



Rural prosperity through renewable energy

January 12, 2009

Ron Binz, Chairman
Colorado Public Utilities Commission
1560 Broadway, Suite 250
Denver, Colorado 80202

SUBJECT: Xcel Energy's SB 100 filing, Docket No. 08M-521E

Dear Commissioners:

On behalf of the Colorado Harvesting Energy Network (CHEN), I welcome this opportunity to comment on the recent Senate Bill 100 filing by Xcel Energy. CHEN is a newly- incorporated association seeking public policies that accommodate community-based energy development or C-BED projects (see attached brochure).

The Colorado legislature in 2004 declared "It is the policy of this state to encourage local ownership of renewable energy generation facilities to improve the financial stability of rural communities"(Sec. 7-56-210(1), C.R.S.). This intent was also included in SB07-100, which, in subparagraph (2)(c), requires regulated utilities to "Consider how transmission can be provided to encourage local ownership of renewable energy facilities, whether through renewable energy cooperatives as provided in section 7-56-210, C.R.S., or otherwise."

Xcel Energy, with its recent filing, made significant progress in meeting the required elements of SB07-100 -- except for the above provision.

CHEN believes the commission has a historic opportunity to address local ownership of renewable energy resources through the SB 100 process. By considering ways to pool community resources on a low-voltage network that would feed into major transmission improvements, Colorado can help create a new model of efficient and sustainable decentralized power generation. By structuring state transmission policies to include landowners, we have an opportunity to engage rural residents in the New Energy Economy as enthusiastic participants and true stakeholders.

Beginning now, it is time for Xcel Energy and the Commission to give serious consideration to the relationship between local ownership of our renewable resources, transmission planning and transmission permitting and siting requirements. For the purposes of this statement, I am using “local ownership” and “community-based energy development” interchangeably.

Creating the proposed high voltage backbone is vital to the reliability and efficiency of Colorado’s electric service and for providing transfer capability from designated energy resource zones. However, if the SB-100 process does not extend to lower voltage collection and distribution networks, the process could be considered the process to be discriminatory to community-based development and non-compliant with Legislative intent.

By statutory definition community-based energy projects must be 30MW or less to qualify for the 1.5 REC multiplier.. The cost of interconnecting these small projects to a high voltage system is prohibitively expensive. The cost of a substation connecting to a 345kV transmission line could be \$5-10 million while the cost of connecting to a 69kV line could be under \$1 million. Total interconnection costs will vary widely depending on the scope of the project and the state of the surrounding distribution and transmission system infrastructure.

Following are four suggestions.

1. Project Priorities: Establish Lamar to Comanche or Lamar to Missile Site as a top priority project.

According to remarks during Xcel Energy’s December 18th presentation to the Commission, the two highest priority projects (San Luis Valley and Missile Site) were selected because they have the shortest lead time.

Giving highest priority to Zone 3 projects does not mean all other construction will be held up until Zone 3 is served. The intention should be for Missile Site and the SLV projects to proceed according to the proposed timeframe.

Giving highest priority to Zone 3 does mean asking Xcel Energy to adopt an aggressive work plan in partnership with Tri-State leading to operational transfer capability as soon as possible. CHEN believes this work plan should include active participation by interests located in and around Zone 3 as noted below.

2. Low-Voltage Collection Network: One method by which SB 100 planning could accommodate community-based projects is to develop an improved method for connecting multiple generators to network service. This system would allow small generators (community wind, for example) to hook onto the low voltage network in lieu of lengthy and prohibitively expensive radial lines.

As noted on page 13 of Xcel’s December 18th PowerPoint presentation, Zone 3 contains a number of requests for interconnection on PSCo transmission. Current practice would

call for each wind developer to construct a radial line to the interconnection site at Vilas at considerable time and expense along with potential degradation of the landscape.

Much could be gained by establishing collaboration between developers, counties and electric service providers to examine methods for planning, siting, permitting and financing a low-voltage transmission network primarily serving wind development within Energy Resource Zone 3. Getting the planning process established would require a number of steps:

1. Meet with Xcel, Tri-State, ARPA, Southeast Power, Division of Wildlife and The Nature Conservancy to secure their input and support for the project.
2. Conduct one-on-one conversations with wind developers seeking their guidance on a planning process.
3. Work with the boards of county commissioners from Baca, Prowers, Bent and Kiowa to schedule a scoping meeting that will identify issues to be addressed during the pilot project.
4. Form work groups around such issues as: 1) network design, 2) siting and permitting of ROW, 3) finance, and 4) cluster interconnection request.

Possible outcomes from the pilot network planning project in Zone 3 would include the following:

1. Benefit-cost analysis for network development options (cooperative approach vs. extension cord approach for each project) to quantify the value of accelerated processing and efficiency gained through shared transmission upgrades.
2. Alternative approaches to financing the network with consideration given to:
 - o A role for the Clean Energy Development Authority
 - o Formation of a cooperative composed of wind developers and electric service providers to finance network development.
 - o Examination of county bonding authority
3. Establish innovative approaches to siting, permitting, and landowner compensation with involvement from Cornerstone Transco.
4. Develop methodology for a single system impact study for a cluster of interconnection requests.
5. Develop recommendations for implementation within ERZ #3 and for replicating the pilot project with other Energy Resource Zones.

Perhaps the most important outcome from this proposal would be the empowerment of local leadership within the SB 100 planning process. Certainly, there are examples of local involvement in other states. In Minnesota, a portion of utility payments to the Department of Commerce fund Community Energy Resource Teams serving each of seven regions. In addition, Minnesota's New Generation Energy Act of 2007 requires utilities to commit to allocating space on the grid for 1,200 MW of community-based energy projects by 2025. The SB 100 planning process would benefit greatly from meaningful participation in each of the energy resource zones.

3. Landowner Compensation: Traditional methods for siting and securing rights-of-way for transmission development are time-consuming, contentious, and deserve to be re-examined by the Commission. Innovative methods for securing rights-of-way are

emerging that are more expedient, reduce the intensity of opposition, and compensate landowners fairly.

Proposed SB-100 projects will primarily traverse rural landscapes. Cornerstone Transco, based in Wray, Colorado has established a successful method of contracting with each landowner along a projected transmission path (in advance of the CPCN). Compensation to the landowner is based on transfer capacity, not the appraised value of the underlying land. Furthermore, compensation is provided annually, not the one-time payment that is a typical practice.

Key to minimizing transmission development timeframes and landowner opposition is providing fair compensation so that landowners can become enthusiastic participants in the New Energy Economy. CHEN believes landowners impacted by high voltage lines should be considered project partners and be compensated accordingly.

Existing Transmission System: As noted earlier, community-based development is not supported by the high voltage transmission as currently proposed in the SB 100 filing because of the high transformation and substation costs community-based wind energy projects would encounter. However, locally owned projects are very compatible with low voltage elements of the transmission and distribution network while providing tangible system benefits. The legislative requirement to “encourage local ownership of renewable energy facilities” should be addressed with a comprehensive analysis of substation capacity to accommodate community-based development.

Much could be learned from legislatively mandated studies in Minnesota including the 2005 West Central Study to examine the possibility of adding “dispersed generation” on all substations of 115kV or less that serve customers in that region of the state. The full study results are available at www.capx2020.com. The remarkable results from this study led the legislature to order Minnesota’s utilities to undertake an even more detailed statewide study of impacts of adding up to 1,200 MW of dispersed renewable generation around the state. The first phase of the Dispersed Renewable Generation Study was released in June 2008 and examined the integration of 600 MW of dispersed generation (see PUC Docket No. E999/DI-08-649, <http://www.commerce.state.mn.us>). The second phase study will be completed in September 2009. The following summary material is taken from a November 2008 report titled *Meeting Minnesota’s Renewable Energy Standard Using the Existing Transmission System*, pp. 11-13 <http://www.nawo.org/PDF%20files/meetingminnesotares.pdf>.

“The DRG Study examined the electrical characteristics, and the available wind resource, for each of the 2,258 substations in Minnesota and selected 42 potential sites for further study.”

“Once the power flow model was expanded and reconfigured so that it more accurately represented how electricity actually flows through the lower voltage system...the results identified twenty dispersed locations in which 600 MW of new generation capacity could be sited and interconnected with no new transmission cost. This was a remarkable

conclusion and provides evidence that supports a strategy of pursuing and maximizing the development of dispersed, renewable energy projects throughout the state.”

“Perhaps the most important outcome of the DRG Study may be the development of a new utility transmission planning model that focuses on how we can more efficiently use our existing transmission infrastructure and our lower voltage lines. For the first time utilities will have the tools to integrate lower voltage distribution generation into their resource plans.”

Conclusion

CHEN would very much appreciate suggestions from the Commission, Xcel Energy, Tri-State, Black Hills, and other stakeholders as to how best to meet the legislative requirement discussed in this statement. Our request is that the Commission establish a schedule of next steps, possibly to include some of the above suggestions.

One additional recommendation is in order. That is to invite Tri-State to consider entering into a cooperative agreement with the Commission to enter into a collaborative SB 100 planning process as if identified by statute. Under this voluntary agreement, Tri-State compliance with judgments by the commission would be optional.

I hope you find these comments helpful.

Respectfully submitted,

John Covert, Executive Director
Colorado Working Landscapes

c: Morey Wolfson, Governor’s Energy Office
Lee White, George K Baum and Company
Tony Frank, Rocky Mountain Farmers Union
Joel Bladow, Tri-State Transmission & Distribution Association