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## SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

the new green

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May 24, 2007

Dusty Johnson, Chairman
Gary Hanson, Commissioner
Steve Lolbeck, Commissioner
South Dakota Public Utilities Commission
Capitol Building, 1<sup>st</sup> Floor
500 East Capitol Avenue
Pierre, SD 57501-5070

Re: Distributed Generation Interconnection

Dear Chairman and Commissioners:

We are very pleased that the Commission is considering the adoption of interconnection standards for distributed generation. We would like to commend the Commission for its good work with the waste heat-recovery pipeline projects and believe that you will give the same careful consideration to the interconnection standards.

One of the items our company considers in deciding whether to explore development opportunities in a particular state is whether that state has Commission approved interconnection standards. Recycled Energy Development, LLC (RED) develops energy recycling facilities by capturing industrial waste energy to produce electricity and thermal power, often without burning any additional fuel or emitting any additional pollution. RED substantially reduces the energy costs of industrial facilities, increases reliability, and offers the many additional benefits that are inherent in clean local distributed generation. (www.recycled-energy.com).

Distributed generation provides a number of benefits in that it:

- retains and creates local jobs and economic development opportunities;
- improves air quality by reducing carbon dioxide and criteria pollutant emission;
- increases system reliability both directly and indirectly in that distributed generation could support voltage levels and avoid outages and increases the diversity of power supply improving overall system adequacy. It also reduces the stress on the grid because it removes some of the load;

- reduces peak power requirements;
- diminishes the need for building more expensive central generation and associated transmission and distribution systems and thus offsets investments in generation, transmission or distribution facilities;
- diminishes the need for marginal transmission upgrades, thereby easing land use effects such as finding sites for transmission lines and right-of-way costs;
- reduces peak period line losses on the transmission and distribution grid; and
- reduces the vulnerability of a system to terrorism.

We urge you to adopt just and reasonable interconnection standards for all state jurisdictional interconnections irrespective of size. Charges should be cost based and consistent with "acceptable engineering practices" in order to ensure that interconnections are not "gold plated" and extraneous, unnecessary system upgrades are not added. Also needed is an expedited dispute resolution process. In addition, where other customers would benefit from an interconnection, we urge that the costs associated with such interconnection be recovered from the utility's rates. These measures will provide certainty, which in turn could bring deployment of distributed generation in South Dakota and along with it, the associated environmental, health and economic benefits.

Our principals have been intimately associated with interconnection proceedings in multiple jurisdictions, and while we recognize the need for each state to "cross the t's" as it develops its own standard, we also would point out that the heavy lifting has already been done, and South Dakota can substantially minimize its resource commitment to the process by adopting best-practices from other jurisdictions. We suggest a few guiding principles for your consideration:

- 1. Best-in-class standards rely on technical screens and include all state jurisdictional interconnections rather than size limits to determine interconnection eligibility. The Massachusetts standard is a model in this regard, where costs, timelines and fees are all established based on impacts on the grid rather than arbitrary distinctions based on generator size or technology. We would advise this template as the SD strawman.
- 2. The basic technical definitions for interconnection have already been well established, at least for radial grids where IEEE 1547 sets all relevant technical guidelines. Many states have devoted substantial effort trying to reinvent this particular wheel, but all have ended up largely adopting IEEE 1547 as the guiding technical standard. We would advise the same, saving resources for more urgent issues that lack technical consensus, such as interconnection on network grids.
- 3. The commercial aspects of interconnection are often more important than the technical definitions, since the costs, fees, timelines and other key commercial provisions have the greatest impact on project viability. We would urge the

Commission to carefully consider these issues, specifically making sure that fees and costs are just and reasonable for due diligence, and do not erect barriers to the deployment of clean energy in South Dakota.

- 4. In this vein, it is critical that the Commission establish an expedited and cost-effective dispute resolution mechanism, such that when disputes arise between the utility and the interconnecting customer as they surely will both parties have an avenue of recourse that ensures that the standard will be enforced.
- 5. Finally, we would urge consideration of an idea recently promulgated by the Washington state utility commission: namely, that a distributed generation installation which creates benefits for the grid should not have to pay for the costs of interconnection. This structure ensures consistency with utility investments that are spread across rate payers, and does not categorically discriminate between generators simply on the basis of ownership.

Thank you for your consideration and support of this important subject matter. We would be happy to discuss these issues with you and/or your staff in more detail if desired.

Very truly yours,

Sean Casten

President & CEO