Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

DOE/EA-1862

FINDING OF NO SIGNIFICANT IMPACT FOR THE ONEIDA SEVEN GENERATIONS CORPORATION: ENERGY RECOVERY PROJECT, GREEN BAY, WISCONSIN

AGENCY: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The U.S. Department of Energy (DOE) provided Federal funding, appropriated under the *American Recovery and Reinvestment Act of 2009*, to the Wisconsin Department of Commerce (now the Wisconsin Economic Development Corporation) under the State Energy Program (SEP). The State proposes to provide a $2 million loan from its SEP funds to the Oneida Seven Generations Corporation (Oneida) to construct and operate an energy recovery facility that would produce electricity from processing municipal solid waste (MSW) in Green Bay, Brown County, Wisconsin (proposed project). The Bureau of Indian Affairs (BIA), an agency of the Department of the Interior (DOI), has already provided $584,000 in Federal funding to Oneida for this project. BIA is also considering providing a loan guarantee of up to $19 million. BIA made its initial award to Oneida to support preliminary planning and studies. These elements of the proposed project do not significantly impact the environment and the initial funding does not commit the government to this project in advance of the conclusion of the EA. DOE's Proposed Action is to authorize the State expenditure of Federal funding under the SEP for the new facility. The Proposed Action also includes BIA's decision to authorize the loan guarantee.

Before the Wisconsin Economic Development Corporation can award funding for Oneida's proposed project, DOE must examine the potential environmental impacts of DOE's Proposed Action in accordance with the *National Environmental Policy Act of 1969* (NEPA). All discussion, analysis, and findings related to the potential impacts of construction, operation, and eventual decommissioning of the Oneida Energy Recovery Project are contained in the *Final Environmental Assessment for the Oneida Seven Generations Corporation: Energy Recovery Project, Green Bay, Wisconsin* (Final EA; DOE/EA-1862). The Final EA is hereby incorporated by reference.

DOE prepared this FONSI in accordance with NEPA, the Council on Environmental Quality regulations for implementing NEPA, as amended (40 CFR Parts 1500 to 1508), and DOE NEPA regulations (10 CFR Part 1021).

ENVIRONMENTAL IMPACTS: The Final EA examined the potential environmental impacts of the Proposed Action and No-Action Alternative. Under the No-Action Alternative, DOE would not authorize the use of SEP funds for the Oneida Energy Recovery Project, which DOE assumes for purposes of the EA would not proceed without SEP funding. This assumption allows a comparison between the potential impacts of the project as proposed and the impacts of not proceeding with the project.

Oneida proposes to construct and operate a solid waste-to-electricity power plant on vacant property within the Bayport Industrial Center in the City of Green Bay, Brown County, Wisconsin. This energy recovery process would involve bringing MSW into the plant for sizing (shredding), sorting (removing recyclable and inappropriate materials), and conveying the remainder into one of three pyrolytic

Federal Recycling Program Printed on Recycled Paper

gasification systems. In these "closed systems," the waste would be heated under controlled conditions to decompose through pyrolysis and produce flammable synthesis gas (syngas) consisting primarily of hydrogen, carbon monoxide, and hydrocarbons such as methane, ethane, and propane. This syngas would be collected and used as fuel to maintain operation of the pyrolytic systems and to fire three reciprocating internal combustion engine generators. Each generator would have a rated capacity of 1.54 megawatts of electricity, for a combined capacity of approximately 4.6 megawatts. Oneida would sell the energy to a local electrical utility. The engine-generator sets would include air pollution control equipment to reduce emissions of carbon monoxide and volatile organic compounds.

Based on the information presented within the Final EA and using the sliding-scale approach, DOE concludes that Oneida's proposed project would not impact the following resources: geology and soils, groundwater, and intentional destructive acts. Therefore, these resource areas were briefly analyzed and dismissed from more detailed analysis in the EA.

DOE considered the following resources in more detail as part of its analysis: land use, air quality, surface water, noise, transportation, waste and hazardous materials, utilities and energy, biological resources, cultural resources, aesthetics and visual resources, human health and safety, socioeconomics, and environmental justice. The discussion below summarizes impacts for these resource areas:

With regard to land use, the construction, operation, and eventual decommissioning would represent an appropriate use of land at the Hurlburt site, located in the Bayport Industrial Center. Solid waste facilities are an identified use for the zoning classification assigned to the Bayport Industrial Center. DOE has determined that the proposed facility is a compatible use of land in the Industrial Center and would have minimal impacts on properties located outside of the industrial area.

With regard to air quality, the proposed project would be a new source of air emissions for the Green Bay area. The proposed project has received an air permit from the State of Wisconsin Department of Natural Resources (DNR). DNR issued the air permit, in which the air pollution control equipment that will be implemented is identified. Ambient air quality modeling performed for the proposed facility's emissions indicate the area's air quality would remain in compliance with current standards. The State of Wisconsin is in the process of finalizing its State Implementation Plan (SIP) and will submit its proposed SIP to the Environmental Protection Agency (EPA) for approval. Therefore, at this time, Wisconsin has not adopted the additional national standards for 1-hour averages of NO_2 and SO_2 and does not currently evaluate compliance with the new standards. The State has informed potential permittees that additional evaluations will be required to demonstrate compliance once the new standards are adopted. The proposed project already has the appropriate control technology to obtain compliance with 1-hour standard for SO_2 and will continue working with DNR on an injection system that will ensure compliance with the 1-hour standard for NO_2 prior to, or concurrent with, EPA's approval of Wisconsin's SIP. The EA includes an evaluation of the greenhouse gas (GHG) emissions from the proposed facility and shows that the emissions would be less than from existing power plants elsewhere were they to produce as much electricity as the proposed facility. In addition, by reducing the amount of waste going to the regional landfill, the proposed project would result in a small, but long-term reduction in GHG emissions from that landfill. Odors from the proposed project would be minimized through a combination of operating procedures and equipment design. Based on the above and the analysis contained in the Final EA, DOE has determined that VOC/hazardous air emissions or air quality degradation related to the proposed project would be minimal and adverse impacts related to odors would be negligible. DOE has determined the proposed project would have a minor, but positive impact on GHGs.

With regard to surface water, the project is not located within a 100-year flood plain or a wetland. The project's storm water discharge will be regulated by Wisconsin's Pollutant Discharge Elimination System. To minimize runoff and sediments during construction, Oneida will implement a series of best

management practices. During operation there will be six catch basins to direct runoff to an onsite storm water retention pond. The storm water pond will be located 2,500 feet from the nearest municipal well. Based on the above and the analysis contained in the Final EA, DOE has determined there would be no or negligible impacts to floodplains/wetlands and minimal impact to surface waters during construction and operation.

With regard to noise, the proposed project would be located in an industrial area and is zoned as such. During construction, temporary increases in noise levels are expected. During the loudest part of the construction process, the dBA at the nearest residence would range from 50 – 65 dBA. The adjacent industrial properties would experience the highest impacts; however due to the industrial nature of the site and the proximity of I-43, the existing environment is relatively noisy. Adverse noise impacts would be minimized by restricting construction to daylight hours. During operation, the proposed facility would have trucks entering and leaving the facility; however, most of the truck traffic would take place during the day on weekdays. The facility would operate 24/7 and the radiator coolers for the gen-sets have the highest potential for noise production. However, because the facility would operate at night – it is required to meet the more stringent nighttime requirements. The noise from the radiators would be below the required 52 dBA before it reached the nearest residence. Based on the above and the analysis contained in the Final EA, DOE has determined the impacts related to the temporary increase in noise during construction would be minimal and noise impacts on the nearest sensitive receptors during operation would be negligible.

With regard to transportation, the proposed project is located in an industrial area and adjacent to I-43 and other principal and minor arterials. During construction, there would be a slight increase in traffic in the project vicinity due to delivery trucks and workers going to and from the site. During operation, there would be approximately 24 trucks/day delivering MSW and approximately 10 trucks/day removing materials and traffic associated with the projected 30 full-time workers. However, due to the location of the proposed project and the current traffic levels on surrounding roads, DOE has determined the proposed project would only have a minor impact to existing traffic levels.

With regard to waste and waste management and hazardous materials, it is estimated that the proposed project would reduce the amount of MSW now going to the regional landfill by approximately 11 percent. The proposed project will not divert any materials already segregated for recycling. Should recyclables be found during the shredding process, they would be picked up by a contractor to be recycled. It is estimated the proposed project would relieve area landfills of approximately 65,400 tons of MSW per year. The byproducts of the pyrolysis process are residue containing slag, fly ash, carbon char, soot, and bottom ash. Provided the byproducts do not exceed thresholds of pollutants, they could be used for beneficial purposes; if they cannot be reused, they would be disposed of at an appropriate landfill. Any hazardous materials related to operation of the facility would be minor; any hazardous materials encountered during shredding and sorting would be removed and stored until proper disposition. Based on the above and the analysis contained in the Final EA, DOE has determined the impacts related to waste and hazardous materials is minimal.

With regard to utilities, during operation the facility would use 19,700 gallons of water per day. This is considered minor in comparison with other industrial users in the area. The facility would generate approximately 10,200 gallons of wastewater per day and will be required to comply with discharge requirements and obtain an industrial user permit. The facility would require 0.75 - 0.95 MW of electricity for normal operations and would provide 4.6 MW to the grid (net - ~3.85 MW when discounted for facility use). During operation, the facility would use natural gas during start-up or if there is not enough syngas to support the pyrolysis burners (at most a few days per year). The facility would also be heated with natural gas (~2,968 mm Btu/year). Based on the above and the analysis contained in the Final EA, DOE has determined the proposed project would cause a negligible increase in area water

usage and to wastewater discharged to the city's treatment plant. The proposed project represents a minimal use of natural gas and would have a small beneficial impact on electricity.

With regard to biological resources, DOE made a "No Effect" determination pursuant to the *Endangered Species Act* for the proposed project, thereby concluding that there would be no impacts to threatened or endangered species or critical habitat. The U.S. Fish and Wildlife Service provided written concurrence with this determination.

With regard to cultural resources, consultation was initiated with the Wisconsin State Historic Preservation Officer per Section 106 of the *National Historic Preservation Act*. The State provided formal concurrence with the EA's conclusion that the proposed project would not affect any properties listed in, or eligible for inclusion in the National Register of Historic Properties.

With regard to aesthetics, the proposed project would be located in an industrial area and the existing visual quality of the site is consistent with an industrial area. During construction, heavy equipment, construction workers, and delivery trucks would be located at the project site. During operations, the facility would represent a new, but not unique structure, in the Industrial Park. DOE has determined the proposed facility will be a new, but not adverse, visual resource at the Industrial Park.

With regard to human health and safety, during construction there could be approximately 21 workers at the site. Using Bureau of Labor statistics, DOE estimated there could be 1 recordable case of an incident; and 0.1% chance of fatality. During operation, the facility would employ up to 30 full-time workers. Again, using Bureau of Labor statistics, DOE estimated that over the life of the project (20 years), there could be 28-29 recordable incidents and 1 in 19 chance of a fatality. Based on the above and the analysis contained in the Final EA, DOE has determined the construction and operation of the proposed project represents a negligible increase in recordable incidents and worker fatality. Because increased traffic related to facility operation is minimal, the increased risk related to a traffic accident is negligible.

With regard to socioeconomics, the construction of the proposed project is expected to generate a small, short-term increase in employment due to temporary construction-related jobs. During operation, there would be up to 30 full-time jobs. DOE has determined the added employment represents a minor, beneficial impact to the local community.

With regard to environmental justice, the surrounding area has minority populations typical of the City of Green and Brown County. There was no minority population identified in the area immediately surrounding the project site. The rate of poverty in the immediate project vicinity is higher than in other areas of Green Bay and Brown County. There are less than 10 homes located in this area (at least 0.3 miles from the project site). DOE analyzed resource-specific impacts to the people living in proximity to the project site. DOE has determined there would be no impacts to minority populations and negligible impacts to low-income members of the population.

PUBLIC PARTICIPATION IN THE EA PROCESS: A Notice of Availability for the Draft EA was placed in the *Green Bay Press-Gazette* on August 3, 2011. A postcard of the Notice of Availability was also mailed to Federal, State, tribal, and local agencies, as well as to special interest groups and members of the general public who previously had requested notification or expressed interest in the proposed project. The Notice informed recipients that the Draft EA was available on the DOE Golden Field Office Reading Room Website at http://www.eere.energy.gov/golden/Reading_Room.aspx and that DOE would accept comments until September 3, 2011.

DOE received 22 comment documents during the public comment period. Comment documents included 13 from members of the public 8 from individuals representing interest groups, and 1 from a local

government group. DOE also received copies of petitions with signatures of over 60 individuals stating their support for the proposed project and 11 letters expressing support for the project. The Final EA summarized the comments and, as appropriate, included specific DOE responses or modifications to Draft EA text.

DETERMINATION: Based on the information presented in the Final EA (DOE/EA-1862), DOE determined that the Proposed Action would not constitute a major Federal action significantly affecting the quality of the human environment within the context of NEPA. Therefore, preparation of an environmental impact statement is not required, and DOE is issuing this FONSI.

The Final EA is available at the DOE Golden Field Office Reading Room Website at http://www.eere.energy.gov/golden/Reading_Room.aspx, and the DOE NEPA Website at http://energy.gov/nepa/doe-nepa-documents.

For questions about this FONSI, please contact:

Melissa Rossiter, NEPA Document Manager
U.S. Department of Energy,
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401
melissa.rossiter@go.doe.gov

For further information on the DOE NEPA process, contact:

Office of NEPA Policy and Assistance
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585
202-586-4600 or 800-472-2756

Issued in Golden, Colorado, this 10th day of November 2011.

Mark G. Russell, Acting for
Carol Battershell
Golden Field Office Manager