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Docket Number:	21-DR-01
Project Title:	Supply Side Demand Response
TN #:	241423
Document Title:	CEDMC and CESA Comments on CEC Draft DR QC Methodology Working Group Interim Report
Description:	N/A
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Organization:	California Efficiency + Demand Management Council
Submitter Role:	Public
Submission Date:	2/4/2022 4:41:22 PM
Docketed Date:	2/4/2022

A. Introduction

The California Efficiency + Demand Management Council (“Council”) and California Energy Storage Alliance (“CESA”) (jointly “Joint Trade Organizations”) appreciate this opportunity to comment on the California Energy Commission’s (“CEC”) *Qualifying Capacity of Supply-Side Demand Response Working Group Draft Report* (“Draft Interim Report”), issued on January 24, 2022 in CEC Docket #21-DR-01. The Joint Trade Organizations appreciate the time and effort put in by CEC Staff as well as the support of the CEC Commissioners in taking on the task requested by the California Public Utilities Commission (“CPUC”) in Decision (D.) 21-06-029, Ordering Paragraph (“OP”) 11.

The Supply-Side Demand Response (“DR”) Qualifying Capacity (“QC”) Working Group (“Working Group”) was divided up into a Principles Working Group and a DR QC Methodology Working Group. The Working Group was intended to provide a technical forum for parties to develop DR QC methodology proposals and to address the other issues highlighted in OP 11.

The Joint Trade Organizations support most of the Draft Interim Report’s recommendations but, as discussed in greater detail below, have concerns about the basis for some of them. Generally speaking, we support Recommendations 1 through 5, and 8 through 10, and 12. These recommendations all fall within the scope of OP 11 in that they pertain to the development and testing of DR QC methodologies. In addition, they would create the opportunity for multiple DR QC methodologies to be tested while giving investor-owned utilities (“IOUs”) and DR providers a choice in which methodology to use rather than being forced to use one having no record of success. Furthermore, the Joint Trade Organizations support extending the Working Group to develop long-term DR QC methodologies and to address the other outstanding issues from OP 11, and support a continued role for the CEC to the extent the Working Group remains a technical forum only.

However, recommendations 6 and 7 far exceed the Working Group scope by trying to address several policy-related issues, characterized as “challenges”. Recommendation 11 explicitly attempts to expand the Working Group scope to address these “challenges”. The Joint Trade Organizations strongly oppose expanding the scope of the Working Group to these policy-related issues because it is not constructed to ensure that the necessary evidentiary record is

developed to support the policy outcomes. The Working Group has functioned well as a technical forum but it is unclear to what extent the CEC is subject to the same evidentiary requirements in its recommendations that the CPUC is subject to when issuing final decisions. Any policymaking function should include the same evidentiary requirements, currently utilized by the CPUC, to inform Findings of Fact, Conclusions of Law, and Ordering Paragraphs. The Joint Trade Organizations appreciate the CEC Staff's desire to address several important policy issues but the CEC's role should continue to be limited to a technical nature.

B. The Joint Trade Organizations supports the principle of optionality and recommends all proposals be allowed.

The Joint Trade Organizations support the principle of optionality that is proposed in the Draft Interim Report.¹ Before one or more new DR QC methodologies are adopted by the CPUC and implemented to potentially replace the LIPs, it is critical that they be tested and assessed. In this spirit, the Joint Trade Organizations recommend that the CEC also recommend the January 2022 California Large Energy Consumers Association ("CLECA") interim proposal. It represents a "middle ground" approach in that, like the CAISO proposal, it utilizes the LIPs but rather than applying an ELCC analysis on top of the LIP profiles, it applies a weighting to the hourly QC value based on the Loss of Load Expectation for each hour. The Joint Trade Organizations currently take no position on this proposal; however, in a competition of ideas, it is beneficial to have many options to consider.

The Joint Trade Organizations also support the Draft Interim Report recommendation to create Interim and Long-term tracks.² The effort to develop a Slice-of-Day RA framework is not yet complete, so it makes little sense to develop a long-term DR QC methodology until it becomes clear exactly what the new RA framework looks like. Also, as the Joint Trade Organizations stated above, the Interim track can be useful to test multiple potential DR QC methodologies.

C. The CEC's recommendations should reflect the Working Group principles.

In Chapter 3, the Draft Interim Report explains the Working Group process, which included the creation of two sub-groups, the QC Methodology Working Group and the Principles

¹ Draft Interim Report, at p. 28.

² *Id.*, at p. 30.

Working Group.³ As characterized in the Draft Interim Report, the Principles Working Group “sought to identify a set of principles that a qualifying capacity method should meet.”⁴ The Principles Working Group last convened on October 25, 2021 as a joint meeting with the QC Methodology Working Group when party feedback on draft Working Group principles was discussed. The October 25 version of the principles are:

1. The QC methodology should be transparent and understandable.
2. The QC methodology should use best available information regarding resource capabilities, including recent historical performance and participant enrollment and composition projections.
3. The QC methodology should allow DR providers to quickly determine or update QC values.
4. The QC methodology should be consistent and compatible with the resource adequacy program.
5. The QC methodology should account for the primary factors that influence DR variability, use limitations, and availability.
6. The QC methodology should translate a DR resource’s load reduction capabilities into its reliability value.
7. The QC methodology should include methods to determine ex-post capacity that are internally consistent with ex-ante QC valuation.
8. The QC methodology should not present a substantial barrier to participation in the RA program.

The actual document distributed by CEC Staff in advance of the October 25 meeting is attached to these comments as Appendix A. As the party feedback in Appendix A illustrates, there was not consensus support among parties for draft Principles 5 and 7 but no parties opposed draft Principles 1-4, 6 and 8.

No effort was made to finalize the Working Group principles following the October 25 meeting, presumably due to the urgency of addressing the interim 2023 Resource Adequacy (“RA”) year methodologies given the approaching deadline for filing the Load Impact Protocol

³ Draft Interim Report, at p. 16.

⁴ *Id.*

(“LIP”) reports for the same RA year. Neglecting to include the near-final principles in the Draft Interim Report is a critical omission because they reflect the priorities that a broad group of stakeholders, including IOUs, DR providers, the CAISO, and performance evaluators, generally agreed should guide CEC Staff’s recommendations to the CPUC. Furthermore, CEC Staff stated during to the Principles Working Group that the principles would guide their DR QC methodology recommendations. In fairness, Working Group members agreed that the recommended methodology(ies) would not be completely bound by the Working Group principles; i.e., they were not required to meet all of the principles. However, the principles were indeed intended to play a role in the CEC Staff’s recommendations. The Final Interim Report should include the principles developed by the Principles Working Group and the CEC recommendations should reflect them.

D. The Draft Interim Report should include DR QC methodology proposal write-ups by all parties.

The Draft Interim Report provides a brief overview of the Council’s “PJM/NYISO” DR QC methodology proposal and the LIP-Informed Effective Load Carrying Capability (“ELCC”) methodology proposal jointly put forth by PG&E and the CAISO. An overview, however, misses critical components of each methodology and makes it difficult for stakeholders to react to the proposals. The Final Interim Report submitted to the CPUC should include the full write-ups of both proposals in order to: 1) enter each into the record of CEC Docket #21-DR-01 and CPUC Rulemaking (R.) 21-10-002; 2) allow parties to address the proposals as written, rather than the CEC’s description of the proposals, in their comments; and 3) ensure that the CPUC has the full picture of each proposal without having to rely on the CEC’s characterization of them. The Joint Trade Organizations also note that Working Group participants have not had access to the full interim proposals because, once CEC Staff decided to focus the Working Group on developing interim DR QC proposals (rather than long-term proposals), development of the interim proposals was largely done outside of the Working Group with occasional oral updates provided during Working Group sessions. Therefore, the Final Interim Report should include the most up-to-date, full version of each proposal being recommended.

E. The Final Interim Report should correct several errors in its description of the Council’s QC proposal.

In addition to including the full proposals in the Final Interim Report, CEC Staff should correct several inaccuracies in the its overview of the Council’s proposal. These inaccuracies include the following:

- **The Council’s proposal retains upfront CPUC Energy Division oversight.** The Draft Interim Report states, “Unlike other proposals and the *status quo*, which require significant upfront oversight in estimating future capacity, the incentive-based approach employs incentive mechanisms – namely financial penalties for underperformance – to ensure compliance.”⁵ In fact, the Council’s proposal retains the role currently played by the CPUC Energy Division to act as the final arbiter over DR QC values. This was explicitly indicated in the Council’s presentation made at the CEC’s December 3, 2021 Commissioner Workshop on Supply Side Demand Response⁶ and is included in the Council’s final proposal.⁷
- **The Council’s proposal does not use the same counting method for ex post evaluation as the LIP process uses for ex ante QC valuation.** The Draft Interim Report states, “the incentive-based approach proposed by CEDMC essentially adopts the same counting method for ex post evaluation as the load impact protocols process uses for ex ante qualifying capacity valuation.”⁸ It is not clear exactly what the Draft Interim Report is implying in this instance, but the Council’s proposal states that a DR provider’s performance assessment (i.e., ex post analysis) is based on its Demonstrated Capacity, which is informed by CAISO market dispatches, test events, and market bids.⁹ This is different from the modeling done within the LIPs for ex ante valuation.
- **The Draft Interim Report mischaracterizes the Council’s proposed penalty structure.** The Draft Interim Report describes the penalty structure of the Council’s proposal as being based on the Demand Response Auction Mechanism (“DRAM”)

⁵ Draft Interim Report, at p. 16.

⁶ See Slide 5 of the Council’s presentation at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=240887&DocumentContentId=74723>

⁷ Council proposal,

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=241266&DocumentContentId=75112>, at p. 4.

⁸ Draft Interim Report, at p. 28.

⁹ Council proposal, at p. 5.

Pilot.¹⁰ In an earlier version of the Council’s proposal, this was indeed the case. However, in its final version, the Council adopted the same penalty structure utilized by PG&E for its Capacity Bidding Program (“CBP”) to ensure equitability between IOU DR programs and third-party DR provider resources.¹¹ Furthermore, this penalty structure has been used by PG&E for several years with no claims made by any party, to the Joint Trade Organizations’ knowledge, that it has been ineffective in incentivizing good DR performance. This will presumably eliminate any concerns expressed in the Draft Interim Report that the DRAM penalty structure “may not be sufficient to ensure the desired level of performance for demand response resources.”¹²

These likely inadvertent mischaracterizations highlight the need to include the full write-ups of each proposal in the final report. Otherwise, the CEC risks confusing the CPUC over what the Council and PG&E/CAISO are actually proposing. To ensure that the Council’s full proposal is entered into the CEC and CPUC record, the Joint Trade Organizations have attached it as Appendix B.

F. The CEC should use the DR QC principles, not the “challenges” outlined in the Draft Interim Report to evaluate DR QC methodologies.

As previously mentioned, the Draft Interim Report does not discuss the principles for QC methodologies that Working Group members spent considerable time refining. Rather, the Draft Interim Report assesses the interim proposals based on how well they meet the “challenges” outlined by CEC Staff. While the Joint Trade Organizations take no position at this point on the list of challenges, they are a wholly inappropriate yardstick to measure the success or failure of a particular DR QC methodology. From a process standpoint, rather than being a reflection of stakeholder feedback in the way that the Working Group principles are, these “challenges” appear to reflect a unilateral effort by CEC Staff to utilize their own criteria to inform their recommendations in the Draft Interim Report. Substantively, the Joint Trade Organizations have serious concerns about the relevance of some of these challenges as assessment criteria for DR QC methodologies. Specifically:

¹⁰ Draft Interim Report, at p. 28.

¹¹ Council Proposal, at p. 6.

¹² Draft Interim Report, at p. 28.

- **IOU DR crediting is outside the scope of this working group.** In the Draft Interim Report, CEC Staff finds that “supply-side DR resources should be considered part of the supply stack, rather than as a reduction in demand, and treated accordingly.”¹³ This statement exceeds the scope of this working group. In Ordering Paragraph 11 of D.21-06-029, the CPUC requested the CEC to convene a working group and make actionable recommendations on several issues. These issues did not include a determination of whether the CPUC should change its DR crediting policy. In fact, the CPUC clearly laid out in that decision the conditions under which the IOUs would be required to move their DR programs onto their supply plans. The CPUC stated, “Accordingly, once the Commission confirms that CAISO permits DR resources to bid variably in its markets and implements a FERC-approved RAIM penalty exemption for DR resources, each IOU will be directed to move its DR portfolios onto CAISO Supply Plans.”¹⁴ In addition, the DR crediting issue was not discussed by the Working Group in any significant detail, so this conclusion in the report is inappropriate. The CEC Staff’s recommendation to eliminate DR crediting is based on an assertion made by the CAISO regarding the operation of DR in the energy market and the specific QC methodology that would enable that type of operation. It is important to note, however, that there is not consensus among Working Group members regarding either the crediting issue or the need for a particular QC methodology as a prerequisite to the elimination of crediting. Therefore, the final report should not include this statement. If it does, the CEC should be clear that this issue was not discussed at length by Working Group members and the conclusion is based solely on the opinion of CEC Staff.¹⁵
- **Contribution to reliability has not been defined.** The Draft Interim Report asserts that a more precise methodology than the LIPs is needed to measure the contribution to reliability of DR.¹⁶ However, no definition of “contribution to reliability” is provided. As above, the specific meaning of the phrase was not discussed in the Working Group other than to generally observe that this term will be interpreted differently by different parties. Without a definition of “contribution to reliability” or method to measure the accuracy of

¹³ Draft Interim Report, at p. 23.

¹⁴ D.21-06-029, at p. 31.

¹⁵ Draft Interim Report, at p. 23.

¹⁶ Draft Interim Report, at p. 23.

a proposed DR QC methodology in calculating DR's contribution to reliability, it is unclear how CEC Staff is able to determine whether one methodology is superior to another in this regard.

- **CAISO settlement methods are not directly linked to QC and are outside the purview of work that the CPUC can mandate.** The CEC outlines “settlement” as one of the challenges that a QC methodology may address and explicitly asks the CPUC to expand the Working Group scope to include settlement issues. First, it is unclear how CAISO DR *settlement* methodologies are relevant to the assessment of specific DR *QC* methodologies. The Draft Interim Report appears to associate this criterion with accurate energy market baselines. While the accuracy of CAISO baselines warrants discussion, the adoption of any of the interim (or permanent) QC methodology proposals will have no bearing on the number or accuracy of the settlement methodologies available at the CAISO tariff. Moreover, it is our understanding that the CAISO has sole purview over its market settlement methodologies and the CPUC cannot mandate their review within its own rulemaking. Finally, given the depth of complex issues the Working Group has yet to tackle, it would be unwise to expand its scope at this time.

Based on these concerns, we recommend the removal of these three “challenges” from the report. Rather, QC methodologies should be assessed according to the principles Working Group members took considerable time to develop.

G. CEC makes several findings that are unsupported by evidence or explanation.

In several instances, the Draft Interim Report makes findings for which little or no evidence or explanation is provided. This is problematic because once the CEC approves the Final Interim Report and submits it to the CPUC in the Resource Adequacy proceeding, the CPUC will make a final determination on the interim DR QC methodology proposal(s). Therefore, the evidentiary record must be robust and accurate to ensure the CPUC has a strong basis upon which to make its determination. The DR Coalition address some of these key findings that lack support.

The Draft Interim Report states that an effective load carrying capability (“ELCC”)-based approach to DR QC valuation “should better reflect the contribution of demand response to

reliability.”¹⁷ However, there is no explanation for why or how an ELCC-based methodology better reflects the DR contribution to reliability. The Draft Interim Report does not present a comparison against the Council’s proposal nor, as the Joint Trade Organizations explained above, does it even define “contribution to reliability”. So, it is unclear how the CAISO’s proposal is superior in that regard to the Council’s, or any other, proposal.

The Draft Interim Report also suggests that a stronger penalty structure than what is currently used with the DRAM Pilot “may be needed to ensure demand response providers are able to meet capacity commitments” because the DRAM Pilot has seen “underperformance”.¹⁸ This is an overly-simplistic and speculative statement because an assessment of the effectiveness of the current DRAM Pilot penalty structure has not yet been released. The DRAM Pilot Independent Evaluator has not yet completed its most recent assessment so it is unclear how CEC Staff can make this determination.

The Draft Interim Report rules out the use of energy market bid-informed ELCC based on its finding that bid data are “not a reliable measure of availability” because of “the issues with baseline methods for weather-sensitive resources.”¹⁹ It is unclear how the two issues are connected. A DR provider has a must-offer obligation to bid the entirety of its contracted RA capacity. The bid quantity is not impacted or altered by how dispatched energy is settled. The Joint Trade Organizations do not judge bid-informed ELCC one way or the other but is concerned that the Draft Interim Report’s poorly-supported dismissal of this approach unnecessarily eliminates an approach that could potentially have merit.

H. The Draft Interim Report should address the need for sufficient time between submission of the final CEC report, the CPUC final decision, and the submission deadline of a LIP evaluation plan for 2024.

The final report should put forth a timeline for the long-term track to ensure that DR providers and IOUs have certainty as to what DR QC methodology they must use for the 2024 RA year before the first LIP deadline. Specifically, the Draft Interim Report states that the Commission should “[r]equest the CEC produce a final report by the fourth quarter of 2022.”²⁰

¹⁷ Draft Interim Report, at p. 27.

¹⁸ *Id.*, at p. 28.

¹⁹ *Id.*, at p. 27.

²⁰ *Id.*, at p. 31.

Depending on when in the fourth quarter of 2022 the report is submitted and subsequently adopted by the CPUC, DR providers may face the same timeline issue that has surfaced this year (i.e., the deadline for the 2024 LIP evaluation plan will come *before* a long-term methodology is adopted for the same RA year). In the Final Interim Report submitted to the CPUC, the CEC should explicitly state that there must be adequate time between submission of the CEC's recommendations for long-term DR QC methodologies, the CPUC final decision, and the submission deadline of LIP evaluation plans for 2024. One option to create a greater distance between when a final decision is expected and the LIP evaluation plans are due is to shift the LIP timeline further into 2023. The Joint Trade Organizations suggest the following timeline but further discussion may be needed:

- CEC Final Report submitted: October 2022
- CPUC final decision adopting methodology: no later than mid-Jan 2023
- If status quo: LIP eval plans due mid-Feb 2023
- If new method is adopted: LIP timeline becomes moot, new timeline consistent with adopted method is put in place

I. Conclusion

The Joint Trade Organizations appreciate the time and effort put in by CEC Staff in leading the Working Group and developing the Draft Interim Report.

February 4, 2022

Respectfully,

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Appendix A – October 25, 2021 CEC Staff Compilation of Draft Principles with Party Feedback

Written stakeholder comments on the principles

In a 10/12/2021 email to working group participants, CEC staff requested written stakeholder comments on the proposed principles. Since that time CEC staff received written comments from the CAISO and CEDMC. To enable stakeholders to review these comments, CEC staff have combined them here into one document.

1. The QC methodology should be transparent and understandable.

[no comments received]

2. The QC methodology should use best available information regarding resource capabilities, including recent historical performance and participant enrollment and composition projections.

[no comments received]

3. The QC methodology should allow DR providers to quickly determine or update QC values.

[no comments received]

4. The QC methodology should be consistent and compatible with the resource adequacy program.

[no comments received]

5. The QC methodology should account for the primary factors that influence DR variability, use limitations, and availability.

[CAISO comments: The CAISO opposes this principle as written. The CAISO finds that principle #5 as written is unclear and that the phrase “...account for the primary factors that influence...” is an unnecessary and confusing abstraction. The CAISO emphasizes that the principle must ensure the QC methodology captures that DR is a use-limited, availability-limited, and variable resource and that should be considered in its valuation. The CAISO supports this language instead: “The QC methodology should account for the use-limited, availability-limited, and variable-output nature of DR.”]

6. The QC methodology should translate a DR resource’s load reduction capabilities into its reliability value.

[no comments received]

7. The QC methodology should include methods to determine ex-post capacity that are internally consistent with ex-ante QC valuation.

[CAISO comments: The CAISO opposes this principle as written. The CAISO emphasizes that the determination of a DR resource’s capability is distinct from its QC valuation; rather, a resource’s capability is an input into its QC valuation. This distinction is reflected in the separation of the components “Ex ante Resource Capability Profile” and “Ex ante Qualifying Capacity” in the *Stakeholder Comment Template: Methodology Minimum Components* document sent to stakeholders by the CEC. Accordingly, principle #7 should reflect this distinction and specify that it is the capability profile determination that should be compatible with ex-post delivery assessment methods. The CAISO notes that both the capability profile and ex-post assessment measure a MW load impact whereas the QC valuation measures contribution to reliability and is therefore not a direct comparison. The CAISO supports consistency between the capability profiles and performance of DR resources. The CAISO believes that the revised language better reflects that consistency and will still result in an internally compatible methodology given that the capability profile is a direct input in the QC valuation. The CAISO proposes this language: “The QC methodology should include methods to determine a measurement of delivery (ex-post capacity) that are compatible with the determination of capability (ex-ante) used in QC valuation.”]

[CEDMC comments: Recommends that Principle #7 be removed because it is overly prescriptive. However, if it is retained, CEDMC recommends this language instead: “The QC methodology should include a process to assess the accuracy of ex ante QC values relative to ex post performance.”]

8. The QC methodology should not present a substantial barrier to participation in the RA program.

[no comments received]

Additional comments:

[CAISO comments: The CAISO is concerned that only one of the remaining principles speaks to the value of reliability. The CAISO reiterates that reliability is at the core of the CPUC’s request and the CAISO believes it is an imperative to include reliability as a foundational principle to developing QC values that will allow for the CAISO to effectively operate the grid. The CAISO proposes the working group adopt the principle, “The QC methodology should reflect the evolving needs of the grid – by capturing the interactive and saturation effects of increased variable as well as use- and availability-limited resources.” As explained in the CAISO’s 10/1 comments,²¹ DR does not operate in isolation and accordingly should not be modeled without interactive effects in planning. This principle is critical to reliability as it ensures consideration of saturation effects on the reliability contribution of DR resources as variable supply and demand are increasingly interconnected to the system.]

²¹ TN # 240023 in CEC Docket 21-DR-01.

Appendix B – California Efficiency + Demand Management Council’s “PJM/NYISO” DR QC Methodology Final Proposal

California Efficiency + Demand Management Council Interim DR Qualifying Capacity Methodology Proposal

Introduction

The California Efficiency + Demand Management Council (“Council”) provides its demand response (“DR”) Qualifying Capacity (“QC”) methodology proposal (“Council Proposal”) for inclusion in the California Energy Commission’s (“CEC”) Supply Side DR QC working group interim report. This proposal is meant to be considered by the California Public Utilities Commission (“CPUC”) as an interim DR QC method in Rulemaking (“R.”) 21-10-002. In this context, the Council defines “interim” as the time between now and CPUC deployment of the new Slice-of-Day framework, which the Council expects to be adopted in June 2022 in R.21-10-002. If adopted as an interim method, the Council recommends that the experience and lessons learned will inform its viability as a potential long-term DR QC method under a Slice-of-Day framework.

Problem Statement

The overriding goal of the CEC-led Supply-Side DR QC working group should be to develop one or more DR QC methodologies that works well for both third-party DR providers and investor-owned utilities (“IOUs”) while ensuring that DR programs and resources are delivering value commensurate with their QC values. The current DR Load Impact Protocols (“LIPs”) act as a barrier to third-party DR growth because they lack transparency, are very time-consuming, and bear a large cost to the DR provider with no guarantee of cost-recovery - all without necessarily demonstrating greater accuracy than other approaches. For third-party DR to grow, a new approach is needed that will accurately reflect the capabilities of each DR provider, be transparent in how a DR portfolio QC value is determined, incur a reasonable cost, and require significantly less time to implement.

The current LIPs were developed for IOU DR programs which tend to be larger and more static than third-party DR providers’ portfolios primarily due to generally stable or more predictable participation levels. In CPUC Decision (“D.”) 19-06-026, the CPUC directed that third-party DR providers use the LIPs to determine their QC values beginning with the 2020 RA year.²² Since then, it has become very apparent that the LIPs are highly problematic for DR providers for several reasons which has created a significant barrier to third-party DR participation in California:

1. The accuracy of the LIPs is questionable for more dynamic portfolios. Unlike IOU programs, DR provider portfolios can significantly change from one year to the next because they have a financial interest in sizing their portfolios to meet market

²² D.19-06-026, at Ordering Paragraph 18.

commitments and take advantage of market opportunities. Because of the uncertainty inherent in executing contracts and enrolling customers, portfolios may differ widely from year to year, both in size and customer composition. In addition, the extended timeframe of the LIP process leads to performance data being used from up to two years prior to the Resource Adequacy (“RA”) delivery year. There is a two-year lag between the data used for LIP analysis and QC determination, and the RA delivery year. For example, the LIP process that kicked off in December 2021 will use data from the 2021 RA year to derive QC values for the 2023 RA delivery year. Under a majority of circumstances, it is difficult to argue that performance data that old is relevant to forecasting performance.

2. The LIP process is very time-consuming and limits participation in solicitations. The LIPs entail a four-month process beginning in December that culminates in a final report for each IOU and DR provider due on April 1 of each year. The final LIP reports are then assessed by the CPUC Energy Division over the following five months to determine the QC values of these DR programs in September. During this time, DR providers must be available to respond to Energy Division questions regarding their LIP reports; in addition, they must prepare for an annual workshop where IOUs and DR providers present their LIP reports. From start to finish, this process takes approximately ten months to determine QC values. This places a significant burden on Energy Division staff, given the voluminous nature of some LIP reports. In addition, because the Energy Division assigns preliminary RA requirements to IOUs and LSEs in June, DR providers are unable to participate in early LSE solicitations because they do not receive their NQC values until September. This is anti-competitive because it favors “steel in the ground” resources whose NQC values are generally fixed.
3. The LIP process is costly with no guarantee of cost recovery for third parties. The LIP process requires extensive analysis and reporting which requires the use of specialized consultants. This is very costly (typically more than \$100,000), especially for comparatively small portfolios because there is typically a floor to the cost, regardless of the portfolio size. This cost increases based on the number of customers and events. IOUs are guaranteed recovery of these costs through their DR program budgets but DR providers do not have that luxury which creates a clear competitive advantage for IOU DR programs versus third-party DR. Such a significant investment with no promise of cost recovery discourages some DR providers from participating in the LIP process.
4. The need for consultants to perform the LIP analysis acts as a bottleneck. There are a limited number of consultants who are able to perform the LIP analysis and, due to the intensive nature of this work, many consultants are limited in the number of LIP analyses they can perform. This leads to many IOUs and DR providers chasing a limited number of consultants which can lead to DR providers being frozen out of the LIP process and therefore unable to sell their capacity.

5. The Energy Division assessment of LIP reports lacks transparency. Once IOUs and DRPs submit their LIP reports on April 1, the Energy Division then determines whether to approve the NQC that is claimed in each LIP report or to discount it. To the extent that a discount is applied, it is usually unclear to the DR provider what the exact reasons were for the discount. For example, the Energy Division can discount a DR provider's NQC based on the per-customer load impact, enrollment forecast, or both. However, the Energy Division will not always explain the approved per-customer load impact and enrollment; instead, it will simply provide the approved NQC value with no explanation as to the underlying causes. To the Energy Division's credit, it has developed its *Guide to CPUC's Load Impact Protocols (LIP) Process* to provide information on best practices for LIP reports, but additional transparency around the final QC determination is necessary.

The Council believes that future DR growth will occur primarily through third parties, so a more-streamlined DR QC methodology is needed that better suits the more dynamic nature and business needs of DR providers. In many ways, the shortcomings of the LIPs represent the opposite of what the new DR QC methodology should look like. Specifically, the new methodology should:

1. Reflect DR provider assessments of their capabilities based on the most current information possible. The LIP process utilizes data from up to two years prior to the RA delivery year which rarely reflect current and expected DR portfolios.
2. Minimize the time required to receive a NQC value from the Energy Division. This will ensure higher quality information is used in the NQC valuation process, better enabling DR providers to participate in near-term IOU and LSE solicitations.
3. Be as transparent as possible. It is critical that DR providers understand the reasoning behind Energy Division assessments of their NQC values.
4. Minimize the cost to DR providers. Such a significant cost can be a barrier to entry in the DR market, especially to new entrants, because cost recovery is not guaranteed as it is for the IOUs.
5. Avoid or minimize the need for outside consultants. As stated above, this creates a bottleneck in the QC valuation process and can leave DR providers without a consultant and therefore unable to receive a QC value, thus preventing them from selling their RA capacity.
6. Reduce the Energy Division workload to determine DR QC values. This is a critical issue from the perspective of allocating limited Energy Division resources. The sheer volume of the April 1 LIP reports creates a substantial burden on the Energy Division staff who must assess them over five months. This time can be better spent on important policy issues.

The Council Proposal Addresses a Majority of the CEC Supply-Side DR QC Methodology Principles and Should Be Adopted as An Interim Methodology

At the CEC’s December 3 workshop in its Integrated Energy Policy Report (“IEPR”) proceeding, the Council presented its “PJM/NYISO” method as a potential option as an interim solution. The PJM/NYISO is so named because it mimics the approach used by the eastern capacity markets in which each DR provider proposes its QC values to the market operator. The market operator performs an assessment on the inputs to the QC values and makes a determination on the amount of capacity each DR provider is authorized to sell in the next capacity auction.

The PJM/NYISO method is highly suitable as an interim method because it addresses almost all of the six needs listed above and can be easily implemented for the 2023 RA Year.

Premise of the Council Proposal

The Council Proposal would utilize a significantly different approach compared to the LIPs that would be more effective in ensuring the delivery of contracted capacity than the LIPs while reflecting the actual capabilities of each DR provider. The LIPs utilize rigorous regression-based up-front analyses to estimate QC values but often lack a direct connection between DR provider capabilities as well as a process to ensure that they are actually delivering consistent with contractual commitments. Therefore, any perceived precision of LIP-based QC values is based on the belief that the associated regression models that are used to perform these analyses are somehow able to accurately predict future key inputs that directly impact DR QC values such as DR provider enrollment levels, penetration levels of enabling technologies, and other innovations that could improve DR customer participation and performance. In reality, LIP-based analyses cannot accurately predict these inputs which are subject to DR provider efforts and individual customer decisions, and cannot be influenced by the regression analyses themselves. DR providers are best positioned to know these inputs and can best assess how they translate into the amount of capacity they can responsibly sell. However, to ensure that DR providers are realistic in their estimates, a mechanism is needed to ensure that contracted capacity is delivered. The Council proposes to eliminate the use of LIP-based up-front analyses to estimate QC values, and replace it with a DR provider responsibility to assess the QC value of their portfolios, with continued Energy Division oversight over final QC value, while being subject to an after-the-fact penalty structure to ensure that contracted capacity is delivered.

Methodology Process

The Council Proposal involves the following primary steps:

- 1. DR Provider Analysis:** As frequently as on a quarterly basis, the DR provider performs its own internal analysis using its choice of analytical tools to calculate its Claimed QC (i.e., the amount of QC the DR provider forecasts that it can provide) for each month of a given period based on the prevailing CPUC RA framework and DR availability requirements.

Claimed QC values must be made at the System-level and, optionally, at the Local Capacity Area (“LCA”)-level, for up to three years in advance to allow DR providers to participate in multi-year LSE solicitations. LCA-level Claimed QC values are only required if the DR provider intends to sell Local RA. The current one-year limitation on DR NQC values poses a risk to DR providers when selling their capacity farther than one year in advance because it is unclear what their QC value will be in the future under the current LIP process.

The DR provider then provides its Claimed QC values and specified Supporting Data to the CPUC Energy Division for review and assessment, just as is currently done in the LIP process. The Supporting Data consist of:

- a. Current and projected number of Service Accounts
- b. Customer class, size, and technology type, if applicable
- c. Projected aggregated load (aggregated capacity in the case of behind-the-meter (“BTM”) energy storage)
- d. Projected % of load impact or reduction (projected % of capacity delivered for energy storage)
- e. Nature of load being aggregated
- f. Dispatch method
- g. Historical performance data

- 2. Energy Division Assessment:** The Energy Division assesses the DR provider’s Claimed QC values and Supporting Data. If necessary, the Energy Division follows up with the DR provider for additional documentation or clarifying questions. This step is similar to the current step under the LIP process in which the Energy Division reviews LIP reports and requests additional information if necessary. Once the Energy Division makes a determination on the DR provider’s Awarded QC values, they post the NQC values on the current CPUC NQC List for the forward period requested by the DR provider (up to three RA years).
- 3. Contracting DR Capacity & Collateral Requirement:** Once a DR provider receives its NQC value, it is free to sell its capacity as Resource Adequacy. To ensure that DR providers will be able to deliver the capacity it contracts out (Contracted QC), each will be required to provide a \$2,500/MW-year collateral payment to the Energy Division to be held in escrow based on the amount of NQC they have contracted out. To be clear, the Collateral Requirement would not apply to Awarded QC because a DR provider should not be required to provide collateral on capacity it has not sold. In the future, those DR providers with a strong track record of reliable capacity deliveries could potentially be subject to lower or no collateral payments. Payment of the Collateral Requirement would be due two months prior to the beginning of the contract delivery period. A DR provider can notify the Energy Division at any time if its Collateral Requirement should be reduced to reflect less capacity under contract.

- 4. Performance Assessment:** On an annual basis, for each RA contract, DR providers would submit to the Energy Division a completed Demonstrated Capacity template and associated invoices for each RA contract that compares the amount of capacity delivered against the Monthly Supply Plan QC for each RA contract for each month. As Contract Quantities are grossed up by the Planning Reserve Margin and Transmission Loss Factors, comparing performance against Supply Plan values ensures accurate evaluation of load impacts net of the gross ups. For months for which the local IOU has provided less than 95% of Revenue Quality Meter Data (“RQMD”), the DR provider will be exempt from providing Demonstrated Capacity data. Demonstrated Capacity reflects CAISO market performance based on the following delivery types during the prevailing Availability Assessment Hours: 1) full economic dispatch, 2) full dispatch test event, or, 3) when there is no full economic dispatch or test event, CAISO market bids during the applicable Must Offer Obligation (“MOO”) hours. This approach directly aligns CAISO market settlement with capacity performance because DR providers will be required to bid consistent with their Monthly Supply Plan QC. The following Demonstrated Capacity guidelines would apply:
- a. Each resource within a contract may provide a different ratio of full economic dispatches and market bids, but the prevailing RA testing rules for DR resources must be observed. For example, a DR provider has a Monthly Supply Plan of 4 MW of RA capacity using two 2-MW resources in different sub-Load Aggregation Points (“subLAP”). Resource 1 may meet its Demonstrated Capacity requirements using full economic dispatches and test events (i.e., it is dispatched in each month), whereas Resource 2 may meet its Demonstrated Capacity requirements using only test events and market bids.
 - b. To count toward Demonstrated Capacity, a test event must be for the full resource amount, subject to the prevailing CPUC DR testing rules. The Demonstrated Capacity value of a test event is the average output during the entire test event.
 - c. The current order of Demonstrated Capacity is as follows: 1) if there is a full market dispatch of a resource in a month, the results must be used for Demonstrated Capacity; 2) if there is a test of a resource in a month, the results must be used for Demonstrated Capacity; and 3) only if there is no dispatch or test of a resource in a month can the bidding detail for a resource under the MOO be used for Demonstrated Capacity.
 - d. Customer location movement between resources within a month is prohibited, except under the following circumstances:
 - i. Newly enrolled customers can be added to a resource.
 - ii. A customer who exits the Auction Mechanism may be dropped from a resource.
 - iii. If the above changes make a resource trigger the CAISO’s 10 MW telemetry requirement, or have it drop below the minimum Proxy Demand Response size of 100 kw resources, resources may be split or combined mid-month to continue to meet CAISO market requirements.
 - e. The DR provider must avoid any potential double counting of customer performance associated with service account movement permitted by the exemptions when

invoicing Demonstrated Capacity. In order to mitigate double counting of customer performance, all customers not having been dispatched through an economic dispatch must be tested within the same month.

- f. The baseline method used for energy settlement at the CAISO must be the same as the baseline method used to invoice Demonstrated Capacity.

5. Penalty Assessment (if necessary): Penalty assessments are assessed on an annual basis by the Energy Division based on the Demonstrated Capacity information provided during the performance assessment described above. The Energy Division will assess monthly performance for each individual contract. The Council proposes that the Pacific Gas and Electric Company (“PG&E”) Capacity Bidding Program (“CBP”) penalty structure be used to ensure equitability with IOU DR programs to maintain equitability with IOU DR programs.

PG&E CBP Penalty Structure	
Contracted QC vs. DC Value	Penalty
105% - 75% of Monthly Supply Plan QC	None
<75% to >=60% of Monthly Supply Plan QC	50% of DC
<60% to 0% of Monthly Supply Plan QC	(60%-Hourly Delivered Capacity Ratio of DC)

If the average monthly performance for an RA contract is above 75%, DR providers will receive 100% of their Collateral Requirement associated with that specific contract.²³ If the average monthly performance is between 60%-75%, DR provider will lose 50% of their Collateral Requirement. If the average monthly performance is below 60%, DR providers will lose 100% of their Collateral Requirement. Any loss of a DR provider’s Collateral Requirement due to poor performance would be provided by the Energy Division to the contracting LSE. Any loss of a DR provider’s Collateral Requirement would need to be replenished as necessary based on its contracted capacity for the following year.

QC Process Timeline

- Quarter 1 Cycle
 - December 1: Updated Claimed QC for up to 3 years beginning in Q2 due to Energy Division
 - January 1: Updated Awarded QC issued by Energy Division

²³ Penalties would be assessed for each individual contract. For example, a DR provider has two RA contracts – Contract One is for 10 MW and Contract Two is for 5 MW. The DR provider would put up \$25,000 for Contract One and \$12,500 for Contract Two for a total collateral of \$37,500. If the DR provider performs, on average, at 70% for Contract One and at 95% for Contract Two, they will receive back 50% of the collateral associated with Contract One and 100% of the collateral associated with Contract Two, for a total of \$25,000.

- February 1: Updated Contracted QC due to Energy Division; incremental Collateral Requirement due, if required
- February 15 (est.): Month-Ahead Supply Plans due for April
- Quarter 2 Cycle
 - March 1: Updated Claimed QC for up to 3 years beginning in Q3 due to Energy Division
 - April 1: Updated Awarded QC issued by Energy Division
 - May 1: Updated Contracted QC due to Energy Division; incremental Collateral Requirement due, if required
 - May 15 (est.): Month-Ahead Supply Plans due for July
- Quarter 3 Cycle
 - June 1: Updated Claimed QC for period for up to 3 years beginning in Q4 due to Energy Division
 - July 1: Updated Awarded QC issued by Energy Division
 - August 1: Updated Contracted QC due to Energy Division; incremental Collateral Requirement due, if required
 - August 15 (est.): Month-Ahead Supply Plans due for October
- Quarter 4 Cycle
 - September 1: Updated Claimed QC for up to 3 years beginning in Q1 due to Energy Division
 - October 1: Updated Awarded QC issued by Energy Division
 - November 1: Updated Contracted QC due to Energy Division; incremental Collateral Requirement due, if required
 - November 15 (est.): Month-Ahead Supply Plans due for January
- Annual Demonstrated Capacity Assessment
 - January 15: Prior-year Demonstrated Capacity templates and associated invoices due to Energy Division
 - February 15: Energy Division notifies DR providers if they incurred penalty payments, including whether the penalty exceeds Collateral Requirement
 - March 15: Energy Division transfers DR provider penalty payments, as necessary, to contracting LSEs.

Conclusion

The Council Proposal addresses the key requirements in a new DR QC methodology. Specifically, it 1) better reflects actual DR provider capabilities rather than relying on a series of regression analyses using historical data to determine what it can provide, 2) significantly reduces the timeline for QC value determination, 3) may improve the transparency of the Energy Division assessment, 4) minimizes the cost to DR providers because they will not be required to retain a consultant, and 5) reduces Energy Division workload. In addition, this method ensures that capacity deliveries are directly measured against CAISO market performance, and maintains the Energy Division’s role as an “emergency brake” to ensure that DR providers’ claimed QC values are realistic.