

February 20, 2018

Daniel P. Wolf, Executive Secretary
Minnesota Public Utilities Commission
127 7th Place East, Suite 350
St. Paul, MN 55101-2147

Re: Application for Site Permit Repowering
Lake Benton Power Partners LLC
Docket No. IP-6908/WS-13-294

Dear Mr. Wolf:

Attached are the comments of the Minnesota Department of Commerce Energy Environmental Review and Analysis (EERA) staff on Application completeness and the review process in the following matter:

The Application of Lake Benton Power Partners, LLP's for a Large Wind Energy Conversion System Site Permit Amendment for repowering its existing 107.25 megawatt (MW) large wind energy conversion system (LWECS) in Lincoln County.

Lake Benton Power Partners LLC has submitted a Site Permit Amendment Application pursuant to Minnesota Rule 7854.1300 to retrofit its existing Lake Benton Project and repower the Project as a 107.25 MW LWECS.

This filing was made on February 9, 2018, by:

Dave Leveille
ALLETE Clean Energy, Inc.
30 West Superior Street
Duluth, MN 55802

EERA concludes the Site Permit Amendment Application contains the information necessary for Commission review, and recommends the Commission review the Application using the process described herein. EERA staff is available to answer any questions the Commission may have.

Sincerely,

/s/ Larry B. Hartman

Larry B. Hartman
Environmental Review Manager
Energy Environmental Review and Analysis
(651) 539-18398 | larry.hartman@state.mn.us

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COMMENTS AND RECOMMENDATIONS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
ENERGY ENVIRONMENTAL REVIEW AND ANALYSIS

DOCKET NO. IP-6908/WS-13-294

Date February 20, 2018
EERA Staff..... Larry B. Hartman (651) 539-1839

**In the Matter of the Application of Lake Benton Power Partners LLC for an LWECS Site Permit
Amendment to Repower the 107.25 MW Lake Benton Wind Project in Lincoln County**

Issues Addressed: *These comments and recommendations address:*

1. *Whether the site permit amendment application is complete; and*
2. *How the amendment review process might best proceed.*

Additional documents and information can be found at

<https://mn.gov/commerce/energyfacilities/Docket.html?Id=34782> or on eDockets at
<http://www.edockets.state.mn.us/EFiling/search.jsp> (Year 13, Number 294).

This document can be made available in alternative formats; e.g., large print or audio tape by calling (651) 539-1530.

Introduction and Background

Lake Benton Power Partners, LLC (LBPP), a subsidiary of ALLETE Clean Energy, Inc., LLC (LBPP or Applicant), currently operates a 107.25 -megawatt (MW) Large Wind Energy Conversion System (LWECS) located in Lincoln County, Minnesota. The Lake Benton project, was originally developed by Northern States Power (NSP) and sometimes referred to as the “NSP II Project” received a certificate of need from the Minnesota Public Utilities Commission (Docket No. E-0021/CN-94-795) on April 19, 1995.

The LBPP project was the first Large Wind Energy Conversion System (LWECS) project permitted by the Minnesota Environmental Quality Board (EQB). The EQB issued LBPP a LWECS’s Site Permit on October 31, 1995, and amended the permit on June 19, 1997. On November 1, 2017, the PUC amended the site permit to include updated site permit language and extended the site permit expiration date to November 1, 2039. The current (amended) site permit is referred to throughout the filed application as the “Site Permit.”¹ As necessary, the original 1995 version of the site permit is referred to as the “Original Site Permit.”

As built, this facility included 143 Zond wind turbines (Z-750 model) with a 48 –meter (m) [157.5 foot (ft)] rotor diameter (RD) and a 53-meter [174 f] hub height, transformers and underground cabling. Commercial operation started in 1998. Four of the 143 turbines have been permanently decommissioned, currently 139 turbines are operational.

¹ A copy of this “Site Permit” is included in the Application.

On February 9, 2018, LBPP filed an Application to amend the Site Permit.² The Applicant intends to repower (retrofit, in its own terms) the LWECs to improve efficiency and extend the useful life of the facility beyond 2039. LBPP has a power purchase agreement (PPA) with Xcel Energy for the plant's current production.

Project Location

The Project is located approximately just north of the city of Lake Benton in Lincoln County, with a majority of the turbines located in Drammen Township and a small number of turbines in Verdi and Diamond Lake townships. The proposed Project boundaries are the same as those authorized in the 1995 Site Permit. The Project is located in an area that has seen extensive development of LWECs over the last 20-plus years since LBPP facility commenced operations.

Project Description

The current Facility Boundary, encompassing approximately 12,000 acres, would remain the same under an amended permit. The new Project would consist of retrofitting the existing 139 turbines by:

- Replacing turbine blades, increasing the rotor diameter from 48 meters to 50 meters,
- Replacing equipment within the nacelles (e.g., rotor assembly, gearboxes, generators and drive shafts, switchgear), and
- Updating the electronic controls.

The result would be to modernize the Facility's turbines to ensure safe reliable operation through the end of the permit term of November 1, 2039. There would be no changes to turbine locations, turbine towers, meteorological towers, or underground electrical collection system outside of the substation.

The proposed retrofit will not increase individual turbine generator capacity or nameplate capacity, and energy production is expected to be similar to the original designs, but with better efficiency than current operations. Therefore, the Facility's current Interconnection Agreement (IA) with Midcontinent Independent System Operator, Inc. (MISO) and Xcel Energy (Excel) will not require an amendment.

LBPP plans to complete the maintenance and retrofitting activities over a three year timeframe, commencing in 2018 and completing by December 31, 2020 to qualify for federal production tax credits. Therefore, each year LBPP anticipates to complete the maintenance and retrofitting of about one third of the turbines (40 to 50) at the site.

The exact number per year will vary depending on component availability, weather conditions, minimizing production impacts, and identification of other required routine maintenance outside the scope of this application.

² "Site Permit Amendment Application," LBPP, February 9, 2018, See eDockets (13-294) Document ID [20182-139930-01](#), [20182-139930-02](#), [20182-139930-03](#), [20182-139930-04](#), [20182-139930-05](#), [20182-139930-06](#), [20182-139930-07](#), [20182-129930-08](#), [20182-139930-09](#), [20182-139930-10](#); or <https://mn.gov/commerce/energyfacilities/resource.html?id=34762>.

Regulatory Process and Procedures

A site permit from the Commission is required to construct an LWECS, which is any combination of wind turbines and associated facilities with the capacity to generate five megawatts or more of electricity. This requirement became law in 1995. The Minnesota Wind Siting Act is found at Minnesota Statutes Chapter 216F. The rules to implement permitting requirements for LWECS are in Minnesota Rule 7854. The Statute and Rule are designed to guarantee LWECS are sited “in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.”³

Over the past year, the Commission and the Minnesota Department of Commerce Energy Environmental Review and Analysis (EERA) staff have been meeting together, and with interested utilities, to discuss repowering existing windfarms. Repowering is a means to fulfill all three tenets of the law’s purpose by rebuilding on a previously impacted site, preserving the existing compatible land uses of agriculture and energy production, and utilizing and improving upon facilities that have already been determined by the Commission as making efficient use of resources.

Repowering may take the form of a “full repowering,” where turbines are decommissioned and replaced within the site boundary, or a “partial repowering,” where, as in the current case, existing turbines are retrofitted to improve efficiency and extend their life cycle. The process of review in either case would be for the Permittee to file an Application for a Permit Amendment to approve the repowering. The Commission has authority to amend a Site Permit at any time if it has good cause.⁴ The process for an amendment generally includes a comment period and a hearing before the Commission. Commission and EERA staffs agree that the additional step of a public meeting in the Project area should also be required in the case of repowering. As discussed by staffs, and presented at a Commission Planning Meeting in 2017, the following Process has been outlined to review either full or partial repowering:

Review Process for Repowering	
Day	Process Step
-	Amendment Application Filed
10	EERA Recommendations on Application Completeness and Process
15	Commission Notice for Public Information Meeting and Comment Period
40	Public Information Meeting
50	Public and Agencies Comments Due
64	EERA Recommendations on the Permit Amendment
85-100	Commission Agenda Meeting for Decision

EERA Staff Analysis and Comments

Commission and EERA staffs have agreed that an Amendment Application for repowering should provide the same information that would be required for current Site Permit applications.⁵ This guarantees the Applicant will have updated any environmental information from its original application and conducted all required surveys and modeling expected by applicants for new sites.

³ Minnesota Statute [216F.03](#); Minnesota Rule [7854.0200](#)

⁴ Minnesota Rule [7854.1300 Subp. 2](#)

⁵ Minnesota Rule [7854.0500](#)

Application Completeness

LBPP developed its Amendment Application with the assistance of the EERA guidance document⁶ for LWECS permits. This guidance for site permitting provides applicants and preparers of LWECS applications with information on how to prepare a complete site permit application, including information on the permitting process, pre-application consultation, current policies, guidelines and expectations as to necessary study standards and how to submit an application.

LBPP submitted a draft Application the week of January 15, 2018 for EERA review and to discuss the need for any additional information. EERA also reviewed a second draft the week of February 5, 2018, to provide additional comments and recommendations. The Applicant edited and supplemented the Application following EERA's reviews before making their official filing on February 9, 2018. EERA finds the efiled Application addresses the comments and recommendations provided to the Applicant.

Recommendations

EERA concludes that filing requirements discussed among Commission and EERA staff have been met. EERA recommends that the Application be reviewed as per the "Review Process for Repowering" mentioned above, beginning with noticing and holding a public information meeting as soon as arrangements can be made.

⁶ Application Guidance for Site Permitting of Large Wind Energy Conversion Systems in Minnesota, Department of Commerce EERA, August 5, 2010.