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David R. Moeller
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February 3, 2015

VIA ELECTRONIC FILING AND U.S. MAIL
The Honorable Ann O'Reilly
Office of Administrative Hearings
PO Box 64620
St. Paul, MN 55164-0620

Re: *In the Matter of the Request by Minnesota Power for a Certificate of Need for the Great Northern Transmission Line Project*
MPUC Order Approving 133 MW ROAs
MPUC Docket No. E015/CN-12-1163
OAH Docket No. 65-2500-31196

Dear Judge O'Reilly:

As discussed in the briefing of the parties, the Minnesota Public Utilities Commission ("Commission") had scheduled a hearing for the 133 MW ROAs in MPUC Docket No. E015/M-14-960. The Commission held a hearing on January 29, 2015 and approved Minnesota Power's Petition for Approval of the 133 MW ROAs. On January 30, 2015 the Commission issued its written order (see attached).

As noted in briefing, Minnesota Power, the Department of Commerce and LPI all agreed that it is reasonable to condition approval of the Great Northern Transmission Line Certificate of Need on Commission approval of the 133 MW ROAs. With the Commission's January 30, 2015 order, a "condition" is no longer necessary for this Commission approval.

This Commission order has been filed with the eDocket system and served on the attached service list. Also enclosed is our Affidavit of Service.

Yours truly,

David R. Moeller

David R. Moeller
Senior Attorney
Minnesota Power

DRM:sr
Encl.

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

David R. Moeller
Senior Attorney
Minnesota Power
30 West Superior Street
Duluth, MN 55802

SERVICE DATE: January 30, 2015

DOCKET NO. E-015/M-14-960

In the Matter of Minnesota Power's (MP) Petition for Approval of a 133 MW Power Purchase Agreement with Manitoba Hydro

The above entitled matter has been considered by the Commission and the following disposition made:

Approved Minnesota Power's Petition with the following caveat:

> **This action does not prejudge any issue in the pending applications for a certificate of need and site permit for the Great Northern Transmission Line, docket numbers E-015/CN-12-1163 and E-015/TL-14-21. Should either application be denied, the Company must make a filing within 90 days of such order detailing the effect of the denial on this PPA and the course of action proposed by the Company.**

The Commission agrees with and adopts the recommendations of the Department of Commerce, which are attached and hereby incorporated into the Order. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf
Executive Secretary

This document can be made available in alternative formats (e.g., large print or audio) by calling 651.296.0406 (voice). Persons with hearing loss or speech disabilities may call us through their preferred Telecommunications Relay Service.

MINNESOTA DEPARTMENT OF COMMERCE

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December 29, 2014 **PUBLIC DOCUMENT**

Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E015/M-14-960

Dear Dr. Haar:

Attached are the PUBLIC comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Minnesota Power's Petition for Approval of a 133 MW Power Purchase Agreement with Manitoba Hydro.

The petition was filed on November 6, 2014 by:

David R. Moeller
Senior Attorney
Minnesota Power
30 West Superior Street
Duluth, MN 55802

The Department recommends **approval** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ STEVE RAKOW
Rates Analyst

SR/lt
Attachment

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

PUBLIC COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE DIVISION OF ENERGY RESOURCES

DOCKET NO. E015/M-14-960

I. INTRODUCTION

A. *SUMMARY OF THE PETITION*

On November 6, 2014, Minnesota Power, an operating division of Allete, Inc. (MP or the Company) petitioned the Minnesota Public Utilities Commission (Commission) for approval of the *133 MW Energy Sale Agreement* (ESA) and the *Energy Exchange Agreement* (EEA)[1] both between MP and Manitoba Hydro-Electric Board (MH). The proposed ESA pertains to non-firm energy offered by MH to MP, not to exceed 133 MW per hour. MP must accept delivery of MH's energy, or alternatively, offer all or a portion of MH's energy into the market operated by the Midcontinent Independent System Operator, Inc. (MISO). The proposed EEA allows MP to sell energy to MH. Separately, the EEA also allows MP to, in essence, store 750 GWh per year of wind energy within MH's system and take back the energy later. The proposed ESA and EEA are for a 20-year period effective when the Great Northern Transmission Line (GNTL) is placed in-service.[2]

The Department notes that MP's Petition proposes to provide annual updates within the Company's annual automatic adjustment report regarding:

- energy purchases (quantities and prices); and
- the net benefit of any sale of environmental attribute.

[1] The EEA is also known as the Renewable Optimization Agreement (ROA).
[2] The GNTL is a proposed 220-mile 500 kV transmission line to be constructed from the Minnesota-Manitoba border northwest of Roseau, Minnesota proceeding to the existing Blackberry Substation near Grand Rapids, Minnesota, as well as associated facilities, expected to be in-service June 1, 2020. The GNTL is currently under review in Docket No. E015/CN-12-1163.

The Petition also commits to continuing the reporting requirements of Docket No. E015/M-11-938[3] for this docket. The Department recommends that the Commission approve MP's proposed reporting requirements.

B. BACKGROUND

The proposed ESA and EEA were not considered in MP's most recent resource plan (Docket No. E015/RP-13-53). MP's 2013 resource plan showed capacity needs around 2017 and again after 2022. MP's 2013 resource plan also showed the addition of wind generation in the pre-2020 timeframe; adding wind units is indicative of an energy need. In the 2013 resource plan proceeding, the Department's June 3, 2013 comments also identified a need for capacity and energy in the 2017 timeframe. Subsequently the Commission's November 12, 2013 *Order Approving Resource Plan, Requiring Filings, and Setting Date for Next Resource Plan* required MP to:

- obtain approximately 200 MW, subject to need, of intermediate capacity (and associated energy) in the 2015 – 2017 timeframe; and
- when Minnesota Power commits to a specific bilateral contract, the Company shall file pertinent details of the contract, such as the duration, price, and amount of capacity and associated energy to be procured.

Currently, MP's short-term action plan includes implementation of a 50 MW agreement with MH as a bridge to the long-term action plan.[4] MP's long-term action plan includes implementation of a contract to purchase 250 MW of intermediate capacity and energy[5] with MH and implementation of the GNTL in 2020. Finally, the long term plan includes investigation of an intermediate natural gas generation resource addition to meet any subsequent capacity and energy needs. The proposed ESA and EEA between MP and MH represent non-firm energy resources for MP and thus help to address the resource-plan-determined energy need. Table 1 below summarizes recent agreements between MP and MH.

[3] The Commission's Order in Docket No. E015/M-11-938 approved a 250 MW capacity and energy PPA and associated EEA with MH and required annual reports on milestones achieved regarding new hydraulic generating facilities and new transmission facilities.
[4] The 50 MW agreement with MH is under review in Docket No. E015/M-14-926.
[5] The 250 MW agreement was approved by the Commission on February 1, 2012 in Docket No. E015/M-11-938.

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Table 1: Summary of Other Agreements

Agreement	Docket No.	Starting Date	Ending Date	Accredited Capacity (MW)	Energy
Short Term #1[6]	M-07-98	1-May-09	31-May-15	50	5 x 16
Short Term #2	M-14-926	1-Jun-15	31-May-20	50	7 x 16
Energy Only	M-10-961	1-May-11	30-Apr-22	-	On peak: up to 150 MWh / hour Off-peak: up to 200 MWh / hour
Long Term	M-11-938	1-Jun-20	31-May-35	250	7 x 16
Energy Exchange[7]	M-11-938	1-Jun-20	31-May-35	-	MP buys 250 GWh annually

The Department notes that MISO's procedures for "external resources" such as MH are currently under review and may change.[8] The review is taking place to address variations in how various MISO modules and processes treat external resources. MISO's tentative work plan includes a potential tariff filing at the Federal Energy Regulatory Commission (FERC) in spring 2015. Any potential for changes in MISO's procedures are not addressed in these comments.

II. DEPARTMENT ANALYSIS

A. INTRODUCTION

In the Petition the Company requests that the Commission approve:

- the ESA for the purchase of 133 MW of non-firm energy; and
- the EEA for the purchase of additional, non-firm energy.

The Petition also notes two related items. First, that MP may, in the future, request Commission approval of purchases of energy from MH's system from facilities that are less than 100 MW and therefore would qualify under Minnesota Statutes §216B.1691, subd. 1(a) [eligible energy technology for Minnesota's Renewable Energy Objective]. Since no request has been made by MP at this time the Department did not analyze issues related to Minnesota Statutes § 216B.1691, subd. 1(a). Second, MP intends to apply to the proposed ESA the Commission's decision in Docket No. E015/M-10-961 that allows MP to net the benefits from any sales of environmental attributes from Commission-approved contracts

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[6] On December 6, 2013 the ending date was extended from the April 30, 2015 date discussed in the Commission approval process to May 31, 2015 due to a change in the Midcontinent Independent Transmission System Operator, Inc. (MISO) planning year.
[7] The Department notes that this agreement also contains wholesale transactions which do not impact MP's retail ratepayers.
[8] For further details see the presentation available at: https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2014/20141002/20141002%20SAWG%20Item%2002c%20External%20Resources%20Work%20Plan.pdf

through its fuel and purchased energy rider. Since this issue has already been determined by the Commission and no additional request has been made by MP, the Department did not analyze issues related to the sales of environmental attributes.

B. TERMS OF THE AGREEMENTS

The proposed ESA is for a 20-year period effective when the GNTL is placed in-service. The proposed ESA includes the sale by MH to MP of 133 MW of non-firm energy, which is determined by MH to be available and is offered to MP. The energy made available under the ESA will be from MH's system and not any one generating unit. Since capacity is not being sold by MH, the ESA does not count towards MP's load and capability requirements (MISO's module E).

The proposed EEA is also for a 20-year period effective when the GNTL is placed in-service. The proposed EEA includes the sale by MP to MH of up to 750,000 MWh annually (referred to as MP's Pumped Energy). Later, MP can require that MH offer to MP energy up to the amount of MP's Pumped Energy. Again, since capacity is not being sold the EEA does not impact load and capability requirements.

C. MODELING REVIEW

The Department obtained from MP the Company's reference case along with the commands necessary to re-create the scenarios explored by the Company. See MP's responses to Department Information Request Nos. 1 and 2 for this information.

The Department begins by noting that MP's Strategist database locked-in the expansion plan. In this case, the Department is not attempting to determine the least cost expansion plan. Instead, the Department is attempting to determine which alternative best complements the resource-plan-determined expansion plan. Therefore, a locked-in expansion plan that is compliant with the most recent Commission-approved resource plan would be appropriate.

The most recent Commission Order regarding an MP resource plan was issued November 12, 2013 in Docket No. E015/RP-13-53. The Commission's *Order Approving Resource Plan, Requiring Filings, and Setting Date for Next Resource Plan* stated in the ordering paragraphs:

> 1. The Commission approves Minnesota Power's 2013 – 2027 resource plan. This approval does not extend to particular projects that are currently under review in other proceedings or will be subject to review in future proceedings, but is a general finding that the plans filed by Minnesota Power appear to be reasonable in light of the entire record.

2. The Commission finds that Minnesota Power's proposal to refuel Laskin units 1 and 2 to operate on natural gas by 2015 is reasonable.
3. The Commission finds that Minnesota Power's proposal to remove Taconite Harbor unit 3 from Minnesota Power's system by the end of 2015 is reasonable.
4. If Minnesota Power pursues refueling Laskin units 1 and 2 to operate on natural gas, or removing Taconite Harbor unit 3 from Minnesota Power's system, then, within nine months of the date of this Order, Minnesota Power shall file updated project costs and associated schedules.
5. Minnesota Power shall obtain approximately 200 MW, subject to need, of intermediate capacity (and associated energy) in the 2015 – 2017 timeframe by constructing the resource itself, by sharing in the ownership of the resource, or by procuring the resource through bilateral contracts, whichever option is most cost-effective.
6. The Commission finds that with Minnesota Power's proposed retirement of Taconite Harbor unit 3, the current resource plan demonstrates Minnesota Power's need for an additional 50 MW of capacity in 2015, increasing up to 100 MW by 2019. Based on the modeling in the record, adding intermediate resources most appropriately reflects the nature of Minnesota Power's system needs.

The expansion plan locked-in Strategist by MP is consistent with the above Commission-approved plan. Thus, the Department did not change MP's model to allow for optional units.

After obtaining MP's Strategist files, the Department re-ran the file necessary to re-create the Strategist scenarios examined by MP in the Petition. The Department's outputs matched the outputs in the file provided by MP. This demonstrates that the inputs provided by MP were the inputs that created the Company's modeling outputs. Since the results matched, the Department could confirm that it had obtained the proper files from MP and modeling could proceed.

The Petition at Appendix A states "The assumptions used in the economic evaluation align with the assumptions used in Minnesota Power's 2013 Integrated Resource Plan ("2013 Plan") unless noted otherwise." Therefore, the Department's review of modeling inputs focused on the items discussed in Appendix A. Based upon this review, the Department concludes that MP's modeling changes generally represent updates based on more recent information and are reasonable.

Next the Department determined the packages of units to be analyzed in this proceeding. In this case there is only the Company's proposal plus the "no build" alternative. Therefore the

Department ran MP's base case with no units added as a base case scenario. Then, the Department forced the units representing the agreements into the base case. Note that **[TRADE SECRET DATA HAS BEEN EXCISED]** were added by the commands provided by MP. The inputs provided did not include **[TRADE SECRET DATA HAS BEEN EXCISED]** The exclusion of **[TRADE SECRET DATA HAS BEEN EXCISED]** clearly is reasonable. Since the objective of **[TRADE SECRET DATA HAS BEEN EXCISED]** would be to manage short term costs the Department did not object to the structure of MP's model.

The Department ran Strategist with all possible combinations of three contingencies (high, middle and low) on natural gas fuel prices, wind unit prices, coal fuel prices, forecast, and expansion unit capital costs along with four variations (high, middle, low and none) on carbon dioxide (CO_2) costs.[9] The impact of adding the proposed agreements with MH to the base case is shown in Figure 1 below.

[9] The Department notes that with a fixed expansion plan, changes in capital costs for expansion units will not produce differences in costs or rankings of different resource additions. For example, using high capital costs cannot change the ranking of adding bid A or bid B from a request for proposals (RFP) process since the same expansion units are added (multiplied by the same capital cost) whether bid A or bid B is being evaluated. The same holds for changes in wind unit energy costs since the production pattern of wind units is fixed by the Strategist inputs and the number of wind units is fixed in the expansion plan.

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Figure 1: Petition Portfolio Minus Base Case

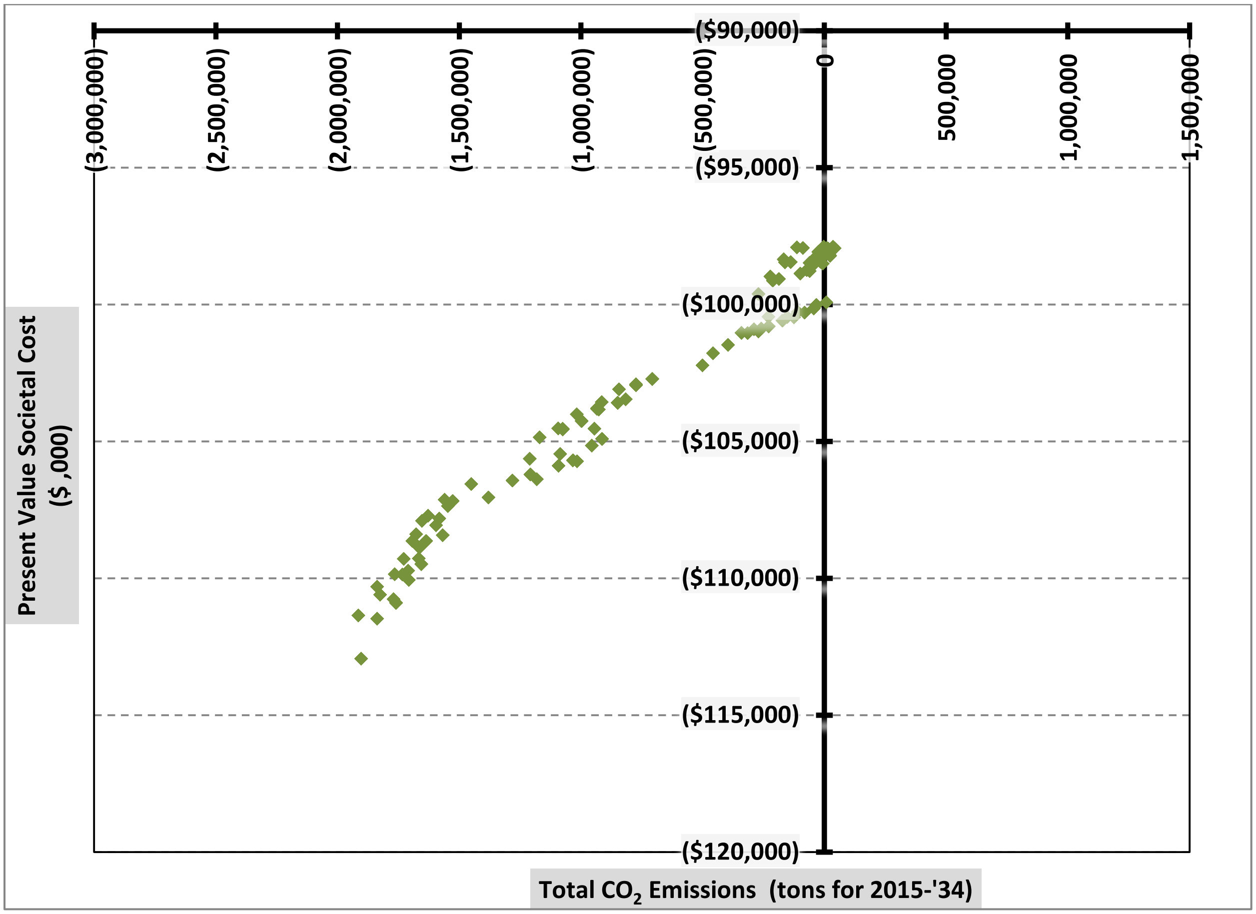

Figure 1 shows that the MH contracts generally decrease system costs and reduce overall CO_2 emissions. The cost impacts range from an decrease of $97.9 million present value of societal costs (PVSC) measured over 20 years, 2015 to 2034 to a decrease of $ 112.9 million PVSC with the average impact being a cost increase $ 103.5 million PVSC. The impact on CO_2 emissions ranges from an increase of 42 thousand tons (again over 20 years, 2015 to 2034) to a decrease of 1.9 million tons with the average impact being a decrease of 0.8 million tons.

In summary, adding the MH agreements, as modeled by MP, should be expected to reduce PVSC of MP's system.

D. ANALYSIS OF THE ESA

1. The Price of the ESA

The ESA consists of one type of energy product—Firm Energy. MH may sell MP up to 133 MW of Firm Energy each hour (equaling a maximum of 1,165 GWh annually). The ESA requires that MH offer a minimum of **[TRADE SECRET DATA HAS BEEN EXCISED]** annually, assuming median water is experienced by MH. The Firm Energy is priced at **[TRADE SECRET DATA HAS BEEN EXCISED]** Since Firm Energy **[TRADE SECRET DATA HAS BEEN EXCISED]** the Department concludes Firm Energy will be competitively priced at the time of each individual purchase. The question of whether MP has better alternatives at this time to the overall package of MH-MP agreements (over the long run) was addressed by the Strategist modeling discussed above.

2. *Financial Risks of the ESA*

There are three main financial risks that may have negative impacts on MP's ratepayers. They are:

- MH default and termination of the ESA that may require MP to find more costly replacement capacity and/or energy;
- entitlement by a lender or other party, as a result of MH's failure to pay its debt, to take over the project and terminate the ESA; and
- fluctuations in the exchange rate between the currency used by MH (C$) and MP (US$).

a. *Default Risk*

First, regarding bankruptcy, the Department observes that MH is a large[10] Crown Corporation[11] established in 1949. Since MH is a financially sound[12], well-established, large, publicly-owned utility the Department concludes that the bankruptcy risk is very small.

Article 13 of the ESA discusses the issue of Credit Worthiness. Under this Article, MP has the following rights:

- To have access to MH's financial reports (Article 13.1); and
- If MH's credit worthiness or financial strength becomes unsatisfactory, MP may require MH to provide certain measures to protect MP (Article 13.2).[13]

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[10] In terms of size, MH serves over 550,000 retail electric customers and 270,000 retail natural gas customers, generates 30 to 35 million MWh annually, and sells 9 to 11 million MWh annually outside Manitoba. See MH's *63rd Annual Report*, available at: https://www.hydro.mb.ca/corporate/ar/2013/publish/63rd%20Annual%20Report/index.html#1

[11] As a Crown Corporation MH is wholly owned by the provincial government but operates at arm's length from the government. MH's debt is a direct obligation of, and fully guaranteed by the Province of Manitoba as its owner. See http://www.oag.mb.ca/wp-content/uploads/2014/03/Chapter-3-Govt-Deficits-and-Debt-Web.pdf

[12] See the information available at: https://www.moodys.com/credit-ratings/Manitoba-Hydro-Electric-Board-credit-rating-460860

[13] Such measures include, among others:
- obtaining a Letter of Credit;
- provision of collateral; or
- a Guarantee Agreement.

If MH fails to provide the required Performance Assurance within five days, then such a failure is considered an Event of Default and MP has the right to exercise any of the remedies included in Article 15 of the proposed ESA. Additional protection results from the fact that the proposed ESA grants MP a Security Interest in all the performance assurances delivered by MH (see Article 13.3).[14] Additionally, Article 13.3 (2) through Article 13.3 (4) of the proposed ESA provides MP with additional protection measures.

b. Transfer or Restructuring of Ownership

Article 17.1 (e) of the proposed ESA identifies reorganization as an event of default. In such a case MH must cure the default. If MH fails to do so, then under Article 17.3 MP has the right, upon appropriate notice, to terminate the ESA and take any legal steps to be appropriately compensated for the non-cured default (here, assumed to be restructuring). Given that MH is a Crown Corporation, the potential for transfer or restructuring of ownership would be dependent upon the political process in Manitoba. Overall, the Department concludes that this provision is reasonable and provides appropriate protection for ratepayers.

c. Currency Risk

Another risk that is involved in international transactions is currency risk. That is, fluctuations in the exchange rate between currencies. Since **[TRADE SECRET DATA HAS BEEN EXCISED]** the Department concludes that this risk is adequately addressed by the proposed ESA.

3. Operational Risks of the ESA

For a power purchase agreement (PPA), the operational risks are the risks that any required infrastructure project(s) will not be built and operated as expected. These risks include:

- termination of infrastructure projects prior to completion of construction;
- complete shutdown prior to the expiration of the contract period; and
- partial shutdown prior to the expiration of the contract period.

In the case of failure to complete the construction of a necessary infrastructure project, MP would have to find replacement power in a timely manner. Such replacement power may be more expensive than the power to be provided by the proposed ESA. In case of a complete shutdown, once again MP would have to find, most likely, more expensive replacement power. Finally, in a case of partial shutdown, ratepayers must be assured that their payment for energy would be reduced accordingly. The Department discusses the operational risks of the proposed ESA below.

[14] A Security Interest grants a party a legal right to take possession of collateral in the event of the debtor's failure to pay.

a. Failure to Complete Infrastructure

The risk of non-completion of needed infrastructure includes the risk of not completing a power plant necessary to generate, or the transmission facilities needed to deliver, the power required under the proposed ESA. In this case the proposed ESA is a system sale and not tied to the completion of a new generating facility. Regarding transmission, the proposed ESA is dependent upon the GNTL and related transmission infrastructure in Manitoba. The GNTL is currently under review in Docket No. E015/CN-12-1163. MH has not yet started the regulatory process in Manitoba; at this time MH is determining a preferred route to present to the public before starting the regulatory process in 2015.[15] Thus, the Department concludes that MP and MH are making adequate progress towards the necessary infrastructure. Therefore, the Department concludes that the risk to ratepayers presented by failure to complete infrastructure projects is largely mitigated.

b. Complete Shutdown of MH's Facilities

In the case of a complete shutdown, MP would have to find replacement energy for the entire quantities of energy in the proposed ESA. Such replacement energy may be significantly more expensive than the energy to be provided by the proposed ESA. Further, MP's ratepayers must be assured that they would pay only for energy delivered to them. A complete shutdown of the MH facilities (either the generation facilities, the transmission facilities, or both) that results in an inability to perform for reason other than Force Majeure is considered an event of default under Section 17.1 (b).

MH has various existing PPAs with MP and other utilities in Minnesota, and has a proven record of providing the services required under those existing PPAs. Moreover, the proposed ESA provides for MH to sell system power rather than power from a dedicated facility. As such the Department concludes that the risk of a complete shutdown is largely mitigated.

c. Partial Shutdown of MH's Facilities

A temporary or partial shutdown of MH's facilities may, under certain circumstances, force MP to purchase more expensive power. MP's ratepayers must be assured that they would pay MH only for energy delivered. The ESA between MH and MP requires MH to sell system power to MP. Thus, the power to be sold is not related to any specific electric plant owned by MH, and a shutdown of any one generating station would have no impact on the amount and price of energy that MH must sell to MP under the proposed ESA. The Department concludes that the risk of a temporary or partial shutdown is largely mitigated.

d. Energy Curtailments

Under the proposed ESA MH has ability to curtail the energy to be sold to MP. The conditions that allow curtailment of energy are:

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[15] Information on MH's transmission project is available at:
http://www.hydro.mb.ca/projects/mb_mn_transmission/index.shtml

- Unavailability of MH's purchased power;
- Unavailability of MH's generating stations or transmission system; and
- a Force Majeure event.[16]

As discussed above, the proposed ESA is a system sale. Therefore, if properly planned, the outage or deration of any one piece of MH's system should not lead to the need for MH to curtail energy sales to MP or any other wholesale or retail customer. In addition, the Median Water Condition provides a reasonable mechanism for determining when a drought might impact MH's ability to offer the Minimum Annual Energy Amount. In summary, the Department concludes that the risk of energy curtailment is largely mitigated.

4. Conclusions Regarding the Financial and Operational Risks of the ESA

Based on its review and analysis of the proposed ESA, the Department concludes that the provisions of the proposed ESA appropriately protect MP and MP's ratepayers from the financial and operational risks of the proposed ESA.

E. ANALYSIS OF THE EEA

1. Types of Energy

The EEA consists of three types of energy products. These products are MP's Energy, MP's Pumped Energy and MH's Stored Energy. Below is a summary of the three energy products.

a. MP's Energy

MH may request MP to sell to MH energy on a Day-Ahead Basis, and MP must agree to sell to MH the requested amount of off-peak energy subject to certain provisions. First, the requested amount of energy may not exceed the capability of the transmission lines. Second, MH must request a minimum amount of such energy over the life of the contract. The details of this minimum amount are provided in Section 2.1, (1) and (2) of the EEA.

b. MP's Pumped Energy

During the 12 months of each calendar year of the contract, MP may offer, on a Day-Ahead Basis, energy to be sold to MH when MP determines it has excess wind energy. MP is not obligated to offer MH any Pumped Energy, and if offered, MH has no obligation to purchase the Pumped Energy. Moreover, MP may not offer Pumped Energy above 750 GWh in any year, and the offered Pumped Energy may not exceed 383 MWh in any hour.

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[16] Conditions of drought are addressed separately from the energy curtailment clause. The ESA defines Median Water Conditions as **[TRADE SECRET DATA HAS BEEN EXCISED].**

c. MH's Stored Energy

At any time during the contract, MP has the right to request, on a Day-Ahead Basis, MH to sell back to MP the amount of MP's Pumped Energy and MH must agree to such a request. However, the amount of Stored Energy requested by MP may not exceed the accumulated amount of Pumped Energy at the time of MP's request and may not exceed, in any hour, 383 MWh.

2. The Price Issue

Both MP's Energy and MP's Pumped Energy are wholesale energy transactions. Therefore, their respective prices have no impact on MP's retail rates. Because of this fact, the Department will only discuss the price of MH's Stored Energy and, to the degree necessary, the price of MP's Pumped Energy.

a. The Price of MH's Stored Energy

Article IV of the EEA discusses the various energy prices. The price of MH's Stored Energy for any hour of any day of the contract is the **[TRADE SECRET DATA HAS BEEN EXCISED]** per MWh.[17] Since the MH's Stored Energy should substitute for market purchases of energy, the Department concludes that the price is reasonable because it is discounted from **[TRADE SECRET DATA HAS BEEN EXCISED]** However, this conclusion is valid only if the price of MP's Pumped Energy is set appropriately, because the purchase of MH's Stored Energy is simply the inverse of the amount of MP's Pumped Energy previously sold. The price of MP's Pumped Energy (paid by MH to MP) for any given hour of the contract is the **[TRADE SECRET DATA HAS BEEN EXCISED]** Since the price of MP's Pumped Energy **[TRADE SECRET DATA HAS BEEN EXCISED]** MH's Stored Energy, the Department concludes that the price of MP's Pumped Energy is appropriately set. Furthermore, the price of MH's Stored Energy is **[TRADE SECRET DATA HAS BEEN EXCISED]** at the time when MP purchases MH's Stored Energy.

b. Conclusion Regarding the Price of the EEA

Based on its review and analysis of the EEA, the Department concludes that the prices of the EEA in general and the price of MH's Stored Energy in particular (the only price that impacts MP's ratepayers) are reasonable.

3. Financial Risks of the EEA

As with the ESA, the EEA presents three main financial risks that may have negative impacts on MP's ratepayers. They are:

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[17] Note that **[TRADE SECRET DATA HAS BEEN EXCISED]** See Section 4.1 (3) of the EEA for details.

- MH default and termination of the EEA that may require MP to find more costly replacement energy;
- entitlement by a lender or other party, as a result of MH's failure to pay its debt, to take over the project and terminate the EEA; and
- fluctuations in the exchange rate between the currency used by MH (C$) and MP (US$).

c. Introduction

The Department notes that early termination of the contract due to default or transfer of ownership would simply force MP to acquire energy, if needed, at the prevailing market price. Thus, in the event of early termination for any reason, **[TRADE SECRET DATA HAS BEEN EXCISED]** These losses may not be significant.

d. Default Risk

The EEA includes financial protection provisions similar to those included in the ESA. These provisions are provided in Articles 14 and 17 of the ESA and their respective equivalents are provided in Articles 13 and 15 of the EEA. Therefore, the Department's analysis in section D, part 2 of these comments is applicable to EEA as well. Based on the above analysis, the Department concludes that MP's ratepayers would be reasonably protected from the financial risks of the EEA.

4. Operational Risks of the EEA

For a PPA, the operational risks are the risks that any required infrastructure project(s) will not be built and operated as expected. These risks include:

- termination of infrastructure projects prior to completion of construction;
- complete shutdown prior to the expiration of the contract period; and
- partial shutdown prior to the expiration of the contract period.

In the case of failure to complete the construction of a necessary infrastructure project, MP would have to find replacement power in a timely manner. Such replacement power may be more expensive than the power to be provided by the proposed EEA. In case of a complete shutdown, once again MP would have to find, most likely, more expensive replacement power. Finally, in a case of partial shutdown, ratepayers must be assured that their payment for energy would be reduced accordingly. The Department discusses these operational risks below.

a. Failure to Complete Infrastructure

The risk of non-completion of needed infrastructure includes the risk of not completing a power plant necessary to generate, or the transmission facilities needed to deliver, the power required under the proposed EEA. As with the proposed ESA, the proposed EEA is a system sale, not tied to the completion of a new generating facility, and dependent upon the GNTL and related transmission infrastructure in Manitoba. As discussed above, the GNTL is currently under review by the Commission and MH is determining a preferred route. Thus, the Department concludes that adequate progress is being made towards the necessary infrastructure. Therefore, the Department concludes that the risk to ratepayers presented by failure to complete infrastructure projects is largely mitigated.

b. Complete Shut Down of MH's Facilities

In the case of a complete shutdown, MP would have to find replacement energy for the quantities of energy in the proposed EEA. Such replacement energy may be significantly more expensive than the energy to be provided by the proposed EEA. Further, MP's ratepayers must be assured that they would pay only for energy delivered to them. A complete shutdown of the MH facilities used to perform (either the generation facilities, the transmission facilities, or both) for reason other than Force Majeure is considered an event of default under Section 15.1 (b).

As discussed above, MH has various existing PPAs with utilities in Minnesota, has a proven record of providing services, and the proposed EEA provides for system power. As such the Department concludes that the risk of a complete shutdown is largely mitigated.

c. Partial Shutdown of MH's Facilities

A temporary or partial shutdown of MH's facilities may, under certain circumstances, force MP to purchase more expensive power. MP's ratepayers must be assured that they would pay MH only for energy delivered. The EEA between MH and MP requires MH to sell system power to MP. Thus, the power to be sold is not related to any specific electric plant owned by MH, and a shutdown of any one generating station would have no impact on the amount and price of energy that MH must sell to MP under the proposed PPA. The Department concludes that the risk of a temporary or partial shutdown is largely mitigated.

d. Energy Curtailments

Under the proposed EEA MH has ability to curtail the energy to be sold to MP. The only conditions that allow curtailment of energy are unavailability of the transmission system and a Force Majeure event. Thus, the Department concludes that the risk of energy curtailment is minimal.

5. Conclusions Regarding the Financial and Operational Risks of the EEA

Based on its review and analysis of the proposed EEA, the Department concludes that the provisions of the proposed EEA appropriately protect MP and MP's ratepayers from the financial and operational risks of the proposed EEA.

F. LACK OF COMPETITIVE BIDDING

The Petition states that MP did not conduct a request for proposals (RFP) for the ESA and EEA. MP explained that "It is very unlikely that this twenty-year PPA from a non-carbon emitting resource that also gives Minnesota Power customers access to efficient new 500 kV transmission facilities for its 250 MW PPA, and additional optimization for its growing wind portfolio, would garner comparable resource bids." Thus, the proposed EEA and ESA are parts of the larger MP-MH arrangement. The Department agrees with MP that no other party would be able to offer a proposal more advantageous to MP than the MP-MH arrangement.

III. DEPARTMENT RECOMMENDATION

Department recommends the Commission approve MP's Petition, including the Company's proposed reporting conditions.

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STATE OF MINNESOTA)
) ss
COUNTY OF ST. LOUIS)

AFFIDAVIT OF SERVICE VIA ELECTRONIC FILING

Susan Romans of the City of Duluth, County of St. Louis, State of Minnesota, says that on the 3rd day of February, 2015, she served Minnesota Power's Letter in Docket No. E015/CN-12-1163 to the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce via electronic filing. The remaining parties on the attached Official Service List were served as requested.

Susan Romans

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Susan Romans

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