

California Public Utilities Commission

2025 Resource Adequacy and Slice of Day Guide

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This guidance is provided by Energy Division Staff to facilitate LSE compliance with Commission Decisions. This guidance does not modify any Commission Decision, and where any apparent or explicit or implicit conflicts between this guidance may arise the language of Commission orders prevails.

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1. Purpose and Overview of Resource Adequacy Guide

This 2025 Resource Adequacy (RA) Compliance Guide (“Guide”) is meant to inform Load Serving Entities (LSEs) in demonstrating compliance with the CPUC’s RA program. This Guide also provides a comprehensive overview of the California Public Utilities Commission’s (CPUC) Slice of Day (SOD) RA framework, new for the 2025 compliance year. In addition to the RA SOD System and Local/Flexible Templates (Templates) and corresponding User Guides, LSEs are to use this Guide as reference material. Load Serving Entities (LSEs) under the CPUC’s jurisdiction are highly recommended to read this Guide in its entirety prior to contacting Energy Division staff with any questions or comments. To the extent that this Guide is incomplete or does not address a particular issue, LSEs are encouraged to contact Energy Division staff (RAFiling@cpuc.ca.gov).

2. New for 2025 RA Compliance Year

D.24-06-004 and D.23-04-010 made several changes to the RA program rules and implementation.

Those changes for the 2025 RA compliance year, among others, are summarized below:

- Dates were revised to reflect 2025 dates, and some other minor rewording was made to clarify directions. The schedule of filing deadlines included in Section 3 of this Guide is based on current rules regarding when RA filings are due; please visit our online RA Filing calendar for a current calendar.

D.24-06-004

- For the 2025 Resource Adequacy year, a 17 percent planning reserve margin is adopted to apply to the Slice of Day framework.
- For June-September month-ahead Resource Adequacy (RA) filings, new resources with a commercial operation date (COD) after T-30 and before the start of a load-serving entity’s (LSE) RA compliance month (T-1) may count towards curing an LSE’s identified RA deficiencies for that compliance month, provided that the LSE submits the following documentation to Energy Division:
 - (a) The new resource contract verifying that the resource will be providing a must-offer obligation into the California Independent System Operator’s (CAISO) energy markets consistent with an RA product, and

- (b) A COD notice that confirms the resource was online and deliverable before the start of the compliance month (T-1). The megawatts associated with the identified resource must not accept any CAISO Capacity Procurement Mechanism designation for the associated compliance month. To implement the adopted extended cure period, Energy Division will continue to issue deficiency notices prior to T-30. If an LSE meets the above requirements, after the RA compliance month, Energy Division will refer any remaining deficiency to the Consumer Protection and Enforcement Division. If the LSE's new resource cures the LSE's deficiencies, the LSE's deficiencies will be considered cured within five business days. This rule is effective upon the issuance of this decision and may be utilized by LSEs for compliance beginning with the June 2024 month-ahead showing.
- Under the SOD framework, hybrid and co-located resource's qualifying capacity (QC) counting methodology will be as follows: the renewable component's QC value will be calculated the same as any other renewable resources' QC values, that storage component's QC value will be calculated the same as other storage resources' QC values, and the total QC value of the resource will be the sum of the two components limited by the Point-of-Interconnection (POI) limit and the SOD compliance tool's state-of-charge test. This is effective for the 2025 RA compliance year.
- Exceedance levels for wind and solar resources will be adjusted to monthly levels, with the first update to occur in 2024 and subsequent updates every three years thereafter.
- Paired storage resources (i.e., co-located or hybrid resources) will be characterized on the Master Resource Database (MRD) as either charging exclusively from paired resources or allowing grid charging. For co-located grid-charging restricted storage, the charging capabilities of the variable energy resource (VER) will be applied to charging the storage regardless of if the LSE has the off-take rights to the VER; the energy required to charge the storage will be added to the storage excess capacity requirement in the showing template. For grid-charging enabled storage resources, the charging requirements will be accounted for in the storage excess capacity test. For hybrid resources, the LSE will list both the storage and VER components in their showing and charging requirements will be added to the storage excess capacity test. The storage and VER components of hybrid resources should be shown at the same proportion of their respective net qualifying capacity (NQC), for example both at 100% or both at 50%. The

hourly showing for co-located and hybrid resources may not exceed the interconnection limit in any hour.

- Energy Division will allocate the Resource Adequacy (RA) benefits of the Diablo Canyon Power Plant (DCPP) to all load-serving entities within each investor-owned utilities' service territory using the Cost Allocation Mechanism. In the event of an unplanned outage that results in Pacific Gas and Electric Company's (PG&E) inability to meet its system RA obligations, PG&E is eligible for a limited system waiver. The waiver request shall be submitted through a Tier 2 Advice Letter that provides: (1) the reason for PG&E's deficiency in meeting the RA requirement due to the unplanned outage of the DCPP, and (2) a demonstration that PG&E made every reasonable effort to procure replacement capacity to mitigate the unplanned outage. This is effective upon the issuance of this decision, commencing with the extended operating periods of DCPP Units 1 and 2.
- Load-serving entities must show all deliverable resources on Slice of Day (SOD) Resource Adequacy (RA) plans to the California Independent System Operator, with the exception of Q3 2025 off-peak imports that are being shown only to the Commission to meet requirements under the SOD framework. This is effective for the 2025 RA compliance year.
- Non-resource-specific imports may be exempt from the non-resource-specific import bidding requirements, provided that the LSE submit with its RA filing an attestation from the import provider attesting that the following conditions apply:
 - (a) The import provider owns the energy resources providing the contracted capacity
 - (b) The resources are an aggregation of physically linked resources
 - (c) The capacity from the resources is not otherwise encumbered or sold to another party
 - (d) The import provider has a firm transmission to the CAISO balancing authority area for the full amount under contract and it is back by operating reserves
 - (e) The energy will be economically bid into the CAISO day-ahead and real-time markets in alignment CAISO must-offer obligation rules for resource-specific imports
 - (f) Should the resources receive a dispatch from the CAISO market, the energy and transmission will be firm and given priority equal to the LSEs' native load and will not be curtailed for economic or reliability reasons, except under the circumstances noted above

If the non-resource-specific import meets these requirements, it will be exempt from the current non-resource-specific import bidding requirements.

D.23-04-010

- Energy Division is authorized to modify and implement the compliance and verification tools adopted for use in the 24-hour slice-of-day framework, and to modify and implement instructions and additional filing procedures, as necessary to ensure consistency with the Commission's direction and to ensure the orderly implementation of the slice-of-day framework and the changing needs of the Resource Adequacy program.
- The Maximum Cumulative Capacity buckets 1-4 are not applicable to the Resource Adequacy program under the 24-hour slice-of-day framework, beginning with the 2024 test year.

3. 2025 RA Compliance Due Dates

3.1 Timeline for Year Ahead Load Forecasts for 2025 Compliance Year:

LSEs file Historical load info	Mar 11, 2024
LSEs file 2025 Year-Ahead Load Forecast	Apr 15, 2024
LSE revise 2025 Initial Year-Ahead Load Forecast	May 13, 2024
CPE receive 2025 Year-Ahead local RA requirements for 2025, 2026, and 2027	July 23, 2024
LSEs receive 2025 Year-Ahead RA obligations including system and flexible CAM credits from CPE procurement from prior year	July 31, 2024
Final date to file revised forecasts for 2025	Aug 12, 2024
LSEs receive updated CAM credits for the system and flexible capacity procured by the CPE in Mid-August	August 30, 2024
LSEs receive revised 2025 RA obligations including updated CAM credits for the system and flexible capacity from CPE procurement filed in Mid-August based on revised load forecast	Sep 25, 2024

3.2 Load Forecast and Month-Ahead Filing Dates for 2025 RA Compliance

(Includes the Due Date for the Local RA True up Filing Pursuant to D.14.06-050)

* Pursuant to Rule 1.15 of the CPUC Rules of Practices and Procedure, if the due date falls on a Saturday, Sunday, or holiday, it is extended to the following business day.

RA Filing Month	Load Forecast Month	Due Date
CPEs make local showing to the Commission for 2025, 2026, and 2027 for PG&E and SCE Local Areas, along with LSEs' attestations		Aug 19, 2024
CPE Annual Compliance Report		Sep 19, 2024
The CPEs and LSEs that committed to self-show make year-ahead showing to CAISO		October 31, 2024
Final 2025 Year-Ahead, LSEs in the SDG&E TAC make system, flexible, and three-year local RA showing, LSEs in PG&E and SCE TACs make year-ahead system and flexible showings, and provide justification statements, if applicable, for local resources not self-shown or bid to the CPE		Oct 31, 2024¹
January		Nov 17, 2024*
February		Dec 18, 2024
March		Jan 15, 2025
April	May - December	Feb 15, 2025*
May		Mar 17, 2025
Q3 Non-binding		April 15, 2025
June		Apr 17, 2025
July (with Local & Flex true up)		May 17, 2025*

¹ Supporting documentation for 2026 and 2027 local capacity for SDG&E local RA requirement is due to Energy Division on November 30, 2024. See Section 6 for more information.

August (with Local & Flex true up)		Jun 17, 2025
September (with Local & Flex true up)		Jul 18, 2025
October (with Local & Flex true up)		Aug 17, 2025*
November (with Local & Flex true up)		Sep 17, 2025
December (with Local & Flex true up)		Oct 17, 2025

^[1] Supporting documentation for 2026 and 2027 local capacity for SDG&E local RA requirement is due to Energy Division on December 2, 2024. See Section 6 for more information.

3.3 Timeline for 2026 Year Ahead Load Forecasts to be Filed with the CEC and CPUC:

LSEs file historical load info	Mar 10, 2025
LSEs file 2026 initial Year-Ahead load forecast	Apr 14, 2025
LSEs may revise 2026 initial Year Ahead load forecast	May 12, 2025
LSEs file final load forecast for 2026	Aug 11, 2025

4. Background

Energy Division staff, alongside the assigned Commissioner and Administrative Law Judge, oversee both the compliance and policy aspects of the CPUC's RA Program. Refinements to the CPUC's RA Program are scoped, discussed at length, and ultimately adopted via the process of CPUC ratemaking proceedings, which are, generally, initiated approximately every two years and conclude within 18 months. A wide variety of stakeholders—including but not limited to load serving entities, consumer advocates, reliability coordinators, and generators—are essential to the decision-making process.

Since its establishment in 2004², the RA Program has continued to evolve significantly in response to various factors, including but not limited to federal and state decarbonization policies, increases in the numbers of CCAs and ESPs, regionalization, the proliferation of variable (e.g., wind and solar) and

² Decision (D.) 04-10-035.

distributed energy resources (e.g., rooftop solar photovoltaic panels and behind-the-meter storage), and increasingly extreme weather events.³

4.1 RA Framework

The RA Program framework contains three distinct requirements and two types of filings, as seen in Table 1 and Table 2 below.

Table 1: Resource Adequacy Framework – Requirements

Requirement	Determination
System RA	Each LSE's CEC-adjusted forecast plus a planning reserve margin (PRM)
Local RA	Annual CAISO study using a 1-in-10 weather year and an N-1-1 contingency
Flexible RA	Annual CAISO study that looks at the largest three-hour ramp for each month needed to run the system reliably

Table 2: Resource Adequacy Framework – Showings

Showing	Annual (Filed on or around 10/31)	Monthly (Filed 45 days prior to compliance month)
System	LSE must demonstrate procurement of 90% of System RA obligation for the five summer months (May – September) of the coming compliance year.	LSE must demonstrate procurement of 100% of its monthly System RA obligation.
Local	For its three-year forward obligation, each LSE in the SDG&E transmission access charge (TAC) area must demonstrate procurement of 100% of	From July to December, LSE must demonstrate procurement of their revised (due to load migration) Local RA obligation.

³ A comprehensive summary of major CPUC decisions and resolutions can be found at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/resource-adequacy-homepage/resource-adequacy-history>

	Local RA obligation for each month of compliance years one and two and 50% of its Local RA obligation for year three. LSEs in the SCE and PG&E TAC areas no longer have a local requirement with the adoption of the central procurement entity (CPE) structure. ⁴	
Flexible	LSE must demonstrate procurement of 90% of Flexible RA obligation for each month of coming compliance year.	LSE must demonstrate procurement of 100% its monthly Flexible RA obligation.

Historically, the need for grid reliability was sufficiently addressed through the procurement of system, local, and flexible requirements, which have been based on each LSE’s monthly peak load forecast and subject to maximum cumulative capacity (MCC) bucket caps (to prevent overreliance on use-limited resources such as variable energy resources and supply side demand response). However, a western-wide heat wave in 2020, which resulted in the California Independent System Operator (CAISO) initiating rolling blackouts during August 18-20, highlighted the urgent need for reform of the RA Program.

5. History of the Slice of Day Framework

Rulemaking 19-11-009

On November 13, 2019, the Commission issued an Order Instituting Rulemaking establishing Rulemaking (R.) 19-11-009 as part of efforts to continue oversight of the RA Program. The Order specifically noted that “it may be necessary to re-examine the structure and processes of the Commission’s RA program.”

On January 22, 2020, the assigned commissioner, Commissioner Liane M. Randolph, issued a Scoping Memo establishing Track 3 of the proceeding and setting the issues for the track as forth:

1. Examination of the broader RA capacity structure to address energy attributes and hourly capacity requirements, given the increasing penetration of use-limited resources, greater reliance on preferred resources, rolling off of a significant amount of long-term tolling

⁴ D.20-06-002.

contracts held by utilities, and material increases in energy and capacity prices experienced in California over the past years.

2. Other significant structural changes to the RA program identified during Track 1 or Track 2 that will require more process and time to develop and implement.

On July 7, 2020, Commissioner Randolph issued an Amended Scoping Memo splitting Track 3 into two tracks, Track 3.A and Track 3.B, and specifically assigned examination of the broader RA capacity structure, alongside additional Track 3 issues identified in D.20-06-031 and D.20-06-028, to Track 3.B.

On December 11, 2020, Commissioner Randolph issued an additional Amended Scoping Memo, which stated that it was “necessary to adjust the scope of Track 3B and divide Track 3B into two sub-tracks to separate the larger structural changes that may require additional process following the June 2021 decision, from other interim changes,” and split Track 3.B into two tracks, Track 3B.1 and Track 3B.2. Specifically, Track 3 issues previously deemed to be more “more complex and somewhat less time-sensitive structural changes and refinements to the RA program” were designed as Track 3B.2 issues. Further this Amended Scoping Memo directed consideration of:

- The direction the Commission intend[ed] to move in with respect to larger structural changes (e.g., capacity construct addressing energy attributes and reliance on resource use-limitations, forward energy requirement construct). Set forth the necessary milestones and additional details that must be determined in order to implement the adopted direction for a compliance year no earlier than 2023.
- Multi-year system and flexible RA requirements, as stated in D.20-06-002.

Decision 21-07-014 – Adoption of Slice of Day Proposal and Principles

On July 15, 2021, the Commission approved D.21-07-014 addressing Track 3B.2 issues. In this Decision, the Commission determined that Pacific Gas and Electric Company’s (PG&E) Slice of Day (SOD) proposal best addressed identified principles and concerns with the current RA framework and, if further developed, was best positioned to be implemented in 2023 for the 2024 compliance year.

The Decision directed parties to undertake a minimum of five workshops over the following approximately six months to develop implementation details based on PG&E’s SOD proposal, covering the following implementation details:

- Structural Elements

- Resource Counting
- Need Determination and Allocation
- Hedging Component
- Unforced Capacity Evaluation and Multi-Year Requirement Proposals

Additionally, the Decision identified five key principles, of which an “implementable” RA framework must address:

- **Principle 1:** To balance ensuring a reliable electrical grid with minimizing costs to customers.
- **Principle 2:** To balance addressing hourly energy sufficiency for reliable operations with advancing California’s environmental goals.
- **Principle 3:** To balance granularity and precision in meeting hourly RA needs with a reasonable level of simplicity, and transactability.
- **Principle 4:** To be implementable in the near-term (e.g., 2024).
- **Principle 5:** To be durable and adaptable to a changing electric grid.

The Decision directed that at the conclusion of the workshops, an identified party or parties submit a Workshop Report to the RA Proceeding in February 2022 providing the final proposed framework (identifying consensus and non-consensus items) and how the final proposal addressed implementation details and the key principles.

[393334426.PDF \(ca.gov\)](#)

Rulemaking 21-10-002

Following the closure of R.19-11-009 in D.22-04-043, on October 7, 2021, the Commission issued an [Order Instituting Rulemaking](#) establishing a new proceeding, R.21-10-002, to continue the Commission’s oversight and development of the RA Program.

The assigned commissioner in this proceeding at the time, President Marybel Batjer, issued a [Scoping Memo](#) on December 2, 2021. This Scoping Memo established a Reform Track for addressing the issues in R.19-11-009’s Track 3B.2, which encompassed consideration of a final proposed framework and the Workshop Report to be submitted to the RA Proceeding.

From September 2021 to January 2022, parties to R.19-11-009 and R.21-10-002, alongside the Commission’s Energy Division, undertook a series of workshops to address the implementation details laid out in D.21-07-014. The Workshop Report directed in D.21-07-014, entitled “[Future of Resource](#)

Adequacy Working Group Report,” was submitted to the RA Proceeding on March 1, 2022. This report outlined, in addition to several proposals on specific elements of a SOD framework, three proposals on the structural SOD framework. Southern California Edison Company (SCE) proposed a 24-hour slice proposal requiring each LSE to demonstrate that it has enough capacity to satisfy its specific gross load profile, including PRM, in all 24 hours on CAISO’s “worst day” in that month. PG&E proposed using SCE’s 24-hour slice framework, but with modifications regarding resource counting, load forecasting, and MCC buckets. Finally, Gridwell proposed a two-slice structure with a gross peak and net peak load requirement.

Decision 22-06-050 – Adoption of 24-Hour Slice of Day Framework

On June 24, 2022, the Commission issued D.22-06-050, in which it determined that SCE’s 24-hour slice proposal best satisfied the principles and objectives identified in D.21-07-014, stating:

With the growing penetration of variable energy and use-limited resources, we observe that the 24-hour slice framework can better address reliability than the current MCC bucket structure. We have previously emphasized the concern that the MCC buckets are not binding and do not account for energy storage charging needs. The 24-hour framework directly addresses energy sufficiency at an individual LSE level by requiring each LSE to provide sufficient excess energy to charge any storage it shows across the 24-hour slices.

This decision determined that under the 24-hour SOD framework, the methodologies for determining qualifying capacity (QC) of different resources would largely maintain the status quo methodologies for resources with “flat” generation profiles, such as thermal resources, for initial implementation. The decision adopted an exceedance methodology for determining of the hourly QC of solar and wind resources, representing a shift from the status quo effective load carrying capability (ELCC) methodology (which consists of a flat percentage applied to the resource’s nameplate capacity, by month). Furthermore, for storage resources, the decision determined that sufficient non-storage capacity must be shown to charge the storage capacity, accounting for efficiency losses.

For purposes of further developing and refining the 24-hour framework, D.22-06-050 directed the formation of several working groups, with a final Workshop Report filed to the RA Proceeding by Q4 2022 and a Commission proposed decision on SOD issues by Q1 2023:

- Workstream 1 – Development of 24-hour Framework Compliance Tools
- Workstream 2 – Determine PRM and Counting Rules

- Workstream 3 – CAISO and Commission Validation and Compliance

Importantly, the decision determined that with the complexities of developing and implementing the 24-hour SOD framework, 2024 would be a Test Year for the SOD framework, with implementation occurring throughout 2023. As such, for 2024, LSEs would file informational-only, non-binding SOD showings, as well as binding showings under the existing RA framework. Beginning in 2025, the 24-hour SOD framework will be fully implemented and binding for RA compliance purposes.

Decision 23-04-010 – Adoption of 24-Hour Slice of Day Implementation Details

On April 6, 2023, the Commission issued D.23-04-010, which adopted implementation details for the 24-hour SOD framework, including adopting compliance tools, resource counting rules for various resource types, and a methodology to translate the annual PRM to the SOD framework.

This decision adopted several proposals as described in the November 15, 2022 Workshop Report:

- **Compliance Tools**
 - **Master Resource Database** – Adopted Energy Division’s proposal to populate the database using public data sources and default values and solicit any needed corrections from parties.
 - **LSE Showing Tool and Commission Verification Tool** – Adopted SCE’s LSE Showing Tool including the components directed in D.22-06-050, which lists resources in an LSE’s portfolio, including resource ID, megawatt (MW) quantity associated with the must-offer obligation (MOO) requirement, and capacity used in each of the 24 hours. Energy Division is authorized to incorporate the storage charging sufficiency logic in Clean Power Alliance’s (CPA) proposed LSE Showing Tool.
 - **LSE Requirement Database** – Adopted the CEC’s proposed process for adapting the existing load forecasting process to the 24-hour slice framework, for use in the LSE Requirement Database.

Decision 24-06-004 – Affirmation of Slice of Day for the 2025 Resource Adequacy Year and Adoption of Slice of Day Implementation Details

On June 20, 2024, the Commission issued D.24-06-004, which affirmed the decision to implement the SOD framework for the 2025 compliance year, and declined to delay implementation another year.

The decision also adopted several additional SOD implementation details:

- **Hybrid and co-located resources qualifying capacity (QC) counting methodology** will be as follows: the renewable component's QC value will be calculated the same as other renewable resources' QC values, the storage component's QC value will be calculated the same as other storage resources' QC values, and the total QC value of the resource will be the sum of the two components limited by the Point-of Interconnection limit and the SOD compliance tool's state-of-charge test.
- **Exceedance levels for wind and solar resources** will be adjusted to monthly levels and updated every three years. The first update will occur in 2024 and will be updated every three years thereafter.
- **Paired storage resources** (i.e., co-located or hybrid resources) will be characterized on the Master Resource Database (MRD) as either charging exclusively from paired resources or allowing grid charging. For co-located grid-charging restricted storage, the charging capabilities of the variable energy resource (VER) will be applied to charging the storage regardless of if the LSE has the off-take rights to the VER; the energy required to charge the storage will be added to the storage excess capacity requirement in the showing template. For grid-charging enabled storage resources, the charging requirements will be accounted for in the storage excess capacity test. For hybrid resources, the LSE will list both the storage and VER components in their showing and charging requirements will be added to the storage excess capacity test. The storage and VER components of hybrid resources should be shown at the same proportion of their respective net qualifying capacity (NQC), for example both at 100% or both at 50%. The hourly showing for co-located and hybrid resources may not exceed the interconnection limit in any hour.

6. Structural Elements of the Slice of Day Framework

The 24-hour SOD framework requires each LSE to demonstrate it has enough capacity to satisfy its specific gross load profile (including planning reserve margin) in all 24 hours on the California Independent System Operator's (CAISO) "worst day" in that month. **While resources' system, local, and flexible attributes are to remain bundled, hourly SOD showings are only required for LSEs' system requirements.**

6.1 “Worst Day”

The “worst day” is defined as the day of the month that contains the hour with the highest coincident peak load forecast. This could evolve over time if some other attribute (e.g., steepest ramping requirement) is found to be more challenging to reliability than the coincident peak.

6.2 Need Determination and Allocation

The California Energy Commission’s (CEC) load forecast approach, as detailed in D.23-04-010, adapts the load forecasting process in the existing framework to the SOD framework using submitted forecasts and will be used to establish individual LSE hourly load forecasts. The CEC proposed an approach for adapting the current load forecasting process, which allocates a share of the total load forecast to each LSE, to the SOD framework using submitted forecasts. The steps are as follows:

Develop a reference forecast for each transmission access charge area by removing historical load shapes for non-Commission jurisdictional entities and removing automatic transmission load adjustment.

Apply an hour- and LSE specific coincidence adjustment to LSE forecasts (comparable to the current approach) but focused on system peak hours. LSE forecasts may also be adjusted based on a comparison of LSE forecasts to a benchmark based on recorded loads, load migration activity, LSE forecast submittals, and weather adjusted loads.

Adjust all forecasts so that the sum is within 1% of the reference forecast.

6.3 Planning Reserve Margin (PRM)

LSEs must demonstrate sufficient capacity to meet their load requirements plus a PRM percentage in each hour (“Load+PRM”). For initial implementation, one PRM will apply to all hours of the year.

In D.23-04-010, Energy Division was authorized to integrate SCE’s calibration tool and the Natural Resources Defense Council’s (NRDC) calibration tool, to the extent possible, to convert the results of the 2024 loss of load expectation (LOLE) study to the SOD framework.

Energy Division has developed the PRM Calibration Tool based on SCE’s and NRDC’s proposals and presented this tool at an October 25, 2023 workshop, followed by revisions in mid-November.

For 2025, the hourly PRM is 17 percent.

6.4 Capacity Required to Offset Storage Usage

To the extent an LSE uses energy storage to meet its Load+PRM requirement, the LSE must demonstrate it has excess capacity (*i.e.*, capacity that exceeds the LSE's hourly RA requirement) that offsets the storage capacity plus efficiency losses. In other words, LSEs must bring enough extra capacity to serve their own batteries. Capacity from supply side demand response (DR) resources and capacity from other storage resources may not be used to meet this requirement.

6.5 Cost Allocation Mechanism (CAM) and RA Allocation

Monthly peak load ratio will be used for the CAM, Reliability Must Run (RMR), central procurement entity (CPE), and demand response (DR) allocations for all slices in the 24-hour framework. Credits associated with CPE procurement will be treated the same as CAM resources under the SOD framework. Energy sufficiency requirements associated with utility procurement of standalone energy storage resources subject to Modified CAM will be proportionally allocated.

CAM resources are allocated by resource class, determined by Energy Division as necessary to account for variation in the resources' daily profiles and use limitations. For the 2025 RA compliance year, CAM resources are broken out by the following resource classes:

CAM Single-Cycle Storage

CAM Multi-Cycle Storage

CAM Peakers

Other CAM Allocation

Energy Division will include energy sufficiency requirement allocations to load-serving entities using the CAM debit/credit mechanism.

7. General Requirements and Counting for Resource Adequacy Capacity

7.1 Requirements of RA Resources

No Unbundling of Attributes

Resource attributes and capabilities remain bundled across each compliance month and the existing full-capability/all-hour must-offer obligation is retained. Bundling resource attributes (*i.e.*, system, local, flexible) and capabilities across each compliance month aligns with the existing must-offer obligation

because it ensures resources that have sold capacity also have a must-offer obligation equal to the sold amount for all hours they can produce. Resources can continue to sell portions of their capacity to different LSEs (*e.g.*, 70% of capacity sold to LSE 1 and 30% of capacity sold to LSE 2), but they cannot sell separate hourly products because that would effectively sell the same RA capacity multiple times.

Full-Capability Must-Offer Requirement

An RA resource must offer all its capability to CAISO for the quantity of RA shown by LSEs. CAISO's market will optimize resources consistent with bids and resource limitations across the compliance month.

Resources Must Be Deliverable to Provide RA

Resources must be deliverable to qualify to sell RA (and be included in the RA showing), as required today. Resources that are partially deliverable can only provide RA for the portion of the resource that is deliverable. A resource's deliverability status is indicated in the Showing Tool's Master Resource Database.

There may be instances where resources that are not deliverable may be shown to the CPUC for purposes of meeting charging requirements under the SOD framework. For example, off-peak imports and co-located energy-only VERs are not deliverable and cannot count toward RA capacity requirements, but may be shown to meet charging sufficiency requirements.

Profiles and Net Qualifying Capacity (NQC)

All resources will still have a single monthly NQC value representing the deliverability-adjusted peak-hour contribution. Most resource types will continue to utilize this NQC for their hourly showing (*i.e.*, flat profiles) while solar and wind will utilize hourly profiles (*i.e.*, shaped profiles). The Commission will provide three values to CAISO for each resource type whose counting methodology will change to hourly profiles under the SOD framework: (1) the maximum showing value, (2) the peak showing value, and (3) the greater of the peak hour value and a very small non-zero QC value if the peak hour value is zero. During Test Year 2024, the non-zero QC values were based on previous QC methodologies to ensure consistency with the compliance values for 2024. Beginning in the 2025 compliance year, the greater of the peak hour value and a very small non-zero QC value if the peak hour value is zero will be provided to CAISO for the non-zero QC value.

Deliverability

The current on-peak deliverability study process shall continue to be used, with outputs in the 24-hour framework. A resource is deemed to be “fully deliverable” if its full modeled output can deliver to system load under summer peak load conditions, and “partially deliverable” if something less than its full modeled output can reach the grid. The “full deliverability” amount is not dependent on the Commission’s resource counting, only CAISO’s modeling.

7.2 Resource Counting

Resource capacity counting should be consistent with expected capacity contribution in each slice. The expected capacity contribution in a slice will depend on resource size, general type, special operational characteristics or limitations, deliverability status, and location (for solar/wind resources). These limitations will be identified through the development of the RA Master Resource Database (MRD). The database will also include tables reflecting solar and wind profiles.

Wind and solar resources are assigned monthly 24-hour profiles based on Pacific Gas and Electric Company’s (PG&E) Top 5 Day exceedance methodology. PG&E’s Top 5 Days data set is modified to add days on which CAISO called a Flex Alert, Warning, Stage 1-3 Emergency, or EEA 1-3 condition. The exceedance methodology is applied to historical data to generate technology (solar fixed/tracking/solar thermal) and regional profiles.

For most categories of wind and solar resources, six years of production data are used as the basis for the exceedance methodology, sourced from CAISO meter quality settlement data from 2017 to 2022. Updates to the wind and solar resources with refreshed data will be made every year.

D.23-04-010 permits Energy Division to calculate exceedance values using a minimum three years of modeled data where the full six years of historical production data are not available for resources in new locations or for new technologies.

The modeled data is sourced from the most recent IRP modeling. As resources in new areas generate historical production data, new data will be added to the data set and displace earlier years.

D.24-06-004 specifies that exceedance levels will be updated every three years, with the first update occurring in 2024.

Energy Division developed solar and wind profiles for in-state solar/wind and out-of-state wind resources and published its analyses on the Commission's RA website, which included the non-confidential versions of the historical data and exceedance calculations. Energy Division solicited informal comments from parties on the analysis and profiles on July 20, 2023 and received comments from several parties. In response to comments, Energy Division implemented several refinements for picking the exceedance levels in accordance with PG&E's Top 5 Days Methodology:

Dispatchable resources (including resources not explicitly discussed elsewhere) are assigned a single value based on Pmax. Dispatchable use-limited resources are subject to identified daily availability constraints, which are captured in the MRD.

Non-dispatchable resources are assigned a single monthly value applied to all hours, based on the existing QC counting methodology, subject to availability constraints for each month.

Dispatchable hydro resources are assigned a single monthly value applied to all hours based on the existing QC counting methodology.

Energy storage resources are assigned value based on Pmax, restricted to daily resource capabilities (e.g., maximum daily run hours, maximum continuous energy, and storage efficiency). Excess capacity must be shown to cover battery capacity with efficiency losses.

Storage resources that are operationally and contractually able to provide multiple cycles in a 24-hour cycle may be shown for multiple cycles per day, provided that the LSE shows sufficient excess energy and time between discharge cycles to charge the battery. The MRD indicates whether a storage resource can perform multiple cycles per day and the LSE Showing Tool accounts for needed charging capacity.

Hybrid and co-located resources utilize the existing QC methodology to account for charging losses but are updated to use exceedance (rather than Effective Load Carrying Capability) in valuing the solar and wind portion of the resource. Paired resources are characterized on the MRD as either charging exclusively on-site or allowing grid charging. An energy-only (EO) resource is eligible to count towards the storage charging sufficiency requirement if the EO resource is charging exclusively on-site storage, regardless of whether the paired storage is able to charge from the grid. The charging capacity of the renewable resource is capped at the amount that can be used to charge the on-site storage and the storage is capped at the

interconnection limit. Paired components will be shown as separate assets on the MRD and LSEs' showings, and the total of the components will not exceed the interconnection amount in any hour.

Import resources. Resource-specific imports will be assigned value based on the applicable counting rules for that particular resource type. Non-resource-specific imports will count based on the contract value, subject to the requirement that resources be at least four hours in duration. Because non-resource-specific resources are not included in the MRD, LSEs must indicate hourly profiles based on the contract in the Showing Tool's Custom Resource Profiles tab.

For import resources under the SOD framework, a non-resource-specific import will count towards the RA requirements, provided that:

The contract is an energy contract with no economic curtailment provisions.

The energy must self-schedule (or in the alternative, bid in at a level between negative \$150/MWh and \$0/MWh) into the CAISO day-ahead and real-time markets at least during the Availability Assessment Hours every Monday- Saturday excluding NERC holidays throughout the RA compliance month.

The energy must be delivered to the LSE in accordance with the governing contract.

Demand response resources. For the 2024 Test Year, DR resources shall be shown for four consecutive hours of the Availability Assessment Hour (AAH) window, unless required by contract or tariff to be capable of responding to longer dispatches, in which case the shown hours must include all of the AAH window. The value of DR resources will vary by hour based on the resource's capability on the worst day of the month under the 1-in-2 planning framework. Snap back effects are included in the *ex ante* load impact protocol filings but are not reflected in the RA capacity counting.

D.23-06-029 discontinued the use of the transmission loss factor (TLF) and PRM adders previously applied to DR resources⁵, but retained the distribution loss factor (DLF) adder. As such, the DLF adder is applied to the qualifying capacity of DR resources.

⁵ OP 29 of D.23-06-029.

Maximum Cumulative Capacity (MCC) buckets.

MCC buckets 1-4 will not be applicable for the SOD framework beginning in the 2024 Test Year and continuing into the 2025 Compliance Year. The MCC DR bucket will be retained for the SOD framework and the status quo methodology for determining the MCC DR bucket limit will be used, based on gross load and 24 hours per month. The DR bucket limit of 8.3 percent is applied equally to each slice.

8. Showing Mechanics

8.1 RA Master Resource Database

The Commission will maintain an official database of resources eligible to sell RA that includes their key attributes, as listed below. Resources must be fully represented in the MRD to be eligible for use in the Commission's 24-hour SOD RA showing. The database shall include:

- Resource ID
- Available MW of RA capacity
- Hours available for production—represents the hours of its must-offer obligation and will set the parameters on how it can be shown in the Commission's RA showing
- Other use-limitations (*e.g.*, peaker permit limits)
- Max continuous energy and max daily energy MWh
- Charging efficiency (storage)
- Daily storage cycles (contractual and physical ability)
- Configurations (hybrid and co-located)
- Applicable hourly profile for solar and wind
- Whether the resource allows charging exclusively on-site and allows for grid charging
- Whether the resource is located in an LCR area
- An "under-construction" tab with resources that have not yet come online as of the date of the annual filing

Energy Division published the draft MRD to the Commission's website and solicited informal feedback from parties and any corrections from generators via service to the service list in R.23-10-011. Energy Division compared feedback from generators with information in CAISO's Master File, and incorporated

corrections and feedback into the MRD as warranted. The MRD is included directly in the LSE Showing Tool and will be updated monthly for deliverability and net qualifying capacity updates.

8.2 LSE Showing Tool

D.23-04-010 adopted SCE's LSE Showing Tool approach and authorized Energy Division to implement Clean Power Alliance's energy storage sufficiency logic into the tool to the extent possible. Energy Division published the draft LSE Showing Tool on the Commission's website and held a stakeholder workshop presenting the tool on September 7, 2023. Additionally, Energy Division held a series of three Office Hours in September, October, and November 2023, where parties had the opportunity to ask any questions regarding the LSE Showing Tool and receive feedback.

8.3 Compliance Verification

The Commission will verify the following to confirm an LSE has satisfied its RA requirements:

Resources are being shown within their capability. The MRD is used to validate that LSEs have represented their contracted resources accurately.

Hourly requirements must be met or exceeded. LSEs must show they have met hourly RA requirements.

Excess capacity must be shown to cover shown battery capacity. LSEs must show they have enough excess capacity to cover all shown battery capacity (plus efficiency losses).

9. Contracting Mechanics in Slice of Day Framework

9.1 Existing Contracts

Existing contracts are expected to continue without modification or with minor changes under the 24-hour SOD framework. RA attributes must continue to be bundled and contracted resources continue to have a must-offer requirement based on their operational capability and the amount of monthly RA capacity sold.

9.2 Transactability

The 24-hour SOD framework will result in highly transactable RA products. RA capacity will continue to trade as it does today because it keeps all attributes "bundled." All market participants will know the RA

capability of all resources on a 24-hour basis because the MRD will be public. This transparency will facilitate both direct contracting and secondary trading and will allow LSEs to pursue RA resources that best fit their needs.

10. Tools Required for SOD Implementation

Several new administrative tools have been developed to implement the 24-hour SOD framework. The tools ensure that all parties agree on the RA capability of each resource, have sufficient information to design RA portfolios, can submit the showings, and can demonstrate compliance to the Commission.

RA Master Resource Database

Contains a list of all resources (within the CAISO) eligible to sell RA, their resource ID, their maximum RA capacity, and hours of availability within a 24-hour window;

For solar and wind, identifies the profile associated with the resource;

For storage, includes the charging efficiency, maximum continuous energy, maximum daily energy, whether the resource is charging exclusively on-site or allows for grid charging and daily cycles;

For hybrid and co-located resources, includes configurations to describe capabilities;

Contains data for each month;

Information is public and available to inform trading and resource portfolio development.

LSE Requirement Database

This populates the LSE allocation tab used in the LSE compliance showing;

Contains the official requirements of each LSE (hourly load + PRM), by month, for all 24 hours;

Is used by each LSE to determine its monthly 24-hour showing requirement;

Is used by the Commission to ensure each LSE meets its monthly 24-hour showing requirement;

Is developed by the Commission in communication with the CEC after the CEC finalizes the monthly, 24-hour load shape for each LSE;

Database is non-public. Each LSE has access to only its requirements; the Commission has access to all data.

There has been no change to the current methodology for Local and flexible requirements and allocations.

LSE Showing Tool

Spreadsheet tool used by each LSE to submit their monthly, 24-hour showing to the Commission;

Contains a standard format for listing the resources in an LSE's portfolio including the resource ID found in the Master Database, their MW quantity associated with the must-offer requirement, and the capacity used in each of the 24 hours of the showing;

The tool includes pass/fail logic identical to the Commission Verification Tool, so LSEs know in advance if they will pass Commission verification;

This showing may also be used to provide CAISO the information it will need to determine the must-offer requirements of all resources, and the correct RA capacity values to use when performing their single-hour deficiency test.

The most updated version of the LSE showing tool is located on the [RA Compliance Materials Website](#).

Commission Verification Tool

The tool is designed to use the data submitted through the LSE Showing Tool;

The Commission uses the data submitted by the LSE in its showing, in conjunction with the RA Resource Master Database, which will include solar and wind profiles to determine if an LSE passes the 24-hour RA requirement in each month;

The tool contains basic logic to ensure the showing is consistent with the capabilities of the resources submitted, that sufficient capacity has been brought to meet the LSE's requirement in all 24 hours, and that sufficient excess capacity has been shown to meet the capacity requirements for storage;

LSEs must pass all 24 hours, all logic tests, and the excess capacity requirement to pass the showing;

The tool notes any hour(s) of failure along with the maximum capacity shortfall within the 24 hours.

11. Central Procurement Entity

D.20-06-002 established the Central Procurement Entity (CPE) and hybrid central procurement framework in PG&E and SCE's distribution service areas for the local Resource Adequacy program beginning with the 2023 RA compliance year.

OP 2: Pacific Gas and Electric Company and Southern California Edison Company shall serve as the central procurement entities for their respective distribution service areas for the multi-year local Resource Adequacy (RA) program beginning for the 2023 RA compliance year.

OP 3: The hybrid central procurement framework for local resources is adopted for Pacific Gas and Electric Company (PG&E) and Southern California Edison's (SCE) distribution service areas. Load serving entities in PG&E's and SCE's distribution service areas will no longer receive a local allocation beginning for the 2023 Resource Adequacy compliance year.

OP 4: The hybrid central procurement structure is adopted as follows:

- a. If a load serving entity's (LSE) procured resource also meets a local Resource Adequacy (RA) need, the LSE may choose to: (1) show the resource to reduce the central procurement entity's (CPE) overall local procurement obligation and retain the resource to meet its own system and flexible RA needs, (2) bid the resource into the CPE's solicitation, or (3) elect not to show or bid the resource to the CPE and only use the resource to meet its own system and flexible RA needs.
- b. If an LSE elects to show a local resource, it may either: (1) do so in advance of the CPE's solicitation, if it does not intend to bid it into the solicitation, or (2) bid the resource into the CPE's solicitation but indicate in its bid that the resource will be available to meet local RA requirements even if it is not procured by the CPE, which may reduce the total procurement costs the CPE incurs on behalf of all LSEs.

OP 8: The central procurement entity (CPE) shall conduct a competitive, all-source solicitation for local Resource Adequacy (RA) procurement with the following requirements:

- a. Any existing local resource that does not have a contract, any new local resource that can be brought online in time to meet solicitation requirements, or any load serving entity (LSE) or third-party with an existing local RA contract may bid into the solicitation.
- b. If an LSE-procured local resource is not selected by the CPE, the local resource may still count towards the LSE's system or flexible RA obligations, if applicable.

c. RA attributes shall remain bundled and LSEs shall receive credits for any system or flexible capacity procured during the local RA or backstop processes, based on coincident peak load shares, as is currently done with Cost Allocation Mechanism (CAM) resources.

d. CAM resources and investor-owned utility local Demand Response resources shall reduce the local RA amount that the CPE must procure.

e. The CPE shall include dispatch rights, or other means that stipulate how local resources bid into the energy markets, in its solicitation as an optional term that bidders are encouraged to include.

D.22-03-034 adopted modifications to the CPE structure adopted in D.20-06-002 and D.20-12-006, including revisions to the requirements for self-shown local resources, revisions to the CPE's solicitation selection criteria, and revisions to the CPE procurement timeline.

OP 13: The following timeline is adopted for central procurement entity (CPE) procurement and replaces the timeline adopted in Ordering Paragraph 28 of Decision 20-06-002:

- April-May: The California Independent System Operator (CAISO) files draft and final Local Capacity Requirement (LCR) one- and five-year ahead studies. The LCR studies will include any CAISO-approved transmission upgrades from the Transmission Planning Process LCR study. Parties file comments on draft and final LCR studies.
- No Later Than Mid-May: Load-serving entities (LSEs) in Southern California Edison (SCE) and Pacific Gas & Electric Company (PG&E) transmission access charge (TAC) areas make self-shown commitment of local resources to the CPE for the applicable Resource Adequacy (RA) years.
- No Later than June: The Commission adopts multi-year local RA requirements for the applicable compliance years as part of its June decision.
- No Later Than Early July: CPE receives total jurisdictional share of multi-year local RA requirements for the applicable compliance years.
- July:
 - o For the SCE and PG&E TAC areas, LSEs receive initial RA allocations, including Cost Allocation Mechanism (CAM) credits from CPE-procured system and flexible capacity from the prior year and any bilateral contracts.
 - o For the San Diego Gas and Electric Company (SDG&E) TAC area, LSEs receive initial RA allocations (system, flexible, local requirements) and CAM credits.
- Mid-August: CPE makes local RA showing to the Commission.

- End of August: LSEs in the SCE and PG&E TAC areas receive updated CAM credits for multi-year system/flexible capacity that was procured by the CPE as a result of the CPE's multi-year local RA showing to the Commission in Mid-August.
- September:
 - For PG&E and SCE's TAC areas, LSEs are allocated final year-ahead system and flexible RA allocations, including CAM credits from CPE-procured system and flexible RA capacity based on revised year-ahead load forecast load ratios.
 - For the SDG&E TAC area, LSEs receive final RA allocations (system, flexible, local requirements) and CAM credits.
- End of October:
 - LSEs in the SDG&E TAC make system, flexible, and three-year local RA showing.
 - LSEs in PG&E and SCE TACs make year-ahead system and flexible showings, and provide justification statements, if applicable, for local resources not self-shown or bid to the CPE.
 - The CPEs and LSEs that committed to self-show make year-ahead showing to CAISO.

According to this timeline, for the 2025 Year Ahead compliance process, the CPE will be allocated the local requirements in PG&E and SCE's distribution service areas for 2025, 2026, and 2027. The CPE's local requirement will be net of local RMR resources. The CPE will also be allocated local DR and will show local CAM resources under contract that can count towards meeting their local requirements. For 2025, 2026, and 2027, the CPE will be allocated August local DR for each of the twelve months. LSEs in PG&E and SCE distribution service areas will not receive local requirements for 2025, 2026, and 2027. The Local and Flexible Template has been revised to allow the CPE to show local resources to the CPUC in August consistent with the timeline adopted in D.22-03-034. The CPE should use the template to show local resources for 2025, 2026, and 2027 and indicate the type of resources (i.e. CAM, self-shown, procured).

All LSEs are still required to use the local and flexible template to make their October 31st, 2024 YA flexible filing. For LSEs that serve load in the SDG&E TAC area, this will also include their local compliance filings for 2025, 2026, and 2027.

The local and flexible resource template has been modified in the following ways to accommodate the new filing requirements.

- In the physical resources tab for 2025, 2026, and 2027, three new columns have been added. A column called "CPE Product Type" is added with a options of "Existing CAM", "Self Shown", "Self

Shown LCR-RCM”, and “Procured”. A second column called “LSE for Self-Show” is added. LSEs that self-show the local resources will have their LSE ID populated. A third column is added called “Scheduling Coordinator for Self-Show” for the scheduling coordinator of the self-shown resources.

By August 19, 2024, the CPE will make a local showing to the Commission for 2025-2027. This will also include attestations by the LSEs. By end of August, 2024, LSEs in PG&E and SCE TAC areas will be allocated CAM credits for any system and flexible capacity that was procured by the CPE or by CAISO through the RMR process. These credits will be updated in the late September final allocation based on revised load forecast.

Local Capacity Requirement Reduction Compensation Mechanism

D.20-12-006 adopted a local capacity requirement reduction compensation mechanism and the central procurement entity's competitive neutrality rules.

OP 2. As adopted in Decision 20-06-002, a distribution utility shall have the same options as other load-serving entities in deciding whether to bid or show its resources into the central procurement entity's (CPE) solicitation process, including showing resources to the CPE for no compensation and being eligible for the local capacity requirements reduction compensation mechanism.

OP 3. California Community Choice Association's Option 2 local capacity requirements (LCR) reduction compensation mechanism (RCM) is adopted to apply to new preferred resources and new energy storage resources, including utility-owned generation, with modifications, as follows:

- (a) The central procurement entity (CPE) may accept or reject the shown local resource if more cost-effective resources are available.

- (d) The price shall be differentiated by local area or sub-local area, unless higher-level aggregation is required to mask individual resource prices.

- (e) For a resource eligible for the LCR RCM, if the load-serving entity (LSE) elects to show for the LCR RCM, the LSE cannot also provide a bid into the CPE solicitation for that resource. If an LSE with a resource eligible for the LCR RCM elects not to show under the LCR RCM, it still has all of the options available under Decision 20-06-002:

- (1) show the resource for no compensation in advance of the CPE's solicitation,
 - (2) bid the resource into the CPE's solicitation,

(3) bid the resource into the CPE's solicitation and indicate that the resource will be available to show the local RA attribute for no compensation if the bid is not accepted, or

(4) retain all RA attributes for the LSE.

(f) A new local preferred or energy storage resource may be eligible for the LCR RCM up to the life of the resource's original contract, or in the case of utility-owned generation, up to the original life of the resource.

(g) A shown resource that qualifies for the LCR RCM shall have a commitment equivalent to the period the resource is under control or contracted for, that corresponds to the 3-year forward compliance period, where the start date may be any year within the 3-year forward compliance period.

(h) A shown resource shall be documented on an agreement as determined by the CPE, which may include the Edison Electric Institute Master Agreement. LSEs intending to show resources to the CPE are encouraged to enter into an enabling agreement with the CPE in advance of the CPE's solicitation.

OP 4. The existing definition of preferred resources from the State's Energy Action Plan II, as adopted in Decision 14-03-004, shall apply to the local capacity requirement reduction compensation mechanism.

OP 5. Any new preferred resource or energy storage resource with an original contract executed on or after June 17, 2020, shall be eligible for the local capacity requirement reduction compensation mechanism (LCR RCM). For utility-owned generation, any resource approved by the Commission or by Advice Letter on or after June 17, 2020, shall be eligible for the LCR RCM. An existing preferred or energy storage resource with a new contract or amended contract executed on or after June 17, 2020, is not eligible for the LCR RCM.

OP 6. A hybrid that consists of a preferred resource and an energy storage resource may be eligible for the local capacity requirement reduction compensation mechanism (LCR RCM), if either the preferred or the energy storage resource is a new resource.

(a) In the case of a new hybrid resource, the entire hybrid resource may be eligible for the LCR RCM.

(b) In the case of a new energy storage resource added to an existing preferred resource, in which the resources are co-located, only the new component shall be eligible for the LCR RCM.

(c) The LCR RCM shall not apply to hybrid resources that consist of a fossil resource and a new energy storage resource. If the new energy storage resource is co-located with a fossil resource, the energy storage resource may be separately eligible as a standalone component.

D.22-03-034 further modified D.20-12-006.

OP 8: The selection criteria in Ordering Paragraph 14 of Decision 20-06-002 are replaced with the following criteria:

- a. Future needs in local and sub-local areas;
- b. Resource costs;
- c. Operational characteristics of the resources (facility type);
- d. Location of the facility (with consideration for environmental justice);
- e. Costs of potential alternatives;
- f. Greenhouse Gas adders;
- g. Energy-use limitations; and
- h. Procurement of preferred resources and energy storage (to be prioritized over fossil generation).

The central procurement entity (CPE) shall have discretion to define attributes for the operational characteristics and such attributes shall be provided to market participants in the CPE's bidder's conference.

OP 15: Ordering Paragraph 3 of Decision 20-12-006 is modified as follows:

If selected, the load-serving entity shall be paid the showing price (pre-determined or below) without annual adjustment for effectiveness. The showing price shall not exceed the pre-determined local price, which is calculated as follows:

- Use the weighted average price from the last four quarters of the Energy Division Power Charge Indifference Adjustment responses for system and local Resource Adequacy (RA); subtract system RA price from local RA price.

12. The Filing Process

Although the SOD LSE Showing Tool includes functionality for showing resources procured to meet an LSE's local and flexible requirements, an LSE must still submit Year Ahead local and flexible showings using the previous Local and Flexible RA template for the 2025 compliance year. The Local and

Flexible RA template includes a reporting tab for year-ahead flexible RA requirements, three tabs (for 2025, 2026, and 2027) in which to report resources that the LSE wishes to count towards local RA requirements in those years, and three summary tabs (for 2025, 2026, and 2027) that summarize local and flexible requirements and procurement, as applicable. The template also includes two tabs in which LSEs must report any other local resources that are owned or under contract in 2025, 2026, and 2027 but that are not being used to meet local RA requirements in the reporting tabs.

Decision (D.) 05-10-042 established a Year Ahead and Month Ahead **System RAR for LSEs** under the jurisdiction of the CPUC. D.06-06-064 expanded the RA program to include a Year Ahead **Local RAR**, and D.10-12-038 adopted a **Local RA True-up Process** for compliance year 2012 and onward. D.13-06-024 and D.14-06-050 adopted an interim Flexible RA Framework and Flexible RA requirements for 2015-2017. D.19-02-022 adopted a three year forward Year Ahead local RA requirement beginning in the 2020 RA compliance year. Below is a breakdown of the Year Ahead and Month Ahead RA requirements.

- (1) **Due October 31, 2024⁶:** LSEs are required to make a 2025 **Year-Ahead System, Local and Flexible RAR** compliance showing that demonstrates Year Ahead compliance with the following obligations:
- **For YA System compliance,** LSEs must demonstrate they have procured 90% of the total forecasted load plus planning reserves for the five summer months of May through September of the applicable compliance year.
 - **For YA Local compliance,** LSEs must demonstrate they have procured 100% of the Local RAR for all 12 months of the applicable compliance years Year 1 (2025) for all distribution service areas and Year 2 (2026), and 50% of the Local RAR for all 12 months of the applicable compliance Year 3 (2027) for LSEs in SDG&E's distribution service areas. For LSEs in PG&E and SCE's distributions service areas, the 100% and 50% local RA requirement for 2025, 2026, and 2027 is eliminated. The CPE will be assigned local requirement for 2025, 2026, and 2027 in PG&E and SCE's distribution service areas. LSEs may self-show a local resource for 2025, 2026, and 2027 in PG&E and SCE's distributions service areas. LSEs must show all units they have under contract that are Local RA units and are included in the NQC list. Any local capacity owned or under contract in 2025,

⁶ Pursuant to Rule 1.15 of the CPUC Rules of Practices and Procedure, if the due date falls on a Saturday, Sunday, or holiday, it is extended to the following business day.

2026, or 2027 that is not listed in the compliance tabs must be listed on the Additional Local Resources tabs, pursuant to D.10-06-036. On October 31, 2024, CPE and LSEs that voluntarily committed local resources to the CPE make local RA showing to the Commission and the CAISO.

- **For YA Flexible compliance**, LSEs must demonstrate they have procured 90% of each month's allocated flexible RAR.
- (2) In February 2025 (exact due date specified in the RA calendar above), LSEs are required to file an **adjusted load forecast for May to December** that incorporates any changes due to load migration that have occurred since the YA forecasting process. All forecasts must be filed with both the CEC and the CPUC. If an LSE does not anticipate changes to its Month Ahead forecasts, the LSE should inform CPUC and CEC that it will not submit a revised forecast.
- Pursuant to D.10-12-038 and revised by D.14-06-050, LSEs must provide revised forecasts for July through December in order to inform the incremental local and flexible RA reallocation ("true-up") process. Pursuant to D.23-06-029, LSEs will provide one load migration update in February to cover May to December. Energy Division will retain the incremental local RA allocation, to occur in March, adjust local RA obligations for July through December, as well as update CAM/RMR allocation for June through December.
 - Pursuant to the one load migration update adopted in D.23-06-029, LSEs are to submit one load migration update in February to cover May to December. Energy Division will update CAM/RMR allocation for June to December (the due date for the load migration update is included in the calendar above).
- (3) 45 days prior to the compliance month (due dates specified in the RA calendar above) LSEs are required to file the following information with the CPUC:
- **Month Ahead Monthly Flexible, System, and Local RAR showings** that demonstrate 100% compliance with an LSE's Flexible, System, and Local RAR. Local RAR is only applicable for LSEs in SDG&E's distribution service area.
 - From July through December, the monthly filings must **include Incremental Flexible and Local RAR** showings that demonstrate 100% compliance with the incremental ("true-up") Flexible and Local RAR that LSEs receive based on their revised forecasts for May to December filed in February. The Templates contain

tables in which LSEs enter their incremental Flexible and Local RAR for the appropriate months (i.e. there is not a separate filing template for incremental Flexible and Local RAR). In 2025, only LSEs in SDG&E's distribution service area will receive incremental Local RAR. All LSEs will receive incremental Flexible RAR.

12.1 Templates

(1) For **2025 Year Ahead System RAR** – LSEs are required to make a showing for May through September using the SOD LSE Showing Tool. The “Validation Overview” tab within the LSE Showing Tool will inform an LSE of their compliance status with the various checks. For detailed information on how to complete showings using the LSE Showing Tool, please see the latest version of the User's Guide, located on the [RA compliance website](#).

(2) For **2025 Year Ahead Flexible and Local RAR** – LSEs in SDG&E's distribution service areas are required to use the Local and Flexible RA Template to demonstrate compliance with the Local RAR for all 12 months of 2025, 2026, and 2027, and all LSEs are required to demonstrate compliance with the Flexible RAR for all 12 months of 2025. Any local capacity owned or under contract in 2025, 2026, or 2027 that is not listed in the compliance tabs must be listed on the Additional Local Resources tabs, pursuant to D.10-06-036. These two tabs – (1) Additional Local Resources 2025, (2) Additional Local Resources 2026-27 – are for LSEs in SDG&E's distribution service area. LSEs in PG&E and SCE's TAC area that have local contracts in 2025, 2026, and 2027 but are not self-showing them to the CPE need to fill out the Additional Local Resources (2025, 2026 and 2027) tab. In addition, LSEs in PG&E and SCE's TAC area are required to justify why they did not self-show or bid the local resource into the CPE's solicitations. The CPE is required to use the Local and Flexible RA Template to demonstrate compliance with Local RAR for all 12 months of 2025, 2026, and 2027 in PG&E and SCE's distribution service areas.

(3) For **2025 Monthly RAR** - LSEs are required to make a showing using the SOD LSE Showing Tool. The “Validation Overview” tab within the LSE Showing Tool will inform an LSE of their compliance status with the various checks. For detailed information on how to complete showings using the LSE Showing Tool, please see the latest version of the User's Guide, located on the [RA Compliance Materials webpage](#).

(4) **For 2025 Monthly, Quarterly, and Semi-Annual Forecast Updates** - LSEs are required to use the CEC 2025 MA load forecast template to revise their forecasts (1) for one load migration update in February, (2) for May through December (due in February) in support of the annual true-up of Local and Flexible RAR. Please consult the schedule in Section 3 of this guide for more information.

12.2 Notification of LSE RA Requirements and Allocations

Each LSE will be notified by the CEC and CPUC Energy Division of its System, Local, and Flexible RAR, as well as its DR and CAM allocations. The CPE will be notified by CPUC Energy Division of its Local RAR as well as its local DR for 2025, 2026, and 2027. This notification process consists of six parts.

(1) **For Year Ahead System RAR** – LSEs were notified on July 31, 2024 via Secure FTP of the following: hourly load forecasts for all 12 months, Local RARs, Flexible RARs, DR Allocations, and CAM Allocations for use in the Year Ahead System RA Filing. The CAM allocations are based on the CAM accounting process adopted in D.14-06-050. For non-IOU LSEs, CAM allocations are allocated as they have been in the past. For IOUs, these allocations are a negative value in an amount equal to what the non-IOUs were credited.⁷ LSEs are to consider these RA obligations and allocations preliminary. LSEs will receive Final 2025 RA obligations and allocations on September 25, 2024, after LSEs have filed adjusted annual load forecasts. Barring changes to RMR contracting, LSEs are to consider those allocations final. In the 2025 compliance year, the non-dispatchable Behind the-Meter LCR preferred resources values will be incorporated in the LSE's Year Ahead load forecast. The dispatchable Behind-the-Meter LCR preferred resources plus a distribution loss factor are allocated with the IOU DR Load Impact Protocols (LIP) allocation. On a separate timeline, each LSE will receive notification of their Import Allocations for use in their System RAR filing. See Section 24 for more details regarding Import Allocations. In 2025, LSEs will be allocated system CAM credits from existing IOU CAM resources as the same method as in the past. LSEs in PG&E and SCE's distribution service areas will also receive system CAM credits from the CPE procurement separately. Also in 2025, the emergency reliability resources procured by the IOUs will be allocated with the existing CAM for the non-summer months (January to May, November to December) if the IOUs are not using them for their bundled customers. The Templates treat these negative CAM "allocations" as a positive adder

⁷ The template treat these negative CAM "allocations" as a positive adder to the IOUs' relevant RAR, since the IOUs will show the CAM resources on their filings. See Section 13 below for further details.

to the IOUs' relevant RAR, since the IOUs will show the CAM resources on their filings. See Section 8 below for further details.

(2) **For Year Ahead Local RAR** – For 2025, 2026, and 2027, only LSEs in SDG&E's distribution service area will receive a local requirement. LSEs in PG&E and SCE's distribution service area will not receive a local requirement. The CPE will be allocated local requirement in PG&E and SCE's distribution service area for 2025, 2026, and 2027. For non-IOU LSEs in SDG&E's distribution service area in 2025, these Local RARs are net of CAM and RMR for use in the Year Ahead Local RA Filing. Local RA obligations are not net of credits for IOU DR programs (DR allocations). These DR credits are automatically taken off in the year-ahead Local and Flexible RA template. LSEs are to consider these RA obligations preliminary, as LSEs will receive Final 2025 RA obligations on September 25, 2024, after LSEs have filed adjusted forecasts. As adopted in D.15-06-063, each LSE's local capacity requirement is capped at that LSE's system requirement in the monthly resource adequacy process.

(3) **For Year Ahead Flexible RAR**– LSEs were notified of flexible RA requirements. For non-IOU LSEs, these Flexible RARs are net of CAM and RMR amounts for use in the Year Ahead Flexible RA Filing. For IOUs, these Flexible RARs are not net of CAM resources, since IOUs will be able to show the CAM resources in filings. Instead, the IOU's Flexible RARs are adjusted upwards in an amount equal to what the non-IOU LSEs are adjusted downwards. In 2025, the emergency reliability resources procured by the IOUs will be allocated with the existing CAM for the non-summer months (January to May, November to December) if the IOUs are not using them for their bundled customers. In 2025, flexible RA requirements will also be net of flexible CAM credits from the CPE procurement for LSEs in PG&E and SCE's distribution service areas.

(4) **Updated CAM Credits for System and Flexible Capacity Procured by CPE** – By July 2024, in the initial YA allocation, LSEs will be allocated CAM credits (based on coincident peak load shares) for any system and flexible capacity that was procured by the CPE during the local RA procurement process in the prior year. By the end of August 2024, LSEs will be allocated CAM credits (based on coincident peak load shares) for any system and flexible capacity that was procured by the CPE during the local RA procurement process in the mid-August showing or by CAISO through its RMR process. In late September 2024, LSEs will receive updated CAM credits based on revised load forecast for any system and flexible capacity that was procured by the CPE. The CPE CAM credits will be allocated separately from the existing IOU CAM resources.

(5) For **Monthly System RAR** – LSEs will be issued their hourly System RAR for 2025 alongside the annual obligations. LSEs are required to submit one load migration update in February to cover May to December. LSEs are to continue using the Import Allocations they receive in August 2024 for all 2025 Month Ahead RA Filings. CPUC Energy Division will notify LSEs via Secure FTP of any change to Condition 2 RMR allocations, CAM allocations, and CPM credits as they occur throughout compliance year 2025 for use in subsequent Monthly RA Filings. The non-dispatchable Behind-the-Meter LCR preferred resources credit is incorporated into the LSE's Year Ahead load forecast and LSEs will not receive monthly LCR preferred resources credit. The dispatchable Behind-the-Meter LCR preferred resources are added a distribution loss factor and allocated with the IOU DR LIP allocation. Also in 2025, the emergency reliability resources procured by the IOUs will be allocated with the existing CAM for the non-summer months (January to May, November to December) if the IOUs are not using them for their bundled customers.

(6) For **Local and Flexible RA Reallocation Requirements** - LSEs will receive notification of adjustments to their Local and Flexible RA obligations concurrent with their CAM and RMR allocation via Secure FTP. The Local and Flexible RA adjustments will apply to the July through December compliance months and will be sent in March, along with the June to December CAM/RMR allocation. Pursuant to D.14-06-050, there is only one local and flexible true-up cycle for 2015 and beyond. In 2025, only LSEs in SDG&E's distribution service area will receive local RA obligation adjustments, and all LSEs will receive flexible RA obligation adjustments.

12.3 Load Migration

D.05-10-042 (at 91) clarified that load migration is the only allowable reason for differences between Month Ahead and Year Ahead load forecasts. D.19-06-026 (at OP 10) further clarified that load migration is the only allowable reason for differences between initial and final Year Ahead forecasts. D.19-06-026 also provided the following definition of load migration - and a non-exhaustive list of events that are not load migration – in OP 11 and 12, respectively:

11. "Load migration" is defined, for the purposes of the Resource Adequacy program, as load effects that:

- a. Result from one or more customers' retail electric service transferring directly from one load-serving entity (LSE) to another LSE in the same Transmission Access Charge area; and
- b. An LSE cannot reasonably predict and include in an implementation plan or in an initial year ahead load forecast.

The adopted definition of "load migration" shall be effective upon the date of this decision.

12. "Load migration," for the purposes of the Resource Adequacy program, shall not include the following non-exhaustive events: changes to approved implementation plans, changes to customer class load profiles, changes to weather assumptions, changes resulting from the receipt of new or updated customer meter data, new service requests, losses due to disconnects or force majeure events, transfers of load out of the Transmission Access Charge area, or forecasting errors.

13. Using the Templates – 2025 System, Local, and Flexible RA Compliance

Energy Division staff made some changes to the Templates for the 2025 RA compliance year, which were either based on changes adopted explicitly by Commission decision or were implemented in accordance with adopted CPUC policy. LSEs are encouraged to pay close attention during RA workshops and to contact Energy Division staff for direction, as needed.

For information on System RA showings made via the SOD LSE Showing Tool, please see the latest User's Guide located on the [RA Compliance website](#).

For Year Ahead Flexible RA and Three Year Forward Local RA showings, use the "Local and Flexible RA Template." The three Local Res tabs are for reporting year ahead local resources committed to meet Three Year Forward Local RA obligations. For 2025, 2026, and 2027, the CPE has the responsibility to meet the local requirements in PG&E and SCE's distribution service areas. For 2025, 2026, and 2027, LSEs must meet their local requirement in SDG&E's distribution service area. The Committed Flexible Res tab is for reporting flexible resources that are committed to meeting flexible capacity obligations. The three summary tabs include summary tables for both Three Year Forward Local and Flexible YA compliance, and the monthly Local RA obligation is capped at the System requirement.

Pursuant to D.10-06-036, LSEs are required to list additional Local RA resources that they control (through ownership or contracts) but which are not committed for RA. However, it is not mandatory that all Local resources that LSEs control be committed for RA and subject to the RA Must Offer Obligation. Thus, LSEs can list resources under contract for possible backstop designations but not commit them to availability penalties in the event of forced outage. The Additional Local Resources (2025) tab is for reporting any Local RA capacity that the LSE controls 2025 but is not counting against its requirements in the Local Resources 2025 tab. D.10-06-036 also requires that this tab be submitted to CAISO and to the CEC, in addition to the CPUC. The Additional Local Resources (2026 and 2027) tab is for reporting any Local RA capacity that the LSE controls in 2026 and 2027 but is not counting against its requirements in the Local Resources 2026 and Local Resources 2027 tabs. This tab is for LSEs in SDG&E's distribution service area. LSEs in PG&E and SCE's TAC area that have local contracts in 2025, 2026, and 2027 but are not self-showing them to the CPE need to fill out the Additional Local Resources (2025, 2026 and 2027) tab. In addition, LSEs in PG&E and SCE's TAC area need to justify why they did not self-show or bid the local resource into the CPE's solicitations in these tabs. The CPE does not use this tab. This tab need only be submitted to the CPUC by October 31, 2024.

Local resources in the LSEs' monthly system RA showing may differ from the Local resources that had been shown in the annual YA local RA showing, as long as the new resources in the monthly showing are in the same local area as the resources they replace and have at least the same August NQC value.⁸ Beginning with the 2020 Year Ahead RA filing, this applies to the individual Local Areas that were formally aggregated as "Other PG&E Areas," as does the requirement that Local requirements be met in both the Year Ahead and subsequent Month Ahead filings. LSEs must highlight the local resources in the monthly system RA filings that differ from the annual Year Ahead Local filing. If a resource physically located in a local area is shown in the RA filing, it will be counted as local RA capacity. The fields "Capacity Effective Start Date" and "Capacity Effective End Date" in the Phys_Res_Imports_RA_Res and Construc tabs refer to the start and end dates of capacity contracts, respectively. (For a resource owned by the LSE, these fields refer to the first and last dates on which the LSE anticipates showing the resource for RA capacity, respectively. These may be the commercial online date and anticipated retirement date of the resource.) LSEs should enter contract start and end dates in these fields, regardless of whether the contract extends beyond the terms of the given compliance month. For

⁸ LSEs may show multiple resources that, in the aggregate, have the same August NQC value as the resources that they are replacing.

example, if a particular resource is under contract from January 15, 2019 to December 31, 2024, then in its January 2025 Month Ahead RA compliance filing, the LSE should enter “1/15/2019” in “Capacity Effective Start Date” and “12/31/2025” in “Capacity Effective End Date.”

14. Validation of Multiyear Local RA Resource Showings

In the 2025 Year Ahead RA filing, LSEs in SDG&E’s distribution service area will show Local RA resources for 2025, 2026, and 2027 to meet their Year Ahead local RA obligations.⁹¹⁰ The CPE will show local RA resources for 2025, 2026, and 2027 for PG&E and SCE’s distribution service areas. For contracts reported in the 2025 Year Ahead filings that cover the year 2025, local RA resources will be validated against CAISO’s supply plans. Additional requirements will apply for contracts reported in 2025 Year Ahead filings that cover the years 2026 and 2027, as Energy Division must validate filings against information other than CAISO supply plans. These requirements, which appear below, differ based on the type of contract (i.e., whether the contract identifies one particular resource that the LSE will use to meet its RA requirements) and on whether contract information is already available to Energy Division via other processes. These additional requirements do not apply to Utility Owned Generation (UOG), which is not “under contract” in the same way as are other resources.

Contracts that Identify One Particular Resource that the LSE Will Use to Meet RA Requirements
By November 30, 2024, LSEs in SDG&E’s distribution service area must provide the contract for each associated resource listed in the “I_Local_Res_2026” and “I_Local_Res_2027” tabs of the Local and Flexible RA Template, except in cases where a particular contract was approved by a Commission Decision, Resolution, or Advice Letter disposition, in which case the LSE may simply refer to this approval in the accompanying filing template (described below). The LSE may redact price information from these contracts if it so chooses. Energy Division will use contracts and associated information to confirm that each resource is under contract and available for the time period identified. This process is analogous to confirming the resource and associated capacity against a CAISO supply plan.

The LSE must submit a completed Multiyear Capacity Documentation Summary Template along with its contracts. This template will allow the LSE and Energy Division to easily identify which documents that

⁹ As described in the previous section, LSEs must also report Local resources that they control for these years, but that they are not listing as RA resources and making available to CAISO. These Additional Local Resources are not included in the validation described here.

¹⁰ For 2025, 2026, and 2027, LSEs in SDG&E’s distribution service area show local RA resources, as will LSEs in PG&E and SCE’s distribution service area that have elected to self-show local resources for 2025, 2026, and 2027.

the LSE has submitted are associated with each resource. The LSE should use the same template to submit documentation for resource specific contracts. For 2025, 2026, and 2027, only LSEs in SDG&E's TAC area need to submit this template. The CPE does not need to submit this template. The LSE should submit all files via the Secure FTP, as described in Section 21 below.

Minor and Substantive Errors

Energy Division will treat contracts and attestations as the equivalent of supply plans in determining whether a particular error is minor or substantive (see Appendix A below).

Process for Addressing Oversubscription of Capacity

If Energy Division finds that a particular resource is overcommitted for 2026 or 2027, then Energy Division will first attempt to determine whether one or more specific LSEs have clearly made an error. For example, Energy Division will check whether the capacity reported for this resource by each LSE matches the capacity identified in that LSE's contract(s) or, in the case of a seller's choice contract, whether the capacity reported matches the capacity identified in the relevant attestation. If the total amount of capacity listed in contracts and attestations is less than or equal to the resource's NQC, and if one or more LSEs reported capacity values that do not match their respective contracts or attestations, then those specific LSEs will receive correction or deficiency notices, as appropriate.

In some cases, it may not be clear which LSE(s) may have made an error. For example, this would occur if multiple LSEs have seller's choice contracts with one resource owner/operator, and the LSEs have reported capacity in their filings equal to the amounts in their respective attestations, but the capacity in the attestations collectively exceeds a given resource's NQC value. In such an instance, Energy Division will provisionally reduce the capacity that each LSE shows for that resource, in proportion to the total amount of capacity shown for that resource by all LSEs, to bring the total capacity shown by all LSEs down to the resource's applicable NQC value. Energy Division will inform all affected LSEs of this provisional reduction via a correction notice or a deficiency notice, as appropriate. The affected LSEs should revise their filings (including attestations, as applicable) within five business days of receiving their notices. If resources are still overcommitted by the end of the refiling deadline, Energy Division will permanently reduce the capacity shown for overcommitted resources as described above and will notify affected LSEs. The need to prevent double-counting underscores the importance of LSEs coordinating with resource owners/operators to ensure that they are showing an appropriate amount of capacity.

15. Net Qualifying Capacity

D.05-10-042 requires all LSEs to fulfill their System RAR based on adopted NQC. D.10-06-036 adopted a Qualifying Capacity Manual that describes the methodologies used to calculate NQC values for all resources. D.16-06-045 subsequently made some modifications to the QC calculations and definitions. The manual is available on the [RA compliance website](#).

The Final 2025 NQC List is available on the CPUC website at [Resource Adequacy Compliance Materials \(ca.gov\)](#), as well as under “Current Net Qualifying Capacity (NQC)” on the CAISO website at <http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx>. Please note that if there is a discrepancy between the NQC value for a resource in the list posted on the CPUC website and the list posted on the CAISO website, LSEs should use the NQC value in the list posted on the CPUC website. Differences are highlighted in orange on the CPUC NQC list.

NQC and Local RA Compliance

D.06-06-064 adopted a program of Local RAR for LSEs that are under the jurisdiction of the CPUC, while D.23-06-029 adopted Local RA totals for 2024, 2025, and 2026 compliance years. These decisions require LSEs in SDG&E’s distribution service area to procure physical resources to meet the Local RARs three years forward. The CPE is required to procure physical resources to meet the Local RAR in PG&E and SCE’s distribution service areas three years forward. These units must be located in the ten LCR areas identified in the NQC list. The ten LCR areas are LA Basin, Big Creek/Ventura, San Diego-IV, Other PG&E Local Areas, the Greater Bay Area, Fresno, Humboldt, Kern, North Coast/North Bay, Sierra, and Stockton. D.19-02-022 disaggregated the Other PG&E local areas. The LSE or the CPE is responsible for verification of the Local Area Designation of the unit, as well as the NQC value and the Scheduling Resource ID. To report a contract with a unit located within a Local Area on the relevant Template, LSEs or the CPEs select the correct Scheduling ID from a drop-down list in Column C of the Reporting Template, and upon selection, the Local Area designation is automatically populated based on information contained in the ID and Local Area tab.

In the case of DR resources, the template will utilize the August DR values (located in the LSE allocation tab) for each Local Area for each of the 12 months of the year.

During the 2025 compliance year, LSEs in SDG&E’s distribution service area are to make RA showings demonstrating compliance with the Local RA obligations as adjusted by the Local RA True-up methodology adopted in D.10-12-038 and modified by D.14-06-050.

Note also that the resource may have an NQC value that differs by month. In that event, the LSE must list the applicable month's NQC in the System RA MW column but the August NQC value in the Local RA MW column. (The August NQC value is used for Local RA for any month.) Even if the monthly NQC value for a resource is zero MW – in which case the LSE would enter “0” in the System RA MW column – the LSE should list the August NQC in the Local RA MW column. In cases where the LSE has contracted for only a portion of the resource, that resource's NQC values should be adjusted accordingly. For example, if a resource had a January NQC of 10 MW and an August NQC of 50 MW, an LSE that contracted for 5 System MW in January would show 25 Local MW for January. Finally, if the local resource is not under contract for the entire year, the LSE may still show the resource in the months when it is under contract, listing the monthly NQC that is under contract in the System RA MW column and the proportional value of the August NQC that is under contract in the Local RA MW column.

16. Flexible Capacity Framework

16.1 Flexible Need and Allocation

D.13-06-024 recognized a need for flexible capacity in the RA fleet. “Flexible capacity need” is defined as the quantity of economically dispatched resources needed by the California ISO to manage grid reliability during the greatest three-hour continuous ramp in each month. Resources will be considered as “flexible capacity” if they can sustain or increase output, or reduce ramping needs, during the hours of “flexible need.”¹¹ The Decision adopted the following formula to calculate the system's flexibility requirement:

$$\text{Flexibility Need MTHy} = \text{Max} [(3RRHRx) \text{ MTHy}] + \text{Max} (\text{MSSC}, 3.5\% * E(\text{PLMTHy})) + \epsilon$$

Where,

$\text{Max} [(3RRHRx) \text{ MTHy}]$ = Largest three-hour continuous ramp starting in hour x for month y

$E(\text{PL})$ = Expected peak load

MTHy = Month y

MSSC = Most Severe Single Contingency

ϵ = annually adjustable error term to account for uncertainties such as load following. This term is zero for 2019. ED staff will use peak load- ratio share to allocate flexibility among LSEs. In the

¹¹ D.13-06-024 at 2

future, ED intends to explore other methods of allocation based on causation through the RA proceeding, potentially in conjunction with staff's analysis of reliability needs.

An LSE's Flexible procurement obligation is calculated as follows, consistent with how System and Local RA requirements are allocated:

$$\text{LSE monthly flexible capacity procurement obligation} = [(\text{LSE monthly coincident peak load}) / (\text{ISO monthly coincident peak load})] * \text{Cumulative monthly flexible capacity requirement}$$

16.2 Flexible Capacity Requirements Study

By April 15 of each year (or as soon as practical), the ISO will complete and file a flexible capacity requirement ("FCR") study in the CPUC RA proceeding, -together with the Local Capacity Requirements ("LCR") study - which lists flexible capacity needs for each month of the following year. Parties to the RA proceeding will vet the studies and submit comments to the CPUC. The annual RA decision will then adopt final study results, which consist of total monthly Flexible obligations and Local capacity obligations for CPUC jurisdictional LSEs.

16.3 Effective Flexible Capacity (EFC) Counting Conventions and EFC List

In order to qualify as a flexible resource, the resource must meet the following criteria:

1. A resource must qualify as an RA resource and have a qualifying capacity ("QC") value in order to have an EFC value.
2. A resource must be able to ramp and sustain energy output for a minimum of three hours.

Specific counting conventions apply in determining the EFC of a resource relative to its NQC. The EFC reflects the flexibility of a resource that can be counted towards an LSE's flexible RA obligations.

Counting conventions for EFC applicable in 2025 are listed below:

Dispatchable thermal resources

- If start-up time of resource is greater than 90 minutes, then EFC is limited to the MW range between Pmin and NQC as limited by ramp rate:
 $\text{EFC} = \text{minimum of } (\text{NQC} - \text{Pmin}) \text{ or } (180 \text{ min} * \text{RRavg})$
Where: RRavg = average between Pmin and NQC.
- If start-up time of resource is less than or equal to 90 minutes, then EFC is limited to the MW range between zero and NQC, as limited by start-up time and ramp rate:

$EFC = \text{minimum of (NQC) or } (P_{\min} + (180 \text{ min} - SUT) * RR_{\text{avg}})$

Where: SUT = Longest (cold) RDT start-up time in minutes, cold start-up time is the highest value in the startup time segments for the resource, and RRavg = average ramp rate between Pmin and NQC.

Hydro resources

A hydro resource will qualify as flexible if it has the physical storage capacity to provide energy for up to Pmax for six hours. A hydro resource will be permitted to designate an EFC value annually for each month of a counting year. The proposed EFC shall not exceed the NQC or the Pmax of the hydro resource.

Combined Heat and Power Facilities

A Combined Heat and Power (“CHP”) resource will be permitted to designate an EFC value annually for each month of a counting year to reflect its unique operating requirements related to industrial host obligations or CHP contract limitations. EFC of a CHP resource is capped at the lesser of the NQC or Pmax minus Pmin.

Energy Storage and Supply Side Demand Response

Please see Appendix B of D.14-06-050. D.15-06-063 modified Appendix B to eliminate the prohibition on non-zero transition times, and to allow up to 45 minutes transition times that will not count towards either the one-and-a-half hour charge or discharge.

The CPUC and CAISO will develop and post a list of the effective flexible capacity value for each participating dispatchable resource (“EFC list”). EFC is calculated using the relevant counting conventions, as described above. Additionally, to accommodate the CHP settlement that allows existing CHP resources to convert to dispatchable resources (referred to in the settlement as “Utility Prescheduled Facilities”), CHP resources that change their operations as specified in the CHP settlement will be able to request an EFC value from the CAISO without having a history of economic bids.

Mirroring the current NQC list process, CAISO is expected to issue a draft EFC list in August. Generators may request modifications or additions to these lists and by sending these requests to the CPUC and CAISO. Generators may refer to the CPUC for further details. The CAISO and CPUC will issue the final EFC list for CPUC jurisdictional LSEs by September.

16.4 RA Showings and Validation

General timelines, guidelines, and procedures for RA showings and validation are provided in Sections 2 and 4 of this guide. The additional information in this subsection applies specifically to Flexible capacity.

Each megawatt of capacity from an RA resource can have up to two “attributes” associated with it: flexible capacity and generic (non-flexible) capacity. A megawatt of capacity only counts as flexible capacity if it has a flexible attribute. Flexible attributes are “bundled” with generic attributes, however, which means that a flexible megawatt is also a generic megawatt, and the flexible and generic attributes of that megawatt cannot be sold separately. Therefore, if an LSE purchases a flexible megawatt from an RA resource, that megawatt automatically counts as a generic system megawatt, and the LSE may include both the flexible megawatt and the system megawatt in its monthly RA filing. If the RA resource is located in a local reliability area, then the flexible megawatt automatically counts as both a system megawatt and a local megawatt.

The EFC of a resource indicates the total countable megawatts from that resource that have flexible attributes, and the NQC of a resource indicates the total countable megawatts from that resource that have generic attributes. The EFC and NQC are distinct numbers and may not be used interchangeably. Subtracting the EFC value from the NQC value reveals the capacity from the resource that is only generic (as opposed to “bundled,” or both flexible and generic). If a resource has any such remaining generic capacity, this capacity is generally related to the resource’s Pmin and start up time. See the NQC Guide for further information regarding EFC and NQC calculation for various resources.

For example, assume that for August of a given year, an LSE contracts the entire NQC of a resource in a local area that has an NQC of 200 MW, a Pmin of 50 MW, and an EFC of 150 MW. In this scenario, the LSE can make the following August RA showing:

System RA	Local RA	Flexible RA
200 MW	200 MW	150 MW

Alternatively, if the LSE only contracts for the 50 MW of generic (non-flexible) capacity associated with the Pmin of the resource, then the LSE could make the following August RA showing:

System RA	Local RA	Flexible RA
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50 MW	50 MW	0 MW
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The flexible capacity from a resource that an LSE reports on its applicable RA filing will bear obligations under the flexible must-offer obligation specified in the CAISO Tariff, and the generic (system and/or local) capacity from the same resource that an LSE reports will bear obligations under the resource adequacy must-offer obligations specified in the CAISO Tariff.

16.5 Sale and Purchase of Flexible Capacity

The sale of flexible capacity will entail an enhanced must-offer obligation and a potentially higher cost to a resource owner due to potential increases in wear and tear on a facility from cycling. Therefore, a resource owner will have discretion in the sale of generic and flexible capacity. A resource owner has two options when selling a MW of flexible capacity. It may either sell the MW as flexible, in which case the resource owner is also selling the “bundled” generic attribute of that MW, or it can sell the MW as only generic, in which case both the seller and the buyer forfeit the flexible attribute of that MW.¹² A resource owner may elect to sell any portion of qualified flexible capacity as only generic in this manner. Furthermore, the owner of a resource consisting of both “only generic” capacity (below Pmin) and bundled flexible capacity may elect to sell (or not sell) the “only generic” capacity prior to selling the bundled flexible capacity. A resource must submit economic bids into the CAISO’s day ahead and real time markets for the committed flexible portion of the facility’s operating range.

An LSE’s generic and flexible obligations will be examined separately. Each generic RA MW committed by an LSE in its RA showing as generic RA counts toward that LSE’s generic RA obligation, and each flexible RA MW of a resource committed by an LSE in its RA showing as flexible RA counts toward its flexible RA obligation. CPUC expects LSEs to employ procurement and showing practices that maximize efficiency and minimize excess procurement.

¹² In the case of bi-directional energy storage, there can be twice as much EFC as the NQC, in which case selling the flexible capacity would entail selling 2 MW of EFC with every MW of NQC.

16.6 Use-Limited Flexible Resources

D.13-06-024 directed Energy Division staff and parties to develop rules regarding use-limited resources. Staff organized a workshop on October 15, 2013, which among other things included a discussion on use-limited resources.

Use-limited resources can be classified as (1) resources that can run in all or most hours but are limited in the total starts or hours they can run or (2) resources that cannot offer in certain hours (excluding outages). This includes, but is not limited to, thermal units limited by starts or emissions, demand response, hydro resources, storage, and variable energy resources (“VERs”). Flexible use-limited resources must be operationally capable of ramping or sustaining output for three continuous hours.

Interim Approach

Due to developments in the Reliability Services Initiative, as well as in the Commission’s OIR regarding multi-year RA requirements, the CPUC instituted an interim approach for flexible capacity procurement through December 31, 2020. This interim approach requires LSEs to procure flexible resources in accordance with flexible categories based on varying must-offer obligations and energy limitations. There is a three- category approach with fixed monthly percentage limits.

LSEs shall procure and show their flexible resources according to the characteristics defined in Table 1 below.

Table 1 Categories of Must-Offer

	Category 1	Category 2	Category 3
Must-offer obligation	17 Hours	5 Hours	5 Hours
	5 AM- 10 PM Daily For the whole year	3 PM to 8 PM for May – September	3 PM to 8 PM for May – September
	5 AM- 10 PM Daily For the whole year	2 PM- 7 PM for January- April and October-	2 PM- 7 PM for January- April and
	Daily	Daily	Non-holiday weekdays
Energy limitation	At least 6 Hours	At least 3 Hours	At least 3 Hours
Starts	The minimum of two starts per day or the number of starts feasible with minimum up and down time	At least one start per day	Minimum 5 starts a month
Percentage of LSE portfolio of flexible resources	At least 41% for May – September	Up to 54% for categories 2 and 3 combined	Up to 5%
	At least 29% for January- April and October-December	Up to 66% for categories 2 and 3 combined	Up to 5%

If CAISO observes a collective deficiency in these categories, it might backstop to meet the requirements. In case of such a shortfall, backstop costs will be allocated to LSEs based on their respective load ratio shares. The categories will be assessed annually, and the percentages for flexible categories may change accordingly. CAISO is expected to issue monthly advisory targets to the CPUC for flexible categories in the FCR study.

Long Term Approach

The Commission will design a long-term approach based on experience following implementation of this proposal, which may include a revision of percentage or timing limitations on all flexible categories.¹³

17. Confidentiality and RA Filings

CPUC starts with a presumption that information should be publicly disclosed and that any party seeking confidentiality bears a strong burden of proof. However, in some instances (such as "market sensitive" information relating to electric procurement that passes a materiality standard), confidential treatment of data may not only be allowed, but may be required in order to carry out our statutory and constitutional duties.

Parties or persons submitting RA Filings for which they claim a right to confidential treatment shall attach a declaration, under penalty of perjury, certifying that they only claim confidentiality for data included in the D.06-06-066 Matrices. Pursuant to D.08-04-023, an LSE need not seek confidential treatment every time it makes a compliance filing of a repetitive nature.¹⁴ Rather, on making subsequent compliance filings, the LSE may cite the earlier declaration for confidentiality. Thus, the LSE is required to send a signed electronic version of the declaration in PDF format via the Secure FTP application accompanying the 2025 Year Ahead Filing templates and cover letter and to include a reference to this declaration by date and summary of content in the cover letter accompanying each future Month Ahead RA Filing. LSEs also may use the initial declaration submitted with the 2025 Year Ahead Filing to request protection for the annual and Month Ahead load forecast information submitted to the CEC. Again, the LSE must refer to the initial declaration filed with the 2025 Year Ahead filings in the cover letter to the Load Forecast submittals.

RA Filing or Data Requests Related to RA Filings

Assume an LSE makes an RA Filing and seeks confidential treatment for data of the type addressed in the Matrices to D.06-06-066. In this situation, the following procedure applies:

A declaration under penalty of perjury will accompany the filing, establishing the five factors required by D.06-06-066, Ordering Paragraph 2, but no motion is initially required. These five factors include the following:

¹³ In the case of demand response resources, the Commission will design future programs to meet CAISO and CPUC RA criteria for flexible, system, and local capacity as they exist in this proposal and as these criteria are modified in the future.

¹⁴ D.08.04.023, Section 4.2.6

1. That the material constitutes a particular type of data listed in the Matrix;
2. The category or categories in the Matrix to which the data correspond;
3. That the submitting party is complying with the limitations on confidentiality specified in the Matrix for that type of data;
4. That the information is not already public; and
5. That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

If another person asks to see the confidential data, the filer and the requesting person shall meet and confer to resolve the dispute informally, consistent with the intent of new Rule 11.3 of Commission Decision D.06-06-066. If they cannot resolve the dispute, the filer and the requesting person shall present the dispute to the assigned ALJ. The confidentiality claim and dispute will be resolved consistent with the Commission's procedures for addressing confidentiality claims and requests for information in the context of Public Record Act requests.

18. Load Forecast Adjustments

D.05-10-042 (at 91) stated, "[w]e require that month-ahead compliance filings include adjustments for positive and negative load growth due to migration. Apart from load changes due to load migration, load forecasts should not be updated from LSE's Year-Ahead filing." LSEs submit historical load data and Year Ahead load forecasts in March and April of the year before the RA compliance year. CEC staff complete analysis on the LSEs' submitted information and, together with overall statewide forecasts that CEC staff produce annually, LSEs are sent updated Year Ahead RA obligations based on load forecast information in July of each year. Before the 2012 compliance year, LSEs were unable to revise or change their forecasts between April and the October RA filing deadline. D.11-06-022 created a process for LSEs to adjust their Year Ahead forecasts up until August 12 (the exact date for the 2025 compliance year is listed in Section 3 above). This ensures that RA obligations LSEs procure to meet are as accurate as possible.

On July 31, 2024, the CPUC will send each LSE the preliminary month-specific RA obligation for January-December 2025. Because the Year Ahead forecasts will make assumptions about direct access and Community Choice Aggregator (CCA) loads, LSEs may revise their initial Year Ahead forecasts to account for unanticipated load migration. By August 12, 2024, LSEs are required to submit a revised forecast or notify to CPUC that they have no changes. Per D.19-06-026, forecasts may be revised only for load

migration that the LSE could not have reasonably predicted and included in their initial year ahead load forecast. As noted above, this is to improve accuracy of the RA obligations that LSEs are required to procure towards prior to the Year Ahead filing in October. All LSEs will receive Final RA obligations and allocations on or about September 25, 2024; all LSEs will receive adjustments even if each LSE's Year Ahead load forecasts did not change.

After the Year Ahead RA compliance filings, an LSE may update their forecast for load migration in February for May to December. D.23-06-029 permits a load-serving entity (LSE) one load migration update in mid-February to cover May to December load migration. Other than the one load migration update, an LSE's load forecast is locked in for the January-April timeframe and the May-December timeframe of each Resource Adequacy compliance year.

In making adjustments to forecasts, IOUs should account both for customers who are known to have returned to bundled service and for those that have notified the IOU that they intend to return to bundled service prior to the February update for May to December load migration. ESPs should account for contracted load and a reasonable expectation of the rate of contract renewals of non-firm load or load with expiring contracts. CCAs should adjust their forecast to account for changes in load, including new load resulting from all planned expansion activities impacting the 2025 RA compliance year. If the CEC determines that the assumptions made are not plausible, the CEC may make a plausibility adjustment to account for a more plausible rate of customer retention. The CPUC requires LSEs to procure to meet RAR based on the load forecasts that are submitted to the CEC and adjusted by the CEC. The CEC will communicate this load migration update to the CPUC for compliance validation purposes.

The CEC has provided a separate template to facilitate the forecast revision process and to verify that migrating load is correctly incorporated. LSEs which have gained or lost customers since their Year Ahead forecast will enter the amount of monthly peak load associated with the change in customers, and the template will make the appropriate adjustments, including for coincidence. LSEs are to submit complete load forecast adjustments in February to both the CEC and CPUC. This required submission shall include the certification sheet signed by an officer of the company, as well as the electronic template and all supporting data. Pursuant to D.04-10-035 and D.05-10-042, the CPUC retains control over the review, assessment, and adjustment process of the load forecast. Guidelines for submission of load information are provided by the CEC. The load forecast template for 2025 is also available from the CEC.

LSEs must use the “best estimate” approach to develop all load forecasts, which requires LSEs to make a forecast of both anticipated customer retention and new customers coming to the LSE. As the “best estimate” approach requires LSEs to forecast load migration in advance of final Direct Access Service Request (DASR)/Community Choice Aggregator Service Request (CCASR) approval, the CEC will expect LSEs to be as accurate and complete as possible and may adjust or correct load migration filings before reallocating Local RA obligations. Pursuant to D.10-06-036 (OP 6e), LSEs may, at the discretion of CEC staff, file changes to their load forecasts up to 25 days before the due date of the February load migration update. LSEs are not to submit revisions after the filing due dates laid out in Section 3 of this guide, unless approved by CEC staff, and any revisions made after the filing date without CEC approval, or any revisions made less than 25 days before the February load migration update will be disregarded by CEC and CPUC staff for RA compliance purposes.

Further explained in the below section, to implement the incremental Local and Flexible true-up process outlined in D.10-12-038, D.14-06-050, and D.23-06-029, LSEs must submit load migration estimates for May through December with their April MA RA filing. Pursuant to D.23-06-029, LSEs must submit load migration estimate for May to December in February. Incremental and flexible true-up will be based on these load migration updates. Similarly, load ratios will be updated in LSE System RA Compliance templates based on the load migration updates. These updates will be applied for MA filings June through December. There will be one CAM/RMR allocation for June to December.

19. Local and Flexible RA Reallocation Process for 2025 Compliance Year

D.10-12-038 adopted a local RA reallocation process for the 2012 compliance year and beyond. D.14-06-050 modified that process to include only one incremental reallocation cycle and extended the reallocation process to flexible capacity. D.23-06-029 permitted one load migration update in February to cover May to December load migration.

The Local and Flexible RA reallocation process requires the use of two existing templates: the Load Migration Forecast template and the System RA compliance template.

The Local and Flexible RA reallocation process (“true-up”) occurs in the first quarter (March) of the year and applies to filings in the third and fourth quarters (July- December) of the year. As explained in the previous section, LSEs file adjusted load migration forecasts in February, along with their April MA RA filing. LSEs will receive incremental Local RA adjustments, as well as updated June to December CAM/RMR allocation in March. For 2025, only LSEs in SDG&E’s distribution service area will receive

incremental local true-up allocation for July to December 2025. For the Flexible true up, the adjusted load migration forecast filed in February needs to include peak forecasts for May through December so that the monthly flexible capacity requirements can be trued up accurately for each month from July-December. (The May and June forecast is used for May and June's Month Ahead RA compliance.) See Section 13 below for more information regarding load forecast adjustments.

LSEs will have approximately five days to make any corrections to their true-up load forecasts following submission in February. Energy Division staff will notify LSEs of incremental adjustments to Local and Flexible RAR for July through December and send these to LSEs 75 days before the July MA filing compliance due date, along with the spreadsheet containing June to December CAM-RMR allocations. The adjusted Local Flexible RAR will then be used for July through December Month Ahead RA filings.

LSEs will receive the letters containing their incremental Local and Flexible RA obligations through the Secure FTP. LSEs must insert the incremental Local RA adjustments into Table 5 of the LSE Allocations tab of the RA Compliance Template. Table 5 in the Summary Month Ahead tab will then calculate the adjusted month ahead RAR. Similarly, LSEs must insert the incremental Flexible RAR into Table 7 of the LSE Allocations tab of the RA Compliance Template. Table 7 in the Summary Month Ahead tab will then calculate the adjusted Month Ahead RAR.

20. Maximum Cumulative Capacity

Maximum Cumulative Capacity categories (the so called "MCC buckets") were designed in 2005 to limit LSEs' reliance on resources to meet RA that are contractually limited in their hours of availability. Under SOD, MCC buckets no longer apply, with the exception of the DR MCC bucket, detailed further below:

Category	Availability	Maximum Cumulative Capacity for Bucket and Buckets Above
DR	Varies by contract or tariff provisions, but must be available at least 24 hours per month from May-September. For May, must be available Monday-Saturday for 4 consecutive hours between 5 PM-10 PM. For June-September, must be available Monday-Saturday for 4 consecutive hours between 4 PM-9 PM.	8.3%

21. Demand Response Resources

As in the past, in the 2025 compliance year, LSEs will receive an allocation of Demand Response (DR) credit for programs that are administered by the utilities. These allocations should appear on the Requirements and Allocations tab of the SOD LSE Showing Tool template transmitted to each LSE and are directly debited from the LSE's RA obligation.

For 2025, the dispatchable Behind-the-Meter LCR resources are added a distribution loss factor and allocated with the DR credits from the IOUs.

The DR allocations do not include the 9% planning reserve margin. The 9% planning reserve margin is removed from the DR capacity in the Summary tabs. Most LSEs other than the utilities have not developed DR programs themselves. Although the DR tab of the System RA template has been available for this purpose, no non-IOU LSE has used it for this purpose to date.

As described below, several other rules have been adopted in recent DR decisions so as to conform treatment of DR programs with treatment of other RA resources.

The NQC for DR resources will be grossed up to add back the effects of distribution line losses. The transmission loss factor and PRM is removed beginning in 2024. The formula adopted in D.10-06-036 as adjusted by D.15-06-063, D.21-06-029, and D.23-06-029:

DR RA Value= DR Load Impact * Distribution line loss factors.

This formula applies to IOU DR. Pursuant to D.21-06-029 and D.23-06-029, for third party DR, the distribution loss factor will be embedded in the QC value of the DR resource starting in 2022, and transmission loss factor and PRM is removed starting in 2024.

Third Party DR RA Value = DR.

(As D.20-06-031 at 47-48 clarified, the 15% Planning Reserve Margin adder in the formula above only applies to system capacity, not to local or flexible capacity. D.21-06-029 reduced the PRM adder from 15% to 9% for DR. D.23-06-029 removed the PRM for all DR resources).

	PG&E	SCE	SDG&E
Peak, transmission and distribution losses	1.097	1.076	1.096
Peak, transmission losses only	0.03	0.025	0.025
Peak, distribution losses only	1.067	1.051	1.071

The Transmission Loss Factor adder and the Planning Reserve Margin adder for demand response resources are removed beginning with the 2024 Resource Adequacy compliance year and for the 2024 slice-of-day test year. The transmission loss factor for all DR resources are removed. The Year Ahead Summary and Month Ahead Summary tabs of the template removed the 9% planning reserve margin to the value of all DR capacity in the DR template, including allocated IOU DR.

Pursuant to D.11-06-022, the rules adopted in D.05-01-042 have been superseded and are no longer effective. All DR resources are required to be available a minimum of four hours per day and three days in a row to be available as RA credit. This is to harmonize rules for DR RA resources with non-DR conventional RA resources.

In D.14-03-026, DR programs were bifurcated into Supply Resources and Load Modifying Resources. No changes have yet been made in how Supply Resource DR and Load Modifying Resource DR are treated by the CPUC in the RA context. However, in its California Energy Demand Forecasts, the CEC has treated the IOUs' Permanent Load Shifting programs and Time-of-Use rates as load modifiers (i.e., reducing the load forecast). Beginning with the CEC's 2014-2024 California Energy Demand Forecast, the CEC treats IOU Critical Peak Pricing and Peak-Time Rebate programs as load modifiers, as well.

D.14-06-050 established a QC and EFC methodology for supply side DR resources. The QC methodology continues to rely on the load impacts protocols but also includes a testing requirement and compliance with the CAISO's must-offer obligations. D.15-06-063 exempted DR resources contracted through the Demand Response Auction Mechanism (DRAM) Pilot from the load impacts for compliance year 2016, and D.16-06-045 continued this exemption through 2019. D.19-06-026 (at 41) affirmed that beginning with the 2020 RA compliance year, the QC values of all third-party and IOU-managed DR resources (except DRAM resources) should be based on LIPs. D.20-06-031 subsequently made certain clarifications regarding the application of LIPs. QC values for the DR resources procured through the DRAM pilot will be based on the program's design (contracted MW amount).

22. Export Commitments Made with RA Resources

Some LSEs have export commitments that they seek to fulfill with RA Resources. The Reporting template formalizes a method for the LSE to accomplish this while maintaining the level of proper RA resources to meet the LSE's RA obligation within CAISO. This is done via the Phys_Res_Imports_RA_Res tab. LSEs are to list the amount of Export Commitment into which they have entered with a negative value of MW capacity in the proper Maximum Cumulative Capacity resource category. All other information is also entered, such as contract start date, contract end date, and contract identifier. The LSE must also add the export commitment to the ID and Local Area tab as if it was a new generator. On the ID and Local Area tab, the LSE must create a Scheduling ID that includes an abbreviation of the name of counterparty. The LSE must also enter a Zonal Designation for the export commitment on this tab. For Export Commitments that exit the CAISO via an intertie in 44 SP26, the export commitment has a Zonal Designation of SP26, and for commitments that exit the CAISO via an intertie in NP26, the export commitment would be designated as NP26. Since a negative number is listed and a zonal designation is given for the resource, the template is able to debit the export commitment from resources in that zone to ensure that the amount of the LSE's RA obligation is still met with an appropriate amount of resources within that zone.

23. Outages

Scheduled Outages: Beginning with the 2013 compliance year, the CPUC no longer has a scheduled outage replacement rule. CPUC's scheduled outage replacement rule was replaced by the CAISO's replacement requirement for scheduled generation outages.

<http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx> Forced Outages: Forced

outage of any RA resource occurring during a month does not change the RA compliance established for that LSE for that month. If the forced outage continues into succeeding months, the resource may still be counted towards the LSE's RA compliance.

24. Import Capacity Allocation Process for 2025

Please refer to Section 40 of the CAISO Tariff for the express language on this topic and to Appendix B of this guide for a quick reference regarding the timelines and tasks that are codified in Section 40 of the CAISO Tariff.

In summary, import capacity will be assigned to entities that serve load in the CAISO Control Area in 2025 per the following steps:

1. Posting of Maximum Import Capability on Interties: For 2025, the CAISO will establish for each branch group the total import capacity values into the CAISO Control Area and publish these values on its website by July 1, 2024. The information can be found on the CAISO website at: [iso-maximum-resource-adequacy-import-capability-for-year-2025.pdf \(caiso.com\)](#)
2. Determination of Available Import Capability by Accounting for Existing Contracts and Transmission Ownership Rights Held by Out-of-Balancing Authority Area LSEs: For each branch group, the CAISO will determine the Available Import Capability into the CAISO by taking the Total Import values from Step 1 and deducting the import capacity associated with (i) Existing Transmission Contracts and (ii) Encumbrances and Transmission Ownership Rights.
3. Determination of Existing Contract Import Capability by Accounting for Existing Contracts and Transmission Ownership Rights Held by CAISO Balancing Authority Area LSEs: The import capability associated with ETCs and TORs in Step 2 will be reserved for the holders of such commitments and will not be reduced subsequent to the following process.
4. Assignment of Pre-RA Import Commitments: The LSEs submitted their existing commitments from resources outside CAISO Control Area entered into before March 10, 2006 and with a term lasting into the year 2025 as part of the 2025 Compliance Year Import Allocation Process. The CAISO will use this information to determine Import Capability reserved for Pre-RA Commitments. Previously, LSEs selected particular branch groups based on the primary branch group that energy or capacity from each particular import resource commitment had historically been scheduled. For resources that did not have deliveries into 2025 or were not included in the Compliance Year 2025 Import Allocation process, the CAISO will assign capacity based on

which branch group the energy or capacity was anticipated to be scheduled. This is the Pre-RA Import Capability.

To the extent a particular branch group is over requested due to Pre-RA commitments not included in the Compliance Year 2025 Import Allocation process or changes to system conditions that affect total import capability into the CAISO, the requested Pre-RA Import Capability will be allocated based on the Import Capacity Load Share ratio of each LSE that submitted such resource commitments. However, to the extent this initial allocation has not fully assigned the total import capacity of a particular branch group to the requested resource commitments, the remaining capacity will be allocated until fully exhausted based on the Import Capacity Load Share ratio of each LSE whose quantity of submitted resource commitment have not been fully satisfied. Import Capacity Load Share is each LSE's proportionate share of the forecasted 2025 coincident peak load for the CAISO Control Area relative to the total coincident peak load of all LSEs that have not had their request for import capacity for a resource commitment on a particular branch group fully satisfied. The proportionate share of the forecasted 2025 peak load for the CAISO Control Area for each LSE is the "Coincident Load Share" as determined by the CEC.

5. Assignment of Remaining Import Capability Limited by Load Share Quantity: The Total Import Capability remaining after Step 4 will be assigned only to LSEs serving Load within the CAISO Balancing Authority Area that have not received Existing Contract Import Capability and Pre-RA Import Commitment Capability under Steps 3 and 4, that exceed the LSE's Load Share Quantity. Only the MW quantity of any Pre-RA Import Commitment Capability assigned to Existing Contract Import Capability under Step 4 that exceeds the Existing Contract Import Capability on the particular Intertie will be counted for purposes of this Step 5. This Total Import Capability will be assigned until fully exhausted to those LSEs eligible to receive an assignment under this Step based on each LSE's Import Capability Load Share Ratio up to, but not in excess of, its Load Share Quantity. The quantity of Total Import Capability assigned to the LSE under this Step is the LSE's Remaining Import Capability. This Step 5 does not assign Remaining Import Capability on a specific Intertie.
6. Posting of Assigned and Unassigned Capability: By July 9, 2024 the CAISO will publish on their website (<http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx>) the following information:
 - a. Total Import Capability;

- b. Quantity in MW of ETCs and TORs assigned to each branch group, distinguishing between ETCs held by LSEs within the CAISO and those held by LSEs outside the CAISO;
 - c. The aggregate quantity in MW, the holders, of Pre-RA Import Commitments assigned to each branch group;
 - d. Remaining aggregate import capacity, the identity of the branch groups with available capacity, and the MW quantity remaining on each such branch group.
7. Notification of LSE Assignment Information: By July 9, 2024 the CAISO will notify the Scheduling Coordinators of each LSE of the following information:
- a. LSE's Import Capability Load Share;
 - b. LSE's Load Share Quantity
 - c. Amount and branch group on which the LSE's Contract Import and Pre-RA Import Capability has been assigned;
 - d. LSE's Remaining Import Capability
8. Transfer of Import Capability: LSEs will be allowed to trade some or all of their remaining import capability to any other LSE or market participant. The CAISO will accept trades among LSEs and market participants only to the extent such trades are reported to the CAISO as outlined in a CAISO Market Notice. LSEs must report their trades to the CAISO by July 18, 2024 and include the following:
- a. Name of counterparty
 - b. MW quantity
 - c. Term of transfer
 - d. Price per MW
9. Request to assign Remaining Import Capability: By July 19, 2024, Scheduling Coordinators for LSEs and other market participants shall report to the CAISO requests to allocate post-trading Remainder Import Capacity on a MW per available branch group basis. The CAISO will honor the requests to the extent a branch group has not been over-requested. If a branch group is over requested, the requests for Remainder Import Capacity on that branch group will be allocated based on the ratio of each LSE's Import Capacity Load Share, as used in Step 4. A market participant without an Import Capacity Load Share will be assigned the Import Capacity Load Share equal to the average Import Capacity Load Share of those LSEs from which it received Remainder Import Capacity.
10. CAISO Notification of Initial Remaining Import Capability Assignments and Unassigned Capability: ISO Notification of Initial Remaining Import Capability Assignments and Unassigned Capability by

July 26, 2024 the CAISO will notify each Scheduling Coordinator for LSEs of their accepted allocations and publish on its website remaining aggregate import capacity, the identity of the branch groups with available capacity, and the MW quantity remaining on each branch group.

11. Secondary Scheduling Coordinator Request to Assign Remaining Import Capacity by Intertie: To the extent import capacity remains unallocated pursuant to Step 10, all LSEs will notify the CAISO by August 1, 2024 of their request to allocate any Remainder Import Capacity on a MW per available branch group basis. The CAISO will honor the requests to the extent a branch group has not been over requested. If a branch group is over requested, the requests on that branch group will be allocated based on the ratio of each LSE or market participant's Import Capacity Load Share, as used in steps 3 and 6.
12. Posting of Assigned and Unassigned aggregate Import Capacity: By August 8, 2024 the CAISO will notify each Scheduling Coordinator for an LSE of the LSE's accepted allocation under this Step 12 and publish on its website the quantity and branch group identity of Remaining Import Capacity that has not been assigned pursuant to the steps above.
13. Requests for Unassigned Available Import Capacity: To the extent total Available Import Capacity remains unassigned pursuant to Step 12, Scheduling Coordinators for LSEs shall notify the CAISO pursuant to limitations discussed below, of a request to assign the Remaining Import Capacity on a branch group. The CAISO will accept two (2) requests per calendar week from any Scheduling Coordinator on behalf of a single LSE or market participant. The CAISO will honor requests on a first come first served basis and without regards to the LSE's Load Share Quantity. Requests will be honored and assigned for the balance of the Compliance Year, however requests honored by the CAISO and notified to the LSE after the 20th day of the month cannot be included in the Monthly RA Filing submitted at the end of that month, but may be used for subsequent RA Filings.

This multi-step allocation of import capacity does not guarantee or result in any actual transmission service being allocated and is only used for determining the maximum import capacity that can be credited towards satisfying an LSE's planning reserve margin, or appropriate Resource Adequacy Obligation. Upon the request of the CAISO, Scheduling Coordinators must provide the CAISO with information on existing import contracts and any trades or sales of their load share allocation. The CAISO will inform the CPUC or other Local Regulatory Authority of any Resource Adequacy Plan submitted by a Scheduling Coordinator for an LSE under their respective jurisdiction that exceeds its allocation of import capacity.

25. Zonal RA: Information on Flows Across Path 26

The Path 26 Counting Constraint was adopted in D.07-06-029 and is eliminated by D.19-06-026, effective upon the date of the decision.

Although the Path 26 constraint is removed, Energy Division internal assessment and validation will continue to monitor this Path 26 transfer by splitting the System RA obligation into Zonal RA obligations and measuring resources procured against the Zonal RA obligations. Table 4 on the Summary tabs of the templates pull LSE load for each TAC Area are from the LSE Allocations tab and compare these against total capacity from physical resources, imports, units under construction, and demand response resources according to zone. Specifically, Table 4 subtracts the capacity of resources listed to meet an RA obligation in a given zone (plus an additional 9% for demand response) from the Zonal RA obligation to arrive at a necessary flow across Path 26 to meet the Zonal RA obligation. The table will be for informational purposes only and the Path 26 constraint will not be enforced. For information on CAISO's Path 26 allocation process, please refer to the 2019 or prior RA Guides.

26. Import Documentation Requirements

In D.20-06-028, the Commission adopted requirements for import RA resources, including documentation requirements for “resource-specific” and “non-resource-specific” imports. The Commission clarified that “[r]esource-specific RA imports have historically included only pseudo-tied or dynamically scheduled resources” and that they “are identified on CAISO supply plans with a scheduling coordinator ID and either: (a) a resource ID that ends in ‘DYN’ (for dynamically scheduled resources) or (b) a resource ID that names a specific resource located outside the CAISO’s balancing area (for pseudo-tied resources).” The Commission defined non-resource-specific import RA resources as follows:

Non-resource-specific imports, as the name suggests, are imports that are not associated with a specific resource or unit. CAISO does not have physical unit parameters for non-resource-specific imports and thus, energy bids are not based on the physical characteristic of the resource but based on the selection of the following options: (1) the price taker option, (2) the Locational Marginal Price (LMP)-based option, or (3) the negotiated price option.

D.20-06-028 also made the following clarifications:

- Ordering Paragraph (OP) 1: A resource-specific import contract shall count towards meeting Resource Adequacy (RA) requirements, provided that:

- (a) The resource is either pseudo-tied or dynamically scheduled into the California Independent System Operator (CAISO) day-ahead and real-time markets; and
 - (b) The load-serving entity provides a resource-specific resource ID in its RA filing that is listed on a matching CAISO supply plan and on the Commission's Net Qualifying Capacity list.
- OP 2: A non-resource-specific import shall count towards Resource Adequacy (RA) requirements, provided that:
 - (c) The contract is an energy contract with no economic curtailment provisions;
 - (d) The energy must self-schedule (or in the alternative, bid in at a level between negative \$150/MWh and \$0/MWh) into the California Independent System Operator (CAISO) day-ahead and real-time markets at least during the Availability Assessment Hours throughout the RA compliance month, consistent with the Maximum Cumulative Capacity (MCC) buckets.
 - (e) The energy must be delivered to the load-serving entity in accordance with the governing contract, consistent with the MCC buckets.
- OP 3: A non-resource-specific import energy contract must also include the following terms:
 - (f) The energy contract must include: (1) the price denominated in \$/MWh or \$/kWh, (2) the quantity delivered per hour (e.g., 100 MW), and (3) the delivery period (e.g., on-peak between hours ending 0700 and 2200, Monday through Saturday, excluding Sundays and holidays);
 - (g) The counterparty of the energy contract must be the load-serving entity (LSE) and the energy must be delivered and sold to the LSE; and
 - (h) A requirement that the import is not sourced from resources internal to the California Independent System Operator Balancing Area.
- OP 4: An import that does not qualify as a resource-specific import, based on the definition of Ordering Paragraph 1(a), is a non-resource-specific import.

- OP 5: For both resource-specific and non-resource specific Resource Adequacy import contracts, the resource must be paired with an import allocation right, consistent with the existing requirement adopted in Decision 05-10-042.

D.20-06-028 also set the following filing requirements:

- OP 6: Load-serving entities (LSEs) using non-resource-specific import contracts to meet Resource Adequacy (RA) requirements shall provide full unredacted versions of the RA contract to verify compliance with the adopted requirements. Energy Division Staff shall have the discretion to limit or modify the submission of full RA contracts for compliant LSEs, in the event that such submission is duplicative or overly burdensome.
- OP 7: Load-serving entities are no longer required to submit an attestation or excerpted contract language to verify compliance, as adopted in Decision 19-10-021.
- OP 8: An attestation may be used to demonstrate compliance in the following circumstances:
 - a) Where the contract language does not include a self-schedule or bid requirement because the load-serving entity buying the Resource Adequacy import is the scheduling coordinator (or has appointed another entity to act as the scheduling coordinator), an attestation from the applicable scheduling coordinator may be submitted to confirm the self-schedule requirement. An attestation template is attached as Appendix A. Energy Division may modify the attestation template as necessary.
 - b) Where the import provider of the underlying contract does not include contract language that imports must not be sourced from resources internal to the California Independent System Operator's Balancing Area, an attestation from the import provider may be submitted. An attestation template is attached as Appendix B. Energy Division may modify the attestation template as necessary.

Accordingly, to the extent an LSE's filing meets the requirements above, Energy Division does not require contracts for resource-specific import RA resources. However, if there are any doubts as to the resource-specific nature of a particular resource that an LSE claims is resource-specific, Energy Division may require a full, unredacted contract for that resource. Energy Division does require full, unredacted contracts for all non-resource-specific import RA resources.

If an LSE provided a full, unredacted contract for a given RA import resource in a previous filing, and if the associated contract has not been amended since that previous filing, the LSE may reference that documentation rather than submitting it again. In the RA cover letter, the LSE should reference the resource ID and the date the contract was previously submitted. In addition, the LSE must include the following language in cell B19 of the “Certification” tab in its filing:

Unspecified Import Documentation: I certify that I have reviewed the documentation relating to unspecified imports that we previously submitted and to which we refer in our cover letter for this filing, and I have verified that the contract(s) to which we refer are still active and applicable and have not been cancelled or amended in any way.

Energy Division will review actual flows and assess whether energy was delivered consistent with RA rules and with the MCC buckets. To the extent that this does not occur, Energy Division will deem the LSE not compliant with the energy contract requirement and refer them to the Consumer Protection and Enforcement Division (CPED) for potential enforcement actions.

D.21-06-029 adopted Energy Division’s compliance review and approval process for non-resource specific RA imports as follows:

- Step 1: Energy Division Staff reviews contracts at the time of filing to assess “ex ante” compliance with contract provisions required by Decision (D.) 20-06-028,
- Step 2: Energy Division Staff reviews bid and self-schedule activity once data becomes available “ex post” to assess whether the resource performed as required by D.20-06-028.

(1) If Energy Division Staff does not identify any issues with a load-serving entity’s (LSE) filing in Step 1 (and there are otherwise no issues with the filing), Staff has the discretion to provisionally approve the filing, subject to final approval after Step 2.

(2) If Energy Division Staff identifies an issue with an LSE’s filing in Step 1, Staff will treat the resource as if it were not made available to the California Independent System Operator on a Supply Plan. As with other RA resources, a correction or deficiency notice will be issued, depending on if the LSE has enough capacity to meet its RA requirement without the import.

(3) If Energy Division Staff does not identify any issues in Step 2, Staff will confirm whether any Step 1 deficiency was cured (if applicable) or approve the filing.

(4) If Energy Division Staff identifies an issue in Step 2, Staff will process a deficiency notice.

Because the supporting data would be available after the compliance month has passed, Energy Division Staff and the Consumer Protection and Enforcement Division (CPED) are authorized to treat deficiencies in Step 2 as “not replaced” (or not cured) under the existing penalty structure.

Energy Division is directed to provide LSEs with a template of the required components to confirm and approve import RA products. This process is effective immediately.

Pursuant to D.21-06-029, Energy Division released an import checklist template for reporting specified and unspecified import products in July 2022. In 2024, LSEs are required to file this template along with their month-ahead RA filings if they are showing import resources.

27. Certification of LSE Resource Adequacy Compliance Filing

As confirmed in D.06-07-031, all RA filings shall be made under the following certification. A certification sheet signed by an officer of the organization must accompany each template. Electronic signatures are acceptable; see Section 21 below for additional details.

The required certification is as follows:

Consistent with Rules 1.1 and 1.11 of the CPUC Rules of Practice and Procedure, this Resource Adequacy compliance filing has been verified by an officer of the corporation who shall expressly certify, under penalty of perjury, the following:

1. I have responsibility for the activities reflected in this filing;
2. I have reviewed, or have caused to be reviewed, this compliance filing;
3. Based on my knowledge, information, or belief, this filing does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements true; and
4. Based on my knowledge, information, or belief, this [filing] contains all of the information required to be provided by Commission orders, rules, and regulations.

Until the Commission provides further guidance, any LSE whose RA filing includes imports for which the LSE previously provided contract language or an attestation should also include additional certification language in cell B19 of the “Certification” tab, as described in Section 19 above.

28. Submission of RA Filings – Secure FTP

RA filings are now made in Excel 2010 format. Please do not save the templates in 2003 format, as that will disable several formulas and compliance checks built into the templates. Appendices A and D of this guide provide further instructions to LSEs regarding electronic submission of RA filings. LSEs are encouraged to contact Energy Division immediately with any questions or issues relating to the Secure FTP application. LSEs may need to reregister periodically, as the Secure FTP system may purge users after a period of inactivity. Additionally, in the case of unforeseen system failures, Energy Division will notify LSEs with alternate arrangements.

In light of the electronic nature of the submissions, LSEs are required to use the following naming convention when submitting compliance filings to the CPUC, CEC, and CAISO as follows:

[1-10 character name of LSE][first three letters of month or LOC for Year Ahead Local][YA for Year Ahead, or MA for Month Ahead][last 2 digits of the year][.xlsx]

LSEs must use the Secure FTP client available at the URL below to transmit the following files:

1. Completed workbooks covering the applicable compliance months. Month Ahead System RA Filings cover the next compliance month, while Year Ahead System RA Filings cover the summer months of May through September, and the Local and Flex RA Filing covers all of the next year for flexible requirements and all of the next three years for local requirements.
2. A pdf of the signed certification sheet or an electronic signature in the certification page of the template (see further instructions below).
3. Confidentiality Declaration covering the filing or reference in the cover letter and Summary Sheet to the date and content of the original confidentiality declaration meant to cover the filing.
4. Any applicable contract documents, attestations, or waiver requests.

Secure FTP URL: <https://cpucftp.cpuc.ca.gov/>

Energy Division may accept the following formats for certification of RA filings:

1. a PDF version of the filing template's Certification tab containing the name, title, and signature of the certifying officer in the appropriate cells, or
2. the certifying officer's "electronic signature" placed in the appropriate cell of the filing template's Certification tab. The electronic signature may be either (i) an image file of the certifying officer's signature or (ii) the certifying officer's digital signature with a timestamp.

The Certification tab of an LSE’s Excel filing template should always contain the name and title of the certifying officer (in the appropriate cells), regardless of whether the LSE submits a signed copy of the tab as a PDF document. This will enable Energy Division to determine quickly whether the certifying officer has changed.

LSEs must submit files directly to the Energy Division via the Secure FTP application and must submit the filings to the CEC and CAISO using the email addresses below. (Note that the Additional Local Resources (2024,2025 and 2026) tab in the Year Ahead Local and Flexible Template need only be submitted to the CPUC.)

CPUC Energy Division email: RAFiling@cpuc.ca.gov	California Energy Commission email: RAFiling@energy.ca.gov	CAISO email: reliabilityrequirements@caiso.com
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The RA Filings are due according to the schedule listed in Section 2 of this Guide. Please do not print out and mail any of this information, as paper copies are not useful to Energy Division. Electronic copies of all documents and delivery receipts will be retained by Energy Division for record keeping.

LSEs will receive a letter via electronic mail that confirms approval of the filing from Energy Division. For this reason, the LSE must provide an email address to which the Energy Division will email the approval letter.

Energy Division staff has included a set number of rows for each worksheet of the template. If more rows are needed, the LSE should add rows to the Excel spreadsheet. All formulas are locked to prevent accidental overwriting, but LSEs may unlock the formulas to add rows or to make necessary changes. It is the responsibility of the LSE to ensure that all information is integrated into the formulas correctly. The Summary worksheets of the template are completely automated.

29. Correction of Errors: Minor or Substantial

There are two classes of corrections, minor or substantial:

- Minor errors are typos and numerical errors that do not affect compliance or require the LSE to procure additional capacity. Minor errors must be corrected through the filing of accurate replacement sheets. Energy Division will communicate correction notices to the LSE via e-mail.
- Substantive errors (deficiencies) require the LSE to procure and demonstrate additional capacity. Substantive errors must be corrected through a complete refiling, including a new certification sheet and cover letter. The LSE must clearly explain the corrections and list extra

procurement. The LSE may be subject to enforcement action for substantive errors. Energy Division will communicate deficiency notices to the LSE via e-mail.

The CPUC has discretion over classifying errors and ordering corrections. LSEs must use Secure FTP for all submissions of information and for all error correction.

Energy Division will attempt to perform initial compliance checks based on the most recent supply plans possible downloaded from CIRA following Energy Division's monthly RA filing deadline. If this is not possible, Energy Division will perform initial compliance checks based on supply plans included in the most recent complete run of the RA validation in CIRA following Energy Division's monthly RA filing deadline. Correction notices and deficiency notices will be based on information contained in these supply plans, regardless of when Energy Division performs the compliance check.

30. RA Penalty Structure

D.11-06-022 modified the penalty structure of the RA program, changing both the penalties applicable under Resolution E-4195 and other program penalties. Specifically, D.11-06-022 eliminated the penalty for small procurement deficiencies and instead created a Specified Violation for any procurement deficiency remedied within five business days. For those deficiencies not cured within five business days, the other penalties adopted in D.10-06-036 continue to apply. D.14-06-050 extended the local RA penalty structure to Flexible RA deficiencies, and D.19-02-022 extended the Local RA penalty structure to multiyear Local RA requirements. D.19-06-026 raised the local RA penalty price of \$3.33/kW-month to the equivalent value of the newly-adopted local RA trigger price, or \$4.25/kW-month. D.20-06-031 adopted a shaped system penalties prices as \$8.88/kW-month in summer months (May through October) and \$4.44/kW-month in non-summer months (November to April).

The current penalty structure is as follows:

	Deficiency in either System, Local or Flexible RA Filing (Modifying Appendix A in Resolution E-4195)		
	System RA Penalty	Local RA Penalty	Flexible RA Penalty

Deficiency cured within five business days from the date of notification by the Energy Division	\$5,000 per incident if the deficiency is 10MW or smaller, \$10,000 for a deficiency larger than 10 MW. For the second and each subsequent deficiency in any calendar year, penalties will be \$10,000 per incident if the deficiency is 10 MW or smaller, \$20,000 for a deficiency larger than 10 MW.	\$5,000 per incident if the deficiency is 10MW or smaller, \$10,000 for a deficiency larger than 10 MW. For the second and each subsequent deficiency in any calendar year, penalties will be \$10,000 per incident if the deficiency is 10 MW or smaller, \$20,000 for a deficiency larger than 10 MW	\$5,000 per incident if the deficiency is 10MW or smaller, \$10,000 for a deficiency larger than 10 MW. For the second and each subsequent deficiency in any calendar year, penalties will be \$10,000 per incident if the deficiency is 10 MW or smaller, \$20,000 for a deficiency larger than 10 MW
Replaced after five-business days from the date of notification or not replaced	\$8.88/kW-month in summer months (May through October) and \$4.44/kW-month in non-summer months (November to April)	\$4.25/kW-month	\$3.33/kW-month

D.06-06-064 (at 74) clarifies that penalties for system and local deficiencies are not cumulative. D.19-06-026 (at 19-20) similarly clarifies that if an LSE incurs both flexible and system Resource Adequacy (RA) deficiencies, the penalty shall be based on the following:

- a. Where an LSE incurs equivalent flexible and system RA deficiencies, the system RA penalty price shall apply.

b. Where an LSE incurs a flexible RA deficiency that exceeds its system RA deficiency, the system RA penalty price shall apply to the megawatt amount of the system deficiency and the flexible RA penalty price shall apply to the flexible deficiency megawatt amount that exceeds the system deficiency.

D.21-06-029 adopted the following penalty structure for system RA deficiencies and it is added to the current penalty structure:

Months		Points for Each Instance of System RA Deficiency
Non-Summer (November – April)		1
Summer (May – October)		2
Tier	Accrued Points	System RA Penalty Price
1	0-5	Applicable system RA penalty price
2	6-10	2x the applicable system RA penalty price
3	11+	3x the applicable system RA penalty price

If an LSE's deficiency is less than 1% of the LSE's system RA requirement, no points will be accrued. Points shall only be accrued for month-ahead deficiencies, not year-ahead deficiencies. Points shall expire 24 months after the violation. Accrued points within an RA compliance year shall be carried over to the next RA compliance year. The provider of last resort shall not accrue points for a deficiency resulting from unexpected load returns for which a system RA waiver is granted. This structure is effective for the 2022 RA compliance year.

Pursuant to D.23-06-029, penalty points accrued by an LSE will be applied to an LSE's month-ahead and/or year-ahead RA penalties. If an LSE enters a higher tier during a year in which it incurs year-ahead deficiencies, the higher penalty will apply beginning with the monthly deficiency when the LSE enters the higher tier. The month in which an LSE accrues points that brings the LSE into the next tier, the higher penalty will apply to the deficient month for which the points were accrued. The requirements adopted here are effective beginning for the July 2023 RA filing.

All year-ahead Resource Adequacy (RA) deficiencies will be charged at the Tier 1 price, and in the month-ahead RA process, the load-serving entity (LSE) will pay the difference between its month-ahead tier penalty and the Tier 1 penalty that was already paid on its year-ahead RA deficiency, plus the LSE's current tier price on any incremental month-ahead RA deficiency. The following formula will be applied:

$$\text{Year-Ahead penalty} = \text{DeficiencyYear-Ahead} \times \text{Tier 1 Price}$$

$$\text{Month-Ahead penalty} = [(\text{DeficiencyYear-Ahead} \times \text{Tier PriceMonth-Ahead}) - \text{Year-Ahead penalty}] + (\text{DeficiencyMonth-Ahead incremental} \times \text{Tier PriceMonth-Ahead})$$

For any LSE month-ahead and year-ahead RA deficiencies, the following information is deemed not confidential and will be published on the Commission's website by the CPED or Energy Division: the type of RA deficiency, month of deficiency, deficiency amount (MW), and any points accrued. The information will be published no earlier than October 1 of the compliance year. For other non-deficiency RA program violations, such as late load forecasts and late RA filings, the information on the RA citation is deemed not confidential and may be published on the Commission's website by CPED or Energy Division.

D.20-06-002 did not impose a penalty structure for the CPE.

OP 27. The central procurement entity (CPE) shall not be assessed fines or penalties for failing to procure resources to meet the local Resource Adequacy requirements and deferring local procurement to the California Independent System Operator backstop mechanism, as long as the CPE exercises reasonable efforts to secure capacity and the independent evaluator report contains the reasons for the failure to procure.

31. Local Waiver Process

LSEs that are unable to bilaterally contract for local capacity needed to meet their assigned obligation may request a waiver. D.06-06-064 and D.07-06-029 established a waiver process whereby an LSE can request relief from the procurement obligation with a demonstration that it has made every commercially reasonable effort to contract for Local RA resources. D.19-02-022 extended this waiver process to multiyear Local RA requirements. A waiver request must demonstrate that the LSE actively sought products and either received bids with prices in excess of their proposed administratively determined local attribute price or received no bids. The waiver applies to Commission-imposed

penalties only. A deficient LSE would still be responsible for any applicable backstop procurement costs, even if it received a waiver from CPUC penalties.

The waiver process is as follows. An LSE requesting a waiver must make such request at the time it files its Local RAR compliance showing. The waiver request must include both of the following:

- (1) a demonstration that the LSE reasonably and in good faith solicited bids for its RAR capacity needs along with accompanying information about the terms and conditions of the Request for Offer or other form of solicitation, and
- (2) a demonstration that despite having actively pursued all commercially reasonable efforts to acquire the resources needed to meet the LSE's local procurement obligation, it either
 - (a) received no bids, or
 - (b) received no bids for an unbundled RA capacity contract of under \$51 per kW-year or for a bundled capacity and energy product of under \$73 per kW-year, or
 - (c) received bids below these thresholds but such bids included what the LSE believes are unreasonable terms and/or conditions, in which case the waiver request must demonstrate why such terms and/or conditions are unreasonable.

These requirements are necessary, but are not necessarily a sufficient, condition for CPUC to grant waiver. The Commission will also consider other information brought to its attention regarding the reasonableness of the waiver request.

Staff will consider a waiver request along with any other pertinent information in making recommendations to the Commission regarding whether to institute formal enforcement proceedings against a deficient LSE. Energy Division will advise the LSE whether the Commission has accepted the waiver or whether the Commission intends to pursue the matter further. Energy Division will provide a report to the Executive Director detailing the number of waiver requests received and granted, and a copy of this report will be furnished to the Commissioners and the ALJ.

Beginning with the 2020 Year Ahead filing process, local RA waiver requests shall be submitted via a Tier 2 Advice Letter to the Commission with accompanying service to the service list (in redacted form, if necessary) of the RA proceeding open at the time of the request. Please note that this requirement will begin with the 2020 Year Ahead filing process and that Tier 2 advice letters containing local waiver

requests will be due on the same date as other Year Ahead or Month Ahead filing components, as outlined in the tables in Section 2.

Beginning with the 2021 Year Ahead filing process, a load-serving entity (LSE) shall have fulfilled their Resource Adequacy obligations in the six disaggregated “Pacific Gas and Electric Company (PG&E) Other” local capacity areas (LCAs) if the following requirements are met:

- (a) The LSE makes the required demonstration as part of the current local waiver process through a Tier 2 Advice Letter for its disaggregated PG&E Other local capacity requirements; and
- (b) The LSE, in its Year Ahead compliance filing, demonstrates procurement of local RA capacity within the PG&E Other LCAs such that the LSE’s collective procurement in the six disaggregated PG&E Other LCAs meets the LSE’s collective requirement for the disaggregated PG&E Other LCAs.

If the LSE demonstrates that they made reasonable efforts to procure capacity in the disaggregated PG&E Other areas and procured sufficient resources to meet the aggregated PG&E Other area requirement, the LSE will be deemed compliant, subject to verification that the LSE indeed made the required demonstration.

A local Resource Adequacy waiver request that is filed past the submission deadline will be rejected.

32. System and Flexible Waiver Process for Provider of Last Resort (POLR)

The provider of last resort (POLR) may be eligible for a limited system or flexible Resource Adequacy (RA) waiver for instances in which retail load is: (a) returned to the POLR with insufficient time to meet the RA requirement, or (b) not transferred from the POLR to another load-serving entity (LSE) as planned as a result of action or inaction by the LSE. The waiver shall be submitted through a Tier 2 Advice Letter. The POLR waiver process is effective immediately.

Appendix A: Submission of RA Compliance Filings

1. Applicability

D.08-06-031 allows Energy Division staff to determine that RA Filings may be submitted via means other than an Advice Letter. These guidelines seek to give direction to LSEs as to how to make RA Filings under the new rules.

1.1 Code of Ethics

Rule 1 (“Code of Ethics”) of the Commission’s Rules of Practice and Procedure (California Code of Regulations, Title 20, Division 1, Chapter 1) shall apply to all RA Filings.

1.2 Computation of Time

As used in these rules, “day” means a calendar day, and “business day” means a calendar day except for Saturdays, Sundays, and weekdays when the Commission’s offices are closed, due either to a State holiday or to an unscheduled closure (e.g., an emergency or natural disaster). The Commission’s Internet site (www.cpuc.ca.gov, under “About CPUC”) will maintain a list of State holidays for the current calendar year and a list for the following calendar year as soon as that list is available.

When these rules set a time limit for performance of an act, the time is computed by excluding the first day (i.e., the day of the act or event from which the designated time begins to run) and including the last day. If the last day does not fall on a business day, the time limit is extended to include the first business day thereafter.

2. RA Filing format

The RA Filings (Cover Letter with Summary Sheet and all RA Templates) shall include a Cover Letter, which shall state the person to contact for questions, and the date when the LSE expects the RA Filing to be received by the CPUC. The Cover Letter shall summarize the contents as follows:

- (1) Note the correct compliance period covered by this Filing
- (2) Show contact person, telephone number, and e-mail address for additional information regarding the RA Filing and the person to whom the approval letter is to be sent.

If an RA Filing does not include a complete submission as described above, the Energy Division may reject the RA Filing and require a new submission by the LSE.

4. Submitting RA Filings and Related Documents

The RA filing (RA Templates and Confidentiality declaration if needed) shall be submitted to the CPUC Energy Division, CEC, and CAISO. The method of filing is summarized in Section 21 of the RA Guide, along with the exact email addresses to be used at the CPUC, CEC, and CAISO.

5. Service to Other Parties

RA filings are compliance filings and not subject to protest. Therefore, service beyond the parties listed in Section 21 of the RA Guide (CPUC, CEC, and CAISO, as applicable) is not required.

6. Correction of Errors made in RA Filings

Minor typographical or numerical inaccuracies that do not affect compliance and do not require the procurement of additional capacity can be made by submitting a corrected template to replace the original, with the changes described in the cover letter. The LSE must type REVISED at the top of all Resource Worksheets (not Summary Pages) and highlight any changed cells in the Resource Worksheets (not Summary Pages). Since the Summary Pages are protected and unable to be edited, the LSE is not required to highlight any information on them. Errors that do affect compliance and require the LSE to procure additional capacity must be submitted via a complete refiling of the templates with a new cover letter, new Certification Sheet, and must be received by Energy Division within the time frame indicated in the correction notice. The Cover Letter must state the reason for the refiling, and indicate any additional procurement performed. Energy Division Staff reserves the discretion to classify errors as one of the two classes, and to order corrections. Corrections made to RA Filings that affect compliance may also be referred to the Commission's enforcement staff.

- **Minor Typographical and Numerical Errors:**

Simple typographical or numerical errors that do not affect compliance or do not invalidate resources sufficient to drop the LSE below RAR can be corrected by the LSE by submitting a corrected template to replace the original in its entirety; specific revisions must be noted in a cover letter. In the case of a supply plan mismatch or a scheduled outage that invalidates a portion of the LSE's capacity, if the supplier has submitted replacement capacity via a supply plan as of the RA Filing due date, the LSE may submit corrections to list the correct source of capacity via correction sheets. Submission of revised templates and cover letters is done via the same method as the original filing and to the same addresses. LSEs must type REVISED at the top of any page that contains corrections (except for Summary pages) and must highlight cells that have been altered. Corrections must arrive in Energy Division within five business days after notification by the CPUC.

- **Substantive Errors that May Affect Compliance**

Errors that are substantive and affect compliance, when removal of the capacity in question would leave the LSE without sufficient capacity committed to the CAISO (even in the event that

the LSE otherwise controls the capacity but did not make it available to the CAISO via a RA Filing) to meet RAR. Substantive errors must be corrected via a complete refilling of the RA Filing (with cover letter that explains the errors and a new certification sheet). Additional procurement (even if the LSE already controls the capacity but not has made it available to CAISO via an RA filing) must be demonstrated via a corrected template and the LSE is to ensure that a revised supply plan documenting that additional procurement is filed with the CAISO by the supplier.

Procurement deficiencies occur when LSEs do not make sufficient RA capacity available to the CAISO via an RA Filing or supply plan confirmation by the RA Filing due date. If additional RA capacity is made available to the CAISO on behalf of the LSE by suppliers, that amount will be debited against any deficiency even if the LSE does not list it in their RA Filing. Corrections and additional procurement must be clearly explained in the Cover Sheet and noted in the certification sheet. Corrections to an original RA Filing must include the date of submission of the original RA Filing.

Refiled RA Filings are evaluated similarly to original RA Filings and are subject to the same filing provisions. Examples of errors that may affect compliance include omitting resource availability, filing a resource under an incorrect tab (recording an import as a Physical Resource), and any typographical or numerical error that would change an LSE's compliance status. Energy Division must receive corrections or refilings within five business days of LSE receipt of the correction notice.

Appendix B: CAISO Import Allocation Process for 2025

CAISO Business Practice Manual Exhibit A-3: Import Capability Posting and Submittal Dates

Item	Posting Date	Submittal Date	Frequency
Market Notice requesting Import Commitment Data and contact person		1 st week in June	Annual
LSE to submit Data requested		2 weeks after previous Market Notice	Annual
Step 1: Posting of Maximum Import Capability on Interties	1 st of July or next business day if 1 st falls on a weekend		Annual
Step 6: Posting of Assigned and Unassigned Capability	9 th of July or next business day if 9 th falls on a weekend		
Step 7: Notification of LSE Assignment Information	9 th of July or next business day if 9 th falls on a weekend		Annual
Step 8: Transfer of Import Capability		18 th of July, or next business day if 18 th falls on a weekend	Annual
Step 9: Request to assign Remaining Import Capability		19 th of July, or next business day if 19 th falls on a weekend	Annual
Step 10: ISO Notification of Initial Remaining Import Capability Assignments and Unassigned Capability	26 th of July, or next business day if 26 th falls on a weekend. The ISO will begin accepting requests for Step 11 at the date and time indicated in the market notice		Annual

Item	Posting Date	Submittal Date	Frequency
	published after Step 10.		
Step 11: Secondary request to assign Remaining Import Capability		1 st of August, or next business day if 1 st falls on a weekend. The ISO will begin accepting requests for Step 11 at the date and time indicated in the market notice published after Step 10.	Annual
Step 12: Posting of Assigned and Unassigned aggregate Import Capability	8 th of August or next business day if 8 th falls on a weekend. The ISO will begin accepting requests for Step 13 at the date and time indicated in the market notice published after Step 12.		Annual
Step 13: Requests for Unassigned Available Import Capability		9 th of August, or next business day if 9 th falls on a weekend. The ISO will begin accepting requests for Step 13 at the date and time indicated in the market notice published after Step 12.	Annual
Step 13: Publish list of Unassigned Available Import Capability	5 th day of September, or next business		Annual

Item	Posting Date	Submittal Date	Frequency
	day if 5 th falls on a weekend		
Registration for Bilateral Import Capability Transfers		Anytime	One time
Reporting Bilateral Import Capability Transfers occurring outside of Step 8		Anytime. To be counted on an RA Plan, must be submitted on or before the 20 th of the Month, two months prior to the Compliance Month (ie: 9/20/2008 to count on Nov 2008 RA Plan)	Upon transfer of Import Capability
Posting of Eligible Import Capability Trading Parties	5 th day of each month, or next business day if 5 th falls on a weekend		Monthly
Posting of Import Capability Transfers	Within 5 business days of receiving a transfer request.		On Event
Posting of Interties and holders of Import Allocation per Intertie	5 th day of each month, or next business day if 5 th falls on a weekend		Monthly
Posting of Import Allocation usage on Annual RA Plans	15 business days after Annual RA Plans are due		Annual

Appendix C: Directions for Use of Secure FTP

Summary

The PDF file below explains how to set up an account for the CPUC Secure File Transfer Protocol (SFTP) that will enable you to send large files securely throughout the CPUC. You can send files up to 2 GB in size. Please note that external users can **ONLY** send files to internal users within CPUC.

NOTE: This user Guide is for External Users. All blacked out parts of images are to protect the confidentiality of user information.

File: https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/kiteworksftpexternalusersquickstartguide.pdf