

July 22, 2021

VIA E-MAIL & FEDERAL EXPRESS

Mr. Brian Johnson
Special Assistant Attorney General
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

Re: Kesslers v. Minnesota Power, a division of ALLETE, Inc.
Case No. PU-20-194

Dear Mr. Johnson:

As requested in your July 12, 2021 e-mail, Minnesota Power, a division of ALLETE, Inc. (“Minnesota Power”) provides information regarding what will be required to move/remove Turbine 441.

As noted in our previous e-mail exchanges with you and counsel for the Kesslers, a lot of planning goes into moving a turbine, including but not limited to engineering, siting, permitting, contracting, procurement, scheduling, and construction activities. This letter provides additional details about those matters, and provides necessary context for the efforts that Minnesota Power will undertake (and has already begun to undertake) in connection with the anticipated order from the Commission requiring that Turbine 441 be removed from its present location. For the reasons set forth below, an order that requires such a removal on a short timeframe may set up this matter for further compliance issues, which can be avoided by a timeframe allowing for a more orderly process. In addition, an order that requires removal, but which allows a reasonable time frame for relocation of Turbine 441 promotes the efficient use of resources, reduces impacts on other landowners and the general public, and promotes safety. Consequently, Minnesota Power submits that an order that allows for Turbine 441 to be removed and relocated in a feasible timeframe is appropriate. As explained below, Minnesota Power would propose to idle Turbine 441 until it can be removed, which would reduce impacts to the Kesslers.

As an initial matter, Minnesota Power cannot remove or move Turbine 441 on its own. Minnesota Power must contract with Siemens Gamesa Renewable Energy (“SGRE”) to conduct the turbine removal and re-installation work and will have to contract with other external parties for equipment (e.g., a crane) and other services. Wind projects, and wind project work, are contracted for months and/or years in advance. It is nearly the end of July, which is the middle of construction season throughout North America, no final order has been issued in this case, and activities associated with Turbine 441 are not currently on the necessary contractors’ calendars. As a result, the timing of moving/removing Turbine 441 is, for the most part, outside of Minnesota Power’s

control. Notably, Minnesota Power has already engaged with SGRE to evaluate the feasibility of removing and/or relocating Turbine 441.

Additionally, relocating a single turbine is an atypical project that is not easy to contract or plan for, as it is limited in scope but still complex in development and execution. To relocate Turbine 441, Minnesota Power must confirm a new location through geotechnical testing and site-specific surveys (e.g., cultural, wetlands, sensitive species), confirm constructability and develop engineering plans, and secure all necessary permits/approvals for the new location. To remove and relocate the turbine, Minnesota Power, with the assistance of SGRE, must identify and procure all tools, rigging, parts and equipment necessary to complete turbine disassembly, relocation, and reassembly. For example, specialized tooling specifically designed to attach to the various turbine components and to a crane (e.g., lifting, rigging, tables, and braces) is required to remove and/or install a turbine. SGRE must provide the tooling, and it is essential that the tooling be tested and safe. Moreover, the tooling must be specific to the turbine model and, since the Project's turbine model is not currently a commonly installed turbine model, the necessary tooling is not readily available. Minnesota Power, with the assistance of its contractors, must also excavate, pour, and backfill the foundation, construct a gravel crane pad and access road, trench in the collection cable, and install the transformer at the new location.

Finally, Minnesota Power must contract and schedule with SGRE and other contractors to perform the de-construction/construction and turbine relocation work, and removal of a single turbine for contractors already booked for this year and into next year is not a high priority. That said, SGRE has gone above and beyond to assist Minnesota Power in trying to develop a timeline to remove and/or reinstall Turbine 441. While it is a single turbine, the same level of due diligence is needed to ensure the work is done correctly and safely, and as noted above, certain tooling and equipment must be available to complete the work. Based on discussions with SGRE, it is not possible to relocate Turbine 441 this year, but Minnesota Power would be able to relocate Turbine 441 before the end of the 2022 construction season (November 1, 2022).

In its discussions, Minnesota Power specifically asked SGRE to analyze the possibility of removing Turbine 441 this year, even if it could not be reinstalled until next year. At this point, there are several hurdles to removing Turbine 441 this year. SGRE currently has a crew at the Project site to fix bearings in certain turbines. That crew does not have the tooling or equipment needed to remove a turbine; thus, it is not possible for SGRE to simply switch from fixing bearings to removal of Turbine 441. Moreover, the SGRE crew has been contracted for work in Canada for another party in August, immediately following completion of their scheduled work on the Project. *If* the SGRE work in Canada goes as planned, the SGRE crew *may* have a window (or window(s)) of availability starting in October 2021 before they move to other already-scheduled work. That availability is uncertain, as it is subject to and limited by commitments to other clients, and would need to align with crane availability and weather conditions.

Assuming that SGRE has crew availability this fall, it is not certain that the necessary tools, rigging, and equipment for safe removal and storage will be available. In addition to the tooling and equipment required to remove the turbine components, if the turbine is removed without immediate reinstallation, the turbine components will have to be stored until reinstallation could occur, which would involve the following:

- The blades and tower sections would be stored on the Lennicks' property on stands with tarps covering the ends. The stands and tarps would have to be obtained from SGRE. The covers for the blades and tower sections are not in stock and would need to be ordered, produced, and delivered by the time a crew is available. SGRE thinks that other tooling and stands are located in the United States and could be on-site in October. Since the Lennicks' property is used for cattle operations, Minnesota Power anticipates fencing would need to be installed around the turbine components to keep cattle out of the area. The fenced portion of the Lennicks' property would be unavailable for the Lennicks' use until the turbine could be reinstalled.
- The nacelle, hub, and power unit would need to be transported to the O&M facility for storage. In order to transport the turbine components for storage, Minnesota Power will need to secure a Goldhofer, a specialized transport trailer, to transport the nacelle/generator. The nacelle will require a dehumidifier and a A-frame tool, which is needed to rotate the generator periodically to prevent damage. The stands, dehumidifier, and A-frame tool would need to be supplied by SGRE. Currently, no nacelle stands are available in North America for the Project's turbine model. At Minnesota Power's request, SGRE is determining whether a nacelle stand is available in Europe and could be shipped to the Bison site in time to line up with the potential window of SGRE crew availability. SGRE has inquired with its European counterparts on those availability and shipping issues, but is currently uncertain that the nacelle stand could be provided this fall. SGRE is also determining if it has the required fixtures/frames to lift/transport the power unit.¹

As outlined above, there are essential components, such as specialized tooling, a nacelle stand, and the fixtures/frames to lift and transport the power unit, that Minnesota Power may not be able to procure in a timely-enough fashion. Transporting and storing turbine components also increases the risk of damage to the turbine. Although Minnesota Power would implement available precautions, stored components have blown off stands in high winds and are at risk of rodents chewing through turbine electrical components. Finally, there are increased impacts to the Lennicks and their land. If the turbine is removed without immediate reinstallation, Minnesota Power will have to mobilize contractors twice – once to remove the turbine, and again to reinstall the turbine. As a result, Minnesota Power would have to bring heavy equipment and contractors onto the Lennicks' land twice. Overall, the complexity, risk, and impact associated with relocating Turbine 441 increase if reinstallation does not occur immediately following removal, and there is no guarantee that the necessary labor or equipment will be available to complete removal this year.

In the event an order is issued requiring removal of Turbine 441 while allowing for an orderly process of removal and relocation, Minnesota Power would be able to reduce and/or eliminate many impacts by idling Turbine 441 until it could be relocated. Idling would eliminate concerns about noise and shadow flicker the Kesslers previously raised. Idling is also safer than completely shutting off the wind turbine. With idling, the following occurs:

¹ As of the time of this submission, SGRE's analysis is still underway. If desired by the Commission, Minnesota Power could provide an update when that analysis is complete.

- The wind turbine will not generate power, sound, or shadow flicker.
- Power will still be supplied to the wind turbine:
 - Keeps communications, safety functions, yaw system, and lubrication systems operable.
 - Allows operator to monitor turbine condition, check status, and receive alarms remotely.
 - Maintains the electrical power supply to the wind turbine's electrical components, preventing condensation from occurring during cold weather which can damage the electronics.
- Yaw system will turn the turbine nacelle/rotor to face the wind:
 - Prevents excessive loads/stresses on the wind turbine from high winds.
 - The turbine manufacturer does not allow the yaw system to be locked if winds exceed 18 m/s (40 mph).
- Blades pitch out of the generating position; the rotor is not locked and allowed to rotate very slowly (~1 rpm) in the wind:
 - Prevents excessive loads/stresses on the wind turbine from high winds.
 - The turbine manufacturer does not allow the rotor to be locked if winds exceed 18 m/s (40 mph) average over a ten minute period.
 - Prevents extended stand-still conditions that can damage the main bearing. The turbine manufacturer's policy is to limit rotor lockout to no more than 3 consecutive days.

For all of the reasons outlined above, Minnesota Power respectfully requests that if the Commission requires Turbine 441 to be removed, that its order provide that Minnesota Power has until November 1, 2022 to remove and relocate Turbine 441. Minnesota Power values its relationship with all landowners and respects the Commission's process. Minnesota Power will not unduly delay the work, but instead will make every effort to complete the relocation as soon as practicable, and will idle Turbine 441 until it can be relocated.²

² Minnesota Power reserves the right to seek reconsideration and/or appeal the decision ultimately issued in this case and, by providing this information, is not waiving any of its rights.

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Enclosed in support of this letter is the Affidavit of Todd Simmons. Electronic versions of this letter and the affidavit are being filed with the Commission via e-mail, and an original and ten copies of this letter and the affidavit are being sent to the Commission via Federal Express.

If you have any questions, please let me know.

Sincerely,



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Enclosures

cc: ALJ Timothy J. Dawson (via e-mail, w/encl.)
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