Decision on aggregate capability constraints for co-located hybrid resources

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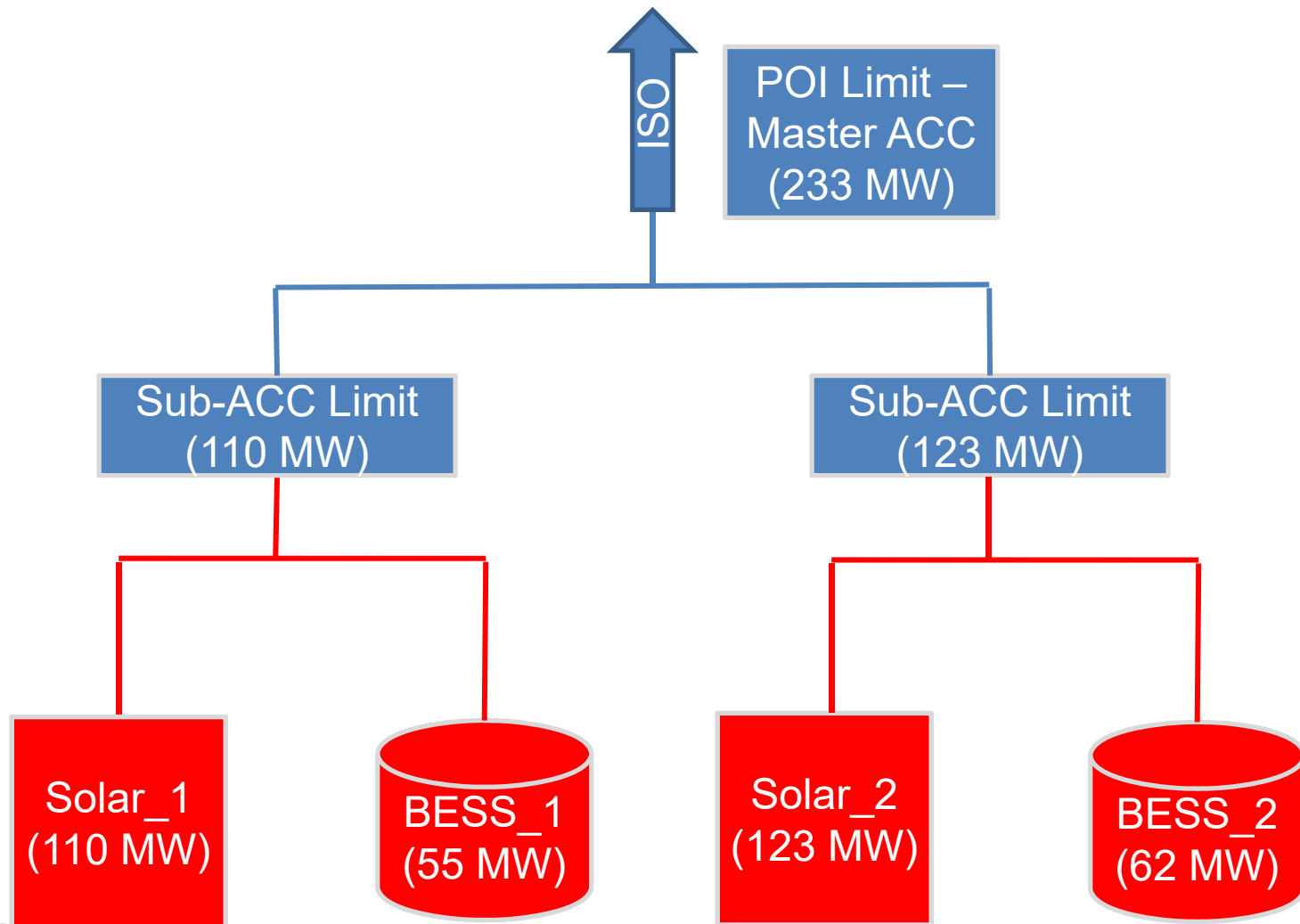Board of Governors Meeting

General Session

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The ISO developed and implemented new functionality to manage hybrid co-located resources

- Policy includes provisions to prevent "oversized" co-located generation from exceeding studied interconnection limits

  – The aggregate capability constraint functionality was implemented in Fall 2020

- Additional functionality will be in place to allow ancillary services in Fall 2021
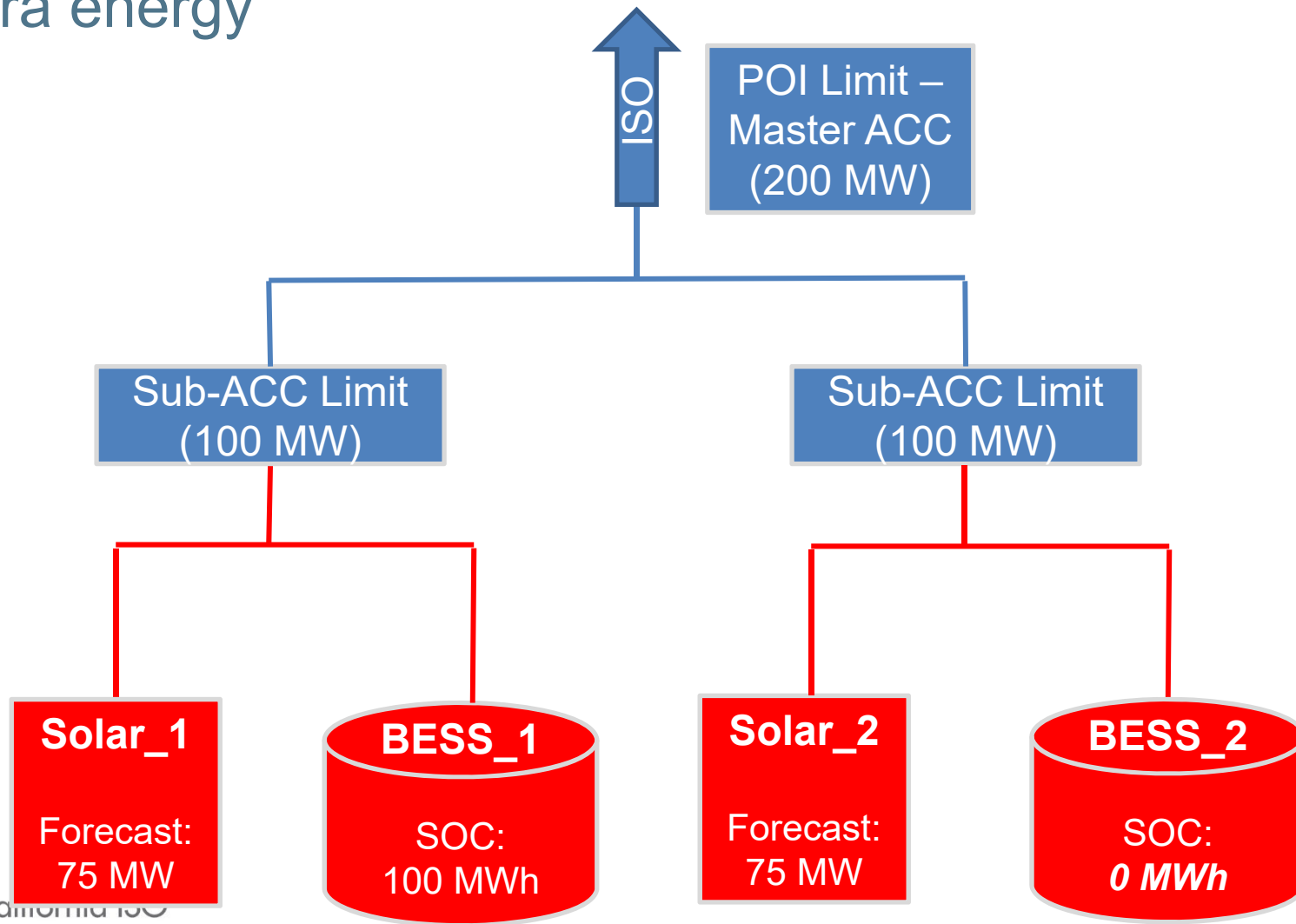
Stakeholders requested the ISO develop subordinate aggregate capability constraints for co-located resources

- Developers are contracting with off-takers for fractional shares of resources **and** interconnection limits

- This is prevalent for large energy projects with solar and storage at the same location

- Responding to stakeholder requests, Management proposes new functionality to model contractual limits
  - Master aggregate capability constraint will model point of interconnection limits
  - Sub-aggregate capability constraint will model contractual limits

New provisions will allow dispatch of co-located resources with contractual limitations

POI Limit – Master ACC (233 MW)

ISO

Sub-ACC Limit (110 MW)

Sub-ACC Limit (123 MW)

Solar_1 (110 MW)

BESS_1 (55 MW)

Solar_2 (123 MW)

BESS_2 (62 MW)

California ISO

Slide 4

When reliability is at risk, the ISO market can relax sub-aggregate capability constraints to schedule extra energy

ISO

POI Limit – Master ACC (200 MW)

Sub-ACC Limit (100 MW)

Sub-ACC Limit (100 MW)

Solar_1

Forecast: 75 MW

BESS_1

SOC: 100 MWh

Solar_2

Forecast: 75 MW

BESS_2

SOC: *0 MWh*

California ISO

Management proposes functionality to enable access to available energy under emergency scenarios

- ## The ISO market software will enforce fixed master aggregate capability constraints
  - The ISO has procedures to temporarily re-evaluate point of interconnection constraints in emergency scenarios and these may be re-evaluated using the same process

- ## The ISO market software can relax subordinated aggregate capability constraints for reliability concerns
  - When the market software cannot find sufficient supply to match demand, it may relax these modeled contractual limits

California ISO

Management requests the Board approve the proposed enhancements to the co-located resource model

- Adding the sub-aggregate capability constraint to the co-located model will facilitate contracts for fractional shares of resources

- Proposal includes provisions to access available energy under emergency conditions to support reliable grid operations

California ISO