

**National Environmental Policy Act (NEPA) Categorical Exclusion (CX) for  
Solar-assisted, Electrical Vehicle Charging Stations  
in Nashville, Tennessee (3686X)**

The Department of Energy Oak Ridge Operations Office (DOE-ORO) proposes to conduct research on finding and improving alternative energy resources. DOE's National Energy Technology Laboratory has been granted American Recovery and Reinvestment Act of 2009 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 a solar-assisted, electric vehicle (EV) charging infrastructure to support the use of EVs in Nashville, Tennessee.

The proposed action would involve developing the design to demonstrate the solar-assisted portion of the vehicle charging infrastructure to supplement the electric grid power. The proposed action would also involve installing a solar-panel array along with the EV charging stations at an existing parking lot in Nashville, Tennessee.

The solar-assisted, EV charging station would include four EV chargers, solar panels, batteries, power conversion equipment, control mechanisms, and electrical components tied to Nashville's electrical grid. An array of solar panels mounted on a canopy would cover approximately 40 feet by 16 feet at a height of approximately 12 feet and would provide approximately 9 kilowatts of direct current power. A small, approximately 2 feet long by 2 feet wide by 6 feet high, enclosure would be installed to house the batteries.

The proposed project site is an existing parking lot located in the city of Nashville, Tennessee. Approximately five spaces would be converted to EV spaces at a surface parking lot near the corner of 4<sup>th</sup> Avenue North and Harrison Street.

Installation at the site would involve minor excavation and installation of concrete bases for the charging station pedestals and the solar canopy. Waste material would include small amounts of asphalt, concrete, and packaging material. This waste will be disposed of appropriately by the contractor involved in installation activities. Any permit requirements will be the responsibility of the general construction contractor.

The proposed action would take place in existing disturbed areas (parking lots) and is not expected to cause a threat of significant individual or cumulative environmental effects. 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 EV charging stations would not affect any properties listed or eligible for listing on the National Register of Historic Places (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:

*B5.23 Electric vehicle charging stations.* The installation, modification, operation, and removal of electric vehicle charging stations, using commercially available technology, within a previously disturbed or developed area. Covered actions are limited to areas where access and parking are in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

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

<u>Signed by William Mark Belvin</u>	<u>December 1, 2011</u>
W. Mark Belvin	Date
DOE-ORO Program Manager	

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.

<u>Signed by Gary S. Hartman</u>	<u>December 1, 2011</u>
G. S. Hartman	Date
DOE-ORO NEPA Compliance Officer	



November 8, 2011

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

Mr. Jay Harrison  
Tennessee Dept. of General Services  
312 Rosa Parks Ave./2200  
Nashville, Tennessee, 37243

RE: DOE, SOLAR ASSISTED CHARGING STATIONS, NASHVILLE, DAVIDSON COUNTY

Dear Mr. Harrison:

In response to your request, received on Thursday, November 3, 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