



LLS RESOURCES, LLC
RESOURCE DEVELOPMENT
RESOURCE UTILIZATION

To: Minnesota Public Utilities Commission

RE: COMMENTS
Solar Docket No. E-002/CI-13-315
Commission Order Dated May 13, 2013
July 1, 2013 **Draft** Progress Report

The subject Commission Order states in order point no. 7:

On or before July 1, 2013, Xcel (and stakeholders may) file with the Commission a report on progress on the Large Customer Photovoltaic Rate proposal, and agreement or disagreement over results of the Effective Load Carrying Capacity Study.

This letter outlines concerns of the Solar Rate Reform Group (SRRG), a group of 7 large institutional/commercial customers either with large PV arrays currently installed or installation of such arrays pending. SRRG members include: Metropolitan Council Environmental Services, City of Minneapolis, Hennepin County, Metropolitan Energy Policy Coalition, Minneapolis Airports Commission, Geronimo Energy and IKEA.

SRRG not only attended and participated in the June 11 stakeholder meeting to review the ELCC Study but also issued 17 information requests (IR's) to better understand the study results. We very much appreciate the June 11 presentation by Steve Wishart and the willingness of Xcel to respond openly to questions.

Based upon what SRRG understands thus far, we have the following comments related to the ELCC Study:

1. NREL PV Watts database inadequate.

Xcel's ELCC Study used the NREL PV Watts database based on a typical meteorological year (TMY). This model does not align actual solar hourly radiance data with actual hourly load data resulting in misleading correlations. We understand that actual hourly radiance data is now available from NREL which can be properly aligned with actual hourly load data leading to much more meaningful correlations. We recommend that Xcel re-run the ELCC Study with this more appropriate data set.

2. Other tilt orientations needed

Rather than run the study based on a single fixed tilt of 45 degrees, other tilts (and azimuths) consistent with common installation practice should be examined resulting in installation practices which optimize energy output vs. those which optimize capacity output. We

understand that DER is providing Xcel with a set of meaningful alternative orientations which Xcel will test.

3. Avoided cost estimates too low

The Solar Group very much disagrees with Xcel's assertion that avoided generation plus transmission costs only amount to \$7.51 per KW-mo with the inclusion of transmission being problematic. The ELCC Study uses 100 MW of combustion turbines as a proxy for avoided capacity whereas Xcel states that the avoided cost of \$7.51 per KW-mo is derived from a cross-section of all generation including nuclear, fossil, combined cycle, and peaking. (See SRRG IR No. 11) SRRG has already provided data on Xcel's avoided cost of combustion turbines along with the cost of avoiding essential transmission outlets plus 6% losses at the more realistic total avoided cost estimate of \$10.18 per KW-mo. Additionally, Xcel has recently reported in SRRG IR No. 14 that peak period avoided losses are actually 9.2%. This would increase the loss component in SRRG's initial comments filing from \$0.58 per KW-mo to \$0.88 per KW-mo thereby increasing the total avoided cost from \$10.18 per KW-mo to \$10.48 per KW-mo.

4. Web site for responses to questions

We recommend that Xcel set up a web site showing responses to all written IR's and other questions from all parties.

5. Next benchmark date

The Commission order does not include another benchmark date until October 1. Because Xcel will be providing alternate ELCC model runs and other relevant information prior to that date, SRRG requests that two intermediate dates be established for further review of additional information (one in late July and one in late August). SRRG suggests that Xcel file progress reports on or before the new intermediate dates and that stakeholders be given a period to respond. SRRG hopes to continue its dialog during this period to narrow and/or remove differences with Xcel.

Generally speaking, the process needs to; 1) establish reliable benefits of the electricity produced (corrections need to be made), 2) assess the value fixed costs in both energy and capacity charges (analysis needs to be done and corrections made), and 3) establish a reasonable rate that accounts for 1 & 2 (options need to be evaluated and discussions had).

Respectfully submitted,

/s/

Larry Schedin