

Renewable Energy Highlights of 2005

From the Interwest Energy Alliance

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The year 2005 was successful for the Interwest Energy Alliance and its members in the wind energy industry and non-governmental organizations. The number of installed wind energy projects throughout the six-state Interwest region (Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming) climbed to 964 megawatts [MW] from 761 MW at the beginning of 2005, and over 1,000 MW of wind energy projects are expected to be built in the next two years. In addition, the West will see hundreds of megawatts of other clean, renewable energy projects in the next two years, from solar, biomass geothermal and small hydropower projects.

Ten of the year's highlights for members of the Interwest Energy Alliance are listed here, starting with a look at regional stories and then state-specific stories. Interwest represents the nation's leading wind energy companies in the interior western states, and its principals and allies were actively involved in many of the activities profiled in this list. This demonstrates how a consensus-based approach to project development between industry and non-governmental organizations can bring economic and environmental benefits to the entire region.

For more details on the Interwest Energy Alliance or any of these stories, contact Interwest's executive director, Craig Cox, at cox@interwest.org or 303-679-9331.

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Region-wide

Regional transmission projects proposed

Several large-scale transmission projects were proposed in the West this year, including:

Frontier Line: Wyoming to California

On April 4, governors of four western states —Arnold Schwarzenegger (R-Calif.), Kenny Guinn (R-Nevada), Jon Huntsman (R-Utah) and David Freudenthal (D-Wyoming)— signed a memorandum of understanding to pursue the development of the “Frontier Line,” a high-voltage electric transmission line stretching from Wyoming with terminal connections in Utah, Nevada and California. This proposed line has a capacity of up to 12,000 MW of electric power and has generated heated discussion throughout the region about whether it will help enable more wind resources — or coal resources, both of which are abundant in Wyoming, whose resources the line intends to leverage.

Proponents of the Frontier Line say that it will enable the development of 6,000 MW of new wind energy for the voracious California market, while opponents of the line say that it will lead to the construction of numerous new coal plants in areas that do not have the same kind of air quality safeguards as California.

On November 21, the California Energy Commission created a stumbling block to the line by adopting a policy prohibiting investor-owned utilities from signing long-term contracts to import power from new coal-burning plants.

TransWest Express: Wyoming to Arizona

Arizona Public Service Company (APS) announced on October 21 that it will explore construction of two 500,000-volt (500-kV) transmission lines from Wyoming to northern Arizona. APS says that the completion of the “TransWest Express Project” would provide Arizona and other western states “increased capability to access electricity generated from coal, wind and other resources.”

TOT 3 Upgrade: Wyoming to Colorado

The Wyoming Infrastructure Authority announced on September 27 that it had entered into a partnership with Trans-Elect, Inc. to pursue commercial development of new electric transmission between northeastern Colorado and southeastern Wyoming known as TOT 3, which has experienced a transmission constraint for a number of years. On November 15, the Western Area Power Administration issued a solicitation requesting statements of interest in transmission capacity rights on this upgraded line.

Transmission projects throughout the region may be advanced by the Energy Policy Act of 2005, which President Bush signed into law at a ceremony at Sandia National Laboratories in Albuquerque, New Mexico on August 8.

This law extends the wind and renewable energy production tax credit until the end of 2007, providing much-needed certainty for further development of wind and renewable energy resources around the nation. The law includes incentives encouraging construction of new and upgraded transmission lines and provides for Federal Energy Regulatory Commission (FERC) oversight and enforcement of

mandatory non-discriminatory reliability rules. It also repeals the Public Utility Holding Company Act (PUHCA), as well as the Public Utility Regulatory Policies Act (PURPA) for areas that participate in Independent System Operator (ISO) or Regional Transmission Organization (RTO) markets.

In addition, the U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability, and the Department of Interior's Bureau of Land Management are conducting a scoping process for western energy transmission corridors. In October and November, these agencies conducted a series of 11 scoping meetings around the West to prepare a programmatic environmental impact statement on possible energy transmission corridors throughout the region.

Western Governors' Association pursues 30,000 MW clean energy goal

At the 2004 annual meeting of the Western Governors' Association (WGA) in Santa Fe, New Mexico, the West's governors endorsed a resolution sponsored by Governors Bill Richardson (D-N.M.) and Arnold Schwarzenegger (R-Calif.) calling for 30,000 MW of clean energy development by 2015. The resolution also called for a 20 percent increase in energy efficiency throughout the West by 2020.

Early this year, the WGA created a Clean and Diversified Energy Advisory Committee tasked with determining "how to best reach the goals the Governors have established and, at the same time, ensure the region has the necessary generation and transmission capacity."

This committee set up eight task forces (on advanced natural gas, biomass, clean coal, energy efficiency, geothermal, solar, transmission and wind), along with a "quantitative" task force (to synthesize all the recommendations) to provide recommendations on how each technology could help the governors reach their clean energy goal.

Each task force held several meetings this year and each issued a detailed report. Taken together, these task force reports provide a comprehensive examination of all the major renewable energy and energy efficiency technologies, along with their tremendous potential to transform the West's electric infrastructure into a clean, modern system delivering economically beneficial and affordable energy for this rapidly growing region.

The Clean and Diversified Energy Committee's final report, based on input from its eight task forces, is due to be released in early 2006 and will be considered for adoption by the WGA governors at their annual meeting in Sedona, Arizona in June.

State leaders become more aggressive in advancing economically beneficial clean energy policies

Throughout the nation, state governments are becoming increasingly pro-active in advancing clean energy policies. In the West, New Mexico Governor Bill Richardson is a leading advocate of using renewable energy technologies to promote economic development, job growth and environmental protection. When Richardson travels on foreign trade development missions, renewable energy is frequently his prime

industry of emphasis, reflecting the rapidly growing international market for renewable energy technologies.

Richardson, who co-sponsored the Western Governors' Association's 2004 resolution seeking 30,000 MW of new clean energy in the West by 2015, wrote in a June 20 letter to his WGA colleagues:

"For more than a decade I have argued for capitalizing on the West's potential to help our Nation with the needed diversification of energy sources in the interests of national security, economic competitiveness, and domestic job creation. New Mexico can play a major role in this national policy effort...Over the next 10 years, New Mexico has the potential to develop 4,000-6,000 MW of wind energy, 1,000-1,500 of clean coal energy (including carbon capture and sequestration), 200-300 MW of biomass energy, and 500-1,000 MW of solar energy. The vast majority of this clean energy would be developed for export, as our state requires only 3,000-4,000 MW of capacity for its own needs at this time."

In addition to Governor Richardson's support, on December 27 the New Mexico Public Regulation Commission approved a buyback program for photovoltaic renewable energy credits ("PV RECs"), enabling PNM to begin purchasing renewable energy credits from PNM customers who generate their own solar power with photovoltaic systems on their homes or businesses.

Such "customer-generators" will be paid a price of thirteen cents per kilowatt-hour for their solar power RECs, in addition to being able to offset their power usage by spinning their meters backwards.

In Utah, an Energy Policy Working Group was formed by several state legislative committees in June and included representatives from a range of agencies, corporations and public interest groups in Utah. The working group's final report was released in November and contains 28 policy recommendations. Some of its recommendations include:

- Full-cost analysis of resource development decisions, incorporating not only economic, but also environmental and health factors
- Promotion of cost-effective renewable energy resources, both central station and distributed, as part of the state's energy portfolio
- Creation of a renewable energy task force to examine the availability and cost of renewable energy sources
- Formation of a joint governmental/private partnership for transmission-related measures, including a single siting authority, interstate partnerships for siting, and state funding for transmission facilities
- Coordination of regulatory processes, both within the state and on an interstate basis, to encourage the development of multi-state transmission facilities

Colorado's legislative leaders (Senate President Joan Fitz-Gerald, D-Golden and House Speaker Andrew Romanoff, D-Denver) have indicated their intent to make energy issues a top priority during the 2006 Colorado General Assembly and convened a "Forum on Colorado's Energy Future" in November to hear from a range of stakeholder parties on their priorities and concerns on key energy issues. Several bills relating to wind energy and transmission issues are expected in the 2006 Colorado General Assembly, which convenes on January 11, along with legislation on energy efficiency and innovative fossil fuel technologies.

Arizona

ACC looks at Portfolio Standard increase to 15 percent by 2025

The Arizona Corporation Commission spent much of the year examining a possible rule requiring investor-owned utilities to provide 15 percent of their electric power from renewable sources of energy by 2025, replacing the current Environmental Portfolio Standard of 1.1 percent by 2007 (of which 60 percent was designated for solar).

A draft rule is expected to be issued in January 2006 and hearings are expected early in the year. Stakeholder parties are expected to comment on various issues in the draft rule, including its 30-percent set-aside for distributed generation technologies and the issue of in-state acquisition requirements.

APS announces 150 MW renewable energy acquisition; ACC examines in-state acquisition issue

On September 12, Arizona Public Service (APS) announced that it had selected five projects totaling 150 MW (nameplate) from a renewable energy RFP it issued in May seeking at least 100 MW of renewable energy resources. The five projects that APS announced were: two biogas projects totaling 6 MW, two geothermal projects totaling 50 MW and one wind project of 94 MW.

Of these projects, only the two biogas projects were from in-state sources, the wind and both geothermal projects were from out-of-state locations. This has led the Arizona Corporation Commission (ACC) to examine the APS bid evaluation process as it relates to in-state versus out-of-state resources, particularly with the wind acquisition, since bids from in-state wind energy projects were submitted to APS.

Colorado

Xcel Energy poised to make billion-dollar wind energy investment in rural areas

On December 28, Xcel Energy, Colorado's largest utility, announced that it would be negotiating to purchase 775 MW of electricity generated from wind energy by the end of 2007. These wind bids were selected from the company's competitive all-source solicitation conducted earlier in the year.

This large wind acquisition would make Xcel Energy the nation's leading purchaser of wind energy if all the proposed projects are built as planned. This development highlights a number of wind energy benefits, such as long-term price stability, economic development in rural areas and environmental friendliness.

Xcel Energy's 775 MW wind energy acquisition will represent an investment of over one billion dollars, almost all of which will be in rural and agricultural areas. Such an investment in Colorado's rural areas would provide significant, tangible economic development opportunities, especially in light of recent events such as the planned

January closure of the Neoplan bus plant in Lamar, which will throw 300 persons out of work in that southeastern Colorado community.

U.S. Senator Ken Salazar (D-Colo.), who has emerged as a leading proponent of renewable energy in the Senate, and who visited Lamar after the Neoplan announcement in November, calls wind energy and agriculturally based renewable energy products a "key component" in economic recovery for these rural areas with rich renewable resource bases.

Integrating all of this new wind energy into Xcel Energy's system should be accomplished in a cost-effective manner, as the initial results of a study commissioned by Xcel Energy show that total integration costs at a 15% penetration level are only about \$5/MWh.

Separately from its large wind energy announcement, Xcel Energy has told its investors and shareholders that it will be building an 8 MW "solar farm," which would help it comply with the solar energy requirements of Colorado's renewable energy portfolio standard, Amendment 37.

Xcel Energy's December 28 wind energy announcement was juxtaposed against news earlier the same month that as many as 100 scientists at the National Renewable Energy Laboratory (NREL) in Golden, including experts in NREL's wind energy research and development program, would likely be laid off due to budget cuts and earmarks in the federal government's fiscal year 2006 budget.

Colorado PUC issues rule implementing Amendment 37

Affirming the language of Colorado's Amendment 37 that "it is in the best interests of the citizens of Colorado to develop and utilize renewable energy resources to the maximum practicable extent," the Colorado Public Utilities Commission (PUC) issued a final rule on December 15 detailing how Colorado's renewable energy standard should be implemented by the state's largest electric utilities.

On November 2, 2004, Colorado's voters passed Amendment 37 by a vote of 54 percent to 46 percent. Though Colorado was the 18th state to have a standard requiring that a certain amount of electricity be generated from renewable energy sources, it was the first standard to be passed by popular vote.

Throughout 2005, Colorado's largest utilities negotiated with renewable energy advocates and other parties on rules implementing the details of Amendment 37. In August, those parties filed a document with the Colorado PUC detailing the areas where they found agreement and providing specific proposed rule language. The PUC's December rule (which is subject to a 20-day period for "rehearing, reargument or reconsideration" ending in early January) largely accepted this language and provided final direction on Amendment 37's implementation.

Colorado's renewable energy advocates point out that there will be a lot of "devils in the details" in how the qualifying utilities will carry out these rules, particularly in the areas of administration costs, cost-recovery issues and how large solar system bidding will be handled. They also note that the PUC ruled against using a third-party administrator, which advocates had sought to implement to serve as a neutral arbiter between electric utilities and bidding parties.

In a related development, Xcel Energy filed a tariff request at the Colorado PUC on December 1 seeking approval of a one-percent rider on electricity bills: the Renewable Energy Standard Adjustment. In its filing, Xcel Energy seeks to provide rebates to its customers who install solar energy systems at the rate of \$2 per watt installed on customer premises, up to 10 kilowatts (10,000 watts). In addition, Xcel proposes to purchase Renewable Energy Credits (RECs) generated by each customer's system, for \$2.50 per watt. These credits then would be counted toward the company's Amendment 37 requirements. Thus, the total solar payment under this program would be \$4.50 per watt.

Wind energy is saving money for Xcel Energy's Windsource customers

In October, Xcel Energy announced it would seek an increase in electricity rates averaging about \$10 per residential consumer due to the soaring cost of natural gas. Meanwhile, on October 11, Western Resource Advocates announced that customers of the company's Windsource green pricing consumers would *save* money each month on their electricity bills after this rate increase took effect, because Windsource purchases are exempt from fossil fuel costs. This means that customers who subscribe to Windsource's 100% [all-wind] option are not paying this increase this winter and instead receive a credit each month, varying according to the monthly cost of natural gas.

News reports say that demand for the program surged to more than 15 times the usual monthly enrollment rate in October and that a waiting list has been created for Windsource purchases.

Nevada

New law advances renewable and energy efficiency development in Nevada

On June 17, Nevada Governor Kenny Guinn signed legislation into law that encourages higher energy efficiency and greater use of renewable energy in the state. The measure, AB 3, allows Nevada Power Company and Sierra Pacific Power Company to get energy credits for efficiency programs that can be used to meet up to one quarter of their renewable energy requirements under the state's renewable energy portfolio standard law. In turn, the standard itself is increased from 15 percent by 2013 to 20 percent in 2015 under the new law. Nevada's laws on renewable energy have been promoted for years in the state legislature by many legislators, and especially Senators Dina Titus (D-Las Vegas) and Randolph Townsend (R-Reno).

Nevada Power and Sierra Pacific file Renewable Energy Compliance Plan with Public Utilities Commission

On December 15, Nevada Power Company and Sierra Pacific Power Company submitted their renewable energy portfolio standard compliance plan with the Public Utilities of Nevada (PUCN). The plan provides an update on the utilities' renewable energy request for proposals (RFP), which ended in June.

According to their report, this RFP garnered a total of 65 bids, representing 1,800 MW of capacity, for various renewable energy resources (such solar, wind, biomass and geothermal), and most of the utilities' new acquisition activities are centered on solar energy. The plan raises the utilities' budget for renewable energy programs to \$7 million annually from \$400,000, excluding investments in renewable power plants, and they also intend to more than quadruple their renewable energy staff to 13 people from three currently.

In the plan, Sierra Pacific raised its per-project limit for naturally variable energy resources, such as wind, to 100 MW from the previous 50 MW. In the past, Sierra Pacific had imposed a 50 MW limit per renewable energy project, citing transmission constraints. However, Sierra Pacific reports in the plan that the PUCN's December approval of its proposed 514-megawatt combined cycle natural gas power plant at the Tracy Generating Station makes it possible to double that previous limit.

Among other provisions, the utilities' plan envisions the need for future renewable energy acquisitions, indicating that another solicitation may take place as soon as early 2006. In their plan, the utilities also discuss an upcoming green-pricing tariff, and possible changes to their solicitation procedures, such as pre-qualification of bidders and possible participation in joint ventures or self-building of renewable energy projects.

Nevada's two investor-owned utilities are among the fastest-growing in the nation. The state's wealth in renewable energy resources will help Nevada Power and Sierra Pacific meet the state's renewable energy standard in a cost-effective manner, as more than 2,000 MW of renewable energy is expected to be required in the next 10 to 20 years under the law.

Who is the Interwest Energy Alliance?

The Interwest Energy Alliance is a trade association that brings together a unique mix of the nation's leading renewable energy companies and the region's leading non-governmental advocacy groups, which helps facilitate a consensus-based approach to new project development for clean, abundant energy throughout the West.

In 2005, members of the Interwest Energy Alliance were AES SeaWest Windpower, American Wind Energy Association, Clipper Windpower, New Mexico Coalition for Clean, Affordable Energy, Colorado Farm Bureau, DMI Industries, Environment Colorado, enXco, Foresight Energy, FPL Energy, GE Wind Energy, George K. Baum & Company, Grand Canyon Trust, Interstate Renewable Energy Council, PPM Energy, Stoel Rives LLP, Utah Clean Energy, Vestas-American Wind Technology, Western Business Coalition for New Energy Technologies and Western Resource Advocates.

Since so much renewable energy development takes place in the West's vast rural and agricultural areas, Interwest is pleased to be working cooperatively with the Colorado Farm Bureau, the Rocky Mountain Farmers Union, Colorado Working Landscapes, 25x'25 and Environment Colorado, which have coordinated the "Harvesting Energy" tour throughout rural Colorado and which are forming the Colorado Harvesting Energy Network. This Network, led by former Colorado House

Speaker Lola Spradley (R-Beulah) and U.S. Representative Mark Udall (D-Eldorado Springs) is sponsoring the Intermountain Harvesting Energy Summit, scheduled for March 27-28, 2006, involving leaders from seven states in the region.

Finally, Interwest is pleased to work closely with West Wind Wires. Similar in mission to the Midwest's Wind on the Wires, the mission of West Wind Wires (or "WWW") is to identify wind transmission needs throughout the entire Western grid and to advocate solutions to those needs.

WWW has represented wind in regional transmission forums, Western Area Power Administration and Bonneville Power Authority rate proceedings, and before utility groups.

Some of WWW's current policy tasks include long-term planning to identify key paths for upgrades and new routes, opportunities for demand-side measures to reduce transmission congestion, efficient and fair transmission pricing and capacity allocation mechanisms, and specifically conditional firm and partial non-firm tariff proposals to gain long-term access to existing transmission lines and stable investor funding.

West Wind Wires is pursuing studies on increasing wind penetration throughout the western grid. Its principals are examining the environmental impacts of coal/wind integration, as well as looking at regional transmission planning metrics, capacity factor calculation, and wind data collection.

The sooner more wind energy can be brought to market through new project development, transmission upgrades and supportive public policies at the state and federal levels, the sooner America's consumers will begin enjoying the benefits of this cost-stable, clean, domestic energy resource.

The Interwest Energy Alliance looks forward to working with its many members and friends to continue pursuing common goals and building the market for clean, renewable energy technologies throughout the West in 2006.

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