

Nomination Received by Council on Environmental Quality, Executive Office of the President
For the CEQ NEPA Pilot Project Program
<http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/nepa-pilot-project-nominations>

PART I. NOMINATOR

First Name:	Sean
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Organization:	U.S. Department of Energy, Acting General Counsel
Project Title:	Renewable Energy Environmental Report (REER)
Submitted by:	Federal Agency
Date Received:	06/15/2011

PART II. SHORT ANSWERS

I. What Federal agency or agencies will be involved in this pilot project?

The Department of Energy (DOE) will conduct this pilot project and will provide opportunities for participation by any interested Federal agency, as well as by state, tribal, and local agencies, non-governmental organizations, private industry, and the public at large. Within DOE, the Office of Energy Efficiency and Renewable Energy (EERE) will lead the pilot project with assistance from the Office of NEPA Policy and Compliance, which is part of the Office of General Counsel. DOE’s field offices and laboratories will provide technical information and review by subject matter experts. This pilot project will focus on the potential environmental impacts of geothermal heat pumps (GHPs), a geothermal energy technology that supplements the heating and cooling demands for buildings. As such, the pilot project may be of interest to the Environmental Protection Agency, which has produced reports on GHP technologies, and other Federal agencies such as the Department of Defense, U.S. Department of Agriculture Rural Utilities Service, and the General Services Administration, which have implemented or supported the implementation of GHP technologies.

II. What is the Federal action to which this NEPA pilot project applies?

DOE will use the results of this pilot project to improve its decisionmaking for future GHP proposals. DOE provides financial support for GHP technologies at a variety of scales (residential, commercial) and locations throughout the United States. DOE develops funding opportunities based on annual appropriations and within the requirements of existing programs. Individual GHP project proposals generally are developed by funding recipients (e.g., state, tribal, or local government agencies). DOE would thus benefit from a broad review of GHP technologies so as to apply that technical knowledge to future projects. The Renewable Energy Environmental Report (REER) for GHP technologies, which DOE proposes to prepare under this pilot project, could help DOE prepare future solicitations for GHP proposals, assist applicants in preparing proposals, and be incorporated by reference in ongoing and future NEPA analyses.

Importantly, if this REER is successful, DOE would build upon lessons learned to prepare similar reports on other technologies and activities (e.g., biomass, solar, wind power).

III. How will this pilot project reduce the costs and time needed to complete the NEPA process?

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While reviewing applications for funding under the American Recovery and Reinvestment Act of 2009, DOE determined that many applications, including those for GHP projects, lacked information that DOE needed to determine the appropriate level of NEPA review (categorical exclusion determination, EA, or EIS). As a result, DOE had to request additional project information from applicants, thereby delaying the NEPA process. Also, while simultaneously reviewing a large number of proposals for GHP projects, DOE identified common technical questions regarding potential impacts. From these experiences, DOE concluded that a technology-specific environmental report would reduce the cost and time needed to complete future NEPA reviews. DOE plans to initiate the GHP REER effort by September 2011 and complete it within 6 months.

DOE expects the benefits of the REER to be most apparent at the front end of the NEPA process, where the analysis can help DOE quickly focus on the right questions to pursue for each future GHP proposal. DOE will use the REER to provide clear direction to potential applicants in future funding opportunity announcements and environmental questionnaires, to quickly determine the appropriate level of NEPA review, and to prepare concise, high quality environmental reviews that better inform decisionmaking. Improving the clarity and thoroughness of information available to applicants will reduce delays due to incomplete information in project proposals. The REER will save time and resources by providing a common knowledge base, thus avoiding redundant effort and reducing the time needed to analyze potential impacts for individual proposals. The REER will provide a mechanism to obtain early input from stakeholders interested in the effects of a particular technology. For example, the REER will identify screening criteria that can be used to focus future NEPA reviews. The REER will facilitate categorical exclusion determinations, where appropriate, and aid DOE when preparing an EA or EIS to focus its review on resource areas where there is a potential for significant impact. This approach will streamline project-specific analyses, allowing concise NEPA reviews while freeing resources to focus on impacts with the most potential for significance. Furthermore, the REER will serve as a uniform briefing to new DOE NEPA staff and may be revised to incorporate lessons learned and new information as they become available.

IV. How will this pilot project ensure rigorous environmental protection?

DOE's pilot project will ensure rigorous environmental protection by generating high quality information about environmental impacts. It will do so by building on both internal and external technological expertise and ensuring that DOE has a strong base of technical information, developed with public input, and captured in a concise, plain-language text before DOE evaluates future projects involving this technology. DOE expects the REER to be most beneficial in working with project proponents to identify locations for proposed projects that avoid potential adverse environmental impacts and incorporating best management practices and mitigation to reduce impacts that cannot be avoided.

The GHP REER will concisely describe in clear terms:
-Questions to ask about future GHP project-specific proposals, in order to solicit responses that would inform DOE on how a particular proposal might impact the environment and identify the

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resource areas to focus on when considering avoidance and mitigation measures

- Potential direct, indirect, and cumulative impacts
- Incomplete or unavailable information
- Applicable regulations, requirements, and guidelines
- Technology-specific best management practices and impact avoidance and mitigation measures to minimize environmental impacts and ensure environmental protection
- Quantitative and qualitative methods for the analysis of potential environmental impacts common to GHP technologies

V. How will this pilot project improve the quality and transparency of agency decisionmaking?

DOE's pilot project will advance openness and transparency by providing an early opportunity for stakeholders to participate in analyzing the issues raised by a particular technology. DOE has found that such early public participation is of great value in decisionmaking. Moreover, the pilot project will utilize information technologies such as crowdsourcing, community forums, and/or Wiki-environments to allow the public (including current users of GHP systems), other agencies, and subject matter experts to collectively engage around the REER. These technologies will be utilized during the scoping process, the draft REER comment period, and DOE's requests for supporting documentation. In parallel, DOE will utilize traditional public involvement opportunities to ensure that those without access to computer and Internet technologies have an opportunity to participate. These efforts will build upon DOE's experience and leadership in transparency and involving the public early and often to benefit its NEPA processes.

The pilot project will utilize the collective knowledge of all interested parties in determining the scope of the REER. DOE will facilitate the discussion of the potential impacts of these technologies and use the feedback to develop an outline and guide the research and documentation needed to prepare the REER.

This open and collaborative process will:

- Foster improved public engagement by providing real-time collaborative scoping, review and comment on the REER by all interested parties.
- Utilize accessible, web-based technology such as crowdsourcing, community forums, or Wiki-environments to facilitate development of the REER.
- Allow interested parties to provide their expertise, research, and insight, and aid DOE in other data gathering efforts for the REER.
- Produce a clear and concise report, allowing the community to refine the specific issues to be addressed.

Establishing a community of interested parties to define the scope of the REER allows future NEPA documents to reference a document that has been authored by DOE, but was guided by the public's concerns. Upon completion, the REER will be made publicly available, providing a clear understanding of the level of NEPA analysis required for individual projects utilizing this specific technology, as well as the resources that may be impacted by GHP.

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VI. Will this pilot project develop best practices that can be replicated by other agencies or applied to other Federal actions or programs? Please describe?

This pilot project will demonstrate several best practices that may benefit other Federal agencies, programs, or actions. (1) Federal agencies may use the REER for GHP technologies directly as a reference in their own NEPA reviews. For example, the Federal government operates several hundred thousand buildings, many of which may be candidates for GHP technologies that would reduce both operating costs and the greenhouse gas emissions associated with their heating and cooling. The REER could serve as a tool to expedite NEPA analyses performed by other Federal agencies. (2) The REER format may be useful in any number of circumstances where an agency needs to better understand the potential environmental impacts, and associated mitigation options for a particular technology or activity. (3) Public involvement practices used in developing the REER may demonstrate the practicality and benefit of using information technology to enhance a collaborative approach to incorporating dispersed knowledge into a technical study. The REER public involvement process may yield an opportunity for other agencies to adopt a specific tool or method of engaging the public, allowing interested parties to develop into an interactive community and focus and build off of each other's ideas and issues.

PART III. PROJECT DESCRIPTION

(See attachment on following page.)

*Development of a Renewable Energy Environmental Report (REER)
To Improve Efficiency in NEPA Analyses*

The Department of Energy (DOE or the Department) proposes to prepare a Renewable Energy Environmental Report (REER) on geothermal heat pump (GHP) technologies to streamline future environmental impact analyses prepared pursuant to the National Environmental Policy Act (NEPA). A GHP is a highly efficient technology used to reduce resource demands for space heating and cooling, as well as water heating, of residential and commercial buildings. The REER will document potential environmental impacts associated with installing, operating, and decommissioning GHP technologies in different geographic settings. DOE will provide opportunities for early and active involvement by the public and other Federal agencies throughout development of the REER, including by using online tools to collaboratively develop the scope and review a draft of the report. DOE proposes to initiate this effort by September 2011 and complete the REER for GHP technologies within 6 months.

DOE will benefit from a broad review of GHP technologies. The REER will help DOE prepare solicitations for GHP proposals, assist applicants in preparing proposals, and be incorporated by reference in future NEPA analyses. The REER will enable DOE to expedite its determination of NEPA compliance requirements, facilitate the preparation of NEPA documentation, and encourage applicants for DOE funding to avoid significant impacts. DOE intends the REER to be a concise, readable document. If the REER for GHP technologies is successful, DOE will build upon lessons learned to prepare similar reports on other renewable energy technologies.

The REER for GHP technologies will describe:

- GHP technologies and how they interact with the environment
- The range of geographic conditions in which GHP technologies may be deployed (e.g., different temperature zones and subsurface conditions)
- Screening criteria that can be used to focus future NEPA reviews
- Methodologies for the analysis of potential environmental impacts common to GHP technologies
- Potential direct and indirect impacts associated with specific technologies
- Issues to consider for cumulative impacts analysis for individual proposed GHP projects
- Technology-specific best management practices and impact avoidance and mitigation measures
- Incomplete or unavailable information
- Applicable regulations, requirements, and guidelines

The REER will promote consistency in NEPA analyses and enable DOE to focus the scope of future NEPA documents on those resource areas with potentially significant impacts. REERs will help DOE determine the level of significance of potential impacts during future project-specific NEPA reviews. DOE will use REERs when developing application requirements for Funding Opportunity Announcements, thereby enabling applicants to clearly understand the depth and scope of the NEPA analyses required for their proposals. DOE expects the REER to be most beneficial at the front end of the NEPA process where the analysis will help DOE quickly focus on the right questions to pursue for each future GHP proposal; work with project

proponents to identify locations for proposed projects that avoid adverse environmental impacts; and incorporate best management practices and mitigation.

A second component of DOE's pilot project will be to engage the public and other agencies by soliciting comments on the scope of the REER and on a draft REER. To this end, DOE intends to utilize "crowdsourcing," community board, and Wiki-environments, in addition to traditional public involvement opportunities, for outreach to engage the public, other agencies, and subject matter experts. The collective knowledge of all interested parties will inform the preparation of the REER. DOE will use public comments to develop an outline and guide the research to support the REER.

DOE believes this proposal will reduce the amount of paperwork and redundant analyses associated with each NEPA determination; use an open and transparent process that allows early and meaningful public participation; present high quality information in a concise, focused analysis; facilitate timely, efficient, and cost-effective future NEPA reviews; and foster well-informed decisionmaking.

DOE's pilot project will further Administration priorities by embracing the principles of public participation embodied in NEPA and the Administration's openness and transparency initiatives. In addition, the pilot project should improve DOE's efficiency in preparing NEPA analyses for renewable energy projects that have been encouraged and mandated by the Administration. Although immediate benefits will be to GHP projects, ensuing REERs should have long-term benefits for all renewable energy technologies. Together, DOE's REERs will help further Administration efforts to achieve a clean energy economy.