Assessing Renewable Energy Zones

Overview
The state of Utah sought to tackle two important, interrelated issues surrounding the development of clean energy: identifying potential renewable resource zones, and considering transmission needed to deliver energy to load centers in Utah. To help facilitate this process, the Governor’s Energy Advisor and the Utah State Energy Program (part of the Department of Natural Resources) developed the Utah Renewable Energy Zone (UREZ) Project. The UREZ Project has three phases, of which the Clean Energy States Grant funded all of Phase I and part of Phase II.

The UREZ Phase I Project sought to identify and quantify the resource potential of locations throughout the state for wind, solar, and geothermal energy. This effort produced the Renewable Energy Zone Resource Identification report and a unique, interactive Web site that allows users to overlay maps of the identified zones with information such as physical features, current transmission corridors, population, and land ownership and use.

The UREZ Phase II Project began in January 2009, and is ongoing. While Phase I focused on identifying resource locations and capacity for renewable energy development, Phase II explores issues surrounding zone refinement and electric transmission. Funded by both the NGA Center’s Clean Energy State Grant and funds from the American Recovery and Reinvestment Act (ARRA), Utah has begun to model the costs of developing and connecting 27 separate renewable energy zones with the current electric infrastructure in the state.

Utah used the grant process to complete the first phase and begin the second phase of what is ultimately a three-phase project. When the UREZ project is complete, Utah will have a comprehensive plan for developing its clean energy resources and efficiently connecting renewable power into the grid.

Clean Energy States Grant Goals
The UREZ Phase I Project is helping Utah lay the foundation for meeting its current clean energy objectives. Utah aims to have 20 percent of its electricity sales come from renewable energy sources by 2025. In 2008, only 3 percent of electricity sold in Utah was generated from renewable sources. As are many states, Utah is looking first to its own potential renewable energy resources and sees the resource identification document as an important first step in producing renewable electricity for use within the state and for export. Utah has identified transmission planning and funding as the next challenges in developing new clean energy projects.

Both Phases I and II brought together working groups comprised of state and local government officials, renewable energy developers, utilities, and environmental groups to help ensure stakeholder participation and transparency. The work done in the grant process also benefits Utah’s work in the Western Renewable Energy Zone (WREZ) Initiative, a collaborative effort among Western governors to promote renewable energy development throughout the Western Interconnect.

Accomplishments and Challenges
The release of the Utah Renewable Energy Zones Task Force Phase I Report: Renewable Energy Zone Resource Identification http://geology.utah.gov/sep/renewable_energy/urez/index.htm was the primary accomplishment of Phase I. It was presented to Governor Jon M. Huntsman, Jr., in January 2009. The work of the UREZ project continues under the administration of Governor Gary R. Herbert. A draft of the initial Phase II study was circulated for review in October 2009. The task force and all working groups will release the completed Phase II study in May 2010. These two studies will inform the need for additional work in a possible Phase III.

The state’s emphasis on developing renewable energy resources has begun to have a noticeable impact on the market for private resource development in Utah. Proposals have been submitted to the state for several commercial clean energy projects. The state and its citizens will enjoy both the environmental and economic benefits of renewable energy development.

The state predicted that maintaining stakeholder participation would be a key challenge for both phases of the project. In order to keep involvement at a high level, the state made soliciting feedback and publicly posting documents and meeting information a priority. Utah believes this has helped keep participants, as well as the public, engaged in the process.

Next Steps
Utah is continuing to move forward with Phase II of the UREZ project. In January 2010, a working model was presented to the task force and each of the four working groups (Zone Identification, Economics, Transmission, and Policy) specifically designed to inform energy developers (including utilities) about the costs and physical impacts of renewable energy development in Utah, particularly regarding transmission. Environmental groups within the state have also been given the opportunity to review the models. The UREZ project will be used to inform the public about the cost and location of potential commercial renewable energy development.
Based on the studies in Phase I and II, the need for additional Phase III work will be determined with the goal of developing renewable energy to meet Utah’s goals of energy security and economic development.