

MEETING NOTICE

A SPECIAL MEETING

Of The

TRAVERSE CITY LIGHT AND POWER BOARD

Will Be Held On

TUESDAY, December 18, 2012

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.

Stephanie Tvardek
Administrative Assistant
1131 Hastings Street
Traverse City, MI 49686
(231) 932-4543

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

Posting Date: 12-13-12
12:00 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 November 27, 2012. (Approval recommended)
- b. Receive and file the minutes of the Executive Director Recruitment Ad Hoc Committee Meeting of November 13, 2012. (Approval recommended)
- c. Consideration of adopting MDOT Construction ROW Resolution. (Arends) (Approval recommended)

Items removed from the Consent Calendar

- a.
- b.
- c.

3. Old Business

- a. Consideration of East Side Transmission Line material purchase. (Dine)

4. New Business

None.

5. Appointments

None.

6. Reports and Communications

- a. From Legal Counsel.

b. From Staff.

1. Energy Optimization goals and spending update. (Cooper)
2. Report on the evaluation of the Kalkaska Combustion Turbine. (Feahr)
3. TCL&P news and correspondence. (General – No Official Report)

c. From Board.

1. MECA training. (Verbal – Spence)
2. Executive Director Recruitment Ad Hoc Committee update. (Verbal – Taylor)

7. Public Comment

/st

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes of Regular Meeting
Held at 5:15 p.m., Commission Chambers, Governmental Center
Tuesday, November 27, 2012

Board Members -

Present: Barbara Budros, Jim Carruthers, Mike Coco, John Snodgrass, Bob Spence,
John Taylor, Patrick McGuire

Ex Officio Member -

Present: R. Ben Bifoss

Others: Tim Arends, W. Peter Doren, Stephanie Tvardek, Jim Cooper, Glen Dine,
Scott Menhart, Tom Olney

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

Item 2 on the Agenda being Consent Calendar

Moved by Coco, seconded by Budros, that the following actions, as recommended on the Consent Calendar portion of the Agenda, be approved:

- a. Minutes of the Regular Meeting of November 13, 2012.
- b. Receive and file the minutes of the Executive Director Recruitment Ad Hoc Committee Meeting of November 5, 2012.

CARRIED unanimously.

Items removed from the Consent Calendar

None.

Item 3 on the Agenda being Old Business

3(a). East Hammond Project update.

The following individuals addressed the Board:

Glen Dine, Chief Engineer
Michael McGeehan, GRP Engineering, Inc.

No action taken.

3(b). Consideration of authorizing funding for the Chamber TCL&P Energy Efficiency Revolving Loan Fund and authorizing a Letter of Understanding.

The following individuals addressed the Board:

Laura Galbraith, Vice President of Admin. - Traverse City Area Chamber of Commerce
Jim Cooper, Manager of Communications and Energy Services

W. Peter Doren, General Counsel

Moved by Coco, seconded by Budros, that the Light & Power Board authorizes \$50,000 (2012-13 budgeted line item: Conservation & Public Services, “Increased Energy Optimization Efforts”) to be provided to the Traverse City Area Chamber of Commerce to fund the “*Chamber TCL&P Energy Efficiency Revolving Loan Fund Program*” conditioned upon the Chamber agreeing to earmark the funds for financing of qualified electric energy optimization projects of TCL&P customers only; and further authorizes the *Interim* Executive Director to sign the Chamber TCL&P Energy Efficiency Revolving Loan Fund Letter of Understanding.

CARRIED unanimously.

- 3(c).** Consideration of authorizing a First Extension of Option Agreement – South Substation Project.

The following individuals addressed the Board:

Tim Arends, *Interim* Executive Director/Controller
W. Peter Doren, General Counsel
Glen Dine, Chief Engineer

Moved by Coco, seconded by Spence, that the Light & Power Board authorizes the *Interim* Executive Director to enter into a “First Extension of Option Agreement” with Dixie Roethlisberger at a cost of \$7,500 for property located in Garfield Charter Township.

Roll Call:

Yes – Budros, Carruthers, Coco, Spence, Taylor, McGuire

No – Snodgrass

CARRIED.

Item 4 on the Agenda being New Business

- 4(a).** Presentation of the Generation Survey results.

The following individuals addressed the Board:

Jim Cooper, Manager of Communications and Energy Services
Cathlyn Sommerfield, NMC – Director of Research Services
R. Ben Bifoss, City Manager
W. Peter Doren, General Counsel

Moved by Budros, seconded by Coco, that the Light & Power Board receives and files the 2012 Generation Survey results.

CARRIED unanimously.

- 4(b).** Consideration of authorizing an Amendment to the Joint Use of Poles Agreement between Consumer’s Energy Company and City of Traverse City for the East Hammond Transmission Line.

The following individuals addressed the Board:

Glen Dine, Chief Engineer
Michael McGeehan, GRP Engineering, Inc.
Tim Arends, *Interim* Executive Director/Controller
W. Peter Doren, General Counsel

Moved by Coco, seconded by Taylor, that the Light & Power Board authorizes the Chairman and Secretary to enter into Amendment No.1 to the License Agreement for the Joint Use of Poles between Consumers Energy Company and City of Traverse City, subject to approval as to substance by the *Interim* Executive Director and approval as to form by General Counsel; and further authorizes the payments to Consumers Energy as required in the Amendment.

Roll Call:

Yes – Budros, Carruthers, Coco, Spence, Taylor, McGuire

No – Snodgrass

CARRIED.

4(c). Consideration of authorizing a Purchase Order for a rotor current controller for the M-72 wind turbine.

The following individuals addressed the Board:

Tom Olney, Operations Manager
Tim Arends, *Interim* Executive Director/Controller
W. Peter Doren, General Counsel

Moved by Taylor, seconded by Budros, that the Light & Power Board authorizes a Purchase Order in the amount of \$37,746.69 to Vestas for the purchase of a rotor current controller for the M-72 wind turbine.

Roll Call:

Yes – Budros, Carruthers, Coco, Snodgrass, Spence, Taylor

No – McGuire

CARRIED.

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.

None.

C. From Board.

1. Mike Coco spoke re: the MichCon MPSC filing update staff provided to the Board.

Item 7 on the Agenda being Public Comment

No one from the public commented.

There being no objection, Chairman McGuire declared the meeting adjourned at 7:00 p.m.

/st

Tim Arends, Secretary
LIGHT AND POWER BOARD

DRAFT

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes

Executive Director Recruitment Ad Hoc Committee

Held at 4:00 p.m., Lower Level Conference Room, Governmental Center

Tuesday, November 13, 2012

Committee Members -

Present: Mike Coco, Pat McGuire, John Taylor

Absent: None

Others: Mary Grover

The meeting was called to order at 4:00 p.m.

1. Meet with Mary Grover to discuss a process to recruit an Executive Director.

Committee members engaged in roundtable discussion with Mary Grover. It was the consensus of the committee to recommend to the Board that Mary Grover gather input from City Commissioners, the Mayor, TCL&P board members and staff to create a job description and develop a RFP for a search firm.

2. Public Comment

No one from the public commented.

There being no objection, Committee Chairman Taylor declared the meeting adjourned at 5:00 p.m.

/st

Patrick McGuire, Chairman
LIGHT AND POWER BOARD



**TRAVERSE CITY
LIGHT & POWER**

To: Light and Power Board
From: Tim Arends, *Interim* Executive Director/Controller
Date: December 7, 2012
Subject: MDOT Construction ROW Resolution

Attached is a Performance Resolution for Governmental Agencies that requires Board approval. This Resolution is required by MDOT for the purposes of issuing to a municipal utility permits to operate within its right-of-way.

Annual permits are required for miscellaneous operations within the State's right-of-way, for TCL&P these are for normal utility operations; special ROW permits are required for specific projects in the State right-of-way as they occur.

There is no fee associated with the annual ROW permit; however, the application must include the attached resolution.

This item is presented on the consent calendar as it is deemed by staff to be a non-controversial item. If any Board member, or member of the public, wishes to discuss this further, other than questions for clarification purposes, please request that the Chairman remove it from the consent calendar to be placed as a New Business item on the Agenda for full discussion and consideration by the Board.

Staff recommends the Board adopt the attached Resolution. If this item is removed from the consent calendar and placed elsewhere on the agenda for full discussion, and the Board agrees with staff's recommendation the following motion would be appropriate:

MOVED BY _____, SECONDED BY _____,

THAT THE BOARD ADOPTS THE STATE OF MICHIGAN "PERFORMANCE RESOLUTION FOR GOVERNMENTAL AGENCIES" AS REQUIRED BY THE STATE FOR ISSUANCE OF AN ANNUAL RIGHT-OF-WAY PERMIT.

PERFORMANCE RESOLUTION FOR GOVERNMENTAL AGENCIES

This Performance Resolution is required by the Michigan Department of Transportation for purposes of issuing to a municipal utility an "Individual Permit for Use of State Highway Right of Way," or an "Annual Application and Permit for Miscellaneous Operations Within State Highway Right of Way."

RESOLVED WHEREAS, the _____
(city, village, township, etc.)

hereinafter referred to as the "GOVERNMENTAL AGENCY," periodically applies to the Michigan Department of Transportation, hereinafter referred to as the "DEPARTMENT," for permits, referred to as "PERMIT," to construct, operate, use and/or maintain utility or other facilities, or to conduct other activities, on, over, and under State Highway right of way at various locations; within and adjacent to its corporate limits;

NOW THEREFORE, in consideration of the DEPARTMENT granting such PERMIT, the GOVERNMENTAL AGENCY agrees that:

1. Each party to this Agreement shall remain responsible for any claims arising out of their own acts and/or omissions during the performance of this Agreement, as provided by law. This Agreement is not intended to increase either party's liability for, or immunity from, tort claims, nor shall it be interpreted, as giving either party hereto a right of indemnification, either by Agreement or at law, for claims arising out of the performance of this Agreement.
2. Any work performed for the GOVERNMENTAL AGENCY will be solely as for the GOVERNMENTAL AGENCY and not as a contractor or agent of the DEPARTMENT. The DEPARTMENT shall not be subject to any obligations or liabilities by vendors and contractors of the GOVERNMENTAL AGENCY, or their subcontractors or any other person not a party to the PERMIT without its specific prior written consent and notwithstanding the issuance of the PERMIT. Any claims against the State of Michigan, the Michigan Transportation Commission, the DEPARTMENT, and all officers, agents and employees thereof and those contracting governmental bodies performing permit activities for the DEPARTMENT and all officers, agents, and employees thereof will be the sole responsibility of the GOVERNMENTAL AGENCY.
3. The GOVERNMENTAL AGENCY shall take no unlawful action or conduct, which arises either directly or indirectly out of its obligations, responsibilities, and duties under the PERMIT which results in claims being asserted against or judgment being imposed against the State of Michigan, the Michigan Transportation Commission, the DEPARTMENT, and all officers, agents and employees thereof and those contracting governmental bodies performing permit activities for the DEPARTMENT and all officers, agents, and employees thereof, pursuant to a maintenance contract. In the event that the same occurs, for the purposes of the PERMIT, it will be considered as a breach of the PERMIT thereby giving the State of Michigan, the DEPARTMENT, and/or the Michigan Transportation Commission a right to seek and obtain any necessary relief or remedy, including, but not by way of limitation, a judgment for money damages.
4. The GOVERNMENTAL AGENCY It will, by its own volition and/or request by the DEPARTMENT, promptly restore and/or correct physical or operating damages to any State Highway Right of Way resulting from the installation construction, operation and/or maintenance of the GOVERNMENTAL AGENCY'S facilities according to a PERMIT issued by the DEPARTMENT.

- 5. With respect to any activities authorized by PERMIT, when the GOVERNMENTAL AGENCY requires insurance on its own or its contractor's behalf it shall also require that such policy include as named insured the State of Michigan, the Transportation Commission, the DEPARTMENT, and all officers, agents, and employees thereof and those governmental bodies performing permit activities for the DEPARTMENT and all officers, agents, and employees thereof, pursuant to a maintenance contract.
- 6. The incorporation by the DEPARTMENT of this resolution as part of a PERMIT does not prevent the DEPARTMENT from requiring additional performance security or insurance before issuance of a PERMIT.
- 7. This resolution shall continue in force from this date until cancelled by the GOVERNMENTAL AGENCY or the DEPARTMENT with no less than thirty (30) days prior written notice to the other party. It will not be cancelled or otherwise terminated by the GOVERNMENTAL AGENCY with regard to any PERMIT which has already been issued or activity which has already been undertaken.

BE IT FURTHER RESOLVED, that the following position(s) are authorized to apply to the DEPARTMENT for the necessary permit to work within State Highway Right of Way on behalf of the GOVERNMENTAL AGENCY.

Name	and/or	Title

I HEREBY CERTIFY that the foregoing is a true copy of a resolution adopted by

the _____
(Name of Board, etc)

of the _____ of _____
(Name of GOVERNMENTAL AGENCY) (County)

at a _____ meeting held on the _____ day of
 20____ A.D.

Signed _____ Title _____

Print Name _____



TRAVERSE CITY
LIGHT & POWER

To: Light & Power Board
From: Glen Dine, Chief Engineer *GD*
Date: December 12, 2012
Subject: East Side 69kV Transmission Line Project – Material Purchase

Bids have been obtained for the purchase of poles, wire, insulators, and other assembly hardware required for the construction of the East Side 69kV Transmission Line Project from the East Hammond Substation to Parsons Substation. Bids are summarized as follows:

Vendor	Original Bid	Total Evaluated Price
Power Line Supply	\$ 532,558.89	\$ 202,832.18
RESCO	\$ 549,458.83	
HD Supply	\$ 160,912.81	

Some bidders were not able to provide or chose not to bid all items requested which is reflected in the Original Bid price. This is particularly reflected in the Original Bid from HD Supply. Original bid quantities for each item were based on quantities required for construction of the pole line. Once the original bids were provided, quantities for each item needed to be adjusted that took into account standard quantity packaging (per “box” count) required for different items. Also, current TCL&P stock inventory was reviewed and further adjustments (reduction in quantities to be purchased) were made. The end result in these evaluations and adjustments is a Total Evaluated Price from the low bidder, Power Line Supply (PLS).

Staff and GRP Engineering are recommending the purchase of line materials from PLS, located in Reed City, Michigan. At no extra charge, PLS will provide a materials storage trailer for the job site if available. This will help in managing safe storage and inventory of material during construction.

If the Board concurs, the following motion is recommended:

MOVED BY _____, SECONDED BY _____,
THAT THE BOARD AUTHORIZE THE INTERIM EXECUTIVE DIRECTOR TO ISSUE A
PURCHASE ORDER TO POWER LINE SUPPLY IN THE AMOUNT OF \$ 202,832.18
FOR LINE CONSTRUCTION MATERIAL REQUIRED FOR THE EAST SIDE 69KV
TRANSMISSION LINE PROJECT, SUBJECT TO ANY REEL CHARGES AND COST OF
METAL ADJUSTMENTS AS NOTED IN THE BID.



**TRAVERSE CITY
LIGHT & POWER**

To: Light & Power Board
From: Jim Cooper *JC*
Date: Dec. 6, 2012
Subject: Energy Optimization Goals and Spending Update

The Public Act 295 rules (also known as the Michigan Clean, Renewable, and Efficient Energy Act) requires that each utility for the years 2012 to 2015 save a 3 year average of 1% of their kWhr sales each year. The initial filing covered the years from 2009 to 2012 and required kWhr savings of .25%, .50%, .75%, and 1% of kWhr sales. Utilities are allowed to recoup expenses for the programs by charging customers up to 2% of revenue sales. Program expenses should be proportionately allocated to each type of customer class. For Traverse City Light & Power (TCL&P) that means the programs are set up at a ratio of 20% residential and 80% commercial and industrial. Currently the board has decided not to charge customers for the cost of the program. If kWhr savings goals are exceeded in one year those additional amounts can be carried forward into the next year. Initially only 30% of any excess was allowed to be brought forward to reduce the next year's goals but now the Michigan Public Service Commission has stated any amounts can be brought forward. Utilities must continue regular programs each year however and not drop programs regardless of previously achieved kWhr savings.

Calendar year Energy Optimization (EO) reports are required to be filed each year by May. The totals for calendar year 2012 will be compiled by early next year and as in the past I'll provide the board with a full report, including incentives and funds spent, kWhrs saved, and the new goals and program changes for 2013. A summary of the past year's program totals are below. An eleventh month report up to the end of November for 2012 is also included.

Fiscal Year		Calendar Year EO					
<u>Budget</u>		<u>program budget</u>	<u>Additional</u>	<u>Actual</u>	<u>Cal. kWhr Goal</u>	<u>kWhr Achieved</u>	<u>Over</u>
2009/10	\$156,000	\$222,000	\$0	\$170,000	990,740	1,727,293	74%
2010/11	\$275,000	\$391,000	\$0	\$310,000	1,135,009	1,931,775	70%
2011/12	\$1,026,000	\$526,000	\$500,000	\$526,161	1,703,652	2,650,078	56%
2012/13	\$884,350	\$484,350	\$400,000		2,542,680	*3,052,602	*20%

* 11 month report

Based on the November 29, 2011 board memo (see attachment A) the original plan for spending the additional funding was to accelerate the regular program. This seemed a logical fit which was essentially to do more of an already well established plan. This worked well when the original goals were lower but now with the annual goal at 1% additional energy saving methods need to be in place.

Franklin Energy, which handles the commercial and industrial EO measures, has decided to have Pat Doyle, who currently handles the upper Michigan and Holland accounts, move to Traverse City. This will help provide more daily contact time for TCL&P customers. A second measure which will prove affective is the TC Chamber of Commerce and TCL&P loan program. This will provide opportunities to TCL&P customers who want to make energy efficiency improvements but do not have the in house funds to do so. The board may decide after a few trial months to increase the loan fund amount. Also, to fully reach higher EO goals and make use of extra board funding amounts additional programs will be introduced each fiscal year. For this fiscal year a proposal will be brought to the board in January for a Guest Room Energy Management (GREM) program (attachment B). This is an established part of the Michigan kWhr savings base. Room sensors are installed in motel rooms which interact with each room's air conditioner and thermostat. They can be preset to adjust room temperature levels when no one is in the room, thus saving energy and dollars for the motel. This program has been used successfully by Franklin Energy in other parts of the state. It is estimated that over 1,000,000 kWhrs can be saved each year by TCL&P motel owners if this program goes forward. Also, the kWhrs saved will fall in the typical day time peak period, thus saving TCL&P from purchasing extra peak capacity.



To: Light & Power Board
From: Jim Cooper *JC*
Date: Nov. 23, 2011
Subject: L&P Expanded Energy Optimization Plan

As requested by the board I've attached a spreadsheet showing both the 2012 Public Act 295 Plan, which was presented to the board at the September 13th meeting, and the L&P expanded plan. The Attachment B outlines program descriptions for both plans. The expanded plan is a continuation of the PA 295 plan but with a higher kilo Watt hour savings goal. This process has been followed since 2009. The new 2012 Michigan Public Service Commission filing requires a 1% kWhr savings goal each year and the expanded goal is an additional .75%. This totals 1.75% which is the most aggressive goal of any utility in Michigan.

The budget amounts approved by the board to meet these goals are: \$526,000 for the mandated goal of 1% and \$500,000 for the expanded plan.

As the past 3 years have shown, these programs will change and adapt as new technologies emerge, and some program results prove more successful than others. I'll review the programs, as needed, at the meeting.

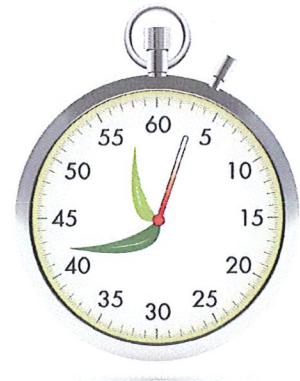
Recovery Time Technology

Maximum Room-By-Room Savings Without Sacrificing Guest Comfort

Intelligent Energy Management

In recent years, energy management technology has evolved to allow the deployment of “intelligent thermostats.” When tied to a room occupancy sensor, thermostats detect whether or not the room is occupied and maintain either an “occupied” temperature, which the guest has set, or an “unoccupied” temperature, which is set by property management. A reduction in energy consumption is immediate—and can be significant. While this type of fixed setback system is effective, it leaves one question to be answered: *When an occupant re-enters a space, how long will it take the HVAC unit to bring the room to their desired temperature?*

An optimal energy management strategy requires deployment of a system that will control the temperature within the room as well as the amount of time it takes the HVAC unit to recover to an occupant’s setpoint temperature upon re-entry. Fortunately, Telkonet has already developed and integrated this patented technology into the EcoSmart solution. It’s called **Recovery Time**.



How Does Recovery Time Technology Work?

Each EcoSmart thermostat has the ability to learn from its environment, consider internal and external factors, and choose how far to drift away from the user’s setpoint. The goal of the thermostat is to drift far enough to maximize energy savings while still being able to return to the user’s setpoint within the preset Recovery Time period.

Recovery Time enables EcoSmart thermostats to record room temperature data every second to measure the HVAC system’s drift curve away from the setpoint and drive curve toward the setpoint in each room. Using this data, the thermostat continuously chooses an optimum setback temperature to maintain the selected Recovery Time period. When conditions like the exterior temperature, the state of HVAC filters, or plugged coils change over time, the setback temperature will dynamically adjust to the most appropriate level. With Recovery Time, a maximum and minimum temperature will also be established to prevent extreme conditions.

The Unoccupied Room: Recovery Time in Action

As the Recovery Time changes, occupant comfort and energy savings have an inversely proportional relationship. At one hospitality property in New Mexico, a guest sets his in-room temperature to 72°. To ensure occupant comfort, the property owner has mandated that when guests return to their rooms, the HVAC systems will take no more than 12 minutes to recover to the guests’ setpoint, regardless of outside temperature.

On Saturday, the outside temperature is 90°, and the guest leaves his room. The occupancy sensor knows the room is unoccupied and allows the temperature to drift upward toward the maximum setpoint limit. However, because the system has been programmed to guarantee a return to the guests’ setpoint within 12 minutes, the temperature in the room may never reach the maximum setback temperature. The thermostat is acting on room dynamics, such as open curtains, solar exposure, humidity level, or condition of the HVAC system, and will continuously adjust. The intelligent thermostat always “knows” how long it will take to re-establish the setpoint temperature, and will not allow any drifts that would compromise that time. When the occupancy sensor detects that the guest has re-entered the room, the thermostat begins driving the temperature back to the desired setpoint.

- The Energy Patrol System™ decreases wasteful HVAC consumption 35% to 45%, while accelerating guest service and staff efficiency. In the lodging industry, heating and cooling guestrooms is the largest expense, therefore, it is not necessary to pay for utilities not required by guests.
- The Energy Patrol System™ determines the physical presence of guests by detecting infrared body heat, therefore, it can't be fooled by movement of drapes or ceiling fans. Guests have complete control of the rooms temperature while in the room. Guest can select heat or cool and set the temperature utilizing the existing HVAC unit and thermostat.
- When guests leave the room for a specified period, Energy Patrol takes control from the normal thermostat and resets the room temperature to energy conserving levels preselected by hotel management. Energy consumption and costs are reduced 35% to 45% without adverse effects on guest comfort and convenience.
- Demonstrates environmental responsibility and helps qualify for “green lodging” status and for rebates in certain areas
- Up to four (4) levels of programmable Temperature Setback, adjustable in 1° F increments, with programmable time delays between levels
- The Energy Patrol System™ connects to and reduces consumption on all hotel HVAC systems, including PTAC Units, Heat Pumps, Split Systems, and Fan Coil Units of any voltage.
- The Energy Patrol System™ is designed to be TRANSPARENT to guests and easy to understand, maintain, and operate by non-technical personnel. In existing hotels our technicians have installed 15-20 rooms in one day. All wiring (a small, 4-pair phone cable) is hidden and room décor is not disturbed.



TRAVERSE CITY
LIGHT & POWER

To: Light and Power Board
From: Karen Fehr, Energy Supply Manager *KEF*
Date: December 12, 2012
Subject: Update of Evaluation of the Kalkaska Combustion Turbine

Chairman McGuire requested an update of the Evaluation of the Kalkaska Combustion Turbine presented last December. The attached explanation and spreadsheet provide the updated evaluation. The spreadsheet provides the net present value for the "Cost of Selling the CT vs Cost of Keeping the CT." The updated evaluation indicates that over a 16-year period, the financial benefit to keep the CT is \$18 million greater than to sell the CT. Last year's evaluation showed the financial benefit to keep the CT was \$11 million greater than to sell the CT.

The increased financial benefit to keep the CT is based on a number of factors. First, we are expecting to receive an additional 3 MW of capacity credit for the CT and also the forecasted capacity costs have changed. Second, the amount of energy forecasted that L&P would need to purchase to replace the lost generation from the CT if it was sold has increased. Third, the fixed O&M expenses to keep the CT have been reduced by 50% due to the switching over to ANR (gas transportation) and Fellon McCord (Gas Supply Management) from MichCon and Coral/Shell.

EVALUATION OF THE KALKASKA COMBUSTION TURBINE - 2012

Debt Payoff of Total Project	\$28,000,000
Sale Price of Total Project	\$16,000,000
Debt Payoff - TCLP's Share (75.9%)	\$21,252,000
Sale Price - TCLP's Share (75.9%)	\$12,144,000

Benefits of Owning the CT

- Capacity Credit
- Transmission Credit
- Hedge Against High Energy Costs on the Spot Market

Capacity Credit

MISO requires every Load Serving Entity (LSE) to cover their load plus reserves with capacity. When you own generation, you receive capacity credit. You must purchase capacity for the difference between your load plus reserves and your owned generation. TCLP is expected to receive 33 MW of capacity credit for the Kalkaska CT in 2013 and beyond. This will be valuable in the future. Capacity costs are expected to increase from \$0.30/kW-Yr in 2012 to \$96/kW-Yr in 2017 with values in that range through 2027 and beyond.

Capacity costs are increasing because new coal burning plants will not be built and old coal plants will be retired over the next several years due to strict EPA guidelines for generation emissions. The remaining coal plants will be adding expensive emission mitigation capital costs which will increase the cost of energy generated from those plants.

Transmission Credit

TCL&P purchased transmission ownership in conjunction with the development of the Kalkaska CT to cover transmission requirements to deliver energy generated by the CT. This transmission ownership provides current annual revenue to TCL&P of \$1,200,000. This revenue is expected to increase about 3% per year.

Hedge against High Energy Costs on the Spot Market

Locational Marginal Prices (LMP) on the spot market reached over \$1000/MWh in the summer of 2012. The average LMP in the first twenty days of July when the CT ran was \$72/MWh and the average cost to run the CT was \$46/MWh. The average savings was \$26/MWh. It is estimated that the average LMP for all on-peak hours when the CT runs was at least \$10/MWh more than the cost to run the CT in 2012 and will increase about 3% per year.

Life of the CT

The analysis was performed using a 25-year life for the CT. The CT is expected to continue to operate for up to 40 years. Operation beyond the 25-year presumed life will increase its value to the owners.

COST OF SELLING THE CT VS COST OF KEEPING THE CT

	Total	TCLP Share (75.9%)
Outstanding Loan Value	\$28,000,000	\$21,252,000
Sale Price	\$16,000,000	\$12,144,000

Year	Capacity Costs ¹ (\$/kW-Yr)	TCLP Capacity Purchase (MW)	Capacity Cost	Capacity Present Value ²	TCLP Transmission Credit ³	Transmission Credit Present Value ²	Energy Purchased Instead of Generated MWh	Estimated Additional Energy Costs/MWh (\$/MWh) ³	Additional Energy Costs	Additional Energy Costs Present Value ²
2011										
2012	\$0.30	30	\$9,000	\$8,654	\$1,200,000	\$1,153,846	45,000	\$10.00	\$450,000	\$432,692
2013	\$0.40	33	\$13,200	\$12,204	\$1,236,000	\$1,142,751	23,000	\$10.30	\$236,900	\$219,027
2014	\$0.40	33	\$13,200	\$11,735	\$1,273,080	\$1,131,763	23,000	\$10.61	\$244,007	\$216,921
2015	\$76.00	33	\$2,508,000	\$2,143,849	\$1,311,272	\$1,120,881	23,000	\$10.93	\$251,327	\$214,836
2016	\$93.00	33	\$3,069,000	\$2,522,494	\$1,350,611	\$1,110,103	23,000	\$11.26	\$258,867	\$212,770
2017	\$96.00	33	\$3,168,000	\$2,503,716	\$1,391,129	\$1,099,429	23,000	\$11.59	\$266,633	\$210,724
2018	\$96.00	33	\$3,168,000	\$2,407,420	\$1,432,863	\$1,088,858	23,000	\$11.94	\$274,632	\$208,698
2019	\$94.00	33	\$3,102,000	\$2,266,601	\$1,475,849	\$1,078,388	23,000	\$12.30	\$282,871	\$206,691
2020	\$82.00	33	\$2,706,000	\$1,901,200	\$1,520,124	\$1,068,019	23,000	\$12.67	\$291,357	\$204,704
2021	\$81.00	33	\$2,673,000	\$1,805,783	\$1,565,728	\$1,057,750	23,000	\$13.05	\$300,098	\$202,735
2022	\$88.00	33	\$2,904,000	\$1,886,383	\$1,612,700	\$1,047,579	23,000	\$13.44	\$309,101	\$200,786
2023	\$87.00	33	\$2,871,000	\$1,793,218	\$1,661,081	\$1,037,506	23,000	\$13.84	\$318,374	\$198,855
2024	\$92.00	33	\$3,036,000	\$1,823,343	\$1,710,913	\$1,027,530	23,000	\$14.26	\$327,925	\$196,943
2025	\$87.00	33	\$2,871,000	\$1,657,931	\$1,762,240	\$1,017,650	23,000	\$14.69	\$337,763	\$195,050
2026	\$90.00	33	\$2,970,000	\$1,649,136	\$1,815,108	\$1,007,865	23,000	\$15.13	\$347,896	\$193,174
2027	\$86.00	33	\$2,838,000	\$1,515,231	\$1,869,561	\$998,174	23,000	\$15.58	\$358,333	\$191,317
Total			\$37,919,400	\$25,908,898	\$24,188,258	\$17,188,094			\$4,856,083	\$3,505,923

Net Present Value Evaluation

If CT is Sold	
Receive for Sale	(\$12,144,000)
Additional Outlay for Debt Payoff	\$9,108,000
Pay for Capacity	\$25,908,898
Pay for Transmission Service	\$17,188,094
Pay for Additional Energy Costs	\$3,505,923
Cost to Sell the CT	\$43,566,914
If CT is Kept	
Outstanding Loan Value	\$21,252,000
Fixed O&M Costs	\$3,616,546
Cost to Keep the CT	\$24,868,546
Difference/Benefit to Keep the CT	\$18,698,368

¹Capacity costs for 2014-2027 are from the Ventyx Reference Case - Fall 2012 Reference Case

²Using 4.0% for cost of money

³Using 3.0% for inflation



**GRAND TRAVERSE COUNTY
ADMINISTRATION OFFICE**

400 BOARDMAN AVENUE
TRAVERSE CITY, MI 49684-2577

DAVID D. BENDA, ADMINISTRATOR 231/922-4780
BOARD OF COMMISSIONERS 231/922-4797

November 15, 2012

Traverse City Light & Power
400 Boardman
Traverse City, MI 49684

On behalf of the Grand Traverse County Board of Commissioners, we would like to personally thank you for responding to the Brown Bridge Dam breach in October. It was your quick response and experience in dealing with emergency management situations that promptly and appropriately dealt with the urgent situation.

Your dedication and leadership was strongly recognized at the Grand Traverse County Board of Commissioners meeting and we wish to express our sincere appreciation for the long hours and teamwork that controlled the situation.

Thank you once again for all your efforts with this emergency situation and we commend you for a job well done.

Sincerely,

Larry C. Urman, Chairman
Grand Traverse County Board of Commissioners

c: Grand Traverse County Board of Commissioners