

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE
BATTELLE MEMORIAL INSTITUTE'S
SMART GRID PROJECT AT THE
CITY OF ELLENSBURG'S RENEWABLE ENERGY PARK,
KITITITAS COUNTY, WASHINGTON**

RESPONSIBLE AGENCY: U.S. Department of Energy (DOE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: DOE completed the *Final Environmental Assessment for the Battelle Smart Grid Project at the City of Ellensburg's Renewable Energy Park, Kittitas County, Washington* (DOE/EA-1756). Based on the analysis in the environmental assessment (EA), DOE determined that the proposed action – providing federal assistance to Battelle Memorial Institute (Battelle) to facilitate the installation of 540 additional solar panels, 10 solar concentrating modules, and 8 small wind energy generating systems at the City of Ellensburg's Renewable Energy Park – would result in no significant adverse impacts. DOE further determined that the City of Ellensburg's proposed project would provide a minor reduction in greenhouse gas emissions and have a net beneficial impact on air quality in the region.

BACKGROUND: As part of the *American Recovery and Reinvestment Act of 2009* (Recovery Act) (Recovery Act; Public Law 111-5, 123 Stat. 115), DOE's National Energy Technology Laboratory (NETL), on behalf of the Office of Electricity Delivery and Energy Reliability, is providing up to \$435 million in federal funding for competitively awarded agreements to facilitate the deployment of Smart Grid Demonstrations, specifically: (1) regionally unique smart grid demonstration projects to quantify smart grid costs, benefits, and cost-effectiveness; verify smart grid technology viability; and validate new smart grid business models, all at a scale that can be readily adapted and replicated around the country; and (2) energy storage demonstration projects for major, utility-scale, energy storage installations to help establish costs and benefits; verify technical performance; and validate system reliability and durability, all at scales that can be readily adapted and replicated.

The federal action of providing funding for these projects requires compliance with the *National Environmental Policy Act of 1969* (NEPA), as amended (NEPA; 42 U.S.C. §§ 4321 et seq.), Council on Environmental Quality regulations (40 CFR Parts 1500 to 1508), and DOE NEPA implementing procedures (10 CFR Part 1021). DOE prepared an EA to evaluate the potential environmental consequences of providing a grant for this proposed project under the Smart Grid initiative.

PURPOSE AND NEED: The overall purpose and need for DOE's action pursuant to the Smart Grid Demonstration Program and the funding opportunity under the Recovery Act is to accelerate the development and production of a smarter, more efficient, more resilient electrical grid. The program will help verify smart grid technology viability, quantify smart grid costs and benefits, and validate new smart grid business models at a scale that can be readily adapted and replicated around the country. DOE considers this sub-project of Battelle's (City of Ellensburg) to be a project that can meet these objectives.

DESCRIPTION OF THE PROPOSED ACTION: DOE's proposed action is to provide a financial assistance to partially fund construction and operation of Battelle's proposed expansion of renewable energy technologies at the City of Ellensburg's existing Renewable Energy Park located in Ellensburg, Kittitas County, Washington. Specifically, the proposed project would expand the installed capacity of solar energy at the park by adding 540 thin-film nanotechnology solar panels and wind generation capabilities through the installation of eight small turbines of 2.5 to 30 kilowatts (kW). The project would add up to 85 kW of solar-generating capacity and up to 80 kW of small wind-generating capacity. By using different technologies in each wind system, the project would provide information to evaluate each turbine's performance capabilities. All of the power produced at this energy park connects to and supplements the City's power lines. DOE would provide \$600,000 in financial assistance in the form of a cooperative agreement to Battelle Institute. The cost of the project is estimated at \$1.2 million.

ALTERNATIVES CONSIDERED: In addition to the proposed action, DOE considered the No-Action Alternative as required under NEPA. Under the No-Action Alternative, DOE would not provide funds for the proposed project. For the purposes of the EA, DOE assumed that the project would not proceed without DOE funding. This assumption established a baseline against which the potential environmental impacts of the proposed project were compared.

ENVIRONMENTAL CONSEQUENCES: DOE evaluated the potential environmental consequences of the proposed project and the No-Action Alternative. DOE considered 14 environmental resource areas in the EA; however, not all areas were evaluated at the same level of detail. For six of the resource areas (socioeconomics, environmental justice, occupational health and safety, utilities and materials, transportation, and waste generation), DOE determined there would be no impacts or the potential impacts would be small, temporary, or both, and therefore did not carry these areas forward for additional analysis. DOE focused its more detailed analyses on those resources that could require new or amended permits, have the potential for significant impacts or controversy, or interest the public. These resource areas included: air quality, noise, aesthetics and visual resources, soils and geology, water resources, biological resources, and cultural resources.

The proposed project would be designed in compliance with federal and state air quality regulations, reduce greenhouse gas emissions, and have a net beneficial impact on air quality in the region. Operation of the concentrating solar modules and eight small wind turbines would cause a negligible increase in noise outdoors near the adjacent interstate and recreation park. The aesthetics of the City of Ellensburg's Renewable Energy Park would change with the addition of ten 18-foot-diameter solar concentrating modules and eight towers ranging from 40 to 100 feet in height; however, these changes would be in compliance with the City and County proposed regulations for wind turbines. Adverse impacts to visual resources would be minimal.

There would be no adverse impacts to the 100-year floodplain associated with Reecer Creek, and no increase in risk to lives or property in the area from the project. Developing 3 acres for further construction of the City of Ellensburg's Renewable Energy Park would not adversely impact any plant or animal species because the project site is small and isolated from larger tracks of undisturbed land, and because plant and animal species found there are common and widespread in the region. The risk of bat and migratory bird collisions with the wind turbines is not likely due to the configuration of the turbines (parallel to bird movements toward the wetlands and grouped configuration), the relatively short height of the wind turbines (< 60'), and placement in previously

disturbed habitat paralleling the interstate highway. In support of this EA, a cultural resources inventory was conducted for the area of potential effect (project site). No archaeological resources were identified, and DOE determined (after coordination with the Washington State Historic Preservation Office [SHPO]) that no historic properties would be affected by Battelle's project. In summary, expanding the City of Ellensburg's Renewable Energy Park with additional solar panels, solar concentrating modules, and small wind turbines would not likely result in adverse environmental impacts, particularly considering the existing surrounding uses.

Under the No-Action Alternative, DOE assumed the project would either be delayed, as Battelle sought other funding sources, or abandoned altogether. The potential environmental consequences, if the project was delayed, could be different if the project was modified. If abandoned, the potential environmental consequences would not occur. Furthermore, the potential beneficial impacts would change or not occur.

PUBLIC AVAILABILITY: DOE issued the draft EA on July 17, 2010, and advertised its release in the *Ellensburg Daily Record* on July 17, 19, and 20, 2010. In addition, DOE sent copies for public review to the Ellensburg Public Library. DOE established a 21-day public comment period that began July 17, 2010, and ended August 6, 2010. DOE announced it would accept comments by mail, email, and fax. The draft EA was also sent to the applicable federal, state, and local agencies. No public comments were received.

Copies of the final EA and this FONSI were sent to stakeholders and resource agencies that provided comments or consultation, and are available at DOE's NEIL web site at <http://www.netl.doe.gov/publications/others/nepa/ea.html> and DOE's NEPA web site at http://nepa.energy.gov/DOE_NEPA_documents.htm.

DETERMINATION: On the basis of the evaluations in the final EA, DOE determined that the proposed federal action, to provide \$600,000 in financial assistance to partially fund construction and operation of Battelle's proposed expansion of renewable energy technologies at the City of Ellensburg's existing Renewable Energy Park, would have no significant impacts on the human environment. Therefore, preparation of an environmental impact statement is not required, and DOE is issuing this FONSI.

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