

Basin Electric's Annual Meeting: Creating Our Energy Future

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PROVIDING ELECTRICITY IN TODAY'S ENVIRONMENT has opportunities and challenges. That was the message delivered to more than 800 delegates and guests at Basin Electric's 2006 annual meeting held Nov. 1-2 in Bismarck. The theme of this year's meeting was "Creating Our Energy Future."

Hank Courtright, senior vice president of member services and environment at the Electric Power Research Institute (EPRI), was the featured speaker on Wednesday at the annual meeting. He discussed the challenges the utility industry faces as it moves forward with generation expansion in a carbon-constrained future.

In the near term, Courtright said utilities will likely be able to control carbon emissions with plant efficiency improvements. Looking forward to 2020 and beyond, however, carbon capture and sequestration will be necessary.

With the evolution of carbon control technology, pulverized coal and integrated gasification combined cycle (IGCC) generation technologies will be the most economical.

"We think it's for the benefit of the industry and the benefit of our society to keep coal in the mix and keep as many options as we can technologically going forward. ... Either one (pulverized coal or IGCC) is right," he said.

Courtright said the industry has the opportunity to build a low-carbon energy portfolio, but technology development, demonstration and deployment must move forward over the next decade.

"It's not an easy job. ... I think it's important for the membership here to know, for Basin to do this, the scale and the effort necessary, the decisions and commitment they have to make. It is a challenge to the electricity industry that is unprecedented to what they've had in the past. We've electrified the countryside, probably the greatest achievement by mankind in the last century. I think going forward we have the ability to sustain that and maintain that, but protect the environment and the global situation that we have, too."

Courtright's visit to North Dakota included a

tour of Dakota Gasification Company's Great Plains Synfuels Plant near Beulah, N.D. He said Basin Electric is in a good leadership position in the nation as operator of "the only real production facility that's sequestering CO₂ in the United States."

Highlighting the staff reports, Ron Harper, Basin Electric CEO and general manager, said Basin Electric is forging ahead with new base-load projects, even with the uncertainties of the regulatory and technology landscapes. Basin Electric is in the permitting process for the proposed Dry Fork Station planned near, Gillette, Wyo., and in the planning stages for another base-load facility proposed in either North Dakota or South Dakota.

"It is difficult for us to sit on the sidelines and wait for the transition time to new technology, when you, the members, need the power today," Harper said.

Wayne Child, president of the Basin Electric board of directors, said Basin Electric and other generation and transmission cooperatives in the United States are facing challenges from environmental public policy related to carbon capture, carbon dioxide sequestration and power plant emissions. Child noted that low hydro capacity because of drought conditions in the western United States is also impacting the price of electricity. He said Basin Electric and its members have benefited from decisions made by the board and management in recent years and stressed the need to continue to focus on thinking and acting as a cooperative. "Creating our energy future will depend on ensuring that we have reliable power for ourselves and our customers," Child said. "Electric cooperatives care about people first – both individual consumers and their communities."

Generation Report – Wayne Backman, senior vice president of generation, provided an overview of new and existing generation and also described plans for meeting the anticipated 1,300 megawatts (mw) of growth in the Basin Electric service territory. He said the cooperative's forced outage rate for its coal-based generating units is a low 1.6 percent,

compared to an industry average of 6 percent. He said the cooperative added 167 mw of generating resources in 2006. Among the new additions is a 50-mw wind farm located near Wilton, N.D. The wind farm is owned and operated by FPL Energy, Juno Beach, Fla., and Basin Electric purchases the farm's entire output.

The next project, the Groton Generation Station, is located near Groton, S.D., and is a 95-mw peaking unit employing GE's LMS100® simple cycle gas turbine – the first commercial application of its kind. The LMS100® uses a combination of heavy frame and aeroderivative technology.

Lastly, Basin Electric participated with Ormat Technologies Inc., Reno, Nev., on four waste heat recovery generation projects. Each of the four projects has a generating capacity of 5.5 mw. The 22-mw project involves using the hot exhaust gases from existing compressor stations located along the Northern Border Pipeline to generate electricity. The compressors are driven by natural gas-fueled turbines. The heat in the compressor exhaust stack is recovered using heat exchangers. The recovered heat is then used to vaporize a fluid to drive a turbine/generator set.

Backman said that through contract terminations, Basin Electric will soon realize an additional 350 mw in its generating portfolio; however, preliminary member load forecasts call for an additional 950 mw of generation needed by 2025. Plans to meet this growth include turbine upgrades at the Laramie River Station in Wyoming, which will add 15 mw; a second 95-mw peaking unit at the Groton Generation Station; five more heat recovery generating units along the Northern Border Pipeline; the 422-mw gross capacity Dry Fork Station, near Gillette, Wyo., and another 400-mw base-load generation facility – NextGen – to be located in either North Dakota or South Dakota. Backman said Basin Electric plans to decide on a preferred plant site soon.

Clyde Bush, project manager of the Dry Fork Station, updated the membership on the status of the power plant. He said Basin Electric has already obtained the Industrial Siting Application and is currently working on – through a contracted third party – an Environmental Impact Assessment, a key component of the National Environmental Policy Act process.

“Right now, we're in a holding pattern and are hopeful the process will provide a timely decision – no later than our planned start of construction date

of October 2007. Concurrently, Basin Electric is working to obtain an Air Quality Permit to Construct. Our project plan requires that we have the permit finalized and in hand by the spring of 2007.”

Fuel supply and rail transportation options are currently being studied. A transmission study has been completed and is currently under analysis. Other major issues to be addressed will include water supply and an air permit.

Transmission Report – Mike Risan, senior vice president of transmission, reported that Basin Electric's position on transmission pricing methodology is well known and slowly catching on. The cooperative advocates postage-stamp pricing where transmission users all pay the same rate to send electricity anywhere in the region. This pricing method facilitates needed transmission system improvements because all users pay equitably in proportion to their use.

“We were invited by FERC (Federal Energy Regulatory Commission) to participate in an April 21 technical conference on transmission pricing to share our postage stamp philosophies,” Risan said. “We are also encouraged by the recent decision of a FERC Administrative Law Judge who ruled that the license plate pricing methodology used by a regional transmission organization in the east, known as the PJM Interconnection, is unjust and unreasonable and that it should be replaced by a postage stamp methodology.”

Director Elections – Three Basin Electric directors were re-elected at the annual meeting. Those re-elected were: Kermit Pearson representing include East River Electric Power Cooperative, Madison, S.D.; Cliff Gjellstad representing Central Power Electric Cooperative, Minot, N.D.; and Dean McCabe representing Upper Missouri Electric Power Cooperative, Sidney, Mont.

Basin Electric is a consumer-owned, regional cooperative headquartered in Bismarck. It generates and transmits electricity to 120 member rural electric systems in nine states: Colorado, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, South Dakota and Wyoming. These member systems distribute electricity to about 1.8 million consumers.



Basin Electric CEO and General Manager Ronald R. Harper addresses member-consumers at the 2006 annual meeting held Nov. 1-2, 2006.