

Modesto Irrigation District (MID) appreciates the outreach efforts of DOE/Western on this initiative, and the chance to offer the following comments.

Background on MID:

1. We buy a small amount of power (4 MW for our peak load of 650 MW) from Western Sierra Nevada Region. MID is partners with SMUD, Roseville and Redding in the Balancing Authority of Northern California, and MID connects to its entitlement to the California Oregon Transmission Project (COTP) at its southern terminal, which is the Western Tracy substation.
2. We are registered for 9 reliability functions with NERC: RP, LSE, DP, PSE, TO, TOP, TPL, GO, GOP
3. MID has 115,000 retail electric customers, 3000 irrigation customers, and provides treated water for the City of Modesto.
4. We have 450 MW of local generation, both gas fired and diesel, and a 60 MW share of the 200 MW Don Pedro hydroelectric project which we share with Turlock Irrigation District.
5. MID's power supply is 28% green, with the majority being wind, plus a 25 MW solar PV plant in our territory; the majority of wind resource is imported from BPA, over MID's 300 MW share of the COTP, with the balance being imported from the CAISO in the Sacramento Delta area.
6. We recently completed installation of 50 MW of gas fired Wartsila reciprocating engine generators, to provide peak power and to provide flexibility to integrate intermittent renewable generation
7. MID is a 30 MW participant in the Northern California Power Agency (Lodi Energy Center) combined cycle gas fired power plant, which is scheduled for completion in October 2012; the 300 MW LEC plant is expected to be one of the most efficient, fast, and flexible gas fired generators in California, to help integrate intermittent supply in to the grid.
8. MID completed installation of advanced metering infrastructure (AMI) on all of its retail customers in 2011.
9. We are the utility host for Primus Power's flow battery storage project, which is funded by DOE, the California Energy Commission, and venture capital

Comments:

You might be able to pick out the theme of MID's comments from the background items above...

1. Studies so far have overstated what the existing hydro generation and other existing generation can provide in the way of flexibility to help integrate more intermittent green power: We operate a 2 Million acre foot storage hydroelectric dam with TID. It is no where near the scale that USBR-Western operate. However, we have been aggressively adding green power, the cheapest of which is intermittent, and have found that our hydro supply is less and less flexible and capable of helping to integrate the green power. We believe our hydro system is characteristic of most -- to meet the increasingly competitive demands of flood control, irrigation, domestic, environmental, fish flow, generation and recreation, the flexibility of the hydro system is being squeezed out.

We have had to invest in the \$75 M wartsila reciprocating generator and a \$42 M share of the Lodi Energy Center, partly because our Don Pedro capacity can't be run flexibly anymore.

Our comment is that it does not appear that the modeling of existing capacity in WECC, that would be "freed up" to more cheaply integrate additional intermittent green power really has captured the constraints on that existing capacity. The modeling issue comes up in two ways: (a) NREL-DOE haven't provided enough detail; and where there is some detail, it seems there are basic errors, like including far more transmission than exists today or that might reasonably be built soon.

2. The Future of The Grid vision needs to include a reliable, practical, available technology, like gas fired generation, to get from the current grid to the future grid. There seems to be very little emphasis on permitting, building, and construction of flexible gas fired generation, to complement the advanced integration tools like demand side management as reserves, or the deployment of an energy imbalance market, or new storage technology. In the outreach meeting pre-meeting materials, Secretary Chu's memo and so forth, it looks like the emphasis is exclusively on a carbon-free pathway to modernizing the grid and integrating intermittent green power.

MID's comment isn't that the future vision is wrong, it is that there's not much mention of a sure-fire bridge to get from the existing grid to the future grid. It seems clear to us that the gas fired generation needed for more intermittent integration doesn't have to be 1 MW for 1 MW, but it should be featured at some level.

3. DOE should adopt a cost-causation principle for the new integration costs, like the gas fired generation mentioned in 2. above: Load serving entities are the group out getting green power, either because state law mandates it, or the green policy is set by a local authority. Intermittent green supply is clearly the low cost green supply, whether it's wind or PV.

Intermittent green power plant developers don't get financing, in large part, unless they hold an executed power purchase agreement...there aren't nearly as many intermittent green power plants built on speculation as there were gas fired generation plants. So the question is, shouldn't the combination of LSE looking for green power, and green power project developer bear a large portion of the cost necessary to integrate the plant in to the grid?

MID thinks they should bear a large portion, and our parochial interest is that we have made those investments, and don't want to pay to integrate others' new intermittent green supply.

4. DOE Should Adopt The Principle of Deference to The State, When The State Has A Much More Aggressive Program Than That Posed By The Federal Government: California has mandates on green power, greenhouse gas reduction, no investments extending the life of coal fired power plants, energy efficiency, demand side management, electric storage, net metering, feed in tariffs, and a solar PV subsidy requirement. Many local authorities like MID meet the state mandates and by local authority, choose to go beyond. Most of the components in the DOE initiative are items we are already pursuing or have in place.

In our other regulated operating venues, like the Environmental Protection Agency and Occupational Health and Safety, if the state or local regulatory agencies have more stringent regulations, then the federal counterpart defers to regulation by that state or local entity. Our examples are the EPA deferring to the San Joaquin Air Pollution Control District, and the federal OSHA deferring to Cal OSHA.

MID recommends that DOE consider adopting a principle of deference as part of the implementation plan.

We would like to thank you again for the outreach effort, and for the chance to provide our comments

Roger VanHoy
Assitant General Manager Electric Resources
Modesto Irrigation District
(209) 526-7464
ROGERV@MID.ORG