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Recent Results and Future Plans for Electric Cooperative Outreach Activities

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ABSTRACT

The National Rural Electric Cooperative Association (NRECA) has partnered with the U.S. Department of Energy (DOE) and the GeoPowering the West (GPW) Program to provide various types of assistance to NRECA member electric cooperatives including technical support, information dissemination, and national coordination with the American Public Power Association to evaluate opportunities for the greater use of geothermal power, direct use, and Geoexchange applications in electric cooperative resource portfolios. This paper will present a summary and results of recent activities as well as plans for the balance of 2006 and 2007. State agencies, state working groups, members of the GRC and GEA, and other industry stakeholders will benefit from knowledge of these activities, as well as providing an opportunity to identify synergistic efforts that will provide value to both electric cooperatives and these other stakeholder groups.

Background

Outreach to consumer-owned utilities is one of the cornerstones to successfully advancing the use of geothermal resources in the western United States. The Western Area Power Administration (Western) has been representing the GPW Program across the United States, building on Western's unique relationship with consumer-owned utilities, Native American tribes, and Federal agencies across its 15-state service territory. This relationship includes a statutory requirement that all firm power contractors with a Federal hydropower entitlement conduct integrated resource planning (IRP) or small customer plans.

Key elements of GPW public power outreach include:

- Facilitating geothermal research and development among consumer-owned utilities.
- Geothermal technology acceptance.
- Identification of consumer-owned utility informational and technical assistance needs.
- Geothermal-based renewable energy credit (REC) marketing and trading assistance.
- Geothermal information dissemination from DOE, the national laboratories, state agencies, state working groups and industry associations, among others, to consumer-owned utilities.
- Conducting Geothermal technical informational workshops and Webcasts for consumer-owned utilities.
- National coordination with the American Public Power Association (APPA) and NRECA on geothermal outreach to more than 3,000 of the Nation's consumer-owned utilities.

GPW's public power outreach efforts are designed to move consumer-owned utilities toward greater consideration of geothermal resources as a viable resource option.

NRECA has successfully partnered with Western and the DOE's Wind Powering America Program for several years. This partnership has led to:

- An increased awareness of wind power opportunities in rural electric cooperative service territories.
- An increased understanding of the available wind resource, wind technology, wind project development, the wind industry, and the benefits to rural communities.
- Installed capacity. For example, under NRECA's Grant from WPA, NRECA provided feasibility study support to Illinois Rural Electric Cooperative (IREC) leading to

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the development of a 1.65 MW wind turbine project in Pike County, IL. IREC was named the 2005 Wind Electric Cooperative of the year.

- Reduced barriers to the acceptance of wind as a viable resource option.

This has been accomplished through a series of technical workshops, informational Webcasts, technical training, information dissemination, and technical support. NRECA's partnership with the GPW Program seeks to achieve this same success.

Work Plan

The NRECA/GPW partnership has been engaged in six principal activities in 2006:

- 1) Establish and support the goals and objectives of the Utility Geothermal Working Group (UGWG).
- 2) Support the UGWG Utility Session at the GRC 2006 Conference and UGWG Meeting.
- 3) Support a UGWG GeoExchange Webcast (April 18, 2006).
- 4) Develop a UGWG Web Page for posting on the Public Renewables Partnership Website (www.repartners.org).
- 5) Conduct a Geothermal Power Generation Workshop for Cooperatives.
- 6) Develop and Implement a Utility Communications Plan.

Utility Geothermal Working Group

The UGWG was established at the 2005 GRC Conference with NRECA as a charter member. The UGWG's Mission is to accelerate the appropriate integration of three geothermal technologies into mainstream applications:

Power Generation
Direct Use
Groundsource Heat Pumps (GSHP)

The UGWG accomplishes this mission through education, case history development, market surveys, and research. A series of Webcasts in 2006 have addressed the steps to implement a successful project, project risks and mitigation, and project costs and benefits.

In the future, the Group plans to address a number of key issues including those surrounding transmission, financing, power purchase agreements, spinning reserves, marketing, green tags, and permitting.

GeoExchange Webcast

A successful GeoExchange Webcast was held April 18, 2006 with approximately 80 participants (This includes multiple participants at one site. For example, the members of the Idaho State Working Group participated in the call as one part of a broader meeting agenda.). One of the key findings from this Webcast was that the majority of the util-

ity members participating in the call were very interested in pursuing GeoExchange applications at some level. The level ranges from a low level of involvement such as offering information on the technology to customers, to a high level of involvement such as installing, warranting, leasing, and maintaining the systems.

Develop a UGWG Web Page for posting on the Public Renewables Partnership Website

As technical support contractor to NRECA, CH2M HILL will coordinate with the UGWG Team Lead, the National Renewable Energy Laboratory (NREL), and with Western's Renewable Resource Program Manager (Randy Manion) to develop content for a UGWG web page that can be posted on the Public Renewables Partnership website with hotlinks to other geothermal industry websites. The content developed for the UGWG web page will include:

- Notes from previous UGWG conference calls.
- A contact listing of members.
- Information on the three geothermal technology applications mentioned previously.

Geothermal Power Generation Workshop for Cooperatives

We will also be working with the UGWG Team Leader to arrange and conduct a geothermal power generation workshop at the UNR Redfield Campus in Reno, Nevada. The workshop agenda will be developed in cooperation with the UGWG, GPW and regional electric cooperatives to ensure that it is responsive to the specific needs of the cooperative sector and the region. The workshop will provide a rich body of experience and important insights into all aspects of project development, implementation, operation, and performance. In addition, the workshop will identify technical analysis and assistance activities that NRECA could support to stimulate the increased use of geothermal energy among electric cooperatives. This workshop will be scheduled later this fall or in early 2007. The workshop will be open to Rural Electric Cooperatives, Public Utility Commissioners (PUC), representatives of GPW State Working Groups, and APPA, GPW and UGWG team members.

Workshops have been very effective in raising the awareness and understanding of wind power applications in the electric cooperative sector, and disseminating factual information on issues and practical experiences of concern to Co-ops. We welcome any input or ideas you may have into the agenda for this important event.

Develop and Implement a Utility Communications Plan

Perhaps the most important activity the NRECA/GPW partnership will be working on is the development and implementation of a Utility Communications Plan. The Utility Communications Plan will outline a list of activities the GPW

team and UGWG agree to pursue throughout FY 2006 to 2008. The Plan will include:

- Identification of specific targeted audiences.
- Outline of specific messages for each audience.
- Description of how messages will be communicated, for example:
 - ⊙ E-mail
 - ⊙ Conference calls
 - ⊙ Webcasts
 - ⊙ Publications
 - ⊙ Workshops
- Task assignment outline.
- Delivery / milestone schedule.

For example, one proposed activity to be undertaken as part of the Utility Communications Plan is to develop a brief on Geothermal Power for Consumer-Owned Utilities, similar in format to the existing Wind Power for Public Power Utilities brief. The Wind Power brief describes project development pathways, the benefits of integrating wind into utility resource portfolios, and tools that utilities can use to assess opportunities in their service areas. The brief also contains information on integration, environmental impacts, technology development, wind resources, financing, green power/marketing, and sources of information.

This task will emphasize the importance of communicating sound technical information critical to expanding the use of geothermal energy in the cooperative sector. Development of this plan will be coordinated with Western, Bonneville Power Administration, the UGWG, the National Renewable Energy Laboratory, and other key members of the GPW team.

Outreach

A recent survey of electric cooperatives identified several information and technical assistance activities that would be helpful for them in making future resource decisions. These

included resource information, operations experience, examples of engineering analysis approaches, and installed cost factors.

Possible sources of credible information on these topics were identified as other Co-ops, NRECA, DOE/NREL, trusted contractors with Co-op experience, the Electric Power Research Institute, experienced developers, and manufacturers/vendors. It was clear from the survey responses that other Co-ops were well-respected by the entire community. The UGWG can be an effective vehicle in this regard.

Technical Support

CH2M HILL will also provide technical support to NRECA and its member Co-ops in response to specific needs. Support for preliminary feasibility studies and development of business plans necessary to secure RUS financing are examples of the types of technical assistance that can be provided. Technical assistance activities will be coordinated with NRECA's Technical Monitor to maximize the benefit of those activities and the transferability of the results broadly within the cooperative sector. This task will also involve gathering, organizing, and distributing existing information on geothermal energy applications, available incentives, etc. in response to specific information requests by NRECA members. This task will also identify future technical assistance needs and outreach opportunities.

Conclusions

Outreach to consumer-owned utilities is one of the cornerstones to successfully advancing the use of geothermal resources in the western United States. NRECA's partnership with the GPW Program seeks to increase awareness of geothermal power applications and opportunities in rural electric cooperative service territories, increase Co-op's understanding of the available geothermal resource, geothermal technologies, and geothermal project development, and reduce barriers to the acceptance of geothermal energy as a viable resource option for cooperatives. We welcome the opportunity to identify synergistic efforts that will provide value to both electric cooperatives and other stakeholder groups.

