

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue
Electric Integrated Resource Planning and
Related Procurement Processes.

Rulemaking 20-05-003

**CALIFORNIA WIND ENERGY ASSOCIATION
COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING
SEEKING COMMENTS ON NEED AND PROCESS FOR CENTRALIZED
PROCUREMENT OF SPECIFIED LONG LEAD-TIME RESOURCES**

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***On behalf of the California Wind
Energy Association***

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I. INTRODUCTION AND SUMMARY

Pursuant to the *Ruling Seeking Comments on Need and Process for Centralized Procurement of Specified Long Lead-Time Resources* (“Ruling”) issued by Administrative Law Judge Julie Fitch on April 26, 2024, the California Wind Energy Association (“CalWEA”) provides these comments in response to the questions posed in the Ruling.

CalWEA summarizes its comments as follows:

- The Commission should revise the Ruling’s proposed criteria for justifying central procurement to include the following:
 - Mismatched size of resource and/or transmission between sellers and buyers;
 - Cost-effective across broad range of future scenarios, or a reasonably likely future scenario, but not being procured in significant volumes;
 - Brings substantial resource diversity benefits;
 - Emerging technology with likelihood of cost reductions through learning;
 - Long lead time for transmission and other infrastructure; and
 - Other regulatory tools are not available or are insufficient to address the above market failures and barriers; central procurement is necessary to address the above considerations.
- The Commission should consider this concise rationale for central procurement:

Resources should be procured in a centralized manner when necessary to obtain the public good of avoiding significant long-term cost and

resource-availability risks associated with a portfolio otherwise highly dependent on a few technologies, and where market failures would impede procurement of the resource by individual LSEs—even if mandated—due to project size and a limited number of suppliers.

- With revised considerations and added context for central procurement, along with the additional analysis conducted by staff that captures many (but not all) resource-diversity-related benefits, offshore wind (“OSW”) is a clear candidate for central procurement.
- The Commission should authorize the Department of Water Resources (“DWR”) to procure 10 GW of OSW resources by 2035 to provide the necessary confidence for project and infrastructure investments. Substantial latitude should be granted to DWR to shape solicitation activities and contracts in response to market conditions and to ensure success.
- State law allows community choice aggregators (“CCAs”) to self-procure resources under certain conditions. In general, self-procurement of gigawatt-scale OSW projects would be inefficient and therefore, for policy reasons, these projects should be centrally procured. The smaller-scale 60-MW CADEMO OSW project (“CADEMO”) could be successfully procured by CCAs and, if accomplished, should be credited towards the CCAs’ larger OSW obligations, but the Commission should authorize DWR to procure CADEMO if it is not procured by CCAs.
- State law requires the Commission to allocate system integration resource procurement needs, or costs, to each load-serving entity based on its causation for the needed resources, rather than peak-load share. The Commission should commit to adopting a 24-hourly reliability framework for long-term planning in the next phase of this proceeding, which would be used to allocate the costs of centrally procured resources and other resource requirements that are necessary to achieve a diverse portfolio.

II. RESPONSES TO QUESTIONS POSED IN THE RULING

A. Questions on Eligible Resources

1. Please comment on whether Figure 1 outlines the appropriate criteria for considering whether a resource should be procured via the DWR centralized procurement mechanism. Are these the right criteria or are there others that should be added or substituted?

Figure 1 lists five considerations that might justify central procurement for four resources (offshore wind, out-of-state wind, geothermal, and long-duration energy storage):

- Mismatched size of resource and/or transmission between sellers and buyers;

- Cost-effective across broad range of future scenarios, but not being procured in significant volumes;
- Large resource potential;
- Serves a key role in future portfolios without readily available substitutes; and
- Emerging technology with likelihood of cost reductions through learning.

While the first and the last of these considerations function well as a rationale for central procurement because they represent market barriers to procurement, the other three do not, or require modification:

- *Cost-effective across broad range of future scenarios, but not being procured in significant volumes* – In addition to “a broad range” of future scenarios, the commission should consider whether a particular scenario by itself, or in combination with others, is reasonably likely to materialize.
- *Large resource potential* – If the resource is sufficiently large, the RESOLVE model will be able to select enough of it to demonstrate its cost-effectiveness, which is already considered in the second criterion. If not, the resource’s potential benefits will be too limited to warrant central procurement.
- *Serves a key role in future portfolios without readily available substitutes* – This criterion should be replaced with resource diversity.
 - The stated “key role” of geothermal is its "firm" (high capacity-factor) characteristic, which is not a "role." The RESOLVE model recognizes the characteristic and value of “firmness.” While more dependable, high capacity-factor also results in the resource producing energy during the day, when it is less valuable.
 - “Resource diversity” is cited as a “key role” but should itself be one of the rationales for central procurement. A resource diversity criterion would support any non-solar, non-four-hour-battery resource (the resources that dominate the portfolio), which would include (remote) in-state, as well as out-of-state, wind energy.
 - Whether there are “readily available substitutes” ignores whether all such “substitutes” may be needed to deliver identified benefits, particularly when challenges are associated with each one. This is the case with offshore, onshore, and out-of-state wind, each of which has significant challenges related to their location-constrained nature. 21 GW of in-state and out-of-state wind resources were identified as cost-effective in the Commission’s latest Preferred System Plan

(“PSP”); all 21 GW must be developed to achieve the identified benefits. To the extent that one substitutes for the other, presumably the result will be less cost-effective, and relying more heavily on one or the other will likely increase related challenges.¹

- In-state wind is unjustifiably left off the chart, but it meets many of the other considerations: it is cost-effective across a broad range of future scenarios, but is not being procured in significant volumes, it is a large resource (with 8.3 GW included in the PSP), and it plays a “key role” in terms of resource diversity.

2. Should other resource types (beyond OSW, OOS wind, geothermal, and LDES) also be considered for centralized procurement through DWR at this time? Provide rationale if you suggest other resources should be included.

CalWEA has no objection to additional resources being proposed for consideration under the revised criteria we suggest in response to Questions 1 and 3. As noted above, in-state wind should be considered for central procurement, but the Commission should find that the procurement barriers facing this resource, and likely other resources on the list, can be addressed in other ways.

3. In addition to the list of criteria for eligible resources in the AB 1373 statute, are there additional criteria that should be taken into account by the Commission when determining which resources should be procured through the DWR centralized procurement mechanism? Specify.

As discussed in response to Question 1, the Commission should consider whether a particular future scenario by itself, or in combination with others, is reasonably likely to materialize (in addition to being cost-effective in “a broad range” of future scenarios), and “resource diversity” should be one of the primary rationales for central procurement.

In addition, the lead-time associated with the resource should be one—but not the only—consideration.² The 10-year development time for new transmission is a primary challenge for any type of project that does not have access to existing transmission capacity, but particularly for location-constrained resources such as onshore wind and geothermal resources. Offshore wind faces long lead-times associated with transmission as well as ports infrastructure, which is necessary for

¹ Development challenges will likely decrease with more diffuse patterns of development. For example, if development is concentrated in a particular region, cumulative environmental impacts, transmission access, and community acceptance challenges could rise.

² The Ruling’s title and focus on “long lead time” resources is imprecise. A better short-hand description for the resources being considered for central procurement would be “location constrained and/or emerging” resources. A longer characterization of the rationale for central procurement is proposed on p. 6.

project development. Thus, long-lead-time is a more compelling justification for OSW procurement by DWR.

As importantly, in considering the resources that should be eligible for central procurement, the Commission should discern whether central procurement is necessary to address its stated considerations (revised per response to Question 1 and the above discussion) or whether it has other tools available. In fact, many of the “considerations” could be addressed in other ways. Chief among them, the Commission could:

- Expand its determination of resource cost-effectiveness by:
 - evaluating resource-diversity benefits in the IRP process, as it did for OSW resources as a part of the Ruling (that type of analysis should be done for onshore wind, geothermal, and long-duration storage (“LDES”) resources); and
 - adopting a 24-hourly RA framework in IRP planning to more fully capture the integration costs and benefits of all resources;
- Mandate procurement of resources that are found to be cost-effective (under the expanded evaluation just noted) and thus have been included in the Commission’s optimal portfolio, but are not being sufficiently procured by LSEs (this should be done as the Commission develops the Reliable and Clean Power Procurement Program (“RCPPP”));
- Address transmission and interconnection challenges by carefully coordinating transmission planning portfolios with queued location-constrained resources or by encouraging CAISO to allocate transmission planning deliverability (“TPD”) capacity to location-constrained resources in the PSP, as will be contemplated in the CAISO’s upcoming Interconnection Process Enhancements Track 3 (“IPE-3”) process; and
- designate all location-constrained resources (i.e., all non-solar, non-battery storage resources) as “long lead time” resources, whether or not they exist in zones with approved transmission, to inform the CAISO’s revised interconnection process.³

³ CAISO staff is proposing a new scoring system under which resources would potentially become eligible for interconnection studies, and otherwise be rejected. Under that proposal, “long-lead-time projects” in zones with existing transmission capacity would be eligible for points, in addition to long lead-time projects in zones with approved transmission (but not in areas without approved transmission). See CAISO Final IPE-2 [Proposal](#) at p. 54 and May 16, 2024 [presentation](#) at slide 25.

CAISO defers the definition of “long lead time” resources to the CPUC. Expanding “long lead time” (or, more aptly, “location constrained”) resources to include resources in areas that do not (yet) exist in zones with approved transmission will enable these resources to be studied in the generation interconnection process. In turn, these studies will inform busbar mapping in the next IRP cycle.

In CalWEA’s view, the procurement barriers faced by onshore wind (both in-state and out-of-state) can and should be addressed through the above means,⁴ rather than through central procurement.

In characterizing the rationale for DWR central procurement later in the document, the Ruling states:

An initial tranche of OSW could be procured by DWR in a centralized manner at a large scale as a public good and with the purpose of investment in GHG reductions for California as a whole, specifically to attain the goals set forth in Section 454.53. It could be argued that it is in the best interests of ratepayers to share the cost, timing, and technology risks of development of OSW across the broadest possible group of ratepayers.⁵

As with the “considerations” discussed above, this statement is not sufficiently accurate or comprehensive to serve as a rationale for central procurement. A better characterization and rationale for DWR procurement, discussed below, would be:

Resources should be procured by DWR in a centralized manner when necessary to obtain the public good of avoiding significant long-term cost and resource-availability risks associated with a portfolio otherwise highly dependent on a few technologies, and where market failures would impede procurement of the resource by individual LSEs – even if mandated – due to project size and a limited number of suppliers.

The additional RESOLVE modeling has quantified the diversity value of offshore wind under various, presumably plausible, future scenarios where the costs of competing resources are higher and their availability is constrained.⁶ These scenarios capture, at least to some significant extent, the risk-avoidance benefits of offshore wind; these benefits are a public good.⁷ While staff did not attach any probabilities to these scenarios, over the past few years the state has already experienced supply chain disruptions and related price spikes,⁸ and actual and potential land-use constraints

⁴ Indeed, CAISO has already adopted a transmission capacity reservation “subscriber line” policy to facilitate the development of out-of-state wind, which appears to be succeeding. *See* <https://www.caiso.com/Documents/DecisiononSubscriberParticipatingTransmissionOwnerApplication-SunZiaTransmissionLLC-Memo-May2024.pdf>.

⁵ Ruling, p. 23; emphasis added.

⁶ If the specific assumptions embedded in these scenarios have been shared with parties, CalWEA has not had time to review them. Staff also has not run a combination of scenarios where costs are higher and resource availability is constrained.

⁷ A public good is a good that is both non-excludable and non-rivalrous. Reducing risk is a public good because the risk-reduction benefits of OSW procurement would flow to all LSEs and all ratepayers, and procurement of OSW by one or a few LSEs would not diminish the benefits from that procurement to all.

⁸ *See, e.g., Utility Dive*, “Supply-chain squeeze: Solar, storage industries grapple with delays, price spikes as demand continues to grow” (March 31, 2022). Available at: <https://www.utilitydive.com/news/solar-storage-delays-price-supply-chain/620537/>.

related to endangered species.⁹ As global demand for raw materials increases dramatically, and as land-use impacts from clean energy development are increasingly felt, it is reasonable to assume that these scenarios are reasonably likely. Another public good is the learning and technology cost-reductions that come from early demonstration projects and the creation of a long-term market for the technology that encourages investment.

If, for these and other reasons, the Commission includes OSW in the portfolio, but some or all the identified quantity of OSW continues not to be procured by LSEs, a primary reason is likely to be market failure. Specifically, the Commission’s system-optimized portfolio takes long-term risks into account, which results in the inclusion of resources that have higher costs than others, even after energy and capacity values are considered. But each individual LSE procures to satisfy its own nearer-term reliability and greenhouse gas goals at the immediate least direct cost to the LSE. Relying on LSEs’ individual procurement interests will not produce the system-optimal portfolio; rather, it will result in a resource portfolio that is highly dependent on a few resources and technologies.

The disconnect between the system optimal portfolio and individual-LSE procurement is a market failure that must be corrected by regulatory action. For some resources, such as onshore wind (in-state and out-of-state), that regulatory action could take the form of a mandate for each LSE to procure a portion of the higher-cost resources that bring the long-term benefits. However, procurement by individual LSEs could be prevented by other market barriers, such as the mismatch between project size and the size of individual LSEs, the emerging nature of new technologies, and long development lead times (other than transmission lead-time issues that can be resolved in other ways discussed above). Offshore wind project development falls in this category. Development will be concentrated in just a few firms, as the federal government has issued leases to developers for just three Morro Bay sites, all of which may be needed to meet 2035 PSP goals,¹⁰ and there are just five leaseholders in total. With a limited number of projects, and over 40 LSEs, competition may not be sufficient to support traditional market-based procurement. Significant lead-time issues exist beyond transmission development, namely, ports development. A single central procurement

⁹ See, e.g., *Los Angeles Times*, “Renewable energy corporations fight endangered species status for Joshua trees” (Aug. 18, 2020) (available [here](#)); and Center for Biological Diversity News Release, “State Protections Sought for Vanishing California Burrowing Owls” (March 5, 2024) (available [here](#)).

¹⁰ Given the 10-year lead time generally required for major new transmission lines, as will be required for the two Humboldt Bay resource areas, developments in that area are unlikely to deliver before 2034 at the very earliest.

entity, in the form of DWR, will be best positioned to overcome these challenges.

None of these market failures and barriers are certain to be solved after an “initial tranche” of OSW procurement. Indeed, there is no reason to expect that any of these problems will be resolved over the next decade when action will be required.

4. AB 1373 contains specific criteria for eligible pumped hydroelectric facilities. What particular projects currently under development can meet the criteria and should they be procured centrally by DWR?

CalWEA noted above its view that the procurement barriers faced by onshore wind (both in-state and out-of-state) can and should be addressed through means other than central procurement. The Commission should similarly evaluate the need to centrally procure pumped hydro, geothermal, and other resources, in addition to the statutory criteria for pumped hydro.

5. How could developers leverage the many incentive opportunities that are available from the Federal government through the Inflation Reduction Act and the Bipartisan Infrastructure Law to assist with the financing of LLT resource development? How could developers and contractors access the Department of Energy or other agency grants for resource and infrastructure development that are available for projects that improve reliability and grid flexibility? How might centralized procurement help leverage federal funds for each resource type?

No comment at this time.

B. Need Determination Questions

6. Comment on the cost-benefit analysis conducted, including the analysis presented in the slide deck posted on the Commission’s web site. Does the analysis serve as a reasonable basis for a need determination? Specify how and why.

The analysis conducted to inform this Ruling¹¹ is the first CPUC analysis of the value of resource diversity. While the analysis is long overdue and its focus on offshore wind is too narrow,¹² it is nevertheless informative and valuable. It should inform the Commission’s need determination along with additional important considerations.

¹¹ See April 2024 slide deck linked on p. 17 of the Ruling.

¹² CalWEA strongly encourages the Commission to conduct similar analyses for other diverse resources, and combinations of diverse resources, to inform the development of the RCPPP. For example, while some diverse (i.e., non-solar/4-hour battery) resources were included in the PSP solely due to the system benefits recognized by RESOLVE, there is no guarantee that these resources will be procured due to the market failures discussed in response to Question 3. The Commission should evaluate the consequence of such an outcome as it considers whether measures other than central procurement are warranted to foster or ensure the procurement of the diverse resources in the PSP.

The additional analysis of 3 GW of OSW¹³ captures many resource-diversity-related benefits, or proxies for those benefits, and demonstrates that OSW would be “optimal, from a ratepayer perspective”¹⁴ (assuming the “mid” OSW cost assumptions used in the PSP) under various circumstances. Those circumstances include low or significantly low competing resource availability and “competing resource challenges”—with greater benefits when these circumstances are combined, and further benefits when other “single levers that increase offshore wind” are added.¹⁵ The “high competing resource cost” scenario included high costs for all competing technologies, which could also be viewed as a proxy for solar/battery supply-chain constraints or low solar resource availability (only non-solar resources were included in the “low competing resource availability” scenario).

The Commission is required to “[i]dentify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy and resource diversity in a cost-effective manner. The portfolio shall be used by the commission to establish integrated resource planning-based procurement requirements....”¹⁶ As part of the Commission’s individual-LSE IRP process, the Commission is required to ensure that LSEs “[m]aintain a diverse portfolio of energy resources, which may include eligible energy resources procured by the Department of Water Resources.”¹⁷ For the references to “diverse” resources to have meaning, the Commission cannot constrain itself to considering just one portfolio that its RESOLVE model finds to be least-cost (while meeting reliability requirements) under one of many possible futures.¹⁸ Staff’s first analysis of other possible futures is a good first start to considering other possible futures, and should inform the Commission’s need determination decision.

Accepting that the analysis reflects a reasonably broad spectrum of possible futures that can be captured in RESOLVE,¹⁹ there are nevertheless additional important benefits associated with

¹³ See slides 35 and 36 of the April 2024 slide deck. *See* note 11 *supra*.

¹⁴ The Ruling (p. 19) states that “RESOLVE selects 0 GW of OSW as optimal from a ratepayer perspective,” but that statement is not true – OSW is shown to be optimal in some scenarios.

¹⁵ See slide 16 of the April 2024 slide deck. *See* note 11 *supra*.

¹⁶ P.U. Code Sec. 454.51 (a). Emphasis added.

¹⁷ P.U. Code Sec. 454.52 (a)(1)(J). Emphasis added.

¹⁸ Courts interpret statutory provisions by giving meaning to all words of the statute, and an interpretation that leaves some words without meaning is avoided. (*Moyer v. Workmen's Comp. Appeals Bd.* (1973) 10 Cal.3d 222, 230 (“If possible, significance should be given to every word, phrase, sentence and part of an act in pursuance of the legislative purpose.”) [citations omitted]).

¹⁹ Parties did not have an opportunity to comment on the analysis before it was conducted, and the time for reviewing the results was limited. Thus, the results may not fully reflect the benefits of OSW. For example,

resource diversity that the Commission should consider. These benefits include:

1. A significant reduction in the need for capacity overall, which brings at least two significant benefits. As shown in the analysis of 3 GW of offshore wind,²⁰ that 3 GW replaces up to 9 GW of solar, storage and retained gas capacity—entirely avoiding the need to build 6 GW of capacity. Presumably, the analysis of 10 GW of offshore wind shows substantially more, if not proportionately more – i.e., about 20 GW, avoided capacity.²¹ That reduction in the capacity needed to achieve the state’s GHG goals will do two things:
 - (a) It will reduce the demand for land (especially when some of the remaining capacity is at sea), thereby reducing associated siting and environment impact challenges, and it will reduce the demand for materials, thereby reducing supply chain risks. Reducing these challenges and risks will increase the likelihood that California will timely meet its greenhouse gas (“GHG”) reduction goals. While these factors (translated as costs) are captured to some extent in the “high competing resource cost” scenario, a single RESOLVE run seems unlikely to capture all of those risks.
 - (b) It will reduce materials use (and ultimately waste) in the U.S. and globally. A source of increasing concern with “clean” energy is the associated environmental, human rights, and public corruption issues associated with the production of necessary minerals.²² This is a “public good” consideration in addition to those discussed above.
2. The full capacity value of OSW is not captured with the ELCC analysis included in the RESOLVE analysis. OSW and other diverse resources proved to be far more competitive in SCE’s Countdown to 2045 study, which used a 24-hourly reliability

it appears that behind-the-meter solar and storage were not included in the analysis. In that case, the benefits of OSW were under-represented because “high competing resource cost” would extend to BTM as well as utility-scale solar and batteries.

²⁰ See slide 35 of the April 2024 slide deck. *See* note 11 *supra*.

²¹ CalWEA was unable to evaluate the additional analysis materials supplied by staff in time for these comments but hopes to do so in time for reply comments.

²² See, e.g., Axios, “The Dirty Side of Clean Tech” (Dec. 10, 2022). Available [here](#).

framework.²³ As CalWEA discussed in earlier comments,²⁴ RESOLVE is based on a single-hour planning reserve margin, while SCE's model considers both capacity and energy needs across all hours of the peak load day in a given month or year. The Commission has stated its desire to harmonize its 24-hourly RA compliance framework with the IRP program in the future,²⁵ which should lead to greater recognition of the capacity value of OSW—as well as onshore wind energy.

7. Are the quantities of resources contained in the PSP portfolio adopted in D.24-02-047 a reasonable basis for considering utilization of the centralized procurement mechanism? Provide your rationale.

In short, no. As the Ruling noted,²⁶ 4.5 GW of OSW was included in the PSP not because these resources were found to be least-cost, but because that quantity of OSW was included in LSE plans based on the lower costs previously assumed. Commission staff subsequently conducted the more robust quantitative analysis discussed above. It is that analysis, expanded to include 10 GW of OSW in the Morro Bay and Humboldt lease areas, that should be the initial basis for considering use of the central procurement mechanism.²⁷ The additional diversity-related benefits discussed above (reduction in overall capacity requirements and 24-hourly capacity values) should then be considered, as well as the need to provide the investment certainty that is required to achieve the Commission's assumed declines in OSW technology costs.

Staff should analyze 10 GW of OSW concentrated in the Morro Bay and Humboldt lease areas for two reasons. First, 10 GW can be accommodated in those two Wind Energy Areas,^{28,29} which will reduce transmission costs and thus overall costs. As indicated in the staff analysis,³⁰ an

²³ SCE, *Countdown to 2045: Realizing California's Pathway to Net Zero* (Sept. 2023). Available [here](#).

²⁴ See CalWEA's Nov. 13, 2023, comments in this docket (at pp. 11-12). Available [here](#).

²⁵ D. 24-02-047, *Decision Adopting 2023 Preferred System Plan and Related Matters, and Addressing Two Petitions for Modification* (February 20, 2024) at p. 109.

²⁶ Ruling at p. 16.

²⁷ CalWEA does not opine on the appropriateness of central procurement for other resources/technologies however, these resources should be evaluated based on the considerations recommended in response to questions 1 and 3 above, as summarized on pp. 1 above.

²⁸ A Wind Energy Area (WEA) is a federally designated tract of ocean space within the U.S. exclusive economic zone (EEZ), within which multiple lease areas may be defined. The Humboldt Bay WEA has two lease areas and the Morro Bay WEA has three lease areas.

²⁹ According to American Clean Power-California, 10.577 GW can be accommodated in these two wind energy areas. See ACP-California's April 8, 2024, comments in Energy Commission Docket 17-MISC-01 at Table 2.

³⁰ See Ruling at Figure 3 and Analysis at slide 41.

additional RESOLVE analysis of 10 GW is likely to show (particularly with reduced transmission costs) that this quantity can be delivered at reasonable cost without creating a significant cost risk, and it will inform decisions on further resource expansion. In addition to the RESOLVE analysis, the Commission should consider the above-noted diversity-related benefits not captured by RESOLVE.

Second, the Ruling assumes that initial investments will lead to cost declines, but that assumption will be true only if the Commission establishes a market large enough to promote the investment, learning, and scale economies that will lead to cost declines. A commitment of only 1-3 GW, as suggested by the focus of staff's analysis, would be an insufficient volume to garner interest from the global supply chain and to promote economies of scale and synergies across projects, as discussed in response to Question 8.

8. What need determination for centralized procurement should the Commission make before the September 1, 2024, AB 1373 deadline and why? Specify which resource types, in what amount, and by when.

CalWEA strongly recommends that the Commission make a need determination by September 1, 2024, for at least 10 GW of offshore wind, including the 60-MW CADEMO project (discussed below), to be procured over the next decade by DWR. Such a need determination will create a market that is sufficiently large to drive down project and technology costs, which is the Commission's clear intent.³¹ Authorizing procurement of 10 GW is necessary to foster the multi-billion-dollar investments in port facilities that are required for staging and integration of projects, to promote economies of scale and synergies across projects, and to attract the interest of the global supply chain in the California market. While DWR would need to enter into contracts that must be approved by the Commission before January 1, 2035, the online dates for some of those contracts can extend to 2040 or later, which is appropriate given the long development lead times for OSW projects and the associated development of both transmission and ports.

As explained in the Energy Commission's AB 525 report:

“Seaports and waterfront facilities are essential for developing a new offshore wind industry and will be an important driver of potential economic benefits, including jobs and economic growth opportunities. ... Offshore wind development will require upgrades to ports and waterfront facilities to support a range of activities,

³¹ One of the Ruling's considerations for resources warranting central procurement is that they are an “Emerging technology with likelihood of cost reductions through learning.” Ruling at Figure 1. The Ruling (p. 20) also states that “other technologies that began as emerging technologies, such as solar thermal, solar photovoltaics, and lithium-ion batteries, have achieved significant cost declines over time,” and (at p. 21), “if early procurement is successful, costs should decline over time.”

including construction and staging of floating platform foundations, manufacturing and storage of components, final assembly, and long-term operations and maintenance.”³²

To justify the necessary investment in ports – a development linchpin, ports must be confident that there will be sufficient economic activity to recoup multi-billion-dollar investments.³³ Committing to less than 10 GW (barring unexpected circumstances) will place a substantial risk premium on initial projects, drive up costs, and make it harder to finance the infrastructure that enables offshore wind development.³⁴ Beyond ports, as suppliers consider their global investment options, suppliers will also be looking for a long and steady pipeline of work to guarantee that factories will remain operational for decades to come. That pipeline must be firm and long-term, not based on weak commitments. A DWR authorization to procure at least 10 GW from two California offshore wind energy areas will be necessary to support investments in U.S. and global capacity to produce OSW project components for California projects. In making this authorization, the Commission should make clear that it is committed to this volume of procurement barring clear evidence that assumed long-term cost trajectories will not be met.

California cannot be a bystander, hoping to observe declining technology costs; California’s commitment to OSW will help drive those costs declines. The National Renewable Energy Laboratory’s cost trajectories, used by staff to project OSW costs in the IRP analysis, assume that learning is occurring, and learning can only occur through deployments. A solicitation to procure just a few gigawatts of offshore wind, without a clear pipeline for many more gigawatts over the next decade, is likely to lead to a lack of sustainable economic development activity in California that causes project failures, possibly contributing to the failure to develop the technology globally, despite its enormous potential to reduce GHGs in California³⁵ and worldwide.³⁶

³² Jones, Melissa, Jim Bartridge, and Lorelei Walker. 2024. Assembly Bill 525 Offshore Wind Strategic Plan. (Draft Report.) California Energy Commission. Publication Number: CEC-700-2023-009-V1-D. See p. 6.

³³ *Id.* at p. 21. According to the Energy Commission’s AB 525 report, an estimated investment of \$11 billion to \$12 billion would be needed to upgrade existing port infrastructure to meet the 25 GW offshore wind planning goal for 2045. Volume II of the AB 525 report itemizes the specific investments required (at Table 6-11) and notes (at p. 148) that the \$12 billion investment represents approximately 11 to 12 percent of the total investment required to create 25 GW of offshore wind energy.

³⁴ See Oceanic Network, “Building a National Network of Offshore Wind Ports” (September 20, 2023) at p. 21. Available [here](#).

³⁵ The Energy Commission’s draft AB 525 report identified sufficient sea space to support its 25 GW offshore wind planning goal for California. See note 32 *supra* at pp. 1 and 18.

³⁶ DNV/Floating Wind: Turning Ambition into Action, Edition 2 (November 2023) at p. 3. Available [here](#).

Therefore, the Commission should authorize DWR to procure at least 10 GW of OSW capacity, including the CADEMO project. DWR should then plan an auction schedule and define volumes to be procured on a predictable schedule to give developers, suppliers, and port authorities a clear line of sight into future demand and the confidence to move forward with investments. Such planning will also help attract West Coast suppliers to the market, lifting economic activity throughout the region. This approach will also support workforce development, providing an understanding of the scale-up of workforce training that will be required.

CADEMO Project

As part of the 10-GW authorization, the Commission should authorize DWR to procure the 60-MW CADEMO offshore wind project. As the Ruling notes, other emerging technologies have achieved significant cost declines due to favorable government policies, including demonstration projects and incentives for early adoption.³⁷ Offshore wind is unique, however, in that other technologies did not have to carry the weight of developing in-state port capacity, along with at least some local supply chain capacity, as will be required in California. CADEMO is the only early commercial OSW project that has been proposed in California. As CalWEA has explained in earlier comments,³⁸ CADEMO³⁹ is a 60-MW offshore wind project consisting of four 15-MW floating turbines 2.5 miles off the coast of Vandenberg SFB, south of the Morro Bay BOEM lease area, interconnecting at the PG&E 115kV transmission grid near Surf Beach. Its application is undergoing a joint state-federal environmental review process, with the California State Lands Commission and U.S. Air Force as lead agencies for CEQA and NEPA, respectively. Its operating permit and lease decisions will be made by the State Lands Commission.⁴⁰

The project is expected to be online in 2029, approximately five years ahead of the first full-scale OSW project in federal waters off Morro Bay, providing a critical window of opportunity to drive the scale-up necessary to support California fabrication of the floating platforms and development of other domestic economic content. It will test and prove systems and processes, allowing advancement of cost reductions and optimization to benefit the larger-scale deployments.⁴¹

³⁷ Ruling at p. 20.

³⁸ See, e.g., in this docket, CalWEA's Comments on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios (Nov. 13, 2023).

³⁹ See <https://cademo.net/>.

⁴⁰ See <https://www.slc.ca.gov/renewable-energy/offshore-wind-applications/>.

⁴¹ For further discussion, see CalWEA's July 7, 2022, comments in the AB 525 docket at the Energy Commission. Available [here](#).

Its environmental review process will generate valuable information about species interactions with OSW turbines and will test the efficacy of mitigation measures. The economic and workforce development benefits of CADEMO are discussed in the Energy Commission’s draft AB 525 Strategic Plan.⁴²

The project has achieved many important and valuable milestones, including:

- a three-year, High Road Training Partnership grant from the California Workforce Development Board, resulting in a report on lessons learned and the development of a tribal OSW workforce training plan with local community colleges;⁴³
- completion of the first OSW Project Labor Agreement on the West Coast with California labor unions;
- completion of a mitigation agreement for site approval with the Department of Defense Clearinghouse;
- completion of a Community Benefits Agreement with Santa Ynez Band of Chumash Indians. This is the first such agreement between an offshore wind developer and a tribe on either the West or East Coast; and
- a Memorandum of Understanding with California Community Power (“CC Power”), a consortium of nine CCAs to facilitate the advancement of the project.⁴⁴ This is California’s only MOU between an OSW project and an offtaker.⁴⁵

With these achievements, CADEMO has already played an important role in addressing some of the challenges facing offshore wind development. Developing the project would further help to facilitate, accelerate, and de-risk the permitting of BOEM projects.⁴⁶ For example, California

⁴² See California Energy Commission, Assembly Bill 525 Offshore Wind Strategic Plan (January 2024), Volume II at pp. 8-9, 40-42, and 172-173.

⁴³ Collier, Robert, David Vallee, Miriam Noonan, and Stephanie Tsai. July 2023. *Trial Run for California’s Offshore Wind Workforce: Lessons Learned from the CADEMO High Road Training Partnership*. Available at <https://offshorewindhrtp.slococoe.org/>.

⁴⁴ See “California Community Power and CADEMO Execute Offshore Wind MOU,” (May 2, 2024). Available [here](#). CC Power General Manager Alex Morris stated that “The CADEMO project serves as a useful test case for how to build offshore wind projects on the West Coast and is unique in how soon it may be able to begin delivering power and development learnings to the power sector here in California, with its potential 2028 commercial operation date.”

⁴⁵ See response to Question 13 regarding the relationship between this MOU and DWR’s potential procurement role.

⁴⁶ For example, the marine species at CADEMO match well with those at Morro Bay, thus CADEMO provides an opportunity to develop, deploy and validate mitigation measures to be available for larger-scale deployment.

currently lacks any suitable port infrastructure for either the construction of floating platforms or their final integration with turbines (i.e., towers, nacelles, and blades), or even a plan and funding to develop such infrastructure. CADEMO will begin the development of local port capacity and supply chains.⁴⁷ Central procurement of CADEMO would also afford DWR an immediate opportunity to develop its contracting arrangements, which are likely to be cost-based, and to develop first-hand knowledge of the component markets and development challenges, providing DWR with a deeper understanding of the industry as it prepares to procure GW-scale projects.

In all these ways, CADEMO will help facilitate successful achievement of the larger 10-GW build-out and should be included in the Commission's authorization for DWR procurement.

9. What other elements of future Commission need determinations (such as the scope of analysis, cost assumptions, ways to manage uncertainty) would provide the best foundation for a centralized procurement solicitation?

As noted above, in authorizing DWR to procure 10 GW of OSW capacity over the next decade, the Commission should make clear that it is committed to this volume of procurement barring clear evidence that its assumed long-term cost trajectories are not being met. DWR can be expected to develop a deep knowledge of the OSW industry and technology costs, especially if it employs cost-based contracts.⁴⁸ DWR can therefore advise the Commission whether these contracts, in combination with global market activities and NREL assessments, indicate that the assumed long-term cost trajectories are being met. The Commission should complement this analysis with continued studies on the value of resource diversity, as was done to support this Ruling.

C. Questions on Relationship to Load-Serving Entity Procurement

10. Is the rationale described above for DWR centralized procurement to be used for new uncontracted resource types, such as OSW, as a public good for GHG reduction purposes reasonable? Why or why not?

⁴⁷ For example, CADEMO may foster the development of port infrastructure at the Port of Los Angeles, which will create a portion of needed platform construction and integration capacity. It may also support the development of West Coast industries, such as concrete or steel, for the fabrication of floating platforms, which today is non-existent.

⁴⁸ CalWEA expects that pricing under at least the initial DWR contracts, if not all of them, will be cost-based and developed over time through an open-book process. Because of the uncertainties and long-lead times associated with offshore wind project development, it is not practical to expect that project developers could lock in prices at the time of contract execution. There are many possible ways to design a cost-based and open-book procurement process.

This rationale is reasonable, but not nearly complete. First, as discussed in response to Question 1, the five considerations that the Ruling identified as possibly justifying central procurement require refinement, and “resource diversity” should be one of the key considerations. Second, as discussed in response to Question 3, these considerations are missing critical context for determining whether central procurement is warranted. The Commission should discern whether central procurement is necessary to address the various considerations or whether it has other tools available to address the procurement problem facing the resource.

Regarding resource diversity, in response to Question 6, CalWEA explained that the Commission has a statutory obligation to adopt a diverse resource portfolio, and to give the word “diverse” meaning beyond “least-cost.” Staff’s first-ever evaluation of the value of resource diversity (via RESOLVE modeling) identified future scenarios that are reasonably likely to occur in which offshore wind would be the most cost-effective for ratepayers. In addition, there are important benefits that cannot be captured in RESOLVE that should be considered. These benefits include the fact that a more-diverse portfolio significantly reduces the need for capacity overall, thus reducing the need for land, materials, and waste, all of which will increase the ability to achieve California’s climate goals, while producing global benefits. All these considerations, including those required by statute, are “public goods.” Another public good is the learning and technology cost-reductions that come from early demonstration projects and the creation of a long-term market for the technology that encourages investment that will drive down costs.

11. If DWR centrally procures undeveloped resources as a public good, how should that procurement relate to the individual LSE procurement (existing resources under contract and/or future procurement)?

CalWEA concurs with the Ruling’s statements that “DWR procurement of geothermal or LDES resources would introduce considerable complexity into the need determination and allocation of procurement responsibility to LSEs” and “asking DWR to procure any of these resources or OOS wind could also exacerbate the challenges LSEs are experiencing procuring these LLT resources by introducing another competitor into the market.”⁴⁹ CalWEA also reiterates the point made above (p. 5) that central procurement is not the only tool available to the Commission to address the barriers facing these technologies.

Regarding any future central procurement of offshore wind demonstration projects by LSEs or groups of LSEs, as discussed in response to Question 19 below, the public goods provided by

⁴⁹ Ruling at p. 24.

such projects should be fully credited towards those LSEs' obligations to support the central procurement of gigawatt-scale offshore wind projects.

12. How should any DWR centralized procurement relate to the eventual RCPPP design, given that the Commission has not yet adopted an RCPPP design and yet must make an initial need determination by September 1, 2024?

All resources authorized for DWR central procurement should be factored into discussions of possible long-term procurement requirements adopted in the RCPPP. (As noted above, at p. 5, resource-specific or attribute-specific procurement requirements made in the RCPPP, or other market interventions, may be sufficient to overcome the market barriers facing those resources.) The RA and REC attributes of centrally procured resources that are to be allocated to LSEs should be included in LSE procurement plans.

13. This ruling proposes that LSEs not be allowed to opt out of DWR centralized procurement requested by the Commission. If you disagree with that proposal, explain why with citations and discussion of relevant provisions of AB 1373.

The Ruling states that “AB 1373 speaks to the opportunity for LSEs to voluntarily opt in to additional centralized procurement by DWR, which strongly implies that opting out of centralized procurement is not authorized.”⁵⁰ CalWEA interprets the new statutory language from AB 1373 as not allowing LSEs to opt-out of procuring, or paying for, those resources that the Commission authorizes DWR to centrally procure. However, existing statutes—which notably were not modified or overridden by AB 1373—allow CCAs to self-procure those resources under certain conditions.

Existing statutory provisions enable the Commission to “[i]dentify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy and resource diversity in a cost-effective manner,” and “to establish integrated resource planning-based procurement requirements that rely on zero-carbon-emitting resources to the maximum extent reasonable...”⁵¹ That same statutory section permits CCAs “to submit proposals for satisfying their portion of the renewable integration and diverse resources need identified in subdivision (a),” and the Commission “shall approve” such proposals if it makes certain findings.⁵²

⁵⁰ Ruling at p. 25.

⁵¹ P.U. Code 454.51(a).

⁵² P.U. Code 454.51(d). Those findings are that “(1) The resources proposed by a community choice aggregator will provide equivalent integration of renewable energy, (2) The resources proposed by a

The new central procurement provisions of AB 1373 are concerned with the same “portfolio of resources” identified pursuant to Section 454.51(a), and state that, if the Commission determines there is a need for procurement of those resources, it may request DWR to act as the central procurement entity and solicit bids to procure those resources.⁵³ AB 1373 also amended the Water Code to provide that DWR may recover costs related to procuring these resources through a nonbypassable charge “for load-serving entities.”⁵⁴ Neither the amendments nor additions to the Public Utilities Code and the Water Code provide a means for any LSE to opt out of the centralized procurement.

However, the Legislature has already allowed CCAs to self-procure those same resources identified in Section 454.51(a).⁵⁵ The new central procurement language of Section 454.52(a)(4) in no way conflicts with or overrides that authority granted to CCAs. When the Legislature adopts a new statute, courts assume the Legislature was aware of existing and related laws, and absent any express repeal of the earlier statute, courts will read both in a way that harmonizes the statutory scheme.⁵⁶ Here, the two statutes may be read in harmony and avoid conflict: where the Commission has determined there is a need to procure additional resources of the type identified in Section 454.51(a), it may request DWR to use its central procurement authority to procure those resources on behalf of all LSEs—and if CCAs so choose, CCAs may continue to satisfy “their portion” of those resources through self-procurement, rather than centralized procurement.

A later provision of Section 454.52, in subdivision (c), clearly indicates that the Legislature intended to leave untouched the CCAs’ option to self-procure these resources. Section 454.52(c) affirmatively states “that community choice aggregators may self-provide renewable integration resources consistent with Section 454.51.” AB 1373 amended this subdivision to *add* language—

community choice aggregator will promote the efficient achievement of state energy policy objectives, including reductions in greenhouse gas emissions. (3) Bundled customers of an electrical corporation will be indifferent from the approval of the community choice aggregator proposals.” (Emphasis added.)

⁵³ P.U. Code 454.52(a)(4).

⁵⁴ Water Code 80821(a)(1).

⁵⁵ The new statutory provisions in AB 1373 direct the Commission to determine if there is a need for the procurement of “the portfolio of resources identified pursuant to subdivision (a) of Section 454.51” (P.U. Code 454.52(a)(4)(A)) and states that the Commission may request DWR to “exercise its central procurement function to procure those eligible energy resources...the meet the portfolio of resources identified in subdivision (a) of Section 454.51.” (P.U. Code 454.52(a)(4)(C).)

⁵⁶ *Visalia Unified School Dist. v. Superior Court* (2019) 43 Cal.App.5th 563, 569 [citations omitted]; see also *Moyer v. Workmen's Comp. Appeals Bd.* (1973) 10 Cal.3d 222, 230 (“[T]he various parts of a statutory enactment must be harmonized by considering the particular clause or section in the context of the statutory framework as a whole.”)[citations omitted].)

but did not modify or remove the existing language granting CCAs the ability to self-procure certain renewable integration resources. As amended, this provision reads as follows, with the new language shown in underline:

“(c) To the extent that additional procurement is authorized for the electrical corporation in the integrated resource plan or the procurement process authorized pursuant to Section 454.5, the commission shall ensure that the costs are allocated in a fair and equitable manner to all customers consistent with Section 454.51, that there is no cost shifting among customers of load-serving entities, and that community choice aggregators may self-provide renewable integration resources consistent with Section 454.51. The commission may order the procurement of resources with specific attributes by load-serving entities as a result of the integrated resource planning process and shall enforce any resource procurement requirements on a nondiscriminatory basis. Enforcement may include the assessment of penalties for noncompliance.” (P.U. Code 454.52(c).)

Notwithstanding the ability of CCAs to self-procure certain eligible energy resources, in general, self-procurement of GW-scale offshore wind projects would be inefficient and therefore, for policy reasons, these projects should be centrally procured.⁵⁷ First, there will be a limited number of sellers in the market (five OSW leaseholders at most) such that sole procurement by DWR may be necessary to ensure competition. Second, given a high degree of cost uncertainty, long lead-times, and a limited number of sellers, DWR may want to conduct cost-plus procurement,⁵⁸ wherein ratepayers would benefit from one procurement entity (DWR) gaining broader and deeper industry knowledge by managing all procurements. Third, the GW-scale projects will be difficult for individual LSEs, or even a group of LSEs, to match to their loads. Should the Commission enable CCA self-procurement, it should establish very strict milestones so that, if the CCAs’ efforts fail, DWR will have ample time to efficiently conduct its own procurements.

Unlike GW-scale projects, smaller-scale OSW projects likely could be successfully procured

⁵⁷ *Ibid.* The Commission should find that self-procurement of GW-scale OSW projects will not “promote the efficient achievement of state energy policy objectives” and therefore the Commission cannot make the finding required by P.U. Code Section 454.51(d)(2) that is necessary to approve CCA proposals for self-procurement.

⁵⁸ Because of the uncertainties and long-lead times associated with offshore wind project development, it is not practical to expect that project developers could lock in prices at the time of contract execution. Thus, pricing under the contract may be cost-based and developed over time through an open-book process. DWR will need to have predetermined contract termination rights in the event that project development costs are excessive and potentially for other valid reasons, along with a mechanism to appropriately compensate developers and their investors for the investments made in the project up to the point of potential contract termination. For further discussion of these issues, see, in this docket, CalWEA’s Dec. 12, 2022, comments on Staff Paper on Procurement Program and Potential Near-Term Actions to Encourage Additional Procurement.

by CCAs, which would promote the efficient achievement of state energy policy objectives. For instance, in the unique case of the 60-MW CADEMO demonstration project, the Commission should enable procurement by an LSE or group of LSEs due to its small size relative to the GW-scale projects in the federal lease areas. An individual LSE or group of LSEs could conceivably conduct this procurement and, in fact, CC Power has already indicated such an interest, as noted above.⁵⁹ It is also conceivable, given the Department of Defense’s interest in strengthening the grid around Vandenberg Space Force Base where CADEMO is located, that DOD could be a partial offtaker.

Given CADEMO’s value in advancing the kind of “learning-by-doing” knowledge that can inform and help to resolve many practical challenges in developing OSW projects, the Commission should establish strict milestones that non-DWR offtakers would need to meet in order to self-procure from CADEMO. The milestones may be necessary to ensure that the non-DWR offtaker is able to optimize the use of that OSW project and bring its benefits to fruition, in the same way that DWR as offtaker could advance that project. DWR should also be free to work together with other offtakers to ensure that CADEMO comes to fruition. The early adoption of OSW should be seen as a public good.⁶⁰ As explained in response to Question 8, above, CADEMO presents a unique opportunity to foster learning about California offshore wind and to facilitate, in numerous ways, the development of the federal projects.

Regarding the LSE procurement milestones that should be established for CADEMO, it will be important for CADEMO to have offtake assurances, if not yet a PPA, to enable CAISO to allocate the project TPD capacity, which could be in November 2024, unless delayed. Authorizing DWR to procure CADEMO would indicate to CAISO that there is state interest in offtake.

To provide investment confidence, a PPA must be in place significantly before the Financing Investment Decision (“FID”) is made, the Detailed Design coming prior to that to inform the costs that are being financed.⁶¹ The FID is expected to be in 2027 to enable an online date of late 2028 or 2029. Thus, a non-DWR offtaker for CADEMO should be required to enter into a PPA no later than 2026, or other date specified by DWR.

⁵⁹ Note 44 *supra*.

⁶⁰ Ruling at p. 23.

⁶¹ The Resource Development Timeline shown on slide 31 of the April 2024 analysis errs in showing Detailed Design (under EPC) would occur concurrently with the FID. Detailed Design must come prior to FID to inform the costs that are being financed.

14. Should a need determination for DWR centralized procurement be made by the Commission during every IRP cycle during the consideration of the PSP or at some other time? Explain the rationale for your preferred approach.

As noted in response to Questions 8 and 9, the Commission should authorize DWR to procure at least 10 GW of offshore wind, including the CADEMO project. In making this authorization, the Commission should make clear that it is committed to this volume of procurement barring clear evidence that assumed long-term cost trajectories will not be met. DWR can be expected to develop a deep knowledge of the OSW industry and technology costs. DWR can therefore advise the Commission, in each IRP cycle, whether these contracts, in combination with global market activities and NREL assessments, indicate that the assumed long-term cost trajectories are being met. The Commission should complement this analysis with continued studies on the value of resource diversity, as was done to support this Ruling.

15. A logical point for POU's to engage with DWR on opting into centralized procurement would be after the Commission makes a need determination, but prior to DWR initiating procurement activities. Comment on whether this is appropriate and include any necessary and relevant implementation concerns or details.

This seems appropriate.

16. If DWR procures resources on behalf of POU's, it is possible that related costs currently socialized through existing processes, such as transmission costs flowing into the transmission access charge (TAC), may be incurred. What other costs of benefits might be implicated, and what is the best means for addressing them?

No comment at this time.

17. The centralized procurement mechanism could provide an alternative pathway towards procurement of diverse resources that are currently infeasible for individual LSEs or small consortiums of LSEs to develop. What process should the Commission develop to encourage parties, especially developers, to provide candid feedback about timing and pricing considerations necessary to develop LLT resources through this mechanism, while also providing the most value to ratepayers?

The Commission should continue to consider whether the market failures and barriers facing large-scale, diverse resources have been resolved after an "initial tranche" of central procurement. If the Commission identifies substantial potential long-term ratepayer value and other public goods associated with these resources, but LSEs demonstrate no interest in procuring, or ability to procure, them—even if mandated, that will be the primary indication that central procurement remains necessary.

D. Questions on Allocation of Costs and Benefits

18. For centralized procurement of resources not yet in LSE portfolios such as OSW, is it appropriate for the costs of any DWR contract to be allocated to all LSEs based on the TAC area's share of a 12-month coincident peak load? If not, provide rationale and explanation for another cost allocation methodology.

In D. 21-06-035, the Commission noted that Assembly Bill 1584 (Quirk, 2019) “requires us to ‘develop methodologies for allocating electrical system integration resource procurement needs to each load-serving entity...based on the contribution of the load-serving entity’s load and resource portfolio to the electrical system conditions that created the need for the procurement and for determining any costs resulting from a failure of a load-serving entity to satisfy its allocated procurement needs.’”⁶² The Decision goes on to explain that the Commission has not yet made any findings that any LSE has created any differential need for system integration resources, and that “should we make such a determination in the future, we would need to develop methodologies to allocate the responsibilities differentially.”⁶³ The Decision further states that these are complex issues that “will need to be worked through in a process to be conducted later in this proceeding” and that the Commission “intend[s] to explore this option more fully before potentially pivoting to this type of allocation.”⁶⁴

That promised further exploration has not occurred, and therefore the Ruling once again proposes cost allocation based on coincident peak load, even though many, if not all, of the resources being contemplated for central procurement are “system integration resources.”⁶⁵ The Commission should explain how such an allocation methodology would comply with state law adopted five years ago.

⁶² Decision 21-06-035, *Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026)* (June 30, 2021) at p. 52, noting that AB 1584 is codified as Public Utilities Code Section 397.

⁶³ *Ibid.*

⁶⁴ *Id.* at p. 53

⁶⁵ P.U. Code Sec. 397 states that “[f]or purposes of this section, ‘electrical system integration resources’ means resources that provide certain electrical system integration functions, benefits, or attributes, such as flexible ramping capability.” Certainly long-duration storage and generation resources with production profiles that are complementary to solar should be considered integration resources. The Commission has previously indicated that integration resources can be broadly construed: “[E]very resource that requires procuring or retaining, including the renewables themselves, is being used for renewable integration, since renewables are becoming the dominant resources in the electric system. While it may be the case that every single individual generation plant on the system currently is not needed for renewable integration, it is still the case that every type of resource on the system is being utilized for this purpose...” See D.19-04-040 (Issued May 1, 2019) at p. 136.

In CalWEA's view, adopting, for the Commission's IRP long-term planning process, a 24-hourly reliability framework to determine system reliability needs and to allocate those needs to LSEs would accomplish the purpose of AB 1584, which was to avoid cost shifting among LSEs. It would do so because the 24-hourly framework requires each LSE to closely match its supply and demand, thereby also ensuring that each LSE addresses the procurement needs created by its load and resource portfolio, avoiding the result that system integration costs are shifted to other LSEs.

Adopting a 24-hourly framework for long-term planning would also align long-term planning with the structural changes adopted in the RA proceeding. The Commission recently stated that it "would like to see a unified reliability framework that encompasses both the IRP long-term planning and the resource adequacy procurement horizon," stressing that "nothing about our consideration of a reliability framework here is meant to prejudice or constrain the ultimate consideration and adoption of a programmatic approach to procurement such as RCPMP."⁶⁶ The Commission should therefore commit to adopting a 24-hourly IRP reliability framework in the RCPMP element of this proceeding, which would be used to allocate the costs of centrally procured and other "long-lead-time" resource requirements.⁶⁷

19. For centralized procurement of resources that already exist in at least some LSE portfolios, what is the appropriate method for allocating costs and benefits?

A 24-hourly IRP reliability framework, discussed in the previous question, would account for the resources that have already been procured in determining each LSE's future obligations.

In the case of the CADEMO demonstration project, if this project were to be procured by an individual LSE or consortium of LSEs as discussed above,⁶⁸ the procuring LSE(s) should be awarded full credit for the project's values against the cost of any larger central procurements made by DWR, as the project is designed to advance learning to support the development of full-scale projects. Procurement costs should also be recoverable, if, as CalWEA strongly recommends, the

⁶⁶ D. 24-02-047, *Decision Adopting 2023 Preferred System Plan and Related Matters, and Addressing Two Petitions for Modification* (February 20, 2024) at p. 109.

⁶⁷ Southern California Edison (SCE) recommended previously, given challenges in integrating the 24-hour slice framework into the IRP models used by staff, that the Commission, at a minimum, adopt a 24-hourly framework for the LSE planning use case, where LSEs' IRPs demonstrate that their planned resources are sufficient to meet their load requirements (plus a planning reserve margin) over a 24-hour period for each year of the IRP planning horizon. See SCE's Comments on ALJ *Ruling Seeking Comment on Proposed 2023 Preferred System Plan and Transmission Planning Process Portfolios* (November 13, 2023) at pp. 12-13.

⁶⁸ See p. 15 and note 44 *supra*.

Commission includes CADEMO in its DWR procurement authorization.

20. How would DWR’s solicitation and contracting process need to change for circumstances where POU’s and/or individual LSEs seek additional volumes of procurement beyond the amount of need determination authorized by the Commission? How would those additional costs and benefits be allocated fairly to benefitting LSEs and/or POU’s?

No comment at this time.

21. How should the allocation of benefits beyond energy and capacity (such as, but not limited to: RPS value, renewable energy credits, IRP compliance, or GHG-reduction value) be allocated to LSEs?

No comment at this time.

22. How should the AB 1373 requirements for nonbypassable surcharges be implemented?

No comment at this time.

23. Some LLT eligible resources may require substantial infrastructure development, the costs of which are incremental to costs related to the deployment of the resource itself (for example, OSW requires port and transmission development; geothermal requires transmission development and construction in challenging environments). How do these contingent, necessary costs influence the overall financial impact of resource development for different eligible resources?

In the RESOLVE model, transmission costs are reflected in resource costs (although we note that the model does not consider the numerous grid-enhancing technologies and reconductoring that are available that could reduce those costs). Obviously, other non-CPUC-jurisdictional challenges will have to be addressed. However, the Commission’s role in establishing a certain market for these resources is critical because it will serve as the solid foundation that is essential to foster necessary related investments.

24. How do costs not directly related to the specific energy projects factor into the affordability question for ratepayers for deployment of LLT resources through centralized procurement? How could centralized procurement help address or mitigate these additional costs?

As discussed in response to Question 6, a more resource-diverse portfolio mitigates future cost risks that are reasonably likely to occur, accounts for benefits that are not presently being quantified, and brings additional public-goods benefits. None of these can be assigned to particular projects but, together, a diversity of projects can be expected to reduce ratepayer costs. As discussed in response to Question 13, central procurement of GW-scale offshore wind projects will be more efficient and therefore will minimize the cost of procuring these resources.

E. Questions on Procurement Process and Timeline

25. Is the proposed timeline and activities description appropriate for DWR’s initial solicitation activities? If not, what should be the expected timeline and why? What other activities and/or interim milestones should be considered or required?

CalWEA encourages the Commission to grant DWR substantial latitude to shape solicitation activities and contract structure in response to market conditions and to design the process for success. The timeline proposed in the Ruling may not serve the interests of California ratepayers or the development of offshore wind. Instead, it may be more productive to hold the first solicitation in 2025-2026 for 2032 target online dates.

As discussed in response to Question 8, the Commission should make a need determination in September 2024 for at least 10 GW of offshore wind to be procured by 2035. This is necessary to create a market large enough to foster the multi-billion-dollar investments in port facilities that are required for staging and integration of projects, to promote economies of scale and synergies across projects, and to attract the interest of the global supply chain in the California market.⁶⁹ DWR should establish a clear and regular schedule for future solicitations to secure the full 10 GW of offshore wind (with the possibility for more, in view of the BOEM plan to conduct additional auctions for Pacific offshore wind lease areas, and provided that future IRP cycles find additional OSW to be in the public interest).

For the 60-MW CADEMO demonstration project, as discussed under Question 13, a separate schedule should be developed that results in a Commission-approved contract in the 2026-2027 timeframe, assuming DWR procurement. DWR should establish a schedule under which any non-DWR offtaker would need to express interest in offtake, and a date-certain (e.g., early 2026) by which any non-DWR offtaker would need to approve an offtake contract in lieu of DWR procurement.

⁶⁹ Ports play a central role in offshore wind development, and early investment in port development is critical to OSW development. California’s port needs are significant. Early market signals from state and federal policymakers can help drive down long-term costs because investments at the pre-development stage drive needed private capital commitments which in turn lead to timely construction of enabling infrastructure development at port facilities. *See* Oceantic Network, “Building a National Network of Offshore Wind Ports: A \$36 Billion Plan for Domestic Clean Energy Infrastructure” (Sept. 2023). Available [here](#).

26. Is there an optimal contract structure for DWR to consider when contracting with resources through the centralized mechanism? Should the Commission review contract structures or other pre-bid activities in advance of their completion?

The uncertainties and long-lead times associated with offshore wind project development will likely make it impractical for project developers to bid firm prices (or firm online dates) at the time of contract execution. While this will almost certainly be true for initial offshore wind projects, it may remain true for most, if not all, projects given their large size and limited numbers. Thus, DWR may want to conduct solicitations that anticipates that the PPA price will be based on actual costs that are developed over time through an open-book process, and where the profit margin is competitively bid or negotiated⁷⁰ as one aspect of the solicitation package.⁷¹ Open-book contracting will reduce, if not eliminate, the potential for exercise of market power for this resource.

Solicitations should prioritize projects that can demonstrate a clear ability to deploy the first floating offshore wind projects on time, with proposals evaluated by certified verification agents or experienced offshore wind consultancies. A credible and realistic project execution plan will help ensure the timely deployment of the first projects, avoiding cost overruns and delays that will have a cascading effect on future solicitations. Particular attention should be paid to technology maturity, particularly as it relates to wind turbine generators and floating platforms. Bid evaluators must have the capabilities and expertise to accurately assess the robustness of proposed project execution plans and score the risk of non-deliverability. Finally, the initial solicitation should avoid local content requirements, which increase the risk of supply chain failures and may impose an unreasonable cost burden on ratepayers. Rather, a bankable and steady pipeline of demand for floating offshore wind will allow a supply chain to develop organically over the course of many solicitations: minimizing

⁷⁰ A cost-plus framework will help to avoid the disruptive start-stop experience that has occurred on the East Coast. Unrealistic fixed price targets that were bid 5+ years before COD led to many winning bidders being unable to meet their initial bids, forcing new solicitations to adapt to a changing market environment. The ripple effect of these cancelations substantially impacted supply chain development and weakened confidence in the market. In contrast, Dominion Energy has begun offshore construction on Coastal Virginia Offshore Wind (a 2.6 GW project) on time and at a price just under \$76/MWh, which is substantially lower than any other East Coast offshore wind project. This is due to a combination of factors including a commitment by the state to reimburse costs, allowing Dominion to proceed with project development with a high degree of confidence and substantial purchasing power, given the large project size. As a result, while other projects saw their costs inflated beyond what could be carried by their initial bids and were forced to cease development, Dominion has been able to repeatedly revise its total cost projection downward in its filings with the State Corporation Commission.

⁷¹ As noted in the Ruling, AB 1373 enumerated various requirements for DWR solicitations, including project's viability considerations such as developer experience and financial strength.

impacts to ratepayers, maximizing sustainable job creation, and ensuring the successful deployment of California’s first floating offshore wind projects.

The Ruling states that, if the premium required to develop the initial tranche of resources “exceeds the portfolio diversity and initial investment values of taking an initial step, the Commission could elect to suspend or postpone the procurement by DWR.”⁷² The Commission should expect that costs of the initial offshore wind projects will be substantially higher than the average cost of the portfolio value of all offshore wind projects found to be in the public interest, and that the public interest includes values that cannot be quantified in the RESOLVE model, as discussed in response to Question 6. Nevertheless, DWR should not be expected to write a blank check to the developers and allow offshore wind project output to be procured at any cost. Therefore, it should be expected that the designated utility will have predetermined contract termination rights, in the event that project development costs are excessive and potentially for other valid reasons (e.g., project development timelines become too extended).

Contract termination rights pose a particular challenge to project developers and financing providers, however, as the uncertainty created thereby usually precludes the long-term commitments needed to fund needed project investment. Accordingly, a mechanism to appropriately compensate developers and their investors for the investments made in the project up to the point of potential contract termination will be necessary to induce their participation in project development efforts notwithstanding the contract termination rights. This breakage fee would be cost-based and, thus, would increase with time (as development proceeds) to provide appropriate incentives to the designated buyer. In other words, as the project moves closer to completion, the breakage fee would increase, making contract termination a more difficult choice.

The CADEMO project, discussed above, could be used to form and develop the procurement mechanism described here. While there will be important differences between demonstration and full-scale projects, the opportunity to test this procurement approach earlier, on a small-scale project, presents a valuable learning opportunity.

27. Comment on how the “procurement group” for DWR required by AB 1373 should be implemented.

No comment at this time.

⁷² Ruling at p. 38.

VERIFICATION

I, Nancy Rader, am the Executive Director of the California Wind Energy Association. I am authorized to make this Verification on its behalf. I declare under penalty of perjury that the statements in the foregoing copy of CALIFORNIA WIND ENERGY ASSOCIATION COMMENTS ON ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENTS ON NEED AND PROCESS FOR CENTRALIZED PROCUREMENT OF SPECIFIED LONG LEAD-TIME RESOURCES are true of my own knowledge, except as to the matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 24, 2024, at Berkeley, California.

/s/ Nancy Rader

Nancy Rader
Executive Director
California Wind Energy Association