Decision 20-06-028  June 25, 2020

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to
Oversee the Resource Adequacy
Program, Consider Program
Refinements, and Establish Annual
Local and Flexible Procurement
Obligations for the 2019 and 2020
Compliance Years.

DECISION ADOPTING RESOURCE ADEQUACY
IMPORT REQUIREMENTS
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DECISION ADOPTING RESOURCE ADEQUACY IMPORT REQUIREMENTS

Summary

This decision addresses the issues scoped for limited rehearing in Decision (D.) 20-03-016, and the issues scoped as Track 1 in the Scoping Memo of Rulemaking 19-11-009. This decision adopts revisions to the Resource Adequacy import rules based on Energy Division’s proposal, with modifications. The Commission will consider the California Independent System Operator (CAISO) and Powerex Corp.’s proposal in a subsequent Resource Adequacy proceeding after further development through the CAISO’s processes. This decision completes the limited rehearing of D.19-10-021, and the stay of D.19-10-021 is no longer in effect.

This proceeding remains open.

1. Procedural History

In September 2018, the California Independent System Operator’s (CAISO) Department of Market Monitoring (DMM) issued a report on Resource Adequacy (RA) imports that found that certain RA imports were bidding at high levels and up to the $1000/MWh cap, and had no further obligation to bid into the real-time market if not scheduled in the day-ahead market or residual unit commitment process. DMM stated that this type of bidding could allow a significant portion of RA to be met by imports that have limited availability and value during critical conditions.¹

The CAISO raised similar concerns in its Resource Adequacy Enhancements stakeholder initiative, noting that:

[T]he current RA import provisions may allow some RA import resources to be shown to meet RA obligations while also representing speculative supply (i.e., no true physical resource or contractual obligation backing the RA showing) or being committed to other regions and double counted.²

1.1. Assigned Commissioner’s Ruling

Based on CAISO and DMM’s report, Energy Division Staff sent an inquiry to all load-serving entities (LSEs) subject to the RA program on April 3, 2019, requesting information and documentation on RA imports being used by LSEs.³ The information provided by LSEs in response to the inquiry, including RA contract language, “appear[ed] to indicate the import provider/counterparty will only provide energy and operating reserves if its bids in the [day-ahead market] are selected.”⁴

Subsequently, an Assigned Commissioner’s Ruling (ACR) was issued on July 3, 2019 in this proceeding, seeking comments about the use of RA imports. Specifically, the ACR stated that:

[T]he Commission is concerned that some load serving entities (LSEs) may be relying on unspecified imports for RA in a manner that does not conform with the D.04-10-035 and

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³ E-mail from Energy Division Staff, dated April 3, 2019, Appendix A to Assigned Commissioner’s Ruling (ACR), issued July 3, 2019.

⁴ ACR at 4.
D.05-10-042 requirements and could undermine the integrity of the RA program. Specifically, some unspecified imports used by LSEs to meet RA requirements may not provide firm energy delivery, which raises the question of whether these resources will be able to deliver energy to the grid when it is needed most. ⑤

In Decision (D). 04-10-035, the following qualifying capacity (QC) methodology for import contracts was adopted:

Qualifying capacity for import contracts is the contract amount, provided the contract:

1. Is an Import Energy Product with operating reserves,
2. Cannot be curtailed for economic reasons, and
3a. Is delivered on transmission that cannot be curtailed in operating hours for economic reasons or bumped by higher priority transmission, or
3b. Specifies firm delivery point ([i.e.] not seller’s choice). ⑥

In D.05-10-042, the Commission determined that non-unit specific, liquidated damages (LD) contracts would be phased out of the RA program. One type of non-unit specific LD contracts deemed exempt from phase-out was LD contracts that met import deliverability requirements and demonstrated sufficient physical resources associated with them (e.g., spinning reserves, firm energy delivery). D.05-10-042 noted that “[f]irm import LD contracts do not raise issues of double counting and deliverability that led us to conclude that other LD

⑤ Id. (emphasis in original).

⑥ D.04-10-035 at 54 (adopting Section 5 of the Workshop Report on RA Issues at 21, available at: http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/REPORT/37456.PDF).
contracts should be phased out for purposes of RAR [Resource Adequacy requirements].

1.2. Decision 19-10-021

Based on comments to the ACR, the Commission issued D.19-10-021 on October 17, 2019. The Commission affirmed that D.04-10-035 and D.05-10-042 had established requirements for import contracts to count as RA. The decision concluded that “a contract for an import energy product that is available only when called upon in the CAISO’s day-ahead market or residual unit commitment process does not qualify as an ‘energy product’ that ‘cannot be curtailed for economic reasons.’” 8 The Commission also stated that “a non-resource-specific RA import is required to self-schedule into the CAISO markets consistent with the timeframe reflected in the governing contract.” 9 By contrast, a self-schedule requirement does not apply to resource-specific imports, including dynamically scheduled resources, “since resource-specific imports have a physical resource backing the assigned RA capacity and therefore, do not carry the same concerns about speculative supply as with non-resource-specific imports.” 10

The Commission deemed it unnecessary to grandfather existing contracts since “the requirements at issue date back to Commission decisions from 2004,

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7 D.05-10-042 at 68.
8 D.19-10-021 at 8.
9 Id. at 8-9.
10 Id. at 9.
and thus are not new requirements.”11 For compliance, LSEs were required to provide documentation in the form of either contract language or attestation. We deemed “the existing RA penalty structure is sufficient to deter violations of the import rules and we decline to modify the penalty structure at this time.”12

Lastly, the decision stated that “the Commission will consider changes to and a deeper analysis of the current RA import rules in the next phase of the RA proceeding, including the ability for such resources to operate more flexibly in the CAISO market.”13

1.3. Track 1 of R.19-11-009

On November 7, 2019, an Order Instituting Rulemaking in Rulemaking (R.) 19-11-009 opened the successor RA proceeding to R.17-09-020. The Scoping Memo, issued on January 22, 2020, deemed “revisions to the RA import rules” as a Track 1 issue. Specifically, the issues within Track 1 are:

(1) What types of import resources should be counted as RA (e.g., resource-specific imports with a must-offer obligation, non-resource specific imports for firm energy, etc.)?

(2) What rules should govern resource-specific RA imports, including what should be required by the Commission to demonstrate compliance?

(3) What rules should govern non-resource specific RA imports, including what should be required by the Commission to demonstrate compliance?

11 Id. at 11.
12 Id. at 12-13.
13 Id. at 10.
(4) Should the Commission consider allowing firm, fixed priced energy contracts paired with an import allocation to count for import RA? If, so, how?

(5) Other issues raised by Energy Division or parties regarding import RA requirements and demonstrating compliance with these requirements may be considered.14

Energy Division released a Report on Resource Adequacy Imports in February 2020 that summarized the state of the RA import market. A workshop on RA import issues was held on February 14, 2020.

Track 1 proposals were filed on February 28, 2020 by: Energy Division, CAISO, Morgan Stanley Capital Group Inc. (MSCG), Powerex Corp. (Powerex), and jointly by Southern California Edison (SCE) and Shell Energy North America (US), L.P. (Shell). Energy Division’s proposal was filed and served by an Administrative Law Judge (ALJ) ruling.

Opening comments were filed on March 6, 2020 by: Alliance for Retail Energy Markets (AREM), Bonneville Power Administration (Bonneville), CAISO, California Community Choice Association (CalCCA), Calpine Corporation (Calpine), DMM, Middle River Power (MRP), MSCG, Pacific Gas and Electric Company (PG&E), Powerex, Public Advocates Office (Cal Advocates), Public Generating Pool (PGP), San Diego Gas & Electric Company (SDG& E), Shell, SCE, and the Utility Reform Network (TURN). Reply comments were filed on March 11, 2020 by: CAISO, CalCCA, Calpine, MRP, MSCG, PG&E, SDG&E, SCE, and Southwestern Power Group II (SWPG).

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14 Scoping Memo for R.19-11-009 at 3-4.
1.4. Rehearing of Decision 19-10-021

On October 24, 2019, an application for rehearing of D.19-10-021, and a motion to stay the decision, was filed by CalCCA. On November 18, 2019, Powerex and CAISO filed applications for rehearing of D.19-10-021. On December 23, 2019, the Commission issued D.19-12-064, granting the motion to stay D.19-10-021 until the disposition of the applications for rehearing.

On March 16, 2020, the Commission issued D.20-03-016 granting limited rehearing of D.19-10-021. The decision determined that “creating a distinction between resource-specific and resource-non-specific imports, and applying a self-scheduling requirement to one of these resources (resource-non-specific contracts), should be subject to comment by the parties.”

The decision determined that certain terms used in D.19-10-021, including “resource-specific” and “resource-non-specific,” should be clarified. The scope of limited rehearing was ordered, as follows:

(1) Limited rehearing is granted in order to allow party comments as to the self-scheduling requirement, and as to the distinction between resource-specific and resource-non-specific RA import contracts.

(2) Limited rehearing is granted in order to augment the existing evidentiary record regarding the distinction between resource-specific and resource-non-specific RA import contracts, and to provide a sufficient evidentiary basis for this distinction.

(3) Limited rehearing is granted in order to clarify certain specific terms used in D.19-10-021, including “resource-specific” and

15 D.20-03-016 at 5.
“resource-non-specific,” as well as to clarify the timeframe within which RA importers are required to self-schedule in the CAISO market.\textsuperscript{16}

D.20-03-016 also “acknowledge[s] that there is a successor proceeding, R.19-11-009, that is considering issues that may be pertinent to the record on limited rehearing, and that a future rehearing decision may incorporate the record from R.19-11-009.”\textsuperscript{17} The decision ordered that “[t]he stay of D.19-10-021 ordered in D.19-12-064 shall remain in effect until this limited rehearing is completed.”\textsuperscript{18}

\textbf{1.5. Limited Rehearing Process}

An ALJ ruling, issued on March 20, 2020, set the schedule and process for limited rehearing of D.19-10-021. The ruling notified parties that “[a] rehearing decision on the issues scoped in D.20-03-016 will be issued in R.17-09-020” and that the record developed in Track 1 of R.19-11-009 shall be incorporated into the record of R.17-09-020 for limited rehearing.\textsuperscript{19} The ruling noted that “[t]he scope of limited rehearing overlaps with the scope for Track 1, which considers broader changes to the RA import rules.” To ensure a comprehensive record for limited rehearing, parties were invited to comment on the limited rehearing issues in

\textsuperscript{16} \textit{Id.} at 4.

\textsuperscript{17} \textit{Id.} at 8.

\textsuperscript{18} \textit{Id.} at 9.

D.20-03-016, as well as on incorporating the Track 1 record of R.19-11-009 into the record of R.17-09-020.

Opening comments were filed on April 6, 2020 by: CAISO, CalCCA, Protect Our Communities Foundation (POC), Powerex, Shell, and Western Power Trading Forum (WPTF). Reply comments were filed on April 13, 2020 by MSCG, Powerex, and POC.

2. Background on the Use of RA Imports

Below we provide background on the types of RA imports and existing requirements and obligations.20

2.1. Types of RA Imports

Under the RA program, an LSE can use either internal generating resources or imports to meet RA requirements. To qualify as RA, an internal generating resource must be “unit-specific” or “resource-specific.”21 For imports to qualify as RA, by contrast, they can be resource-specific or non-resource-specific, based on requirements in the QC methodology.22

Resource-specific RA imports have historically included only pseudo-tied or dynamically scheduled resources. Pseudo-tied resources23 operate like

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20 For purposes of a broad overview, we reference the Commission’s historic RA import requirements from D.04-10-035 and D.05-10-042, which were affirmed in D.19-10-021.

21 The Commission uses “unit-specific” and “resource-specific” interchangeably.

22 See D.04-10-035 at 54; D.05-10-042 at 68.


Pseudo-tie is defined as “[a] functionality by which the output of a generating unit physically interconnected to the electric grid in a Native Balancing Authority Area is

Footnote continued on next page.
internal generating resources in that they typically have metering and telemetry, a real-time must-offer obligation (MOO) and cannot be recalled to a neighboring balancing authority’s area (BAA) for reliability purposes. Further, physical unit parameters (e.g., ramp rates, heat rates) are included in the CAISO’s Master File and CAISO generates energy bids for RA resources if not otherwise submitted.

Dynamically scheduled resource-specific imports are similar to pseudo-ties in that physical unit parameters are included in the CAISO’s Master File and CAISO generates energy bids for RA resources if not otherwise submitted. There are currently 12 pseudo-ties and 32 dynamically scheduled resource-specific imports registered with the CAISO, and no other resource-specific imports are currently registered with the CAISO.

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24 See CAISO’s Matrix of ISO Import Rules, Attachment 2 to Energy Division Track 1 Proposal.


26 See id. See also CAISO Tariff Section 40.6.8.

27 See CAISO Tariff, Appendix A, at 60:

   A dynamic system resource is defined as a “System Resource that has satisfied the CAISO’s contractual and operational requirements for submitting a Dynamic Schedule, and for which a Dynamic Schedule has been submitted, including a Dynamic Resource-Specific System Resource.”

28 See CAISO’s Matrix of ISO Import Rules, Attachment 2 to Energy Division Track 1 Proposal. See also CAISO Tariff Section 40.6.8.

29 Id. (as of December 31, 2019).
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. There are over 10,000 non-resource-specific imports registered with the CAISO.

Resource-specific imports 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). As mentioned, there are no other types of resource-specific imports currently registered with the CAISO. Non-resource-specific contracts are

30 *Id.* See also CAISO Tariff Section 40.6.8.1.1. If no selection is made, CAISO will apply the price taker option to calculate the generated bids.

31 See CAISO’s Matrix of ISO Import Rules, Attachment 2 to Energy Division Track 1 Proposal.

32 One example of a dynamically scheduled resource-specific import is the portion of Palo Verde Nuclear Generating Station that is owned by SCE, with resource ID = PVerde_5_SCEDYN. This resource is not located in the CAISO Balancing Area but in the Salt River Project Balancing Area in Arizona, with BAA ID = SRP.

33 One example of a pseudo-tied resource is the portion of Hoover Dam that is under contract with SCE, with resource ID = SCEHOV_2_HOOVER. This resource is not located in the CAISO Balancing Area but in the Western Area Power Administration, Lower Colorado Region Balancing Authority, with BAA ID = WALC.
identified on CAISO supply plans with only a scheduling coordinator ID and intertie location but no specific resource identified. 34

To verify RA compliance, Energy Division uses CAISO supply plans to identify whether an import is resource-specific or non-resource-specific, as further discussed below. 35

2.2. CAISO Must-Offer Obligations

CAISO’s must-offer obligations into the day-ahead and real-time markets differ for internal resources (and pseudo-ties) versus imports. For internal generating resources, including pseudo-tied resources, the resource must:

(a) Submit economic bids or self-schedule all RA capacity into the integrated forward market (or day-ahead market), and

(b) Submit economic bids or self-schedule all remaining RA capacity into the real-time market. 36

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34 Examples of resource IDs for non-resource-specific imports include: “CALJ_MALIN500_I_F_STRAT1” or “MSCG_ELDORADO230_I_F_IMS010.” CALJ and MSCG refer to the scheduling coordinators, Calpine Energy Services and Morgan Stanley Capital Group, respectively. Malin and El Dorado refer to the intertie location, which is defined in the CAISO Tariff as a “transmission corridor that interconnects the CAISO Balancing Authority Area with another Balancing Authority Area.”


36 This is applicable to short-start and medium-start units, but not long-start or extremely long-start units. See CAISO Tariff Section 40.6.2(b):

Short Start Units or Medium Start Units. Irrespective of their Day-Ahead Schedule for Energy, Day-Ahead Schedule for Ancillary Services, or RUC Schedule, Short Start Units and Medium Start Units must, for each Trading Hour, submit Bids to the Real-Time Market that conforms to their obligations in Section 40.6.1 for the Day-Ahead Market.
In other words, in-state generating units and out-of-state pseudo-tied resources must bid any remaining RA capacity into the CAISO’s real-time market, regardless of whether the resource receives a day-ahead award.

For all other categories of RA imports (e.g., dynamically scheduled resource-specific resources and non-resource-specific imports), the resource must submit economic bids or self-schedule all RA capacity into the day-ahead market. There is no CAISO requirement to submit economic bids or self-schedule into the real-time market if the resource is not scheduled in the day-ahead market or through the residual unit commitment (RUC) process. In other words, if the resource does not receive a day-ahead award, it has no further obligation in the real-time market and is no longer available to the CAISO for dispatch.

This background on the CAISO’s must-offer obligations is relevant to the issue of “speculative supply” (i.e., the presence of excessively high bids for certain RA imports in the day-ahead market), as further described below.

2.3. Background on Speculative Supply Concerns

In October 2017, following a few high price events in the CAISO market, CAISO analyzed the bid stacks for two days in 2017 with high prices.  

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37 Section 7.1.1 of CAISO's Business Practice Manual for Reliability Requirements states, for these resources, “[n]o RTM Bids or Self-Schedules are required for resources not scheduled in IFM or RUC.” See also CAISO Tariff Section 40.6.2(a).

Division’s Report on Resource Adequacy Imports (RA Import Report) observed that:

The bid stack shows that many imports were coming through self-schedules and most generating units were bidding economically, but many imports (and virtual supply) were bidding quite high – with the graph having a “hockey stick”-like pattern. Notably, some of the highest bids were from “imports,” including bids at the $1,000/MWh bid cap on September 1, 2017.39

In June 2018, DMM issued its 2017 Annual Report, stating that:

DMM has expressed concerns that these rules could allow a significant portion of resource adequacy requirements to be met by imports that may have limited availability and value during critical system and market conditions. For example, resource adequacy imports could be routinely bid significantly above projected prices in the day-ahead market to ensure they do not clear and would then have no further obligation to be available in the real-time market.40

DMM reported that the average import bid for 2017 was over $150/MWh, compared to the total wholesale cost of serving load in 2017 of about $42/MWh. DMM stated that “[t]hese were the highest quarterly average prices since 2013 and are primarily the result of a change in bidding behavior by a few market participants.”41

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41 Id.
In September 2018, DMM issued a special report on RA imports expanding upon its 2017 Annual Report analysis. The report found that:

...[D]uring peak hours in July and August of 2018, an average of about 484 MWh of imports used to meet resource adequacy requirements was bid in the day-ahead at prices greater than $750/MWh, compared to an average of around 145 MWh in the summer of 2017. None of the resource adequacy imports bid over $750/MWh ever cleared in the day-ahead market.\(^{42}\)

Similarly, Energy Division found that “nearly 20 percent of the RA import capacity in August, 2018…did not clear the market.”\(^{43}\)

In December 2018, CAISO cited DMM’s analysis in its RA Enhancements stakeholder initiative and noted a concern regarding “speculative supply:”

The ISO is increasingly concerned that the current RA import provisions may allow some RA import resources to be shown to meet RA obligations while also representing speculative supply, (i.e., no true physical resource or contractual obligation backing the RA showing) or being committed to other regions and double counted. Speculative RA supply can have negative impacts such as undermining the integrity of the California RA program and threatening system reliability.\(^{44}\)

Based on this data and analysis, the Commission addressed the speculative supply issue beginning in July 2019 through the Assigned Commissioner’s Ruling.

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\(^{42}\) DMM, Special Report: Import Resource Adequacy (September 10, 2018) at 1-2.

\(^{43}\) Energy Division RA Import Report at 22, Attachment A to Energy Division Track 1 Proposal.

For a perspective on the current amount and breakdown of RA imports, Energy Division analyzed 2019 data on RA imports used to meet system RA positions and reported:

- In 2019, ten – twenty percent of system RA requirements were met with imports.  

- For resources shown for September 2019 (the peak month), 7,139 MW of RA imports were shown on RA filings and CAISO supply plans. Of that amount, 81 percent (5,787 MW) were shown by Commission-jurisdictional LSEs and 19 percent (1,342 MW) were from non-jurisdictional LSEs.

- In 2019, the vast majority of RA imports used to meet RA obligations were non-resource-specific contracts: for jurisdictional LSEs, 80 percent (4,640 MW) of RA imports for September 2019 were non-resource specific and 20 percent (1,147 MW) were resource-specific.

3. Discussion of RA Import Rule Revisions

This decision addresses: (1) the issues scoped for limited rehearing of D.19-10-021, and (2) the issues scoped as Track 1 in the Scoping Memo of

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45 Energy Division RA Import Report at 10-11. The use of imports is capped by the maximum import capability (MIC), which is set at approximately 10,500 MW, compared to coincident peak load plus the planning reserve margin of 15 percent (e.g., 45,000 MW x 15% = 51,750 MW), or 20 percent (e.g., 10,500/51,750 = 20 percent).


46 Energy Division RA Import Report at 9.

47 Id. at 10.
R.19-11-009. The Commission notes that any issue from D.19-10-021 for which rehearing was not granted is final.

As stated in the March 20, 2020 ALJ ruling, the record from Track 1 of R.19-11-009 is incorporated into the record of this proceeding.\(^{48}\) Track 1 proposals were submitted by Energy Division, CAISO, Powerex, MSCG, and jointly by Shell/SCE. All proposals and comments were considered but given the volume of submissions, some comments may receive little or no discussion. Below we summarize each proposal and comments in response.

### 3.1. Energy Division’s Proposal

Energy Division states that the Commission has historically treated existing resource-specific RA imports (\(i.e.,\) pseudo-ties and dynamically scheduled resource-specific resources) the same as internal generating resources because these imports operate similarly to internal resources. Energy Division proposes that these resource-specific imports continue to be treated like internal generating resources, with additional requirements summarized as follows:

1. Resource-specific RA imports should only include resources that are pseudo-tied or dynamically scheduled into the CAISO day-ahead and real-time markets.

2. Resource-specific imports must include resource-specific resource IDs in their filings that must be: (a) on a matching CAISO supply plan, and (b) listed on the Commission’s net qualifying capacity (NQC) list.\(^{49}\)

\(^{48}\) References to “Track 1” proposals and comments can be found in the docket for R.19-11-009. References to “rehearing” comments can be found in the docket for R.17-09-020.

\(^{49}\) Energy Division Track 1 Proposal at 2, 4.
For non-resource-specific imports, Energy Division states that the Commission has historically allowed these import contracts to count as RA if they are backed by firm energy, based on requirements adopted in D.04-10-035 and D.05-10-042. Energy Division proposes that non-resource-specific imports continue to count towards RA needs, if the contract delivers energy to meet reliability needs of the system (i.e., during the availability assessment hours). Energy Division asserts that the energy contract requirement addresses the speculative supply issue because energy is delivered under the contract, not merely “bid in” at high prices. The requirement also ensures no double counting because the physical resource(s) underlying the RA energy contract cannot separately sell its capacity (with only a bidding obligation).

Building on existing requirements, Energy Division’s proposal would require that non-resource-specific imports must be “energy contracts” that:

(1) Have contractually-specified fixed energy price provisions and contain no curtailment provisions;

(2) Must deliver or self-schedule energy into the day-ahead and real-time markets;

(3) Deliver energy at least during the availability assessment hours (AAH) regularly throughout the RA compliance month, consistent with the maximum cumulative capacity (MCC) buckets.\(^{50}\)

\(^{50}\) Id.
For the delivery requirement during the AAH window, Energy Division notes that the MCC buckets were initially designed to ensure LSEs do not overly rely on use-limited contracts, such as those contracts that are not available 24 hours a day, seven days a week. For example, if an LSE uses MCC Bucket 1, the contract must deliver energy consistent with those hourly requirements but also deliver over the AAH window. Energy Division adds that for the delivery or self-schedule requirement, the Commission “could consider whether a negative $150/MWh or $0/MWh bid requirement is sufficient to meet this requirement, which could potentially avoid delivering import RA when prices are negative and are not needed.”

In its proposal and RA Import Report, Energy Division outlines several recent problems with imports contracts and attestations from LSEs and suppliers that appear to evade the Commission’s requirements. To address these concerns with recent attestations, Energy Division further proposes that non-resource-specific RA contracts should include:

1. The sale of energy to the LSE denominated in $/MWh (or $/kWh) with specified energy delivery (not capacity contracts denominated in $/MW or $/kW with only a day-ahead bidding obligation);

51 Availability Assessment Hours are a set of five consecutive hours that correspond to the operating periods when high demand conditions typically occur and when availability of RA capacity is most critical to maintaining system reliability.

52 Energy Division Track 1 Proposal at 5.

53 See id at 3.
(2) The energy delivery requirement must include the sale of energy to the LSE specifically, not to the CAISO generally; and

(3) The import must not be sourced from resources internal to the CAISO.\textsuperscript{54}

To verify compliance, Energy Division proposes that LSEs provide unredacted RA import contracts to the Commission in a timely manner.

3.1.1. Responses to Energy Division’s Proposal

Parties that support Energy Division’s proposal include PG&E and Cal Advocates, with DMM and Calpine supporting it on an interim basis. PG&E and DMM state that the proposal improves existing requirements by addressing the speculative supply issue and bidding strategies that rely on loopholes in the RA program.\textsuperscript{55} Calpine supports the proposal as a reasonable interim means to assure RA capacity is backed by adequate physical supply.\textsuperscript{56}

Proponents generally assert that an energy delivery requirement limited to the AAH window would mitigate negative market impacts of requiring energy deliveries.\textsuperscript{57} DMM’s analysis reveals that limiting energy delivery to the AAH window avoids additional self-scheduling during periods of very low or negative pricing.\textsuperscript{58} PG&E and Cal Advocates comment that bidding at negative

\textsuperscript{54} Id. at 2, 4.

\textsuperscript{55} PG&E Track 1 Comments at 2, DMM Track 1 Comments at 10.

\textsuperscript{56} Calpine Track 1 Comments at 2.

\textsuperscript{57} See e.g., DMM Track 1 Comments at 2, 9, PG&E Track 1 Reply Comments at 2, Cal Advocates Track 1 Comments at 3, Calpine Track 1 Comments at 2.

\textsuperscript{58} DMM Track 1 Comments at 10.
$150/MWh or $0/MWh to deliver energy, as Energy Division suggests, would be sufficient to address concerns about self-scheduling, such as bidding when prices are negative and energy is not needed.\(^5\) PG&E supports allowing both an option to self-schedule or bid to satisfy the energy delivery requirement.\(^6\)

PG&E and DMM state that Energy Division’s proposal is the most feasible and best positioned to address import RA issues in the immediate term.\(^6\) PG&E comments that the proposal “largely mirrors’ the current requirements, with several important clarifications” and Calpine observes the proposal should be minimally disruptive because it largely reflects the interpretation of rules as adopted in D.19-10-021 with important clarifications.\(^6\) SCE seeks clarification as to whether the curtailment provision precludes curtailment for any reason or just economic reasons, as provided in D.04-10-035.\(^6\)

Several parties oppose an energy delivery or self-schedule requirement, including AReM, Bonneville, CAISO, CalCCA, MRP, MSCG, Powerex, Shell, and SDG&E. Opponents generally state that requiring energy to flow without regard to supply and demand results in inefficient dispatch and market disruption that can lead to inflexible supply, supply congestion, and negative prices.\(^6\) Parties

\(^5\) PG&E Track 1 Comments at 2, Cal Advocates Track 1 Comments at 3.
\(^6\) PG&E Track 2 Reply Comments at 2.
\(^6\) PG&E Track 1 Reply Comments at 1, DMM Track 1 Comments at 2.
\(^6\) PG&E Track 1 Comments at 1, Calpine Track 1 Comments at 2.
\(^6\) SCE Track 1 Comments at 3-4.
\(^6\) See, e.g., AReM Track 1 Comments at 5, CAISO Track 1 Comments at 9, CalCCA Track 1 Comments at 9-10, Powerex Track 1 Comments at 9, Shell Rehearing Comments at 3.
generally claim that the requirement may reduce the pool of suppliers offering import RA to California LSEs (if suppliers have concerns about delivering energy at a loss or during constrained transmission hours), or may result in RA import capacity offered at higher prices.

Powerex and CAISO argue that a self-schedule requirement may not address speculative supply because even if an energy contract exists, a supplier could fail to provide the energy and pay the penalty.\(^\text{65}\) CAISO asserts that non-resource-specific energy contracts cannot be a substitute for real physical capacity and that because non-resource-specific imports are not source specific, the actual resource may be relied upon by another balancing authority especially during tight conditions.\(^\text{66}\) Bonneville and CalCCA oppose the definition of resource-specific resources as too narrow and leading to the majority of imports being defined as non-resource-specific.\(^\text{67}\)

CAISO claims that a self-schedule requirement may increase the need for other dispatchable resources by decreasing ramping capability. Specifically, a self-scheduled requirement may foreclose the ability for RA imports to help shape net-load ramps in the day-ahead market which may lead to an increased need for more flexible resource supply.\(^\text{68}\) CAISO also asserts that dispatchable resources may need to be scheduled at lower levels before and after the peak.

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\(^{65}\) CAISO Track 1 Reply Comments at 4, Powerex Track 1 Comments at 9.

\(^{66}\) CAISO Track 1 Reply Comments at 7.

\(^{67}\) Bonneville Track 1 Comments at 3, CalCCA Track 1 Comments at 9.

\(^{68}\) See, e.g., CAISO Comments on Proposed Decision, filed September 26, 2019, at 2.
than would occur if imports participated in the market economically, which may result in additional renewable curtailment. DMM responds that based on its analysis, requiring delivery during the AAH window results primarily “in reduced scheduling of virtual supply, natural gas generation and non-RA imports in the day-ahead market” and “[a]ny impacts on wind and solar resources would likely be extremely low and limited to wind and solar resources with positively priced energy bids.”

Shell contends that the proposal disadvantages out-of-state resources in violation of the Commerce Clause because there is no self-schedule requirement for in-state resources. CalCCA and Powerex add that dictating the manner and price for import bids restricts the sale of wholesale energy into the CAISO market, thereby infringing on FERC jurisdiction. Powerex claims the proposal may be an unlawful attempt to fix wholesale rates and make participation in the RA program contingent on participation in the CAISO’s short-term energy market.

3.2. CAISO and Powerex’s Proposal

CAISO proposes that all RA imports provide source specification information at the time of RA showings, to ensure the import is backed by physical resources that are not dedicated to other BAAs and to put RA imports on par with internal resources in terms of quality and obligations. CAISO

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69 DMM Track 1 Comments at 9.
70 Shell Track 1 Comments at 5.
71 CalCCA Track 1 Comments at 9, Powerex Track 1 Comments at 9.
recommends an attestation or other documentation that the import “is a specific resource, aggregation of physically linked resources, or capacity in excess of the host balancing authority area or supplier’s existing commitments that is dedicated to CAISO balancing authority area needs.”\textsuperscript{72}

To ensure the import remains available to the CAISO through the real-time market, CAISO proposes modifying its tariff to extend the must-offer obligation to the real-time market for all MWs included on RA showings. CAISO states that this is an existing requirement for dynamically scheduled and pseudo-tied resources but CAISO recommends extending it to (1) resource-specific, non-dynamically scheduled resources and (2) non-resource-specific, non-dynamically scheduled resources.

CAISO recommends the Commission adopt its proposed requirements for Commission-jurisdictional LSEs while the CAISO pursues tariff modifications to apply to all import suppliers, including requiring import suppliers to provide operational data to CAISO to verify compliance. CAISO asserts that an attestation, with a telemetry requirement or other operational data, should confirm double counting has not occurred.

CAISO also proposes that firm energy contracts should no longer count as RA imports without source specification. CAISO reasons that energy contracts do not address speculative supply because they allow importers to sign contracts without a physical resource committed to fulfill supply, even with a self-schedule or must-flow requirement. Without source specification, suppliers can

\textsuperscript{72} CAISO Track 1 Proposal at 2.
wait to secure firm energy until the operational timeframe, just prior to the real-time.\textsuperscript{73}

Lastly, CAISO recommends that all RA imports require firm transmission along the delivery path from the source to the CAISO BAA to treat internal supply more comparably to RA imports and minimize delivery risk. CAISO proposes a supplier attest that the import will deliver over firm transmission, or alternatively, that firm transmission is demonstrated in the day-ahead timeframe via a day-ahead e-tagging requirement to verify that firm transmission is secured across all BAAs along the delivery path.\textsuperscript{74}

Powerex offers a proposal largely similar to CAISO’s, with some additional details. Powerex proposes that all RA delivered will be firm energy and supported by necessary contingency and balancing reserves. Powerex proposes that all deliveries be scheduled on firm transmission or conditional firm transmission rights. Powerex recommends an exceptional dispatch obligation during the AAH window unless the intertie is full on a day-ahead timeframe.\textsuperscript{75}

\textbf{3.2.1. Responses to CAISO/Powerex’s Proposal}

Several parties support CAISO/Powerex’s proposal, including Bonneville, CalCCA, Calpine, MRP, and PGP.\textsuperscript{76} Some parties, such as Calpine and DMM, support the proposal but state that further development and regulatory approval

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{73} \textit{Id.} at 9.
\item \textsuperscript{74} CAISO Track 1 Proposal at 5.
\item \textsuperscript{75} Powerex Track 1 Proposal at 19.
\item \textsuperscript{76} Bonneville Track 1 Comments at 1, MRP Track 1 Comments at 15, PGP Track 1 Comments at 1, Calpine Track 1 Comments at 1, CalCCA Track 1 Comments at 2.
\end{itemize}
\end{footnotesize}
are necessary before implementation.\textsuperscript{77} For example, DMM agrees with a real-time MOO for all RA imports but states that this would require significant development and is unlikely to be implemented for the 2021 compliance year.\textsuperscript{78}

One key issue raised by several parties, including Calpine, DMM, MRP, PG&E, and SCE, is whether under CAISO/Powerex’s proposal, RA imports can be recalled by other BAAs facing supply shortages to serve their native load.\textsuperscript{79} PG&E, Calpine, and DMM comment that the proposal requires coordination between CAISO and other BAAs in the West regarding different planning standards and curtailment rules.\textsuperscript{80}

DMM notes that source specification may not prevent imports from being backed by spot market purchases originating outside the source’s BAA, particularly if imports rely on multiple legs of transmission, potentially traveling through multiple BAAs to reach CAISO. For example, a scheduling coordinator could source an import from outside the source’s BAA, “sink” in the RA source’s BAA, and tag the final leg as an import into CAISO.\textsuperscript{81} SCE agrees with DMM’s concern and submits that the issue of speculative supply or double counting will

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{77} See, \textit{e.g.}, Calpine Track 1 Comments at 2, DMM Track 1 Comments at 2.
\item \textsuperscript{78} DMM Track 1 Comments at 7.
\item \textsuperscript{79} See, \textit{e.g.}, DMM Track 1 Comments at 3, Calpine Track 1 Reply Comments at 3, PG&E Track 1 Comments at 4, SCE Track 2 Reply Comments at 3.
\item \textsuperscript{80} DMM Track 1 Comments at 4, Calpine Track 1 Reply Comments at 3, PG&E Track 1 Comments at 4.
\item \textsuperscript{81} DMM Track 1 Comments at 4.
\end{itemize}
\end{footnotesize}
likely continue under CAISO/Powerex’s proposals.\(^\text{82}\) CAISO responds that DMM’s concern would require more restrictive requirements than proposed, such as allowing only RA imports “from aggregated resources (such as linked hydro systems), with every source identified at the time of showings, and/or resource-specific imports.”\(^\text{83}\)

Calpine expresses concern that resource-specific, non-dynamically scheduled resources are not similar to internal resources, pseudo-tied, or dynamically scheduled imports because these resources do not have a real-time MOO, limited telemetry and metering, and cannot be exceptionally dispatched or moved in real-time.\(^\text{84}\)

Several parties oppose CAISO/Powerex’s proposal, including Cal Advocates, SDG&E, PG&E, Shell, and SCE. Cal Advocates and SCE state the proposal may increase ratepayer costs by excluding non-resource-specific resources that have historically delivered, without assurances that the remaining resources would provide a similar benefit.\(^\text{85}\) SCE states it is unclear how the proposal will address speculative supply because a supplier would still be able to bid at or near the bid cap.\(^\text{86}\)

\(^{82}\) SCE Track 1 Reply Comments at 3-4.

\(^{83}\) CAISO Track 1 Reply Comments at 3.

\(^{84}\) Calpine Track 1 Comments at 5. See also Energy Division Track 1 Proposal at 6.

\(^{85}\) Cal Advocates Track 1 Comments at 5, SCE Track 1 Reply Comments at 1.

\(^{86}\) SCE Track 1 Reply Comments at 2.
Shell and SDG&E oppose source specification as unnecessary, claiming that allowing RA imports from multiple resources provides greater reliability and liquidity than a single unit.\footnote{Shell Track 1 Comments at 3, SDG&E Track 1 Comments at 2.} MRP recommends that if an importer sources from a portfolio of resources, all potential resources should be identified, and SWPG agrees.\footnote{MRP Track 1 Comments at 13, SWPG Track 1 Reply Comments at 4.} CAISO responds that its proposal allows suppliers to pool multiple resources but the pooled resources must be backed by physical capacity dedicated to CAISO needs, otherwise this fails to address speculative supply risk.\footnote{CAISO Track 1 Reply Comments at 3.} SWPG comments that the “aggregation of physically linked” resources may be ambiguous in the context of wind farms and should be clarified.\footnote{SWPG Track 1 Reply Comments at 4.}

Some parties question how attestations from out-of-state suppliers and BAAs can be enforced or verified. PG&E and SCE state that market suppliers cannot ensure the BAA acts consistently with the attestation, while Cal Advocates states the CAISO does not have sufficient operational insight for verification.\footnote{PG&E Track 1 Comments at 3, Cal Advocates Track 1 Comments at 2, SCE Track 1 Reply Comments at 2-3.} Bonneville notes that it is willing and capable of satisfying the attestation and documentation requirements of CAISO’s proposal.\footnote{Bonneville Track 1 Comments at 4.}

SCE contends that CAISO/Powerex’s proposal may lead to discriminatory treatment for import RA which would be exclusively available to CAISO and
cannot be sold to other entities during the duration of the RA commitment, which internal RA resources are not subject to.\footnote{SCE Track 1 Comments at 9-10.}

Multiple parties oppose a firm transmission requirement, including AReM, CalCCA, MSCG, PG&E, SCE, SDG&E, and Shell. These parties generally express concerns about liquidity and the availability of firm transmission from the Pacific Northwest, as only a few suppliers hold firm transmission rights, potentially increasing delivery costs for import RA.\footnote{See, e.g., PG&E Track 1 Comments at 2, AReM Track 1 Comments at 4, MSCG Track 1 Comments at 5, CalCCA Track 1 Comments at 5, SDG&E Track 1 Comments at 7, PG&E Track 1 Comments at 2, SCE Track 1 Comments at 9, Shell Track 1 Comments at 4.} MSCG reports that about 80 percent of the Nevada Oregon Border Source to Sink Firm Transmission is held by one entity.\footnote{MSCG Track 1 Proposal at 9.} Some parties state that before a firm transmission rule is adopted, further discussion is necessary, such as considering the process and timing for release of firm transmission rights across different BAAs.\footnote{See, e.g., SCE Track 1 Comments at 10, DMM Track 1 Comments at 5.}

3.3. SCE/Shell’s Proposal

SCE and Shell offer a joint proposal for a maximum strike price that would apply to import RA bids in the day-ahead market, as follows:

(1) $250/MWh when the prevailing gas price is below $10/MMBtu;

(2) $500/MWh when the prevailing gas price is at or above $10/MMBtu (but below $20/MMBtu); and
(3) Increase to $1000/MWh when the prevailing gas price is at or above $20/MMBtu.97

SCE/Shell assert that the strike price “would be equivalent to the marginal cost of a hypothetical gas unit with a very high heat rate” and would allow economic bids in most hours, with reasonable assurances of covering the resource cost. SCE/Shell recommend that RA imports specify that energy offered to the CAISO to meet the MOO are not sourced from the CAISO grid. SCE/Shell state the proposal can be implemented most effectively through a CAISO tariff modification; alternatively, the Commission may require that an import contract specify an energy bid provision meeting the proposed strike price requirement.

AReM supports the proposal as a means to preserve economic energy transactions and avoid significant disruption from existing RA requirements.98 DMM states the proposal could have merit but requires significant development and regulatory approval.99 PG&E comments that a strike price may not resolve speculative supply concerns because suppliers may still bid high.100 Some parties, including CAISO, MRP, and Powerex, oppose a strike price because it does not resolve speculative supply issues and ensure supply is secured in advance.101 These parties generally assert that when the energy price reaches the

97 Shell/SCE Track 1 Proposal at 4.
98 AReM Track 1 Comments at 3.
99 DMM Track 1 Comments at 9.
100 PG&E Track 1 Comments at 4.
101 See, e.g., CAISO Track 1 Reply Comments at 3, MRP Track 1 Comments at 15, Powerex Track 1 Comments at 8.
strike price and a supply offer is awarded, a supplier can fail to deliver and simply bear the penalty instead of supplying energy. Importantly, CAISO states that it “does not intend to pursue tariff modifications to implement strike prices or bid caps” for RA import contracts.\textsuperscript{102}

In its report, Energy Division notes that having ten - twenty percent of the RA fleet bidding at $250/MWh – the percentage of system RA positions met with imports - “does not seem like a strategy that would enhance reliability.”\textsuperscript{103} SDG&E opposes the proposal as forcing sellers to estimate the RA import costs they could incur above the strike price and leading to uncertainty.\textsuperscript{104} PGP states the proposal distorts market prices, counter to sound price formation practice.\textsuperscript{105}

Powerex maintains that dictating the manner and price for import bids restricts the sale of wholesale energy into the CAISO market, thereby infringing on FERC jurisdiction.\textsuperscript{106} Powerex adds that the proposal may unlawfully fix wholesale rates and make participation in the RA program contingent on participation in the CAISO’s short-term market.

\subsection*{3.4. MSCG’s Proposal}

MSCG recommends that all products raised in other proposals should count as import RA with certain additional criteria. The product categories are summarized as follows:

\begin{itemize}
\item \textsuperscript{102} CAISO Track 1 Comments at 3.
\item \textsuperscript{103} Energy Division Track 1 Proposal at 6.
\item \textsuperscript{104} SDG&E Track 1 Comments at 8-9.
\item \textsuperscript{105} PGP Track 1 Comments at 5.
\item \textsuperscript{106} Powerex Track 1 Comments at 9.
\end{itemize}
(1) A capacity product via dynamic or pseudo-tie. This should not be subject to an offer cap since CAISO has full visibility into the schedule.

(2) A capacity product that is source-identified with telemetry to CAISO. This should not be subject to an offer cap and would require suppliers to provide telemetry information to CAISO.

(3) A capacity product that is source-identified via supplier attestation. This should be subject to an offer cap no lower than $500/MWh and supply substitution should be allowed at the time of delivery.

(4) Energy contract imported into CAISO by a California LSE. This should not be subject to a self-scheduling requirement.\(^{107}\)

MSCG reasons that import RA rules should not preclude bona fide physical suppliers from participating in the import RA market. MSCG adds that the Commission’s existing firm transmission rules are sufficient; alternatively, firm transmission should only be required on the last segment preceding a California delivery point.\(^{108}\)

Shell supports the proposal.\(^{109}\) CAISO opposes it because it allows import energy contracts to count towards RA without source specification.\(^{110}\) Powerex claims that dictating the manner and price for import bids restricts the sale of

\(^{107}\) MSCG Track 1 Proposal at 4-8.
\(^{108}\) MSCG Track 1 Comments at 6.
\(^{109}\) Shell Track 1 Comments at 8.
\(^{110}\) CAISO Track 1 Comments at 2.
wholesale energy into the CAISO market, thereby infringing on FERC jurisdiction.\textsuperscript{111}

3.5. CalCCA’s Proposal

CalCCA offered a proposal in opening comments, which combines elements of CAISO’s and MSCG’s proposal, with modifications. CalCAA recommends that a contract specify a source at the time of the RA showing, and the resource cannot be internal to the CAISO’s BAA. Capacity that is not pseudo-tied or dynamically scheduled should provide telemetry or other operational data to the CAISO, or be subject to a $500/MWh day-ahead offer cap. A contract and attestation must state the supply has not been committed to other uses and cannot be curtailed for economic reasons.

Incorporating MSCG’s product categories, CalCCA states that source-specification should apply to all categories, while verification of availability should apply only to the Dynamic and Telemetry products. CalCCA opposes extending the real-time MOO to all MWs because CAISO would have visibility on a Dynamic and Telemetry Product, and the Attestation and Energy Products would be subject to an offer cap.\textsuperscript{112}

Few parties commented on CalCCA’s proposal. PG&E and Calpine oppose a bid cap of $500/MWh as not resolving speculative supply issues, as suppliers may still bid at high prices to avoid dispatch.\textsuperscript{113} PG&E adds that

\textsuperscript{111} Powerex Track 1 Comments at 9.
\textsuperscript{112} CalCCA Track 1 Comments at 6-7.
\textsuperscript{113} Calpine Track 1 Reply Comments at 4, PG&E Track 1 Reply Comments at 4.
CalCCA doubles the bid cap proposed by SCE/Shell without providing any compelling reason for a higher cap.

4. Discussion

Based on the extensive volume of comments in Track 1 of R.19-11-009, as well in R.17-09-020 prior to and following the issuance of D.19-10-021, it is clear that parties have wide-ranging positions on the RA import rules, and that there are numerous competing interests and financial outcomes at stake in the import supply chain, including suppliers, marketers, LSEs, and BAAs.

The RA program was designed to ensure that LSEs secure sufficient generating capacity to meet anticipated peak demand needs in order to maintain grid reliability. Bidding import RA into the day-ahead market at or near the $1000/MWh bid cap to avoid CAISO dispatch draws significant concerns about “speculative supply” and runs contrary to the fundamental purpose of the RA program. These high-priced bids, well above historic clearing prices, may not be backed by physical supply if dispatched by the CAISO and if the supplier cannot find substitute supply in the spot market. As capacity continues to tighten in the West, the Commission is concerned that the use of speculative supply contracts could lead to supply shortfalls and price spikes in the short-term markets that will undermine reliability and render the RA program ineffective.114 All the while, marketers utilizing this tactic could continue to collect significant revenue from California ratepayers for supply that does not deliver.

114 The current bid cap of $1000/MWh will increase to $2000/MWh, pursuant to FERC Order No. 831, further incenting this speculative behavior.
Moreover, in establishing the RA program to address reliability concerns, Pub. Util. Code § 380(h) directed the Commission to “determine and authorize the most efficient and equitable means for achieving” the broad objectives of § 380, including minimizing enforcement requirements and costs and ensuring the reliability of the electrical grid. The Commission is aware that any effort to eliminate speculative import supply and require procurement of reliable RA import products may necessarily increase costs and discourage certain suppliers from participating in the RA market. However, Pub. Util. Code § 380, and the purpose of the RA program, requires the Commission to consider the most efficient, equitable means of balancing costs and reliability, among many other goals. We note that participation in California’s RA market is voluntary on the part of import suppliers and nothing precludes suppliers from bidding, unconstrained, into the CAISO’s day-ahead and real-time markets without any RA obligations. The Commission views the cost of failing to address these speculative RA supply issues that undermine reliability as a much more significant and detrimental cost to California ratepayers.

For all of the above reasons, the Commission seeks to adopt RA import requirements that best address the following objectives: (1) requirements that effectively address speculative supply and double counting issues, (2) requirements that are implementable in the near term, and (3) requirements that reasonably balance reliability and costs to ratepayers. With these critical objectives in mind, the Commission considers parties’ proposals below.
4.1. Analysis of Proposals

The Commission first considers which proposals most effectively address speculative supply. SCE/Shell’s proposal for a bid cap does not fully resolve the speculative supply issue. Although a proposed bid cap of $250/MWh (when the prevailing gas price is below $10/MMBtu) is a notable improvement over the current bid cap of $1000/MWh, if the energy price reaches the strike price and a dispatch award is offered, a supplier that cannot deliver will simply pay the penalty without delivering the energy. The proposed high strike price therefore provides the same incentive for speculative supply as currently exists.

We also agree with parties that argue that allowing a large percentage of RA system positions (up to 20 percent currently met with imports) to bid at a high cap will likely increase ratepayer costs without increasing reliability. Moreover, CAISO expressed that it “does not intend to pursue tariff modifications to implement strike prices or bid caps” for import contracts. At this time, SCE/Shell’s proposal is not an implementable solution that effectively addresses speculative supply, and we decline to adopt the proposal.

MSCG’s proposal also fails to address speculative supply. This proposal allows non-resource-specific capacity products to qualify as import RA, thereby placing no restrictions on suppliers that could continue to submit bids up to the $1000/MWh price cap during all hours to avoid dispatch. This proposal, rather than address the Commission’s concern over speculative supply, appears to codify its existence. Because this approach does not remedy the Commission’s concerns, we decline to adopt it.
CalCCA’s blended proposal includes MSCG’s proposed product categories, as well as a proposed $500/MWh price cap for resources that are not pseudo-tied or dynamically scheduled. For the same reasons we reject SCE/Shell’s price cap and MSCG’s non-resource-specific capacity products, we decline to adopt CalCCA’s proposal. We observe that CalCCA advocates for a $500/MWh price cap for its proposal yet simultaneously argues that Energy Division’s self-schedule requirement is impermissible because “[b]y mandating the price bid by non-resource-specific import energy…, thus restricting the way energy is sold at wholesale and bid in CASIO markets, the Staff Proposal infringes on FERC jurisdiction.”

Energy Division’s proposal and CAISO/Powerex’s proposals appear to address the reliability concerns raised by speculative supply. We address each in turn.

4.1.1. Analysis of CAISO/Powerex’s Proposal

CAISO/Powerex’s proposal to require source-specification at the time of RA showings and the use of resource-specific resources could ensure that these types of imports are backed by physical resources. However, as noted by parties, aspects of the proposal require further development, including whether external BAAs can recall the import in the face of supply shortages, especially when the import spans multiple paths and BAAs, and whether coordination is required between CAISO and other BAAs to align different planning standards and

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115 CalCCA Track 1 Comments at 9.
curtailment rules. We agree that these outstanding issues require further development.

The Commission appreciates the CAISO’s proposal to modify its tariff to extend the MOO to the real-time market for all MWs on RA showings, requirements already in place for internal and pseudo-tied RA resources. We are concerned, however, that this may not address speculative supply issues if these resources bid at high prices and use the energy to serve native load or sell it elsewhere. Thus, the metering and telemetry requirements and the degree to which these RA resources are made available to the CAISO and applicable CAISO rules are important considerations. In addition, we agree with parties that it will take time to implement these modifications through CAISO’s stakeholder processes and FERC approval, and for the Commission to consider whether these modifications sufficiently address the speculative supply concerns.

In addition, the CAISO/Powerex proposal introduces an import category that has not previously been used for RA imports: resource-specific, non-dynamically scheduled resources. Under the existing CAISO tariff, resource-specific, non-dynamically scheduled resources do not have the same reliability and visibility requirements as other RA imports: they have no real-time MOO, limited telemetry and metering requirements, and are not subject to exceptional dispatch. Energy Division notes that no resource is currently registered as a non-dynamically scheduled, resource-specific contract, which means that the Commission is unable to assess whether and how these resources will bid into the CAISO market and whether speculative supply
concerns could arise. The Commission is concerned that allowing this category to count towards RA, without the CAISO’s tariff modifications in place, may have unintended consequences for reliability.

CAISO also proposes that firm energy contracts should no longer count as RA imports without source specification. It is unclear whether CAISO is proposing that no energy import contracts should count towards RA, or only energy contracts with source specification should count. If the former, we note that energy contracts currently form the bulk of the RA imports and no party has provided evidence that RA energy imports have failed to perform. If CAISO is proposing the latter, parties have raised questions regarding the ability to verify the sources from non-resource-specific resources. Thus, this issue should be considered in tandem with the development of the CAISO’s proposed tariff modifications for resource-specific import RA.

CAISO recommends that the Commission move forward to adopt its proposed requirements for Commission-jurisdictional LSEs and require attestations for compliance, while the CAISO pursues tariff modifications. We are concerned about relying on attestations from external suppliers and BAAs. Adding to this concern, Energy Division’s RA Import Report cited multiple problems with recent attestations from LSEs and their suppliers, including:

- An LSE claiming contracts provide an “energy product” when an LSE contracted for non-resource-specific RA to bid into the CAISO market “because it will deliver ‘firm energy’ should it be dispatched in the day-ahead market.” The contract price is

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listed in $/MW (not $/MWh), no payment for energy is made, nor is delivery of energy to the LSE provided.

- An LSE claiming that RA imports “shown on CAISO supply plans as non-resource specific imports, are in fact resource-specific. […] The ‘specific resources’ that these entities claim to back the imports are often several generators that could provide energy – or entire balancing authority areas – which does not comport with the plain meaning of the term ‘resource-specific.’”

117 Considering attempts by certain LSEs and suppliers to bypass RA requirements through creative interpretation of attestation requirements, the Commission is disinclined to rely solely on attestations to verify compliance. Therefore, while we see merit in CAISO/Powerex’s proposal, more robust verification and visibility is necessary before implementation.

4.1.2. Analysis of Energy Division’s Proposal

The Commission agrees with parties that assert that a self-schedule requirement over the AAH window for non-resource-specific import energy contracts addresses speculative supply concerns and reasonably ensures that self-schedules and/or bids into the day-ahead and real-time markets will be backed by adequate physical supply. Some parties dispute that Energy Division’s proposal addresses speculative supply because without a source specification, an importer could execute a contract and wait to secure firm energy until the operational timeframe, just before the real-time market. We acknowledge this is a possibility, but again, no party has provided evidence that

117 Id. at 24.
this issue of energy contract failure exists despite energy contracts making up the bulk of California’s import RA since the inception of the RA program. Should this issue arise or come to light, the Commission can address it at that time. By contrast, excessively high import RA bids in the day-ahead market is well-documented in the record of this proceeding.

Some parties claim that a self-schedule requirement will lead to inefficient dispatch as imports may self-schedule during times of negative pricing or when supply is not needed. A self-schedule requirement does not affect the contract price between a supplier and the LSE but determines how the supplier will offer the resource into the CAISO market to reach the LSE.118 We note that imports already self-schedule into the market on a regular basis and the issues raised regarding a self-schedule requirements are not new issues. As CAISO noted in its 2018 Annual Report:

[S]elf-scheduled generation averaged about 16,400 MW in 2018, a slight decrease from 2017, which equates to about 66 percent of load.... [I]mports continue to represent the largest share (39 percent) of self-scheduled generation in the

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118 See CAISO Tariff, Appendix A, at 173: A self-schedule is defined as “[t]he Bid component that indicates the quantities in MWhs with no specification of a price that the Scheduling Coordinator is submitting to the CAISO, which indicates that the Scheduling Coordinator is a Price Taker, Regulatory Must-Run Generation or Regulatory Must-Take Generation, which includes ETC and TOR Self-Schedules, Self-Schedules for Converted Rights, and Variable Energy Resource Self-Schedules.”
real-time market. Most real-time self-scheduled imports come from schedules carried over from the day-ahead market.\textsuperscript{119}

We agree with parties that state that limiting the self-schedule requirement to the AAH window will address system reliability needs and mitigate concerns about self-scheduling in periods of low pricing. We also agree that energy should be delivered to the LSE (in accordance with the governing contract) consistent with the MCC buckets to ensure that use-limited resources are not over-relied upon, potentially jeopardizing grid reliability.

In addition, we are persuaded by parties that support allowing the self-schedule requirement to be met with a negative $150/MWh or $0/MWh bid, as an alternative. We are persuaded that this bid option would allow greater flexibility and address concerns about self-scheduling, including when prices are negative.

Some parties contend that a self-schedule requirement will lead to inflexible supply in the CAISO market. As discussed, imports already self-schedule into the market on a regular basis. In addition, CAISO and the Commission have implemented flexible capacity requirements to address ramping needs\textsuperscript{120} and non-resource-specific import contracts do not qualify to provide flexible capacity in any case.\textsuperscript{121} Therefore, a self-schedule requirement


\textsuperscript{120} See generally D.13-06-024, D.14-06-050.

\textsuperscript{121} See CAISO Matrix of ISO Import Rules, Attachment 2 to Energy Division Track 1 Proposal.
does not change inefficiencies that exist in the market and if additional resources are needed to address the flexibility needs of the system, this issue should be addressed through refinements to the flexible capacity product. Further, nothing precludes imports that would like to participate in the market in a more flexible manner from doing so through existing resource-specific import models (i.e., as a pseudo-tie or dynamically scheduled resource-specific resource). Lastly, including a negative $150/MWh and $0/MWh bid option would address concerns about limited flexibility under a self-schedule requirement.

Some parties oppose import energy contracts (and the attendant self-schedule or delivery requirement) as limiting the pool of import suppliers or leading to increased costs. As discussed above, eliminating inexpensive speculative supply and requiring LSEs to procure reliable RA imports may necessarily result in increased costs and may discourage certain suppliers from participating in the market.

SCE seeks clarification as to the “no curtailment” provision, as provided in D.04-10-035. We agree that this should be clarified to mean “no curtailment for economic reasons,” consistent with the requirements in D.04-10-035. It is unnecessary, however, to limit non-resource-specific energy contracts to “contractually-specific fixed energy price provisions,” as proposed by Energy Division.

Considering the problems identified by Energy Division with recent attestations from LSEs and suppliers, it is reasonable to require import contracts used to meet RA requirements to provide: that the energy contract price to the LSE be denominated in $/MWh or $/kWh, that the counterparty of the energy
contract is the LSE and energy delivery shall be to the LSE (not that the contract shall be for the sale of energy to the CAISO generally), and a requirement that the import is not sourced from resources internal to the CAISO Balancing Area.

With respect to resource-specific imports, the Commission’s past practice has been to treat resource-specific RA imports the same as internal generating resources because resource-specific RA imports operate and have the same reliability benefits as internal generating units. We find it reasonable to define resource-specific imports to include only pseudo-tied or dynamically scheduled resources because these imports operate and have the same reliability benefits as internal generating units. At this time, these are the only resource-specific import resources currently registered in the CAISO’s system. The Commission has historically used CAISO supply plans and the NQC list to verify compliance with RA requirements, and it is appropriate to continue to do so.

4.1.3. Discussion

CAISO/Powerex’s proposal has the potential to effectively address speculative supply concerns; however, it does not currently do so at this stage of development. While the Commission is open to CAISO/Powerex’s proposal, as discussed above, several aspects of the proposal require further development and regulatory approval before implementation. We are not inclined to adopt significant modifications to the import RA rules, which would require the Commission to rely on attestations from out-of-state entities and which the Commission and the CAISO may have insufficient visibility to verify.

CAISO states that it is moving forward with the necessary tariff changes, including a March 17, 2020 revised straw proposal in its RA Enhancements
Initiative proceeding to extend the real-time market MOO to all MWs and that it “will continue to pursue these changes as expeditiously as possible within its stakeholder process.”\textsuperscript{122} We appreciate CAISO’s efforts and will follow these developments closely.

Pending further development of the CAISO/Powerex proposal, and for all the reasons discussed in the previous section, the Commission is persuaded that Energy Division’s proposal best addresses our stated objectives in adopting import RA requirements: (1) requirements that effectively address speculative supply and double counting issues, (2) requirements that are implementable in the near term, and (3) requirements that reasonably balance reliability and costs to ratepayers.

Energy Division’s proposal effectively addresses speculative supply concerns and reasonably ensures that self-schedules and/or bids into the day-ahead and real-time markets will be backed by adequate physical supply. The proposal is also best positioned and most feasible to implement on a short-term basis. Because Energy Division’s proposal builds on the Commission’s existing import rules, established in D.04-10-035 and D.05-10-042, we agree with parties that the proposal should be minimally disruptive to market participants. Recognizing that some parties dispute the interpretation of D.04-10-035 and D.05-10-042, this proposal, at minimum, reflects the Commission’s interpretation of those rules in D.19-10-021 and parties have had notice of that interpretation since at least the issuance of that decision.

\textsuperscript{122} CAISO Rehearing Comments at 4.
The Commission is convinced that limiting the self-schedule requirement to the AAH window, consistent with the MCC buckets, minimizes concerns of self-scheduling during negative pricing periods by requiring self-scheduling when there is high demand. Further, we view bidding resources in at levels between negative $150/MWh and $0/MWh as tantamount to a self-scheduling requirement, and thus, it is reasonable to add this bidding option as an alternative to the self-schedule requirement. LSEs can further manage potential market inefficiencies in other ways, such as relying on RA imports to a lesser degree in spring and off-peak months, when negative prices are more likely to occur. Thus, we find the proposed requirements are narrowly tailored to mitigate increased costs to LSEs and ratepayers and to ensure that resource-specific and non-resource-specific imports that choose to participate in the RA program supply electricity when needed to ensure the reliability of California’s electric grid.

Some parties argue that a self-schedule requirement invades FERC jurisdiction. The Commission disagrees. The Federal Power Act expressly provides for state authority to assure the reliability of the long-term energy supply within their jurisdictions in the first instance.\(^{123}\) Congress provided that “[n]othing in [the FPA] shall be construed to preempt any authority of any State to take action to ensure the safety, adequacy, and reliability of electric service

\(^{123}\) 16 U.S.C. § 824o(i)(3).
within that State as long as such action is not inconsistent with any reliability standard . . .”\textsuperscript{124}

In addition, the result of \textit{Hughes v. Talen Energy Marketing, LLC},\textsuperscript{125} cited by Powerex, is not applicable here. California has not implemented a FERC-jurisdictional centralized capacity market and the RA program is not a subsidy of generation such as that considered in \textit{Hughes v. Talen}. Further, nothing in the RA program prevents non-resource-specific imports from participating in CAISO’s wholesale markets in any manner they feel appropriate if they have not executed an RA contract.

The Commission also disagrees that a self-schedule requirement impermissibly treats in-state resources differently than out-of-state resources since in-state resources are not subject to this requirement, in violation of the U.S. Commerce Clause. The Commerce Clause denies states the power to unjustifiably discriminate against the flow of interstate commerce.\textsuperscript{126} Any notion of discrimination, however, “assumes a comparison of substantially similar entities.”\textsuperscript{127} As discussed, CAISO’s tariff treats in-state resources differently than imports in that imports may be non-resource-specific and have no further MOO in the real-time market. These are less rigorous requirements than for in-state resources, which have an ongoing MOO in the real-time market and are subject

to emergency recall and exceptional dispatch. Under the Federal Power Act, states have a leading role in assuring long-term reliability to fulfill their energy needs. We therefore seek to structure our state RA requirements so that resources provide similar reliability benefits regardless of whether they are located within or outside of the state. This requires us to acknowledge that the CAISO has different operational requirements for import resources than for resources located within the CAISO balancing authority.

Indeed, the reason CAISO treats in-state versus out-of-state resources differently is because they are not substantially similar. FERC has recognized as much in justifying its decisions to treat internal resources differently from imports. In determining that certain imports bids need not be cost-verified, FERC found “that imports are not similarly situated to internal generation resources. ... This approach is consistent with current market power mitigation measures in RTOs/ISOs that apply to internal resources but do not typically apply to imports.” Powerex has also previously acknowledged such differences at FERC.

Absent discrimination, courts will uphold the law “unless the burden imposed on [interstate] commerce is clearly excessive in relation to the putative

\[\text{\begin{footnotesize}\footnotesize\begin{align*}
129 & \text{See, e.g., FERC Order No. 831, issued in RM16-05 on November 16, 2016, at 195.} \\
130 & \text{FERC Order No. 831, issued in RM16-05 on November 16, 2016 at 187 (“Powerex asks the Commission to consider adopting a verification process for external resources that is distinct from the process used for internal resources because the two resource types differ.”)}
\end{align*}\end{footnotesize}}\]
local benefits.” Parties have failed to demonstrate that in-state and out-of-state resources are substantially similar; or even if they are similar, that the Commission’s efforts to establish similar operational requirements for non-resource-specific imports and in-state resources are excessive in relation to the acknowledged threat to reliability that arises from speculative supply.

In sum, the Commission is persuaded that Energy Division’s proposal, with modifications, best addresses the stated objectives in adopting import RA requirements. Accordingly, the Commission adopts the following requirements for resource-specific RA imports. A resource-specific import contract shall count towards RA requirements provided that:

(1) The resource is pseudo-tied or dynamically scheduled into the CAISO day-ahead and real-time markets; and

(2) The LSE includes a resource-specific resource ID in its filings that is on a matching CAISO supply plan and listed in the Commission’s NQC list.

The Commission adopts the following requirements for non-resource-specific RA imports. An import that does not qualify as a resource-specific import is a non-resource-specific import. A non-resource-specific import shall count towards RA requirements provided that:

(1) The contract is an energy contract with no economic curtailment provisions.132

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132 As stated in D.04-10-035, an example of non-economic curtailment is “a provision in the contract that allows for interruption to serve the seller’s native load, in the context of a force majeure situation...” D.04-10-035 at 54 (adopting Section 5 of the Workshop Report on Resource Adequacy Issues at 21, Footnote 13).
(2) The energy must be self-scheduled (or in the alternative, bid in at levels between negative $150/MWh and $0/MWh) into the day-ahead and real-time CAISO markets at least during the Availability Assessment Hours throughout the RA compliance month, consistent with the MCC buckets.

(3) The energy must be delivered\(^{133}\) to the LSE in accordance with the governing contract, consistent with the MCC buckets.

Outside of the AAHs, LSEs are expected to bid in accordance with the governing contract. The Commission will review and monitor LSEs’ bidding behavior outside of the AAHs and may make refinements to the RA import rules as warranted.

A non-resource-specific energy contract must also include the following terms:

(1) The energy contract must include: (a) the price denominated in $/MWh or $/kWh, (b) the quantity delivered per hour (e.g., 100 MW), and (c) the delivery period (e.g., on-peak between hours ending 0700 and 2200, Monday through Saturday, excluding Sundays and holidays);

(2) The counterparty of the energy contract must be the LSE and the energy must be delivered and sold to the LSE (i.e. not that the contract shall be for the sale of energy to the CAISO generally); and

\(^{133}\) “Deliver” is used in this decision to mean energy flows from the source Balancing Authority to the intertie location. Consistent with the CAISO Tariff, intertie location is defined as a “transmission corridor that interconnects the CAISO Balancing Authority Area with another Balancing Authority Area.”
(3) A requirement that the import is not sourced from resources internal to the CAISO Balancing Area.

Regarding the second requirement, that energy must be delivered and sold to the LSE, the LSE must take responsibility as the resource’s scheduling coordinator and perform all scheduling coordinator functions for the resource, whether directly or through designation of a third-party scheduling coordinator acting as the LSE’s agent.

For both resource-specific and non-resource-specific contracts, the existing requirement, adopted in D.05-10-042, that all import contracts used to meet RA obligations must be paired with an import allocation right (also referred to as a maximum import capability (MIC) allocation) shall still apply. 134

4.2. Compliance

In D.19-10-021, the Commission determined that to demonstrate compliance with the RA import requirements, LSEs using RA imports “should provide documentation as part of its annual and monthly compliance filings, in the form of either contract language or an attestation from the contracting import provider or the scheduling coordinator for the resource.” 135 We also determined that Energy Division Staff should “review each contract or attestation, as well as review whether these resources ultimately scheduled energy into the CAISO markets, to verify compliance” using import data obtained from the CAISO. 136

134 D.05-10-42, at 55-57.
135 D.19-10-021 at 12.
136 Id.
Considering the problems identified by Energy Division as to certain LSEs’ recent attestations, we conclude that attestations alone are not sufficient to verify compliance. Rather, we adopt a requirement that LSEs using non-resource-specific import RA contracts shall provide full unredacted versions of RA contracts to verify compliance with the requirements adopted in this decision. Energy Division Staff has the discretion to limit or modify the submission of full RA contracts for compliant LSEs at a future date, in the event that such submission becomes duplicative or overly burdensome. Given the foregoing requirement, LSEs are no longer required to demonstrate compliance through attestation or excerpted contract language, as directed in D.19-10-021.

In instances where the contract language may not include a self-schedule or bid requirement because the LSE buying the RA import is the scheduling coordinator for the resource (or has appointed another entity to act as the scheduling coordinator), it is reasonable that an attestation by the applicable scheduling coordinator for the resource may be used to confirm the self-schedule requirement. Accordingly, an attestation template is attached as Appendix A for use in this circumstance and may be modified by Energy Division, as necessary.

Additionally, in instances where the import provider of the underlying contract does not include contract language that the import must not be sourced from resources internal to the CAISO BAA, it is reasonable that an attestation by the import provider of the resource may be used to confirm compliance with this requirement. Accordingly, an attestation template is attached as Appendix B for use in this circumstance and may be modified by Energy Division, as necessary.
The Commission adopts the self-schedule and bid limitation over the AAHs to address concerns related to inflexible self-scheduling or bidding. However, we remain concerned that some market participants may skirt the intent of this decision by continuing to bid at the price cap during non-AAH hours, thus reintroducing speculative supply concerns during the non-AAH hours. In order to monitor compliance with the adopted rules and address any new issues that may arise, we direct Energy Division Staff to review data on self-schedules and bids associated with import RA resources, based on data obtained from the Commission’s annual subpoena, and submit a summary report detailing any issues. To the extent Energy Division finds that confidential data is relevant for the report, Energy Division may submit a confidential version of the report to the Commission with a redacted version into this proceeding. The report will provide the Commission and parties in this proceeding information to address any new or ongoing issues in a timely manner.

4.3. Existing Contracts

CalCCA argues that adopted rules should not apply before the 2021 compliance year and any multi-year system RA contract executed after the issuance of D.19-10-021 on October 17, 2019 should be grandfathered and allowed to expire on its own terms. CalCCA adds that the adopted rules in D.19-10-021 should not apply to 2019 and 2020 compliance, which should be governed by “the rules in place since the Commission issued D.04-10-035 and

137 CalCCA Track 1 Comments at 11.
D.05-10-042.” Shell states that existing long-term RA import contracts should be grandfathered into 2021 and forward.  

PG&E opposes grandfathering multi-year system RA contracts executed after October 17, 2019, stating that the Commission has given sufficient notice over the past year, since April 2019, that the RA import rules would be clarified and require potential refinements in Track 1. PG&E states that any executed import contracts should have contemplated risks with potential regulatory changes. PG&E adds that grandfathering multi-year system contracts executed after October 17, 2019 “provides no incentive for parties to act in good faith and execute import RA contracts that address the Commission’s growing concerns of speculative supply.”

The Commission deems it necessary to give LSEs and suppliers sufficient time to renegotiate or enter into new contracts based on the import RA rules adopted in this decision. Therefore, the adopted rules shall not apply for the 2019 compliance year (to the extent that compliance has not been completely determined) or the 2020 compliance year. Given that there has been a dispute as to how the rules prior to D.19-10-021 should be interpreted and applied, we find it reasonable that, for 2019 and 2020 RA compliance only, the Commission shall allow LSEs to use import RA to meet their RA requirements if the following is demonstrated: (1) the LSE provides the applicable contract to Energy Division,

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138 CalCCA Rehearing Comments at 7.
139 Shell Rehearing Comments at 5.
140 PG&E Track 1 Reply Comments at 6.
(2) the import RA shown on the LSE’s RA plan appears on a matching CAISO supply plan, and (3) the LSE has sufficient import allocation rights at the matching intertie location. The decision has been revised to clarify this.

In addition, we agree with PG&E that parties have had notice of potential regulatory changes or clarifications related to the import RA rules since at least July 2019 when the ACR was issued. The ACR outlined the Commission’s concerns about speculative supply and stated that “this Ruling seeks to gather further information that may be used to clarify existing policy, if necessary, and to take action to ensure the integrity of the RA program.”141 Further, this position is consistent with past Commission decisions directing parties to modify standard procurement contracts to anticipate regulatory changes, such as in the Renewables Portfolio Standard (RPS) program.142 Allowing contracts that do not comply with the adopted rules to be grandfathered for the 2021 compliance year and beyond further undermines grid reliability and contravenes the fundamental purpose of this decision.

Accordingly, the rules adopted in this decision shall apply for the 2021 RA compliance year regardless of the execution date of the contract.

141 ACR at 5.
142 See, e.g., D.10-03-021, 2010 Cal. PUC LEXIS 70, at 164 (directing that RPS procurement contracts include a term that “[t]o the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.”); D.07-02-011, 2007 Cal. PUC LEXIS 82, at Appendix C (stating that electric corporations may consider a change in law provision).
4.4. Firm Transmission Requirements

With respect to the CAISO/Powerex’s firm transmission requirement, the Commission agrees with parties that such a rule requires further development, including the process and timing for releasing firm transmission rights across multiple BAAs. We also agree that the market for firm transmission rights holders is highly constrained. At this time, the Commission declines to modify the requirements adopted in D.04-10-035 as to transmission capacity for RA imports, and affirmed in D.19-10-021.\[143\]

4.5. Conclusion

Accordingly, the Commission adopts revisions to the RA import rules based on Energy Division’s proposal, with modifications. The Commission will consider the CAISO/Powerex proposal in a subsequent RA proceeding after further development. The limited rehearing of D.19-10-021 is complete and this decision supersedes D.19-10-021 on the issues for which rehearing was granted. The issues from D.19-10-021 that were not granted limited rehearing are final and the stay of D.19-10-021 is no longer in effect.

5. Comments on Proposed Decision

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were

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\[143\] D.04-10-035 at 54:

Qualifying capacity for import contracts is the contract amount, provided the contract: (1) is an Import Energy Product with operating reserves, (2) cannot be curtailed for economic reasons, and (3a) is delivered on transmission that cannot be curtailed in operating hours for economic reasons or bumped by higher priority transmission or (3b) specifies firm delivery point (i.e., not seller’s choice).
allowed under Rule 14.3 of the Commission’s Rules of Practice and Procedure. Comments were filed on June 8, 2020 by the following parties: AReM, BPA, CAISO, CalCCA, Calpine, DMM, GPI, MRP, MSCG, PG&E, PGP, Powerex, SCE, SDG&E, Shell, TURN, and WPTF. Reply comments were filed on June 15, 2020 by: AReM, Calpine, MRP, MSCG, PG&E, Powerex, SCE, SDG&E, Shell, and WPTF.

All comments have been carefully considered. Significant aspects of the proposed decision that have been revised in light of comments are mentioned in this section. However, additional changes have been made to the proposed decision in response to comments that may not be discussed here. We do not summarize every comment but focus on major arguments made in which the Commission did or did not make revisions in response to party input.

Calpine, DMM, GPI, PG&E and TURN support the proposed decision. With respect to the self-schedule requirement during the AAH window, DMM comments that “as long as renewable resources continue to receive tax credits that make their effective marginal cost of production less than zero, the Commission’s proposed decision should enable non-resource specific import resource adequacy resources to avoid dispatches that displace expected wind or solar output bidding at marginal cost.”

Several parties request clarification as to the self-schedule and bid requirements as provided in Ordering Paragraph 2, including AReM, CAISO, MSCG, SCE, SDG&E, and WPTF. These parties note that while Ordering

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144 DMM Comments on Proposed Decision at 4.
Paragraph 2(c) limits the self-schedule to the AAH window, that limitation is not included in Ordering Paragraph 2(b), creating confusion about whether the self-schedule or bid is required during all hours. We clarify that the self-schedule or $0 to negative $150 energy bid requirement is only required during the AAHs. The decision is modified to clarify this by combining Ordering Paragraphs 2(b) and 2(c). Outside of the AAHs, LSEs are expected to bid or self-schedule in accordance with the governing contract.

We adopted the self-schedule and bid limitation over the AAHs to address concerns related to inflexible self-scheduling. However, we remain concerned that some market participants may skirt the intent of this decision by continuing to bid at the price cap during non-AAH hours, thus reintroducing speculative supply concerns during the non-AAH hours. In addition, WPTF comments that after DMM raised speculative supply concerns, the Commission did not provide any evidence that the behavior in question continued. With these concerns in mind, and to monitor compliance with the adopted rules, it would be beneficial for Energy Division to review the self-schedules and bids associated with import RA resources and provide a detailed report on its findings. Accordingly, we direct Energy Division Staff to review data on self-schedules and bids based on data obtained from the Commission’s annual subpoena, and submit a summary report detailing any issues. The decision has been modified with this direction.

145 See e.g., AReM Comments on Proposed Decision at 6, CAISO Comments on Proposed Decision at 3, SDG&E Comments on Proposed Decision at 4.

146 WPTF Comments on Proposed Decision at 3-4.
SCE previously commented that the term “deliver” in Energy Division’s proposal should be clarified and that “the term ‘deliver’ (or ‘delivered’) has historically meant that energy flows from the source Balancing Authority to the sink Balancing Authority.”

Energy Division’s adopted proposal used the term “deliver” and “self-schedule” interchangeably, which has led to confusion as reflected in comments on the proposed decision. We clarify that the term “deliver” is used in this decision to mean that energy flows from the source Balancing Authority to the intertie location. Thus, “delivery” is distinct from the self-schedule requirement. We modify the decision with this clarification.

Other parties, including AReM, PG&E, and SCE, seek clarification about the relationship between the self-schedule requirement and the MCC buckets. The Commission intended that the self-schedule must occur at least during the AAHs, and that the applicable MCC bucket govern the number of days over which the self-schedule must occur. The MCC buckets in relation to the AAHs are being further clarified in a pending proposed decision in the successor RA proceeding, R.19-11-009. For example, MCC Bucket 1 would require self-scheduling of at least 40 hours, Monday through Friday, for four consecutive hours between the AAHs (currently set at 4 p.m. – 9 p.m.).

We also intended that energy must be delivered to the LSE in accordance with the governing contract, which should be consistent with the MCC buckets.

147 SCE Track 1 Comments at 4.

148 AReM Comments on Proposed Decision at 6, SCE Comments on Proposed Decision at 3, PG&E Reply Comments on Proposed Decision at 3.
For example, if the delivery of the contract specifies that the energy must deliver 6 days a week between 0700 and 2200, the LSE should categorize this resource as a Bucket 3 resource and have the resource’s energy self-scheduled into the AAHs 6 days a week. The decision has been modified to clarify this.

Multiple parties request clarification on the requirement that “the sale of energy is to the LSE specifically, not to the CAISO generally.” Some state that this seems inconsistent with CAISO’s tariff because an importer that supplies energy to an LSE must schedule energy into the CAISO market. PG&E disagrees that requiring the sale of energy to the LSE precludes self-scheduling or bidding into the CAISO markets, nor does it conflict with the CAISO tariff. The Commission’s intent was to require the LSE to be the buyer of the RA import contract and for the energy to be delivered and sold to the LSE, in response to attestations received by Energy Division indicating that the energy delivered under some import contracts was to be delivered and sold to the CAISO generally and not paid for by the LSE specifically. We modify the decision to clarify that the counterparty of the energy contract must be the LSE and that the energy must be delivered and sold to the LSE.

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149 See, e.g., BPA Comments on Proposed Decision at 5, Shell Comments on Proposed Decision at 11, MSCG Comments on Proposed Decision at 10.

150 PG&E Reply Comments on Proposed Decision at 2.

151 See Energy Division RA Import Report at 19-22.
Parties seek clarification as to which contracting party has the self-scheduling requirement: the seller or the LSE making the RA purchase.\textsuperscript{152} PG&E agrees with CAISO that the proposed decision should clarify “that the Direct to LSE Requirement [delivered and sold to the LSE] means that the Commission-jurisdictional LSE must take responsibility as the resource’s scheduling coordinator and perform all scheduling coordinator functions for the resource, whether directly or through designation of a third-party scheduling coordinator acting as the Commission-jurisdictional LSE’s agent.”\textsuperscript{153} We agree with PG&E’s suggestion and modify the decision to clarify this. We note that typically the scheduling coordinator is responsible for bidding or delivering into the CAISO market. While we clarify that the counterparty of the energy contract must be the LSE, we do not dictate which entity is the scheduling coordinator or which contracting party must satisfy the bidding or self-schedule requirement so long as the requirement is satisfied.

MSCG and Shell seek clarification that in instances where the CAISO does not accept a day-ahead bid, whether a real-time bid is required.\textsuperscript{154} We clarify that the real-time obligation remains for all hours specified in the contract, given that the non-resource-specific import RA is an energy contract and can provide

\textsuperscript{152} See e.g., BPA Comments on Proposed Decision at 6, CalCCA Comments on Proposed Decision at 11, Powerex Comments on Proposed Decision at 5.

\textsuperscript{153} PG&E Reply Comments on Proposed Decision at 2

\textsuperscript{154} MSCG Comments on Proposed Decision at 7, Shell Comments on Proposed Decision at 8.
reliability benefit in the real-time market, even if it is not accepted in the day-ahead market.

Shell comments that the decision fails to address how the self-schedule requirement aligns with Pub. Util. Code § 399.11(e)(2), which “requires generating resources located out of California that are able to supply that electricity to California end-use customers to be treated identically to generating resources located within the state, without discrimination.”¹⁵⁵ First, the decision’s discussion of the Commerce Clause and treatment of out-of-state resources is also applicable to this related state law provision. Second, California Civil Code § 3542 provides that “[i]nterpretation must be reasonable.” As stated in the decision, out-of-state generating resources (i.e., resource-specific imports outside of California) are treated similarly to in-state generating resources. Non-resource-specific import RA contracts are necessarily treated differently because the CAISO tariff renders these imports to be different from in-state generating resources. In addition, § 399.11(e)(2) pertains specifically to generating resources “that are able to supply that electricity to California end-use customers.” One purpose of this decision is to address concerns that non-resource-specific import RA contracts from resources outside of California are not adequately supplying electricity to California customers in the first place.

PG&E recommends the use of an attestation by the scheduling coordinator of the import resource in instances where the contract does not include a self-schedule or bid requirement because the LSE buying the import RA is the

¹⁵⁵ Shell Comments on Proposed Decision at 12.
scheduling coordinator for the resource.\textsuperscript{156} We agree that such an attestation would be reasonable and find PG&E’s proposed attestation to be appropriate, with modifications. The decision has been modified.

PG&E also recommends an attestation by the import provider if the underlying contract does not explicitly include a requirement that imports must not be sourced from resources internal to the CAISO BAA, which is not a standard term. PG&E is concerned that a large amount of import supply is expected to be relied upon, and the adopted requirements may create friction among importers to modify contract terms. We agree that an attestation is reasonable in this circumstance and find PG&E’s proposed attestation to be appropriate, with modifications. The decision has been modified.

CAISO seeks clarification as to how contracts based on energy sales will be converted into MW values for capacity showings, based on the requirement that the sale of energy to the LSE should be denominated in $/MWh and $/kWh.\textsuperscript{157} This requirement was intended to require that the energy contract price be denominated in $/MWh or $/kWh. Consistent with standard bilateral energy contracts, non-resource-specific import RA energy contracts must also specify the quantity per hour (\textit{e.g.}, 100 MW) and the delivery period (\textit{e.g.}, on-peak between the hours ending 0700 and 2200, Monday through Saturday, excluding Sunday and holidays), in addition to the delivery price. We have modified the decision with these clarifications.

\textsuperscript{156} PG&E Comments on Proposed Decision at 2.

\textsuperscript{157} CAISO Comments on Proposed Decision at 4.
Parties seek clarification as to what rules should apply for the 2019 and 2020 RA compliance years. Some parties recommend that the import rules prior to D.19-10-021 should apply to 2019 and 2020 RA compliance.\textsuperscript{158} The import RA rules adopted in this decision are largely similar to the rules adopted in D.19-10-021, with additional clarifications in this decision. For 2019 and 2020 compliance, we stated that the import RA rules adopted in this decision, and effectively D.19-10-021, do not apply. Given that there has been a dispute as to how the rules prior to D.19-10-021 should be interpreted and applied, we find it reasonable that for 2019 and 2020 only, LSEs may use import RA to meet their RA requirements if the following is demonstrated: (1) the LSE provides the import RA contract to Energy Division, (2) there is a matching CAISO supply plan for the import RA shown on the LSE’s RA plan, and (3) the LSE has sufficient import allocation rights at the matching intertie location. The decision has been modified to reflect this.

CalCCA comments that multi-year contracts executed prior to the issuance of D.19-10-021 should be grandfathered even if they extend into 2021 and future years.\textsuperscript{159} PG&E previously stated that parties have had notice since at least April 2019 that the import rules would require potential refinements.\textsuperscript{160} We agree with PG&E that parties have had notice of potential regulatory changes

\textsuperscript{158} \textit{See}, \textit{e.g.}, AReM Comments on Proposed Decision at 8, CalCCA Comments on Proposed Decision at 8.

\textsuperscript{159} CalCCA Comments on Proposed Decision at 10.

\textsuperscript{160} PG&E Track 1 Reply Comments at 6.
related to the import RA rules since at least July 2019 when the ACR was issued. Allowing contracts that do not comply with the adopted rules to be grandfathered for the 2021 compliance year contravenes the fundamental purpose of this decision. We decline CalCCA’s modification and the decision has been modified to reflect this.

BPA states that one interpretation of the decision is that “the energy only contract is no longer an RA contract and the supplier has no requirements to submit a Supply Plan to the CAISO.” ¹⁶¹ This is an incorrect interpretation and we clarify that matching supply plans are required, as is the current practice for non-resource-specific import RA energy contracts.

MRP comments that because the proposed decision does not modify D.04-10-035, which was affirmed in D.19-10-021, the decision should clarify or remove the language around “with operating reserves” that appears in D.04-10-035 and is no longer relevant.¹⁶² SCE agrees with this. The Commission agrees that, at this point, the “operating reserves” language from D.04-10-035 is no longer relevant.

6. Assignment of Proceeding

Liane Randolph is the assigned Commissioner and Debbie Chiv is the assigned Administrative Law Judge in this proceeding.

¹⁶¹ BPA Comments on Proposed Decision at 6.
¹⁶² MRP Comments on Proposed Decision at 7.
Findings of Fact

1. The Commission issued D.19-10-021 that affirmed the RA import requirements initially established in D.04-10-035 and D.05-10-042. A motion to stay D.19-10-021 was granted in D.19-12-064, pending the disposition of the applications for rehearing. Limited rehearing of D.19-10-021 was granted in D.20-03-016.

2. Track 1 of R.19-11-009 was scoped to consider revisions to the RA import requirements. The Track 1 record from R.19-11-009 is incorporated into the record of R.17-09-020.

3. The RA program was designed to ensure that LSEs secure sufficient generating capacity to meet anticipated peak demand needs to maintain grid reliability. Bidding RA import contracts into the CAISO market well above historic clearing prices, and up to the $1000/MWh bid cap, to avoid CAISO dispatch raises significant concerns about “speculative supply” and runs contrary to the fundamental purpose of the RA program.

4. The Commission seeks to adopt RA import requirements that best address the following objectives: (1) requirements that effectively address speculative supply and double counting issues, (2) requirements that are implementable in the near term, and (3) requirements that reasonably balance reliability and costs to ratepayers.

5. CAISO/Powerex’s proposal has the potential to effectively address speculative supply concerns but does not currently do so at this stage of development. The proposal requires further development and regulatory approval before implementation.
6. Requiring an energy contract for non-resource-specific imports that must self-schedule or bid into the CAISO markets reasonably ensures that self-schedules and bids in the day-ahead and real-time markets will be backed by adequate physical supply and addresses speculative supply concerns.

7. Limiting the self-schedule requirement to the AAH window, consistent with the MCC buckets, balances system reliability and mitigates concerns of self-scheduling during negative pricing periods by requiring self-scheduling when there is high demand.

8. Bidding resources in at levels between negative $150/MWh or $0/MWh bid, as an alternative option to the self-schedule requirement, will allow greater flexibility and address concerns about self-scheduling when prices are negative.

9. It is reasonable to require energy to be delivered to the LSE in accordance with the governing contract, consistent with the MCC buckets, to ensure that use-limited resources are not over-relied upon, potentially jeopardizing grid reliability.

10. Energy Division’s proposal, with modifications, is best positioned and most feasible to implement in the short-term.

11. It is reasonable to define resource-specific imports to include only pseudo-tied or dynamically scheduled resources because these imports operate and have the same reliability benefits as internal generating units.

12. Energy Division identified numerous problems with certain LSEs’ or suppliers’ recent attestations to the Commission. It is reasonable to require RA import contracts to include additional terms to address the identified problems.
13. Considering problems identified with recent attestations to the Commission, reliance solely on attestations to verify compliance is insufficient.

14. The Commission has historically used CAISO supply plans and the NQC list to verify compliance with RA requirements. It is appropriate to require resource-specific imports to provide a resource ID that is listed on a matching CAISO supply plan and NQC list to verify compliance.

15. It is reasonable to accept an attestation to confirm the self-schedule or bid requirement where the contract does not include the self-schedule requirement. It is appropriate to allow Energy Division to modify the attestation template as necessary.

16. It is reasonable to accept an attestation where the import provider does not include contract language stating that imports must not be sourced from resources internal to the CAISO BAA. It is appropriate to allow Energy Division to modify the attestation template as necessary.

17. To monitor compliance with the adopted rules and address any new issues, it is reasonable for Energy Division to review data on self-schedules and bids associated with import RA resources and submit a summary report to the Commission.

18. There is insufficient record and basis to modify the firm transmission requirements at this time.

**Conclusions of Law**

1. Resource-specific resources should only include pseudo-tied resources or resources that are dynamically scheduled into the CAISO markets. Imports that
do not qualify as a resource-specific import should be considered a non-resource-specific import.

2. An LSE using a resource-specific import should provide a resource-specific resource ID in its RA filing that is listed on a matching CAISO supply plan and on the Commission’s NQC list.

3. A non-resource-specific import should count towards RA requirements if:
   (a) the contract is an energy contract with no economic curtailment provisions;
   (b) the energy self-schedules (or in the alternative, bids in at levels between negative $150/MWh and $0/MWh) into the day-ahead and real-time CAISO markets at least during the Availability Assessment Hours throughout the RA compliance month, consistent with the MCC buckets; and (c) the energy must be delivered to the LSE in accordance with the governing contract, consistent with the MCC buckets.

4. For a non-resource-specific import to count towards RA needs, the energy contract should also include the following terms:
   (a) the energy contract should include the price denominated in $/MWh or $/kWh, the quantity delivered per hour, and the delivery period;
   (b) the counterparty of the energy contract should be the LSE and the energy should be delivered and sold to the LSE; and (c) a requirement that the import is not sourced from resources internal to the CAISO Balancing Area.

5. For both resource-specific and non-resource specific RA import contracts, the existing requirement from D.05-10-042, that all resources must be paired with an import allocation right, should still apply.
6. LSEs using non-resource-specific import contracts to meet RA requirements should provide full unredacted versions of the RA contracts to verify compliance with the adopted requirements.

7. The adopted requirements should not apply for the 2019 or 2020 RA compliance year and should apply for the 2021 RA compliance year.

ORDER

IT IS ORDERED that:

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.

2. A non-resource-specific import shall count towards Resource Adequacy (RA) requirements, provided that:

   (a) The contract is an energy contract with no economic curtailment provisions;

   (b) 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.
(c) The energy must be delivered to the load-serving entity in accordance with the governing contract, consistent with the MCC buckets.

3. A non-resource-specific import energy contract must also include the following terms:

(a) 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);

(b) 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

(c) A requirement that the import is not sourced from resources internal to the California Independent System Operator Balancing Area.

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.

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.

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.
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.

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.

9. The adopted requirements for import contracts to count towards Resource Adequacy (RA) requirements shall not apply for the 2019 or 2020 RA compliance year. The adopted requirements for RA import contracts shall apply for the 2021 RA compliance year regardless of the execution date of the contract.

10. For the 2019 and 2020 Resource Adequacy (RA) compliance years, load-serving entities (LSEs) may use import RA resources to meet their RA requirements if the following are demonstrated: (1) the LSE provides the applicable contract to Energy Division; (2) the import RA shown on the LSE’s RA
plan appears on a matching California Independent System Operator supply plan; and (3) the LSE has sufficient import allocation rights at the matching intertie location.

11. Energy Division Staff is directed to review data on self-schedules and bids associated with Resource Adequacy import resources, based on data obtained from the Commission’s annual subpoena, and submit a summary report detailing any issues that arise.

12. The limited rehearing of Decision 19-10-021 is complete. This decision supersedes Decision 19-10-021 on the issues for which rehearing was granted.

13. The stay of Decision 19-10-021 is no longer in effect.


This order is effective today.

Dated June 25, 2020, at San Francisco, California.

MARYBEL BATJER
President
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners
APPENDIX A
APPENDIX A

Template Form of Scheduling Coordinator Attestation

Attestation of Scheduling Coordinator

I, [NAME OF EMPLOYEE], am an employee of [NAME OF SCHEDULING COORDINATOR], a [STATE OF ORGANIZATION OF SCHEDULING COORDINATOR] [LEGAL ENTITY TYPE OF SCHEDULING COORDINATOR]. I am authorized to submit this attestation on [ABBREVIATED NAME OF SCHEDULING COORDINATOR]’s behalf.

Pursuant to the contract(s) identified in column 1 of the table below (“Contract(s”)”), [ABBREVIATED NAME OF SCHEDULING COORDINATOR] is the scheduling coordinator for the corresponding non-resource-specific resource adequacy import(s) identified by Resource ID in column 3 of the table below (“Import(s”). In its capacity as scheduling coordinator under the Contract(s), [ABBREVIATED NAME OF SCHEDULING COORDINATOR] shall self-schedule (or in the alternative, bid in at a level between negative $150/MWh and $0/MWh) the Import(s) into the California Independent System Operator Corporation day-ahead and real-time markets at least during the Availability Assessment Hours throughout the RA compliance month, as required in Ordering Paragraph 2 of California Public Utilities Commission Decision 20-[__]--_.

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<thead>
<tr>
<th>Column 1 – Contract Identifier</th>
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I have read this document and certify that the information contained herein is true and correct to the best of my knowledge and belief. I understand that this certification will be submitted to the California Public Utilities Commission and relied upon for purposes of verification of compliance with the resource adequacy import requirements.

Executed on this [DAY OF MONTH] day of [MONTH] 20[YEAR] in [CITY], [STATE].

SIGNATURE:______________________________

(ENDER OF APPENDIX A)
APPENDIX B
APPENDIX B

Template Form of Import Provider Attestation

Attestation of Import Provider

I, [NAME OF EMPLOYEE], am an employee of [NAME OF IMPORT PROVIDER], a [STATE OF ORGANIZATION OF IMPORT PROVIDER] [LEGAL ENTITY TYPE OF IMPORT PROVIDER]. I am authorized to submit this attestation on [ABBREVIATED NAME OF IMPORT PROVIDER]’s behalf.

Pursuant to the contract(s) identified in column 1 of the table below (“Contract(s”)”), [ABBREVIATED NAME OF IMPORT PROVIDER] is the seller of the corresponding non-resource-specific resource adequacy import(s) identified by Resource ID in column 3 of the table below (“Import(s”)”). In its capacity as seller under the Contract(s), [ABBREVIATED NAME OF IMPORT PROVIDER] hereby certifies that the Imports are not sourced from resources internal to the California Independent System Operator Corporation Balancing Area, as required in Ordering Paragraph 3 of California Public Utilities Commission Decision 20-[ ]-[__].

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<th>Column 1 – Contract Identifier</th>
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I have read this document and certify that the information contained herein is true and correct to the best of my knowledge and belief. I understand that this certification will be submitted to the California Public Utilities Commission and relied upon for purposes of verification of compliance with the resource adequacy import requirements.

Executed on this [DAY OF MONTH] day of [MONTH] 20[YEAR] in [CITY], [STATE].

SIGNATURE: _______________________________

(END OF APPENDIX B)