

**BEFORE
THE OHIO POWER SITING BOARD**

In the Matter of the Application of Birch Solar)
1, LLC for a Certificate of Environmental)
Compatibility and Public Need to Construct a) Case No. 20-1605-EL-BGN
Solar-Powered Electric Generation Facility in)
Allen and Auglaize Counties, Ohio.)

DIRECT TESTIMONY OF

**Alyssa Edwards
VP Environmental Affairs and Government Relations
Lightsource Renewable Energy US, LLC**

**on behalf of
Birch Solar 1, LLC**

May 4, 2022

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)

Matthew C. McDonnell (0090164)

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

2 My name is Alyssa Edwards. I am VP Environmental Affairs and Government Relations
3 for Lightsource Renewable Energy US, LLC (“Lightsource US”). My business address is
4 2000 Market Street, Suite 720, Philadelphia PA 19103
5

6 **2. Please summarize your educational background and professional experience.**

7 I obtained a Bachelor’s degree in Environmental Science from Lehigh University and a
8 Master’s degree in Environmental Policy, Planning and Regulation from the London
9 School of Economics and Political Science. A copy of my resume is attached to my
10 testimony as Attachment AE-1.
11

12 **3. On whose behalf are you offering testimony?**

13 I am testifying on behalf of Birch Solar 1, LLC (“Applicant” or “Birch Solar”), which is
14 seeking to develop the proposed Birch Solar facility (“Project”) in Allen and Auglaize
15 Counties, Ohio.
16

17 **4. What is the purpose of your testimony?**

18 The purpose of my testimony is to provide additional context, support, and clarification
19 regarding the following exhibits that are part of the Application for a Certificate of
20 Environmental Compatibility and Public Need (“Certificate”), filed by Birch Solar in Case
21 No. 20-1605-EL-BGN on February 12 and 17, 2021, as supplemented,¹ and further
22 supplemented by responses to data requests that were received from the Staff of the Ohio
23 Power Siting Board (“Board”) and filed in the docket (“Application”):
24

- 25 • Exhibit D – Vegetation Management Plan
- 26 • Sixth Supplement to the Application filed on May 4, 2022 – Revegetation Plan
- 27 • Exhibit Q – Threatened and Endangered Species Habitat Survey Report
- 28 • Exhibit R – United States Fish and Wildlife Service (“USFWS”) and Ohio
29 Department of Natural Resources (“ODNR”) Correspondence

¹ The Application was initially filed on February 12 and 17, 2021, and subsequently supplemented on: March 25, 2021; March 31, 2021; April 5, 2021; October 5, 2021; February 9, 2022; February 17, 2022; and May 4, 2022.

1 In addition, I provide support for the Applicant's proposal to provide opportunities for
2 grazing in the Project Area. My testimony, together with the other witnesses for Birch
3 Solar testifying in this case, supports approval by the Board of Birch Solar's Application
4 for a Certificate to construct the Project.

5
6 **5. Please describe the history of your involvement with the Birch Solar Project?**

7 My responsibilities for the Birch Solar Project included include the oversight of the
8 Environmental and Biological aspects of the Birch Solar Project. I am the subject matter
9 expert for the Birch Solar Project on environmental and biodiversity matters.

10
11 **6. Have you reviewed the Certificate conditions recommended by the Board's Staff on
12 pages 50 through 58 of their Report of Investigation issued on October 20, 2021
13 ("Staff Report")?**

14 Yes I have.

15
16 **7. Are you aware that the Applicant has accepted the Certificate conditions
17 recommended by the Board's Staff in the Staff Report and has committed to comply
18 with those conditions as part of its Certificate issued in this case?**

19 Yes.

20
21 **8. Please summarize the Vegetation Management Plan Contained in Exhibit D of the
22 Application.**

23 The Vegetation Management Plan ("Plan") ensures the vegetation within the Project Area
24 is protected during construction and operations to the extent possible. The Plan also
25 provides guidance for how areas temporarily disturbed by construction of the Project will
26 be stabilized and vegetation restored as quickly and effectively as possible to meet
27 applicable Ohio Environmental Protection Agency ("OEPA") construction stormwater
28 permit requirements for the Project. Solar projects give agricultural areas a great
29 opportunity to add a biodiversity back into fields and introduce past native species. Our
30 Vegetation Management Plan focuses on curating a seed mix which stabilize soil when
31 disturbance and construction is completed. The seed mix contains uniform perennial

1 vegetative cover. Additionally, we craft our seed mixes to also be used for grazing
2 operations. When our Plan is implemented, a more biodiverse landscape and ecosystem
3 exist around the Project Area which creates numerous environmental benefits.
4

5 The Project has agreed to vegetative conditions through Condition 22 of the Staff Report.
6 This condition requires that Birch Solar prevent establishment or propagation of noxious
7 weeds identified in Ohio Administrative Code 901:5-37, during the implementation of
8 pollinator-friendly plantings or other revegetation. Additionally, the Applicant shall
9 provide annual proof of weed control for the first four years of operations, with the goal of
10 weed eradication to be significantly completed by year three of operation.
11

12 **9. Will the Vegetation Management Plan be updated prior to construction?**

13 Yes.
14

15 **10. Please explain the Revegetation Plan.**

16 The Project has established revegetation goals in collaboration with various stakeholders
17 including the Tri-Moraine Audubon Society (the Allen/Auglaize local Audubon Chapter),
18 the American Solar Grazing Association, Allen and Auglaize Coalition for Reasonable
19 Energy and Agri-Voltaic Solutions, LLC. The site Revegetation Plan has two focused
20 areas: inside the solar facility fences ("Facility Area") and the perimeter areas that include
21 the screening plantings ("Project Area").
22

23 A revegetation seed mix will be developed that prioritizes native plants to increase
24 ecosystem services, be nutritious and non-toxic for sheep, provide wildlife habitat, as well
25 as meet height requirements for the safe and efficient operation of the Project. For the
26 screening plantings and perimeter, regional seed suppliers and plant nurseries will be
27 consulted and native plants given preference in the supply of plant materials for the site
28 Revegetation plan. The Re-vegetation Plan will contain a ratio of at least 70:30, native
29 plants to nonnative plants in these plantings. Regional ecotypes will be used if available.
30 In all cases, Birch Solar commits to not purchasing listed noxious or invasive species as
31 listed by the State of Ohio's Invasive Plants Council. Additionally, the Birch Solar will

1 develop an invasive species prevention and management plan for the duration of the facility
2 life. The Birch Solar also commits to retaining a regional ecologist/ and/or ecological
3 services firm to monitor for these species.
4

5 **11. Please summarize the findings in the Threatened and Endangered Species Habitat**
6 **Survey Report found in Exhibit Q of the Application.**

7 Stantec observed potentially suitable habitat for state-listed and federally-listed
8 threatened and endangered species within the Project Area, including: lark sparrow,
9 Indiana bat, northern long-eared bat, eastern tri-colored bat, little brown bat, pirate perch,
10 greater redhorse, and pondhorn. Birch Solar will avoid impacts to these species with
11 implementation of avoidance measures.
12

13 **12. Please explain the correspondence filed by the USFWS and ODNR found in Exhibit**
14 **R to the Application.**

15 As a matter of best practice and pursuant to the Board's rules, Birch Solar consulted with
16 the USFWS and the Ohio Department of Natural Resources ODNR. A technical assistance
17 request letter was submitted to the USFWS on September 8, 2020. The USFWS response
18 letter was received on September 15, 2020. The response letter states that all projects in
19 the State of Ohio lie within range of the federally endangered Indiana bat and the federally
20 threatened northern long-eared bat. Through avoidance of tree clearing, impacts to these
21 species are avoided. The USFWS response also indicates that, due to the Project type, size,
22 and location, the USFWS does not anticipate effects to any other federally endangered,
23 threatened, or proposed species, or proposed or designated critical habitat. Further, the
24 USFWS letter recommends that the Project avoid and minimize water quality impacts and
25 impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands) and that
26 best management practices be utilized to minimize erosion, especially on slopes.
27

28 An ODNR Ohio Natural Heritage Program data request and environmental review request
29 letter was sent to the ODNR Office of Real Estate on September 8, 2020. The ODNR Office
30 of Real Estate response letter dated September 30, 2020, stated that a number of species
31 are potentially present within the Project Area, including the greater redhorse, little brown

1 bat, Indiana bat, northern long-eared bat, eastern tri-colored bat, clubshell, northern
2 riffleshell, pondhorn, pirate perch, lark sparrow, and the upland sandpiper. No impacts are
3 expected with implementation of suggested avoidance measures and compliance with the
4 Conditions in the Staff Report for each of these species.

5
6 **13. Based upon the commitments Birch Solar has made in the Vegetation Management**
7 **Plan, the Revegetation Plan, and the Threatened and Endangered Species Habitat**
8 **Survey Report, together with the conditions in the Staff Report, is it possible to**
9 **determine the nature of the probable environmental impact of the facility?**

10 Yes.

11
12 **14. Based upon the commitments Birch Solar has made in the Vegetation Management**
13 **Plan, the Revegetation Plan, and the Threatened and Endangered Species Habitat**
14 **Survey Report, together with the conditions in the Staff Report, does the facility**
15 **represent the minimum adverse environmental impact on those resources considering**
16 **the state of available technology and the nature and economics of the various**
17 **alternatives, and other pertinent considerations?**

18 Yes.

19
20 **15. Are your opinions and conclusions in your testimony made with a reasonable degree**
21 **of professional certainty?**

22 Yes.

23
24 **16. Does this conclude your testimony?**

25 Yes. However, I reserve the right to update my testimony to respond to any further
26 testimony, reports, and/or evidence submitted in this case.

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 these cases. In addition, the undersigned certifies that a copy of the foregoing document is also being served upon the persons below this 4th day of May, 2022.

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)

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Attachment AE-1
Alyssa Edwards
Resume

Alyssa Edwards

PROFILE

Established industry leader with 16 years of renewable energy experience managing environmental and regulatory compliance for grid scale wind and solar energy projects. Expert knowledge of wildlife regulations and siting issues that affect development, construction, and operation. Proven track record of managing and reducing environmental liability for various stakeholders. Highly established governmental agency and stakeholder relationships regionally and nationally. Has served on a variety of advisory councils, committees, and boards. Strong interpersonal, communication and negotiating skills.

PROFESSIONAL EXPERIENCE

Lightsource bp • Philadelphia, PA

Vice President, Environmental Affairs and Government Relations

January 2020 – Present

Head of environmental compliance and permitting for the U.S. solar portfolio. Leads the industry in establishing dual land use programs that support sustainability initiatives and environmental co-benefits. Directs government relations activities for the company through extensive engagement with legislators, regulators, and other stakeholders.

- Subject matter expert regarding project siting best practices, federal and state protected species, wildlife conservation, Clean Water Act and wetland resources, cultural matters and hazardous waste regulations.
- Implements biodiversity initiatives that increase overall ecosystem services throughout the project portfolio with measurable impacts to the natural environment and communities.
- Partners with academic institutions and other stakeholder to establish research at projects that support emerging concepts in solar and biodiversity.
- Promotes renewable energy policies and legislation at the local, state and federal levels through advocacy and regulatory engagement.
- Represents Lightsource bp as an industry leader in various external stakeholder groups including SEIA, American Clean Power, Energy and Wildlife Action Coalition advocating for policies to support the company and industry at large.

EDF Renewables • Philadelphia, PA

Permitting Manager

Oct 2010 – Sept 2013

Associate Director, Environmental Permitting

Sept 2013 – June 2015

Director, Environmental Permitting

June 2015 – Present

Developed and implemented a successful corporate environmental permitting and compliance strategy, effectively reducing and managing environmental regulatory and economic risk for over 4.5GW of executed wind and solar projects. Led company to utilize a best-in-class approach recognized by governmental agencies, customers and financiers.

- Ushered thousands of MWs through successful tax equity and other structured deals by demonstrating smart, efficient, cost effective and reasonable approach to environmental regulatory liability.
 - Lead negotiator and communicator on environmental issues with energy customers, demonstrating a consistent track record of project development that satisfies and exceeds expectations.
 - Direct national and regional teams on dozens of acquisition opportunities for wind and solar, both at the portfolio and project level, calculating regulatory and wildlife risk for the company.
 - Interface and negotiate with U.S. Fish and Wildlife Service, Army Corps of Engineers, State Departments of Natural Resources, and other relevant federal, state and local permitting bodies regarding wildlife field study protocols, permitting conditions, endangered species issues, sensitive habitats, wildlife/ecological studies, wetland resources, and environmental public policy.
 - Build and lead third party contractor teams nationally for successful project completion.
 - Responsible for the completion of Habitat Conservation Plans for the federally listed piping plover, whooping crane, and Indiana bat pursuant to the federal Endangered Species Act.
-

Successfully planned, directed and coordinated all aspects of commercial wind energy project development to guarantee business goals and objectives. Supported and directed the mid-Atlantic development team by advising appropriately on environmental and regulatory risk. Established and maintained project budgets, schedules and financial models. Acquired real estate assets, secured civil and environmental permits, and instituted community outreach and media relations programs.

- Negotiated and secured real estate for thousands of acres of land with various commercial and private land owners.
- Led team that successfully navigated the federal Endangered Species Act to initiate Section 7 Consultation and a Biological Assessment for the federally endangered Indiana bat.
- Secured NPDES permits and Pennsylvania Department of Environmental Protection Chapter 105 Wetlands Permits for various wind projects.
- Successfully managed over one million dollars of third party vendor contracts and upgraded company's management of third party vendors by negotiating favorable pricing and contract terms.
- Instrumental in securing two multi-million dollar grant awards to finance wind energy projects in western Pennsylvania.
- Established company's first grassroots organization and community outreach program in support of highly contentious wind energy project in northeastern United States. In tandem, contributed heavily to company's media relations initiatives for project, largely in the form of print journalism. Efforts resulted in a critical mass that influenced the permitting process and swayed public opinion in support of the project.

AIG Environmental • Philadelphia, PA**Risk Analyst****Nov 2004-Oct 2005**

Underwrote complex environmental insurance policies for fixed facilities, contractor operations and real estate transactions that contributed significantly to a profitable book of business for the mid-Atlantic territory.

- Evaluated exposures for construction projects, industrial facilities and contaminated properties.
- Performed risk assessments by understanding and synthesizing technical data.
- Secured new business deals by developing and maintaining agency and broker relationships.

LECG, LLC • Boston, MA**Associate****Apr 2001-Jan 2003**

Performed comprehensive probabilistic future cost modeling, statistical analysis, and data management in support of litigation related to environmental liabilities and environmental insurance coverage.

- Managed team of eight analysts in development and implementation of future cost models.
- Executed probabilistic and statistical studies of claim value and insurance recovery using Crystal Ball statistical software.
- Developed site-specific cost estimates to determine the range of potential environmental liabilities of asbestos, toxic tort, natural resource damages and property damage.
- Researched and analyzed potential multi-state environmental remediation and regulatory liabilities to evaluate environmental insurance coverage.

ENSR International • Acton, MA**Environmental Scientist****Jul 1999-Oct 2000**

Formulated economical and efficient remedial alternatives and regulatory schemes for industrial and manufacturing clients in company's regulatory compliance division.

- Conducted due diligence by leading soil and groundwater investigations to identify extent of environmental contamination.
- Assisted with the development of compliance strategies at hazardous waste sites in adherence to EPA and Massachusetts regulations/laws.

EDUCATION

Master of Science in Environmental Policy, Planning and Regulation London School of Economics and Political Science, London, UK	2004
Bachelor of Arts in Environmental Science, Minor in Science Writing Lehigh University, Bethlehem, PA	1999

SAMPLE OF PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Board of Directors President, Friends of the Wissahickon, 2019 to present (volunteer)
Board of Directors, Alternate, Solar Energy Industries Association, 2020 to present
Industry Chair, Solar Energy Industries Association Siting and Permitting Committee, 2017 to present
Board of Directors, American Wind and Wildlife Institute, 2018 to 2019
Secretary, American Wind and Wildlife Institute, 2018 to 2019
Advisory Counsel, Wind and Wildlife Research Fund, 2018 to 2019
Executive Committee, Wind and Wildlife Research Fund, 2019
Member, American Wind Energy Association Siting and Environmental Compliance Committee, 2011 to 2020
Lesser Prairie Chicken Advisory Council, 2016 to 2019
Co-Chair, 2012 American Wind Energy Association Siting Conference, Las Vegas, Nevada

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Summary: Testimony - Direct Testimony of Alyssa Edwards electronically filed by
Christine M.T. Pirik on behalf of Birch Solar 1, LLC