

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Integrate
and Refine Procurement Policies and
Consider Long-Term Procurement Plans

Rulemaking R-12-03-014

**COMMENTS OF THE GREEN POWER INSTITUTE
ON QUESTIONS POSED AT THE PREHEARING CONFERENCE**

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Pursuant to the *Assigned Commissioner and Administrative Law Judge's Ruling Regarding Track II and Track IV Schedules*, dated September 16, 2013, as modified by an email from ALJ Gamson dated September 25, 2013, granting a one-day extension to file Comments, the Green Power Institute (GPI) respectfully submits this *Comments of the Green Power Institute on Questions Posed at the Prehearing Conference*, in R.12-03-014, the **Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans**. The ALJ posed a series of questions at the September 4, 2013, PHC. Our *Comments* address the final question posed: If a party recommends a preferred resource or storage, how do the attributes of those resources meet LCR needs?

California energy policy has a clearly established loading order, which represents the state's priority ranking for selecting resources to fill needs. Track IV of the 2012 LTPP proceeding is charged with identifying the LCR needs in Southern California due to the permanent closure of San Onofre, and, if appropriate, authorizing the procurement of new generating resources in the area. Any procurement authorization should honor the state's loading order, and make maximal use of preferred resources. In these *Comments*, we focus on renewables and storage.

The region of interest in Track IV is highly urban and limited in extent, with the result that only a limited range of renewable resources and technologies are reasonable candidates for consideration. In the opinion of the GPI, the most likely renewables include PV up to 50 MW in capacity, and small bioenergy generators (biogas and biomass). It might be technically feasible to develop some onshore or offshore wind in the region, but the permitting hurdles would appear to be formidable.

It is likely that PV installations in the region will be split between urban, rooftop-type installations, and large, ground-mounted arrays sited in strategic locations. While PV generators are inherently intermittent, the Track IV LCR region in general has a strong solar resource, especially during periods of peak heat and demand. We have already accumulated a good deal of operating experience with systems in the region, so it should be possible to determine how reliably PV generators can provide power in periods of need based on solid data. It is likely that the reliability will be greater for larger, strategically-located installations than for urban rooftop installations. Credit should also be given for geographic dispersal of the installations, wherein the reliability of the collection is greater than the reliability of a single installation operating alone.

While large (10 – 50 MW) biomass generating facilities are unlikely to be developed within the confines of the Track IV region, small biogas and biomass generators have to be given serious consideration, particularly as a result of the recent passage of SB 1122, which mandates that 250 MW of small (up to 3 MW) biogas and biomass generators be developed in California. Small biogas generators can improve the environmental performance of landfills, waste-water treatment facilities, and dairies in the region. Small biomass generators can contribute to wildfire-risk reduction efforts within the region and beyond the confines of the region (with residues trucked in), by providing a productive-use outlet for the residues produced. Wildfire risk is obviously a huge problem in Southern California, not only as a general issue, but specifically for the power grid.

Small biogas and biomass generators are not intermittent resources. These facilities should be able to operate at equivalent reliability levels to fossil-fired generators, and as a result, they should be given equivalent capacity credit. PPAs in the existing programs under the umbrella of the Commission's RPS program do not reward generators for the provision of any kind of grid-operating service, with the result that in current practice, the generators do not provide these kinds of services. Fixing this situation will require coordination between the LTPP proceeding and the RPS proceeding. Implementing SB 1122 is a considerable challenge, given the marginal economics of small bioenergy

generators, and if they can be given credit for location in the Track IV LCR region, and additional credit when appropriate for supplying grid-operating services, that might be enough to allow these kinds of systems to be developed.

Energy storage systems are not included in the state's loading order, but the Commission has already determined that they should be treated as equivalent to preferred resources. Storage represents a broad category of technologies with a variety of capabilities, but for purposes of providing value within the context of Track IV, energy storage systems can, in effect, extend the capacity of the transmission system to supply outside power to the region by allowing the power to be brought in during hours when the wires are not being used at their capacity, and injected in the system later when the wires are operating at capacity. Thus, for purposes of assigning LCR credit to energy storage systems, both the capacity (MW) and duration of the system has to be taken into account. Storage systems generally operate with high reliability, and many kinds of storage systems are capable of providing a variety of grid-operating services.

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Respectfully Submitted,



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