

Upper Peninsula Generation Project

1. What is the recent experience of the Upper Peninsula related to energy issues?

Energy issues in the Upper Peninsula (UP) have been at the forefront for several years, dating back to at least 2012, when WE Energies announced its intention to retire the Presque Isle Power Plant (PIPP) located in Marquette, MI. At that time iron ore mines owned and operated by Cleveland Cliffs used 80% of the electricity in the Michigan portion of WE Energies' electric service territory. UP iron ore mines are allowed under Michigan law to choose a non-utility supplier of electricity, and if they do so, costs can be shifted to the remaining utility customers. This happened in 2013, and was exacerbated by the imposition of reliability payments known as System Support Resource (SSR) charges that UP customers were required to pay under federal regulations to keep the PIPP coal plant open.¹ In 2015, **the MPSC approved an agreement related to UP energy issues** which, among other things, 1) required construction of a new power plant in the UP to replace the PIPP coal plant, 2) required WE Energies and the mines to participate in supporting the new plant, 3) required WE Energies to keep PIPP online until a new plant was built, 4) included provisions related to avoiding further SSR payments, and 5) if a third party did not propose a new plant, required WE Energies or a new Michigan-only subsidiary to propose a replacement plant to the MPSC using the stringent Certificate of Necessity review process.

2. What is "UMERC"?

Upper Michigan Energy Resources Corporation, known as UMERC, is a **utility company located in Michigan's Upper Peninsula**. UMERC, a subsidiary of WE Energies, was created to fulfill the terms of the agreement resolving UP energy issues, and provides service to Michigan customers formerly served by Wisconsin-based utility companies owned by WE Energies, including Wisconsin Electric Power Co. (WEPCO) and Wisconsin Public Service Corporation (WPSC). The Michigan Public Service Commission (MPSC) approved the establishment of UMERC as a Michigan jurisdictional regulated utility beginning January 1, 2017. UMERC serves approximately 36,500 electric customers and approximately 5,300 natural gas customers.

3. Has UMERC taken steps to build replacement generation for the PIPP coal plant?

Yes. On January 30, 2017, **UMERC filed an application with the MPSC** to obtain approval for a "Certificate of Necessity" to build 183 MW of natural gas-fired electric generation in the Upper Peninsula.

4. What is a Certificate of Necessity?

Under Michigan law, a **regulated electric utility planning to construct a new electric generation facility**, make a substantial investment in an existing electric generation facility, purchase an existing electric generation facility, or enter into a power purchase agreement for the purchase of electric capacity for a period of six years or longer, **may submit an application to the MPSC seeking a Certificate Of Necessity (CON)** for such investment if it is expected to cost \$100,000,000 or more and a portion of the costs would be recovered from retail customers in Michigan. If the MPSC approves a CON, then the utility is assured recovery of the costs incurred to complete the project, up to the amount authorized.

5. What did UMERC request in its application with the MPSC?

In MPSC Case No. [U-18224](#), UMERC sought approval of a CON to construct **two natural gas-fired RICE electric generation facilities totaling approximately 183 MW of capacity**. UMERC expects the cost of the generation project to total \$277,200,000, including all transmission interconnection, gas interconnection and financing charges. UMERC is also seeking approval of the ability to construct the plants at two sites in the UP, as well as a special contract between UMERC and the Tilden Iron Ore Mine.

¹ Litigation continues today before both the federal regulator (FERC) and federal appellate courts related to the amount of these charges and to whom the charges are applicable. For more information, visit www.michigan.gov/energy.

6. What is a RICE unit?

RICE stands for “**reciprocating internal combustion engine.**” RICE units operate on a four-stroke cycle for the conversion of pressure into rotational energy similar to an automobile engine. Spark ignition of the natural gas fuel in the engine cylinders ignites the natural gas fuel which produces the pressure in the engine cylinders, resulting in the rotation of the engine’s drive shaft. The drive shaft turns the attached electric generator, which produces electricity. There are many RICE units operating throughout the world.

7. How will the new RICE units affect reliability in the UP?

The RICE technology is scalable, using both 9-10 MW units and 18-20 MW units. Any number of units can be run at one time, resulting in **improved reliability, greater operational flexibility, higher efficiency, and increased electrical output** as needed by the system. The RICE units will add approximately 183 MW of capacity to Michigan’s UP, creating a system that is capable of meeting the requirements of the Tilden Mine without jeopardizing reliability and service to UMERC’s other customers. Having the plants in two different sites in the UP will also help to improve reliability of the electric grid.

8. When and where will the generation project be built?

There are two locations for the generation project. The larger of the two facilities will be located in **Negaunee Township in Marquette County**. The smaller of the two facilities will be located in **Baraga Township in Baraga County**. Construction is expected to commence in the spring of 2018. Gas and electric interconnection is expected to be complete by late 2018. The two units are planned to achieve commercial operation mid-year 2019.

9. What is the employment impact of the generation project?

Total construction employment is expected to be 300, with approximately 100 workers at the Baraga Township site and about 200 at the Negaunee Township site. UMERC said it expects between 60 percent and 80 percent of the construction employees will be members of local unions and Michigan residents. It is expected that there will be **12 workers needed to operate the plants** once they are online.

10. Did UMERC consider alternatives to the proposed generation project?

UMERC submitted an integrated resource plan (IRP) as part of its application, pursuant to the requirements for an IRP set forth in MCL 460.6s(11). As part of its IRP, **UMERC considered several additional resource options**, including energy efficiency, load management and demand response, renewable energy, high-voltage transmission upgrades, a single site configuration, and combustion turbine and combined cycle configurations.

11. Could additional electric transmission investment be used to address power needs instead?

To obtain the same level of reliability as the new generation project, a transmission alternative would likely need to consist of a series of transmission projects. It is possible that these projects could address the power needs of the UMERC customers, but **the expected cost of the transmission projects exceeds the cost of the proposed RICE electric generation facilities and relies on imported power being available from outside of Michigan.**

12. What is the special contract for the Tilden Mine?

The Tilden Mine alone is responsible for 40% of UMERC’s electric load. Under the proposed 20-year special contract, **UMERC would recover 50% of the capital costs of the generation project from Tilden Mine** while receiving 100% of the capacity value of the generation project. **The mine would also pay its share of distribution costs, transmission costs, and generation operations & maintenance costs.**

13. What is the MPSC’s role in reviewing the UMERC application?

With respect to UMERC’s request for a CON, the MPSC is directed by MCL 460.6s to either **approve or deny the request within 270 days**. The MPSC is required to grant the requested CON if it determines that UMERC met the filing requirements set forth by the MPSC, as well as the following criteria in the law:

- The utility has demonstrated a need for the power
- The facility will comply with all state and federal environmental standards, laws, and rules
- The estimated cost of power from the facility is reasonable
- The facility represents **the most reasonable and prudent means of meeting the power need relative to other resource options**
- To the extent practicable, the construction or investment is completed using a workforce composed of Michigan residents

On October 25, 2017, the MPSC found that UMERC met all of these criteria, and **approved the CON for the generation project**. The MPSC also allowed UMERC to build on the sites in Negaunee and Baraga, and approved the special contract with Tilden. In other cases, the MPSC also approved the construction of new natural gas pipelines to support the new plants.

14. What does the MPSC’s decision mean?

The MPSC approval of the UMERC CON application paves the way for the company to **build the generation project to serve UMERC customers in a cost-effective manner**, and allows for the eventual retirement of the PIPP coal plant.

15. How is the mine contributing to the generation project? What guarantees are there for other UMERC customers?

UMERC’s non-Tilden customers will **only pay for a portion of the capital costs to construct the generation project and pay none of the mine-related O&M costs** for the 20-year duration of the special contract between UMERC and the Tilden Mine. Further, if the mine is no longer a UMERC customer before the end of the contract term, the remaining costs would be spread to all WE Energies customers, not just UMERC customers.

16. What will happen to the PIPP coal plant?

It is intended that the generation project will replace the need for PIPP. After completion of the generation project by UMERC in 2019, **it is expected that WE Energies will take steps to retire the PIPP coal plant**. When WE Energies decides to pursue the retirement of PIPP, it will work with local officials and state and federal regulators to initiate the closure process in a timely manner, with an estimated retirement date of 2020.

17. How does this help the UP energy situation? What are next steps?

The UMERC generation project is intended to serve UMERC customer reliability and capacity needs in an efficient and flexible manner, and provide a replacement for the PIPP coal plant. **Next steps are for construction of the new power plants and associated infrastructure, with an expected commercial operation date of mid-2019**. The MPSC is also working with the Michigan Agency for Energy and the regional grid operator, MISO, to evaluate interconnection options between the UP, Lower Peninsula, and even Canada, to help provide better reliability and lower costs for UP ratepayers. Additional information is expected later in 2017.

For more information, visit:

www.michigan.gov/mpsc

MCL [460.6s](#) – Certificate of Necessity Law

Case No. [U-18224](#) – UMERC CON

Case No. [U-17682](#) – UP Energy Issues Settlement Agreement

October 25, 2017

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