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Attachment C: Summary of Comments on 2022 Staff Options Paper

ENERGY DIVISION

April 29, 2025

This document is Attachment C to an accompanying ALJ Ruling filing a Staff Proposal on the Reliable and Clean Power Procurement Program into R.20-05-003.



California Public Utilities Commission

RCPPP STAFF OPTIONS PAPER: COMMENT SUMMARY

On September 8, 2022, in R.20-05-003, the CPUC issued a Reliable and Clean Power Procurement Program Staff Options Paper, along with an Administrative Law Judge's Ruling Seeking Comments on Staff Paper on Procurement Program and Potential Near-Term Actions to Encourage Additional Procurement.

This document provides a courtesy summary by Energy Division Staff of parties' opening and reply comments on the *Staff Options Paper*. It is not necessary for parties to attempt to correct this informal document if they feel their comments have been misrepresented. Any inaccuracies in this document stem from the summarization process by Staff, as the official comments filed by parties speak for themselves. Parties are advised to refer to their original comments submitted in R.20-05-003. If any party has questions or seeks clarifications, they may reach out to: ED_IPPO_Section@cpuc.ca.gov.

Staff thanks and appreciates all stakeholders who provided comments.

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Overview

Row #	Торіс	Summary of Comments	Related Questions
I.	Objectives	 Parties generally supported the Staff Options Paper (SOP) list of objectives as capturing the direction per D.22-02-004. Some parties recommended amendments to the existing objectives and some recommended additional objectives. Parties largely agreed with the prioritization of the objectives listed in the SOP, with a majority of parties agreeing that the first three are the most important for the program. The only objective that parties directly disagreed with was the need to mitigate market power risk. Parties showed broad agreement with how the SOP described reliability and environment as factors motivating the need for a procurement program. The descriptions of financial risk and market power drew a mixed response. Parties suggested a range of mitigants to those risks, some that could be in scope for a program. Parties identified additional factors that motivate the need for a program: customer affordability, and the risk of individual LSEs' plans being sub-optimal when viewed in aggregate. Parties showed almost unanimous support for a programmatic approach to procurement, with broad support for it to be via a new procurement program. 	1a-d
II.	"Fundamental program elements" and "additional design features"	• Most parties agreed with the four "fundamental program elements" and some offered specific comments regarding those elements. Parties were divided on which "additional design features" would be beneficial to the procurement program.	2
III.	November 2020 Staff Proposal	• Parties highlighted various aspects of the November 2020 Staff Proposal that they found missing in the RCPPP SOP.	3
IV.	Designing for reliability	 Support for loss-of-load probability (LOLP)-based determination of need Support for multi-year forward capacity contract mandate; debate on how far forward and volume (views range from 3-yrs to 12-yrs ahead, with consensus around 50% volume at 4-yrs) Mixed on scope of program: new and existing resources vs new-only New and existing is economically efficient, avoids need allocation equity issues, avoids baseline issues, addresses thermal retention and retirements New-only provides assurance RCPPP will drive new resources, avoids duplicating RA program 	4, 7, 8

Row #	Торіс	Summary of Comments	Related Questions
V.	Designing for GHG- reduction	 Alternative idea is that scope is new and existing clean resources in IRP, w/ RA focused on retaining existing resources, regardless of whether clean Mixed on need allocation: slice of day vs share of gross peak, managed peak or net peak. Parties broadly agree that the method used for need allocation will depend on what resource counting rule is used. Debate on ELCCs vs slice of day for resource counting; no support for firm energy contract mandate (SFPFCs) Arguments for ELCCs: more thorough; proven Arguments for slice of day: more thorough; aligns with RA program Support for penalties and backstop while some parties opposed specific backstop procurement triggers or made other suggestions. Mixed on whether annual energy-based (clean energy standard – CES) vs. hourly mass-based 	5, 7, 8
		 CES) vs. hourly mass-based CES is similar to RPS, understood, and proven Mass-based is consistent with IRP planning track and is more accurate Debate about what statute requires Mixed on need allocation, in-line with the CES vs. mass-based debate: clean energy percentage of annual load vs. allocation of allowed emissions based on LSE share of load Mixed on leveraging existing mechanisms like RPS for compliance (simpler according to comments) vs. developing new mechanisms for compliance involving GHG measurement (more accurate according to comments) Also mixed re compliance showings being on a forward basis (i.e., based on assumptions) vs. showing that they did comply on a backward-looking basis Mixed on time periods for compliance Support for penalties; parties split between clean energy and mass-based approaches (\$/MWh vs. \$/ton) 	
VI.	Financial risk and risk of LSE market exit	• Parties generally agree that the POLR proceeding should consider (and is considering) the procedures by which the POLR would take on LSE procurement requirements in the event of LSE market exit.	6a
VII.	Risk of market power	• Parties generally downplayed the risk of market power, or at least pushed back on the RCPPP involving mandatory hedging to mitigate this risk.	6b
VIII.	Past and centralized procurement	• Parties agree that credits for existing centralized procurement (via CAM, MCAM, and VAMO) should be incorporated into	6c

Row #	Торіс	Summary of Comments	Related Questions
		reliability and GHG-free compliance in a clear way.	
IX.	Resource-specific procurement incl. LLTs	• Parties have mixed opinions whether procurement should be based upon resource attributes versus specific types, like long lead-time (LLT) resources	1e
X.	Combining compliance showings	• Parties support for combining and/or minimizing compliance filings. Some encouraged streamlining with RPS and some noted that simply streamlining IRP filings would be an appropriate first step.	9
XI.	Local reliability	 Support for multi-year local reliability requirements Mixed on whether to implement in RA, in IRP programmatically, or in IRP via standalone orders Key issues: centralized planning vs. market-led paradigm, how to improve analysis and how to truly have transmission upgrades compete with new local resources, Local RA CPE approach still in formative stage 	10
XII.	Local air pollutants and DACs	• Mixed on whether minimization of local air pollutants in disadvantaged communities (DACs) should be explicitly designed for in the new program vs. addressed via existing controls and requirements already in place for all procurement	11
XIII.	Procurement to mitigate need for transmission upgrades	• Parties are generally split on the question whether to include storage-as-transmission projects in the new procurement program.	12
XIV.	Interim programmatic approaches	• Parties suggested different interim approaches, and several oppose any interim approach as it would likely delay full program implementation	13-15
XV.	Process	• Some parties provided specific suggestions on workshops to develop the RCPPP, including the key topics and who should be involved, as well as the timeline to implement the RCPPP.	N/A

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1. Objectives

Question 1a: Do the stated objectives of the new procurement program in Attachment A appropriately capture the Commission's direction given in D.22-02-004? If not, provide additions and/or alternatives.

<u>Summary:</u> In opening comments, 24 parties submitted comments on whether the stated objectives of the new procurement program in the Staff Options Paper (SOP) capture the direction per D. 22-02-004 (ACP, AReM, Avangrid, CAISO, CalCCA, CalPA, Calpine, CASMU, CCDC, CEERT, CEJA-SC, DG, EDF, Fervo, GPI, IEP, LSA, Mainspring, MRP, NRDC-UCS, SDGE, SEIA, SCE, WPTF). Parties generally supported the Staff Options Paper (SOP) list of objectives, while some parties recommended amendments to the existing objectives and some recommended additional objectives. GPI recommend that finalizing the objectives be among the next steps to develop the RCPPP, and CASMU and SEIA also made reply comments. While 10 parties stated their general support for the objectives (CalCCA, Calpine, CEERT, DG, Mainspring, MRP, NRDC-UCS, SCE, SDGE, WPTF), the only party that found the objectives to be substantially inappropriate was CEJA-SC, stating that they fail to capture air quality, include local procurement, and integrate demand-side resources.

Objective:		Party Recommendation:	
1.	Support realization of the goals of Senate Bill (SB) 350 and SB 100, in particular regarding reliability and GHG-reduction, safely and equitably, and in light of the current market structure, historical procurement and procurement in progress, and the need to ensure a predictable and stable long-term transition of the electric fleet.	 Should specifically include minimization of emissions with an early priority for disadvantaged communities (DACs). (CEJA-SC) Recently enacted SB 1020 – 90% carbon free by 2035 and 95% by 2040 - should be mentioned (AReM, CalPA) Should also mention AB 1279 (CalPA) Also recognize 2022 CARB Scoping Plan Update (ACP) Amend by removing "support realization of" to "Achieve the" (ACP) Largely covers bullet point 9 in D.22-02-004 re fossil-fueled plant retirements (IEP) Objectives should contain references to all the statutory objectives that the program will address (AReM, SDGE) 	
2.	Achieve economically efficient procurement.	 Incomplete; should be expanded to say " considering both generation and transmission costs;" as written, LSEs could seek to minimize generation costs and inadvertently trigger transmission in less favorable areas (CAISO) Should be designed to support efficient project development (LSA) Hints at customer affordability but should be explicit (CalCCA) Recommends an overarching objective that procurement, including development of new transmission, must be evaluated with an economy-wide framework to achieve cost-effective/least disruptive decarbonization across the economy (MRP) Modify to include customer affordability; without this would risk 	

Parties' specific recommendations:

Objective:		Party Recommendation:
		 failing to view all elements of a new procurement framework through the lens of the impact on customer bills (CalCCA, CASMU) Does not explicitly prioritize procurement with the greatest net benefits; recommends limited common resource valuation method (CRVM) (CalPA) Does not explicitly refer to new vs. existing resources or emitting vs. zero emissions but could encompass D.22-02-004's 5th bullet allowing LSEs to optimize their portfolios. This objective could also encompass bullet 6 re encouraging LSEs to manage a diverse portfolio. (IEP)
3.	Incentivize compliance through a predictable and orderly program design that enables LSEs to anticipate, understand, and comply with their obligations while also making it difficult and burdensome to avoid compliance.	 Agrees but should add "Compliance and enforcement approaches should ensure that LSEs are not penalized for actions beyond their reasonable control" (SCE) Closely aligns with the first bullet in D.22-02-004 related to establishing which LSEs are responsible for contracting with resources, ensuring that the IRP planning processes flow into IRP procurement, ensuring IRP procurement need is allocated to LSEs and can be changed as needed, and complementing the existing RA/RPS programs (IEP)
4.	Complement the IRP planning track, while transitioning away from the current order-by-order procurement paradigm for new resources.	• Closely aligns with the 2nd bullet in D.22-02-004 re ensuring IRP planning processes flow into IRP procurement and vice versa (IEP)
5.	Complement the RA program, which is focused on the near-term and existing resources, to address the need for both retention of existing and new resources in the medium-to-long term.	 Add mention of local procurement or reliability (CEJA-SC, SEIA) Implies the RA program as currently constructed, does not meet the objective from PUC Section 380(b)(1) that it drives new capacity. CPUC should clarify if meeting this statutory objective is in scope of the IRP proceeding, or if it is open to modification of the RA proceeding to meet this in a more efficient manner (AReM) CPUC should also acknowledge that the existing RA and RPS programs are not static and can be changed to better accommodate the objectives of the programmatic approach instead of having to have an entirely separate procurement program under the IRP (AReM) Amend to note the RA program is currently focused on the nearterm and existing resources, and to say that RA and IRP programs should work collectively to ensure near, mid and long-term reliability (NRDC-UCS) Amend to say, "Coordinate with the RA program until the IRP procurement program can address the need for both retention of existing resources and addition of new resources in the near-, medium-, and long-term." (CAISO) Amend to clearly state that procurement structures should ensure there is sufficient investment in near- and mid-term reliability solutions (Mainspring)

Objective:	Party Recommendation:		
	• Closely aligns with the 4th bullet in D.22-02-004, and could be responsive to the 5th bullet regarding allowing LSEs to optimize new and existing resources (IEP)		
6. Complement the RPS program to meet GHG goals through 2030 and beyond.	• See above (AReM)		
7. Ensure LSE procurement responds to evolving demand forecasts (reflecting high electrification, extreme climate impacts, and load migration among LSEs).	• Expand to be about adaptability more broadly, including re changing markets (GPI)		
8. Ensure reasonable competition for both supply- and demand-side procurement solutions to fill long- term needs.	• Need to integrate demand-side resources; recommends a separate, new objective for this, including energy efficiency (CEJA-SC, SEIA)		
 Ensure existing resources persist and new resources get built such that reliability can be predictably maintained. 	 Amend to contemplate the "potential for additional resource retirements." (CAISO) Existing resource retention should not be a given; amend to say "Assess and ensure existing resource retention or retirement and new resource development" considers reliability, cost-effectiveness, GHG-reduction and social justice goals. (GPI) Should not presuppose existing resources will be needed; if it focused on retention would overlap with RA program. Amend to emphasize enough new resources being built. (NRDC-UCS) This is overly focused on existing resource retention; important concern but should make greater connection to having a diverse portfolio of clean, firm, dispatchable new and existing resources, as required by PUC Section 451.51(a) (SDGE) Tangentially related to D.22-02-004, although ensuring existing resources persist is not the same as allowing LSEs to optimize their mixes of existing/new resources. Largely covers bullet 9 in D.22-02-004 re developing a consistent approach to power plant retirements (IEP) 		
10. Allow for some resource-specific procurement action to occur in parallel with the program (e.g., central procurement of large and/or long lead-time resources).	 Agrees should be technology neutral (CCDC, SCE) Appears at odds with objective #2; should only be resource-specific when cost effective (SDGE) Amend to emphasize " on an as needed basis" (GPI) PUC 454.52(a)(2)(B) is a mechanism available to meet objectives and not an objective in and of itself (AReM) Disagrees that program should not establish process for centralized or joint procurement; should amend this (Avangrid, Hydrostor) 		
11. Co-optimize transmission planning with procurement.	• Amend to say " including directing procurement to address locational needs on the grid and ensuring the procurement plans are reliable, actionable, and minimize the need for CAISO backstop." (CAISO)		

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Objective:	Party Recommendation:
12. Recognize retail choice and allocate requirements and costs fairly.	 CASMU members (Bear Valley, Liberty, PacifiCorp) face different reliability challenges to other LSEs; if an LSE is on track with RPS, GHG, reliability, and cost goals, they should not be subject to procurement requirements (CASMU) Largely aligns with bullet point 10 re including transitional arrangements from past/current procurement approaches (IEP)
13. Mitigate risks of market power.	 Unclear about what market power problem exists (CAISO) customer affordability should be mentioned explicitly (CalCCA) Largely aligns with bullet point 10 (IEP)
14. Fulfill the relevant objectives of the Environmental and Social Justice Action Plan.	Appropriate to mention this (CEJA-SC)

Parties' recommended additional objectives:

Objective:	Reason:
Demand-side Integration	• Lists 5 types of demand-side resources the program should drive development of (CEJA-SC, SEIA)
Local reliability	 "Enable and prioritize long-term procurement to meet local reliability requirements and to allow the retirement of local fossil resources." Local RA program does not offer contracts of adequate length to support new local resources. (SEIA) Local procurement must be included (CEJA-SC)
Grandfathering	• "Any changes to procurement rules must ensure that the changes do not impair the value of the procurement that has been done to date pursuant to prior IRP, RA, and RPS procurement mandates" (AReM)
Resource shuffling	 "Mitigate the effects of resource shuffling in the California procurement market" (CalPA)
Value	 "Ensure that incremental procurement secures the greatest value for ratepayers" (CalPA) Identify and acknowledge all relevant costs and benefits of different technologies, including the value of non-dependent firmness (Fervo)
Adaptive & Flexible	 "Develop a framework that enables adaptations to changing system conditions such as supply, market changes, demand, and environmental forcings." (GPI) Allow LSEs and the electric sector to benefit from procurement flexibility that includes diverse resource types, attributes, size, and contract lengths." (GPI)
Fungible Products	• Acknowledge value of developing fungible procurement products to enable easy transactions between LSEs (ACP)
Development risk	• Should direct procurement towards commercial feasible procurement (DG)

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Question 1b: How should the program's objectives be prioritized?

<u>Summary</u>: In opening comments, 25 parties submitted comments on the program's objectives and how they should be prioritized, if at all. Calpine agreed that the objectives were appropriate as listed, while ACP and CalPA recommended additions to the objectives (see question 1a). Some parties provided specific recommendations for how to prioritize the objectives (AReM, CAISO, LSA, CEERT, IEP, SDGE, SEIA, WPTF, and NRDC-UCS). TURN, GPI, Mainspring, SCE, PGE, CalCCA, and CEJA-SC either did not support the objectives, listed objectives not entirely aligned with those in the Staff Options Paper or did not suggest a particular ordering.

Parties' general feedback:

- Program should prioritize planning for reliability by focusing on commercially viable projects as the state works through interconnection delays and supply chain disruptions (Mainspring).
- Program should use reliability requirements to drive quantity of procurement and environmental/EJ requirements should drive characteristics of procurement (CEJA-SC).
- Commission needs to balance competing priorities, with CalCCA labeling the priorities: reliability, GHG-reduction, and affordability (CalCCA, MRP).
 - Reliability is the most important and underpins affordability and GHG-reductions (CalCCA).
- Objectives should not be prioritized from the outset and done, instead, as the program is developed (GPI).
- Grid reliability should be the Commission's near-term focus, broadening to include GHG reduction in the mid-term (PGE)
- The most important objectives are ensuring clean energy and reliability procurement needs are met while providing LSEs with sufficient flexibility to meet customer needs (SCE).

Specific prioritizations of objectives:

Objective		Support as Priority	Supports other tiering or recommends deprioritizing*
1.	Support realization of the goals of Senate Bill (SB) 350 and SB 100, in particular regarding reliability and GHG-reduction, safely and equitably, and in light of the current market structure, historical procurement and procurement in progress, and the need to ensure a predictable and stable long-term transition of the electric fleet	 Calpine, CEERT, IEP, SDGE, SEIA, WPTF, NRDC-UCS 	
2.	Achieve economically efficient procurement	 Calpine, CAISO, IEP, SDGE, WPTF, NRDC-UCS 	
3.	Incentivize compliance through a predictable and orderly program design that enables LSEs	• AReM, IEP, SDGE,	

Objective		Support as Priority	Supports other tiering or recommends deprioritizing*
	to anticipate, understand, and comply with their obligations while also making it difficult and burdensome to avoid compliance.	WPTF, NRDC-UCS	
4.	Complement the IRP planning track, while transitioning away from the current order-by- order procurement paradigm for new resources.	Calpine	 SDGE, WPTF, NRDC-UCS supports as secondary/tertiary priority
5.	Complement the RA program, which is focused on the near-term and existing resources, to address the need for both retention of existing and new resources in the medium-to-long term	• Calpine, CEERT, SEIA	• SDGE, WPTF, NRDC-UCS supports as secondary/tertiary priority
6.	Complement the RPS program to meet GHG goals through 2030 and beyond.	• SEIA	• SDGE, WPTF, NRDC-UCS supports as secondary/tertiary priority
7.	Ensure LSE procurement responds to evolving demand forecasts (reflecting high electrification, extreme climate impacts, and load migration among LSEs).	• Calpine	• SDGE, WPTF, NRDC-UCS supports as secondary/tertiary priority
8.	Ensure reasonable competition for both supply- and demand-side procurement solutions to fill long-term needs.	• Calpine	 SDGE, WPTF, NRDC-UCS support as secondary/tertiary priority
9.	Ensure existing resources persist and new resources get built such that reliability can be predictably maintained.	• SDGE, WPTF	 NRDC-UCS supports as secondary/tertiary priority
10.	Allow for some resource-specific procurement action to occur in parallel with the program (e.g., central procurement of large and/or long lead-time resources).	• SDGE	 WPTF, NRDC-UCS supports as a secondary/tertiary objective
11.	Co-optimize transmission planning with procurement.	• CAISO, LSA, CEERT	 SDGE, WPTF, NRDC-UCS support as secondary/tertiary priority
12.	Recognize retail choice and allocate requirements and costs fairly.	• Calpine	• SDGE, WPTF, NRDC-UCS support as secondary/tertiary priority
13.	Mitigate risks of market power.	• Calpine	 SDGE, WPTF, NRDC-UCS support as secondary/tertiary priority IEP disagrees that this needs to be a program objective
14.	Fulfill the relevant objectives of the Environmental and Social Justice Action Plan.	• Calpine, SDGE, WPTF	 NRDC-UCS support as secondary/tertiary priority IEP contends that this objective is not critical because

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Objective	Support as Priority	Supports other tiering or recommends deprioritizing*
		electricity generation is less of a contributing factor to air pollution than transportation and buildings are

* Some parties delineated between secondary and tertiary but are combined to ease of reading into the third column here. Unless otherwise indicated, parties supported the objectives overall.

Question 1c: Do you agree with how the four factors motivating the need for a procurement program (reliability, environment, financial risk, and market power) are described in the Appendix and Section 7 of Attachment A? If not, provide an alternative viewpoint with supporting rationale.

<u>Summary</u>: In opening comments, a total of 15 parties responded to the four proposed motivating factors for a procurement program (AReM, CAISO, CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CEJA-SC, GPI, IEP, MRP, SCE, SDGE, WPTF). Parties showed broad agreement with how the SOP described reliability and environment as factors motivating the need for a procurement program. The descriptions of financial risk and market power drew a mixed response. Parties suggested a range of mitigants to those risks, some that could be in scope for a program. Parties identified additional factors that motivate the need for a program: customer affordability, and the risk of individual LSEs' plans being sub-optimal when viewed in aggregate. Reply comments specifically addressing this question were limited to MRP. AReM, CAISO, MRP are unclear whether market power risk is a motivating factor.

	Agree as a motivating factor:	Disagree as a motivating factor:	Comments:
Reliability:	AReM, CalCCA, CalWEA, CEERT, CEJA-SC, GPI, IEP, MRP, SCE, SDGE, WPTF	CASMU	 Consistent with legislative policy objectives (AReM) Appreciates SOP's discussion of reliability, recognizing the effects of capped wholesale energy prices and the resulting need for a stable source of revenue outside the energy markets (MRP) Should design for orderly entry and exit of resources (CEERT) Should have additional detail and refine to consider local reliability too (CEJA-SC) Reliability issues do not justify a procurement program that includes CASMU members (CASMU) New resources are needed for reliability, and a resource-specific approach should be taken in the interim to a full program, and as part of a full program (CAISO)
Environment:	AReM, CalCCA,	CASMU	Consistent with legislative policy objectives (AReM)Should have additional detail and refine to consider air quality and

	Agree as a motivating factor:	Disagree as a motivating factor:	Comments:
	CalWEA, CEERT, CEJA-SC, GPI, IEP, SCE, SDGE, WPTF		 equity too (CEJA-SC) PS and CARB emissions reduction policies are sufficient for meeting state goals (CASMU)
Financial Risk (also see Q6a):	CalWEA, CEERT, CEJA-SC, GPI, SCE, SDGE, WPTF	AReM, CalCCA, CalPA, CASMU, IEP)	 Agrees but does not see this as a central consideration to program design (CEERT) CPUC has not demonstrated there is a problem with current hedging by ESPs, mandating specific hedging would be detrimental to direct access (DA) customers, and if an ESP stops operating its customers can choose a different ESP or be placed on transitional bundled service, with no impact on ratepayers (AReM) POLR proceeding is already considering how the POLR meets reliability and GHG-reduction targets (CalCCA) CASMU members face different financial risks to other LSEs; they serve as the POLR and do not face competition from CCAS and ESPs; financial risks are not a justification for the RCPPP (CASMU) Should address financial risk in the POLR proceeding, not in IRP, to avoid redundancy and inconsistent outcomes in each proceeding (CalPA, IEP)
Market Power Risk (also see Q6b):	CalWEA, CEERT, CEJA-SC, GPI, SCE, SDGE	CalCCA, Calpine, IEP, WPTF	 Agrees but does not see this as a central consideration to program design (CEERT) Recommends that reliability compliance does not have to stipulate either capacity or energy procurement requirements, and can include both (GPI) Most LSEs are substantially hedged (Calpine) CPUC's view of the appropriate amount of risk an LSE should take should not supersede the CCA's view (CalCCA) Risks do not apply to CASMU members as they are not part of the RA program (CASMU) SOP conflates scarcity pricing and market power (IEP) CPUC has not evaluated market power concentration or proposed mitigants (IEP) Concern about potential exercise of market power in the CAISO should be directed to the CAISO (WPTF) SOP is vague about market power risk and does not show evidence; best handled in RA and RPS proceedings, and via CAISO initiatives (AReM)

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Agree as a motivating factor:	Disagree as a motivating factor:	Comments:
		 DMM has assessed the CAISO energy markets have been competitive at a system level since the early 2000s, due in part to long-term bilateral contracting and processes (CAISO) Scarcity and market power may both increase prices, but they are not the same dynamic (MRP)
		 Reply comments: agree with CAISO (MRP)

Comments on ways to mitigate market power:

- Clarifies the SOP's reference to the RA Availability Incentive Mechanism (RAIM)- it is not a market power mitigation tool, but an incentive mechanism to encourage bidding during hours of system need (CAISO)
- SOP fails to recognize CAISO's local market power mitigation process (CAISO, SCE)
- CPUC should ensure sufficient long-term contracting of physical resources, and consider pairing that with contracts that provide for or are supplemented by energy hedging (CAISO)
- Should not duplicate existing requirements; IOUs are already subject to existing guidelines and risk management strategies through approval of their Bundled Procurement Plans, as the SOP recognizes (SCE)
- RCPPP will likely encourage procurement of firmer resources, and RPS and SB 100 requirements require LSEs to procure energy (Calpine)
- Market power should be monitored by CAISO and CPUC (CEERT)
- Should acknowledge that compliance requirements can also create market power (GPI)
- Add buffer to the amount of capacity it requires LSEs to procure (IEP)
- Include flexibility in the procurement and compliance and enforcement process can help to mitigate the market power of developers (SCE)
- Reply comment: Even if market power was a problem, market power in the capacity market is best addressed by healthy competition for new entry, including new transmission entry, as may be needed in some constrained local areas (MRP)

Comments on additional motivating factors that should be included:

- Customer affordability Should modify the motivating factors for a procurement program to include reliability, environment, and customer affordability. (CalCCA)
- Market failure the sum of individual LSE plans is likely to produce sub-optimal procurement for the overall system (CalWEA)
- Resource specific procurement- CPUC-reported procurement progress shows that LSEs are not on track for resource mix in the PSP, with specific impacts for wind development. Should require resource-specific procurement (CalWEA)

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Question 1d: Do you agree that a new procurement program is needed? If not, explain why.

Summary: In opening comments, a total of 25 parties commented on whether a new procurement was needed (ACP, AReM, Avangrid, CAISO, CalCCA, CalPA, Calpine, CalWEA, CEERT, DG, EDF, GHC, GPI, IEP, LSA, Mainspring, MRP PGE, SCE, SDGE, TURN, WPTF, CEJA-SC, NRDC-UCS, Shell). Parties showed almost unanimous support for a programmatic approach to procurement, with broad support for it to be via a new procurement program (ACP, Avangrid, CAISO, CalCCA, CalPA, CalWEA, CEERT, CEJA-SC, DG, EDF, GPI, IEP, LSA, Mainspring, MRPR, NRDC-UCS, PGE, SCE, SDGE). Two parties oppose creating a new program (AReM and CASMU), with AReM supporting a programmatic approach but arguing that it can be done via modifications to existing programs. WPTF is not sure whether a new program is needed but is supportive of the CPUC developing "a more orderly approach to the mid-and long-term procurement of system reliability and clean energy resources." No replies specifically addressed this question.

In support of a new procurement program:	 Supports a program, but suggests that the CPUC should provide explanation for what it is trying to accomplish beyond the flawed order-by-order approach as procurement program will not fix interconnection issues and supply chain delays (Avangrid) Program should be created and account for LLT resources, other complex procurement needs, and transmission development expansion (ACP, Avangrid, CAISO) Multiple parties urge that the program should better align IRP's planning and procurement tracks (CalWEA, SDGE, SCE). Supports requiring procurement in realization of the PSP's optimal portfolio (CalWEA) Support a program that more clearly links the two tracks (SCE, SDGE) Procurement program should address how existing/baseline resources will be procured (DG) Program that is predictable, transparent, streamlines procurement into fewer proceedings, and orderly, is beneficial for entities (Mainspring, MRP) Supports a new program with a separate track to support medium- and long-term procurement from fossil-fueled generation (DG) Supports program that clears up regulatory uncertainty existing for whether certain resources can count towards procurement obligations, like hydrogen (DG) Support of a new program, with opinions on how it is designed: Supportive of routinizing procurement, endorsing an alternative option in their comments. See Appendix – Parties' Options for more. (CalCCA) Should design with recognition of the statutory requirement to give CCAs flexibility to procure generation, per PU Code 366.2(a)(5) (CalCCA) Mechanisms may be needed for resource-specific procurement (CAISO) Program should not become too prescriptive, and should allow for diverse procurement in terms contract length and resource types; it should support proactive procurement, and should be adaptable to changing conditions (GPI) Can be done with incremental changes to existing state processes (LSA)
Arguments opposed to a	 RA/RPS programs can be modified instead of creating an entirely new program (AReM) A procurement program is not needed for CASMU members (Bear Valley, Liberty, PacifiCorp), who were already not subject to previous IRP procurement orders. A new program would be

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new	administratively and cost-burdensome. (CASMU)
procurement	
program:	

Question 1e: Should the program be designed to drive resource attribute-focused procurement by all LSEs, or should it also be able to deliver some form of centralized, resource-specific procurement (e.g., large-scale and/or long lead-time resources)? Explain your reasoning.

<u>Summary</u>: In opening comments, parties are mixed on the threshold question whether procurement should be based upon resource attributes versus specific types, like long lead-time (LLT) resources (ACP, AReM, Avangrid, CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CEJA-SC, CESA, EDF, Fervo, GHC, GPI, Hydrostor, IEP, LSA, Mainspring, MRP, NRDC-UCS, PGE, RWE, SCE, SDGE, Shell, TURN, WPTF). Reply comments revealed no real changes in party positions.

Arguments:	In support:	In opposition:
Attribute- based procurement:	 Attribute focused procurement is the most economically efficient. (CESA, SCE, Shell) Fosters competition among resources. (IEP, Shell) Allows LSEs to choose the resources that best meet their needs. (IEP) Encourages innovation and helps project developers understand what the market needs. (SDGE) 	
Centralized resource- specific procurement:	 Risk that LSEs will over-procure cheap, intermittent resources like utility-scale solar, and not invest in expensive, long-lead time resources like clean firm power and offshore wind. (EDF) Procurement framework should appropriately value the special needs of large-scale and long lead-time resources. (Hydrostor) A long-term procurement program is most likely to result in the optimal portfolio adopted by the Commission. (CalWEA) California should procure resources that will contribute its share of western resource adequacy for the purpose of supporting regional markets and sharing programs. (Avangrid) LLT development would be ordered from specific resource types that are tied to the PSP. This structure requires no change in existing law and could be implemented in 2023, thereby providing 	 Resource-specific procurement should not be a policy objective by itself unless the legislature requires specific technologies. (AReM) California statutes recognize that CCAs retain maximum flexibility to procure generation to service their respective communities. (CalCCA) Any centralized, resource-specific procurement mandate would likely be incredibly complex and difficult to implement. (CASMU) Procurement is a core function of serving load and LSEs should be required to self-provide. One exception is local capacity requirement needs. (SCE) The rollout of the Central Procurement Framework for the Local RA Program suggests that

Arguments:	In support:	In opposition:
	 contract certainty to LLT developers in 2024. (ACP) The CPUC must develop a clear and predictable process for LLT resource development as a core component of a holistic procurement structure, timeline should be established in this proceeding to adopt a LLT resource procurement plan into the next IRP procurement cycle. 	 expanding the role of CPEs is likely to give rise to new complexities and additional risks that may outweigh any anticipated benefits. The Commission should pursue having a state-wide entity stood up for that role. (WPTF) The RCPPP should not necessarily use a CPE to procure a predetermined amount of these resources; a direct command and control procurement approach may lead to more expensive procurement. (NRDC-UCS) In replies Shell argues that IOUs should not constitute the only option for a CPE; CPUC should develop a process where other creditworthy entities could bid for the role, whether for backstop or any other purpose.
Middle road, emphasizing flexibility/ Exceptions for certain technologies:	 NRDC-UCS suggests the program should have two components, the first to drive resource attribute-focused procurement by all LSEs and the second component to drive procurement for those specific resources that aren't likely to be developed via attribute-focused market signals alone. CAISO notes that flexibility is needed to address exceptions to the programmatic approach and allow procurement of specific resources. PGE recognizes that centralized procurement of specific technology types may be needed but should be pursued on a case-by-case basis for the foreseeable future. LSA states that the program should be designed to both drive resource attribute-focused procurement if needed to achieve IRP goals. Fervo, MRP CEJA-SC favor including both procurement of the Commission mandates specific LLT resources (like offshore wind) with the expectation of lower future costs. MRP recognizes that centralized procurement for certain technologies may make sense when economies of scale provide value for customers because individual LSEs may not have the ability to procure such large projects by themselves. 	

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Arguments:	In support:	In opposition:
	 GHC recognizes it is necessary that any procurement framework allows for some degree of resource-specific procurement that can promote resource diversity, direct the development of firm, clean assets, and incentivize LSEs to, individually or jointly, pursue innovative, large-scale, and long lead time projects. AReM states that the Commission may order procurement of specific LLT resource types, but only when such LLT resources are clearly beneficial to the system, and not just the result of capacity modeling which may be flawed. PGE reiterated that specific resource type procurements (e.g., offshore wind) may need to be conducted in a centralized manner. 	

2. Fundamental Program Elements & Additional Design Features

Question 2: The "fundamental program elements" and "additional design features" introduced in Section 4 of Attachment A build on concepts detailed in the November 2020 Staff Proposal for a Procurement Framework in IRP. Comment on their general suitability for discussing potential procurement program designs.

<u>Summary</u>: In opening comments, 23 parties provided comments on the suitability of the fundamental program elements and additional design features for potential procurement program designs (ACP, AReM, Avangrid, CAISO, CalCCA, CalPA, Calpine, CalWEA, CASMU, CCDC, CEERT, CEJA-SC, CESA, DG, GHC, IEP, Mainspring, MRP, PGE, SBUA, SCE, SDGE, SEIA), with most parties supporting the fundamental design elements. Most parties agreed with the four "fundamental program elements" and some offered specific comments regarding those elements. Parties were more divided on which "additional design features" would be beneficial to the procurement program. No replies specifically addressed this question. AReM and IEP suggested that the program should focus only on the need determination, leaving need allocation, compliance, and enforcement to the RA and RPS programs. Calpine and CEERT stated they supported all additional design elements.

Responses on timing of forward contracting [see Question 4c for further address]:

• CalCCA supports only 3-year forward procurement requirements with years 4-10 as informational.

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- CalPA supports a 50-60% showing 3 years forward for the procurement program, with a 2-year forward requirement of 60-70% added to the RA program.
- DG does not support mid-to-long-term contracting.

Design Element Recommendations:	Comments:
Procurement subcategories:	 Support for procurement subcategories to require resource types (such as LLT) procurement (Avangrid, CCDC, CESA, GHC) Support for procurement subcategories to require local procurement (CAISO, CEJA-SC) Define minimum needed attributes (not technology types) (MRP) Could have merit – tradeoff between reliability and complexity (SBUA) Avoid being overly prescriptive about resource type (SCE) Opposition to any procurement subcategories (CalCCA)
Manage differences between forward contracting and the real-time energy market:	 Agree and add day-ahead and real-time markets both inside and outside of CAISO (CAISO) Can instead address by only requiring procurement 3 years ahead (CalCCA) Focus on significant clean energy procurement in near-term (CEJA-SC)
Require central auction or standard offer processes:	 Supports the concept for specific resources including LLTs if found to be necessary by the IRP process or mandated by legislation (AReM) Likely to be unclear/ complex (CalCCA) Centralized resource specific procurement such as for CHP (CCDC) Oppose (CEJA-SC, DG, Mainspring)
Load migration:	 Agree (CAISO) Can instead address by not requiring procurement too far ahead of need (CalCCA) Can instead address in RA program (SBUA)
Risk mitigation strategies:	 Require procurement to occur far ahead of need (CAISO) Compliance in RA program and routine target setting (CalCCA) Require hedging (CEJA-SC)

3. November 2020 Staff Proposal for Procurement Framework in IRP

Question 3: Comment on any content in the November 2020 Staff Proposal for a Procurement Framework in IRP that you think is particularly relevant to developing a programmatic approach to procurement now, especially if it was not included in Attachment A.

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<u>Summary</u>: In opening comments, 11 parties highlighted various aspects of the November 2020 Staff Proposal that they found missing in the RCPPP SOP (AReM, Avangrid, CalPA, Calpine, CalWEA, CASMU, EDF, SCE, SDGE, SEIA, CEJA-SC). No replies specifically addressed this question. AReM was the only party to strongly disagree with the statement that the IRP process must ensure resource development to meet reliability goals.

General feedback:

- Objectives for establishing the IRP procurement program should also include the following guiding principle set forth in the November 20 Staff Proposal: "Broad Direction CPUC should direct procurement broadly and defer to LSEs for the soliciting, negotiating, and contracting of specific resources." (SCE)
- Criteria for evaluating options for the RCPPP should include effectiveness and technical and administrative feasibility, per the November 2020 Staff Proposal (SCE)
- All elements of the November 2020 Staff Proposal are relevant to the RCPPP, but the SOP only includes some and introduces new options that are inferior; Energy Division should issue an updated SOP that incorporates feedback from the current round of comments and more effectively ties to the 2020 Staff Proposal (SDGE)

Features of November 2020 Staff Proposal deemed particularly relevant to developing the RCPPP:

- Distinction between routine and non-routine procurement refer to Q4 for proposed solution (Avangrid)
- Resource-specific procurement cautions against addressing offshore wind or resource diversity separately from the RCPPP (CalWEA)
- LLT need determination if sensitivity analysis is performed re LLTs it should be conducted in the IRP proceeding. RCPPP should also make use of the "enabling actions" to support need determination: viability factors for planned resources, time estimates for procurement, incorporate need determination into IRP filing requirements, align I&A across IRP and RA, and establish a permitting pre-assessment process for resources needing new transmission. (SEIA)
- Transmission –RCPPP should incorporate the articulation of transmission challenges and recommendations (EDF)
- Linkage to planning track procurement should be included in baseline once it is ordered (SCE)
- Reliability need determination SOP ignores bottom-up and top-down approaches and presents entirely new options. See recommended process in response to Q13 (SDGE)
- Procurement orders SOP does not explain what will replace Commission orders authorizing procurement, which are key to enabling recovery of procurement costs by the IOUs (SDGE)
- Approval RCPPP should include the common resource valuation method (CRVM) to account for the cost of carbon and other pollution across resource types; applications rather than ALs should be used by IOUs for larger, significant resources and any combustion resource. CCAs and ESPs should be required to report on outreach efforts to ensure public input. (CEJA-SC)

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- Compliance SOP goes beyond the 2020 Staff Proposal's focus on monitoring resource procurement by posing backward-looking compliance and enforcement of actual GHG emissions (SDGE)
- IRP and RA alignment weak alignment should be addressed (SCE)

Gaps in the November 2020 Staff Proposal that need addressing:

- How to address the causer-pays principle in IRP procurement; PU Code 397(a) arising from AB 1584 - requires Commission to take into account each LSE's load and resource portfolio; particularly relevant if an LSE procures above and beyond their share of incremental resources to meet an IRP order, and re POUs; CPUC-jurisdictional LSEs should not plan and procure for the retirement of resources serving POUs (CalPA)
- Unique LSE attributes and characteristics; one-size-fits-all approach unlikely to work (CASMU)

4. Designing for Reliability

Question 4: Comment on each of the fundamental program elements and features described in Section 5 of Attachment A on Designing for Reliability. Is the range of options for each design element or feature appropriate? Explain your rationale.

<u>Summary</u>: Some parties provided broad feedback that the range of design options for reliability are appropriate (ACP, Avangrid, Calpine, GPI, SCE, NRDC-UCS). No party broadly opposed the range of options. Avangrid suggested a two-track approach, one addressing "routine" resource types and the other, "non-routine". Within the non-routine track, Avangrid suggests the CPUC should lead a process for defining an appropriate program that establishes a procurement entity and mechanism as well as cost allocation methodology and bid evaluation processes and pointed to specific sources and precedents for this. Avangrid's other comments are summarized in the following sections as applicable.

4a: Need Determination

<u>Summary</u>: In opening comments, parties strongly support use of loss-of-load probability (LOLP) modeling to determine the need for reliability procurement (ACP, AReM, CAISO, CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CESA, DG, EDF, Fervo, GHC, GPI, IEP, LSA, MRP, PGE, SBUA, SCE, SDGE, SEIA, WPTF, CEJA-SC, NRDC-UCS, Shell). They differ in their views on whether ELCCs or the slice of day approach should be used, although it was not clear whether supporters of either were focusing on the later topic of compliance (see 4c below) rather than need determination. Parties are split on whether the scope of the program should be all resources, new only, or new with partial coverage of existing. CAISO and CEJA-SC placed significant emphasis on including local procurement requirements. No parties oppose LOLP-based approaches; supporters of the slice of day approach see that as a hybrid deterministic and probabilistic approach, and therefore support use of LOLP modeling as part of it. SBUA proposed a need determination approach they claim would better align with the slice of day approach. There was significant

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interest in this topic in reply comments, including from CAISO, Calpine, CASMU, GHC, GPI, IEP, MRP, PGE, SBUA, and Shell.

Need Determination:	In support:	Opposed to:
Loss-of-load probability (LOLP)-based:	 Rigorous, industry standard (AReM, CAISO, CEERT, SEIA) With routine update, perhaps annual (CEERT) Alignment with IRP planning track modeling (SEIA) Deterministic stack analysis is insufficient to capture total resource need (AReM) Stack analysis relies on assessment of portfolio made in 2004 (CAISO) Note general support from LSA, MRP, NRDC-UCS, PGE, SCE, SDGE, WPTF 	
Slice-of-Day Approach (SOD):	 More accurate (CalWEA, SCE) Aligns with RA program (CalWEA, GPI, SCE, SDGE) In current dynamic circumstances can no longer focus only on capacity need to meet peak demand; higher granularity load profiles are better suited to consider resource mix associated with load alignment, emerging tech, and market forces; also better for bottom-up portfolio development at the LSE level (GPI) Reply comment: Several parties including SCE seem to conflate reliability assessments with resource counting methodologies (CAISO) 	 Not comprehensive across all hours; only assesses a single, peak load day each month (CAISO) Long duration storage and geothermal may not be reasonably valued (SBUA) Is only a compliance tool (CAISO) Note CalCCA recommend starting with ELCCs and then assessing the RA slice of day approach

Comments on Need Determination Approach:

Comments on Expression of Reliability Need:

- Should be in capacity terms (AReM, CAISO, LSA, SDGE, WPTF):
 - o "Firm energy" would unnecessarily create a new product/s (AReM, WPTF)
 - Energy-based framework would require analysis and agreement on definitions (AReM, SDGE)
 - Note CAISO distinguish between "effective capacity" and "perfect capacity", favoring the former seemingly for being more realistic, even though the SOP uses them synonymously
- Should also be in firm energy terms, to support change in electric sector, and to establish a compliance basis for forward capacity-only, energy only, and capacity plus energy contracts (GPI)

Scope of Program/Procurement Need:

Arguments:	Comments:
Scope being all resources (existing and	 Economic efficiency, avoid distorting market signals for entry and exit (CEERT, DG, SDGE, WPTF) In replies MRP and Shell showed support

Arguments:	Comments:
new):	• Necessary for procuring effectively; provides for holistic, intentional consideration of the role of existing thermal resources (CAISO, Calpine, EDF, IEP)
	• Retention of existing viable clean resources (SEIA)
	• Sends signal for modification or repowering of existing resources (ACP, GPI)
	• Avoids need allocation equity issues (IEP)
	• New only would create persistent issue of establishing a baseline resource vintage (DG, GPI, IEP, SDGE)
	• In replies, MRP and Shell agree
	• No new IRP program is necessary; continue scope of RA and RPS being all resources (AReM, CASMU)
	• In replies, CAISO doesn't oppose multi-year RA per se, but failing to consider existing and new procurement under a single IRP program would be a significant lost opportunity to optimize and streamline procurement
	• In replies, CASMU notes all resources are already party of PacifiCorp's IRP methodology, which must be considered in any new program
	• In replies, PGE generally agrees with AReM that a multi-year RA program will incentivize both new and existing resources, but recommends the CPUC could supplement it with LSE-specific procurement orders in the IRP proceeding
	• Described an iterative process as existing contract commitments expire to implement this scope/approach (CEERT)
	• Can allow for direct competition between new and existing by removing resources from the baseline for the period post contract expiry while equally valuing new and existing resources to meet need. Prioritize regular and consistent procurement of new resources (LSA)
Scope being new resources only:	 Provide assurance that necessary new resources will come online (CESA, GHC, SCE) Existing resource retention is an issue, but it can be considered later in the IRP procurement track – potential options include extending system RA requirements to multi-year, a new IRP mechanism to maintain a targeted quantity of dispatchable resources, and use of existing CAISO mechanisms (SCE)
	• In replies, EDF pushes back on need to provide assurance that new resources will come online, arguing there are not enough existing resources that LSEs can use to satisfy reliability and GHG requirements
	• Should clarify how hybridization or repowering of existing projects using storage would be treated (CESA)
	• In replies GHC agrees
	• Risk of inequities between LSEs, since some will be able to meet all their need with existing resources (SCE)
	• In replies MRP questions this, but regardless, argues that robustly enforcing reliability and GHG-reduction requirements would be the proper antidote to LSEs leaning on existing resources
	• Alleviate market power risks (CalPA)
	• Mitigate risk of resource shuffling (CalPA)
	Avoid duplicating RA program (NRDC-UCS)
	• Described a base measure to plan for thermal retirements e.g., 40 year, to address existing resource retention while having a new-only scope (CalPA)
Requiring new	• Support: Include a carve-out for new resources in order to ensure new resources come online

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Arguments:	Comments:	
resources, with partial coverage of existing:	 (CAISO, SBUA) Neutral: Concerned that too large of a carve-out for new resources or any one technology may undermine the benefits of including existing resources and maintaining technology neutrality (Calpine) If allow existing, should limit it to variable energy resources, RPS compliant resources, and essential thermal assets that can switch fuels to a green hydrogen blend (GHC) 	
	 Oppose: No evidence that any LSE would hold a long-term advantage in securing low-cost resources, and unclear how total reliability need could be met (IEP) CEJA-SC states that procurement should target new resources, but analysis informing procurement requirements should include existing resources 	
Need for specific resource types:	 Account for both reliability and GHG-reduction and identify the specific "non-routine resources" that should be procured separately from the "routine" resources; quantify both in NQC; this keeps space for non-routine resources and avoids over-procurement of routine resources (Avangrid) Consider adjustments to the desired portfolio to mitigate risk, e.g., adjust to gain more resource diversity (CalWEA) 	

Other comments:

- Program could determine need for clean capacity, regardless of whether new or existing (CalCCA, WPTF)
- Local procurement needs should be addressed by program (CAISO, CEJA-SC). See Q10 below for a comprehensive summary of parties' comments regarding local reliability.
- Visibility of likely procurement need in long-term is important, even if showings are only required for ~ 5 years ahead (ACP)
- Reliability elements of program must be able to handle a winter renewable drought (Fervo)
- Should consider existing and developing regional markets and efforts, such as the CAISO's Extended Day Ahead Market proposal, and the Western Resource Adequacy Program (Shell)
- How to use LOLP-based: scenarios that consider climate-induced load and supply uncertainties (PGE)
- How to use slice of day: update on annual, biennial or compliance period basis (GPI); using 12 monthly periods might be unnecessary (SBUA); a slice of day-light approach using annual peak hours, or seasonal peak hours may avoid being overly burdensome for the IRP time horizon, but needs a robust stakeholder process to consider (SDGE)

4b: Need Allocation

<u>Summary</u>: LSEs broadly agree that the method used for need allocation will depend on what resource counting rule is used (AREM, CalCCA, CALWEA, CASMU, CEERT, CEJA-SC, CESA, EDF, GHC, GPI, LSA, MRP, NRDC, UCS, SDGE, WPTF). Parties responded to whether slice-of-day (SOD), net peak load,

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or gross/managed peak share would be the best need allocation method without any consensus. There were various opinions on the frequency of need allocation updates, with GPI suggesting this decision be assessed once elements of the IRP program structure become more defined (e.g., filing and compliance periods).

Need Allocation Approach:	Arguments for approach:	Arguments against approach:
Slice-of-Day (SOD):	 Promotes transparency and consistency with the RA program (AReM, LSA) If adopted, then like in RA, LSEs should be required to meet a slice of system demand using the LSE's own load shape Fulfills AB 1584's requirement for causation-based procurement because allocation is based on each LSE's load shape and the requirement can be met with LSE's own resources (CalWEA) The alternative of basing need allocation on a single hour does not fully account for the energy needs of each LSE's portfolio (CEERT) No reason provided (GPI) 	 The framework is incomplete and untested and therefore it is unclear how it would align with the IRP proceeding's needs to ensure reliability in the long term (MRP) The SOD methodology attempts to solve the problems of the other need allocation approaches and may be the best option for need allocation to each LSE, but it is still in development and so is not yet ready for adoption (SDGE)
Net Peak Load:	 Responsive to the evolving nature of the load shape and the shifting of the hours of reliability concern (CESA) Aligns obligations with the hours of greatest system stress (WPTF) Accounts for the shift of resource-constrained periods to the evening hours, but should only be adopted if SOP is not used (LSA) No reason provided (GHC, NRDC-UCS) 	 Not necessary when using a marginal ELCC-based approach and doing so would create inconsistencies between IRP and RA programs (MRP) As net peak load decreases due to battery storage penetration and the net load duration increases, the net peak load becomes harder to satisfy using 4-hour storage, decreasing the effectiveness and ELCC value of 4-hour storage (SDGE) Could be addressed by incorporating net load duration to ensure fair allocation, but this could be too complicated
Gross or Managed Peak Share:	• Simple approach that is preferable to trying to develop more complex methods based on potentially manipulatable factors (MRP)	• Inappropriately allocates too much procurement to LSEs that have a high system load but low net load (SDGE)

Comments on Need Allocation Approach:

Frequency of Need Allocation Updates:

• Annual updates to account for shifts in load and resource mix may be needed if annual compliance showings are required (CEERT)

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• Supports updating need allocations every two years, in alignment with the IEPR process and the resulting load forecasts (IEP)

General comments:

- Consider LSE contract position when assigning need allocation so as not to punish early procurers (CalCCA, NRDC-UCS)
 - Do so by allowing LSEs to use existing and new clean capacity (CalCCA)
- Need allocation on a compliance period basis would balance modeling effort and compliance period predictability with the benefits of updating need based on ongoing system changes (GPI)
- For any centralized procurement, consider need allocation ex-post based on realized load (Calpine)
- Each LSE should be assigned a share of the exact PSP resource mix. If this approach is not adopted, the CPUC could (CalWEA):
 - Allow LSEs to make limited adjustments to their share of the PSP resource mix with guardrails/attribute requirements to ensure that they do not stray too far from their required resource mix; or
 - Replace resource-specific requirements for each LSE except for offshore wind with an evening peak delivery requirement that must be satisfied with renewable energy resources, not storage, to provide procurement flexibility and protect against over-reliance on storage
- Any need allocation based on RA year-ahead and IEPR forecasts are inappropriate for CASMU members because (CASMU):
 - RA requirements do not apply to the CASMU members;
 - Liberty and PacifiCorp operate outside of the CAISO;
 - The IEPR is largely focused on the CAISO system and is not tailored to address the service territories/balancing authorities of PacifiCorp and Liberty; and
 - CASMU members to provide demand forecasts or other information to the CEC for IEPR development because their annual peak demands are less than 200 MW
- LSEs should be able to buy and sell surplus capacity and energy to manage load migration (MRP)
- BTM resources should not be considered on the supply-side because they can't be controlled or dispatched by CAISO to meet reliability needs (MRP)
- The program should properly account for procurement of demand-side and BTM resource (CEJA-SC)
- IRP and RA modeling should account for ambient derates, forced outages, and fuel supply limitations during times of peak demand to reflect the reliability challenges of thermal units (EDF)
- Any need allocation to LSEs should occur in RA and RPS programs (Shell, IEP)
- Depending on the procurement entity and how costs and benefits are allocated across LSEs, there may also be necessary adjustments in need allocation under the routine procurement track after the Commission has established the non-routine program (Avangrid)

4c: Compliance

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<u>Summary</u>: In opening comments parties expressed a range of preferences for resource counting, closely connecting this to the topics of program scope and need allocation discussed in 4a and 4b above (ACP, AReM, CAISO, CalCCA, CalPA, CalWEA, CASMU, CEERT, CEJA-SC, CESA, EDF, GHC, GPI, IEP, LSA, Mainspring, MRP, NRDC-UCS, SCE, SDGE, Shell, WPTF). Comments show broad support for a multi-year forward contracting requirement being necessary for new reliability resource development. CAISO, CASMU, and CEERT all support streamlining compliance filings. Reply comments included ACP-CA, AReM, CAISO, CalCCA, CalPA, CalWEA, CEERT, CESA, Fervo, GPI, IEP, MRP, PGE, SCE, SEIA). Many reply comments reiterated their positions from opening comments.

Resource Counting Framework:	Comments:
ELCC	 Should use ELCCs – unclear about preference between marginal and average (CalCCA) Consider eventually transitioning to slice of day once it has been tested and there is evidence of need for it in IRP, which serves different purpose to RA Should use marginal ELCCs (ACP, CalPA, Calpine, CESA, GHC, IEP, MRP, NRDC-UCS, WPTF) Well-understood; consistent with RFPs already being used for MTR (ACP) Aligns with the other major output of IRP: transmission planning, since the CAISO "allocates transmission deliverability through an ELCC lens" (ACP) Economic efficiency: not yet convinced the slice of day framework is ready for IRP (CESA) Aligns with need allocation based on net peaks, and captures interactive effects between resources (GHC, NRDC-UCS) Consistent with program scope and need determination being for new only (CalPA) Conceptually supports but more discussion needed on how these would be implemented (WPTF) Vintaged marginal ELCCs would encourage resource diversity and reward first movers (CESA, GHC) Reply: marginal ELCC framework is preferrable to the slice-of-day approach as it sends more accurate signals for reliability-focused procurement (Calpine) CASMU is opposed to its members having new procurement obligations, but if a program is adopted, CASMU opposes marginal ELCCs because they perceive them to not align with CASMU members' winter peaks Average ELCCs are economically inefficient (SDGE). Has previously supported vintaged marginal ELCCs for each resource type for each vintage would be an extremely resource-intensive undertaking (EP). Marginal is better than average despite marginal not appropriately crediting the reliability contributions of past procurement (IEP) Reply: Marginal ELCC is better equipped than SOD at accounting for the correlated reliability value of resources on the system. Marginal ELCC offers a single qualifying capacity value that can be easily
	• Should use average ELCCs, as well as marginal, to some extent (CAISO, CalPA)

Resource Counting Framework:	Comments:
	 Marginal would undervalue existing resources. Propose two step approach, whereby marginal ELCCs inform new resource procurement but average ELCCs are used for assessing compliance. (CAISO) Reply: Should use a hybrid of marginal and average ELCCs if allow existing resources to count (CaIPA) Reply: Concerns about different ELCC values for otherwise identical new and existing resources could be mitigated by limiting the resource's ELCC value to the term of its initial contract with any LSE (Fervo) Superior to ELCC-based counting (CEIA-SC_GPL SCE_SEIA)
Slice-of-day (SOD)	 Superior to ELCC-based counting (CE)A-SC, GPI, SCE, SEIA) ELCCs are too reliant on assumptions about resource mix, impacting their accuracy and stability (SCE) Modeling for ELCCs is complicated (SCE) Perceives that annual ELCC values do not reflect the resources' hourly contribution to reliability, and do not ensure energy sufficiency for storage (SCE) IRP program needs increased granularity than ELCCs allow (GPI) Perceives that slice of day better accounts for the system's capacity and energy needs (CE]A-SC) Reply: SCE's concerns are valid but would also apply to the slice of day approach; under ELCCs or slice of day, a fundamental issue is whether procurement will deviate from the analyzed portfolio (CAISO) Reply: LSEs will be using SOD to show compliance with RA requirements for the coming year. An important simplification for LSEs to be able to use the same framework to show that their long-term procurement plans also will result in a reliable electric system (SEIA) Supports 24-hour RA framework as simultaneously serving both long-term goals of reliability and GHG-reduction while only requiring one compliance framework (CalWEA, CEERT) Ensures reliability, as it eliminates the existing inconsistencies of LSEs procuring under one set of rules for IRP compliance and a different set of rules for RA compliance (PGE) Reliability requirement in RA program requires LSEs to show sufficient excess capacity to support batteries' daily dispatch (CEERT) ELCC methodologies are thorough but supports slice of day if it is based on LOLP modeling, for practicality and transparency (LSA) Better aligns IRP with the RA program (CEJA-SC, SCE) Slice of day is part of RA, and no new IRP program is necessary (AReM) Recommends developing and deploying in the first compliance period, alongside an ELCC-based approach in order to evaluate both methods in the IRP proceeding, and in parallel with the RA 2
SFPFCs/ Energy- based Counting System	 Too risky and unproven (EDF, SDGE) Not pursued in RA proceeding and the issues raised then have not been addressed (MRP)

Forward compliance requirement:

- Only up to approximately T+3 years must be under contract to a significant degree; putting compliance requirements for T+4 and beyond would unnecessarily restrict flexibility (CalCCA, GPI, NRDC-UCS)
 - Reply comment: Too many years forward could restrict LSEs' ability to optimize their RA procurement with the most cost-effective resources (CalCCA)
- LSEs should show contracts for T+4 and beyond too (AReM, Avangrid, CAISO, CEERT, PGE, WPTF)
 - Proposes multiyear RA, 100% through T+3 and 60% for T+4 (AReM)
 - Proposes multiyear RA up to T+5, to give LSE incentives to obtain sufficient existing and/or new resources and would offer more predictability and longer-term visibility into any remaining deficiencies (PGE)
 - Local reliability 100% through T+3, with declining but still significant requirement thereafter; system and flexibility capacity through T+3 can be left open for some intra-year contracting; resource-specific LLTs: T+10; non-LLT incremental resources: 100% through T+5, declining from T+6 (CAISO)
 - o 10-year forward requirement is necessary for new resources (CEERT)
 - Routine resources: 15% of T+10 need should be contracted, increasing to 30% of T+7, 75% of T+5, and 100% of T+2; non-routine resources should be contracted starting T+12 for geothermal, with other LLTs starting at a significant percentage under contract at T+10 party provides table with details (Avangrid)
 - 100% through T+5, 50% for T+6 to 10; 25% for T+11 to 15, and 10% for T+16 to 20. Connects the 15- and 20-year forward procurement requirements to SB 887, which directs the CPUC to transmit resource portfolios for study in the TPP for a minimum of 15 years, and the CAISO's plans for a 20-year transmission study. (WPTF)
- Further forward compliance requirement should be tied to the maximum length of time normally required to bring a new resource online, assuming adequate transmission exists (approx. 5 years). If the program's scope includes existing resources, the volume of need covered in T+5 should be set higher than what existing resources could contribute, to drive new resource development. (IEP)
 - In replies, SEIA shows support.
- Before taking action in IRP, first consider whether expanding current procurement venues beyond a T+1 requirement would be sufficient to incentivize new builds (Shell)
- Contract length/duration, as distinct from how many years forward deliveries must start, must be sufficient to attract reasonable financing and offer competitive prices (Mainspring)
- Should use 3-year compliance periods like in RPS (CalCCA, GPI)
- Frequency of compliance filings should be annual (CAISO, GPI)
- Opposes "options that reinvent the wheel for how resources are valued, like the Forward Compliance Requirement" (LSA)
- Reply: CPUC should weigh the additional reliability benefits, if any, from an extended forward obligation, as compared to the adverse impacts they may have, such as inhibiting technological innovation (Shell)

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• Reply: Cal Advocates cautions that SDG&E's and CalCCA's proposal would require a potentially complicated hybrid effective load carrying capability (ELCC) approach to appropriately attribute existing and new resources with their respective effective capacities.

General Comments:

- As much information as possible should be publicly available and accessible (CEJA-SC)
- Disclosure of information including resource location, type, and expected GHG and air quality impacts should be required (CEJA-SC)
- If LSE is deficient in its LSE procurement plan, it should set resource targets within each category of resources with an equivalency factor (ELCC within each category to ensure the overall category target is met (IEP)

4d: Enforcement

<u>Summary</u>: In opening comments, 15 parties commented on the range of options presented for enforcement in the "Designing for Reliability" section (AReM, CAISO, CalCCA, CalWEA, CASMU, CEERT, EDF, GPI, LSA, MRP, SDGE, Shell, TURN, CEJA-SC, NRDC-UCS). While most commenting parties supported enforcement mechanisms for the procurement program including backstop procurement and/or penalties, some parties opposed specific backstop procurement triggers or made other suggestions. In replies, 5 parties commented on proposals raised in opening: CAISO, CASMU, CEERT, IEP, and Shell.

	Comments:
Backstop Procurement	 Support but allow one year grace period before backstop, but Commission should not rely on backstop for reliability need (CAISO) Agree with triggers (CEERT) Trigger at 3-year ahead point (GPI) Enforcement should be far enough ahead to meet need (MRP) CAISO should not be preferred backstop (MRP) Need to identify backstop entities (SDGE) Should consider other CPEs than the IOUs (Shell) Support (TURN, NRDC-UCS) CPE may be appropriate mechanism to backstop procurement for LSEs that fail to achieve procurement requirements (Shell) Pushed back on SCE's comment that existing mechanisms (e.g., RMR) might be appropriate for retaining existing resources for planned reliability needs; program should seek to retain needed resource, including ensuring appropriate compensation (CAISO) Oppose separate reliability enforcement mechanism in IRP – should be multi-year penalty + backstop in RA (AReM). Oppose failure to meet project milestones trigger (AReM) Oppose failure to perform when called trigger (AReM, CAISO, GPI)
Financial	• Support (CAISO, GPI, NRDC-UCS)

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	Comments:
Penalties	 Avoid financial penalties with compound effects. Complementary to RA proceeding with the size of the penalty scaled to the quantity of deficiency and the exact amount kept from the public to prevent market power. Penalties would be enacted once per compliance period. If the LSE can cure the deficiency within the compliance period rather than waiting for the next compliance period, the CPUC should consider a discounted penalty (CalCCA) Support higher than net CONE (CEERT, SDGE) Penalties should be high enough for LSEs to avoid (MRP) Net CONE with multiplier (TURN)
Non-financial Enforcement	 Too extreme, would impact market power, lack statutory authority (CalCCA) Too early – if an individual LSE repeatedly fails, conduct a root cause analysis to decide best approach (GPI)

General comments:

- Proposed 24-hour RA framework would simultaneously serve both long-term goals of reliability and GHG reduction; therefore, only one enforcement framework would be needed (CalWEA)
- May be impossible for CASMU members to meet identical mandates like procuring RA. Allow waivers (CASMU)
- Oppose SFPFCS as unproven and risky (EDF)
- LSA recommends the Commission go further to confirm that "reasonable efforts" should include prioritizing and optimizing the construction of transmission facilities to align with procurement needs identified by this program (LSA)
 - In replies, CASMU agrees with this statement.
- MCAM doesn't consider load migration after backstop is triggered. As SDGE's share of bundled load declines for the region, it will be important to ensure that bundled customers are not unfairly burdened by the administrative and procurement costs associated with backstop procurement. (SDGE)
- Compliance & enforcement (backstop, penalties, etc.) incentivize timely resource procurement vs. Becoming a default alternative for procurement (SCE)
 - In replies, CEERT agrees with this statement.
- Cautious about allowing CPE to decline procurement based on price and forcing the CAISO to fill the gap (CAISO)
- In replies, IEP advocates for monitoring and enforcement of LSE capacity procurement to be handled in RA because it is more efficient, and the program is well-established.

5. Designing for GHG-Reduction

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Question 5: Comment on each of the fundamental program elements and features described in Section 6 of Attachment A on Designing for GHG-Reduction. Is the range of options for each design element appropriate? Explain your rationale.

Avangrid notes their comments on Q4 apply to Q5 too. SCE simply noted that the range of options generally seems appropriate, except that IRP planning and procurement process should allow for DERs to be considered.

5a: Need Determination

<u>Summary</u>: Opening comments focused on assessing the two approaches: energy-based/clean energy standard (CES) and hourly mass-based/clean system power (CSP). Comments were divided in their support for each approach (ACP-CA, AReM, CAISO, CalCCA, CalWEA, CASMU, CEERT, CESA, DG, EDF, Fervo, GHC, GPI, IEP, LSA, Mainspring, NRDC-UCS, SEIA, SDGE, Shell, TURN, WPTF). Replies mainly reiterated opening positions (AReM, CEERT, CESA, GPI, IEP, SEIA, Shell) while some had not clearly responded to this question in opening comments (MRP, PGE, SCE).

Comments	on Need	Determin	ation Ar	pproach:
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	Arguments in support:	Arguments in opposition:
Energy- based/Clean Energy Standard:	 Ease of implementation and compatibility with the RPS program (ACP-CA, AReM, DG, EDF, GPI, IEP, NRDC-UCS, Shell, WPTF) Is consistent with the SB 100 statutory language that enacts a clean energy requirement (AReM) There is an existing RPS structure for compliance and tracking that can be utilized, consistent with PUC 454.53(d)(1) directive to utilize programs authorized under existing statutes (AReM) Easier to understand than a mass-based standard (AReM, DG) SB 1020 requires a CES (IEP) No reason provided (CalCCA) Time-tested (GPI) Required by statute (IEP) Any concerns about what is 	 There is no formal definition of "clean energy" and establishing one would require careful vetting by stakeholders through a transparent public process (CEJA-SC) Certain technology types that might be included like biomass, biogas, natural gas with carbon capture, and hydrogen combustion are neither "clean" nor "zero carbon" (CEJA-SC) California law (SB 350, SB 32, SB 100, SB 1158) requires actual GHG reductions from procurement, with statutory procurement authority couched in the need to achieve in the state's GHG reduction goals (CEJA-SC) While RPS has successfully driven the growth of new renewables, not all stakeholders have been content with relying just on the RPS (as exemplified by the growth of CCAs seeking to exceed the RPS standards). In recent years the RPS goals have been largely superseded in relevance by the direct GHG reduction goals adopted in the IRP (SEIA) Would require substantial work to avoid being counterproductive and would need to be developed in combination with an hourly accounting framework to ensure that LSEs satisfy both annual energy-based CES targets and separate annual GHG targets based on hourly accounting (TURN) Creates risk that LSEs will buy unbundled clean attributes and lean on system power during the net peak

	Arguments in support:	Arguments in opposition:
	 eligible can be decided in the implementation phase (Shell) Arguments that this approach would incentivize over-reliance on solar do not account for curtailment (AReM) Simple (Shell) 	 (TURN) Creates resource shuffling and double counting risks as re-sale of large hydro and nuclear to California LSEs result in secondary fossil dispatch (TURN) Could undercut focus on new resource development by encouraging excessive reliance on existing GHG-free resources under short-term contract (TURN) Potential weakening of IRP/RPS rules that prioritize bundled resources or deliverable requirements for OOS resources (TURN) Reply comments: Would misconstrue GHG emissions of energy storage due to inherently devaluing the time-shifting value of storage that doesn't produce annual energy (CESA) Sympathetic to concerns raised by TURN re resource shuffling – so would support some deliverability requirements - and excessive reliance on existing resources, for which EDF would support long-term contracting requirements (EDF) More temporal granularity in GHG impact of procurement activity should be considered (Fervo)
Hourly Mass- based/Clean System Power:	 A mass-based methodology must be used to comply with SB 350, SB 32, SB 1158, Commission precedent, and air quality and equity requirements (CEJA-SC) Recognizes the varying GHG reduction value of GHG-free generation at different hours throughout the year (Fervo, TURN) LSEs leaning on system power during net peak should be ascribed higher emissions—failure to do so can encourage counter- productive behavior (TURN) Uses the same accounting methodology as the planning track (CEERT, CESA, LSA, SEIA) CESA adds that this is a more efficient and direct way to ensure that LSE procurement aligns with TPP portfolios 	 There is no program to track RECs from an hourly accounting program, which would further delay implementation (AReM) A mass-based approach would increase compliance costs because the product is not fungible (DG) The CSP is a planning tool only that has major flaws that would make it inappropriate for compliance (AReM) There are too many GHG accounting regimes in California already and adding another for RCPP would add complexity (AReM) SB 1158 already directs the CEC to establish an hourly mass-based accounting framework by 2024 with LSE reporting requirements starting in 2028 in a format likely resembling the Power Content Label. Creating a similar CPUC program in parallel would be duplicative (AReM, IEP) Conflicts with existing CPUC requirements that allow multi-state and non-CAISO CASMU members to use their own emissions accounting methodology in IRP (CASMU) A mass-based approach is not well understood or transparent, and could increase compliance costs because the product is not fungible (DG) The CPUC considered and rejected mass-based targets in a mid-2000s proceeding that considered a load-based

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Argume	nts in support:	Arguments in opposition:
 Morrest the exprosed of the exprosed of the exprosed of the expression of t	e accurate assessment of emissions impact of surement (CESA, Fervo, C, SDGE, SEIA) re is no scenario in th LSEs do not meet an /CES while also meeting GHG target, but it is ible that an LSE meets RPS/CES and falls short eir GHG obligations SA) e easily enables ideration of green ogen blending (GHC) t consistent with ttory requirements ERT) cture is in place with IRP A) all stakeholders are ent with relying just on (SEIA) e equitable among LSEs. s could divergently ply with CES but have different GHG impacts. E)	 cap-and-trade program (IEP) There's no need to track hourly emissions because the warming impact of GHGs are cumulative—what matters are emissions over a year or multi-year period (IEP) The complexity of hourly tracking will likely add costs and make it difficult for emerging technologies to participate in a procurement program (Mainspring) Uncertain due to reliance on forecast assumptions (GPI) Would require entirely new accounting and tracking system (GPI) False precision (GPI) NOT required by statute, as erroneously suggested by other parties, nor is it shown how parties could comply with GHG without complying with CES (IEP) Parties that support GHG/hourly have not fully justified the benefits and a MWh of clean energy will displace a MWh of GHG-emitting energy somewhere (MRP) Disagree with erroneous linkage stated by TURN between PCC 2/3 GHG content with CSP hourly approach (AReM) Would result in inconsistencies in accounting (AReM)

Annual energy-based/CES need determination details:

- RPS and a CES requirements should be calibrated or combined into a single program, with existing RPS program structure leveraged to the extent possible (GPI)
- The CES should be implemented to provide a framework for achieving SB 100 starting now, not just post-2030, because IRP GHG targets already exceed the 60% by 2030 RPS requirement (GPI)
- The CES should also consider the air pollution impacts of natural gas with CCS (GPI)
- CES targets should be calibrated based on the level of clean energy needed to achieve the most recently adopted PSP (CalWEA, NRDC-UCS)
- Specific post-2030 need beyond the RPS should be determined in the IRP proceeding (AReM)
- Reply comments:
 - Need to undertake an IRP-RPS alignment effort to determine what RPS requirement is necessary to achieve GHG reductions, since 60% RPS is insufficient (GPI).

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• Use CES but set it based on direct CES requirements or to achieve GHG targets, whichever is binding (PGE, CalWEA)

Hourly mass-based/CSP need determination implementation details:

- The target should be set at 0 MMT as soon as possible because (CEJA-SC):
 - The text and legislative history of SB 100 make clear that all electricity in CA should be renewable or zero carbon;
 - o SB 1020 set 90% by 2035, 95% by 2025 interim targets;
 - AB 1279 requires CA to achieve net zero GHG emissions as soon as possible and no later than 2045 and to reduce GHG emissions by 85% below 1990 levels by 2045
- Supports a 15 MMT target for 2045 (GPI)

General Comments:

- IRP process needs to resolve the current ambiguity around how a GHG target is selected (AReM)
- If hourly were required, it would be preferable to track hourly energy generation instead of emissions, tagging CES certificates with hourly stamps to show that the state is providing reliable electricity services from a 90+ percent clean portfolio (IEP)
- The CPUC may want to consider hourly energy-based accounting, i.e., an obligation to match clean energy procurement to load on an hour-by-hour basis (regardless of the avoided emissions) (Calpine)
- Simply increasing the RPS would not help achieve SB 100 compliance and would perpetuate the disconnect between IRP and RPS, leading to sub-optimal procurement for renewable, GHGs, and reliability (GPI)
- Reply comments:
 - o Most important to decide on one framework and not duplicate it (PGE)

5b: Need Allocation

<u>Summary</u>: Opening comments focused on assessing the two approaches to need allocation: an energy-based (renewable [RPS] or clean [CES]) percentage of annual load or an allocation of allowed emissions using an hourly mass-based/clean system power (CSP) metric that was characterized as more aligned with 'planning' (AReM, CalCCA, CASMU, CEERT, CEJA, CESA, DG, GHC, GPI, IEP, LSA, MRP, NRDC-UCS, Shell, WPTF). Comments were divided in their support for each approach and generally aligned with parties' stated preferences for need determination in question 5a. Parties did not address this topic in reply comments. CEJA-SC states that both hourly and annual GHG emissions should be tracked to assess LSE progress toward state goals, as well as examining emission burdens on communities. Some parties stated that any need allocation to LSEs should occur in RA and RPS programs (Shell, IEP).

Comments on Need Allocation Approach:
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Need Allocation:	In support:	In opposition:
RPS methodology (each LSE's percentage target equals their annual retail sales multiplied by the CES percentage):	 No reason provided beyond their support for a CES framework articulated already (AReM, CalCCA, DG, GPI, MRP, NRDC-UCS, Shell, WPTF) An annual energy-based CES approach will provide clear targets for LSEs, which in turn will help meet compliance goals (CASMU) 	
CSP methodology (each LSE's mass- based GHG target is based on their share of the CAISO-wide GHG target):	• No reason provided beyond their support for a mass-based framework articulated already (CEERT, CESA, GHC, LSA)	 The planning track's mass-based need allocation methodology fails to consider load shape (AReM) The mass-based need allocation methodology would have errors associated with the model used to calculate hourly emissions (CalCCA)

5c: Compliance

<u>Summary</u>: Opening comments focused on leveraging existing mechanisms like RPS for compliance (touted by commenters as simpler) vs. developing new mechanisms for compliance like GHG measurement (touted by commenters as more accurate). An additional dimension of compliance focused on whether an entity should have to show/model that they will be compliant on a forward basis (based on assumptions) vs. show that they complied with requirements on a backward-looking basis. Additional issues addressed include the time frame for compliance (annual vs. hourly) and what resources are eligible for compliance. In all dimensions, party comments were split without clear consensus (ACP-CA, AReM, CalCCA, CalPA, Calpine, CASMU, CEJA-SC, CESA, EDF, GPI, IEP, LSA, Mainspring, MRP, SDGE, SEIA, TURN, WPTF). Replies focused on disagreements with specific positions of other parties in opening comments as well as one observation about a consensus among parties to not utilize a GHG compliance framework that is backward looking.

Comments on Compliance Mechanisms:

	Arguments in support:	Arguments against:
RPS Compliance Rules:	• The current RPS program, through annual procurement and compliance filings, does a good job at assuring LSEs are on track to meet their RPS obligations, which can be modified to include GHG- free resources. There is no need to create a new compliance	

	Arguments in support:	Arguments against:
	 requirement or require longer forward-contracting requirements than what is currently in place for RPS. (AReM) The RPS compliance regime will continue to be successful as long as IRP provides sufficient requirements and signals including clear near-term compliance needs with a process for failure of such compliance obligations as well as long-term system need (CalCCA) Leveraging RPS reporting would minimize reporting burdens (CASMU) Simple (CASMU) Many parties support (CASMU) Has a track record of incentivizing new build which undermines arguments that it is not additional (IEP) 	
CSP Calculator:	 LSEs would be able to show they meet their share of the electric sector GHG target as part of that compliance showing (CESA) Aligns with planning track (LSA) CSP assessment of LSE portfolios should developed to carefully match the current CSP calculator to avoid negative unintended consequences (SDGE) Thinks the CSP is "simple" (SEIA) 	 Basing compliance on hourly emissions would be impossible until after the fact making it impossible for LSEs to be able to determine what level of System Power would be permissible under an hourly construct (AReM) The CSP calculator does not give GHG-free credit to PCC 2 and PCC 3 RECs (AReM) The CSP calculator inappropriately credits nearly all system power at the emissions factor of gas generation (AReM) The CSP calculator allows each LSE to adjust their own load shape, which is inappropriate for a compliance regime because it can be gamed by LSEs (AReM) The CSP calculator assumptions about the future CAISO-wide resource mix that may meaningfully differ from actual LSE procurement (AReM) Sees an important role in using the CSP for developing supply plans, but is concerned that using more complex GHG accounting mechanisms would delay procurement because they are not well understood, are not part of existing procurement framework and will not lead to the development of fungible capacity that enables LSEs to collaborate on larger resources that have the greatest economies of scale (ACP-

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Arguments in support:	Arguments against:
	CA)Poorly understood (CASMU)Would not be extremely difficult since they are not part of the CAISO system (CASMU)

Comments on Forwards and Backwards Compliance:

	Arguments in support:	Arguments against:
Forward Compliance Requirements	 The CPUC should require some multi- year forward requirements for CES- compliant energy that are similar to the percentage requirements adopted for qualifying capacity in the reliability part of the program (IEP) Wants forward and backward compliance (SEIA) 	 Having both could create a cumbersome regulatory framework with conflicting procurement targets that reduce LSE procurement adaptability and autonomy and perpetuate redundancies between IRP and RPS filings and siloed review processes and cycles (GPI) Forward looking requirement are not particularly informative because real-world GHG reductions will depend on the actual energy output from an LSE's portfolio (GPI) A forward requirement could reduce LSE hedging against the risk of low clean energy output if forward requirements are based just on theoretical capacity factors (GPI)
Backward Compliance Requirements	 A backwards-only CES, combined with RPS compliance, would require that forward procurement decisions incrementally build towards a low- emission portfolio that achieves reliability standards while also achieving electric sector GHG targets in each compliance period (GPI) A backwards-only CES would encourage LSEs to engage in compliance risk management and development multiple risk-management pathways that support procurement adaptations during near-, mid-, and long-term planning horizons, resulting in a holistic IRP programmatic framework if combined with a forward- looking capacity and energy 	 No parties are in favor of ex-post compliance obligation for emission-based framework, which they note is essentially impossible. Notes this is distinct from ex- post ground truthing (IEP)

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Arguments in support:	Arguments against:
procurement compliance framework for the reliability portion of the program (GPI)	

Comments on various factors:

Factors:	Comments:
Granularity of backwards- looking mass- based compliance:	 Simply assess whether LSEs brought online all the resources included in their forward-showing CSP calculators with compliance based on attributes, not resource-specific, since the final mix depends on the competitive solicitation process, resource-specific market barriers, and project delays beyond LSE control (SDGE) Should measure actual GHG emissions of LSE portfolios based on system conditions in a coordinated way with the CEC since SB 1158 already requires this by 2028 (TURN) Backwards-looking compliance, combined with ground-truthing, is needed to inform future procurement mandates, and enable proper program functioning. But LSEs should not be penalized for real-world GHG impacts that differ from models if they undertake procurement found necessary according to the models used in the program (CEJA-SC)
Banking:	 Banking should not be allowed under any paradigm because it would result in unequal compliance and disparate results. LSEs should be encouraged to meet GHG requirements as soon as possible through other means (CEJA-SC) Banking should be allowed for surplus procurement (CASMU) CES credit banking may encourage forward contracting, which would be preferable to forward contracting requirement (GPI)
Compliance periods:	 Compliance periods should be annual, consistent with the requirement in SB 1158 (Mainspring, CEJA-SC) Supports the use of 3–4-year compliance periods to address annual load and energy variability and allow LSEs to adapt their portfolio to "catch-up" by the end of a compliance period (GPI) Supports multi-year compliance periods (prefers 3 years) for ex-post compliance to give LSEs more flexibility for inter-annual variability (IEP) Supports multi-year compliance periods (WPTF) The RPS program's compliance determinations for past compliance periods trail behind the LSEs' current compliance period obligations—the CPUC is not done reviewing CP 3 despite being half-way through CP 4. If the CPUC wants to base CES backwards compliance periods on RPS, it should consider what implications potential delayed compliance determinations will have on its GHG-based procurement objectives (CalPA)
Resource eligibility:	 Biomass, biogas, natural gas (NG) with carbon capture, utilization, and storage (CCUS), and hydrogen combustion are neither "clean" nor "zero carbon" as should be excluded because they produce harmful pollutants, often fail to provide any GHG reduction benefits, and may increase emissions on a lifecycle basis (CEJA-SC) Supports the eligibility of NG w/ CCUS, with the share eligible for the CES equal to the percent of CO2 capture, and renewable hydrogen (IEP) the IRP planning and procurement processes should allow for DERs and demand-side options to be considered, consistent with the objective of ensuring "reasonable competition

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Factors:	Comments:
	 for both supply- and demand-side procurement solutions to fill long-term needs" (SCE) Reply Comments: CCUS should be included as clean (Calpine) Disagrees with CEJA-SC that certain undefined resources would be excluded from CES but not from GHG (such as hydrogen, CCS, etc.). Also, that the Scoping Plan has the resources (IEP)
Use of Credits and Portfolio Content Category (PCC) rules:	 Supports creation of WREGIS-based Zero Emission Credits, but the development process could take years and should not delay the implementation of a procurement program, justifying development of an interim compliance method (GPI) WREGIS is designed to accommodate numerous state and voluntary renewable energy "programs" and that adding a California CES would be a straightforward process (EDF) Supports leveraging WREGIS to track, record, and retire credits (WPTF) The PCC definitions, their proportional procurement limits, and their functionality should be assessed alongside IRP program objectives and the capacity and energy attributes (e.g. clean firm capacity and/or energy) identified as "needs" in the IRP reliability compliance framework (GPI) The use of RECs should not be allowed because of the following risks (CEJA-SC): Pollution burdens in vulnerable communities Transparency problems with certain providers claiming that they are providing clean energy, when in fact they are relying entirely on RECs Additionality concerns, which is why they are being "phased out in the RPS program" Eligibility should be restricted to the PCC 1 REC definition. Unbundled/tradable attributes should be allowed for compliance (TURN) Reply comments: Should reject idea that all CES is required to be PCC 1 (IEP) On existing vs. new and PCC 1 vs. 2/3, CEJA-SC's arguments against a CES could just as easily be used against a GHG accounting framework since the same questions must be decided. And they also do not agree that PCC 2/3 do not provide GHG benefits. (IEP) Note that development of ZECs would be expensive and time consuming within WREGIS and involve multiple stakeholders including CPUC, CEC, and WECC Board (GPI)
Reporting:	 The CPUC should streamline annual filings to include RPS, RA as well as IRP compliance to help increase transparency while reducing the administrative burden (CEJA-SC) The CPUC should simplify how LSEs demonstrate compliance with all Commission-directed procurement, ideally, thorough a single compliance filing (MRP) Combining the RPS and CES compliance filings into a single report may delay determination in both programs (CalPA) The CPUC should ensure that information is available and accessible on a webpage to ensure that interested community members and members of the public can access relevant information including resource location, type, and expected GHG and air quality impacts (CEJA-SC)

Other:

• BTM resources will be difficult to count due to risk of double counting (IEP)

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- If a CES is adopted, it should be designed to avoid resource shuffling and include a long and sustained effort to prevent LSE gaming (TURN)
- If a CES is adopted, it should require long-term contracting like the RPS 65% requirement and potentially include specific targets for new resources (TURN)
- The development of compliance tools should be delegated to ED staff (WPTF)
- The CPUC should develop a CES compliance requirement in the first three-years, an after-the-fact assessment of actual emission reductions, and a forward planning process to identify needs in the years four through ten of the cycle (CalCCA)

5d: Enforcement

<u>Summary</u>: In opening comments, 13 parties submitted comments regarding GHG-reduction enforcement program design (AReM, CalCCA, CASMU, CEERT, CEJA-SC, CESA, GHC, GPI, NRDC-UCS, SDGE, TURN, WPTF, Shell). AReM, GPI, WPTF, CASMU, seem to support clean energy-based approaches whereas CEERT, CESA, GHC, and CEJA-SC support GHG mass-based approaches to enforcement. No replies specifically addressed this question.

Penalty Assessment Approaches:

- Supports a penalty in units of \$/MWh (AReM, GPI, WPTF)
- Supports the CES approach over GHG enforcement (CASMU, SDGE)
- Support an hourly emissions-based approach with penalties on a \$/ton basis (CEERT, CESA, GHC, and CEJA-SC)
- Supports a backwards looking assessment of whether resources were actually developed (CEERT)

Enforcement Process/ Other:

- Supports keeping compliance amounts confidential to avoid the penalty price becoming the market price (CalCCA)
- IRP enforcement should be focused on LSEs' activities to bring new clean energy resources online in compliance with Commission direction and not actual dispatch by the CAISO of the entire LSE portfolio (SDGE)
- Supports harsher enforcement depending on impact (I.e. harsher for reliability than SB100 goals) (CalCCA)
- Supports a waiver process for extreme circumstances (CalCCA, CASMU)
- Supports a penalty cap (CASMU)
- Financial penalties must be sufficient to deter non-compliance (TURN)
- Non-monetary penalties where LSEs can build certain clean community resources as a form of payment. This could be like a form of backstop procurement (CEJA-SC)

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• Suggests that any unmet needs IRP identifies should be dealt with modifications to RA and/or RPS rather than creating a duplicative process and enforcement mechanism in IRP (Shell)

6. Other Program Design Considerations

Question 6: Comment on the other program design considerations raised in Section 7 of Attachment A. Should they affect the design of the program and, if so, how?

6a: Financial Risk and Risk of LSE Market Exit

Summary: In opening comments, 14 parties offered comments on whether the POLR proceeding should consider (and is considering) the procedures by which the POLR would take on LSE procurement requirements in the event of LSE market exit (AReM, CalPA, CalCCA, Calpine, CalWEA, CASMU, CEERT, IEP, LSA, MRP, SCE, SDGE, SEIA, and WPTF). While parties generally agree, SCE advocates that the IRP proceeding determines how to transfer RCPPP requirements when an LSE that is not subject to MCAM leaves the market, which D.22-05-015 did not consider for the two existing IRP procurement orders (D.19-11-016 and D.21-06-035) or for future orders. SCE specifically recommends that the Commission provide for a quick transfer of RCPPP requirements to the POLR and adopt CAM as the cost recovery mechanism in this scenario. AReM argues that ESP financial risk need not be considered, since ESP customers can choose another ESP or go on transitional bundled service rates upon LSE exit. MRP notes that resource exit can also be disruptive and advocates that the RCPPP considers the need for both new and existing resources over the same time horizon. With the exception of CalWEA, parties advocate against the SFPFC approach and suggest that any hedging requirements should allow LSEs to enter hedging agreements according to their individual risk tolerances and to select the hedging products that best meet their needs. No replies specifically addressed this question.

6b: Risk of Market Power

<u>Summary</u>: In opening comments, parties generally downplayed the risk of market power, or at least pushed back on the RCPPP involving mandatory hedging to mitigate this risk (AReM, CAISO, CalCCA, Calpine, CalWEA, CASMU, CEERT, DG, GPI, IEP, LSA, MRP, SDGE, WPTF). "Market power" in this summary refers to suppliers exercising market power in bilateral contracting or in the wholesale electricity market, which was the focus of the comments, except where noted. Only MRP provided reply comments on this question, noting their agreement with CAISO that the staff paper did not clearly identify whether market power is a problem and, if so, what type of market power is a problem. No party saw significant risk of market power.

	Comments:
The risk of market power/assertion that there is little evidence of market	 Staff has not shown any evidence to support that resources with RA-only contracts could result in market power or that LSEs are not hedging adequately. Recent CAISO DMM analysis gives no evidence that price caps or hedges are necessary. (AReM) Staff does not demonstrate that there is market power (including what type of market power problem exists) or that existing hedging efforts are insufficient. DMM has

	Comments:
power:	 found that CAISO is competitive on a system level since the early 2000s. (CAISO) Staff concern with market power is misplaced (Calpine) CASMU members are not subject to CPUC RA requirements and the associated risks (CASMU) IRP should not consider market power. Scarcity pricing is not the same as market power. Staff has not analyzed market concentration or scarcity pricing in this proceeding and has not determined whether any scarcity pricing is linked to LSEs not contracting with generators for energy products. (IEP) Market power safeguards are typically necessary in markets where demand exceeds supply, but with clean energy procurement, there is typically abundant supply. (LSA) Do not conflate infrequent high prices with market power (MRP)
Arguments against the RCPPP using the SFPFC approach to address market power:	 SFPFC was already considered and rejected in the RA proceeding. The RA and RPS proceedings are the best Commission venues for dealing with market power in the RA and GHG-Free energy markets. But in general, CAISO initiatives like the Price Formation Enhancements initiative should address market power and scarcity pricing. (AReM) SFPFC is unproven at reducing costs in the immediate environment [CA?], dictates the hedging specifics which is likely to be inefficient, and is a significant departure from IRP and RA. SFPFC would result in a mandatory hedge price set by the Commission [but staff points out it would actually be set by the market], which violates CCA ratemaking authority (CalCCA) SFPFC is not appropriate because many LSEs are already hedged through existing procurement, such as RPS. (Calpine) Hedging risk is being addressed to a significant extent in the RA proceeding (CEERT) Lack of flexibility, and imposes a broad strategy to resolve concerns that a handful of LSEs have not hedged appropriately (DG) Avoid adopting a highly complex system to address an issue that will only apply to a portion of procurement (LSA) First need to analyze the costs, benefits, and market impacts of hedging mechanisms; LSEs that do not procure energy from resources with which they have RA agreements may be hedging in other ways (MRP) If the CPUC is concerned about CAISO's market power mitigation tools it should address those through CAISO's Price Formation Enhancements initiative or other stakeholder processes (WPTF)
Options to address market power via the RCPPP design:	 Commission should support long-term contracting of physical resources and pairing such directives with contracts that include energy hedging (CAISO) Argues that the CPUC cannot directly mitigate market power and so it should ensure the RCPPP plans for and builds capacity in a non-emergency manner, to avoid conditions (CalCCA) If hedging requirements are introduced, they should be generic (e.g., LSE required to cover some fraction of summer evening load with some forwardness and could count RPS, purchases of firm energy including imports, financial call options, and control of physical resources through ownership or tolling). (Calpine) Open up mid-to long-term procurement to existing resources (DG) Consider how overly prescriptive requirements (e.g. 100% 5-years out, specific technologies, specific lengths) might create market power. Also consider the balance

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Comments:
of transparency and confidentiality, since disclosure of some contract details could alter future offers. (RPS only recently relaxed confidentiality rules because of market robustness and value of transparency.) Options could include redaction allowances for certain years and/or aggregation, but these transparency issues are best addressed once core design elements are determined. (GPI)
• Require LSEs to enter arms-length –negotiated tolling agreements with suppliers; gives LSEs control over bidding without imposing complex contractual frameworks or limiting the right to negotiate energy rights (MRP)

General comments:

- RAAIM is not a market power mitigation tool. It is meant to encourage bidding in hours of system need. (CAISO)
- CalWEA advocates for its trans-LSE, open-book framework for centralized procurement of offshore wind and argues that it would reduce or eliminate market power for this resource
- Staff appear to be concerned with the market power risks of the SFPFC approach, but SDGE does not support the SFPFC approach. (SDGE)

6c: Past and Centralized Procurement

Summary: In opening comments, parties offered comments on past and centralized procurement (ACP, AReM, Avangrid, CalCCA, CalWEA, CASMU, CEERT, MRP, NRDC-UCS, SCE, SDGE, and SEIA). Parties generally agree that centralized procurement should only be a small component of the RCPPP, though some parties (e.g., ACP, Avangrid, SCE) note that centralized procurement may be appropriate for "non-routine" resources, such as long lead time resources that require individual buyers or groups of buyers with sufficiently high credit. MRP advocates for residual centralized procurement (models in which the IOU procures only after LSEs have had a chance to meet their own requirements), rather than hybrid centralized procurement (the Local RA CPE model), because it provides LSEs the opportunity to meet their needs first. Parties agree that credits for existing centralized procurement (via CAM, MCAM, and VAMO) should be incorporated into reliability and GHG-free compliance in a clear way. CalCCA notes that the Commission must also consider how LSEs can receive credit for CAM resources that only achieve CAM status after LSEs have made their procurement showings, and how LSEs can reasonably predict their IRP requirements under a CPE procurement paradigm that has experienced delays. CalCCA advocates for allocating large hydro to LSEs. SDGE argues that the PCIA proceeding is the appropriate venue for considering cost allocation of past procurement and recommends that CAM be the cost recovery venue for any new, centralized procurement under RCPPP. No replies specifically addressed this question.

7. Assess the Straw Options Against the Objectives

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Question 7: Assess the straw options in Section 8 of Attachment A. Include in your comments an assessment of the options against the program's objectives listed in Section 3 of Attachment A.

Summary:

In opening comments, 22 sets of comments were received regarding the assessment of straw options (ACP, AReM CAISO, CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CEJA-SC, DG, GPI, IEP, LSA, Mainspring, MRP, NRDC-UCS, SCE, SDGE, Shell, WPTF, SEIA). Few replies specifically addressed this question; exceptions included Mainspring. Regarding GHG-reduction and reliability, no comments on this question raised any new arguments to those represented in response to Q5 above. Q5 presents a more complete overview because some parties responding there did not respond here. Parties supported either the Reliability Option for Capacity Contracting with Marginal ELCCs or the Slice of Day option. Supporters of marginal ELCC generally agree that it is aligned with existing RPS and IRP procurement structures, familiar to LSEs, the easiest to implement, and it sends appropriate market signals. Slice of day is regarded as closely aligned with existing RA procurement structures. CalCCA and CASMU opposed all proposed options for reliability. CalWEA recommends a hybrid of the 24-hr slice and CES approaches.

Reliability Option	Number of Parties in Support:
Marginal ELCC	9
Average ELCC	1
Slice of Day	7
Shee-on-Day	
SFPFC	0

GHG Reduction Option:	Number of Parties in Support:
Clean Energy Standard (CES)	11
Mass-based GHG Accounting	3

Reliability Options:

Reliability Option 1: LOLP-based forward capacity contracting requirement using **marginal ELCCs**.

Assessment:	Rationale:
<u>Support:</u>	• Marginal ELCCs closely aligned with existing procurement structures, rules, and cost allocation mechanisms and would be the easiest to implement:

Assessment:	Rationale:
1. ACP 2. Calpine 3. DG	 Option 1 aligned with RPS (ACP, Mainspring) Option 1 aligned with the current IRP planning approach for reliability planning and could be leveraged to meet IRP program objectives. (SDGE) Simplest Option that is implementable in 2023 to provide additional procurement direction covering resources across multiple time periods. (ACP, Mainspring) Other Reliability Options would be disruptive for resources available
 4. IEP 5. LSA 6. Mainspring 7. MRP 8. SDGE 9. WPTF 	 In near to medium term Marginal ELCC framework is already familiar to LSEs. For example: LSEs have received bids for MTR procurement projects that account for marginal ELCC (ACP, Mainspring) Marginal ELCC accurately reflects how incremental additions of a resource add to reliability, which enables LSEs to make more informed choices about the capacity that best fits both their needs and those of grid operators, and so creates an appropriate signal to guide investment and retirement decisions (Mainspring, Calpine) Option 1 would best serve the objectives for the RCPPP outlined in the SOP (WPTF) Use of Marginal ELCC aligns with IEP's recommendations for a procurement program. IEP would amend option 1 as follows: implement in the RA program rather than have IRP's forward requirement suddenly end 2 years out and pass to a separate RA program; perhaps stick with allocating need based on managed gross peak; 10-year forward requirement is excessive. (IEP)
Oppose: 1. AReM 2. CAISO 3. CaICCA 4. CASMU 5. SEIA	 ELCCs were rejected as part of RA Reform and should not be relitigated (AReM) Option 1 is too problematic to implement: Option 1 may only work well when procurement is limited to new resources (CAISO) Reliance on marginal ELCC is problematic because the Small & Multi-Jurisdictional Utilities (SMJUs) are winter peaking, at night, unlike most CA LSEs, and resources' ELCCs would have very different value for SMJUs than most LSEs. Fails to account for PacifiCorp's unique IRP requirements and that it does not submit a Resource Data Template (RDT). (CASMU) The record of the use of ELCCs in the RA program has shown that different ELCC calculation methods are a constant source of debate and uncertainty. An ELCC-based approach would depend on regular and timely updates to complex ELCC modeling and a means to adjudicate the modeling debates that are likely to arise. (SEIA) ELCC modeling output is a single value for each type of resource that does not provide detailed or transparent information on the temporal factors that drive the result (SEIA) Option 1 will not achieve many of the RCPPP's objectives (CalCCA): 1) Realization of Policy Goals - All Options undermine affordability, are too prescriptive and should be more flexible 2) Economic Efficiency – All Options to restrictive 3) Predictable Compliance Design – All Options undermine affordability and would need to be reworked, which would not result in predictable compliance design 4) Planning & Procurement – All Options lock in some long-term procurement, which is restrictive and uneconomic 7) Evolve Procurement – All Options will struggle with a constrained capacity market 9) Ensure Competition – All Options will struggle with a constrained capacity market 1) Co-optimize Transmission & Procurement Planning - No Options address IRP &

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Assessment:	Rationale:
	 CAISO TPP coordination 13) Mitigate Market Power – All Options will struggle with a constrained capacity market

Reliability Option 2: LOLP-based forward capacity contracting requirement using **average ELCCs**:

Assessment:	Rationale:
<u>Support:</u> 1. CAISO	• Option 2, including CAISO's proposed modifications in response to Question 1(a), which included Objectives 2, 5, 9 and 11 being incomplete, is the only viable approach to meet RCPPP objectives (<i>CAISO</i>). Their proposed modifications to the objectives included: adding transmission costs into the definition of economically efficient procurement, consolidating near term procurement of existing and new resources into the IRP proceeding, ensuring sufficient lead time in order to plan for additional resource retirements, and considering locational needs for procurement and minimizing the need for CAISO backstop.
Oppose: 1. ACP 2. AReM 3. CalCCA 4. CASMU 5. MRP 6. SDGE 7. SEIA	 ELCCs were rejected as part of RA Reform and should not be relitigated (AReM) Option 2 is too problematic to implement: Option 2 would be disruptive for resources available in near to medium term (ACP) Fails to account for PacifiCorp's unique IRP requirements and that it does not submit a Resource Data Template (RDT) (CASMU) The record of the use of ELCCs in the RA program has shown that different ELCC calculation methods are a constant source of debate and uncertainty. An ELCC-based approach would depend on regular and timely updates to complex ELCC modeling and a means to adjudicate the modeling debates that are likely to arise. (SEIA) Average ELCC counting does not provide the proper signal for new investment (MRP) Undermines cost-effectiveness (SDGE, CalCCA) ELCC modeling output is a single value for each type of resource that does not provide detailed or transparent information on the temporal factors that drive the result. (SEIA) Option 2 will not achieve many of the RCPPP's objectives (CalCCA): 1) Realization of Policy Goals – All Options undermine affordability; they are too prescriptiveshould be more flexible 2) Economic Efficiency – All Options are too restrictive 3) Predictable Compliance Design – All Options undermine affordability and would need to be reworked, which would not result in predictable compliance design 4) Planning & Procurement - All Options err on side of early procurement, which is restrictive and uneconomic 6) Complement RPS - Option 2 does not fit RPS 7) Evolve Procurement – All Options lock in some long-term procurement, which reduces flexibility & comes with implementation risk
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Assessment:	Rationale:
	 prolong existing emitting resources, CalCCA proposal allows for orderly transition of fleet while maintaining reliability 11) Co-optimize Transmission & Procurement Planning - No Options address IRP & CAISO TPP coordination 13) Mitigate Market Power – All Options will struggle with a constrained capacity market

Reliability Option 3: **Slice-of-Day** capacity requirement using estimate of resource availability per slice:

Assessment:	Rationale:
Support: 1. AReM 2. CEERT 3. CEJA-SC 4. GPI 5. LSA 6. SCE 7. SDGE 8. SEIA	 Aligns with IRP, RA, RPS. (CEERT, CEJA-SC, GPI, LSA, SEIA, AReM) Since LSEs will use Slice of Day for their RA filings to show they have adequate resources in near future, it makes sense that RCPPP should also use Slice of Day – just extended a number of years into the future to show that LSEs' long-term procurement plans will make the necessary contribution to reliability. Does not make sense to use Slice of Day to assess reliability in the RA program, but then use a different ELCC-based approach for reliability compliance needs in the mid- and long-term. (SEIA, CEERT) The only viable option for reliability; Options 1, 2, and 4 were rejected as part of RA reform (AReM) Eventually, Option 3 could be leveraged for IRP and may be appropriate for better alignment with RA proceeding. (SDGE) However, would be premature to assess the feasibility of Option 3 or its suitability for the IRP which involves a much longer planning horizon, given the absence of details regarding the methodology in the context of IRP Aligns well with RCPPP objectives, with emphasis on predictable and orderly program design (LSA) SOD will eliminate the need to adjust ELCC values for resources during the net peak or other times when less of lead events occurs in the modeling (SCE)
Oppose: 1. ACP 2. CAISO 3. Calpine 4. CalCCA 5. CASMU 6. MRP	 Option 3 is too problematic to implement: Option 3 would be disruptive for resources available in near to medium term (ACP) Option 3 creates needlessly complex compliance requirements (Calpine) Slice of Day is problematic for Small & Multi-Jurisdictional Utilities (SMJUs) given that they are not subject to CPUC RA requirements. Fails to account for PacifiCorp's unique IRP requirements, and that PacifiCorp's does not submit a RDT. (CASMU) Slice of Day framework has not yet been fully designed or deployed for RA (MRP) Option 3 is a compliance mechanism, not a reliability tool, and is not relevant (CAISO) Option 3 features multiple technical flaws (Calpine): is based on inherently arbitrary exceedance counting rules for wind and solar includes unjustified storage charging requirements does not clearly address emerging reliability issues related to multi-day events and

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Assessment:	Rationale:
	resource constraints that extend beyond a single day
	• Option 3 will not achieve many of the RCPPP's objectives (CalCCA):
	 1) Realization of Policy Goals - All Options undermine affordability; they are too prescriptiveshould be more flexible
	0 2) Economic Efficiency – All Options are too restrictive
	0 3) Predictable Compliance Design – All Options undermine affordability and
	would need to be reworked, which would not result in predictable compliance design
	 4) Planning & Procurement – All Options err on side of early procurement, which is restrictive and uneconomic
	 7) Evolve Procurement – All Options lock in some long-term procurement, which reduces flexibility & comes with implementation risk
	 8) Ensure Competition – All Options will struggle with a constrained capacity market.
	 9) Ensure Existing Resources / Build New Resources – All Options unnecessarily prolong existing emitting resources, CalCCA proposal allows for orderly transition of fleet while maintaining reliability
	 11) Co-optimize Transmission & Procurement Planning – No Options address IRP & CAISO TPP coordination
	 13) Mitigate Market Power – All Options will struggle with a constrained capacity market
	• Reply comment: agrees with CESA and CalCCA that slice of day should be tested before being applied to the future program (Mainspring)

Reliability Option 4: **SFPFC (Standardized Fixed-Price Forward Energy Contracts)** - LOLPbased forward energy contracting requirement using firm energy equivalent of ELCCs:

Assessment:	Rationale:
<u>Support:</u> None	• N/A
<u>Oppose:</u> 1. ACP 2. AReM	 SFPFC rejected as part of RA Reform (AReM, CalPA, MRP, SCE): CalPA and SCE cite several reasons why Commission and stakeholders rejected SFPFCs in past RA form; in summary it is too complicated to implement CPUC declined to pursue the complex SFPFC structure, and nothing has been done to make it more appealing (MRP)
3. CAISO 4. CalPA	 Option 4 not aligned with RA's Slice of Day framework (CEJA-SC) SFPFCs could shift procurement burden and risks to generators, which could have negative consequences (CalPA, CalWEA, SCE):
5. Calpine 6. CalWEA	 For SFPFCs, initial procurement would take place based on long-term forecasts of future hourly demand shapes. Any changes from the forecast load to actual load served, including changing resource values, creates significant risk that generators must manage. The cost of this risk may be applied to the cost of the procured
7. CalCCA 8. CASMU	 forward energy product. (CalPA) Shifting compliance risk to generators (especially wind generators whose output cannot be reliably predicted) in a complicated forward market such as SFPFC, may

Assessment:	Rationale:
9. CEJA-SC	make participation in that market by generators difficult at best. At most, the Commission should consider implementing a limited trial of SFPFCs, as one of several potential compliance tools (CalWEA)
10. MRP	 SFPFCs are too problematic to implement:
11. SCE	 SFPFCs would invite FERC jurisdictional rule that could prevent efficient achievement of CA's clean energy goals (CalPA)
12. SDGE	 SFPFCs compatibility with the Extended Day-Ahead Market (EDAM) must be determined (CalPA)
	• Option 4 would be disruptive for resources available in near to medium term (ACP)
	 Option 4 may interfere with / unnecessarily duplicate other types of LSE hedging and it requires the translation of capacity into SFPFC requirements, which no one has proposed how translation would occur (Calpine)
	 The use of SFPFCs does not apply to Small & Multi-Jurisdictional Utilities (SMJUs) because they are not subject to CPUC RA requirements. Fails to account for PacifiCorp's unique IRP requirements and the fact that PacifiCorp does not submit an RDT like other LSEs. (CASMU)
	 Option 4 presents a significant and destabilizing overhaul of IRP, which could create unnecessary additional challenges for LSEs in meeting reliability and emission reduction goals (SDGE)
	• Use of SFPFCs is not aligned with RPS (CEJA-SC)
	• Option 4 was proposed to supposedly address market power that has not been shown to exist (CAISO)
	• Option 4 does not consider physical capacity and locational needs in a robust manner to be able to maintain reliability (CAISO)
	 Option 4 will not achieve many of the RCPPP's objectives (CalCCA): 1) Realization of Policy Goals – All Options undermine affordability; they are too prescriptiveshould be more flexible
	 2) Economic Efficiency – All Options are too restrictive 3) Predictable Compliance Design – All Options undermine affordability and would need to be reworked, which would not result in predictable compliance design
	 4) Planning & Procurement – All Options err on side of early procurement, which is restrictive and uneconomic
	 5) Complement RA program – Option 4 is significant departure from RA structure 7) Early Program – All Options last income land to program a link
	reduces flexibility & comes with implementation risk
	 8) Ensure Competition – All Options will struggle with a constrained capacity market
	 9) Ensure Existing Resources / Build New Resources – All Options unnecessarily prolong existing emitting resources, CalCCA proposal allows for orderly transition of fleet while maintaining reliability
	 11) Co-optimize Transmission & Procurement Planning – No Options address IRP & CAISO TPP coordination
	 13) Mitigate Market Power – All Options will struggle with a constrained capacity market

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GHG-Reduction Options (Detail):

GHG-Reduction Option: Energy-based CES (Clean Energy Standard):

Assessment:	Rationale:
Support:	• CES is the simplest option for implementation, compliance, and transactability (ACP, Calpine, Mainspring, MRP, NRDC-UCS, SDGE)
1. ACP	• CES-based standard that measures compliance through MWh is similar to RPS and
2. AReM	would be easier to implement; RPS is well understood and has catalyzed deployment of tens of thousands of MW of zero-emission energy (MRP, NRDC- UCS)
3. CalCCA	 Energy-based GHG accounting framework, like RPS, provides the most flexibility
4. Calpine	to LSEs to phase in fuel switching opportunities into their portfolios over time as
5. DG	renewable and low-carbon fuels become more readily available, decline in cost (Mainspring)
6. GPI	Aligns with RA, RPS (CalCCA, GPI, Mainspring, NRDC-UCS, SDGE)
7. IEP	• CES could be used to measure compliance towards other state requirements, incl. SB 100 and SB 1020; the CPUC will need to measure progress towards these established clean
8. Mainspring	energy requirements (NRDC-UCS)
9. MRP	 Aligns with SB 1020's interim emissions reduction targets (SDGE) CES would best serve the objectives for the RCPPP outlined in the Staff Options Paper (WDTE)
10. NRDC-UCS	 Division of responsibilities between the RA and CES programs will allow LSEs to co-
11. WPTF	optimize the capacity and clean energy attributes of their portfolios to best meet the magnitudes and patterns of their load profiles (IEP)
12. Shell	• AReM proposes to implement the CES program as soon as practicable
<u>Oppose:</u>	• Commission should not rely on a CES because a Mass-based approach must be used to comply with SB 350, SB 32, and SB 1158, Commission precedent, and air quality and equity
1.CASMU	requirements. Each of these authorities require an accounting of LSEs' GHG emissions.
2.CEJA-SC	 CES would be difficult to implement because it would likely be based on "the CAISO's
3. SEIA	electric sector GHG target" and Liberty and PacifiCorp are located outside the CAISO (CASMU)
4. TURN	• CASMU emphasizes the record in the proceeding and asserts that there is no demonstrable
5. Fervo	need for CASMU members to undertake additional procurement to meet reliability or environmental goals

GHG-Reduction Option: Mass-based GHG Reduction Requirements:

Assessment:	Rationale:
<u>Support:</u> 1. CAISO	 Aligns with IRP Planning Track (CEERT, SEIA, LSA, SCE) Allows for comparison of LSE IRPs with their procurement plans (CEERT) SCE's preferred approach is a CAISO GHG mass-based target for milestone years (e.g., 2030, 2035, 2040, 2045) established in the IRP planning track.
2. CEERT	• Benefit of directly measuring GHG reductions (SEIA, CEJA-SC)

Assessment:	Rationale:
3 CEIA-SC	 Allows stakeholders to achieve GHG goals beyond RPS targets (SEIA)
	• GHG Reductions Option must use GHG metrics as the means of compliance (CEERT, CELA_SC):
4. CESA	• Any future procurement program must use GHG metrics as the means of
5. Fervo	compliance in order to prevent fossil fuel resources from expanding (e.g., batteries
6. GHC	charged by fossil plants) (CEJA-SC)
7. LSA	Commission must provide to ensure GHG reductions; CPUC is mandated to
8. SCE	design a portfolio that meets GHG reduction requirements (CEJA-SC)
9 SEIA	• Accounting for GHG reductions together with the procurement of substantial quantities of energy storage will be essential for success in meeting CA's climate
	goals (CEERT)
10. TURN	• CESA supports the annual emission accounting, mass-based approach, because it is a more efficient and direct effort to measure the impact of an LSE's clean energy procurement.
	• Reply: utilizing a Clean System Power (CSP) tool to account for GHG emissions would provide a more accurate assessment of GHG emissions than an annual Clean Energy Standard (Forme)
	• The annual emission accounting, mass-based approach, directly measures the impact of an
	LSE's clean energy procurement. This method would more easily enable the consideration of green hydrogen blends within this proceeding (GHC)
	• More accurate assessment of the emissions impact of procurement (SDGE)
	• Recognizes the varying GHG reduction value of GHG-free generation at different hours throughout the year (Fervo, TURN)
Oppose:	• A mass-based GHG Option will be particularly burdensome for CASMU members and may
1 ACD	 conflict with existing Commission requirements (CASMU): The Mass-based GHG Option features hourly emissions accounting which would
I. ACP	rely on the CSP hourly emissions accounting calculator. PacifiCorp does not use
2. AReM	the CSP calculator and instead utilizes a Commission-approved alternative methodology. This process has proved effective from a reporting and compliance
3. CalCCA	standpoint and best represents PacifiCorp's emissions forecast given PacifiCorp's
4. CASMU	inapplicability of certain CSP calculator values.
5. DG	• An hourly emissions approach would be problematic from a multi-state accounting
6 IEP	emissions to the resources PacifiCorp uses to meet its CA load and align hourly
	allocation to its CA cost allocation profile
7. MainSpring	• To the extent a new procurement program applies to CASMU members, the
8. GPI	annual CES approach
9. MRP	• Mass-based GHG-Reduction Option is too difficult to implement (ACP, MRP, NRDC-UCS, WTPF):
10. NRDC-UCS	 Agrees with Staff Options Paper discussion regarding the challenges of a Mass- based CHC Option (MRP)
11. WPTF	 Mass-based GHG Option would be more complicated to set up and would have
	more complicated compliance procedures for LSEs (conflicts with Objective 3:
	 Predictable Compliance Design). (NRDC-UCS) Changing core procurement designs by adopting Mass-based GHG accounting will

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Assessment:	Rationale:
	be disruptive for resources that are available in the near and medium terms (1-5 years out from 2023) (ACP)
	• Mass-based GHG Reduction Option does not fit with RPS program (CalCCA)
	• Concerned a mass-based approach would increase transaction costs because the product is not fungible. (DG)
	• Bad idea to assign specific, enforceable GHG targets to each LSE (IEP)

8. Recommend an Option from Section 8 or Another Option Not Described

Question 8: Do you recommend adopting any of the options as presented in Attachment A? Explain your reasoning and justify your recommendation, by including assessment of your preferred approach against the program's objectives listed in Section 3 of Attachment A. If you do not recommend any of the option in Attachment A, indicate whether you recommend a): A hybrid of elements described; b) A hybrid of some elements described and some not described; or c) An entirely different approach than the options described.

<u>Summary</u>: In opening comments, ACP-CA, Avangrid, AReM, CAISO, CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CEJA-SC, CESA, DG, GHC, GPI, LSA, Mainspring, MRP, NRDC-UCS, SBUA, SCE, SDGE, SEIA, TURN, and WPTF all presented their recommended program option as presented in Attachment A. AReM, CAISO, and CalCCA compared their recommended their own program approaches, which are described in Appendix A. CAISO supports a modified version of Option 2 that considers the marginal ELCC contribution of new resources while using average ELCC values to assess compliance of the total portfolio. Several other parties supported options proposed in the staff paper but did not compare their recommended option against the program's objectives. Summaries are provided below. CASMU does not support any of the options included in RCPPP. In reply comments, some parties (including AReM and Shell) commented on other parties' options, while CEERT reiterated opening comments.

Assessments by AReM, CAISO, and CaICCA of how their recommended options achieves the program's objectives:

Objective:	Party Assessment of How Recommended Program Option Achieves Objectives:
1. Support realization of the goals of Senate Bill (SB) 350 and SB 100, in particular regarding reliability and GHG- reduction, safely and equitably, and in light of the current market structure, historical procurement and procurement in progress, and the need to ensure a predictable and stable long-term transition of the electric fleet.	<u>AReM</u> : Proposal meets this because it a) addresses PUC Section 380(b)(1), which states that RA program should "facilitate development of new generating and retention of existing generating capacity;" b) adopts a CES program consistent with the clean energy standard goals set by SB 100 and SB 1020; c) avoids duplication as mandated by PUC Section 454.52(a)(2)(B); d) addresses PUC Section 454.53(d)(1), which directs the Commission to "[u]tilize programs authorized under existing statutes" to achieve SB 100 goals <u>CAISO</u> : Option 2 can meet this objective <u>CalCCA</u> : Establishes a "Clean Capacity" requirement based on the trajectory of new clean build necessary to meet the SB 100 target reliably, making assumptions about how much of the existing fleet will retire
2. Achieve economically efficient procurement	 <u>AReM</u>: Proposal meets this because it avoids the creation of new products and price signals that would only serve to add confusion <u>CAISO</u>: IRP already has a strong connection to CAISO's TPP, but adding a local capacity component will strengthen the CPUC's ability to take a holistic, long-term approach to addressing the challenging needs in local capacity areas <u>CaICCA</u>: Allows LSEs make cost-effective procurement decisions by focusing on attributes rather than specific technologies; Allows LSEs the flexibility to adjust their procurement plans by not requiring demonstrations of contracts too far in advance; Excuses LSEs of penalties if they can demonstrate "good faith efforts" to procure
3. Incentivize compliance through a predictable and orderly program design that enables LSEs to anticipate, understand, and comply with their obligations while also making it difficult and burdensome to avoid compliance	<u>AReM</u> : Proposal meets this because it maximizes predictability and expands backstop procurement for new resource development in the RA program to support enforcement. <u>CAISO</u> : Option 2, with the CAISO's proposed enhancements, can provide long-term stability for incremental and existing resource procurement <u>CaICCA</u> : Establishes a routine needs assessment process that regularly updates LSEs of their obligations over ten years out; Allows LSEs to meet their binding obligations over three-year periods; Implements a penalty structure that will incent compliance while not penalizing LSEs for circumstances outside their control
4. Complement the IRP planning track, while transitioning away from the current order-by- order procurement paradigm for new resources	<u>AReM</u> : Proposal meets this because it directly incorporates analytical results from the IRP planning track to set relevant reliability and GHG reduction goals <u>CAISO</u> : Option 2 can support a new procurement program that aligns with the planning track <u>CalCCA</u> : Transitions away from the order-by-order approach by continually establishing

Objective:	Party Assessment of How Recommended Program Option Achieves Objectives:
	targets that define the amount of capacity required to come from clean resources
5. Complement the RA program, which is focused on the near-term and existing resources, to address the need for both retention of existing and new resources in the medium-to-long term	 <u>AReM</u>: Proposal meets this because it uses the RA program directly to ensure reliability. The addition of a multi-year forward system RA requirement, possibly with an added new resource requirement, would ensure that existing resources receive appropriate compensation to keep running and that new resources are appropriately incentivized to meet reliability needs. Reply comments: Shell supports AReM's proposal, except suggests deferring the idea of requiring a percentage of RA to be from new resources. SBUA also supports, because it is better to have RA address the medium- and long-term than have IRP enforce near-term procurement responsibility SCE doesn't support AReM's proposal to include all reliability-based procurement in the RA program <u>CAISO</u>: The program should be the sole forum for considering CPUC footprint-wide planning, procurement requirements, need allocation, compliance, and enforcement of system, flexible, and local capacity requirements can provide a pathway for accomplishing this objective. In replies AReM opposes CAISO's suggestion to consolidate the RA and IRP programs into IRP; i) It would eliminate the RA program and stakeholders have spent years working on the slice-of-day framework required to be implemented by D.22-06-050, ii) IRP is not well-positioned to replace certain RA functions like local reliability planning. <u>CaICCA</u>: Allows the RA program to continue to focus on meeting total reliability needs with existing resources by exploring enhancements to RA obligations, while setting clean

Ob	jective:	Party Assessment of How Recommended Program Option Achieves Objectives:
6.	Complement the RPS program to meet GHG goals through 2030 and beyond	<u>AReM</u> : Proposal meets this because it expands the RPS into to a CES program, while using as much of the RPS program resource allocation, resource counting, compliance, and enforcement framework as possible. The flexibility in the RPS program, such as multi-year compliance obligations and different PCC types, would be retained, supporting LSEs' ability to efficiently and cost-effectively meet the GHG reduction targets. • In replies Shell supports AReM's proposal.
		<u>CAISO</u> : Option 2 can support meeting state policy goals by considering the entire portfolio and identifying additional resources as needed. Expanding the procurement horizon and advancing procurement well ahead of the need will allow the CPUC and LSEs to ensure RPS and GHG goals can be met in the manner and timeframe of the requirements
		<u>CalCCA</u> : After the latest RPS compliance period, continues the CES approach with modifications to extend targets through 2045 and expand resource eligibility to those that qualify for SB 100
7.	Ensure LSE procurement responds to evolving demand forecasts (reflecting high electrification, extreme climate impacts, and load migration among LSEs)	AReM: Proposal meets this because it responds to changes in load forecasts and load migration through established program design from the RA and RPS programs <u>CAISO</u> : The annual updates from LSEs described in Option 2 coupled with close alignment with the IRP planning track will meet this objective. Additionally, expanding IRP procurement across a rolling 10-year horizon, at minimum, and establishing procurement requirements well ahead of the need will ensure LSEs can plan procurement to meet increasing demand forecasts in future years <u>CaICCA</u> : Requires a regular process for determining reliability needs based on evolving load and resource assumptions
8.	Ensure reasonable competition for both supply- and demand- side procurement solutions to fill long- term needs	AReM: Proposal meets this because it ensures reasonable competition among all kinds of resource types, building on the resource counting methods from existing RA and RPS frameworks and avoiding unnecessary resource carve outs <u>CAISO</u> : By expanding the IRP procurement program scope to include both existing and incremental resources across a minimum rolling 10-year horizon, Option 2 allows the Commission and LSEs to make trade-offs among a broader set of procurement solutions, both new and existing
		<u>CalCCA</u> : Ensures reasonable competition for supply- and demand-side resources by requiring orderly procurement of clean resources, including demand-side and behind the meter resources, to meet reliability needs as opposed to rushed procurement that limits the pool of resources eligible to comply

Objective:	Party Assessment of How Recommended Program Option Achieves Objectives:
9. Ensure existing resources persist and new resources get built such that reliability can be predictably maintained	<u>AReM</u> : Proposal meets this because it largely treats existing resources and new resources the same, reflecting that both existing and new resources of the same technology provide similar benefits to the grid. If the CPUC seeks additional support for new resource development, the proposal includes an option to require that a minimum percentage of procurement four years ahead (Year +4) must be from new resources, which would be shown in the compliance filing the following calendar year for compliance three years ahead (Year +3)
	<u>CAISO</u> : Option 2, with the CAISO's proposed enhancements, provides stability, predictability, and a holistic view of system needs which can be planned for well ahead of time
	<u>CalCCA</u> : Complements the existing RA program, which could be enhanced to better retain existing resources necessary for an orderly transition to a zero-carbon fleet; Focuses on reliably replacing the carbon-emitting fleet with clean resources by setting increasing clean capacity requirements through 2045
10. Allow for some resource-specific procurement action to occur in parallel with the program (e.g., central procurement of large and/or long lead- time resources)	<u>AReM</u> : Proposal meets this because it allows for some central procurement in limited circumstances when warranted, with cost allocation and reliability benefit allocation through the existing CAM and GHG reduction benefit allocated through a CAM-like mechanism <u>CAISO</u> : Option 2 allows for resource-specific procurement while promoting a programmatic approach.
	<u>CalCCA</u> : For the reasons described in response to question 1.e., a new procurement framework should not require resource-specific procurement action
11. Co-optimize transmission planning with procurement	 <u>AReM</u>: Proposal meets this because it retains the local RA product to assist with transmission co-optimization <u>CAISO</u>: Option 2 can meet this objective because it provides a holistic view of system needs which can be planned for well ahead of time. Option 2 with enhancements to consider local needs will allow the IRP program to co-optimize transmission planning with procurement, including consideration of trade-offs between generation and transmission expansion, especially in local capacity areas. In replies AReM opposes CAISO's suggestion for location-specific procurement requirements because mandating long-term location-specific procurement is not sufficiently flexible, and prioritization of resource development locations should be determined by the market, not mandated. Interconnection process already helps with this without IRP intervention <u>CaICCA</u>: Allows the IRP planning track and CAISO TPP to assess transmission infrastructure needs further out to help inform procurement of resources where
	infrastructure needs further out to help inform procurement of resources where transmission is available

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Objective:	Party Assessment of How Recommended Program Option Achieves Objectives:
12. Recognize retail choice and allocate requirements and costs fairly	<u>AReM</u> : Proposal meets this because it maximizes LSEs' ability to select resources to meet reliability and clean energy goals while allowing limited central procurement when shown to be needed. It also uses allocation and load migration methodologies from the RPS and RA programs that the CPUC has already adopted as fair and consistent with cost causation principles
	<u>CAISO</u> : Option 2 should start with LSE IRP filings, which reflects the individual LSE procurement preferences balanced with meeting state goals and reliability
	<u>CalCCA</u> : Allows LSEs the flexibility to procure on an attribute basis, rather than on a resource-specific basis; Avoids mandating centralized procurement on behalf of all LSEs; Allows LSEs to count past and existing centralized procurement done on their behalf towards their obligations
13. Mitigate risks of market power.	<u>AReM</u> : Objective 13: Proposal meets this because it allows for orderly procurement of new resources and avoids rushed procurement that limits the available resource pool and inevitably raises prices
	CAISO: This objective is unclear
	<u>CalCCA</u> : Supports the build of new clean resources and complements the RA program that will retain existing resources to ensure the capacity market has sufficient surplus above the requirement to make it competitive; Creates a measured procurement framework that avoids rushed, order-by-order procurement that limits the pool of viable projects
14. Fulfill the relevant objectives of the Environmental and	<u>AReM</u> : AReM will review proposals by other parties in this proceeding and may suggest additions or modifications to the proposal to address this objective in reply comments
Social Justice Action Plan	<u>CAISO</u> : Option 2, with the CAISO's proposed enhancements, provides stability, predictability, and a holistic view of system needs which can consider environmental and social justice goals
	<u>CalCCA</u> : Would develop new renewable resources and through the RA program would provide an orderly path to retirement of emitting resources. To the extent the ESJ action plan wishes to target certain facilities for retirement due to local health and welfare impacts, the CalCCA proposal would not present obstacles to doing so. In this sense, the CalCCA proposal is no different than the four Staff Options

Several parties supported options proposed in the staff paper:

	Comments:
Supports Option 1: Capacity Contracting with Marginal ELCCs	 For the reasons described in response to prior questions (ACP-CA, CalPA, DG, Mainspring, MRP, WPTF) Marginal ELCCs reflect the net remainder of system needs and a CES is more simple, fungible and familiar to all parties. A non-routine track can be used to procure any additional identified need (Avangrid)

	Comments:
and Clean Energy Standard	 As long as it can be proved that a CES would lead to a balanced and efficient resource mix (Calpine) In planning for reliability, SDG&E believes that Option 1 and, eventually, Option 3 could be leveraged to meet IRP program objectives. With changes to forward showing compliance obligations for reliability and the scope of need addressed for reliability (NRDC-UCS) If the CPUC does not adopt the SOD framework as currently outlined in the Ruling, then would support Option 1 (LSA)
Supports Option 2: Average ELCCs and Mass-based GHG-reduction	• None
Supports Option 3: Slice-of-Day with Mass-based GHG-reduction	 Most consistent with the RA program and the IRP planning process (CEERT) Slice-of-day would be used to ensure consistency between the RA and IRP programs (CEJA-SC) No further comments (LSA) Use the slice-of-day format of the RA program as the basis for determining whether LSE procurement contributes adequately to maintaining reliability (SEIA)
Supports Option 4: SFPFCs	• None
Opposes all Options:	• A program is not needed for CASMU members.
Supports a mix of Options:	 Generally aligned with Option 1 for the reliability component of the program and Option 2 for the mass-based approach to GHG procurement (CESA, GHC) Marginal ELCCs are familiar to stakeholders and the methodology has been improved materially recently by including the solar-storage surface; not convinced slice of day is ready to be applied to procurement within IRP at this time (CESA) GHC also supports some resource-specific procurement to promote resource diversity and send clear market signals Supports own proposal for reliability, detailed below, that most closely resembles a mix of Option 3 and 4 plus a CES (GPI) Supports hybrid approach, with GHGs (scope = existing + new) using mass-based largely as outlined in Option 2, and reliability (scope = new) where the amount of new resources needed to meet a 0.1 LOLE is determined in the planning track and then capacity/energy/other attributes are allocated to LSEs by managed peak load share and the net CONE penalties of MTR (SCE) Supports their own option for reliability and GHGs (PGE, SBUA) In replies, AReM noted its proposal is similar to PGE's but is more efficient by expressing the requirement for new resources as a percentage of total RA requirements instead of creating a standalone procurement requirement; also, PGE's proposal to allocate need based on "open position" raises questions identified in D.21-06-035 requiring a complex methodology to decide which resources do and don't count. Finally, under PGE's proposal LSEs may get allocated a larger share of the new procurement

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Comments:
 need simply because other LSEs decided to over-procure for RA. In replies, SBUA supported PGE's bridge between the RA and IRP processes except regarding resource counting As discussed in questions 4 and 5, CalWEA proposes a hybrid of the SOD and CES approaches, as well as a framework for the procurement of offshore wind. TURN generally endorses Option 1 or 3 for reliability, and a hybrid of options 1 and 2/3 for GHG reduction.

9. Compliance Showings

Question 9: Should the new program's compliance showings should be combined with the current annual compliance reports required by the renewables portfolio standard (RPS) program, filing of LSEs' individual IRPs, and/or other existing regular planning and procurement filings? Do you have any other suggestions to minimize the time and effort required of LSEs and staff?

<u>Summary</u>: In opening comments, 19 parties responded with thoughts on combining IRP and RPS filings or with other suggestions on how to minimize compliance filing effort (ACP, AReM, CAISO, CalCCA, CalPA, Calpine, CASMU, EDF, GPI, IEP, MRP, PGE, SCE, SDGE, SEIA, WPTF, CEJA-SC, NRDC-UCS, Shell). Many LSEs supported some or total streamlining with RPS and a few noted simply consolidating with existing IRP filings would be a logical first step. CASMU, CEERT, PGE, and Shell submitted reply comments. CASMU supports the CEC's RPS Online System and non-excel reporting templates.

Comments on Streamlining:

Options:	Comments:
Combine with RPS:	 Comments: CAISO, CalCCA, Calpine, CASMU, GPI, MRP, CEJA-SC, PGE, Shell supports streamlining with RPS EDF supports minimizing time and effort wherever possible and sees opportunity to align with RPS if the Commission chooses a CES approach. If the Commission chooses a mass-based approach, could align with IRP planning track. SCE suggests program showings could be consolidated under an existing IRP showing and should include a CSP tool and RDT. Later, the Commission should evaluate whether to combine certain elements with RPS or whether certain RPS reporting requirements are no longer necessary In raplice, CEEPT and Shell agree
	 NRDC-UCS suggests at minimum to combine RCPPP filings with IRPs and to look to joint filing if a CES is adopted. They note WREGIS could track attributes.

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Options:	Comments:
	 SDGE notes that to the extent feasible, RPS, IRP, and all reliability reporting should be consolidated. In replies, Shell agrees SEIA suggests that IRP program requirements will supersede RPS requirements and thus program reporting could replace RPS reporting PGE supports reducing the administrative burden of the RPS program
Other streamlining suggestions:	 ACP suggests LSEs can optimize resources to meet both RPS and IRP procurement program requirements if a RPS style of accounting is adopted. AReM and IEP note their proposals have all compliance conducted by the RPS and RA programs. Shell also notes that any needed modifications should be made to the existing RA or RPS programs. WPTF suggests that GHG reduction reporting could use the existing RPS compliance regime (but does not feel that the reliability reporting could be conducted via an existing process). CAISO supports combining compliance filings with RA per their response in Q4 CalCCA says it is most important to make sure LSEs aren't penalized multiple times for same deficiency via various programs PGE recommends a separate Commission track focused on improving and streamlining the RPS reporting process particularly via including portions of the RPS reporting with no changes in their BPPs.

10. Local Reliability Procurement

Question 10: Local reliability is raised briefly in Section 5.1.1 of Attachment A. Requirements are currently set for the near-term as part of the resource adequacy program. Are these sufficient, or should there be medium-to-long-term procurement requirements as well? If so, should they be part of the new program or should they be addressed on an order-by-order basis in parallel with the program? Explain your reasoning.

<u>Summary</u>: In opening comments, 19 parties submitted comments on whether local reliability requirements as currently set near-term in the RA program are sufficient and whether they should be part of the new procurement program (AReM, CAISO, CalCCA, CalPA, Calpine, CASMU, CEERT, CESA, GHC, IEP, LSA, Mainspring, MRP, New Leaf Energy, SCE, SDGE, SEIA, CEJA-SC, NRDC-UCS). AReM and IEP support keeping local reliability in the RA Program whereas most other parties support incorporating local procurement into the IRP Program either via the RCPPP or one-off orders. In reply comments, parties largely reiterated their positions (AReM, CAISO, CalCCA, CESA, CEJA-SC, EDF, Mainspring, New Leaf Energy, SEIA). Most parties still appear to support some level of local reliability consideration in the RCPPP. Mainspring was the only party that softened its initial position somewhat and now seems to favor a

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local reporting requirement (as opposed to a procurement requirement). The summaries below do not include instances where a party simply reiterated its original comments.

Suggestions:	Comments:
Keep in RA Program:	• AReM supports keeping local reliability matters in the RA Program but acknowledges that modifications may be needed to the local RA program, e.g., unclear if it is sufficient to stimulate the development of new resources for local reliability.
	 IEP supports keeping local reliability in the RA program but adding multi-year requirements.
Add Local Requirements to New Procurement Program:	 TEP supports keeping local reliability in the KA program but adding multi-year requirements. CAISO, CalPA, MRP, SEIA, and NRDC-UCS support including local reliability requirements in the new procurement program In reply comments, CAISO states that isolating existing and incremental local needs in the RA program without considering local and full system needs in IRP would be inefficient (for example, consider that LLT procurement and Aliso closure also have local capacity effects). The Commission could "pilot" a few local areas before expanding to incorporate all of them in IRP procurement. In reply comments, New Leaf Energy notes widespread agreement among parties that including local RA requirements would be beneficial and also states that including local RA planning will constrain over-procurement and minimize costs. CAISO also supports a thermal retention and retirement analysis CalCCA says that the Commission should work with CAISO to consider the cost alternatives of transmission to reduce local requirements and new resources. The CEC should provide input on land use feasibility. In reply comments, AReM notes that it does not object to studying local requirements along with CAISO and the CEC, as long as local RA procurement orders are made in the RA program and do not interfere with the CPE's role. In reply comments, CalCCA reiterates its position but notes that there are several remaining questions, including how to determine local needs (e.g., including transmission considerations), how to allocate responsibility or incentives for procurement, how to efficiently address responsibility (i.e., fractional responsibility in local areas is unworkable),
	 how to ensure resources come online, and what to do it they don't come online. CalCCA supports LSEs having initial responsibility to meet their own needs and does not support automatically extending the CPE's role. CalCCA recommends a workshop process to address these questions. In reply comments, EDF agrees that the IRP program should incorporate joint
	 transmission planning and procurement, including reliability planning. GHC strongly supports consideration of local needs in the procurement program with emphasis on no-regrets investments to start transition to hydrogen economy, as well as integration with planning track.
	• In reply comments, Mainspring agrees with GHC's argument that the program should consider how to transition infrastructure away from natural gas and towards green hydrogen.
	• In opening comments, Mainspring had supported inclusion of local reliability in the procurement program, including ensuring that LSEs can receive compensation from the CPE for local procurement including flexible fuel capacity. In reply comments, Mainspring notes that parties are not clear how to account for local reliability in the compliance program. Mainspring states that an explicit requirement to procure local

Suggestions:	Comments:
	resources in a system-focused program is not feasible but that LSEs should at least be required to report local reliability offers in their solicitations and to explain why non-local resources were selected over local resources.
	• SCE supports inclusion of local reliability in the second phase of the program, after first working with CAISO to determine how local reliability will be added to both the planning and procurement tracks.
Address by Order:	 CEERT supports addressing local reliability in IRP using an order-by-order approach to reduce complexity or delay for the procurement program. CESA states that addressing local reliability in the IRP Procurement Track is essential and seems to support one-off procurement directives with integration into the planning track as well. LSA supports using the planning track to optimize for local RA needs and using one-off orders when deficiencies occur. CEJA-SC outline a multi-part plan to incentivize local procurement including determining what gas usage could be reduced in LA and San Joaquin air basins, ordering whatever procurement is required, creating a financial adder to capture resiliency benefits of local resources, and limiting contract lengths of emitting local resources in DACs In reply comments, CEJA-SC notes that past failure to consider mid- and long-term local needs has hurt ratepayers, forced a disproportionate share of gas plant pollution on DACs, and been inconsistent with the ESJ Action Plan. New laws, including SB 887 and SB 1020, require the Commission to reduce non-preferred resources in local areas and to consider both local and system needs when examining procurement and reliability requirements. The Commission should begin with a staff-led workshop that results in a local procurement framework for party input.
Other:	 Calpine opposes the current CPE process because it prevents LSEs from realizing the value of local procurement CASMU states that its members should not be subject to local procurement or RA requirements New Leaf Energy recommends a joint workshop with CAISO to re-evaluate study methods such as better bi-furcating local and system RA in studies. In reply comments, CAISO states that parties should instead direct any questions on deliverability study methods to the appropriate CAISO stakeholder initiatives. SDGE suggests also considering transmission-based solutions. In reply comments, SEIA pushes back against CalPA's assertion that local batteries couldn't be charged by local clean generation, arguing that there is significant potential.

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<u>11.</u> Location-specific Procurement to Minimize Local Air Pollutants & Other Emissions in DACs

Question 11: How would the approaches described in Section 5.1.1 of Attachment A need to be amended or expanded in order to minimize local air pollutants and other GHG emissions in disadvantaged communities associated with location-specific procurement?

<u>Summary</u>: In opening comments, seventeen parties submitted comments on whether and/or how need determination approaches in the Staff Options Paper should be amended to minimize criteria pollutants or GHG emissions in disadvantaged communities (DACs) by requiring location-specific procurement (CalCCA, CalPA, Calpine, CalWEA, CASMU, CEERT, CEJA-SC, EDF, GPI, IEP, LSA, MRP, PGE, SCE, SDGE, SEIA, and TURN). CalCCA, CEJA-SC, EDF, GPI, PGE, and SEIA all support some form of inclusion of local procurement to minimize environmental impacts on DACs while Calpine, CalWEA, CASMU, CEERT, IEP, MRP, SCE, and SDGE either explicitly oppose doing so or suggest it is not necessary. AReM, CEJA-SC, EDF, IEP, and SEIA replied to this question. CEJA-SC reiterated their opening comments.

	In support:	In opposition:
Programmatic local procurement to minimize environmental impacts on DACs:	 CEJA-SC recommend an hourly emissions assessment to understand the impact of reliability resources on DACs as well as targeted procurement to reduce emissions in DACs, particularly in the LA and San Joaquin air basins EDF argues that the program should be designed to minimize, if not eliminate, air pollutants from fossil fuel generators in DACs and that OTC retirement should be a near-term priority SEIA recommends that long-term procurement of clean generation and storage capacity in local reliability areas should be part of the base procurement program, not addressed in a "parallel" program that may not receive adequate attention Reply: EDF strongly supports CEJA/Sierra Club's suggestion that the Commission: (1) provide specific direction to enable targeted procurement of resources that will reduce emissions; (2) require LSEs to provide detailed descriptions of their intended community outreach in Community Outreach Plans; and (3) require LSEs to use reportable metrics in the form of a scoring bonus to ensure consideration 	 Power plants do not contribute significantly to criterial pollutants in DACs in comparison to other sectors (Calpine, IEP) SDGE suggests that including an early priority on reducing emissions in DACs in bid criteria is sufficient SCE suggests that new resources will be clean so local procurement is unnecessary but that emissions in DACs could be a factor in which units to retain The Commission should not impose deliverability requirements any more stringent than those currently required by statute. (IEP)

Comments on Location-specific Procurement:

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In support:	In opposition:
of air quality and DACs.	
• EDF also agrees with PG&E that the	
Commission should consider providing location-	
specific procurement orders to alleviate pollution	
burdens	

Other arguments:

- CAISO pointed to their Q10 comments and LSA pointed to their 1A comments on procurement subcategories
- Multiple parties discussed the need to track emissions regardless of their stance on whether local procurement should be ordered (CEJA-SC, GPI, TURN)
- Multiple parties noted that a low GHG portfolio and enabling electrification of other sectors like transportation may have a larger impact on air quality in DACs (CalPA, Calpine, CalWEA, IEP)
 - AReM supports flexibility in creating solutions to reduce pollution burden in DACs to allows LSEs to minimize costs and ESPs to tailor portfolios to the needs of its customers.
- CASMU mentioned that they do not have any emissions from their members impacting DACs in California and thus should not be subject to any requirement of this kind
- PGE suggests the Commission may need to concentrate its efforts on how best to develop an orderly path for their retirement and issue location-specific procurement orders on a case-by-case basis as part of the IRP proceeding
- Reply: SEIA challenges CalPA's apparent assumption that the new local solar generation needed to charge storage cannot be sited in the built environment in local reliability areas.
- Reply: local procurement needs to be included because mid- and long-term local procurement is not being considered in any other Commission proceeding, which has hurt ratepayers who pay higher market prices and disadvantaged communities ("DACs") who breathe a disproportionate share of the pollution from local gas plants. (CEJA-SC)

12. Procuring to Mitigate Transmission Needs

Question 12: D.22-02-004 ordered two storage projects be procured to mitigate the need for transmission upgrades and noted that the new procurement program may be able to address opportunities of this nature. Do you think that is appropriate? If so, explain why, and how the program design should consider this.

Summary: In opening comments, 11 parties offered comments on the unusual nature of storage resources being used for transmission services (ACP, AReM, CalCCA, CalPA, CAISO, CASMU, CEERT, CEJA-SC,

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DG, EDF, New Leaf Energy). Parties are generally split on the question whether to include storage-astransmission projects in the new procurement program. Two CalPA, and New Leaf reiterated opening comments in reply comments. In reply comments, CEERT asserts that the Commission can improve coordination of the IRP with the CAISO's TPP to use battery resources, both existing and new, to reduce interconnection timelines.

	Comments in favor:	Comments in opposition:
Procurement program including storage-as- transmission alternatives:	 AReM states its proposal should accommodate storage projects that can mitigate transmission. CEJA-SC believe it is appropriate for procurement program to address specific location-based storage projects. EDF urges prioritizing the siting of storage projects in DACs and LCRs. 	 CEERT asserts that CPUC can address these types of projects on a case-by-case basis. CASMU states storage issues should be addressed in storage proceedings. DG notes that timing of TPP would add complexity and uncertainty in procuring such resources. ACP: incorporating storage-based transmission solutions would add unnecessary complication.

Other General Comments:

- AReM, CalCCA and others emphasize that procurement of non-transmission alternatives should be open to non-utilities.
- CalPA emphasizes there should be clear guidance from CPUC and CAISO of the operational limitations of such storage projects and how costs of these service are allocated among benefiting customers.
- CalPA also urges conducting a comprehensive cost-benefit analysis that includes the costs of the storage systems and interconnection costs before procurement is approved
- CAISO highlights the disconnect between the RA program and IRP proceeding.
- CESA and CAISO emphasize that the IRP procurement program should incorporate local capacity needs.
- New Leaf Energy comments that:
 - CPUC Procurement Program should tailor unique transmission-related use cases for which they are identified because they have different technical, operational and revenue-related requirements.
 - The procurement program would benefit from modified study methods specifically bifurcating the CAISO's study of local RA and system RA needs.
 - Procurement program should support efficient project development; for example, the timing of solicitations should be linked to timing of CAISO interconnection study results so LSEs would have better insight into project viability and developers would have better information whether to proceed with financial postings required to advance the interconnection process.

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- The CAISO and the CPUC should provide more detailed guidance on the operational characteristics and requirements for storage non-transmission solutions that may be procured in the future.
- "The Lamont Battery solicitation has officially failed." CPUC should re-issue the procurement for Kern-Lamont storage project without the requirement that this resource be deliverable.

13. Interim Options - Development

Question 13: Comment on the need to develop interim approaches to manage the risk of the preferred program design taking longer to implement.

<u>Summary</u>: In opening comments, 23 parties spoke to interim options for program development (ACP, AReM, Avangrid, CAISO, CalCCA, CalPA, Calpine, CALWEA, CASMU, CEERT, CEJA-SC, DG, EDF, Fervo, GPI, IEP, LSA, Mainspring, MRP, PGE, SCE, SDGE, SEIA). Parties suggested different interim approaches, and several oppose any interim approach as it would likely delay full program implementation. In replies, CalCCA, GPI, and SCE reiterated their opposition to developing an interim approach. ACP suggests the Commission should order near-term, mid-term and long-term resources, while DG suggests a separate priority track for existing gas issues.

	Comments in support:	Comments in opposition:
Interim Programmatic Approach:	 CAISO proposes prioritizing resource needs in years T+1 to T+5 starting in 2023 based on LSE 2022 filings. Next, CAISO recommends LLT procurement requirements. Third, CAISO suggests IRP consolidate system, flexible, and local requirements in a 10-year rolling time horizon in IRP and away from RA. Finally, IRP should integrate longer term local capacity needs. EDF support but cautions that if the interim approach takes too long to develop the CPUC risks becoming stuck in an endless cycle of issuing ad hoc, interim procurement orders. IEP prefers an interim approach similar to Option B, with possible carve-outs for high-cost/high-value resources that the CPUC determines are necessary. Mainspring and SEIA prefers Option A because it can be readily implemented SDGE outlines a two-phase approach with a planning phase and a procurement phase designed to allow IRP stakeholders bandwidth to focus on need determination and allocation. CEJA-SC agrees that interim approaches may be 	 Avangrid, CalCCA, Calpine, CalWEA, CASMU, MRP, SCE oppose spending time on an interim approach. CPUC should put RCPPP in place by early 2024; if not yet ready in time for the decision on LSEs' IRPs the CPUC should authorize SCE to begin procurement to meet the needs identified in its 25 MMT Bundled Portfolio under the approach described in SCE's IRP (SCE). AReM suggests that both their multi-year RA proposal and the CES could be implemented by 2025 for compliance years starting in 2026, making an interim approach unnecessary. CalPA supports an interim procurement order of 4,000 MW NQC. PGE suggests a near-term focus

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Comments in support:	Comments in opposition:
needed while the program is being developed and implemented but suggests Commission accounts for summer reliability DR programs and BTM storage first.	on grid reliability and that a multi-year RA approach could serve as a bridge to RCPPP.

14. Interim Options – Assessment

Question 14: Assess the interim options discussion in Appendix 10.3 of Attachment A. Include in your comments an assessment of the options against the program's objectives listed in Section 3 of Attachment A.

<u>Summary</u>: Opening comments were spread across the two interim programmatic options (CAISO, CalCCA, CalPA, CEERT, CEJA-SC, EDF, SCE, SDGE). The related questions, Q13 and Q15, have summaries of replies about interim options.

	In support:	In opposition:
Resource- specific option:	• Meets the RCPPP's objectives as modified by CAISO's response to Q1a (CAISO)	 LSEs' IRP plans are planning tools; this option would leave LSEs no flexibility to adjust as new technology evolves, factors outside LSEs' control impact their ability to remain consistent with their IRPs, and unnecessarily restricts economically efficient decisions (CalCCA, SCE) Would penalize LSEs who included more aggressive GHG reduction in their plans and could penalize LSEs who included new resource types, such as offshore wind which relied on the CPUC's assumptions (SCE) If CPUC finds it necessary to adopt an interim approach, it could provide guidelines on the percentage of procurement to meet the GHG target and reliability need that should be contracted by a certain date (SCE) Attribute-based approach in IRP procurement so far will suffice until full program in place (GPI)
Attribute- based option:	 Give LSEs flexibility, but notes would require some modification of compliance tools (CEERT) Resource-specific would undermine technology-neutrality and cost- effectiveness principles (SDGE) 	

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General Comments:

- Both options could result in inequitable need allocations (CalPA)
- Focus on resources that could be available in near-term and consistent with California's climate, air quality, and equity requirements as well as the objectives in the SOP; specifically, community solar and storage, energy efficiency, thermal storage, emergency DR programs, and BTM vehicle-to-grid and storage-to-grid. Would be consistent with at least objectives #1, 6, 14. Environmental and Social Justice Action Plan particularly relevant here as it calls for investment in ESJ communities (CEJA-SC)

15. Interim Options - Adoption

Question 15: Do you recommend adopting either of the interim options in Appendix 10.3 of Attachment A? If not, what do you recommend? Explain your rationale.

<u>Summary</u>: In opening comments, CAISO, CALCCA, CASMU, CEERT, CEJA-SC, EDF, IEP, GPI, MRP, SCE, SDGE, SEIA, and TURN commented on adoption of interim options. In replies, SCE repeated its Q13 opposition to an interim approach, and argued against the resource-specific option in particular.

	Arguments for adopting:	Arguments against:
General interim procurement:		 An interim approach could conflict with ongoing MTR procurement activity and exacerbate the existing challenges LSEs and suppliers are facing under the current just-intime order-by-order approach (CalCCA) CASMU members will continue to meet reliability and environmental goals without any procurement program (CASMU) Could distract from developing a robust program (EDF, GPI, MRP, SCE) Creates risk of the CPUC becoming stuck in an endless cycle of issuing ad hoc, interim procurement orders (EDF) Not needed because system reliability has been hedged through 2026 by the MTR order and potential extension of Diablo (GPI) Likely to be as complicated as creating a new program (SEIA)
Resource- specific interim procurement:	 Would ensure that the PSP does not deviate greatly from procurement (CAISO) Reliability and transmission planning modeling require specific and detailed assessments of resource characteristics and their location on the grid. Significant 	 For the reasons described in section 10.3.1 of the staff options paper (GPI) Needlessly restrictive (IEP) Undermines technology-neutrality and cost-effectiveness principles (SDGE) Carve-outs often result in uneconomic procurement with increased costs to customers. If CPUC determines an interim approach is

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	Arguments for adopting:	Arguments against:
	 deviations will render the modeling moot, could undermine reliability, and cause significant inefficiencies delaying new development or retention of critical capacity (CAISO) Only interim option that would be simple and quick to implement (SEIA) 	necessary, the CPUC should monitor LSEs' procurement against their 2030 GHG benchmarks and reliability needs rather than require them to procure the specific resources in their plans. There is no way for LSEs to accurately predict the exact locations of resources that will be available in the market in a resource plan. Also, the resource-specific option would penalize LSEs who included more aggressive GHG-reduction in their plans and could also penalize those who included untested resource types. (SCE)
Attribute-based interim procurement:	 No reason provided (CEERT, IEP) Generally supportive of attribute- based procurement directives (SDGE) 	
Other:	• Adopt a hybrid approach focused on certain no-regrets resources while ensuring that all procurement meets GHG requirements. This focus on the GHG impacts of LSE procurement is essential to avoid perverse outcomes in which certain resources like battery storage are procured without any assurance that they will be charged by renewables and not fossil-fueled resources (CEJA-SC)	

Interim approach implementation details:

- General:
 - If a program is needed, the CPUC should adopt the least administratively burdensome option to focus more time and effort on developing the Program itself (EDF)
- Resource Specific:
 - The CPUC should mandate that some significant percentage of forward contracting match the resource types detailed in individual IRP filings (CAISO)
 - The CPUC should adopt this approach now and retain it for the full program (CAISO)
 - Consider carve-outs for high-cost/high-value resources that the CPUC determines are necessary to meet state goals (IEP)
 - Allow LSEs some flexibility to substitute other specified resources for those identified in the plans (TURN)
- Attribute-based:

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- Opposes any interim approach, but to the extent that one is needed (CalCCA):
 - It should be preceded by a robust LOLE analysis vetted by stakeholders to identify the capacity necessary to meet reliability standards
 - The CPUC should assess current market conditions (including any transmission constraints) for new build to avoid disrupting procurement already underway to meet the MTR order and avoid undue price pressure on project contracting
- Other:
 - If RCPPP is not in place upon approval of LSEs' 2022 IRPs, the Commission should authorize the IOUs to begin procuring to meet the needs identified in their individual plans and non-IOU LSEs can also begin procurement to meet their needs (SCE)

16. Process

Although not a ruling question, many parties contributed ideas on the process the Commission should take to design and establish the RCPPP. Parties also used the opportunity to comment on the IRP PD in February 2023 to recommend how to develop the RCPPP.

Summary: Some parties provided specific suggestions on workshops to develop the RCPPP, including the key topics and who should be involved, as well as the timeline to implement the RCPPP (CAISO, CalCCA, GPI, IEP, PGE, SCE, SDGE, Shell). In addition, staff includes IRP PD comments from CESA, GPI, and PGE.

Comments informing how the CPUC should conduct workshops:

- Further discuss the program options based on party comments and provide for additional comments after the workshops; in the longer-term tackle the topic of existing resource retention in coordination with the CAISO and the RA program (SCE)
- Establish a separate workstream including technical workshops and working groups, including the Modeling Advisory Group, to focus on improving the planning track's inputs to the RCPPP (SDGE)
- Marginal vs. Average ELCCs require further consideration and opportunity for stakeholder input (CAISO)
- Reply comments:
 - Supports SCE and SDGE regarding the use of workshops; should do in IRP, and RA and RPS as needed; recommends addressing procurement requirements for each year, procurement order structure, use of compliance in RA versus IRP, and GHG-free compliance program (PGE)
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- Agrees with SDGE, and the effort can occur in parallel with other IRP workstreams and should not delay the RCPPP or PSP; topics should be reliability planning standard, review of 0.1 LOLE, and climate impacts on modeling (SCE).
- Determine whether and how the RA program should be enhanced given the new IRP procurement framework; cautions specific enhancements to the RA program because it is being reformed (CalCCA)
- CPUC should decide on the fundamental allocation of responsibilities among the IRP, RA, and RPS programs and then quickly schedule joint IRP-RA-RPS workshops to develop the detailed steps to design and implement a multiyear forward RA requirement and a CES that work together (IEP)
- Details of enhancing RA and RPS programs should be developed in a series of workshops, similar to the CPUC's approach to the new RA framework (Shell)
- PD comments:
 - Proposes three-track development process from 2023-2025 that is stakeholder-led like the RA reform process: centralized procurement, reliability, GHG-free. Not suitable to try to resolve this highly impactful workstream exclusively through written comments. Each track could have a separate timeline with less urgency on clean energy given the RPS program is already in place (PGE)
 - PD reply comments:
 - GPI disagrees with front-loading central procurement and reliability while putting clean energy on back burner
 - RCPPP could be adopted this IRP cycle through at least one workshop and round of comments and replies prior to a PD (CESA)
- Next steps should include finalizing the RCPPP's objectives and narrowing the number of options for both the reliability and GHG compliance elements (GPI)
- Implementation timeline:
 - Reliability: in 2025 for the 2026 through 2030 compliance years; GHG: in advance of the 2025-2027 RPS compliance period (AReM)
 - First implement reliability, and then GHG by 2030, since there is already RPS and cap-and-trade (PGE)
 - Reply comments:
 - Supports AReM's reliability timeline, because it is after the RA program's 2024 test year and 2025 go-live but opposes AReM's GHG timeline because too hard to do at same time. Supports PGE's GHG timing. (Shell)

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Appendix – Parties' Options

In opening comments, the following parties suggested their own procurement program designs: **ACP**, **AReM**, **CAISO**, **CaICCA**, and **PGE**. Note SBUA's option is not straight forward to summarize and is still under review.

Staff describe the proposals as follows:

Design	PG&E	CalCCA	AReM	CAISO	ACP
Element					
or					
Additional					
Feature					
Summary	Extend RA to 5	Net clean capacity	Modify existing	Modified version of Option 2:	Consolidated near-, mid-, and
	years. For IRP	framework where	RA and RPS	LOLP-based forward capacity	long-term procurement
	reliability, "bridge"	LSEs meet steadily	programs. RA	contracting requirement <u>that considers</u>	framework that is modeled on
	from RA to plan and	increasing share of	would become a	the marginal ELCC contribution of new	SOP Option 1.
	procure for reliability	their reliability	4-year ahead	<u>resources while</u> using average ELCCs <u>to</u>	
	for > 5 years forward	requirements with	program. RPS	assess compliance with the total	Programmatic Procurement
	via slice of day. LSE-	clean capacity.	would be	portfolio.	Track (PPT) coordinated with
	specific procurement		expanded to	Mass-based GHG reduction	technology-specific LLT orders.
	orders to address	Energy-based CES	include additional	requirements.	
	deficiencies.	targets to achieve IRP	GHG-free	Forward showings in CPUC-approved	LLTs would be ordered from
		GHG goals.	resources.	filing templates and after-the-fact	specific resource types and LSEs
	For GHG-reduction,			reliability capacity checks.	would procure clean-energy
	use "RPS+" or	3-year forward net	May be some		credits (or RECs) and marginal
	"RA+". RPS+ would	clean capacity	need for	Also:	ELCC-adjusted capacity.
	be an expansion or	contracting	centralized LLT	 Mandate significant, resource- 	
	replacement of the	requirement.	procurement in	specific, portion of each	Eligible LLT resources would be
	RPS program after		IRP.	LSE's IRP be under contract	tied to the PSP. Define LLTs as
	2030 to meet the	Shift all new and		(i.e., resource-specific interim	resources requiring longer than 5
	requirements of AB	existing clean resource		option should be adopted for	years to develop.
	32, SB 100, and SB	procurement into IRP,		full program too).	
	1020. RA+ would	while the RA program,		 Local reliability capacity 	Use PSP to make PPT and LLT
	replace the RPS	with potential		contracting requirement for a	directives and follow it with a
	program after 2030	enhancements, is		significant volume beyond	Makeup Order covering
	and incorporate clean	responsible for the		T+3.	backstop if needed, as well as
	energy requirements	remaining resource			directing CPE procurement of
	into each LSE's 24-hr	need.		Recognizes that specific procurement	LLT resources.
	slice of day			may be needed to address the unique	
	requirements.	Establishing a robust		circumstances of LLT resources	LLT CPE(s) would be
		planning process and		including long lead-time transmission.	determined by the CPUC: IOUs,
		programmatic			a JPA, or an entity formed or
		procurement structure		IRP should be the primary planning and	directed by the state (e.g., the I-
		will inform the market		procurement venue, though RA can be	Bank).
		of the need for LLT		used for overseeing compliance within	
		resources well in		the year of compliance.	Use CAM for LLT resources
		advance, obviating any			procured by the CPE(s).
		perceived benefits of			
		centralized resource-			
		specific procurement.			

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<u>Appendix – Glossary of Acronyms for Parties' Names</u>

ACP	American Clean Power		
AReM	Alliance for Retail Energy Markets		
CAISO	California Independent System Operator		
CalCCA	California Community Choice Association		
CalPA	Public Advocates Office		
Calpine	Calpine Energy Solutions		
CalWEA	California Wind Energy Association		
CASMU	California Association of Small and Multi-Jurisdictional Utilities		
CCDC	California Clean DG Coalition		
CEERT	Center for Energy Efficiency and Renewable Technologies		
CEJA-SC	California Environmental Justice Alliance - Sierra Club		
CESA	California Energy Storage Alliance		
DG	Diamond Generating, LLC		
EDF	Environmental Defense Fund		
GHC	Green Hydrogen Coalition		
GPI	Green Power Institute		
IEP	Independent Energy Producers		
LSA	Large-Scale Solar Association		
MRP	Middle River Power, LLC		
NRDC-UCS	Natural Resources Defense Council - The Union of Concerned Scientists		
PGE	Pacific Gas and Electric		
RWE	RWE Renewables Americas		
SBUA	Small Business Utility Advocates		
SCE	Southern California Edison		
SDGE	San Diego Gas and Electric		
SEIA	Solar Energy Industries Association		
SHELL	Shell Energy Solutions		
TURN	The Utility Reform Network		

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WPTF

Western Power Trading Forum

-- END OF ATTACHMENT C --