# STATE OF MINNESOTA
# BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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| Leroy Koppendrayer | Chair |
| Ellen Gavin | Commissioner |
| Marshall Johnson | Commissioner |
| Phyllis Reha | Commissioner |
| Gregory Scott | Commissioner |

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| In the Matter of Establishing Generic Standards for Utility Tariffs for Interconnection and Operation of Distributed Generation Facilities under Minnesota Laws 2001, Chapter 212 | DOCKET No.: E999/CI-01-1023 |
| | June 27, 2003 |

## COMMENTS OF INNOVATIVE POWER SYSTEMS, INC.

We know that some of our comments may not pertain exactly to decisions to be made in this docket. We would like to offer them, however, to document some barriers that exist to the development of distributed generation from the point of view of a builder.

**In order to really promote distributed generation, the process established for obtaining an interconnection agreement has to work for developers and builders.**

We need to get away from the idea that the end user, such as the homeowner is the only one using this process. Retrofitting existing homes with distributed generation resources is not practical in many cases. It will much easier to install a substantial amount of distributed generation resources on new homes and other new facilities. New construction accounts for perhaps 90% of the potential for photo-voltaic installation. Often, developers and builders must make the necessary arrangements before any new homeowner or other end user has been identified. Therefore, the process needs to be streamlined for developers and builders.

**Timeline and paperwork**

Some homeowners with legal or utility backgrounds are able to complete the forms themselves and may have connections that allow their applications to be processed quickly. The average homeowner without a legal or utility background or connections may find the process intimidating and cumbersome, and may need help from the builder or developer to get through it in a timely manner. The state-wide uniform process designed with only the end user in mind does not work well for developers or builders.

The Department of Commerce's rebate programs are linked to having a signed contract between the utility and the homeowner. It can be difficult for a builder to get the documentation required for the rebate in a timely manner because the process expects an end user, who may not be identified until the facility is finished and ready for occupancy. We would like to see the Department's process be streamlined to permit builders and developers to file the initial paperwork so that interconnection agreements and rebate papers could be ready for end users to sign at closing.

The timeline allowed the utility for approval of the pre-application, application, and review of contract usually works out fairly well in parallel with the construction schedule. Sometimes it would be nice to be able to expedite the paperwork.

**Engineering studies**

Our experience is that, in general, the amount of power produced by our photo-voltaic and small wind installations is just too small for utility district engineers to worry about. Most of the systems we install are 2 kW or under. On one of our larger projects which has a nameplate capacity of 45 kW, the expected power production amounts to only 0.5% of the power consumption of the facility. This also is virtually negligible in terms of an engineering study. The energy supplied barely makes a "ping" in the local distribution system. Also, all the power conditioning equipment we use is UL listed, and therefore is already certified, and should require no further study.

Some utilities' area engineers have given us the impression that they do not know what they are looking at when they inspect a utility-connected RE system. This does not inspire confidence in us or in homeowners. Utilities' area engineers should get training in the technical basics of small RE systems.

While the cost of engineering studies has not generally been a problem for us, we would encourage the Commission to support limitations on the cost of engineering studies for small systems.

**Insurance**

One of the greatest barriers we encounter in developing distributed generation resources lies in obtaining insurance. While a home or building is under construction, the builder carries builder's risk insurance while the home is under construction. Homeowner's insurance takes over at closing.

Some providers of builders' risk insurance will not cover the liability associated with photo-voltaic or small wind facilities being constructed. Others will cover it but at high rates, as they are unfamiliar with this type of installation. The rates are sometimes high, not because the risk is high, but because the risk is not well-characterized. The builder needs this insurance as soon as a photo-voltaic or wind system are connected to the grid. Some homeowners' insurance companies will not cover liability. Getting insurance to cover the risk of damage to neighbors or utility infrastructure can be difficult. As in some other situations where the market does not function well for the public good, there is potential for a government-sponsored remedy. An example of this is the program under which Minnesota building contractors are licensed, administered by the Department of Commerce. A builder's annual licensing fee includes a contribution to a pooled account which is used to cover non-performance. This eliminates the need for each contractor to obtain bonding. The state could create a pool of money, gathered by yearly contributions from participants, which would cover participants' liability in case of any damages related to correctly installed and maintained RE systems.

In the meantime, it would be helpful to have an exemption from insurance requirements for small projects.

**Equitable payments for photo-voltaic systems**

There is a fairly strong correlation between the times of peak demand and the production of power from photo-voltaic systems. This relationship is intuitively obvious: photo-voltaic systems produce power in the daytime, peak demand occurs almost always in the daytime, and photo-voltaic systems produce most on clear summer days which are also likely to coincide with peak demand for electricity. Documentation and quantification of this relationship is being developed now.

We would like to see photo-voltaic systems be rewarded for their performance at peak times with rates that reflect the value of the power they add at times of peak demand.

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