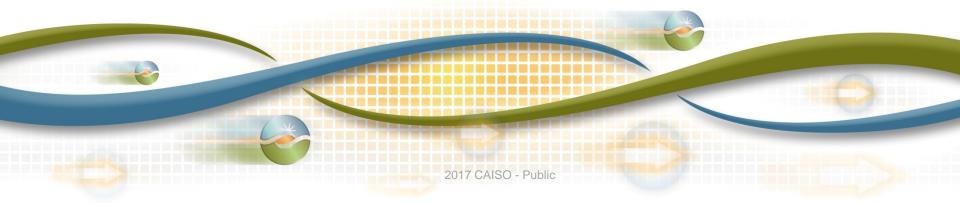
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## Transmission and Distribution DER Activities: DER Participation in the Wholesale Market

Delphine Hou Manager, State Regulatory Affairs, California ISO

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### Several models exist for DERs to participate in CAISO markets

#### Proxy Demand Resource (PDR)

- Supplier can aggregate multiple end-use customers to create a virtual DR resource that responds to economic signals
- May involve other DER types behind customer meter, but cannot result in net energy injection to the grid

#### Reliability Demand Response Resource (RDRR)

Same as PDR but based on reliability trigger

#### Non-Generator Resource (NGR)

Designed for a resource that can vary between consuming & producing energy

#### • DER Provider (DERP)

 New CAISO structure for an entity to aggregate all types of DER into a virtual resource for CAISO market participation



# CAISO initiatives to lower barriers and enhance ability of DERs to participate in wholesale markets

#### Energy Storage and DER initiative phase 1 (ESDER1)

- Enhancements to the non-generator resource (NGR) model
- Developed demand response performance methodologies to recognize behind the meter generation (meter generator output MGO)
- Approved method to statistically derive Energy usage data
- Clarifications to rules for non-RA multiple-use applications

#### Energy Storage and DER initiative phase 2 (ESDER2)

- Introduce new demand response performance evaluation methods that will better reflect the performance of various DR types in the ISO market
- Clarify station power treatment for distributed energy resources (joint effort with CPUC)
- Incorporate additional gas indices into the Net Benefits Test calculation to reflect EIM participants.
- Continue existing and identify new topics for ESDER phase 3 (such as multiple-use applications, a joint effort with CPUC)

