California ISO

Decision on expanding metering and telemetry options (distributed energy resources provider)
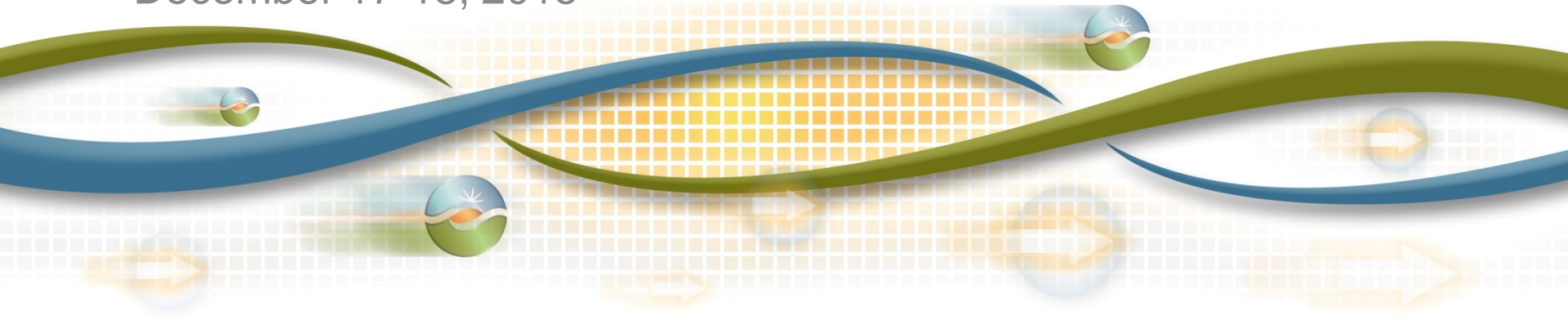
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Storage & Distributed Energy Resource Policy Manager

Board of Governors Meeting

General Session

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Limitations are needed on aggregations across multiple pricing nodes to maintain ability to manage congestion

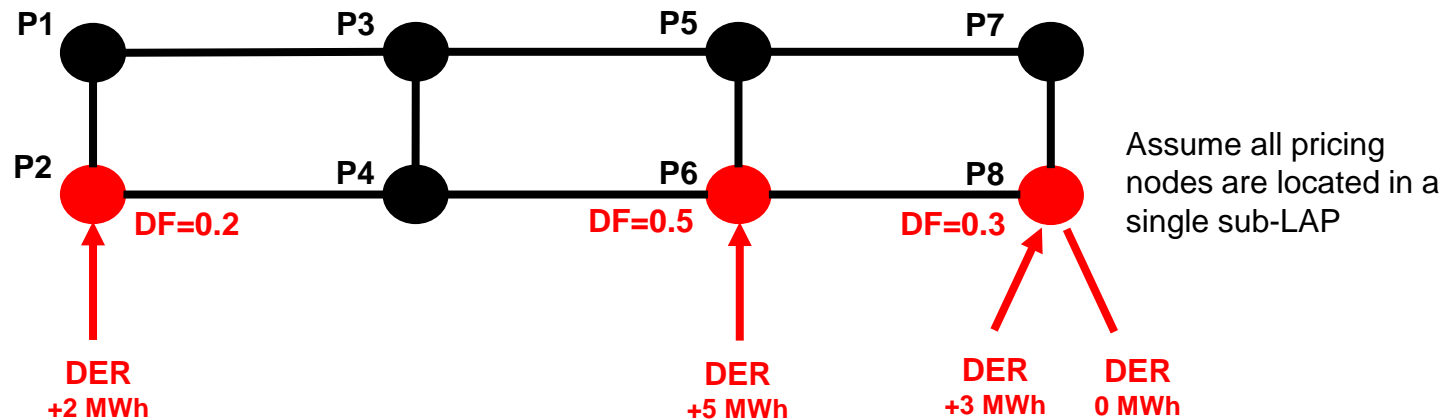**Approved rules focus on <u>sub-resource</u> level**

All sub-resources:

- Must be of single resource type

- Must move in the same direction

- Must operate in the same mode for storage aggregations

Proposed new rules focus on <u>pricing node</u> level

Net response at each pricing node must be consistent with dispatch instruction and distribution factors
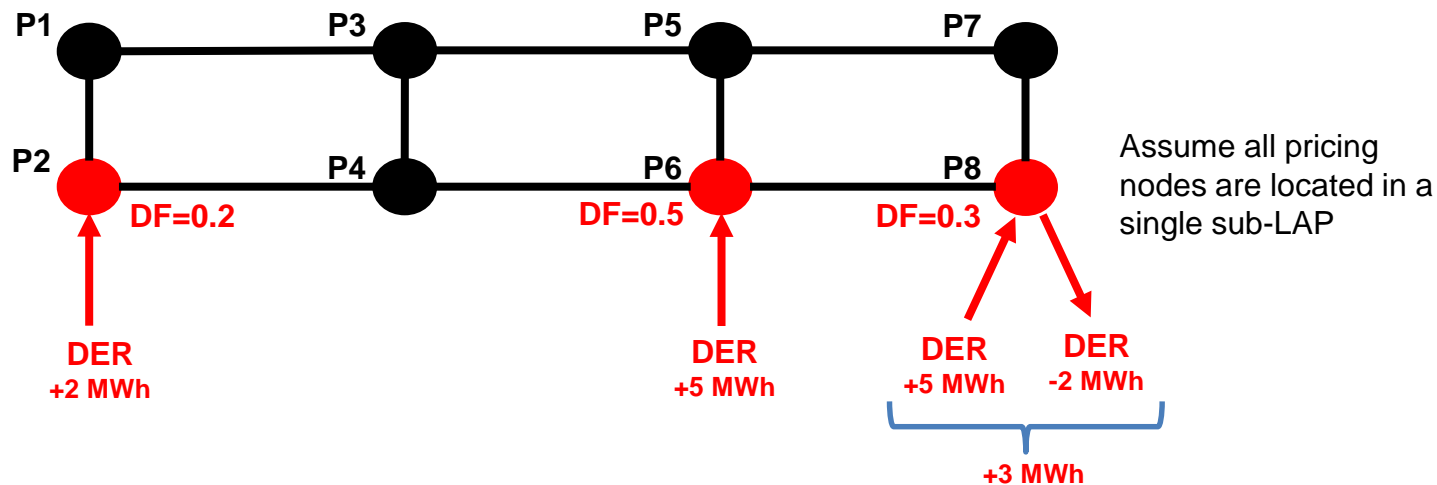
Example 1: Assume an aggregation of DER distributed across pricing nodes 2, 6 and 8.

P1 **P3** **P5** **P7**

P2 **P4** **P6** **P8**

DF=0.2 DF=0.5 DF=0.3

Assume all pricing nodes are located in a single sub-LAP

DER +2 MWh

DER +5 MWh

DER +3 MWh

DER 0 MWh

If this aggregation gets an ISO dispatch instruction to increase output by 10 MWh, then the net response at each pricing node must be:

- +2 MWh at P2
- +5 MWh at P6
- +3 MWh at P8

Example 2: Same as previous example except sub-resources at P8 are moving in opposite directions

P1 **P3** **P5** **P7**

P2 DF=0.2 **P4** **P6** DF=0.5 **P8** DF=0.3

Assume all pricing nodes are located in a single sub-LAP

DER
+2 MWh

DER
+5 MWh

DER
+5 MWh

DER
-2 MWh

+3 MWh

If this aggregation gets an ISO dispatch instruction to increase output by 10 MWh, then the net response at each pricing node must be same as previous example:

- +2 MWh at P2
- +5 MWh at P6
- +3 MWh at P8

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Many stakeholders support these enhancements while some express reservations.

- Advocates and potential aggregators of distributed energy resources are very supportive.

- Distribution utilities express some reservations and concerns.

- CPUC President Picker and Commissioner Florio express support.

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Management recommends that the Board approve the proposed enhancements.

- Increases flexibility for multi-pricing node aggregations to participate in the ISO market.

  - Mixing of sub-resource types would be allowed

  - Sub-resources may move in different directions

  - Storage sub-resources may operate in different modes

- Supported by many stakeholders.

- Accommodates future distribution business and/or regulatory models, including potentially a distribution system operator.