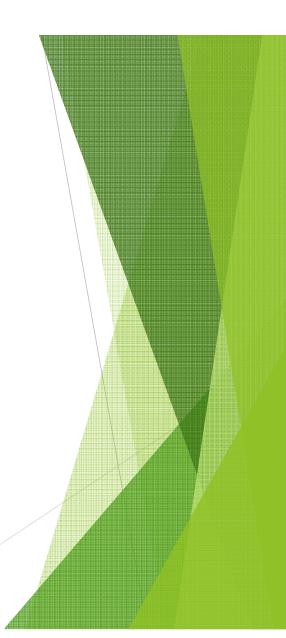


CALIFORNIA PUBLIC UTILITIES COMMISSION
Resource Adequacy Workshop
JULY 19, 2018

IEP MULTI-YEAR RA FRAMEWORK

| | One- Year Forward | Two-Years Forward | Three- Years Forward | Four- Years Forward | Five-Years Forward |
|--------------------------------------------------------|-------------------------|----------------------|----------------------------|---------------------------|-----------------------|
| Local RA Obligation*: Each Month of Compliance Year | 100% | 95% | 90% | 85% | 80% |
| Flexible RA Obligation: Each Month of Compliance Year | 90% | 90% | 90% | 85% | 80% |
| System RA Obligation*: 5 Peak Summer Months (May-Sept) | 90% | 90% | 90% | 85% | 80% |



WHY 5-YEARS FORWARD?

- Market Uncertainty/Turmoil: Highest In Nearly 20 Years
- 3 Years Does Not Provide Sufficient Transparency on Who Is Doing What, When, and Where
- ▶ 5-Years Provides Needed "Reliability Bridge" to De-carbonized Future (IRP)
- Market Stability/Certainty Helps Consumers, Generators, and Emerging Technologies

Why Obligation Set At No Less than 80%?

- ► Forward Obligation Must Be Meaningful: Evidence suggests 80% is reasonable lower bounds in light of past practices and variability in LCR load forecasts. Lower than 80% will not have meaningful impact.
- ▶ Declining Obligation 5%/Annum To 80% In Year 5 Enables Reasonable Load Shift Among LSEs: If LSE load shifts greater than 20% of forecast load, then all the more reason to establish forward obligation.
- ▶ Risk of Stranded Cost Mitigated Through LSE Opportunity to Buy/Sell Excess RA (as is current practice): Commission should focus on maximizing liquidity of RA in market (e.g. electronic bulletin board) rather than shortening duration of multi-year framework. IOUs should be authorized to sell to LSEs excess RA for terms matching duration of Framework.

Why All RA Products (System, Local, Flexible)?

- Reliability Is More Than Local
- Setting Standards Across All RA-products Enables More Efficient Procurement/Contracting
- ▶ LSEs Continue To Buy Bundled and/or Unbundled As They Desire

5-Year Forward Contributes to "Holistic" Reform of RA, RMR, CPM

| "Holistic" | |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Proposal | |
| CPUC Five - year RA | Multi-year Forward RA Requirements adopted by Commission. All CPUC Jurisdictional LSEs (e.g. IOUs, CCA, ESPs) subject to the requirement. |
| Framework | Applies to System, Local, and Flex RA. |
| | Multi-year RA Requirement presumed to be the sole vehicle to address "risk of-retirement" (ROR) resources. |
| CAISO CPM "Backstop" RA | CAISO "RA Backstop" CPM procurement authorities are limited to the following: |
| Procurement | ■ "RA Backstop" to cure RA deficiencies. (Maintains status quo) ■ "Exceptional Dispatch." (Maintain status quo) |
| | Proposed Change: CAISO no longer authorized to procure to address Risk-of-Retirement (ROR) |
| | CPM cost compensation mechanism is status quo: (a) competitive pricing; (b) soft-offer price cap, and (c) right of EG to seek cost-of-service in special circumstances. |
| | CAISO CPM contracting limited to one-year, i.e. the end of the calendar year after the current RA compliance year. |
| CAISO RMR | RMR contracting limited to market power mitigation. |
| Generator Owner Right to Retire | Generators have right to retire upon 6 months <i>Public Notice</i> . |
| Keure | |