

National Environmental Policy Act (NEPA) Categorical Exclusion (CX) for Off-Site Solar-assisted Electrical Vehicle Charging Stations (3655X)

DOE Oak Ridge Operations Office (DOE-ORO) proposes to conduct research on finding and improving alternative energy resources. The U.S. Department of Energy's National Energy Technology Laboratory has been granted ARRA funding to demonstrate the energy saving capabilities of electric vehicles. A partnership has been established between Oak Ridge National Laboratory (ORNL) and Ecotality, Inc., to deploy electric vehicle (EV) charging infrastructure to support the use of EVs in east Tennessee. ORNL has been assigned the technical lead to develop the design and to demonstrate the solar-assisted portion of the vehicle charging infrastructure where solar power will supplement the electric grid power to the charging stations.

The proposed action would convert approximately 20 parking spaces in Knoxville, Tennessee to EV charging stations which would involve installing solar collection panels and supporting equipment and infrastructure at each site. The proposed action would occur at existing parking lots and parking garages that are located in the city of Knoxville. Four spaces would be converted to EV spaces at the Market Square garage located at 402 Walnut Street; six spaces would be converted at the Knoxville Coliseum parking garage located at 501 Howard Baker, Jr. Avenue; four spaces would be converted in the University of Tennessee Knoxville (UTK) parking lot accessed from the 1700 block of Volunteer Boulevard; and six spaces would be converted along Jacob Drive on the UTK Agricultural Campus.

An array of solar panels mounted in canopies (up to approximately 60 feet long by 16 feet wide at a height of approximately 12 feet) would be installed over these spaces at each site and would provide approximately 10 -15 kilowatts of direct current. A small enclosure (2 feet long by 2 feet wide by 6 feet high) would be installed at each site to house the batteries for the unit. In addition, power conversion equipment, control mechanisms, and electrical components would be installed at each site to connect the system to the city's and UTK's electrical grid. Minor excavation would be involved at each site to install a concrete base for the stations. Waste material would include small amounts of asphalt, concrete, and packaging material. This waste will be disposed of appropriately, in accordance with all applicable requirements delineated in Federal, state and local regulations, by the contractor involved in installation activities.

The proposed action would take place in existing disturbed areas (parking lots and garages) and is not expected to cause a threat of significant individual or cumulative environmental effects. The proposed action meets the criteria for conditions that are integral elements of actions eligible for categorical exclusion as stated under Appendix B to Subpart D, 10 CFR 1021. Specifically, the proposed action is not expected to disturb sites that provide a natural habitat for threatened or endangered animal or plant species. No wetland disturbance would take place, and the proposed action would not take place within the 100-year floodplain of any surface water body. Pursuant to 36 CFR 800, the Tennessee State Historic Preservation Officer has determined that planned installation of solar-assisted electrical vehicle charging stations would not affect any National Register of Historic Places listed or eligible properties (see attached letter).

Consistent with Appendix B to Subpart D, 10 CFR 1021, the activities covered under this CX would not threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders; would not require siting and construction or major expansion of waste storage, disposal, recovery or treatment facilities; would not disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist

in the environment such that there would be uncontrolled or unpermitted releases; and would not adversely affect environmentally sensitive resources.

The described action is not connected to other actions with potentially significant impacts and is not part of a proposed action that is or may be the subject of an Environmental Assessment or an Environmental Impact Statement. There are no extraordinary circumstances related to this action, and the proposal is not connected to other actions with potentially significant impacts.

The applicable CX under 10 CFR 1021, Subpart D, Appendix B, for these actions is identified below:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

The above description accurately describes the proposed action, which reflects the requirements of the CX cited above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

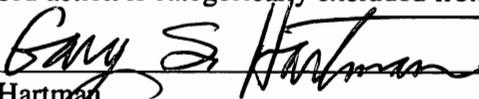


7/15/11

W. Mark Belvin
DOE-ORO Program Manager

Date

Based on my review and the recommendation of the DOE-ORO Program Manager, I have determined that the proposed action is categorically excluded from further NEPA review and documentation.



7/15/2011

G. S. Hartman
DOE-ORO NEPA Compliance Officer

Date

Notification:

W. M. Belvin, SE-31

W. D. Goddard, 3606, MS-6395

June 30, 2011



TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

Ms. Susanna Sutherland
City of Knoxville
Post Office Box 1631
Knoxville, Tennessee, 37901

RE: DOE, SOLAR ASSISTED CHARGING STATIONS, KNOXVILLE, KNOX COUNTY

Dear Ms. Sutherland:

In response to your request, received on Tuesday, June 28, 2011, we have reviewed the documents you submitted regarding your proposed undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicant for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified procedures for carrying out Section 106 review in 36 CFR 800. You may wish to familiarize yourself with these procedures (Federal Register, December 12, 2000, pages 77698-77739) if you are unsure about the Section 106 process.

After considering the documents you submitted, we determine that THERE ARE NO NATIONAL REGISTER OF HISTORIC PLACES LISTED OR ELIGIBLE PROPERTIES AFFECTED BY THIS UNDERTAKING. We have made this determination either because: the undertaking will not alter any characteristics of an identified eligible or listed Historic Property that qualify the property for listing in the National Register, the undertaking will not alter an eligible Historic Property's location, setting or use, the specific location, scope and/or nature of the undertaking precluded affect to Historic Properties, the size and nature of the undertaking's area of potential effects precluded affect to Historic Properties, or, no National Register listed or eligible Historic Properties exist within the undertaking's area of potential effects. Therefore, we have no objections to your proceeding with your undertaking.

If your agency proposes any modifications in current project plans or discovers any archaeological remains during the ground disturbance or construction phase, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act. If you are applying for federal funds, license or permit, you should submit this letter as evidence of consultation under Section 106 to the appropriate federal agency, which, in turn, should contact us as required by 36 CFR 800. If you represent a federal agency, you should submit a formal determination of eligibility and effect to us for comment. You may find additional information concerning the Section 106 process and the Tennessee SHPO's documentation requirements at <http://www.tennessee.gov/environment/hist/federal/sect106.shtm>. You may direct questions or comments to Joe Garrison (615) 532-1550-103. This office appreciates your cooperation.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jyg