



Project Matching: Facilitating New Renewable Energy Projects Project Proposal Submittal Form

The EPA Green Power Partnership's (GPP's) [Project Matching Initiative](#) works to connect stakeholders with new, not-yet-built renewable energy projects that may align with their energy, environmental, and financial objectives. The initiative's goal is to spur the development of new renewable generation by facilitating the signing of long-term green power contracts between end-users and project developers, thereby providing a guaranteed stream of revenue that developers can use to secure project financing.

The GPP, in collaboration with EPA's [RE-Powering America's Land Initiative](#), will host a project matching webinar on Wednesday, June 24, 2015. Project developers are invited to submit project proposals to GPP for possible inclusion in the webinar. This form includes all anticipated criteria that EPA will use to select projects for the webinar. All projects submitted for review that meet minimum requirements for data completeness and basic eligibility will be posted on the GPP website. A renewable energy project's inclusion in this initiative does not constitute endorsement or recommendation by EPA.

Project proposals are due by June 5, 2015 and must be submitted electronically to James Critchfield, critchfield.james@epa.gov.

Contact Information

Katya Samoteskul
ksamoteskul@invenergyllc.com
312-582-1295

Project Summary

Project name: Hardin Wind Energy Center

Developer name: Invenergy Wind Development LLC

Renewable energy type: wind

Project city/state: Hardin County, OH

Project geographic coordinates (To find, use: www.latlong.net/):

Latitude 40.678034 Longitude -83.816586

Total planned megawatt (MW DC) size: 150 MW

Are there phases? If so, how many and in what size tranches?

No second phases of the Project are planned at this time.

What is the expected annual output of the completed project (MWh)? About 450,000 MWh.

Expected date of construction commencement: Q1 2016.

Expected date of commercial operation: December 31, 2016.

What is the largest development hurdle and how is it anticipated to be overcome?

State policy changes in Ohio specific to renewable energy has provided less certainty for renewable energy development. However, the Project's current site permit is grandfathered through 2018, allowing Invenergy to build the Project with the layout that has been approved and avoid many of these issues.

Can you provide examples of similar projects you have developed?

Invenergy ranked #2 in terms of new U.S. wind capacity installed in 2014 and is North America's largest independent wind power generation company. The Company has developed over 50 wind farms across the United States, Canada and Europe, totaling over 5,822 MW globally. This portfolio consists of over 4,489 MW of operating projects, 1,111 MW of projects in construction, and 222 MW of projects under contract.

Site Readiness

Has the project received all necessary federal, state, and local permits to proceed with construction and operation? If not, please outline the key permits required to proceed with project construction/operation and describe the steps you have taken in order to evaluate and address permitting risk for this project.

In Ohio, all zoning and regulatory permitting is secured through the Ohio Power Siting Board. Invenergy received its OPSB Site Permit in August 2011. Invenergy has previously received Determinations of No Hazard from the Federal Aviation Administration ("FAA DNH") and anticipates receiving updated FAAs in Q2 of 2015. Additionally, Invenergy has executed a payment in lieu of tax (PILOT) agreement and a road use agreement with Hardin County.

Have you secured long-term site control? If so, please describe the nature of the agreement (lease, ownership, etc.)?

Yes, Invenergy has land control of approximately 25,000 acres of agricultural land in Hardin County, OH.

Have land leases been filed with the county?

Yes.

Does the project require either an Environmental Impact Statement or Environmental Assessment? If so, what is the status?

The Project does not require an EIS or an EA. Invenergy has consulted with appropriate State and Federal agencies and has conducted numerous environmental studies. No significant environmental findings have been reported.

Is this project sited on a current or formerly contaminated land, landfill or mine site?¹ If so, has the site addressed the related environmental issues?

Not applicable. The Project will be built on agricultural land.

Interconnection

What is the status of interconnection, and have system impact and facility studies been completed? (Distribution or transmission level projects are both eligible)

All interconnection studies (including System Impact and Facilities Study) have been completed. The Project will interconnect to the existing 345 kV AEP East Lima to Marysville transmission line, which is located within the Project footprint. Invenergy executed an interconnection agreement with PJM and AEP in June 2013 (U2-041) for interconnection of up to 300 MW of Wind Generation Resources and this agreement is still in good standing.

When do you expect the interconnection study process will be complete?

The interconnection study process is complete.

Does the transmission owner (TO) or independent system operator (ISO) have a process to study the project's impact on the local or regional grid and the subsequent cost to interconnect?

Yes. The Independent System Operator (PJM) has an interconnection study process and all interconnection studies required by PJM have been completed.

Operation & Financing

Is any element of the project – technology or systems – experimental or pilot-phase or proven technology?

Wind turbine technology employed at the Project will not be experimental. Invenergy will use proven and highly reliable General Electric wind turbines at the Project.

What is the long- and short-term plan for operating and maintaining the project?

Invenergy operates all of its US projects and will maintain the Project through a dedicated O&M facility that will be built near the Project site.

For wind projects, has a meteorological tower been installed? If yes, when was the tower installed and how much data has been collected?

¹ Examples of such properties could include brownfields, municipal solid waste landfills, abandoned mine lands, and Superfund sites, among others subject to state or federal authorities or cleanup programs.

Yes, a total of three met towers are collecting data on the Project site. The first met tower was installed in 2008.

Provide a short summary of how you view project finance and structure/ownership taking shape for this project:

Invenergy proficiently structures project financing and maintains strong relationships with banks in the United States, Canada, Europe and Asia. During the late stages of project development, Invenergy typically approaches lenders a few months prior to construction to provide construction financing. The construction loan combined with Sponsor equity will raise sufficient capital for the entire construction cost of the Project.

Financing for a project is typically structured as non-recourse project financing. The security and collateral package held by the project financing parties customarily consists of a pledge of the equity in the Project company, a pledge of all Project assets, and collateral assignments of certain material Project agreements.

On or shortly after COD, the construction financing is replaced by more permanent financing, such as a term loan or tax equity investment. The security and collateral package during the term loan period is usually the same as that during the construction period.

Partners

In what ways can organizations participate in the project? (Check all that Apply)

- Power purchase agreement for bundled power and RECs**
- Financial hedge or contract for differences**
- Long term REC offtake**
- Financial investment / ownership stake**
- Other, please specify: PPA with a REC swap**

What are some of the characteristics of your ideal power purchaser, investor, or other partner?

Over the last 10 years, Invenergy has developed a worldwide portfolio of 70 projects totaling 9,000 MW that are operating or under construction. Invenergy's customers have included utilities, municipalities, and coops, such as American Electric Power, Commonwealth Edison, Detroit Edison, Los Angeles Department of Water & Power, Ontario Power Authority, Omaha Public Power District, Pacific Gas & Electric Company, PacifiCorp, Tennessee Valley Authority, Xcel Energy and others.

We also work with banks (Bank of America, JP Morgan Chase, Citi Group, Credit Suisse and others), commercial and industrial customers and universities.

We are happy to assist large companies, universities and government agencies with meeting their sustainability goals, while also providing them with opportunities to invest in well-planned, low risk renewable energy projects across the US.

What marketing opportunities exist at the project?

Inenergy will be happy to assist the future off-taker with crafting any future messaging campaigns to ensure that the customer receives full credit from the public for supporting renewable energy development in the US. We are also open to discussions regarding the naming rights for the Project.