From: Jeff Cook-Coyle [mailto:jeff.cook-coyle@demand-energy.com]

Sent: Tuesday, September 20, 2016 5:30 PM

To: Initiative Comments < Initiative Comments@caiso.com>

Cc: amorris@storagealliance.org; Erick Petersen <epetersen@demand-energy.com>; Doug Staker

<doug@demand-energy.com>

Subject: Demand Energy Networks Response to ESDER Phase 2 Questions from September 13, 2016

< EXTERNAL email. Evaluate before clicking. >

Demand Energy Networks, Inc., participated in the September 13, 2016, ESDER Phase 2 meeting held by CAISO. At the conclusion of this meeting, CAISO sought input into the four questions listed (in bold) below. Demand Energy Networks' response is in italics.

Demand Energy Networks would welcome a program where NGRs bid into the day ahead market as follows:

- Start time
- Stop time
- Generation (kw)
- Price

It is the responsibility of the resource bidder to maintain an NGR which can bid into the market according to the ISO's requirements, and will perform reliably. This approach places responsibility for operating and maintaining the NGR squarely where it should be: as the responsibility of the generator.

Questions need to be answered for all resource types:

- Do the resources have qualifying limitations that cannot be optimized in the model? No.
 - 1. Energy storage should not be considered "use-limited" by exogenous factors.
 - 2. Any limitations (on total energy, cycling depth, cycling frequency, etc.) are the responsibility of the resource owner to factor in to the bid price.

- Can the resource have commitment cost bids in the market?

Commitment costs <u>should</u> be included in the bid by the NGR resource operator. It is not necessary to treat them differently.

- Given a qualifying limitation on MWh, is the resource subject to bid mitigation? Not as described above.
- Pre-requisite discussions/questions for NGR:
- What are the limitations for NGR and can they be reflected in the market optimization?

The only limitation that we can see is for wholesale charging energy. Otherwise, the limitations for NGR ((on total energy, cycling depth, cycling frequency, etc.) can be included in market optimization. It is the responsibility of the resource owner to include these in their bid.

- What are the costs for NGR and should/how would they be reflected in the market?

All resources have costs associated with their deployment, but they do not receive special treatment in the market. NGR should be no different.

Respectfully,

Jeffrey Cook-Coyle, Certified Demand Side Manager Senior Sales & Service Program Manager Demand Energy Networks, Inc. Take charge.

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