

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of The Application of Moraine)
Wind LLC for Certification as an Eligible) Case No. 21-516-EL-REN
Ohio Renewable Energy Resource)
Generating Facility.)
)

In the Matter of The Application of Rugby)
Wind LLC for Certification as an Eligible) Case No. 21-517-EL-REN
Ohio Renewable Energy Resource)
Generating Facility.)
)

In the Matter of The Application of Elm)
Creek II for Certification as an Eligible) Case No. 21-531-EL-REN
Ohio Renewable Energy Resource)
Generating Facility.)
)

In the Matter of The Application of Buffalo)
Ridge II for Certification as an Eligible) Case No. 21-532-EL-REN
Ohio Renewable Energy Resource)
Generating Facility.)
)

In the Matter of The Application of Barton)
Windpower 1 for Certification as an) Case No. 21-544-EL-REN
Eligible Ohio Renewable Energy Resource)
Generating Facility.)

**REPLY COMMENTS
SUBMITTED ON BEHALF OF THE STAFF OF
THE PUBLIC UTILITIES COMMISSION OF
OHIO**

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**On Behalf of the Staff of the
Public Utilities Commission of Ohio**

December 8, 2021

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BACKGROUND

Staff filed its respective Review and Recommendations (Review) in these five cases on August 20, 2021. In its Review, Staff detailed its evaluation of each facility's certification eligibility, ultimately concluding that each facility satisfied the applicable

requirements and should be certified. Staff’s conclusion in these cases remains unchanged.

As detailed in the Review, Staff considered several statutory and rule requirements in its evaluation of a renewable certification application. Carbon Solutions Group, LLC (CSG), while disagreeing with Staff’s conclusion, does not appear to contest most of the factors considered by Staff – rather, CSG’s opposition to the certification of these five facilities appears focused on the topic of “deliverability.” Therefore, Staff’s Reply Comments focus on the topic of deliverability.

ARGUMENT

I. Ohio Law allows certification of renewable energy when those resources can be shown to be deliverable into the state of Ohio.¹

The renewable portfolio standard (RPS) statute specifies that a qualifying renewable energy resource implemented by the utility or company shall be met either through facilities located in this state *or with resources that can be shown to be deliverable into this state.*²

There is a critical distinction in that the statute refers to “deliverable” rather than “delivered.” As such, efforts to apply a requirement of actual delivery to Ohio are not reasonable in this context. While CSG asserts that “deliverable” means actual,³ physical delivery to Ohio, that interpretation is not supported by the relevant statutory language.

¹ R.C. 4928.64(B)(3)(b).

² *Id.*

³ CSG Initial Comments at 8.

II. The Ohio Administrative Code defines deliverable to mean that the electricity originates from a facility within a state contiguous to Ohio and may also include electricity originating elsewhere if it can be shown that the electricity is physically deliverable to Ohio.⁴

By Commission rule, electric-generating facilities located in a state contiguous to Ohio are deemed to be deliverable.⁵ The rule further details that facilities beyond the contiguous states – such as the facilities that are the subject of these five cases – may be found to be deliverable pending a demonstration that the electricity is physically deliverable to the state.⁶

III. The Commission’s precedent in the Koda case established the standards used in order to determine deliverability.⁷

The methodology for demonstrating physical deliverability in this context was proposed by Staff, and subsequently accepted by the Commission, in Case No. 09-0555-EL-REN (*Koda*).⁸ In the *Koda* case, Staff proposed the use of a power flow study to determine physical deliverability, with specific requirements that the absolute value of a facility’s impact on a transmission line in Ohio must be greater than 5% and greater than 1 megawatt. Staff further recommended that:

It is Staff’s position that should an applicant file for certification for a renewable generating facility that is located outside of Ohio or a contiguous state, that the applicant would bear the burden of having PJM or MISO conduct a power flow study consistent with Staff’s proposal.⁹

⁴ Ohio Adm.Code 4901:1-40-01(F).

⁵ *Id.*

⁶ *Id.*

⁷ *In the Matter of the Application of Koda Energy LLC for Certification as an Eligible Ohio Renewable Energy Resource Generating Facility*, Case No. 09-555-EL-REN, Finding and Order at 4 (March 23, 2011).

⁸ *Id.* at 4.

⁹ *Id.*, Staff Comments at 9 (Feb. 28, 2011).

In its *Koda* decision, the Commission supported Staff’s proposal, finding that it was “reasonable and should be adopted.”¹⁰

HISTORICAL APPLICATION OF KODA

For more than 10 years, Staff has applied the methodology established in *Koda* in cases where the certification application is for a facility that is neither located in Ohio nor a state contiguous to Ohio. In these instances, the required power flow study has taken the form of a distribution factor analysis (DFAX) conducted by PJM Transmission Planning.

Contrary to CSG’s assertion¹¹, Staff does not request the facility-specific DFAX study from PJM – rather, it is requested by the Applicant or its consultant, and then provided to Staff as part of the certification application process. Staff has no role in setting the inputs and assumptions used by PJM in its analysis.

This methodology has resulted in certification of a dozen facilities that are not in Ohio or states contiguous to Ohio.¹² In fact, at the Commission’s December 1, 2021 meeting, an application for a facility that was neither located in Ohio nor located in a state contiguous to Ohio was approved.¹³ However, the application of this methodology has also resulted in the denial of multiple applications, including five North Carolina facilities denied as recently as September of this year.¹⁴

¹⁰ *Id.*, Finding and Order at 4 (March 23, 2011).

¹¹ CSG Initial Comments at 8.

¹² Case Nos. 21-0987-EL-REN, 21-0085-EL-REN, 20-1821-EL-REN, 20-1761-EL-REN, 20-1692-EL-REN, 20-1638-EL-REN, 20-1637-EL-REN, 20-1092-EL-REN, 20-1091-EL-REN, 19-1923-EL-REN, 17-2104-EL-REN, and 16-2049-EL-REN.

¹³ *In the Matter of the Application of Harvest Ridge Wind Farm for Certification as an Eligible Ohio Renewable Energy Resource Generating Facility*, Case No. 21-0987-EL-REN, Finding and Order (Dec. 1, 2021).

¹⁴ Case Nos. 20-1793-EL-REN, 20-1792-EL-REN, 20-1791-EL-REN, 20-1789-EL-REN, 20-1788-EL-REN.

IV. DFAX Confidentiality

Staff acknowledges that CSG's misunderstanding may be due, in part, to the fact that the DFAX studies were not part of the public docket in these five cases.¹⁵ The Applicant (Avangrid) had asked that the DFAX studies be treated as confidential; therefore, Staff did not include them in the dockets. After talking with the Applicant's attorney, it became clear the DFAX studies are, in fact, not considered confidential by the Applicant in the current cases.

When receiving a DFAX study from an Applicant, Staff typically receives two documents: a cover sheet that provides an overview of PJM's analysis, and an Excel document with the numerical results of the analysis.¹⁶ As the Applicant filed the Excel document as part of its initial comments in this proceeding, Staff has attached the relevant cover sheet(s) here to complete the record.

Going forward, Staff believes that it would be helpful to include the DFAX studies as part of the docket in "EL-REN" deliverability cases. As such, for any future Commission Entries ordering that the automatic approval process be suspended for good cause shown to further examine matters related to deliverability, Staff recommends that the Commission instruct the Applicant to file the DFAX studies as part of the suspension Entry. This will also provide an opportunity for the Applicant to formally address any

¹⁵ Staff received one DFAX study specific to Barton, and another DFAX study that addressed the remaining four facilities. Attachment.

¹⁶ Where applicable, the PJM DFAX cover sheet has historically included reference to coordination with MISO to confirm facility details including facility size and interconnection bus.

potential confidentiality issues associated with the additional information being furnished.

CONCLUSION

Staff recommends that the Commission approve the five applications at question in these proceedings as they satisfy all applicable eligibility requirements. Staff further recommends that the Commission instruct the Applicant to file the DFAX studies as part of any future Entries ordering that the automatic approval process be suspended for good cause shown to further examine matters related to deliverability. Respectfully Submitted,

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**On Behalf of the Staff of the
Public Utilities Commission of Ohio**

PROOF OF SERVICE

I hereby certify that a true copy of the foregoing **Reply Comments** submitted on behalf of the Staff of the Public Utilities Commission of Ohio, was served via electronic mail upon the following Parties of Record, this 8th day of December 2021.

/s/ Jodi J. Bair

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DFAX Analysis of Renewable Resources for Avangrid

PJM Transmission Planning
May 18, 2021

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Study of Renewable Resource Impact on Ohio Transmission Facilities through DFAX Analysis

PJM performed DFAX analysis in order to determine the impacts of various windfarm facilities outside of the PJM footprint on the transmission facilities inside the state of Ohio that are contained in the PJM footprint. Below is a summary of those findings:

PJM confirmed that all of the renewable resources included in the study have >5% DFAX on facilities in this study. This was confirmed using the 2025 RTEP base case and the TARA software program. Attached is a list of all the BES facilities in AEP, DEOK, DAYTON and ATSI. DFAX values with a magnitude above 5% are highlighted in green. Some of the facilities in the list are **outside** of Ohio because the service territories for AEP, ATSI and DEOK extends to other states.

The information below provides some background information on the analysis.

PJM confirmed the required information about the renewable resources from MISO to identify these facilities in the 2025 RTEP PSS/E case with the information for these facilities contained in the list below. A DFAX analysis on approximately 3,000 BES transmission facilities in Ohio and surrounding areas was performed using the TARA program. The buses at which the Wind generators are located provided the source for the DFAX analysis, and the generation with the PJM footprint provided the sink for the DFAX analysis. Finally, it was confirmed that there were a number of EHV transmission facilities on which at least 5% of the energy from these wind resources would be expected to flow if they were to deliver their energy into PJM. Details of the analysis are in the table attached to this report.

1. Moraine I is a 49.5 MW Wind farm in Xcel Energy North that connects to Chanarambie 34.5 kV bus. In the 2025 RTEP case, it is modeled at bus 600092.
2. Rugby is a 149.1 MW Wind farm in Otter Tail Power Company that connects to Rugby Wind 230 kV bus. In the 2025 RTEP case, it is modeled at bus 620115.
3. Buffalo Ridge II is a 210 MW Wind farm in Xcel Energy North that connects to Oak Lake Wind 115 kV bus. In the 2025 RTEP case, it is modeled at bus 600137 and 600140.
4. Elm Creek is a 148.8 MW Wind farm in Xcel Energy North that connects to Lakefield 345 kV bus. In the 2025 RTEP case, it is modeled at bus 600134.

Attached file:

PJM DFAX Analysis for Wind Farms May 2021 Request_final_for_Avan Grid.xlsx



DFAX Analysis of Wind Farms for Blue Delta Energy, LLC

PJM Transmission Planning
July 27, 2020

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Study of Windfarm Impact on Ohio Transmission Facilities through DFAX Analysis

PJM performed DFAX analysis in order to determine the impacts of various windfarm facilities outside of the PJM footprint on the transmission facilities inside the state of Ohio that are contained in the PJM footprint. Below is a summary of those findings.

PJM confirmed that all of the wind farms included in the study have >5% DFAX on facilities in Ohio. This was confirmed using the 2025 RTEP base case and the TARA software program. Attached is a list of all the BES facilities in AEP, Dayton, DEOK, and ATSI. DFAX values with a magnitude above 5% are highlighted in green. Some of the facilities in the list are outside of Ohio because AEP's service territory extends to other states.

The information below provides some background information on the analysis.

PJM confirmed and / or obtained the required information about the wind farms from MISO and SPP to identify or model these facilities in the 2025 RTEP PSS/E case. The information for these facilities is contained in the list below. Then a DFAX analysis on approximately 3,000 BES transmission facilities in Ohio and surrounding areas was performed using the TARA program. The buses at which the wind generators are located provided the source for the DFAX analysis, and the generation with the PJM footprint provided the sink for the DFAX analysis. Finally, it was confirmed that there were a number of EHV transmission facilities in the state of Ohio on which at least 5% of the energy from these wind resources would be expected to flow if they were to deliver their energy into PJM. Details of the analysis are in the table attached to this report.

1. Barton Windpower is a 160 MW wind farm in Alliant Energy (West), IA that connects between the Adams South and Lime Creek 161 kV substations. In the 2025 RTEP base case it is modeled as two 80 MW wind generators at buses 631150 and 631151.

Attached file:

PJM DFAX Analysis for Wind Farms June 2020 Request.xlsx

**This foregoing document was electronically filed with the Public Utilities
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**Case No(s). 21-0516-EL-REN, 21-0517-EL-REN, 21-0531-EL-REN, 21-0532-EL-
REN, 21-0544-EL-REN**

Summary: Reply Comments Submitted on Behalf of the Staff of the Public Utilities
Commission of Ohio electronically filed by Mrs. Kimberly M. Naeder on behalf of
PUCO