



## 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](mailto:critchfield.james@epa.gov).

### Contact Information

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### Project Summary

**Project name:** Pantego Wind Energy Center

**Developer name:** Invenergy Wind Development LLC

**Renewable energy type:** wind

**Project city/state:** Beaufort County, NC

**Project geographic coordinates (To find, use: [www.latlong.net/](http://www.latlong.net/)):**

Latitude 35.575800 Longitude -76.907043

**Total planned megawatt (MW DC) size:** 77 MW

**Are there phases? If so, how many and in what size tranches?** The project may be subdivided.

**What is the expected annual output of the completed project (MWh)?** About 200,000 MWh.

**Expected date of construction commencement:** Q3 in 2016.

**Expected date of commercial operation:** Q2 2017.

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

While the Project has obtained several significant permits, including the North Carolina Public Utility Commission Certificate of Public Convenience and Necessity and FAA permits, inclusive of a letter agreement with the DoD, the newly instituted DENR Wind Energy Facility Permit process remains. Invenergy will draw on its internal and external permitting experts to complete the DENR process to achieve the Q2 2017 COD.

**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.**

As stated above, the Project has made significant progress on state and federal permitting and is one of the most advanced wind Projects available in North Carolina. The major permit that remains is the DENR Wind Energy Facility Permit, which Invenergy expected to attain in early 2016.

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

Yes, Invenergy has control of approximately 8,000 acres of agricultural land in Beaufort County, NC.

**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 completed several environmental studies. No significant environmental effects are anticipated.

**Is this project sited on a current or formerly contaminated land, landfill or mine site?<sup>1</sup> 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 Pantego Wind Energy Center will interconnect to the existing 115 kV Virginia Electric Power Company (“VEPCO”) Pantego Substation. To accommodate interconnection at the Pantego Substation, the Project has executed an Interconnection Agreement (“IA”) with both PJM and VEPCO to expand the existing Pantego substation and related facilities, including adding a 115 kV breaker, line switches, line terminal, and associated equipment. The IA is currently in suspension, but given the minimal interconnection requirements, Invenergy will be able to complete all necessary interconnection activities to support a 2017 COD.

**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. The Project has completed all interconnection studies required by PJM.

### **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?**

Met data has been collected from two met tower locations and one SODAR location within the Project boundaries. The tower and SODAR locations collected data continuously for nearly three years.

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<sup>1</sup> 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.

**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: \_\_\_\_\_**

**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.