benefit to deploying a system that water can take use and take advantage. There are systems available that can support both with no loss of features or functionality for electric or water.

15. John Taylor- (asking for slide 14- Silver Springs Network Solution Breadth) Did you break this down into phases? I see the customer portal portion. I get the utility benefit, what is the customer benefit.

- a. The Silver Springs Network Solution Breadth slide simply illustrates the potential expansion of the base system proposed to TCL&P. As additional features or functionality is required, the system is capable of supporting a vast amount of complementary technologies.

Regarding the customer portal portion, the benefit to the customer is to identify problems with their service prior to the billing date. For example, a vacation property should have a low daily usage of water or electricity. A customer can log into their account and see the daily consumption and identify a problem with high usage at any time during the month. They have more actionable information at their fingertips, which could save them money when identifying and resolving a problem. Other customer benefits include modifying usage behavior to impact service costs and better understanding of usage patterns

16. Can a small business owner (ex: restaurant owner) take this and do something cool with it so that he can use it and have it affect his bottom line?

- a. Small business owners can be provided with detailed usage information, down to 5 minutes if configured. This information can be made available by TCL&P on a monthly or

quarterly basis as a report or data exchange file. TCL&P has the capability to consult with local businesses, and potentially recommend ways to reduce costs.

17. Pete Doren- I assume there are pretty serious security systems provided for such a system. Talk about those and is it estimated in your price?

- a. Security is critical to all IT systems in the electric power space. The security of the systems are built in at all stages of the projects; development, implementation, and long term support and maintenance. A detailed description of the physical and data center security practices will be provided as part of any proposal. Systems such as the GE system presented have done this integrated security directly into the product at all stages described above. The system that was presented provide millions of healthcare professionals around the world with safe and secure health records management and capital investment management is the same system that would also manage our smart metering system infrastructure.

18. Pat McGuire- (to Tim) How would this fit into the Capital Plan. How would this fit in with cash flow? Would like to take a look at the strategic plan with respect to ranking of projects. I would like to look at the benefit of cost over time vs. the benefit that the utility will receive over time.

- a. This project is currently envisioned to be broken up over two fiscal years, aligning with the 2017-18 and 2018-19 capital plan. These details will be fine-tuned based on what the vendor selected would be willing to do.

Since TCL&P has not done a project as such before, all of the benefits over time become philosophical and more envisioned. There are many immediate advantages described above (demand management, voltage optimization, customer portals, remote disconnect/reconnects, etc.) but some envisioned advantages would be time of use rates, individual customer demand shaping, etc.). If TCL&P offered time of use rates, I cannot tell you what the adoption rate would be if not required as each community is different. However, this option, and others like it, do exist after deployment to research and test to ultimately find a solution for what best fits the community.

What is extremely important to point out is that all future reliability projects will be derived and strategically planned to maximize efficiency, reliability, and rates based on the captured data. We have currently developed a matrix that takes outages and asset age into account when determine reliability. This is not perfect as outside environmental factors (squirrels, car pole accidents, etc.) can ultimately skew the matrix in favor of an asset that could have seen more life. With energy data at every segment of the grid, we can truly and accurately prioritize reliability projects. This will effectively extend the life of assets and reducing premature replacement and waste.

19. Jan Gendt- Can you find out, historically, how well AMI has done to influence the customer behavior? We'll assume that it will, but does it?

- a. Depending on who the customer is, the behaviors among participants vary greatly. Several reports have been published, most frequently in the rural cooperative community, which indicate customers that are provided with daily usage information has led to customers implementing more energy efficient practices.

ACEEE Field Guide to Utility-Run Behavior Programs:

<http://aceee.org/files/pdf/summary/b132-summary.pdf>

As utilities begin to implement Time of Use rates or peak pricing for residential users, more involvement and usage awareness will be needed. With an AMI system, TCL&P will be able to provide the information needed to better self-manage consumption.

20. Tim Werner- Does human behavior change before the implementation of incentives. Are people adjusting their behavior? I think we would be collecting data for some number of months before implementing some sort of rate incentives or disincentives. Is knowledge enough to influence 2% of the rate payers?

- a. See above reference to consumer behavior. Also, visit the following website for independent reports on influencing customer behavior:
 - i. The Smart Grid Return on Investment (ROI) – A Catalog of Consumer and Utility Company Benefits:
<https://www.nema.org/Policy/Energy/Smartgrid/Documents/NEMA-SGC-ROI.pdf>
 - ii. Electric Energy Management in the Smart Home: Perspectives on Enabling Technologies and Consumer Behavior:
<http://www.nrel.gov/docs/fy13osti/57586.pdf>
 - iii. Metering Best Practices: A Guide to Achieving Utility Resource Efficiency:
http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23892.pdf
 - iv. American Council for an Energy-Efficient Economy: www.aceee.org
 - v. National Rural Electric Cooperative Association: www.nreca.org
 - vi. SmartGrid.Gov: <https://www.smartgrid.gov/>