



March 24, 2010

California ISO Board of Governors
Mason Willrich, Chair

Re: Beacon Power Corporation
March 25th Board Meeting: Non-Generator Participation in A/S Markets

Dear Chair Willrich and Members of the Board of Governors:

I am writing to express Beacon Power Corporation's concerns about an item on your decision agenda for the March 25th CAISO Board meeting – Non-Generator Participation in Ancillary Services (A/S) Markets.

Beacon Power, a leading provider of frequency regulation services using an innovative flywheel-based energy storage technology, has actively participated in FERC proceedings pertaining to the Commission's directives that non-generators be allowed to provide regulation services on a comparable basis with generators. Similarly, we have actively participated in CAISO's stakeholder initiatives to design tariffs that would ensure CAISO's adherence to FERC's mandates.

As a Limited Energy Storage Resource ("LESRs"), Beacon Power is capable of providing Regulation service. In fact, CAISO certified such in 2006, after Beacon Power completed a 12-month Regulation pilot demonstration in CAISO. Moreover, Beacon Power already provides Regulation in the New England ISO market and is developing a 20-MW flywheel energy storage plant in New York.

Beacon Power's flywheels, as well as other LESRs (such as batteries), are ideally suited to provide Regulation Service. For example, using a 25kWh/100kW flywheel system, Beacon Power's technology can respond nearly instantaneously to an ISO control signal, or up to one hundred times faster than traditional generation resources. Flywheels speed and precision of response will enable CAISO to improve its control performance by systematically and precisely correcting imbalances. Moreover, unlike generators that consume fossil fuel, LESRs recycle existing power (*i.e.* storing it when supply exceeds demand and re-injecting it when demand exceeds supply) thereby lowering its operating costs to provide regulation and benefiting the environment by producing zero direct CO₂ greenhouse gas emissions. Allowing LESRs to participate in the Regulation market will provide California ratepayers with a low cost, environmentally friendly method to reliably regulate the grid.

Unfortunately, even though the current proposal to integrate Non-Generator resources into A/S markets is literally the fourth CAISO initiative to examine participation of energy storage in CAISO markets, it again falls short of removing the barriers to LESRs participation in the Regulation market that is required by FERC Order 890. Specifically, in its March 17th memo to the Board, CAISO's staff recommends approval of modifications to existing operating and technical requirements that it claims will allow participation of flywheels and batteries in the DA and RT Regulation market. However, the proposal precludes Beacon Power, and other LESRs, from *economically* operating in the market, since it

requires an energy storage capacity of 60-minutes to participate in the DA market and 30 minutes to participate in the RT market resulting in LESRs only being paid a fraction of the Regulation capacity it is technically capable of providing.¹ Thus, the proposed tariff modifications will act as a barrier to Beacon Power's participation in the Regulation market, in contravention of FERC Order 890.

Initially, the CAISO staff had proposed a Regulation Energy Management (REM) mechanism, whereby LESRs would be awarded regulation based on fifteen minutes of energy production. Staff proposed such an option after it recognized that LESRs cannot economically participate in CAISO's Regulation markets without a REM-type energy management procedure similar to those approved by FERC and implemented by the NYISO and Midwest ISO (MISO).

At the time, CAISO staff believed (as we do) that the REM was simply a way to manage energy to enable LESRs to provide continuous Regulation at the maximum level. However, certain invest-owned utilities now contend that providing Regulation using the REM option is a separate product from the Regulation provided by generators. Because the objection was raised late in the stakeholder process, after the CAISO staff and other parties had invested considerable time and effort to develop the REM option, there was no time for Beacon Power or other LESRs to clarify that Regulation enabled by an energy-management procedure provides the same service to the customer as Regulation without such an option.

CAISO staff has promised to review the REM again in a broad initiative to consider the need for new A/S products. However, this would likely result in additional considerable delays in deploying storage in CAISO markets, because the prerequisites for such an effort are likely to take longer than stated in the CAISO Management memo.

CAISO's memo to the Board states that the new initiative will begin in "late spring," after issuance of 20% renewables-integration studies in "late March 2010" and of 33% renewables-integration studies in "mid-late spring." Issuance of these studies has been postponed numerous times over the last several months, and there is no guarantee that these deadlines will be met.

Moreover, the CAISO has promised that those studies, which to date have only involved a small select study group, would undergo a public stakeholder process to allow input and comment from stakeholders as a whole. Definitive work on how to meet CAISO operating needs in the future will be difficult if the work to define those needs is not yet complete.

Finally, as noted above, FERC has already found that Regulation provision using a REM-type procedure is not a separate product. Thus, it would be unfair to defer consideration of the issue further to a process that will consider entirely new products.

Our preferred position here is that the Board direct CAISO management to include the REM option in the proposal filed at FERC as a result of your decision at the March 25th meeting. However, we are realistic – the Board rarely changes Management proposals, and you may be uncomfortable addressing such a technical issue in this forum.

¹ All flywheel and battery LESRs currently certified and/or providing Regulation in ISO/RTO markets are designed to operate at maximum charge from a fully discharged state or at maximum discharge from a fully charged state for a maximum of 15 minutes.

Instead, we are asking only that you direct Management to continue discussions about the REM as a continuation of the current initiative, with a possible supplement or new filing reflecting those discussions after the filing of the current proposals, and not defer the issue to the new-product review. This compromise would allow the possibility of filing and implementing a REM option, and truly facilitating LESR entry into CAISO markets, long before results of the new-product review will likely be available.

Beacon will be represented at the March 25th CAISO meeting and would be happy to address any questions you might have at that time.

Sincerely,

BEACON POWER CORPORATION

By:

A handwritten signature in blue ink that reads "Judith F. Judson". The signature is written in a cursive style with a long horizontal flourish at the end.

Judith F. Judson

Director, Regulatory and Market Affairs