

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of</b>	)	
<b>Alamo Solar I, LLC</b>	)	
<b>for a Certificate of Environmental</b>	)	<b>Case No. 18-1578-EL-BGN</b>
<b>Compatibility and Public Need</b>	)	

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**DIRECT TESTIMONY OF RYAN RUPPRECHT**

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

**A.1.** My name is Ryan Rupprecht. I am a Senior Project Manager, Practice Lead for the Renewable Energy Group in the Northeast/Mid-Atlantic and Midwest regions, and a Practice Lead for the Eastern Region Siting and Licensing Group for Cardno. My business address is 121 Continental Drive, Suite 308, Newark, Delaware 19713.

**Q.2. What are your duties as a Senior Project Manager?**

**A.2.** I work for Cardno's Science and Environment Division, focusing on permitting and compliance for various energy projects in the Northeast and Midwest. I am responsible for developing, managing and performing consulting work involving environmental permitting, terrestrial and aquatic ecological resource studies, wetland and stream delineations, and surface water quality assessments. As a Senior Project Manager, I manage and participate in environmental permitting projects, overseeing technical experts in biology/ecology, wetland sciences, cultural resources, and rare, threatened & endangered ("RTE") species habitat assessments. As a Practice Lead, I coordinate and market Cardno's services for permitting, compliance, and siting and licensing. My duties also include overall quality assurance for projects, keeping current with relevant laws,

1 regulations, rules, policies and guidelines, and adapting our practices to trends and  
2 changes in the environmental consulting field.

3 I served as Cardno's Project Manager for the Alamo Solar Project ("Project"). For  
4 Alamo Solar, I am responsible for coordinating field efforts for the wetland delineations  
5 and habitat assessments, drafting and reviewing the Ecological Assessment ("EA"), and  
6 providing overall coordination between Open Road and EDR for the Project application  
7 filed. I am responsible for the staffing, budgeting, invoicing, and quality control of  
8 Cardno's work for the Project. I also support several other renewable (both solar and  
9 wind) projects in the Mid-west and Eastern states, as well as manage projects with regard  
10 to Clean Water Act compliance, specifically, NPDES permit applications for industrial  
11 clients in the Northeast.

12 **Q.3. What is your educational and professional background?**

13 **A.3.** I earned a Bachelor's of Science degree in biological oceanography from  
14 Millersville University in 2000. I have over 15 years of professional environmental  
15 experience which encompasses environmental permitting, ecological & water resources  
16 studies, and project management. My areas of expertise include renewable energies,  
17 siting and licensing, water resources, fisheries, habitat & wildlife valuation/identification,  
18 and soil/sediment evaluation. I have designed, implemented, and/or managed numerous  
19 sampling and monitoring programs, including field resource surveys (i.e. wetlands, RTE  
20 species habitat), benthic sampling studies, fish sampling studies, sediment  
21 characterization studies, aquatic remote sensing/geophysical surveys, and cultural  
22 resource studies. Prior to working at Cardno for the past 12+ years, I worked for the  
23 URS Corporation for over 2 years in the Water Resources group, primarily involved in

1       permitting and compliance for the power/energy industry under the Clean Water Act  
2       Section 316 (a) & (b), Section 401 and Section 402. I worked for the US Environmental  
3       Protection Agency (EPA) prior to URS onboard the ocean survey vessel *Peter W.*  
4       *Anderson* conducting geophysical surveys of the ocean floor, channel dredging  
5       monitoring, reef monitoring, water quality and fishery surveys, as well as criminal  
6       investigations.

7       **Q.4. On whose behalf are you offering testimony?**

8       **A.4.** I am testifying on behalf of the Applicant, Alamo Solar I, LLC in support of its  
9       application filed in Case No. 18-1578-EL-BGN.

10      **Q.5. What is the purpose of your testimony?**

11      **A.5.** The purpose of my testimony is to describe studies my firm undertook on behalf  
12      of the Applicant, to summarize the results of those studies, and to summarize the permits  
13      that the Applicant expects to obtain prior to initiating construction in or near surface  
14      waters. I will also provide my overall assessment of the potential environmental impacts  
15      of the Project.

16      **Q.6. Please describe the studies that you and your firm undertook on behalf of the**  
17      **Applicant.**

18      **A.6.** Cardno developed an EA on behalf of the Applicant, which was attached to the  
19      application as Exhibit G. The EA evaluated and summarized potential land use impacts,  
20      based on desktop assessment and on-site field studies of ecological resources. The purpose  
21      of the EA was: to provide a stream and wetland delineation within the area that the Project  
22      will occupy (the “Project Area”) including solar panels, access roads, and collection lines;

1 to map and characterize ecological communities; and to screen for potential occurrence of  
2 RTE species.

3 **Q.7. What was your role in the studies conducted for the Application?**

4 **A.7.** My role was to provide senior-level management of the studies including planning,  
5 scheduling, organization, and oversight of the field and desktop investigations, to perform  
6 review and quality assurance on the study products (e.g., reports, figures, tables, and  
7 written analysis), and to provide communications with the Applicant regarding the studies'  
8 progress, results and project implications.

9 **Q.8. What were Cardno's results from the assessment of endangered species in the Project**  
10 **Area?**

11 **A.8.** Cardno's assessment did not identify any State- or Federal-listed threatened or  
12 endangered plant or animal species in the Project Area. Based on a review of publicly  
13 available data, the Project Area identified in the Application and the surrounding area  
14 within a ¼-mile buffer are not expected to provide significant or permanent habitat for any  
15 listed or other RTE species. During Cardno's November 2017, April 2018, and October  
16 2018 field surveys, no RTE species were identified. Alamo Solar has prioritized avoidance  
17 measures for sensitive habitats. Such measures include minimizing habitat fragmentation,  
18 siting infrastructure in uplands rather than wetlands, and minimizing perennial stream  
19 crossings. Based on current Project designs (which include the measures I reference),  
20 significant impacts to these habitats are not anticipated.

21 **Q.9. Did you make any findings or observations relating to any aquatic resources?**

22 **A.9.** A total of thirteen wetlands were delineated during field surveys, for a total of 4.71  
23 acres within the Project Area. Eleven of the wetlands were identified as palustrine

1 emergent wetlands, and two were palustrine forested wetlands. Four of the wetlands scored  
2 poorly on the Ohio Rapid Assessment Methodology (“ORAM”) and were identified as  
3 Category 1. The remaining nine wetlands were identified as Category 2/Modified 2. None  
4 of the wetlands were identified as Category 3, the highest quality category. Cardno  
5 considers five of the wetlands (totaling 2.44 acres) to be subject to federal jurisdictional,  
6 based on potential hydrologic connectivity to a potential water of the United States.  
7 Importantly, no wetlands will be impacted by Project construction.

8 A total of thirty waterbodies were delineated during field surveys within the Project Area;  
9 twenty-two streams, two ponds, and six ditches. Using the Headwater Habitat Evaluation  
10 Index (“HHEI”) scoring system, six of the waterbodies (four streams, two ditches) were  
11 designated as Primary Headwater Habitat (“PHWH”) Class I, indicating typically  
12 ephemeral flow regimes and poorly defined channels and pools that likely had limited  
13 ecological value. As identified in Table 6-4 in Exhibit G, an additional twenty waterbodies  
14 (sixteen streams, four ditches) were designated as PHWH Class II, which generally  
15 indicated intermittent flow regimes and moderate development of channel features that  
16 could provide ecological value. Two streams, WB-004 and WB-030, were identified as  
17 PHWH Class III, the highest category. WB-004 is a perennial, unnamed tributary to  
18 Sevenmile Creek. Similarly, WB-030 is a perennial, unnamed tributary to Besley Run.

19 The installation of the collection lines for the Project will require crossing four streams and  
20 one ditch within the Project Area, with seven crossings (95 linear feet) in total.

21 Following the issuance of Exhibit G, the Applicant determined that the shift in substation  
22 location discussed in the January 31, 2019 Supplement meant that the culvert and access  
23 road crossing of WB-004 (unnamed tributary to Beasley Run) identified and discussed in

1 Exhibit G would no longer be necessary. Instead, three collection lines will be bundled  
2 together to cross under WB-004 via horizontal direction drill (HDD) at a single location.  
3 Therefore, no impact to WB-004 is anticipated. Additionally, the Applicant will also use  
4 HDD to avoid impacts to two other streams (WB-003 and WB-030). The two other stream  
5 crossings (WB-014 and WB-002) will be crossed via traditional open cut, as these are  
6 intermittent/ephemeral waterbodies.

7 During the field surveys, the Cardno team also surveyed for and documented the presence  
8 or absence of freshwater mussels within the field-delineated streams, and Cardno observed  
9 no individuals or populations of freshwater mussel species.

10 **Q.10. Did you make any findings or observations related to birds or other wildlife?**

11 **A.10.** Yes. We found that the Project would not significantly impact wildlife or wildlife  
12 habitat. The Project has been designed to locate the majority of infrastructure within active  
13 agricultural land, which only provides habitat for a limited number of wildlife species. The  
14 few birds and mammals that may forage within these fields would likely avoid these areas  
15 that are being disturbed by construction. On a landscape scale, there is abundant  
16 availability of similar agricultural fields within the Project Area and surrounding area that  
17 can be used as similar habitat.

18 In addition, the Project Area and ¼-mile buffer are not known to provide significant habitat  
19 for sensitive bird species. Due to this lack of adequate habitat in the immediate Project  
20 Area, it is likely many birds and wildlife will opt for higher quality habitat nearby for  
21 roosting, foraging and breeding.

22 **Q.11. Will the Project cause a negative impact on surrounding properties from any**  
23 **distribution of local wildlife?**

1       **A.11.** No. The Project Area is largely already in use for agriculture, and the change in  
2       use resulting from the construction of the Project will not displace wildlife to surrounding  
3       properties in numbers that would cause a negative impact. Using deer as a proxy, Cardno  
4       evaluated whether development of the Project would increase wildlife population density  
5       in areas surrounding the Project. We determined that deer in the surrounding area would  
6       increase by less than 5%, or less than 0.01 deer per acre. This slight increase in deer, or in  
7       the population of other wildlife potentially displaced by the Project, should not have a  
8       negative effect on surrounding properties.

9       **Q.12. What permits related to construction disturbance in or near surface waters need to**  
10      **be obtained?**

11      **A.12.** The Project is not anticipated to impact any wetland areas. Permits need to be  
12      obtained prior to construction of the Project in or near surface waters, all of which are  
13      related to surface water impacts. Prior to the start of construction, the Applicant currently  
14      expects to obtain the following permit:

- 15           • The Ohio NPDES construction storm water general permit, Ohio EPA Permit No.  
16           OHC000005.
- 17           • A “Nationwide Permit” issued by the U.S. Army Corps of Engineers under  
18           Section 404 of the Clean Water Act for crossings of certain waters of the United  
19           States, along with a Section 401 Water Quality Certification from Ohio EPA if  
20           required.

21      **Q.13. What is your overall assessment of the potential environmental impacts of the Alamo**  
22      **Solar Project?**

1       **A.13.** Overall, the Alamo Solar Project will have limited environmental impacts. The  
2       Project is proposed to be primarily built on land that has already been disturbed  
3       seasonally/annually for agriculture. The Project's most significant impact will come from  
4       the conversion of land used for agriculture to land used for the solar panel arrays. Alamo  
5       Solar has designed the Project to avoid and minimize impacts to wetlands, waterbodies,  
6       woodlots, and aquatic and terrestrial wildlife species where possible.

7       **Q.14. Does this conclude your direct testimony?**

8       **A.14.** Yes, it does.  
9



### **CERTIFICATE OF SERVICE**

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 5th day of July 2019.

/s/ MacDonald W. Taylor

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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**7/5/2019 4:19:46 PM**

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**Case No(s). 18-1578-EL-BGN**

Summary: Testimony Direct Testimony of Ryan Rupprecht electronically filed by Mr. MacDonald W Taylor on behalf of Alamo Solar I, LLC