**November 15, 2002**

**TO:** **Distributed Generation Working Group on Tariffs**

**FROM:** **The Minnesota Project**
**The Institute for Local Self Reliance**
**The Izaak Walton League of America, Midwest Office**

**RE:** **Comments on Department's Proposed Calculation of a Base Tariff for Distributed Generation**

In response to the Nov. 5th request from the Minnesota Department of Commerce (DOC), we are submitting joint comments on the DOC proposal for the calculation of a base tariff for distributed generation (DG).

## The Department's proposal for calculating an energy component of the tariff

1. *We agree with the basic calculation method.*
   The energy value of DG should be based on what it costs the utility to add the next increment of power to the grid. This is captured by averaging "system-wide hourly marginal cost… for each hour of the future year" for on-peak and off-peak periods.

2. *We slightly prefer "Option B" to "Option A" as outlined in the Department's memo.*
   The closer the tariff can come to reflecting real-time pricing, the better. We believe that "Option B" is better for this reason. The difference in "Option A" and "Option B" is in the time frame that on-peak and off-peak are calculated. "Option A" calculates a seasonal rate for on-peak and off-peak; while "Option B" calculates a monthly rate for on-peak and off-peak energy. Because "Option B" has a greater number of time periods, it more closely resembles the actual cost of energy to the utility, and comes closer to sending the right price signals to the DG generator.

3. *There should be a true-up.* Whether the tariff is calculated on a seasonal basis or on a monthly basis, it should include a true-up (similar to the fuel clause adjustment payments). This ensures that the tariff would most accurately reflect the actual costs to the utility of providing generation. Even if the tariff is calculated on a monthly basis, there will be mistakes in the forecasts for calculating the tariff, which should be rectified with a monthly or annual true-up.

**Setting a capacity value for DG**

4. *DG generators should always receive a capacity value for their generation, even if a utility is not planning on adding capacity for a number of years.*

   The standard to determine whether or not a utility needs capacity should not be whether or not a utility plans to add capacity through building a central-station power plant or other means. Electricity demand has risen steadily over time since the invention of electricity; utilities on the whole have needed to add capacity to meet that demand; and DG resources should be compensated for their contribution to meeting that demand.

   In any given moment of time, a particular utility may not have plans to add capacity, but this is because the traditional model for adding capacity is to add it in large blocks, rather than incrementally. One large central station power plant, or a large contract for providing capacity may meet the utility's need for capacity for 10 years.

   In the past, utilities actually overbuilt their capacity from what was necessary to meet demand, and there was a long period of time in Minnesota during the 1970s and 1980s when no capacity was needed. Had there been a way to add capacity more incrementally instead of in large units, Minnesota consumers might have benefited. And yet, if we only offer DG generators capacity payments when the utilities' planning documents call for it, DG generators wouldn't receive a capacity payment for their additions. Minnesota laws, chapter 212 clearly specifies the tariff should promote DG. DG resources should not be penalized because the current method of planning fails to account for incrementally adding capacity.

5. *The calculation for the capacity value of energy should include all possibilities for adding capacity.*

   Capacity can be added as baseload, intermediate, or peaking. The capacity value of DG should reflect the cost of adding each of these types. It is proposed that baseload capacity costs be costs of a new coal plant, intermediate is combined cycle natural gas, and peaking is a natural gas combustion turbine. To reflect each utility's actual situation, a weighted average could be taken, depending on how much capacity each utility has in baseload, intermediate and peaking.

6. *The length of contract should not impact the DG capacity value.*

   Normally a utility, if it enters into a long-term contract to purchase large amounts of capacity, can be assured of having that capacity available when needed. It is our understanding there is concern that capacity provided by a DG generator is of less

value to the utility, because the utility cannot be assured of having that capacity in years to come, and there is no long-term contract that includes penalties for not providing the capacity that is promised.

DG by its nature includes many sources, any one of which has a negligible impact on the grid. New DG sources will constantly be added to a utilities generation portfolio, and some existing DG may stop generating. The whole portfolio of DG sources will be much more stable and predictable that the behavior of any one source, and thus there are benefits to having many DG sources as opposed to a few.

This is very similar on the demand side to the behavior of an individual customer. An individual customer's load profile has incredible amount of fluctuation, and it would be hard and very inefficient for a utility to plan its generation around that load profile. Fortunately, when you aggregate the load profile of thousands of customers, it becomes very predictable. Utilities would not penalize a customer if they went on vacation for a year and didn't use any electricity for that year, because the individual's impact on the total demand profile is negligible.

The same logic applies to DG generators. DG contracts should not be compared to the long-term, firm contracts that utilities enter into for large amounts of generating capacity. The impact of an individual DG generator that goes off grid will be negligible compared to the entire grid, and compared to the DG network of generation on a utility's system.