

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the investigation, on the )  
Commission's own motion, into the electric )  
supply reliability plans of Michigan's )  
electric utilities for the year 2014 through 2016. )  
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Case No. U-17523

WOLVERINE POWER SUPPLY COOPERATIVE, INC.'S  
ASSESSMENT OF ABILITY FOR MEETING  
2014 THROUGH 2016 ELECTRIC REQUIREMENTS  
OF ITS MEMBER-OWNERS

Wolverine Power Supply Cooperative, Inc. (Wolverine), for itself and on behalf of its seven members<sup>1</sup>, Cherryland, Great Lakes, HomeWorks, Midwest Energy Cooperative (Midwest), Presque Isle, Wolverine Power Marketing Cooperative, Inc. (WPMC) and Spartan Renewable Energy, Inc. (Spartan), voluntarily submits this filing in response to the Michigan Public Service Commission (Commission) December 19, 2013 order (Order), in this docket.

**Background**

In recent years, the Commission has investigated the adequacy and reliability of the electric generation capacity for meeting prospective annual customer requirements in the Consumers Energy Company (Consumers), DTE Electric Company (DTE Electric), and Indiana Michigan Power Company (I&M) service territories. The Commission later expanded the scope of the investigations to include, among other things, the availability of transmission capability, the effects of the companies' retail open access programs,

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<sup>1</sup> Four of Wolverine's members: Cherryland Electric Cooperative (Cherryland), Great Lakes Energy Cooperative (Great Lakes), Presque Isle Electric & Gas Co-op (Presque Isle) and HomeWorks Tri-County Electric Cooperative (HomeWorks) have elected to be member-regulated as permitted under 2008 Public Act 167.

affiliate dealings, the Customer Choice and Electric Reliability Act, MCL 460.10, *et seq.*, expected changes in the wholesale market for electricity in the Midwest, and the interconnection of merchant generating plants. Beginning with Case No. U-14087, the Commission expanded its investigation to include all Michigan regulated electric utilities, including member-regulated cooperatives.

The Commission now finds that it should conduct a similar investigation for the years 2014 through 2016. The Commission's investigation spans a three-year period due to the expected retirement of older generating units in Michigan as a result of new air quality requirements. Michigan electric utilities and their affiliates, all licensed alternative electric suppliers, Wabash Valley Power Association, Inc., and Wolverine are directed to file an assessment of each company's ability to meet customers' expected electric requirements in 2014 through 2016 by March 28, 2014.

The Midcontinent Independent System Operator, Inc. (MISO), PJM Interconnection, American Transmission Company, LLC, Michigan Electric Transmission Company and the International Transmission Company are also directed to submit comments on the issues that they believe are relevant to this investigation.

### **Description of Wolverine**

Wolverine is a non-profit generation and transmission electric cooperative providing wholesale service to its seven members. Wolverine's five distribution cooperative member-owners purchase both generation and transmission service from Wolverine and resell that power at retail to approximately 268,000 retail service locations in Michigan, Ohio and Indiana. Wolverine's other two members, WPMC and Spartan, are Commission-licensed alternative electric suppliers in Michigan.

Wolverine owns approximately 726 MW of generation and generates and purchases energy primarily to serve its members and supplements and balances its power

supply portfolio with short-term purchases from, and sales into, MISO. Wolverine is a MISO Transmission Owner with a transmission system consisting of approximately 1,200 miles of 69 kV and 138 kV looped transmission lines and associated facilities. These transmission facilities are included in the Michigan Joint Zone under MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff (MISO Tariff), as are 69 kV radial lines and associated facilities whose use by third parties is priced separately under Federal Energy Regulatory Commission-approved wholesale distribution service agreements entered into pursuant to Schedule 11 of the MISO Tariff.

Wolverine maintains a 24-hour Energy Control Center located at its Cadillac headquarters through which it monitors all the connected generation facilities and all the transmission functions for Wolverine and its member-owners. Wolverine interfaces with MISO via the Automated Programmable Interface, which allows Wolverine to perform all MISO Day 2 market functions for the benefit of its members.

### **Assessment of Wolverine's Electric Requirements and Transmission Reliability for 2014 through 2016**

In response to the Commission's Order, Wolverine staff performed an assessment of Wolverine's projected loads for 2014, 2015, and 2016. This assessment addresses what Wolverine considers to be three separate systems and resource portfolios. The first portfolio assessment focused on the expected needs of Wolverine's five traditional poles and wires distribution cooperative members: Cherryland, Great Lakes, HomeWorks, Midwest, and Presque Isle. These cooperatives are known as "Transmission Members" since they purchase both generation and transmission service from Wolverine. This assessment relied on past usage data and any known changes going forward, combined with historical trends for annual rates of growth. The calculation was then adjusted for the known and expected effects of weather and temperature.

The second portfolio assessment focused on Wolverine's sixth member, WPMC. WPMC serves industrial and commercial members under Michigan electric customer choice programs as provided for under Public Act 141 of 2000, as amended by Public Act 286 of 2008. As with the first calculation, this assessment relied on past usage data and any known changes going forward. No adjustments were made for historical rates of growth and since the loads served by WPMC are far less affected by differences in weather, no adjustments for weather effects were made.

The final portfolio assessment focused on Wolverine's seventh member, Spartan. Spartan is primarily focused on the sale of renewable energy to industrial and commercial customers under Michigan electric customer choice programs as provided for under Public Act 141 of 2000, as amended by Public Act 286 of 2008. As with the previous calculations, this assessment relied on past usage data and any known changes going forward. Similar to the WPMC assessment, no adjustments were made for historical rates of growth or weather effects.

Wolverine staff also analyzed Wolverine's available supply portfolio for 2014, 2015, and 2016, including all owned generation, various contracts for supply of capacity and energy, and other resources such as call options and load management. Additionally, as indicated by the Commission's Order, Wolverine compared the results of its demand assessment with its available supply resources. The results of the above portfolio analyses are contained in the attached report to this assessment filing as "Exhibit A". Finally, Wolverine continues to cooperate with electric reliability organizations to satisfy all applicable reliability standards as indicated more specifically in Exhibit A.

## **Conclusion**

Wolverine recognizes the Commission's concern for ensuring the continuing availability of adequate generating and power supply resources to reliably serve the energy needs of Michigan's industrial, commercial, and residential customers. The Commission correctly understands that a secure power supply as well as an adequate and reliable transmission grid is necessary to maintain a reliable level of service to all customers. In that spirit, Wolverine is pleased to submit the attached report and assessment of Wolverine's expected electric requirements and available resources for the years 2014 through 2016.

Respectfully submitted,

WOLVERINE POWER SUPPLY  
COOPERATIVE, INC.

Dated: March 26, 2014

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By: Kimberly B. Molitor  
Its: Vice President –  
External Affairs

## **Exhibit A**

### **Wolverine Power Supply Cooperative, Inc.**

#### **Assessment of the Generation and Transmission Capacity for Meeting the Members' Peak Demand for 2014 through 2016**

On December 19, 2013, the Michigan Public Service Commission (Commission), in its Order in Case No. U-17523, directed Wolverine Power Supply Cooperative, Inc. (Wolverine) to file with the Commission “an assessment of the ability to meet customers’ expected electric requirements for 2014 through 2016.” This assessment is in response to the Commission’s Order.

#### **Overview**

This assessment addresses what Wolverine considers to be three separate systems and resource portfolios: Wolverine’s Transmission Members, Wolverine Power Marketing Cooperative, Inc., and Spartan Renewable Energy, Inc. The Transmission Member section refers to the five poles and wires distribution cooperative member-owners of Wolverine; the Wolverine Power Marketing Cooperative, Inc. (WPMC) and Spartan Renewable Energy, Inc. (Spartan) sections cover the participants of Michigan’s Electric Choice Program that have selected either WPMC or Spartan as their alternative electric supplier. These three sections will be addressed separately below.

#### **Transmission Members<sup>2</sup> – Peak Demand Forecasts**

Wolverine’s Transmission Members’ Michigan Electric Transmission Company (METC) coincident peak system demand for the summer 2014 season based on the Midcontinent Independent System Operator, Inc. (MISO) Module E forecasting requirements is forecasted to be 512 MW and the non-coincident peak is forecasted to be 546 MW based on normal weather conditions. Wolverine projects the Transmission Members’ METC coincident peak demand in 2015 to be 523 MW and the non-coincident peak to be 556 MW. For 2016, projections show a METC coincident peak demand of 532 MW and a non-coincident peak of 566 MW, all based on normal weather conditions.

The 2014 forecasted coincident peak is 1.2% more than the Transmission Members’ 2013 METC coincident peak of 506 MW. The 2015 forecasted coincident peak is 2.1% higher than what has been forecasted for 2014, and the 2016 forecasted coincident peak is 1.7% greater than the 2015 forecasted METC coincident peak.

#### **Transmission Members – Resources**

##### **1) Native Generation**

Wolverine’s portfolio for its Transmission Members includes 647 MW of summer generation capacity owned and operated by Wolverine for 2014 through 2016.

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<sup>2</sup> Wolverine serves Midwest’s 120 MW, non-Ohio PJM load for 2014 through 2016 under a full requirements contract between Wolverine and Wabash Valley Power Association (Wabash).

## **2) Capacity Call Option**

Wolverine has purchased a capacity and energy call option on three units on Beaver Island in the amount of 3 MW for 2014 through 2016.

## **3) Long-Term Contracts**

Wolverine's portfolio allocated to its Transmission Members includes long-term power contracts totaling 268 MW for the summer of 2014, and currently 218 MW for the summer of 2015 and 168 MW for the summer of 2016. One hundred percent of this total is from in-state sources of traditional energy or the MISO Michigan Hub. All transactions are firm energy and firm network transmission. Wolverine also has a long-term contract to purchase 52.8 MW of wind generation; Wolverine receives credit for 10% of the capacity from this contract in 2014 through 2016. Wolverine's Transmission Members receive 2 MW of this wind capacity.

## **4) Load Management**

Wolverine has included 3 MW of direct control load management resources in this assessment for 2014 through 2016.

## **5) MISO Capacity Purchase**

Wolverine has purchased MISO capacity from other entities for its Transmission Members in the amount of 55 MW for 2014, 70 MW for 2015 and 67 MW for 2016. This capacity has been included in the MISO Module E Capacity Tracking (MECT) application to verify that no units were oversubscribed.

## **6) PJM Capacity Sale**

Wolverine has sold 130 MW of capacity for 2014 through 2016 from Wolverine's 6.65% ownership interest in two Ohio Valley Electric Corporation (OVEC) generating facilities in the PJM forward capacity market.

### **Wolverine Power Marketing Cooperative, Inc. – Peak Demand Forecast**

WPMC's forecasted coincident peak system demand for the summer of 2014 through 2016 is 153 MW based on normal weather conditions and MISO Module E forecasting requirements. This forecast is 5.5% more than WPMC's 2013 coincident peak of 145 MW.

### **Wolverine Power Marketing Cooperative, Inc. – Resources**

#### **1) Long-Term Contracts**

Wolverine's portfolio allocated to WPMC includes long-term power contracts totaling 91 MW of traditional energy for the summer of 2014 through 2016. Wolverine is in the process of securing additional power contracts for 2014 through 2016. One hundred percent of this total is from the MISO Michigan Hub and all transactions are firm energy with firm network transmission. Wolverine also has a long-term contract to purchase 52.8 MW of wind generation; Wolverine receives credit for 10% of the capacity from this contract in 2014 through 2016. WPMC receives 1 MW of this wind capacity.

## **2) MISO Capacity Purchase**

Wolverine has purchased or plans to purchase MISO capacity from other entities for WPMC in the amount of 160 MW for 2014 through 2016<sup>3</sup>. This capacity has been included in the MISO MECT application to verify that no units were oversubscribed.

### **Spartan Renewable Energy, Inc. – Peak Demand Forecast**

Spartan's forecasted coincident peak system demand for the summer of 2014 through 2016 is 9 MW based on normal weather conditions and MISO Module E forecasting requirements. This forecast is the same as Spartan's 2013 and 2012 coincident peaks of 9 MW.

### **Spartan Renewable Energy, Inc. – Resources**

#### **1) Long-Term Contracts**

Wolverine's portfolio allocated to Spartan includes long-term power contracts totaling 4 MW of traditional energy and 5 MW of renewable energy for the summer of 2014 through 2016. One hundred percent of this traditional energy is from the MISO Michigan Hub and the renewable energy is from Michigan wind generation. All traditional energy transactions are firm energy with firm network transmission. Wolverine also has a long-term contract to purchase 52.8 MW of wind generation; Wolverine receives credit for 10% of the capacity from this contract in 2014 through 2016. Spartan receives 1 MW of this wind capacity.

#### **2) MISO Capacity Purchase**

Wolverine has purchased MISO capacity for 2014 through 2016 in the amount of 11 MW for traditional capacity for the Spartan portfolio. This capacity has been included in the MISO MECT application to verify that no units were oversubscribed.

### **Transmission Members / Wolverine Power Marketing Cooperative, Inc. / Spartan Renewable Energy, Inc. – Resources**

As mentioned above, all long-term contracts have firm network transmission. This transmission is either reserved yearly or monthly through the MISO Open Access Same-Time Information System (OASIS).

### **Transmission Members / Wolverine Power Marketing Cooperative, Inc. / Spartan Renewable Energy, Inc. – Reliability**

Wolverine, as a Transmission Owner/Operator/Planner, participated in its third North American Electric Reliability Corporation (NERC) Compliance Audit in May 2012. Since being recognized as a transmission-owning member of MISO effective January 1, 2006, Wolverine has worked with both NERC and ReliabilityFirst to meet all applicable reliability standards.

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<sup>3</sup> For 2014, Wolverine has already purchased 154 MW of capacity for WPMC and is in the process of purchasing an additional 5 MW to achieve target reserve requirements. For 2016, Wolverine has purchased 47 MW of capacity for WPMC and is in the process of purchasing an additional 112 MW to achieve target reserve requirements.



## **Summary**

Wolverine's Transmission Members estimated reserve margins are 13.3% for 2014, 13.7% for 2015, and 11.3% for 2016. WPMC's estimated reserve margin is 10.3% for 2014 through 2016 and Spartan's estimated reserve margin is 33.3% for 2014 through 2016. The attached tables detail the resources discussed above.

At these levels, Wolverine has sufficient reserves in place to meet the forecasted demands during the 2014 through 2016 summer peak seasons for each of Wolverine's three resource portfolios. Wolverine remains committed to delivering reliable and competitively priced power supply to its members.

**Transmission Members**  
**Comparison of Summer 2014 Load and Capacity**

	<u>MW</u>
<b>Total Wolverine Firm Load Obligations</b>	<b>632 .0</b>
Less: Interruptible	0.0
Less: Firm Load Provided by Others <sup>4</sup>	<u>(120.0)</u>
<b>Total MISO Peak Load Obligations – Transmission Members (MW)</b>	<b>512.0</b>
<b>Capacity</b>	
Wolverine Owned Generation	647.0
MISO Planning Reserve Credits Purchase – Transmission Members	55.0
Michigan Renewable Generation (Wind)	2.0
Michigan Capacity Call Option	3.0
Load Management	3.0
PJM Capacity Sale	<u>(130.0)</u>
<b>Total Capacity to Serve Transmission Members (MW)</b>	<b>580 .0</b>
<b>Estimated Reserve Margin</b>	<b>13.3%</b>

**Transmission Members**  
**Comparison of Summer 2015 Load and Capacity**

	<u>MW</u>
<b>Total Wolverine Firm Load Obligations</b>	<b>643 .0</b>
Less: Interruptible	0.0
Less: Firm Load Provided by Others <sup>3</sup>	<u>(120.0)</u>
<b>Total MISO Peak Load Obligations – Transmission Members (MW)</b>	<b>523.0</b>
<b>Capacity</b>	
Wolverine Owned Generation	647.0
MISO Planning Reserve Credits Purchase – Transmission Members	70.0
Michigan Renewable Generation (Wind)	2.0
Michigan Capacity Call Option	3.0
Load Management	3.0
PJM Capacity Sale	<u>(130.0)</u>
<b>Total Capacity to Serve Transmission Members (MW)</b>	<b>595 .0</b>
<b>Estimated Reserve Margin</b>	<b>13.7%</b>

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<sup>4</sup> Wolverine serves Midwest's 120 MW, non-Ohio PJM load for 2014 through 2016 under a full requirements contract between Wolverine and Wabash.

**Transmission Members**  
**Comparison of Summer 2016 Load and Capacity**

	<u>MW</u>
<b>Total Wolverine Firm Load Obligations</b>	<b>652 .0</b>
Less: Interruptible	0.0
Less: Firm Load Provided by Others <sup>5</sup>	<u>(120.0)</u>
<b>Total MISO Peak Load Obligations – Transmission Members (MW)</b>	<b>532.0</b>
<b>Capacity</b>	
Wolverine Owned Generation	647.0
MISO Planning Reserve Credits Purchase – Transmission Members	67.0
Michigan Renewable Generation (Wind)	2.0
Michigan Capacity Call Option	3.0
Load Management	3.0
PJM Capacity Sale	<u>(130.0)</u>
<b>Total Capacity to Serve Transmission Members (MW)</b>	<b>592 .0</b>
<b>Estimated Reserve Margin</b>	<b>11.3%</b>

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<sup>5</sup> Wolverine serves Midwest’s 120 MW non-Ohio PJM load for 2014, 2015 and 2016 through a full requirements contract between Wolverine and Wabash.

**Wolverine Power Marketing Cooperative, Inc.**  
**Comparison of Summer 2014 through 2016 Load and Capacity**

<b>WPMC Load 2014, 2015 and 2016</b>	<u>MW</u>
Interruptible	0.0
Firm	153.0
Less: Energy contract for UPPC node <sup>6</sup>	<u>(8.0)</u>
<b>Total MISO Peak Load Obligations – WPMC (MW)</b>	<b>145.0</b>

• **WPMC Capacity for 2014**

MISO Planning Reserve Credits Purchase – WPMC	154.0
Planned Capacity Purchase	5.0
Michigan Renewable Generation (Wind)	<u>1.0</u>
<b>Total Capacity to Serve WPMC (MW)</b>	<b>160.0</b>

**Estimated Reserve Margin** **10.3%**

• **WPMC Capacity for 2015**

MISO Planning Reserve Credits Purchase – WPMC	159.0
Michigan Renewable Generation (Wind)	<u>1.0</u>
<b>Total Capacity to Serve WPMC (MW)</b>	<b>160.0</b>

**Estimated Reserve Margin** **10.3%**

• **WPMC Capacity for 2016**

MISO Planning Reserve Credits Purchase – WPMC	47.0
Planned Capacity Purchase	112.0
Michigan Renewable Generation (Wind)	<u>1.0</u>
<b>Total Capacity to Serve WPMC (MW)</b>	<b>160.0</b>

**Estimated Reserve Margin** **10.3%**

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<sup>6</sup> Wolverine has an energy contract with another entity to provide for all load at the WPMC UPPC node.

**Spartan Renewable Energy, Inc.**  
**Comparison of Summer 2014 through 2016 Load and Capacity**

<b>Load</b>	<u>MW</u>
Interruptible	0.0
Firm	<u>9.0</u>
<b>Total MISO Peak Load Obligations – Spartan (MW)</b>	<b>9.0</b>
<b>Capacity</b>	
MISO Planning Reserve Credits Purchase – Spartan	11.0
Michigan Renewable Capacity Purchase (Wind)	<u>1.0</u>
<b>Total Capacity to Serve Spartan (MW)</b>	<b>12.0</b>
<b>Estimated Reserve Margin</b>	<b>33.3%</b>