

A REGULAR MEETING

Of The

TRAVERSE CITY LIGHT AND POWER BOARD

Will Be Held On

TUESDAY, March 25, 2014

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: 3-20-14
4:00 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.

None.

3. Unfinished Business

None.

4. New Business

- a. Consideration of approving minutes of the Study Session of February 18 and Regular Meeting of February 25, 2014. (p. 3)
- b. Consideration of a Social Media Policy. (Wheaton) (p. 8)
- c. Consideration of MPPA Energy Services Agreement. (Arends/RTD Consulting) (p. 12)

5. Appointments

None.

6. Reports and Communications

- a. From Legal Counsel.
- b. From Staff.
 1. Presentation of DDA WiFi Project. (Arends/Menhart) (p. 45a)
 2. Cost of Service Study/ Energy Supply Presentation #5. (Arends/Mark Beauchamp, UFS/ RTD Consulting) (p. 46)
 3. Board APPA Webinar – Transmission. (Arends) (verbal)
- c. From Board.

7. Public Comment

/st

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes of Study Session
Traverse City Light and Power Board
Held at 4:30 p.m., Light & Power Service Center
Tuesday, February 18, 2014

LIGHT AND POWER BOARD MEMBERS -

Present: Jim Carruthers, Jeff Palisin, John Taylor, Pat McGuire

Absent: Barbara Budros, Jan Geht, Bob Spence

EX OFFICIO MEMBER -

Present: Jered Ottenwess

OTHERS: Tim Arends, Scott Menhart, Karla Myers-Beman, Tom Olney,
Kelli Schroeder, Rod Solak, Stephanie Tvardek, Mark Watson,
Jessica Wheaton, Blake Wilson

Lacking a quorum, Chairman McGuire, Commissioner Carruthers and board member Palisin began discussing the proposed 2014-15 Operating Budgets with staff at 4:30 p.m.

Vice Chairman Taylor arrived at 4:33 p.m.

The meeting was called to order at 4:33 p.m. by Chairman McGuire.

1. Discussion of the proposed 2014-15 Operating Budgets.

The following individuals addressed the Board:

Tim Arends, Executive Director
Karla Myers-Beman, Controller
Jered Ottenwess, City Manager
Jessica Wheaton, Marketing & Community Relations Coordinator
Scott Menhart, Manager of Telecom & Technology

The Board and staff discussed the Six Year Capital Improvements Plan.

The following individuals addressed the Board:

Tim Arends, Executive Director
Scott Menhart, Manager of Telecom & Technology
Blake Wilson, System Engineer

At the Chairman's request, Tim Arends, Executive Director, spoke regarding the proposed transmission line reconductor along Wayne Hill listed in the Six Year Capital Improvements Plan.

The following individuals addressed the Board:

Jered Ottenwess, City Manager

Blake Wilson, System Engineer
Rod Solak, Line Superintendent
Tom Olney, Operations Manager

2. Public Comment.

Vice Chairman Taylor indicated any questions asked by the public this evening would be recorded and followed up on by staff.

The following individuals addressed the Board:

Rick Venner, 1660 Wayne Street, Hickory Meadows Advisory Committee

Eileen Ganter, Non-ratepayer

- Will a precedent be set for running a higher power through the lines?
- Will TCL&P be upgrading the line to 138kV?
- How will the natural area be affected?
- Would like to be informed on the decision making process and the opportunities for public input.

Emily Mitchell, 3716 Jefferson, Non-ratepayer, Hickory Meadows Advisory Committee

- What is different today compared to 2008 that would change the minds of those who were opposed to upgrading the line along Wayne Street?

Elizabeth Williams, 1315 Wayne Street

- What will the voltage be if the line is upgraded?

Linda Grigg, 1421 Wayne Street, Ratepayer

Jim Moses, 1421 Wayne Street, Ratepayer

Mary Joseph, 1422 Wayne Street, Ratepayer

- How much power does the line carry today and how much will it carry if upgraded?

6:39 p.m. Commissioner Carruthers and Jered Ottenwess departed the meeting.

There being no objection, Chairman McGuire declared the meeting adjourned at 6:40 p.m.

/st

Tim Arends, Secretary
LIGHT AND POWER BOARD

**TRAVERSE CITY
LIGHT AND POWER BOARD**

Minutes of Regular Meeting
Held at 5:15 p.m., Commission Chambers, Governmental Center
Tuesday, February 25, 2014

Board Members -

Present: Barbara Budros, Jan Geht, Jeff Palisin, John Taylor, Patrick McGuire

Absent: Jim Carruthers, Bob Spence

Ex Officio Member -

Present: Jered Ottenwess, City Manager

Others: Tim Arends, W. Peter Doren, Scott Menhart, Karla Myers-Beman, Kelli Schroeder, Stephanie Tvardek, Jessica Wheaton, Blake Wilson

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

Item 2 on the Agenda being Consent Calendar

None.

Item 3 on the Agenda being Unfinished Business

None.

Item 4 on the Agenda being New Business

4(a). Consideration of approving minutes of the Joint Study Session of February 10 and Regular Meeting of February 11, 2014.

Moved by Geht, seconded by Budros, that the Board approves the minutes of the Joint Study Session of February 10 and Regular Meeting of February 11, 2014.

CARRIED unanimously (Carruthers, Spence absent).

4(b). Consideration of Maritime Heritage Alliance request to use Coal Dock for special event.

The following individuals addressed the Board:

Tim Arends, Executive Director
Jay Rusak, 1994 Carrol Road, Old Mission, MHA President
Joseph Sanok, 10626 E. Cherry Bend Road, MHA Clinical Director
Jered Ottenwess, City Manager
W. Peter Doren, General Counsel

Moved by Budros, seconded by Palisin, that the Board refers the request from MHA to hold a fundraising event at the Coal Dock to the City of Traverse City for its consideration.

CARRIED unanimously (Carruthers, Spence absent).

- 4(c). Consideration of approval of Six Year Capital Plan & Operating Budgets for fiscal year 2014-15; and forwarding to city commission for consideration.

The following individuals addressed the Board:

Tim Arends, Executive Director
Karla Myers-Beman, Controller

Moved by Palisin, seconded by Taylor, that the Light & Power Board approves submittal of the 2014-15 Operating Budget and Six Year Capital Improvements Plan as amended to the city commission for its consideration.

The following individuals from the public addressed the Board:

Pat Joseph, 502 N. Spruce, Ratepayer, Slabtown Neighborhood Executive Committee
Sandy Cartwright, 602 N. Elmwood

Chairman McGuire read into the record an email from:

Linda Grigg and Jim Moses, 1421 Wayne Street
Mark and Elizabeth Williams, 1315 Wayne Street

CARRIED unanimously (Carruthers, Spence absent).

- 4(d). Consideration of approving an Organizational Chart and new and modified administrative positions for the Light & Power Department.

The following individuals addressed the Board:

Tim Arends, Executive Director
Scott Menhart, Manager of Telecom and Technology

Moved by Budros, seconded by Palisin, that the Light & Power Board approves the organizational chart as presented.

CARRIED unanimously (Carruthers, Spence absent).

Moved by Geht, seconded by Budros, that the Light & Power Board approves the positions of Manager of Energy Services and Key Accounts, Manager of Human Resources and Communications, and GIS Specialist.

CARRIED unanimously (Carruthers, Spence absent).

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.

6:12 p.m. Jeff Palisin departed the meeting.

1. Energy Supply Presentation #4 from Bob Dyer, RTD Consulting, and Dave Walters, MPPA.

The following individuals addressed the Board:

Tim Arends, Executive Director
W. Peter Doren, General Counsel

2. Karla Myers-Beman presented the Quarterly Financial Report.

C. From Board.

1. John Taylor commended staff for their work on the budgets over the past two years.

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 8:00 p.m.

/st

Tim Arends, Secretary
LIGHT AND POWER BOARD



**TRAVERSE CITY
LIGHT & POWER**

To: Light & Power Board
From: Jessica Wheaton, Marketing & Community Relations Coordinator
Date: March 14, 2014
Subject: Social Media Policy

Highlighted in both the Hometown Connections Efficiency Study and TCL&P's Strategic Plan is the opportunity to expand customer communications by adding social media as an outreach tool.

Social media, including Facebook, YouTube and Twitter, offer unique ways to communicate with customers outside of the standard bill insert or print ad. It also allows the utility to have real-time communications with customers in situations such as outages.

Many utilities have utilized social media sites as a way to educate customers on energy efficiency, promote utility events, and communicate important information directly to its customers. TCL&P plans to utilize social media in similar ways.

With the adoption of the attached policy, staff is planning to launch a Facebook page in the coming months as the utility's first venture into social media. The launch of this page will also assist in meeting a recommendation from the Efficiency Study and a Strategic Objective listed in TCL&P's Strategic Plan.

It is staff's recommendation that the Board adopts the attached Social Media Policy. If the Board is in agreement with staff's recommendation, the following motion would be appropriate:

MOVED BY _____, SECONDED BY _____,

THAT THE BOARD ADOPTS THE SOCIAL MEDIA POLICY AS PRESENTED.

SOCIAL MEDIA POLICY

1. Background

Social media is an umbrella term that integrates technology, social interaction and content creation. Social media allows Traverse City Light & Power (TCL&P) to engage with customers and the general public in electronic limited forums where conversations and interactions already exist. Social media sites are to be used for business purposes in serving the interests of the organization and TCL&P customers.

Because of the nature of social media tools, this policy reflects a flexible approach. Social media includes, but is not limited to, tools and Websites such as Facebook, MySpace, YouTube, Flickr, Twitter, and blogging.

Effective security, public disclosure, records retention and engagement with citizens and customers are a team effort involving the participation and support of every TCL&P employee who deals with information and/or social media. It is the responsibility of every employee to know these guidelines and to conduct activities accordingly. The Executive Director has the sole authority to create social media sites representing the utility, destroy such sites, or delegate the authority to another utility representative.

2. Social Media Usage For Business Purposes

This section captures the acceptable use of social media tools at TCL&P for business purposes, which include, but are not limited to, promotion and public outreach. One or more designated employees shall have responsibility for the social media tools used for TCL&P business purposes.

- a. Primary Content Creator: A primary content creator maintains the social media calendar and creates or oversees all non-outage related communications. This person regularly monitors TCL&P's social media sites and provides timely responses to all customers who reach out to the utility via social media.
- b. Secondary Content Creator: A secondary content creator communicates with customers regarding TCL&P issues that directly affect them. These posts will primarily concern outages, scheduled work, and member services information. They will also respond to customer questions and comments regarding those posts.
- c. TCL&P employees considered "subject matter experts" may be asked to prepare responses and messages for TCL&P's social media tools, but will coordinate those messages through the designated Primary Content Creator.

3. Security

TCL&P IT Administrator(s) shall:

- a. Limit Internet access to social media websites according to the utility's acceptable use policy, while allowing authorized employees to reach content necessary to fulfill the business requirements. Limitations may include:
 - i. Allowing Internet access to employees who are specifically authorized.
 - ii. Preventing unnecessary functionality within social media websites, such as instant messaging (IM) or file exchange.
 - iii. Minimizing and/or eliminating the addition of web links to other websites, such as "friends", to limit TCL&P's sites and to minimize the risk of exposing a government user to a link that leads to inappropriate or unauthorized material.
- b. Enable technical risk mitigation controls to the extent possible. These controls may include:
 - i. Filtering and monitoring of all social media website content posted and/or viewed.
 - ii. Scanning any and all files exchanged with the social media websites.

4. Citizen Conduct

Users and visitors to TCL&P's social media sites shall be notified that the intended purpose of the site is to serve as a mechanism for relevant communication between TCL&P and members of the public. TCL&P's social media sites and comments containing any of the following forms of content shall not be allowed:

- a. Comments in support of or opposition to political campaigns or ballot measures
- b. Profane language or content
- c. Content that promotes, fosters, or perpetuates discrimination on the basis of race, creed, color, age, religion, gender, marital status, status with regard to public assistance, national origin, physical or mental disability or sexual orientation
- d. Sexual content or links to sexual content
- e. Solicitations of commerce
- f. Conduct or encouragement of illegal activity
- g. Information that may tend to compromise the safety or security of the public or public systems
- h. Comments that name specific TCL&P employees, board members, or public officials
- i. Content that violates a legal ownership interest of any other party
- j. Content that constitutes harassment, bullying or is contrary to the electronic medium prohibitions contained at MCL 750.411s.
- k. Contents that violates the rights of any person or organization protected by copyright, trade secret, patent or other intellectual property, or similar laws or regulations.
- l. Contents that uses TCL&P's trademarks, logos and any other City of Traverse City intellectual property in connection with any personal social media activity.

- m. Contents posted by employees or board members of TCL&P that do not make it clear they are speaking for themselves and not on behalf of TCL&P by including a disclaimer such as: “The postings on this site are my own and don’t necessarily represent TCL&P’s positions, strategies or opinions.”
- n. Content that is not relevant to TCL&P’s activities and goals.

5. Public Disclosure

All social media postings and exchanges are subject to records retention and public disclosure laws. An electronic record of social media postings and exchanges will be kept to conform with record retention and public disclosure laws.

Public disclosure requests must be submitted through the formal FOIA application process. Social media will not be used for receipt and response to public disclosure requests.

6. Enforcement

Any employee found to have violated this policy may be subject to disciplinary action, up to and including termination of employment. Any citizen who repeatedly violates this policy will be blocked from accessing TCL&P social media sites.

Timothy J. Arends
Executive Director and Secretary
Traverse City Light and Power Board



TRAVERSE CITY
LIGHT & POWER

To: Light & Power Board
From: Tim Arends, Executive Director
Date: March 19, 2014
Subject: MPPA Energy Services Agreement

The request for approval of the Michigan Public Power Agency (MPPA) Energy Services Agreement is to accomplish the specific objective of accessing third party marketers in MISO. This access is to TCL&P's advantage to minimize exposure to the MISO market during the volatile seasons of 2014 and 2015. While TCL&P has a power supply agreement with Lansing Board of Water and Light (LBWL) through 2015, TCL&P still has considerable exposure to MISO to meet its total demand and energy requirements over and above that supplied by MPPA and LBWL. To reduce this risk of volatility in daily pricing, TCL&P desires to hedge this risk by securing some of its needs through third-party marketers within the MISO market in the more volatile months. To hedge this risk, it is advantageous to solicit proposals from multiple third-party marketers. This can be accomplished through MPPA's Energy Services Agreement.

The Energy Services Agreement with MPPA duplicates many of the services TCL&P has with LBWL. For this reason, MPPA has agreed to reduce its fee to one half normally seen for participants through 2015. It is estimated that this fee will be approximately \$22,000 per year. This number is not precise because it is a function of volume within the members of MPPA and the approved annual budget. The net result is TCL&P, through MPPA, will have access to 13 different third-party marketers to solicit competitive proposals for power supplies for these volatile months.

When competitive proposals are received by the staff at MPPA there will be a limited amount of time to accept the proposal, usually less than 24 hours, and lock in the proposed offering. To accomplish this, MPPA requires each of the participating members to have a "Member Authorized Representative" designated. Therefore, it is requested, if this Energy Services Agreement with MPPA is approved, the Executive Director be designated as the member authorized representative for TCL&P.

At its March 19, 2014 meeting, the MPPA Board of Directors unanimously approved Amendment No. 1 to the Energy Services Agreement which allows TCL&P to join the service committee on a limited basis. Staff recommends the Board approve entering into the attached agreement and further recommends naming the executive director as the authorized representative. If after Board discussion you agree with staff's recommendation the following motion would be appropriate:

(RECOMMENDED MOTION ON NEXT PAGE)

FOR THE LIGHT & POWER BOARD MEETING OF MARCH 25, 2014

MOVED BY _____, SECONDED BY _____.

THAT THE BOARD AUTHORIZES THE CHAIRMAN AND SECRETARY TO EXECUTE THE ENERGY SERVICES AGREEMENT WITH MPPA, AND FURTHER NAMES THE EXECUTIVE DIRECTED AS THE MEMBER AUTHORIZED REPRESENTATIVE RELATIVE TO THE AGREEMENT; SUBJECT TO APPROVAL AS TO SUBSTANCE BY THE EXECUTIVE DIRECTOR AND AS TO FORM BY GENERAL COUNSEL.



February 12, 2014

Mr. David Walters
General Manager and CEO
Michigan Public Power Agency
809 Centennial Way
Lansing, MI 48917


Re: Participation in the Energy Service Agreement

Dear Dave,

TCL&P would like to join the Energy Services Project and sign an amended Energy Services Agreement ("ESA") with the Michigan Public Power Agency (MPPA). This would allow TCL&P to secure third-party energy and capacity supplies from marketers not currently available. TCL&P currently has a contract with Lansing Board of Water and Light (LBWL) for its energy services requirements through December 31, 2015. While LBWL does offer this service, it appears that they do not have as extensive relationships as MPPA with third party marketers. The primary need for services from MPPA would be to secure third-party market power to hedge its current open MISO positions through 2015, and potentially beyond should TCL&P decide to extend the ESA. In addition, TCL&P is interested in the quarterly power supply plan reports provided by the MPPA staff for all of the members of the ESA. Some services provided under the ESA to its members (highlighted below) are not currently needed as they are provided under the current TCL&P agreement with LBWL. While TCL&P would like to work with MPPA on securing its third-party hedge requirements, without some accommodation on MPPA's part, TCL&P would be paying for certain services twice and this would eliminate the economics of using MPPA for access to third-party marketers for hedging purposes. Therefore, we would propose the following:

1. Execute an amended ESA between TLC&P and MPPA. All existing terms of the approved agreement are acceptable to TCL&P except the parties would exclude the following services from Exhibit 1:
 - a. All items included under numeral 2. (essentially the Day-ahead and Real-time RTO services)
 - b. Item 2. b. (meter data management services)
2. Some remaining items in Exhibit 1, although MPPA would perform, would obviously be done at a reduced level since only approved bilateral transactions would be monitored and billed.
3. Under the General Provisions of Exhibit 1, paragraph 1. b. the Energy Services Project Committee would agree to allocate overhead costs to TCL&P at a rate $\frac{1}{2}$ that calculated for other members of the project ($\frac{1}{2}$ the democratic portion and $\frac{1}{2}$ the volumetric portion).
4. Section 1. Term of the Contract, would define the initial term ending on December 31, 2015 as it does for all other members and could be extended consistent with provisions of the contract thereafter (however, the understanding of the parties would be that the amendment would be limited to the initial term).





With these two accommodations, TCL&P would then execute this amended ESA and use MPPA to secure TCL&P's hedging requirements for 2014 and 2015.

I will be available to discuss this request with the Board on March 11, 2014 at the regular scheduled Board meeting.

Sincerely,



Timothy J. Arends, Executive Director
231.932.4558

ENERGY SERVICES AGREEMENT

This Energy Services Agreement ("Agreement") is made and entered into as of April 1, 2014, by and between MICHIGAN PUBLIC POWER AGENCY ("MPPA"), a body corporate and politic of the State of Michigan, created pursuant to 1976 PA 448 and TRAVERSE CITY LIGHT AND POWER (the "Participant").

WHEREAS, MPPA was organized under Act 448 to provide a means for those Michigan municipalities which are members of MPPA to secure electric power and energy for their present and future needs; and

WHEREAS, the Midwest Independent Transmission System Operator, Inc. ("MISO") has implemented its Midwest Market Initiative ("MMI") that has increased the complexity, effort and required expertise for dealing in the wholesale electric power market; and

WHEREAS, on March 11, 2009, the MPPA Board of Commissioners by action in open meeting created the Energy Services Project ("Project"); and

WHEREAS, MPPA has, or is acquiring, the personnel, systems and facilities necessary to provide the needed energy services for the Participant:

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements herein contained, it is agreed by and between the parties hereto as follows:

Section 1. Term of Contract.

This Agreement shall become effective as of the date upon which it is fully executed by the parties hereto and shall have an initial term until December 31, 2015. This Agreement shall automatically extend each year thereafter for a one year period ending on the next succeeding December 31 unless terminated by the Participant or MPPA prior to any such automatic extension, pursuant to Sections 9, 12, or 16.

Section 2. Energy Services.

(a) MPPA shall perform the Energy Services for the Participant as described in Exhibit 1. Additional Energy Services may be provided by MPPA hereunder as mutually agreed to by MPPA and the Participant consistent with MPPA's approved Energy Risk Management (ERM) Policy, attached as Exhibit 2, as may be amended from time to time by MPPA's Board of Commissioners. Such additional Energy Services may include negotiating arrangements for the sale or purchase of power or capacity from or to third parties on behalf of the Participant, if and to the extent requested and approved by the Participant in accordance with MPPA's established ERM Policy. For purposes of this Agreement, any purchase or sale commitments, transactions, and agreements with third parties for power, transmission, capacity,

back-up power, or any other related market activities made on behalf of the Participant and provided hereunder as an Energy Service by MPPA, are collectively referred to as a Power Purchase Commitment or "PPC." If Energy Services include such transactions and commitments for purchases or sales on behalf of the Participant, any obligation or responsibility of MPPA to provide power as an Energy Service shall be limited solely to the power actually delivered to MPPA by the third party or the Participant. MPPA shall not be liable or obligated for direct or indirect damages, charges or expenses incurred or suffered by the Participant in the event the third party or Participant is unable for any reason to comply with such PPC. MPPA will, however, use its best efforts to (i) resolve any situation or circumstance where the third party or Participant is not complying with the PPC it agreed to, and (ii) arrange for alternative sources of power as may be necessary, if requested by the Participant.

Additionally, Participant may independently negotiate bilateral transactions with third parties for power supply, transmission, and related services outside of this Agreement. For such transactions, MPPA may, upon mutual agreement of MPPA and the Participant, perform scheduling, settlement, and billing services in accordance with Exhibit 1 to facilitate these Participant-negotiated transactions.

(b) Within thirty (30) days of the execution date of this Agreement, the Participant shall designate in writing to MPPA a "Member Authorized Representative" or MAR to act on its behalf in matters concerned with this Agreement and MPPA's ERM Policy. The MAR shall have the responsibilities and obligations defined in MPPA's ERM Policy attached as Exhibit 2, as it may be amended from time to time by MPPA's Board of Commissioners.

(c) All transactions under this Agreement must comply with Exhibit 2, as it may be amended from time to time by MPPA's Board of Commissioners.

(d) This Agreement shall be administered by an Energy Services Project Committee, composed of one member from each participant who executes a substantially similar version of this Agreement with MPPA, including the Participant.

Section 3. Cooperation and Exchange of Information.

MPPA and the Participant recognize that successful execution of the desired Energy Services will require cooperation and frequent exchanges of information between MPPA, the Participant, and the appropriate Regional Transmission Organization (RTO). MPPA and the Participant each agree to make all reasonable efforts to provide needed information to the other party and to the appropriate RTO in a timely manner. Further, MPPA and the Participant each agree to make all reasonable efforts to assist the other party in obtaining any data necessary for the execution of the desired Energy Services from any third party. The Participant agrees to provide billing quality meter data in a format consistent with the services provided by MPPA. The Participant will enter into an agreement with MPPA for acquisition, transmission, and management of billing quality data. As the Participant may have separate arrangements for data with MPPA, minimum specifications for billing quality meter data are detailed in the attached Exhibit 3, and may change as applicable industry standards are modified.

Section 4. Billing and Method of Payment.

(a) MPPA shall provide the Participant weekly invoices for any applicable PPC, identified Energy Services, and RTO-related charges and expenses incurred by MPPA as a result of the services provided to the Participant and monthly invoices for any remaining administrative, overhead, and associated expenses relating to other Energy Services provided to the Participant under this Agreement. Such invoices shall comply with the procedures and protocol set forth in Section 3 of Exhibit 1 hereto.

(b) Weekly payments required to be paid by the Participant to MPPA pursuant to this Section 4 based on pass-through charges received for Market-related activities shall be paid, via wire transfer, within five days of receipt of invoice. Payments received by MPPA based on pass-through revenues allocated to the Participant shall be paid to the Participant, via wire transfer, within five days of receipt. Participant may, at its discretion, provide to MPPA twice the working capital required in Section 5 to allow for monthly payment of charges in lieu of weekly payments.

(c) Monthly payments required to be paid to MPPA for related administrative expenses pursuant to this Section 4 shall be due and payable to MPPA at the principal office of MPPA, or such other address as MPPA shall designate in writing to the Participant, on the 25th day of the Month for the preceding month's expenses, or within ten business days after Participant's receipt of the invoice, whichever is later.

(d) If payment in full is not made on or before the close of business on the due date, a delayed-payment charge on the unpaid amount due for each day overdue will be imposed at a rate equal to twelve percent (12%) per annum plus \$500 per occurrence. If the due date is Saturday, Sunday, or a bank holiday, the next following business day shall be the last day on which payment may be made without the addition of the delay-payment charge.

(e) In the event of any dispute as to any portion of any statement, the Participant shall nevertheless pay the full amount of the disputed charges when due and shall give written notice of the dispute to MPPA not later than the date such payment is due, if the Participant is already aware of the dispute, or within thirty (30) days of discovering the grounds for the disputed charges, but only if the Participant could not have reasonably been expected to have discovered the grounds for dispute by the original due date. Such notice shall identify the disputed bill, state the amount in dispute and set forth a full statement of the grounds upon which such a dispute is based. No adjustment shall be considered or made for disputed charges unless notice is given as required above. MPPA shall give consideration to such dispute and shall advise the Participant in writing of its position within thirty (30) days following receipt of such written notice. Upon final determination (whether by agreement, arbitration, adjudication or otherwise) of the correct amount, any difference between such corrected amount and the billed amount shall be subtracted from the next statement submitted to the Participant after such determination or, if this Agreement has terminated, shall be paid to Participant within thirty (30) days of such determination. The Participant shall continue to be responsible for its share of financial obligations associated with this Agreement even after the termination of this Agreement.

Section 5. Working Capital.

(a) The minimum working capital level for services provided under this Agreement shall be equal to the approximate maximum one month's expenses for the Participant under this Agreement over the most recent calendar year. Working capital balances for each Participant in the Project shall be transferred to a working capital fund. Such amounts may be commingled with the working capital contributions of other participants and MPPA may invest such moneys in certificates of deposit, savings accounts, deposit accounts, or depository receipts of a bank which is a member of the Federal Deposit Insurance Corporation or a savings and loan association which is a member of the Federal Savings and Loan Insurance Corporation or a credit union which is insured by the National Credit Union Administration. Such amounts may be used for working capital purposes, including making advances or payments in accordance with this Agreement. MPPA shall allocate in its records an appropriate amount of working capital to each Participant based on its contributions.

(b) In the event of a default by a Participant, MPPA may apply the Participant's working capital balance up to the extent of its current financial obligations under this Agreement to satisfy such obligations.

(c) Upon termination of this Agreement, the Participant shall receive full reimbursement of its working capital balance less any outstanding financial obligations incurred under this Agreement.

Section 6. Accounting.

MPPA agrees to keep accurate records and accounts relating to the Project in accordance with the Uniform System of Accounts, separate and distinct from its other records and accounts. The accounts shall be audited annually by a firm of certified public accountants, experienced in electric utility accounting and of national reputation, to be employed by MPPA. A copy of each annual audit, including all written comments and recommendations of such accountants, shall be furnished by MPPA to the Participant not later than 180 days after the end of each calendar year.

The Participant agrees to keep accurate records and accounts relating to the conduct of its business. The accounts shall be audited annually by a firm of certified public accountants to be employed by the Participant. A copy of each annual audit, including all written comments and recommendations of such accountants, shall be furnished by the Participant to MPPA within 180 days after the end of its fiscal year or at the time the Participant's fiscal year audit is completed.

Section 7. Participant Covenants.

The Participant agrees to collect rates, rents, fees and charges for electric power and energy and other services, facilities and commodities sold, furnished, or supplied through its electric system sufficient to provide revenues adequate to meet its obligations under this Agreement.

Section 8. Default of Participant.

Failure of the Participant to make to MPPA any of the payments when due for which provision is made in this Agreement shall constitute an immediate default on the part of the Participant.

Section 9. Continuing Obligation, Right to Discontinue Service.

In the event of any default referenced in Section 8 hereof, the Participant shall not be relieved of its liability for payment of the amounts in default and MPPA shall have the right to recover from the Participant any amount in default. In enforcement of any such right of recovery, MPPA may bring any suit, action, or proceeding in law or in equity, including mandamus and action for specific performance, as may be necessary or appropriate to enforce any covenant, agreement or obligation to make any payment for which provision is made in this Agreement against the Participant, and if the default is not cured within five business days following a written declaration of default by MPPA to the Participant, MPPA may, upon sixty (60) days' written notice to the Participant, terminate this Agreement and cease and discontinue providing all or any portion of the Energy Services shown on the attached Exhibit 1.

Section 10. Transfer of Purchase Power Commitments Following Default.

In the event of a default by any Participant and discontinuance of service pursuant to Section 9 of this Agreement,

(a) MPPA shall first offer to transfer to all other participants who have committed to the same PPC transaction (each a "Transaction Participant" and collectively, the "Transaction Participants") and are not in default a pro rata portion of the defaulting Participant's PPC that has been discontinued by reason of such default. Any part of such PPC of a defaulting Participant that is declined by any nondefaulting Transaction Participant shall be reoffered pro rata to the nondefaulting Participants which have accepted in full the first such offer. Such reoffering shall be repeated until such defaulting Participant's PPC has been reallocated in full or until all nondefaulting Transaction Participants have declined to take any additional portion of such defaulting Participant's PPC.

(b) In the event less than all of a defaulting Participant's PPC shall be accepted by the other Transaction Participants which are not in default pursuant to clause (a), MPPA shall use its reasonable best efforts to sell the remaining portion of the defaulting Participant's PPC for the remaining term of such defaulting Participant's PPC obligation; the agreement for such sale shall contain such terms and conditions as will not adversely affect the agreement of such defaulting Participant, including provisions for discontinuance of service upon default, and as are otherwise acceptable to MPPA; in the event of default and discontinuance of service under such agreement, the PPC sold pursuant to such agreement shall be offered and transferred as provided for defaulting Participants in this Section.

(c) In the event less than all of a defaulting Participant's PPC shall be accepted by the Transaction Participants which are not in default pursuant to clause (a) or sold pursuant to clause (b) of this Section, MPPA shall transfer the remaining portion of such defaulting Participant's PPC to all other Transaction Participants which are not in default in proportion to their respective total shares of the PPC transaction.

(d) Any portion of the PPC of a defaulting Participant transferred pursuant to this Section to a nondefaulting Transaction Participant shall become a part of and shall be added to the PPC of each transferee Transaction Participant, and the transferee Transaction Participant shall be obligated to pay for its PPC increased as aforesaid, and shall be entitled to the benefits associated with the increased PPC, as if the PPC of the transferee Transaction Participant, increased as aforesaid, had been stated originally as the PPC of the transferee Participant in its Energy Services Agreement with MPPA.

(e) In the event less than all of a defaulting Participant's PPC is sold or transferred to nondefaulting Transaction Participants pursuant to this Section, MPPA shall use its reasonable best efforts to sell the remaining portion of a defaulting Participant's PPC or the energy associated therewith on such terms and conditions as are acceptable to MPPA, including, but not limited to, the possible sale at locational marginal pricing. The defaulting Participant shall remain liable for its PPC and other obligations and expenses under this Agreement, except that the obligation of the defaulting Participant to pay MPPA shall be reduced to the extent that payments are received by MPPA for that portion of the defaulting Participant's PPC which may be transferred or sold as provided in this Section.

Section 11. Other Default by Participant.

In the event of a failure of the Participant to fix, charge or collect rates or charges adequate to provide revenue sufficient to enable the Participant to pay all amounts due to MPPA under this Agreement or in the event of any default by the Participant under any other covenant, agreement or obligation of this Agreement, MPPA may bring any suit, action, or proceeding in law or in equity, including mandamus, injunction and action for specific performance, as may be necessary or appropriate to enforce any covenant, agreement or obligation of this Agreement against the Participant.

Section 12. Default by MPPA.

In the event of any default by MPPA under any covenant, agreement or obligation of this Agreement, the Participant's remedy for such default shall be limited to (1) mandamus, injunction, action for specific performance or any other available equitable remedy as may be necessary or appropriate, and/or (2) termination of this Agreement upon at least sixty (60) days' written notice to MPPA; provided, however, for purposes of this Section 12, the date of termination shall be the date which is the latest of (i) 60 days after the date written notification of termination is given, (ii) the expiration or satisfaction of the Participant's obligations with respect to its PPC, and (iii) the date of receipt by MPPA of full payment by or for the Participant for any Energy Services provided under this Agreement, including, but not limited to, any obligations

and expenses owing to MPPA related to the Participant's PPC for which MPPA is not entitled to receive payment from others.

Section 13. Abandonment of Remedy.

In case any proceeding or action taken on account of any default shall have been discontinued or abandoned for any reason, the parties shall be restored to their former positions and rights hereunder, respectively, and all rights, remedies, powers and duties of MPPA and the Participant shall continue as though no such proceedings had been taken.

Section 14. Waiver of Default.

Any waiver at any time by either MPPA or the Participant of its rights with respect to any default of the other party hereto, or with respect to any other matter arising in connection with this Agreement, shall not be a waiver with respect to any subsequent default, right or matter.

Section 15. Liability of Parties.

MPPA and the Participant each recognize that the Project constitutes a separate project of MPPA. In accordance with Section 12 hereof, the Participant shall assert no monetary claims or money damage claims against MPPA for any default or breach of this agreement, and the Participant is limited to equitable relief as provided therein. In addition, the parties agree that under no circumstances shall the financial assets, funds and accounts and physical assets of any other MPPA project be available to satisfy any of MPPA's obligations to the Participant under this Agreement. The sole available recourse for the Participant or MPPA for any acts, errors or omissions by the other party, other than a "default" under Sections 8, 11 or 12 of this Agreement, shall be the withholding of currently owed amounts or suspension of the provision of Energy Services, followed by the termination of this Agreement.

Section 16. Termination or Amendment of Agreement.

This Agreement may be terminated by either party after the initial term (i.e., to become effective no earlier than December 31, 2015) for any reason upon the provision of at least 120 days' written notice to the other party of its desire to terminate the Agreement. The proposed termination date of the Agreement made pursuant to Section 16 shall be on a December 31; provided, however, for purposes of this Section 16, the actual date of termination shall be the date which is the latest of (i) the first December 31 following expiration of the notice period, (ii) the date of expiration or satisfaction of the Participant's obligations with respect to its PPC. The obligation shall be considered satisfied if, upon request of the Participant, the Participant has executed another agreement with MPPA, the form of which has been approved by the MPPA Board of Commissioners and the Participant's governing body, and otherwise meets the requirements of Section 8 of the MPPA Energy Risk Management Policy approved by the MPPA Board of Commissioners on July 13, 2011, and (iii) the date of receipt by MPPA of full payment by or for the Participant for any Energy Services provided under this Agreement, including, but

not limited to, any obligations and expenses owed to MPPA related to the Participant's PPC for which MPPA is not entitled to receive payment from others. This Agreement may also be terminated pursuant to Sections 9, or 12 of this Agreement.

The Participant and MPPA both recognize that charges, fees, expenses and settlements may survive the term of this Agreement. Notwithstanding anything in this Agreement to the contrary, in the event such charges, fees, expenses and settlements are incurred as the result of services provided under this Agreement, the Participant shall continue to remain liable and financially responsible for all costs associated with the charges, fees, expenses and settlements until they are recovered in full, and MPPA shall remain obligated to pay to the Participant any revenues it may receive on behalf of the Participant in connection with such settlements.

Except for changes to any Exhibits, including Attachments, included as part of this Agreement, made in accordance with Section 2, any amendments to this Agreement shall be approved by the governing board of each party hereto as executed by authorized signers before any such amendment shall be effective.

Section 17. Applicable Law; Construction.

This Agreement is made under and shall be governed by the law of the State of Michigan. Headings herein are for convenience only and shall not influence the construction hereof.

Section 18. Severability.

If any section, paragraph, clause or provision of this Agreement shall be finally adjudicated by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in full force and effect as though such section, paragraph, clause or provision or any part thereof so adjudicated to be invalid had not been included herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their proper officers respectively, being thereunto duly authorized, as of the day and year first above written.

MICHIGAN PUBLIC POWER AGENCY

By _____
Annette Allen, Chairperson

Attest:

TRAVERSE CITY LIGHT AND POWER

By _____

Its _____

Attest:

EXHIBIT 1

Energy Services To be provided by Michigan Public Power Agency

The following listing identifies those services that the MPPA will perform for the Participant.

1. General Provisions

- a. The Project will share facilities, software and personnel with the other MPPA projects and committees, since all of these projects will need enhanced scheduling services under the RTO structure.
- b. Personnel charges against the Project will be based on personnel time charged specifically for the Energy Services contained herein and additional services as agreed to by MPPA and the Participant.
- c. MPPA overheads will be allocated to the Project in a manner agreed to and approved by the MPPA Energy Services Project Committee.
- d. If the Participant has generating resources, then the Participant will provide to MPPA information on generating resource availability, maintenance scheduling, and other necessary information on an on-going basis.
- e. MPPA and the Participant will jointly develop an operating plan that will define in detail the responsibilities and duties of the parties and the procedures to be used in the provision of the Energy Services.
- f. MPPA shall perform Energy Services in accordance with Exhibit 2, MPPA's Energy Services Risk Management Policy

2. Detail of "Day Ahead" Services.

Note: References to Participant generating resources and supply offers apply only to the resources and offers of those Participants that have designated such Participant resources to be included in these Energy Services.

- a. All Day Ahead services will be performed in accordance with Participant directions on risk and procedures as specified in Exhibit 2. The Participant will provide direction to MPPA on risk parameters and operating procedures, and may have direct input in other areas.

- b. Day Ahead services will include:
 - i. Transaction and transmission procurement as needed as well as transaction tagging when necessary.
 - ii. Developing and updating each weekday that is not an MPPA holiday, an operating plan that spans from the current day to the fifth future day (Participant will provide data if requested by MPPA, and may review plan via the MPPA Portal prior to implementation). The operating plan will include the following tasks and activities:
 - (1) Preparation of hourly load forecasts for the next five days.
 - (2) Reviewing the forecast loads against expected resources and resource availability.
 - (3) Reviewing recent and expected RTO pricing.
 - (4) Preparation of a plan to economically and reliably meet expected loads using risk parameters as approved by the Participant.
 - iii. Perform scheduling and initiate transactions:
 - (1) Receive and review current day actual loads for Participant.
 - (2) Review next day load forecast from software or forecast service.
 - (3) Prepare next day load forecast.
 - (4) Review of current and expected next day RTO costs.
 - (5) Review of Participant generation status
 - (a) Participant will provide regular updates on resource availability and bid/offer pricing.
 - (b) Participant personnel will provide "Must Run" scheduling of resources.
 - (6) Develop recommended wholesale purchases or sales subject to limits and risk policies.
 - (7) Prepare and submit hourly FinScheds for purchase/sales transactions.
 - (8) Prepare bids and offers for submission to RTO, including any demand bids, generation offers and/or virtual bids and offers.
 - (9) Prepare and submit data to RTO through market interface software, including
 - (a) Load forecast,
 - (b) FinScheds,
 - (c) Internal bilateral schedules,
 - (d) External bilateral schedules,
 - (e) Price sensitive demand bids
 - (10) Review prior day's FinScheds against actual flows

- (11) Submit adjusted FinScheds to RTO through market interface software, when necessary.
 - (12) Schedule transmission, as necessary, for Participants using point-to-point transmission service.
- c. Perform RTO Registration filings, as necessary
- i. Submit RTO Quarterly Commercial Model updates
 - ii. Submit load data to the Local Balancing Authority for determination of elemental node allocations.
 - iii. Submit Resource Adequacy information and implement Emergency Operating Procedures, as necessary

3. Statement and Billing Review Services

- a. MPPA, as Meter Data Management Agent (MDMA), will submit meter data to the RTO through market interface software using meter data as provided by the Participant.
- b. MPPA will regularly review all statements and invoices for electric power service to the Participant from or through the RTO.
- c. MPPA will provide information to the Participant on whether invoices are being disputed. MPPA will provide such information as necessary to comply with the Participant's financial review and payment procedures.
- d. Detailed statement and billing review activities to be performed by MPPA will include the following:
 - i. Review of RTO statements from:
 - (1) Seven business days previous
 - (2) 14 calendar days previous
 - (3) 55 calendar days previous
 - (4) 105 calendar days previous
 - (5) Revision statements, as necessary
 - ii. Review of RTO invoices when received.
 - iii. Comparison of transaction records with any third parties where bilaterals were executed (checkout).
 - iv. Comparison of RTO statement results with the market interface software shadow settlement values.
 - v. Determination of the reasons for differences between MPPA transaction records for the Participant and RTO statements and invoices.

- vi. Initiation of a protest or arbitration, as necessary. The Participant will be contacted before any arbitration activities are initiated.
- vii. Sending a summary of billing or alert on results to Participant.
- viii. After termination of the Agreement, the Participant shall still be responsible for all of its share of financial obligations associated with this Agreement during the time it was a Participant.

4. **Participant Invoicing and Reporting**

- a. Provide invoices to Participants on a weekly basis based on the most recent invoices MPPA receives from the RTOs that will include charges for transmission purchases and bilateral transactions with third parties.
- b. Provide invoices monthly for MPPA overhead costs.
- c. Provide ad-hoc billing summaries monthly.

EXHIBIT 2

MPPA Energy Risk Management (ERM) Policy

1. Policy Purpose

The purpose of this document is to formalize the policies of Michigan Public Power Agency (MPPA) regarding managing energy risks on behalf of its members. Accordingly, this policy will set forth MPPA's:

- energy risk management objectives
- energy risk governance structure and responsibilities
- scope of business activities governed by this policy
- transaction authority delegations
- credit management practices and requirements

MPPA intends that its energy risk management program will support the advancement of its strategic plan, conform to its existing by-laws, governance policies and contracts, and will properly manage its business and financial risks through:

- prudent oversight
- adequate mitigation of risks consistent with each member's risk tolerance
- sufficient internal controls and procedures

Managing the energy risks of MPPA's business entails the coordination of resources and activities among multiple departments within MPPA.

2. Energy Risk Management Objectives

The MPPA exists to create opportunities for joint-action that enable Michigan's local public power utilities to successfully provide reliable, cost effective and environmentally responsible electric utility services. The mission of MPPA is to help members realize the benefits of joint action in the planning, development, acquisition and management of electric services that meet their needs.

Managing energy risk on behalf of the membership is consistent with the purpose and mission of MPPA, is required by MPPA Board Policy DM 1-12, and also serves the following objectives:

- assist members with maintaining risk within their desired tolerances for a defined period into the future
- mitigate price volatility to the members consistent with their direction
- enhance the value of the members' assets/resources
- participate in commodity markets and derivative instruments for hedging, and not for speculative purposes, on behalf of their members
- set forth credit risk management practices

- define the authority granted by the MPPA Board and its members to the MPPA General Manager (GM) to execute and delegate authority to execute energy related transactions
- promote a risk management culture and set appropriate risk mitigation measures
- ensure all members have a voice in the decision making process as the Agency considers market transactions to be entered into by MPPA on behalf of projects, groups of members, or individual members
- provide for adequate MPPA Board oversight of energy transactions

It is not the objective of this policy to limit transactions for power supply, transmission, and/or related services that may be negotiated or entered into by members independent of MPPA as may be allowed under MPPA's various contracts and project agreements.

3. Scope of Business Activities Governed by this Policy

The scope of this policy is designed to address the management of energy risk associated with MPPA and transactions made by MPPA on behalf of its members, including but not limited to:

- commercial operational risk
- commodity price risk
- volumetric risk
- operations risk
- power delivery and congestion risk
- counterparty contract and credit risk

Definitions of these risks along with a more complete list of the risks that MPPA assists its members in managing are included in Appendix A.

4. Risk Governance Structure and Responsibilities

Risk governance will follow a member driven approach whereby the Member's Governing Body identifies and communicates their risk management objectives to MPPA through a process outlined herein and in conjunction with the MPPA Hedge Policy. The MPPA Board shall be responsible for oversight of the Energy Risk Management program consistent with this Policy, while multiple MPPA Board committees and the Member Governing Bodies, through their Member Authorized Representative, are responsible for oversight and implementation of the Hedge Policy.

Supporting controls, policies and procedures will be implemented and aligned throughout the risk governance structure with distinct roles and responsibilities that result in a comprehensive risk control environment. Governance and controls include the organizational structure, policies, reporting process and procedures, establishment of risk tolerances and power supply objectives, and appropriate segregation of responsibilities.

The governance structure includes the following elements:

a. **Member Governing Bodies (Utility Board or Commission and/or City Council)**
– Responsibilities and Duties:

- possess a basic understanding of MPPA’s energy risk management procedures and practices as they relate to MPPA entering into market transactions on their behalf
- designate the electric utility’s **Member Authorized Representative** (i.e. MPPA Commissioner or Alternate, Utility CEO, General Manager, Director, or City Manager as determined appropriate).
- determine authority limits of the Member Authorized Representative to approve risk management transactions or the delegation of such authority to MPPA
- affirm the energy hedging strategies and services provided by MPPA as outlined in the MPPA Hedge Policy through oversight of its Member Authorized Representative and his or her participation on the appropriate Hedge Committee

b. **MPPA Board** – Responsibilities and Duties

- possess a basic understanding of energy risk management in general and MPPA’s program, policies, and procedures in particular
- approve MPPA risk management objectives
- approve General Manager and staff authority limits to conduct risk management transactions
- periodically review, make recommended changes to, and approve the Energy Risk Management Policy that establishes an overall framework for evaluation, management, and control of risk by the Agency
- approve Agency participation in specific commodity markets and the use of any derivative instruments
- receive reports by the independent risk management function of MPPA on MPPA’s compliance with the ERM Policy

c. **Energy Hedge Plan Committees** – Responsibilities and Duties

The Hedge Policy allows for each member to select an Energy Hedge Plan to address its energy requirements and risk management objectives in conjunction with other members with similar risk management tolerances, goals, and objectives. If members do not elect to join an established Hedge Plan, they will be placed in a self-directed status where MPPA only acts to hedge member risk under that member’s individual direction.

Hedge Plan Committees (HPCs) will be formed to oversee the hedging activities for each Energy Hedge Plan (with the exception of the self-directed plan).

Each HPC shall be comprised of the Authorized Representatives from members who have selected the applicable Hedge Plan along with the following ex-officio members from MPPA Staff:

1. GM
2. Chief Financial Officer (CFO)
3. Bulk Power Manager

The HPCs will have the following duties and responsibilities:

- review and approve execution strategies for energy hedge plans
- establish scope and frequency for management reporting to the committee
- recommend new commodity products, locations, or markets for consideration by the MPPA Board and the Member Governing Bodies

d. **Member Authorized Representatives – Responsibilities and Duties**

- provide appropriate risk management information to their Governing Body
- gain appropriate approvals from their Governing Body to approve MPPA’s ERM and Hedge Policies and the selection of the Hedge Plan to be utilized
- gain appropriate approvals from their Governing Body for execution strategies and transaction authority delegations as they relate to MPPA entering into market transactions on their behalf
- approve participation in specific commodity markets and the use of any derivative instruments by MPPA on the member’s behalf (if such transactions are allowed by MPPA’s Board and each member’s Governing Body as appropriate)
- receive reports by the independent risk management function of MPPA, as defined herein, on compliance with member’s hedge policy selection

e. **MPPA General Manager – Responsibilities and Duties**

- assign staff to serve as members of the Internal Risk Management Committee
- possess authority to approve transactions within the limits identified in the Transaction Authority Matrix after receiving any necessary approvals specified therein
- determine proper organization, separation, or consolidation of functional activities
- assure prudent administrative procedures are established for execution of commodity and derivative transactions, contract controls, credit controls, transaction controls, risk monitoring and measurement requirements, settlement controls, and other energy risk management activities
- ensure that the identification and quantification of risks and related risk mitigation strategies are integrated into the strategic planning process.

f. **Internal Risk Management Committee – Responsibilities and Duties**

Membership shall be comprised of the following four voting committee members:

1. GM
2. CFO
3. Two member representatives as appointed by the Board
4. Bulk Power Manager (ex-officio member of IRMC)

The CFO shall serve as the IRMC Chairperson. The Chairperson shall be responsible for keeping, or causing to be kept, a record of the Committee’s proceedings. Other non-voting participants shall participate in the meetings as determined by the voting committee members.

The IRMC establishes a forum for discussion of MPPA’s significant risks and must develop guidelines required to implement an appropriate risk management control

infrastructure; this includes implementation and monitoring of compliance with MPPA's ERM and Hedge Policies.

The IRMC shall:

- review the energy risk management related policies and oversee enforcement by the Independent Risk Management Function
- ensure that risk management objectives, risk tolerance guidelines, and authority limits are employed throughout MPPA
- recommend to the GM the proper organizational structure, separation or consolidation of functional risk management activities
- periodically review MPPA's risk management program (a detailed review at least once a year) in light of recent changes in business practices, improved procedures, alternate MPPA's philosophy or strategy, or market modifications; and ensure continued compliance with its established guidelines
- formulate risk management strategy, policy or procedures necessary for new product or market implementation
- periodically direct an independent review (internal and/or external) of risk control policies and procedures
- hold formal IRMC meetings at least quarterly. Standing agenda items should include, but not be limited to, current commodity market strategies, power cost uncertainty, level of exposure to non-member transactions, generation production strategies and exposures, environmental strategies and exposures, control requirements/enhancements, counterparty contract and credit exposure, and policy and procedural violations
- discuss MPPA's major energy risk exposures and the steps management has taken or will take to mitigate, control, and monitor such exposures
- for market transactions executed by MPPA, perform an annual review of transaction compliance with policies and procedures
- review the infrastructure supporting risk management and ensure that it meets the requirements for risk oversight and compliance

g. Independent Risk Management Function – Responsibilities and Duties

This function shall be the responsibility of the Chief Financial Officer, who is organizationally independent of those whose activities initiate or directly participate in managing most of the energy risks of MPPA via the authority granted in the Hedge Policy and transaction authority section of this policy. Various departments may be required to assist in providing this function with reports or information required for risk assessment and analysis on a regular or periodic basis.

Responsibilities of the Independent Risk Management Function include:

- organize and chair the IRMC meetings
- engage the IRMC in discussions regarding events or developments that could expose MPPA to potential losses
- develop, recommend, and administer risk management processes and procedures; provide input to tools to assist in risk management
- provide for risk management education/training to Board, staff and management

- review risk management activities, risk controls, and recommend modifications of controls to meet changing business needs
- perform periodic internal reviews of risk control policies and procedures to ensure that MPPA complies with its risk policies
- report any violation of MPPA’s risk policies to the Board and appropriate Committees
- review and recommend changes to the risk management policies and procedures, as appropriate
- report to MPPA Board on MPPA’s compliance with its risk policies and risk management in accordance with the policies

5. Transaction Authority Requirements

The purpose of this section is to define the authority granted by the MPPA Board of Commissioners and local Governing Bodies (as directed by the Member Authorized Representative) to the General Manager to execute and delegate authority to execute energy related transactions. Furthermore, it sets forth clarity and empowerment among those with transaction authority and is designed to encourage communication among individuals with transaction authority and the MPPA Board of Commissioners. Changes to the Authority Matrix must be approved by MPPA’s Board of Commissioners and each Member’s Governing Body using the Matrix to delegate transaction authority as it may relate to MPPA entering into market transactions on the Member’s behalf.

a. Objectives

The objectives of the MPPA Transaction Authority Requirements are to define:

- who has authority to execute transactions and any limits placed on such authority
- the commodities and products that can be transacted
- counterparty contract and credit requirements
- the process for approving new commodities, products or locations
- MPPA’s intentions regarding hedging and speculating
- other relevant factors associated with due diligence in authorizing transactions to be executed

b. Procedural Requirements

The following defines procedural requirements that apply to all commodities and products transacted under this Transaction Authority Requirements document.

Execution Authority

Execution Authority is outlined by commodity through the Transaction Authority Matrix. Appendix B illustrates the initial Transaction Authority Matrix at the writing of this policy and serves as a sample for future transaction authority matrices that may be developed.

The Authority Matrix identifies Board authorized transactions for the GM and explicitly provides for delegation of the GM’s authority to MPPA staff. The GM can modify this delegated authority at his sole discretion as long as the delegated

authority does not exceed his own authority per this policy. Delegated authority by the GM will be provided in writing and approved by the Internal Risk Management Committee.

Contract Requirements

Transactions with counterparties shall only be permitted if MPPA has:

- an active, valid, and executed agreement enabling such transaction activity with that counterparty such as a “standard” EEI or ISDA as may be amended and approved as appropriate
- a long-form confirmation (used in-lieu-of a permanent agreement, when necessary, only if approved by the CFO)

Credit Sleeving

No sleeving transactions for credit purposes shall be executed. (Note: Sleeving is an arrangement where a more financially reputable entity acts as middleman for a smaller, undercapitalized entity in the purchase or sale of energy.)

Record of Transactions

All transactions must be executed via a recorded communication method. Examples include a voice recorded communication line, instant messaging or an on-line broker account. Recorded communications must be maintained and controlled by MPPA’s Information Technology Manager. Transacting on cellular phones or off premises telephones is prohibited.

Deal Capture

All transactions executed by an MPPA employee must be promptly captured in a trade capture system after deal execution.

Speculation

No speculative transaction activities shall be permitted, and no speculative transaction positions shall be initiated. Transacting will be permitted only for purposes of hedging and portfolio optimization.

Non-Standard Products Requiring Board Approval

The MPPA Board must approve any transaction that involves commodities or products that are not covered by an approved Authority Matrix

The purpose of defining a process for such transactions as noted above is to ensure that the exposures associated with them are thoroughly reviewed and understood by the Board and appropriate transaction controls are in place. The Board must approve the use of such transactions prior to execution using the process defined below:

- **Transaction Proposal** - The proposal is the responsibility of the person or business group proposing the transaction. The proposal should address the business need, risks, transaction controls, valuation methodology, accounting methodology, operations workflow/methodology, and assessment of legal and regulatory issues.
- **Internal Risk Management Committee Review** - The Committee will perform a review on behalf of, and make a recommendation to, the Board on the benefits

and risks of the proposed transaction. The Board will assess the proposed transaction and make a determination whether to add the proposed transaction to the approved list.

- Pilot Program or “One-off” Transaction – The Board may approve limited use of a proposed transaction under a pilot program or trial basis to insure that proper controls are in place to monitor the activity before broader use is allowed. The Board may also approve a proposed transaction (without instituting a Pilot Program or further use) if the proposed transaction is going to be used only once (one-off).

6. Credit Management Requirements

Wholesale counterparties must submit a copy of their company’s most recent Creditworthiness Assessment from the Midwest Independent Transmission System Operator, Inc. (MISO) that is compiled in accordance with MISO’s Credit Policy (Attachment L of the Energy Markets Tariff). The credit limit established as a result of the review performed by MISO will be used to establish the credit limit for bilateral transactions with each counterparty.

Counterparties will have continuous evaluation as they may, from time-to-time, appear in financial/trade publications that will be reviewed by MPPA. Items of risk significance relating to counterparties will be noted and cause reassessment. Such items will include, but are not limited to, downgrade events or business practices that are not conforming to appropriate ethics. In such event, or any other event occurs that triggers a review by MISO of the counterparty’s creditworthiness, the new letter from MISO will promptly be requested and obtained from the counterparty before new transactions with that counterparty will be allowed.

If the proposed counterparty fails to meet the evaluated criteria, but there is a sufficient reason to justify transacting with the counterparty, then the counterparty will be required to make a prepayment for any purchases the counterparty makes from MPPA. Based upon the results of the analysis for the counterparty, an unsecured transaction limit and a list of any special conditions will be prepared for the counterparty.

7. Counterparty Concentration Risk Mitigation

- MPPA shall always maintain relations and agreements with at least three (3) counterparties that are actively trading in MISO.
- No more than fifty (50%) of MPPA’s annual bilateral energy and capacity purchases (excluding MPPA owned or jointly-owned assets) shall be acquired from a single counterparty. A HPC, or a member within a self-directed plan, may also develop further concentration risk mitigation strategies.

8. Written Agreements Covering Transactions

MPPA shall not enter into a Power Purchase Commitment or “PPC,” on behalf of a participating member, unless: (i) the PPC is covered by the Energy Services Agreement with

the participating member, the form of which has been approved by both the MPPA Board and the participating member's governing body and executed by MPPA and the participating member, and the participating member has delivered an opinion of local counsel, to the effect that the Energy Services Agreement has been approved by the participating member's governing body and is a valid and binding agreement of the participating member, enforceable against it in accordance with its terms; or (ii) the PPC is covered by a written agreement with the participating member, the form of which has been approved by the MPPA Board and the participating member's governing body and executed by MPPA and the participating member, and the participating member has delivered an opinion of local counsel, to the effect that the written agreement has been approved by the participating member's governing body and is a valid and binding agreement of the participating member, enforceable against it in accordance with its terms.

9. Working Capital Requirements

The MPPA Board shall require, within its transaction approval process, transaction participants to maintain an adequate level of working capital on account with MPPA during the duration of a transaction that has been executed by MPPA on a member's behalf.

10. Financial and Physical Firmness of Energy

Each HPC will determine a minimum percentage level of its Plan's energy requirements that will be delivered physically and/or financially firm consistent with this Policy's Transaction Authority.

11. Transaction Duration and Maturity Diversity

Each HPC will develop transaction criteria to ensure duration and maturity diversity.

12. Policy Effective

This Energy Risk Management Policy is in effect upon the Board's approval and shall remain in effect until a replacement policy has been approved by the Board superseding this Energy Risk Management Policy. This policy supersedes the prior version of Exhibit 2 of the Energy Services Agreement between MPPA and Energy Services Project Participants (entitled Energy Services Risk Management Policy) upon ratification and approval of associated changes and amendments to the Energy Services Agreement

13. Responsibility

It shall be the responsibility of the Board of Directors, through its supervision and oversight of MPPA's GM, to ensure compliance with this policy.

Approved: _____ Attest: _____
Chair Secretary

Effective: _____

Appendix A

Definition of Risks

Commercial operational risk is the risk of loss from inadequate or failed internal processes, people, and systems.

Commodity market price risk is the risk of loss due to potential fluctuations in the prices of an underlying energy commodity. In the wholesale power market, MPPA has risk that commodity prices rise, spike or are generally high when it is short of meeting its firm supply obligations. MPPA has risk that prices fall or are generally low when it has excess capacity or electric energy compared to its firm supply obligations.

Due to heavy reliance on coal generation units, MPPA has a natural short position in the coal that it needs to supply fuel to its generating resources.

Commodity market price risk occurs across all tenures, from the hourly market to the long-term forward market (5 years +). MPPA is exposed to commodity price risk for power, coal, natural gas, emission allowance (SO₂ and NO_X), fuel oil and various bulk materials (e.g. ammonium, limestone) that exhibit price volatility.

Contract risk or Counterparty performance risk is the risk of a potential adverse occurrence of a counterparty's ability to operationally perform on an agreement or due to contractual provisions that leave MPPA with no recourse under an event of default.

Concentration risk is the risk of having large exposures to significant power supply components. Concentration risk can be found with suppliers (contract and credit risk), generation units (outage risk), unit technology (environmental), native load customers (smelters).

Credit risk is the risk of a potential adverse occurrence of a counterparty's ability to pay its obligations (debts) to MPPA or the supplier declares bankruptcy and abrogates a supply contract that must be replaced during a time of higher commodity market prices.

Delivery risk is the risk that MPPA cannot meet a firm supply obligation due to a transmission constraint. Delivery risk is natural to MPPA in meeting its firm supply obligations and reliability of service. MPPA can also be exposed to delivery risk in the transportation of its fuel supply.

Cash margin risk is the risk associated with inadequate cash flow resulting from margin requirements of a contractual agreement. For example, the EEI Master Agreement provides that counterparties may margin each other when they are overexposed above credit thresholds that were negotiated between the parties when the agreement was executed. Credit exposures include replacement cost exposure on a mark-to-market basis when a counterparty's position is out-of-the money.

Operations risk is the risk associated with physical assets. This would include failures or outages associated with generation units, fuel delivery systems (weather or mechanical),

generation step-up transformers, the transmission system, control systems, or other critical components associated with the production or delivery of electricity.

Volumetric risk is the risk that energy commodity volumes will vary from expected and result in a potential loss due to changing commodity market prices. The primary volumetric risks that MPPA is exposed to are *load forecast/ weather variability risk, forced outage/ de-rate risk, loss of load (smelter load concentration), and transmission delivery risk, and transmission congestion risk.*

Load forecast/weather variability risk is the risk that actual loads differ from forecasted loads due to the error in weather forecasts and load forecasts. This risk is natural to MPPA's portfolio since it serves load serving entities. Since this risk will result in MPPA being unintentionally long or short in the spot market, it naturally results in hourly market price risk.

Forced outage and de-rate risk is the risk that a generating unit does not perform when it is expected to be available, or when it performs below expected capability. This risk is natural to MPPA's portfolio since it owns and operates generation units to meet its load requirements. Since this risk will result in MPPA being unintentionally short in the market, it also naturally results in market price risk.

Loss of load risk is the risk that MPPA loses a significant portion of one of its members' load, for example an aluminum smelter, and that the market price for electricity coincidentally falls below the sales price of the lost load and thereby creates a financial strain on MPPA. However, if market prices for electricity remain above the sales price of a potential lost load it would create a financial benefit to MPPA.

Congestion risk is the risk of negative price differentials between the location of power supplies and the demand location. If MPPA needs to buy electricity and the transmission system is congested, it would pay a premium to secure the needed electricity, if it is available at all. If MPPA has excess electricity to sell and the transmission system is congested, then it may not be able to sell the excess or may have to sell at a discounted price to a non-congested area. Congestion risk typically manifests itself in power commodity market price risk.

Appendix B

Bilateral Electric Power and Transmission Transaction Authority Matrix

The following outlines transaction limits, definitions, and procedural requirements for power and power transmission transactions including capacity.

Title	Product	Term	Required Transaction Approvals
MPPA GM or his delegated representative	Electric Power, Trans., and Capacity	> 1 Year	Any transaction with a term greater than one year must be approved by the Member Authorized Representative and the MPPA Board of Directors who may identify price and/or volume restrictions
		> 1 Month ≤ 1 Year	Any transaction with a term greater than one month but less than or equal to one year must be approved by the Member Authorized Representative who may identify price and/or volume restrictions
		≤ 1 Month	None, unless the appropriate Member Authorized Representative identifies in writing certain price and/or volume restrictions

Bilateral Electric Power and Transmission Transaction Trading Authority Matrix

Explanations

- Authorized products include electric power and transmission as well as bilateral ancillary services and capacity. MISO Module E Capacity as well as capacity transacted via the MISO and PJM capacity auctions are specifically authorized hereunder.
- MISO and/or PJM authorized products are Generation and Demand Awards, Import/Export Transactions, Ancillary Service Awards, and Financial Transmission Rights. All such products must follow all applicable MISO requirements.
- The transaction approval requirements apply to both purchases and sales

Delivery Locations

Transacting at delivery locations outside the eastern interconnection is not permitted. Transacting at delivery locations that are normal to the daily course of business for MPPA, to the extent transmission is available, is authorized as follows:

Unrestricted Delivery Locations

- MISO – Michigan Hub

- MISO – Member Load Commercial Pricing (CP) node or any other CP Node within Michigan
- MISO – Cinergy Hub/Indiana Hub
- MISO – Minnesota Hub (for Marquette)

Transacting at any other delivery locations within the eastern interconnection must be approved consistent with the Authority Matrix above.

Firmness of Power

The product firmness of all transactions must be provided for in an executed agreement between MPPA and the appropriate counterparty. Sales commitments must never be more firm than the supply source.

Transmission Firmness and Volume

Transmission purchases need to be of equal firmness and volume to the energy component that such transmission purchase is associated with, unless approved otherwise consistent with the Authority Matrix above.

Responsibility

It shall be the responsibility of the Board of Commissioners and the MPPA General Manager to ensure compliance with this Authority Matrix.

Approved: _____ Attest: _____
 Chair Secretary

Effective: _____

EXHIBIT 3

Meter Data Specifications

MPPA requires certain electrical parameters to be provided by the Participant.

1. General Provisions

The Participant is responsible for providing billing quality data for all interconnection points to MPPA's Meter Data Acquisition (MDA) system. The method of data collection at the remote meter point and the method of data transmission to MPPA's MDA in accordance with MPPA's data reception requirements shall be the responsibility of the Participant.

2. Communications Protocol

MPPA will support the DNP3 communications protocol as its standard protocol. If the Participant requires a different non-standard protocol, then the Participant shall be responsible for all costs to support that protocol including but not limited to the installation, configuration, and maintenance related to any non-standard protocol. In addition, MPPA will support Inter-Control Center Protocol (ICCP) communication.

3. Reception of Data by MPPA

MPPA will have the capability to receive data from a variety of transmission mediums as its standard medium as long as it can support a secured Virtual Private Network (VPN) tunnel. Transmission mediums that can be successfully interfaced with the MPPA MDA are satellite, cable, DSL, radio, and fiber optics. If the Participant requires a different non-standard transmission medium, then the Participant shall be responsible for all costs to support it including but not limited to the installation, configuration, and maintenance related to any non-standard transmission medium.

4. Minimum Required Data

The following data is required by MPPA:

- (a) Delivery Points (Tie Points)
 1. Integrated hourly data (in/out) for megawatts (MW) and megavars (MVARs)
 2. Status of each circuit breaker

(b) Generation

Integrated hourly data for megawatts (MW) delivered and megavars (MVARs) in and out.

5. Periodicity of Data

- (a) Accumulator data (MWHR, MVHR) - All accumulator data should be polled and received by MPPA hourly.
- (b) Analog data - All analog point data should be polled and available to MPPA using no longer than a 10 second scan interval.
- (c) Status Point data - All status point data should be polled and available to MPPA using no longer than a 10 second scan interval.

Amendment No. 1
To the Energy Services Agreement between
Michigan Public power Agency
And the
Traverse City Light and Power

This Amendment to the Energy Services Agreement ("Agreement") is made and entered into as of April 1, 2014, by and between the MICHIGAN PUBLIC POWER AGENCY ("MPPA"), a body corporate and politic of the State of Michigan, created pursuant to 1976 PA 448 and the TRAVERSE CITY LIGHT AND POWER (the "Participant").

Exhibit 1. "Energy Services To Be Provided By Michigan Public Power Agency" is hereby amended as follows for the initial term until December 31, 2015:

1. Exclude all items listed in paragraph 2. entitled Detail of "Day Ahead Services"
2. Exclude item b. of paragraph 3. entitled Statement and Billing Review Services

It is recognized by MPPA and the Participant that some remaining items listed in Exhibit 1, although MPPA would perform, would be done at a reduced level since the Participant is receiving certain services from others during the initial term.

Commensurate with this reduction of services to be provided by MPPA, the MPPA Energy Services Project Committee will allocate MPPA overheads under Exhibit 1. item c. at a rate one-half (½) that of other Participants of the Project (½ the democratic portion and ½ the volumetric portion), during the initial term.

On January 1, 2016, upon the completion of the initial term under **Section 1.**, should MPPA and the Participant not terminate the agreement pursuant to Section 9, 12, or 16, this Amendment No. 1 would terminate.

To evidence their acceptance of this Amendment, MPPA and the Participant's authorized representatives have signed below effective as of the date specified above.

MICHIGAN PUBLIC POWER AGENCY

TRAVERSE CITY LIGHT AND POWER

By: _____
Annette Allen

By: _____

Its: Chair of the Board of Commissioners

Its: _____