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Date: 3/8/2009 12:23 PM
Subject: WAPA Transmission Infrastructure Program

Transmission Infrastructure Program:

Adding to an already ugly and environmentally destructive centralized grid is the wrong way to go. The moneys allocated for energy infrastructure in the Financial Recovery Act, section 402 can be better spent. By far the better solution for America's electrical energy needs is local distributed renewable generation facilitated by advanced renewable feed-in tariffs.

The dispersed or distributed generation system is better in any number of ways; here are some of the more important ways:

1. *Public Interest*:

- a. While distributed generation may cost more initially in the financial sense, it costs a great deal less in terms of environmental and quality of life issues. Let's face it, hundreds of miles long transmission lines and the huge generators they connect with load have huge environmental footprints, and they are just plain ugly to look at. Distributed generation can be added, in dual-use fashion, to existing or new construction so as not to require any further visual or environmental damage.
- b. While additional high voltage transmission lines may be built in existing rights of way, many will require new right of way, which will require a great deal of damage to visual resources and ecosystems. One hundred miles of 500 kV conductor, for example, requires approximately 3600 acres of additional right of way, which will have to be cleared of trees and brush. Moreover, the notion that many lines can be built in existing corridors is deceptive in that rights of way will nevertheless have to be expanded to accommodate the new conductors, which is tantamount to building new right of way.
- d. In connection with advanced renewable feed-in tariffs, local distributed renewable generation provides many more local business opportunities and jobs than the centralized model. This system works very well in Germany, which has over fifty percent of the world's rooftop solar. If solar PV can work so well in Germany, it can work in the American West, which has a great deal more sunshine than Germany.

2. *System Reliability*: The centralized model puts all of its eggs in lots fewer baskets and is therefore more vulnerable to large-scale system outages. Small generators of less than one MW can be tied directly into the distribution system providing lots more work-arounds in case of outages. Outages will be much shorter and smaller in scale.

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