

# memorandum

DATE: August 29, 2013

REPLY TO  
ATTN OF: KEC-4

SUBJECT: Environmental Clearance Memorandum

TO: Sheila Bennett  
Technology Innovation Portfolio Manager – ST-3

Matt DeLong  
Contract Specialist for Technology Innovation Projects – NSSP-4

**Proposed Action:** Fiscal Year 2014 Technology Innovation Portfolio

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B5.1 Actions to conserve energy or water; B3.6 Small-scale research and development, laboratory operations, and pilot projects

**Location:** Portland, Oregon

**Proposed by:** Bonneville Power Administration (BPA)

**Description of the Proposed Action:** BPA proposes to fund or partially fund federal research laboratories, universities, companies, and a research institute to conduct research and develop pilot projects that promote energy efficiency and conservation in transmission infrastructure and power grid operations through BPA's Fiscal Year 2014 Technology Innovation (TI) Portfolio. These projects would involve water heaters, conductor testing, energy-efficient lighting, rooftop heating/ventilation/air-conditioning units, demand response applications, computer modeling, and software development.

BPA also proposes to continue funding for ongoing projects that were proposed in previous portfolios. Individual projects proposed in a TI Portfolio typically span 1–3 fiscal years.

A review of BPA's Fiscal Year 2014 TI Portfolio reveals research and demonstration project proposals that would be located inside existing buildings or within previously disturbed areas. All testing and laboratory operations would occur within existing operating parameters. If site-specific impacts are identified during initial project design phases, these impacts will be addressed in a separate National Environmental Policy Act (NEPA) analysis that will be completed prior to the demonstration phase when such impacts could be expected to occur.

**Findings:** BPA has determined that the proposed action complies with Section 1021.410 and Appendix B of Subpart D of the Department of Energy's (DOE) NEPA Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, July 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011). The proposed action does not present any extraordinary circumstances that may affect the significance of the environmental effects of the

proposal. The proposal is not connected [40 C.F.R. 1508.25(a)(1)] to other actions with potentially significant impacts, has not been segmented to meet the definition of a categorical exclusion, is not related to other proposed actions with cumulatively significant impacts [40 C.F.R. 1508.25(a)(2)], and is not precluded by 40 C.F.R. 1506.1 or 10 C.F.R. 1021.211. Moreover, the proposed action would not (i) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, (ii) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, (iii) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation and Liability Act-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases, (iv) have the potential to cause significant impacts on environmentally sensitive resources, or (v) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements.

We therefore determine that the proposed action may be categorically excluded from further NEPA review and documentation.

*/s/ Jeffrey J. Maslow*  
Jeffrey J. Maslow  
Environmental Project Manager

Concur:

*/s/ Stacy Mason*  
Stacy Mason  
NEPA Compliance Officer

Date: *August 29, 2013*

Attachments:  
Environmental Checklist for Categorical Exclusions  
FY 2014 Technology Innovation Portfolio Project List

## **Fiscal Year 2014 Technology Innovation Portfolio**

The portfolio includes both new and ongoing projects during the 2014 Fiscal Year. New project proposals and continued funding for Electric Power Research Institute (EPRI) programs are listed below with Technology Innovation project (TIP) numbers, lead organizations, and titles:

TIP 23: EPRI – Overhead Transmission (Program 35)

TIP 23c: EPRI – Evaluation of High-Temperature Conductor and Connector Systems (Program 35 – Supplemental)

TIP 23e: EPRI – Field Trial of Aluminum Conductor Composite Core & Aluminum Conductor Steel-Supported High Strength-285 Conductor & Connector Systems (Program 35 – Supplemental)

TIP 23f: EPRI – Aeolian Vibration of Bundle Conductors (Program 35 – Supplemental)

TIP 23g: EPRI – Mitigation Measures for Compression Fittings for High-Temperature Operations (Program 35 – Supplemental)

TIP 25: EPRI – Substations (Program 37)

TIP 25a: EPRI – Substation Seismic Studies (Program 37 – Supplemental)

TIP 25b: EPRI – Testing Guidelines and Utility Practices for Multi-Vendor Substation Equipment and Systems Based on IEC-61850 – Phase II (Program 37 – Supplemental)

TIP 25d: EPRI – Spare Transformer Strategy Development (Program 37 – Supplemental)

TIP 238: EPRI – Coordinated Early Deployment of Energy Efficiency Technologies (Program 170 – Supplemental)

TIP 255: EPRI – Cyber Security and Privacy (Program 183)

TIP 256: EPRI – Strategic and Flexible Transmission Planning (Program 40.019)

TIP 272 – EPRI – End-Use Energy Efficiency and Demand Response (Program 170)

TIP 272a: EPRI – Collaborative Field Demonstration of Demand Response-Ready Appliances Using the ANSI/CEA-2045 Standard (Program 170 – Supplemental)

TIP 272b: EPRI – Evaluating the Impact of Smart Thermostats on Energy Efficiency and Demand Response (Program 170 – Supplemental)

TIP 290: Queen’s University (Canada) – Modeling High-Impact Low-Frequency Geomagnetic Disturbances: Prediction of the Magnitude of Solar Flare/Coronal Mass Ejections and of Local Effects on Geomagnetically-Induced Currents

TIP 297: EPRI – Energy Efficiency Demonstration II (Program 170 – Supplemental)

TIP 299: BPA – Synchrophaser Linear State Estimator and Phasor Measurement Unit (PMU) Data Validation and Calibration

TIP 300: BPA – Remedial Action Scheme Strategy 2025

TIP 301: Intel Federal, LLC – Data Center Demand Response

TIP 302: Washington State University – Demand Response Potential of Heat Pump Water Heaters

TIP 303: Texas A&M University – Dimensionality Reduction and Early Oscillation Detection Using Online Synchrophaser Data

TIP 304: University of Washington – Predicting the Hydrologic Response of the Columbia River

TIP 305: Pacific Northwest National Laboratory – Data Integrity and Situational Awareness Tools (DISAT)

TIP 306: GE Global Research – A Robust and Intelligent Bad-Data Detection Technique for PMU-Based Oscillation Monitoring and Control

TIP 307: National Renewable Energy Laboratory – Pilot Testing for Demand Response for Supermarket Refrigeration

TIP 308: National Renewable Energy Laboratory – Demonstration of a Demand Response Solution for Rooftop Units (RTUs) and Lighting Retrofits

TIP 309: Portland State University – Comprehensive Assessment of Climate Change Impact on the Hydrology of the Columbia River Basin: Characterizing and Reducing the Uncertainties from Various Sources on Streamflow Projection

TIP 310: Hitachi America, Ltd. – New Remedial Action Scheme Prototyping Work to Avoid Cascading Caused by Intermittent Output of Renewable Energy Resources

# Environmental Checklist for Categorical Exclusions

Name of Proposed Project: Fiscal Year 2014 Technology Innovation Portfolio

Work Order #: 00003863

This project does not have the potential to cause significant impacts on the following environmentally sensitive resources. See 10 CFR 1021, Subpart D, Appendix B for complete descriptions of the resources. This checklist is to be used as a summary – further discussion may be included in the Categorical Exclusion Memorandum.

<u>Environmental Resources</u>	<u>No Potential for Significance</u>	<u>No Potential, with Conditions (describe)</u>
1. Historic Properties and Cultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. T & E Species, or their habitat(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Floodplains or wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Areas of special designation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Health & safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Prime or unique farmlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Special sources of water	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>

Signed: /s/ Jeffrey J. Maslow

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