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California Energy Commission IEPR Workshop on Supply-Side Demand Response

QC Methodology Proposals

December 3, 2021



Advancing Our Clean Economy

Current DR QC Process



- Currently, IOUs and third-party DR providers ("DRPs") determine their DR Qualifying Capacity ("QC") values using the Load Impact Protocols ("LIPs")
- There are 27 LIPs which 1) provide guidance on how to perform regression analyses to determine DR ex post (actual) values for the prior year and ex ante (forecasted) values for ten years into the future, and 2) specify the requirements for reporting on the regression analyses
- IOUs/DRPs must retain consultants to perform the analyses which can be very costly
- Annual process begins at end of Delivery Year 2 (e.g., end of 2021 for 2023 delivery) and lasts 7+ months long before IOUs/DRPs receive their final QC values from the CPUC Energy Division

The LIPs Are Not Well-Suited to DRPs



- The LIPs have been fairly effective for estimating DR QC values for IOU DR programs because they tend to me more static and typically have greater participation compared to third-party DRPs
- However, the LIPs are problematic for third-party DRPs which can act as a barrier
- Accuracy of LIPs is questionable for dynamic portfolios
 - DRP portfolios can change frequently
 - Looks at historical performance from 2 years prior to delivery year
 - Requires IOUs/DRPs to forecast QC values at the subLAP level
- LIP process lacks transparency, and is very costly and timeconsuming
 - Difficult to know exactly how Energy Division assesses LIP evaluations
 - Consultant costs exceed \$100,000 with no certainty of cost recovery
 - Approximately 7-month process to receive QC values
- Need for consultants acts as a bottleneck

A New Approach is Needed



- DR growth will continue to occur through DRPs, so a new QC methodology is needed that better conforms with their business realities while ensuring reliability of DR resources
- Key requirements include:
 - Reflect actual IOU/DRP capabilities based on the most current information
 - Reduce the timeline for QC value determination
 - Improve transparency of Energy Division assessment
 - Minimize cost to IOUs/DRPs
 - Eliminate or reduce need for outside consultants
 - Reduce Energy Division workload
- Propose 2 potential options
 - "PJM/NYISO" method (preferred) which can be deployed as early as 2023
 RA year and easily modified for Slice-of-Day framework
 - Streamlined LIPs method best deployed once Slice-of-Day framework is finalized

Option 1: "PJM/NYISO" Method



- Propose to adopt the general approach used by the eastern ISO/RTOs
 - Replaces up-front analytical rigor of the LIPs with an after-the-fact assessment and penalty structure for under-performance
 - Maintains Energy Division oversight role
- Key elements of proposal
 - IOUs/DRPs perform internal analysis on QC values and submit proposed QC values and inputs to Energy Division
 - Energy Division retains its current role of making final QC determination
 - DRPs provide collateral based on amount of QC under contract
 - IOU/DRP monthly performance is measured against QC values (against contracted capacity for DRPs); penalties assessed for underperformance

Pros vs. Cons



- Pros
 - Addresses most of the key requirements mentioned above

Business Requirement	Satisfies?
Reflects actual IOU/DRP capabilities	Yes
Reduces the timeline for QC value determination	Yes
Improves transparency of Energy Division assessment	Somewhat
Minimizes cost to IOUs/DRPs	Yes
Eliminates need for outside consultants	Yes
Reduces Energy Division workload	Yes

- Directly links QC values to CAISO market performance
- Enforces reliability of QC deliveries through penalty structure
- Maintains Energy Division oversight role
- Can be easily implemented in interim beginning in 2023 and easily conformed to the Slice-of-Day framework as a long-term solution
- Cons
 - Represents a completely new approach so comfort level may be low

Option 2: Streamlined LIPs Method



- Streamline the current LIP process to shorten the time and cost
 - Meant to be a compromise proposal
 - Retains upfront analytical rigor to preserve a degree of comfort for key parties while addressing at least some of the DRP requirements
- Key elements of proposal
 - Eliminate approx. 50% of current LIPs and modify several others to focus solely on short-term (1-3 year) QC values
 - Would require development of one or more centralized, open-access models that IOUs/DRPs would use to calculate their QC values (similar to the Avoided Cost Calculator)
 - Energy Division retains its current role of making final QC determination

Pros vs. Cons



- Pros
 - Addresses some of the key requirements

Business Requirement	Satisfies?
Reflects actual IOU/DRP capabilities	Somewhat
Reduces the timeline for QC value determination	Yes
Improves transparency of Energy Division assessment	Somewhat
Minimizes cost to IOUs/DRPs	Somewhat
Eliminates need for outside consultants	Somewhat
Reduces Energy Division workload	Yes

- Better comfort level by retaining the basic LIP structure
- Maintains Energy Division oversight role
- Cons
 - Risks reducing flexibility of current LIPs
 - Does not directly link QC value to CAISO market performance
 - No enforcement structure other than RAAIM
 - Significant work required to implement; likely not a good fit for 2023
 - Additional work will be required to conform with Slice-of-Day framework



Questions?

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