Update on Options for the Design of Proxy Demand Resource (PDR)

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Demand Response Stakeholder Conference Call
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Demand Response Stakeholder Call Agenda

10:00 – 10:15	Discuss plan for upcoming meetings and board decision
10:15 – 11:00	Review PDR options, examples and pros and cons
11:00 – 11:15	PDR proposal and recommendations
11:15 – 12:00	Q & A Session

Direct Participation of Demand Response Resources Introduces Unique Challenges

FERC Order 719 requires that ISOs permit a DR aggregator to bid demand response on behalf of retail customers directly into the organized energy market

Sampling of Issues Currently Under Review:

- Relationships between different entities: LSE, Curtailment Service Provider (CSP), Retail Customer?
- roles and responsibilities of the LSE, CSP, etc.
- CSP registration process and requirements
- metering responsibilities of LSE and CSP
- settlement rules between the LSE and CSP?
- How are customer migrations tracked and impact on the resource?
- What M&V protocols need to be developed and implemented?

Market participants raised concern that more time is needed to address PDR design and impacts of direct participation

Board Decision moved from March to May to allow more time for stakeholder process

- March 5 – Straw Proposal
- March 12 – MSC Meeting
- March 19 – Stakeholder comments due
- April 8 – Draft Final Proposal posted
- Week of April 16th – Stakeholder Conference Call
- Week of April 20th – Stakeholder comments due
- May 18 – 19 Board of Governors Meeting

Three options for PDR design were discussed at January 15 Stakeholder Meeting

- PDR Option 1
  - Settlement with LSE at Default LAP
  - LSE Day-Ahead Schedule adjusted for Day-Ahedad cleared PDR
- PDR Option 2
  - Settlement with LSE at Default LAP
  - All settlements in Real-Time through uninstructed deviation
- PDR A – developed by stakeholder working group
  - Settlement with CSP at Custom LAP
  - Baseline used to determine performance of PDR

ISO worked with stakeholder working group to refine PDR proposal

- Worked through examples of all three design options
- Determined pros and cons of each option
- Reviewed gaming concerns and settlements impacts
- Further review of gaming concerns at MSC meeting

Example 1- Perfect Compliance by PDR Resource

	PDR 1	PDR 2	PDR A
LSE Day-Ahead Demand Schedule			
LSE Cleared Day-Ahead Schedule	10	10	10
Adjustment	-1		
Adjusted Schedule for Day-Ahead Energy	9	10	10
CSP's Operation in Day-Ahead Market			
CSP's Cleared Demand Bid Day-Ahead	-1	-1	-1
Settlement to CSP			-1
CSP's Operation in Real-Time Market			
Cleared demand reduction Real-Time	-1	-1	-1
Settlement to CSP			-1

Example 1 – Perfect Compliance by PDR Resource Cont.

	PDR 1	PDR 2	PDR A
LSE Final Metered Demand			
Meter Read	8	8	8
Settlement to LSE			
Uninstructed Deviation	-1	-2	See Below
Calculation of UIE for PDR A			
LSE's Original Day-Ahead Schedule			10
Actual PDR (Baseline – Meter Reads)			-2
LSE Adjusted Day-Ahead Schedule			8
Actual Meter Read			8
Uninstructed Deviation			0

The major negative issues identified by the working group with the three PDR options are:

	PDR 1	PDR 2	PDR A
Negatives	▪CSP benefits accrue to benefit of LSE ▪Need to allocate PDR specifically to each LSE for settlement and scheduling ▪Dispatch price and settlement price at different locations ▪No measurement or visibility of DR performance	▪Paying real-time price for Day-Ahead dispatch ▪CSP benefits accrue to benefit of LSE ▪Dispatch price and settlement price at different locations ▪No measurement or visibility of DR performance	▪ linkage between LSE and CSP needed for adjustment of settlements ▪Need for baseline adds complexity ▪Performance requirements may need to be imposed to avoid gaming concerns ▪Meter data required at customer level for CAISO settlement

The major positive issues identified by the working group with three PDR options are:

	PDR 1	PDR 2	PDR A
Positives	▪Adjustment to LSE schedule is Day-Ahead ▪No Baseline ▪ LSE is compensated at Day-Ahead price for Day-Ahead curtailment ▪Settlement flexibility between CSP and LSE	▪No linkage between CSP and LSE needed for settlement and scheduling ▪Simple implementation ▪No baseline ▪Settlement flexibility	▪CLAP dispatch paid at CLAP price ▪DR benefits accrue to CSP ▪Motivates DR into high priced areas ▪Measurable and visible performance based on baseline ▪PDR A more aligned with FERC order

ISO Proposes PDR A for implementation in Summer 2010

- Baseline calculations will need to be developed
- Other issues around direct participation will be resolved through the stakeholder process
- ISO will seek input from MSC as to whether or not a good baseline methodology will resolve gaming concerns or if additional performance requirements are needed
- Initial implementation analysis indicates that all requirements will need to be complete by Sept 1, 2009 for May 1, 2010 implementation

The next steps in the stakeholder process to work towards implementation in summer 2010 are:

- ISO will provide a firm, detailed meeting schedule to meet 9/1 goal
- Stakeholder process to define and resolve issues around direct participation as they pertain to PDR and DDR will begin in March