

Clean Energy Resource Teams (CERTs) comments on the Renewable Development Fund (RDF)

One of questions posed in advance of this hearing dealt specifically with whether the Renewable Development Fund (RDF) law was still needed given the many federal and state laws and programs promoting renewable energy sources enacted since 1994. In our experience, this law is indeed still needed, and we respectfully submit this response to detail the value we see in keeping the RDF in place.

First and foremost, the RDF is one of the very few vehicles available to fund renewable energy development projects. There is still much more research, development and commercialization needed to advance deployment of renewable energy technologies and models – particularly in terms of on-the-ground pilot projects. CERTs works with communities around the State to connect them with the resources they need to identify and implement community-based clean energy projects. We have worked with projects utilizing biomass, solar and wind. While utilization of each of these technologies has grown over the past 17 years, much work still remains for Minnesota to fully capitalize on our resource potential and to harness the job potential associated with this growing global industry.

For example, Minnesota has a wealth of biomass resources, but we've yet to figure out how to effectively use the range of resources – wood and stover and grasses – in one system that can utilize *all* of these fuels. Furthering this type of applied research, and working to scale up pilot systems so that emerging technologies can reach commercialization is just the sort of project that would be a good fit for the renewable development fund.

In the solar arena, solar photovoltaic technology has been around for years, yet there are still many questions about how third party financing models might work in Minnesota, how community ownership structures can be utilized, how to cost-effectively deploy the technology on a neighborhood scale and manage the distribution grid in such a situation, how to best utilize hybrid energy systems, and how to best sync the technology with emerging smart grid, electric car, and charging station infrastructure. These are the sorts of questions that could be answered via projects accessing the renewable development fund's resources.

The Renewable Development Fund is still needed; indeed it is uniquely positioned to:

- **provide seed funding to experimental – but potentially high-impact – projects**, like the MinWind 1 MW wind energy battery storage system project outside of Luverne or the West Central Research and Outreach Center's wind to hydrogen to ammonia project in Morris.
- **accelerate commercialization of both large and small-scale renewable energy technologies** – from biomass feedstock studies to advance Koda Energy's use of biomass for their combined heat and power facility in Shakopee or SolarFlow's experimentation with a residential and commercial solar leasing program.
- **provide opportunities to test and evaluate emerging models** – including hybrid systems and storage systems – as was recently done with the West Central Telephone Company. The West Central Telephone Company recognized that it has a unique set of circumstances with remote

equipment that could be powered by renewable energy technology, and, that if proven, could be readily adopted by other telcos. Out of the project, West Central Telephone Company was able to develop a Minnesota-made monitoring system, test and verify small wind power production curves, develop a customized power cabinet, develop a telco kit, explore the feasibility of new business development opportunities, and launch a new business: Zenergy.

- **seed small-scale project that advance renewable energy at the community scale**, as we've done with CERTs' RDF funding in the past.

As our electric system transitions to a smarter, more dynamic grid, there will be a need for funds to catalyze small scale pilots, to test out hybrid-systems, to harness new technologies, and to stimulate new business opportunities on a variety of scales. While not every project will be a success, even those projects that fail can inform our businesses', communities' and researchers' next steps, next opportunities, and next paths for job creation. The Renewable Development Fund is a key resource to do this groundbreaking work. It is indeed still needed and indeed still holds the potential to catalyze both Minnesota's renewable energy development and Minnesota's associated renewable energy industries.

We encourage you to keep the Renewable Development Fund active and vibrant.

Respectfully,

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