

Decision on flexible resource adequacy criteria and must-offer obligation

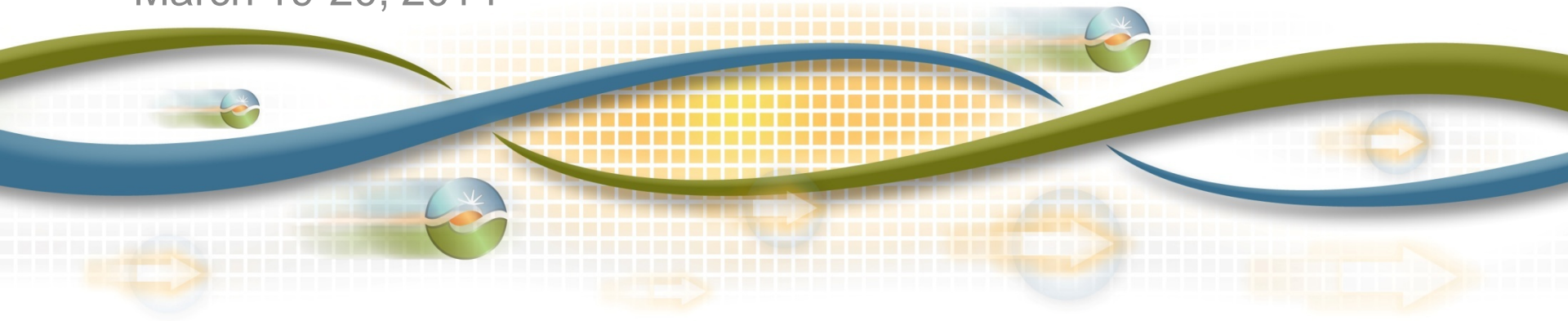
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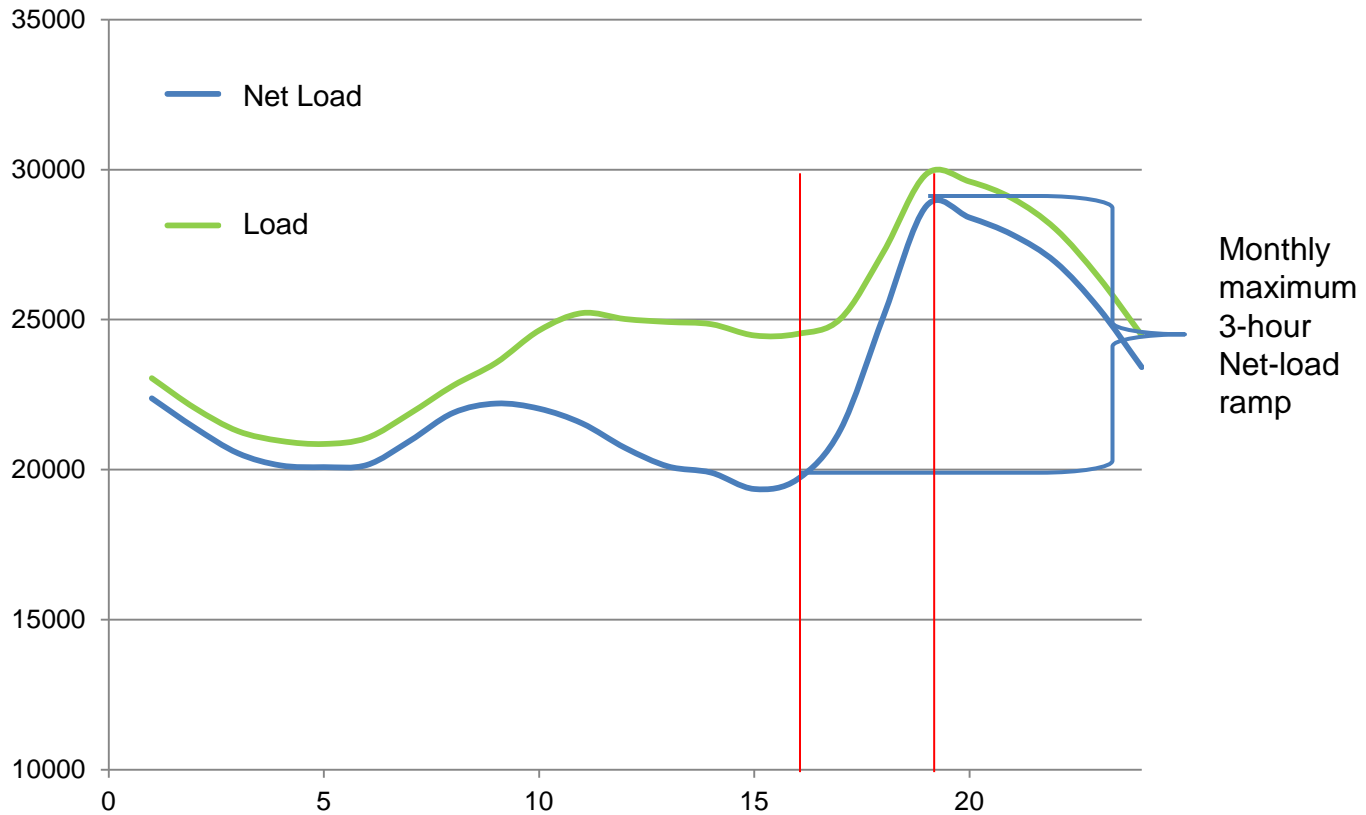
FRAC-MOO establishes tariff provisions to implement ISO flexible capacity backstop procurement process for 2015

- Methodology and process for establishing flexible capacity need
- Flexible capacity needs allocation to local regulatory authorities
- Flexible capacity resource categories and associated must-offer obligations
- Requirement for flexible capacity resource adequacy showings
- ISO backstop procurement authority for flexible capacity deficiencies

Certain elements of the original proposal have been deferred to the reliability services initiative for implementation in 2016

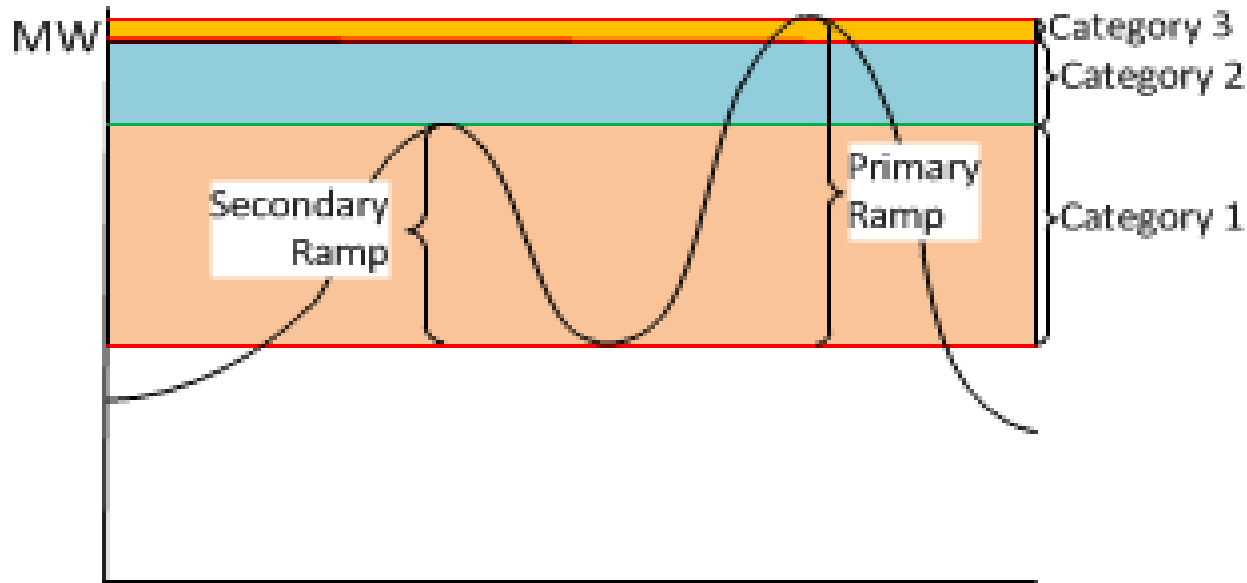
- Performance incentives for flexible resource adequacy capacity (standard capacity product)
- Minimum load and start-up opportunity cost bidding for gas-fired use-limited resources
- Replacement and substitution provisions for flexible resource adequacy capacity

The flexible capacity needs assessment is based on largest 3-hour net-load ramp in a month



Flexible capacity needs are allocated to local regulatory authorities based on their LSEs' contribution to the net load ramp (load, wind, solar)

Flexible capacity categories enable a portion of flexible capacity needs to be provided by preferred resources that have limited availability



Category 1 (Base Flexibility): Set at level of the largest secondary 3-hour net-load ramp (Secondary Ramp)

Category 2 (Peak Flexibility): Set at difference between largest secondary 3-hour net-load ramp and 95% of maximum 3-hour net-load ramp ($(0.95 \times \text{Primary Ramp}) - \text{Secondary Ramp}$)

Category 3 (Super-Peak Flexibility): Set at 5% of maximum 3-hour net-load ramp ($0.05 \times \text{Primary Ramp}$)

Proposed offer obligations associated with each category

Parameter	Category 1 (Base Ramping)	Category 2 (Peak Ramping)	Category 3 (Super-Peak Ramping)
Economic Bid Must-Offer Obligation	5:00 a.m. – 10:00 p.m.	5 hour block (determined seasonally)	5 hour block (determined seasonally)
Energy Requirement	Minimum 6 hours at EFC	Minimum 3 hours at EFC	Minimum 3 hours at EFC
Daily Availability	7 days/week	7 days/week	Non-holiday weekdays
Daily Start-Up Capability	The minimum of two starts per day or the number of starts allowed by minimum up and down time	At least one start per day	At least one start per day
Examples of resource Types that Could Qualify for Category	Conventional gas fired resources, wind resources, hydro resources, and storage resources with long discharge capabilities	Use-limited conventional gas fired resources, solar resources and conventional gas fired peaking resources	Short discharge battery resources providing regulation and demand response resources

Stakeholders raised concerns about resource category definitions, counting provisions and allocation of requirements.

- Proposal is too complex
- Flexible capacity categories are overly restrictive
- Local regulatory authorities set flexible capacity counting rules as part of setting LSE procurement requirements
- Flexible capacity needs allocation methodology
- Allow for intertie resources to provide flexible capacity

Proposal modified in response to stakeholder input

- Proposal simplified from four flexible resource categories to three
- Clarified the roles of the local regulatory authorities and the ISO in establishing flexible capacity counting values and their use
- Allows for aggregation of use-limited resources
- Considers the charging portion of energy storage resources for establishing flexible capacity counting values
- Commitment to convene stakeholder process in early 2016 to evaluate effectiveness of proposal

Management recommends the Board approve the flexible resource adequacy criteria and must offer obligations proposal

Proposal provides significant benefits:

- Works with CPUC and other local regulatory authorities resource adequacy programs to ensure sufficient flexible capacity is available
- Contains specific provisions to enable preferred resources to help meet flexible capacity needs
- Maintains local regulatory authority autonomy to establish resource procurement requirements for their jurisdictional load serving entities