

**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application for a Certificate of Public Convenience and Necessity of Vista Sands Solar LLC to Construct a Photovoltaic Electric Generating Facility, a Battery Energy Storage System, Collector and Project Substations, a 345 kV generator tie line, and 138 kV collector transmission lines (Vista Sands Solar Farm) in the Village of Plover and Towns of Plover, Buena Vista, and Grant, Portage County, Wisconsin

Docket No: 9820-CE-100

SUPPLEMENTAL DIRECT TESTIMONY OF JON BAKER

Public Service Commission of Wisconsin
RECEIVED: 6/7/2024 12:56:13 PM

1 **Q. Please state your name and business address.**

2 A. My name is Jon Baker, and my business address is 2 Logan Square, Philadelphia, PA
3 19103.

4 **Q. Are you the same Jon Baker who filed direct testimony in this proceeding on May 14,**
5 **2024, on behalf of Vista Sands Solar LLC (“Vista Sands Solar”)?**

6 A. Yes.

7 **Q. What is the purpose of your supplemental direct testimony?**

8 A. My testimony introduces a modification to the Vista Sands Solar Project (“Project”) that
9 eliminates all proposed overhead transmission lines, Project Substation #2, and all collector
10 substations and replaces that infrastructure with underground medium-voltage collection
11 lines. My testimony explains the reasons Vista Sands Solar is introducing this Project
12 modification, why the modification is happening now, and how this change will benefit
13 Project stakeholders.

14 **Q. Do you sponsor any exhibits with your supplemental direct testimony?**

15 A. Yes. I sponsor the following exhibits:

- 1 • Ex.-VSS-Baker-8: Updated Project Layout to Reflect Project Modification

2 **Q. Please identify the other witness offering supplemental direct testimony on behalf of**
3 **Vista Sands Solar.**

4 A. In addition to my testimony, the following witness provides supplemental direct testimony
5 in support of the application (“Application”) for certificates of public convenience and
6 necessity (“CPCN”) for the Project:

- 7 • Chris Pekar, Senior Renewables Project Manager, Stantec: Mr. Pekar addresses
8 technical aspects of the Project modification and describes certain revised Application
9 exhibits that reflect this modification.

10 **Q. Please explain in detail how Vista Sands Solar proposes to modify the Project.**

11 A. As initially filed in the Application and discussed in my direct testimony, the Project
12 originally included, among other things, two Project substations, three collector
13 substations, three 138 kilovolt (“kV”) transmission lines, and a 345 kV transmission line.
14 Vista Sands Solar is modifying the Project by introducing a layout that, as a preferred route,
15 eliminates all proposed overhead transmission lines, Project Substation #2, and all collector
16 substations. Vista Sands Solar would replace that infrastructure with underground medium-
17 voltage collection lines. A map of the modified Project layout is provided as Ex.-VSS-
18 Baker-8. This modified layout would also slightly increase the Project’s nameplate
19 capacity from 1310.4 megawatts alternating current (“MW AC”) to 1315.6 MW AC to
20 offset additional electrical losses and ensure the Project can deliver 1182 MW AC to the
21 point of interconnection (“POI”). Lastly, the modified Project layout would increase the
22 size of Project Substation #1 and co-locate it with the switchyard. Project Substation #1
23 and the switchyard are now proposed to occupy approximately 28 acres in the northeastern

1 portion of the Project. However, the modified Project layout would decrease the total
2 substation/switchyard acreage from 46 total acres to 28 total acres because Project
3 Substation #2 and all collector substations are no longer needed.

4 **Q. Does the modified Project layout include additional accommodations for wildlife**
5 **passage and snowmobile trails?**

6 A. Yes. The modified Project layout includes additional corridors within Primary Arrays 15,
7 14, 9, 10, and 8 to ensure there are regular access points for wildlife and snowmobile
8 passage through the Project area.

9 **Q. Why is Vista Sands Solar modifying the Project in this way?**

10 A. In Public Service Commission of Wisconsin (“PSCW” or “Commission”) data requests
11 and the draft Environmental Impact Statement (“Draft EIS”), the environmental and visual
12 impact of overhead transmission lines and substations were seen as distinct from, and in
13 some cases more impactful than, those of the area with solar panels. This is due in part to
14 the transmission infrastructure being significantly taller than solar panels and substations
15 being largely impervious surfaces. After reviewing concerns about the substation and
16 overhead transmission lines, Vista Sands Solar explored the option of removing overhead
17 lines and consolidating the substations into one location (while reducing the cumulative
18 substation land use). After determining the electrical losses caused by the change would
19 not have a meaningful impact on the cumulative amount of clean electricity delivered to
20 the grid, Vista Sands Solar committed to the modification to reduce the Project’s overall
21 impact.

22 **Q. What benefits will this Project modification have?**

1 A. The overhead transmission lines have both environmental and visual impacts that will be
2 eliminated by the modification. From a visual perspective, the Draft EIS states the impacts
3 from overhead lines may be greater than those of panels, even though they occupy a much
4 smaller area. This is because the towers hosting the 138 kV and 345 kV transmission line
5 are up to 96 feet in height and are visible from further distances than paneled areas. The
6 Draft EIS also expresses concern that transmission towers could prevent movement of
7 Greater Prairie-Chickens, which are known to avoid tall structures. Specifically, the Draft
8 EIS recommends siting transmission lines at least one mile away from conservation habitat.
9 The elimination of the overhead transmission lines will avoid all of the aforementioned
10 impacts. Additionally, the elimination of the overhead lines will significantly reduce
11 substation impact within the Project area. The consolidation of substations will decrease
12 the amount of impermeable surface and visually intrusive infrastructure. While some of
13 this infrastructure will need to be relocated close to the gen-tie line, the cumulative area of
14 substation facilities will be reduced by 40 percent, from 46 acres to less than 28.

15 **Q. Why is Vista Sands Solar introducing this Project modification now?**

16 A. Vista Sands Solar is introducing this Project modification now because of both engineering
17 reevaluation and the acquisition of additional land rights. From an engineering perspective,
18 the assumption at the time of CPCN submittal was that underground, medium voltage
19 transmission lines would result in high electrical losses. These losses would decrease the
20 amount of clean renewable energy delivered to the grid, and as a result, reduce the
21 associated environmental benefits. The furthest part of the Project is more than seven miles
22 from the POI. Typically, distances this long would utilize overhead transmission line to
23 reduce the losses in delivering the electricity to the grid. However, Vista Sands Solar

1 reviewed this assumption and determined the losses associated with undergrounding would
2 be negligible in the context of the total amount of electricity delivered from the Project.

3 Vista Sands Solar also needed to ensure adequate land rights to make the
4 modification. Subsequent to the submission of the CPCN application, Vista Sands Solar
5 was able to negotiate the necessary agreements to create the 300-foot corridor in certain
6 areas needed to implement the underground medium voltage design.

7 **Q. Did Vista Sands Solar communicate with PSCW and Wisconsin Department of**
8 **Natural Resources (“WDNR”) staff about this proposed modification?**

9 A. Yes. Vista Sands Solar originally explained its willingness to eliminate the Project’s
10 overhead transmission lines and instead deliver power through underground cabling in Ex.-
11 PSC-DRR: Response 5.22. In my direct testimony, I explained to all parties (including
12 PSCW and WDNR staff) that Vista Sands Solar believed it could modify the Project to
13 deliver power through underground medium-voltage collection lines (Direct-VSS-Baker-
14 13). Vista Sands Solar met with PSCW and WDNR staff on May 15, 2024, to introduce
15 the Project modification and answer any questions from staff. On May 28, 2024, Vista
16 Sands Solar contacted all parties (including PSCW and WDNR staff) regarding its intent
17 to file supplemental direct testimony and application exhibits to introduce this Project
18 modification. As explained below, Vista Sands Solar coordinated with the parties on a
19 timeline in which the parties and staff could adequately review and respond to this Project
20 modification.

21 **Q. As part of this modification, is Vista Sands Solar withdrawing its application for a**
22 **CPCN to construct the Project’s originally proposed transmission lines?**

1 A. Not at this time. Vista Sands Solar prefers this modified Project layout and believes it is
2 the most beneficial design. However, to give the Commission optionality when evaluating
3 the Project and to maintain an alternative route, Vista Sands Solar is not currently
4 withdrawing its CPCN Application to construct the Project transmission lines. Rather, it is
5 modifying its request, and is designating as the primary route the new underground design.
6 The alternative route would be the original primary route, but would remove all of the 138
7 kV overhead lines and Collector Substations A, B, and C. This will retain what was initially
8 referred to as Proposed Project 345 kV 2-1 Transmission Line and Project Substation #2
9 to step up the power from the central and western array areas from 34.5 kV to 345 kV.
10 Underground MV cables would deliver power generated by central and western array areas
11 to Project Substation #2. Vista Sands Solar expects the Commission to approve only one
12 of these proposed designs and requests that the Commission approve Vista Sands Solar's
13 preferred design as described in this testimony.

14 **Q. How does Vista Sands Solar propose that PSCW and WDNR witnesses, as well as**
15 **intervenors, respond to this new information in this proceeding?**

16 A. Recognizing the importance of this issue, Vista Sands Solar sought out and received a
17 stipulation from all parties, PSCW, and WDNR staff on a process for reviewing this new
18 information. All parties stipulated to an approach whereby any party or staff could respond
19 to this information no later than the current deadline for rebuttal testimony, July 23, 2024.
20 That provides 46 days for parties to review and respond to this information. Vista Sands
21 Solar filed a motion with the Administrative Law Judge requesting approval of this
22 approach on May 31, 2024.

23 **Q. Does this conclude your supplemental direct testimony?**

1 A. Yes, it does.