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<b>DOCKET</b>	
<b>11-IEP-1N</b>	
DATE	
RECD.	APR 29 2011

Subject: Docket Number 11-IEP-1N "Energy Storage for Renewable Integration"

Commissioners:

The Workshop resonated with a consistent theme – "Show us the price signal!" It is clear that manufacturers of various technologies recognize that government sponsorship of energy storage is at best a tenuous situation for a known, yet relatively unquantified and emerging problem in managing the grid.

The clearest message from the Workshop is that the CEC and the CPUC, working with the CAISO, must develop a synchronized rate structure so that, from the end-use consumer to the generator, all participants see the consequences and benefits of their respective roles of producing, managing, and consuming power. Each element of the supply chain must see a clear price signal for timely and efficient systems development.

RBI operates two small utilities encompassing about 500 loads in 20 districts, totaling about 135 MW, ranging from 50 KW to 15 MW in maximum demand. Present rate structures and programs for demand-side management do not provide nearly enough incentive to participate in demand-side management programs – yet, these are the least costly alternatives. These programs presently show only hourly energy benefits, rather than passing through the avoided cost of peaking generation. Additionally, a recent pump-storage facility showed the return on investment was only 50 percent of the incremental cost based on projected ancillary services markets.

Production-cost simulation of the grid with 33 percent renewable/intermittent energy resources is critical to the development of a stable grid at the desired level of renewable resources. But static modeling under the existing paradigm of rate structures, both at the consumer and producer levels, will not accurately reveal the needed resources.

The consumer must see the marginal cost and benefit of hourly energy use and the vagaries of load. The producer must not be paid for intermittent production as if it were fully modulated over a month. Subsidizing the intermittent producer obfuscates the value of the energy produced, generating both an energy balancing problem and the financial problem of paying for a product not received.

Clear market-based price signals will both drive and limit the demand for as-needed energy storage.

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