

## **Commercial Solar Power interests and PSCO's "Solar Power Penalty"** *Derailing One of Our Best Renewable Energy Solutions*

[Linked online for Denver Post on 8/4/09; link removed on 8/5/09 after Xcel withdrew its proposal. I also was interviewed by Mike Lampe from NPR for this story, but the interview was not aired because Xcel withdrew the proposal.](#)

By K.K. DuVivier

The Stimulus Package passed by Congress in February included almost \$80 billion for renewable energy, energy efficiency, mass transit, updating the electrical grid and research. Secretary of Interior Ken Salazar has made production, development, and delivery of renewable energy one of his department's highest priorities. But the government's focus on using public lands for power generation is not the best solution for our solar energy needs. There is a better way.

Just some of the unresolved hurdles we face in developing our solar resources on public lands include the aesthetic concerns about commercial-scale projects that drive the development into remote areas, far from population centers. And billions must be invested in new transmission and distribution line infrastructure to bring the power generated at these remote transmission sites to where it is needed. Recently, energy entrepreneur T. Boone Pickens announced he was delaying construction of the largest proposed wind farm in the country because transmission lines are not available.

To build those lines, right-of-way corridors would have to be established for the new transmission and distribution lines, sparking land use battles and costs for condemnation. And we lose power along every mile of the journey electricity must travel from the remote generation sources to the point of use.

The problems continue. Consider water scarcity, especially in the arid West. Commercial-size concentrated solar power technologies require significant amounts of water for electricity generation.

And once public lands are dedicated to virtually perpetual renewable energy uses, such as solar arrays, it will be difficult to reconcile alternative multiple uses of these same lands for other resources or recreation. Wildlife habitats would be irretrievably disrupted or destroyed, as covering acres of land with solar panels will fundamentally change even the most desolate of natural environments

But we need only look in our own backyards for an alternative that avoids all of these concerns: grid-connected, roof-top solar panels. When solar panels are distributed on existing roofs in developed areas, the aesthetic impacts are dispersed and on private land often not visible to the public. There would be no need to construct miles of new infrastructure—the distribution lines are already in place. And because no new transmission infrastructure is required, the cost of condemning any new rights of way is

saved, and there would be no significant loss of power over distance as the power is generated exactly where it is needed—in population centers.

In contrast to commercial-scale concentrated solar systems that employ steam for electricity generation or storage, roof-top solar panels do not require water to generate power, and the panels can be placed on existing roofs; in fact they can reduce cooling costs and provide additional benefits to the property owner by blocking sun absorption from a traditional roof or by shading a parking garage.

Finally, we do not need to worry about destroying natural habitats because civilization has already done this in the developed areas.

We live in a state that has been a leader in recognizing the value of distributed grid-connected solar power. Colorado citizens passed the first voter-approved Renewable Portfolio Standard in 2004, and our RPS included a mandate for four percent solar-electric generation with at least half located on-site at customer facilities. Excel Energy, which opposed the initiative, now is promoting itself as a national leader in renewable energy and is using the back-up capability of distributed solar as a key component of its Smart Grid in Boulder.

However, Excel's subsidiary, Public Service Company of Colorado, will be arguing before the Colorado Public Utilities Commission Wednesday, Aug. 5, for a rate change that could devastate Colorado's grid-connected distributed solar industry and put us behind for years. More details may come out at the hearing, but the "solar penalty" PSCO is proposing would impose a "minimum monthly charge" or connectivity fee based on a solar customer's highest monthly use. Not only does the penalty discourage conservation, it would disrupt the delicate financial balance that nurtured the recent bloom of distributed solar in Colorado.

*K.K. DuVivier is an Associate Professor and Director of the Environmental and Natural Resources Law Program at the University of Denver Sturm College of Law. She and her husband, Lance Wright, have solar panels on their net-zero, micro-load home in Denver but would not be impacted by the proposed PSCO solar penalty.*