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Special Initiative on Offshore Wind - Comments to CEC

Additional submitted attachment is included below.

California Energy Commission
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Project Title: California Offshore Renewable Energy
Submitted via online portal

June 27, 2022

The Special Initiative on Offshore Wind (SIOW) is pleased to submit these comments regarding *Offshore Wind Energy Development off the California Coast: Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045*.

The Special Initiative on Offshore Wind (SIOW) is an independent organization with a strong track-record of providing objective strategic guidance on key issues in the offshore wind sector. SIOW uses fact-based research and multi-sector collaboration to provide expertise, analysis, information sharing, and strategic partnership with industry, advocacy, and government stakeholders to build understanding and drive the sustainable and responsible deployment of offshore wind. We are guided by a Steering Committee of diverse interests, including representation from the offshore wind developers, NGOs, and state policy makers. We are funded by private foundations, do not offer memberships, and have no contractual obligations to any members in the offshore wind sector, all of which supports our objectivity and unique approach. Work we have done in the past has addressed some key technical issues that we have observed in the industry, including roadmaps for reducing the cost of offshore wind in state procurement processes and analysis and forecast of supply chain benefits from the development of offshore wind.

As California begins to assess its future need for offshore wind and set planning goals for 2030 and 2045, SIOW offers the following comments that focus on the benefits of making visible substantial, realistic goals for a state's offshore wind needs. These comments are based nearly a decade of experience of working with multiple states and a variety of stakeholders to advance the adoption of this large renewable energy resource.

Ratepayer benefits

While it is understood that California is considering planning goals for 2030 and 2045 and is not yet considering binding targets, the planning goals will serve as an initial market signal. And for a plethora of reasons, scale matters. First, scale benefits ratepayers. SIOW authored early studies examining the impact of market visibility on the cost of offshore wind-generated electricity. For New York State's Energy Research and Development Authority SIOW examined the impact of market visibility finding that market visibility of sufficient scale and time certainty

cut the levelized cost of energy (LCOE) from offshore wind, and thus lowering its ratepayer impact.[1]

Market visibility effects LCOE so in many ways. Most instructive to California is the positive economic impact from capital expenditures needed for offshore wind projects from sending a signal up and down offshore wind's value chain. A signal of a sizable market over a certain duration of time increases competition not only amongst developers but importantly also among suppliers selling components in that market. When a large market for their product is visible suppliers sharpen their bids to become more competitive. In a subsequent study for the Commonwealth of Massachusetts, as it considered the size of its offshore wind program, SIOW again found that the best way to lower the levelized cost of energy from offshore wind was to make firm commitments to a large offshore wind market.[2] In a maturing floating wind supply chain, with large global markets developing, the competitive engagement of multiple floating component suppliers will be critical to pricing palatable to ratepayers and policymakers.

Supply chain benefits

Eight states have set offshore wind energy procurement goals for a total of 39,298 MW by 2040.[3] Of that nearly 40GW goal, 17.6 GW are currently under contract. This visibility has catalyzed nearly $13 billion in investments – from lease acquisitions, supply chain investments, port upgrades, vessels, and workforce development. In addition, SIOW published a supply chain analysis in 2021 that demonstrated the economic value to the supply chain to be $109 billion in value from building out the national 30 GW by 2030 offshore wind target.

Thus far it has been clear to see that those states with the most ambitious targets – and policies aimed at facilitating a local supply chain – have reaped the most rewards. Indeed, New York State and New Jersey – with a combined mandate of 16.5 GW of offshore wind by 2035 – have seen the establishment of facilities for manufacturing of towers and transition pieces, secondary steel, monopiles and nacelles. States more modest in their goals and more reticent to require local content have landed some, but less supply chain.

While many factors go into the decision-making behind locating offshore wind component manufacturing facilities, the role of certainty in shipbuilding and supply chain investment in the U.S. market was recently underscored in a series of workshops held by the Labor Energy Partnership (LEP). LEP reported that "manufacturers who are going to invest need strong long-term demand signals . . . which we can certainly achieve with policy."[4]

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[1] McClellan et al (2015). New York Offshore Wind Cost Reduction Study. Prepared for New York State Energy Research and Development Authority.

[2] Kempton et al (2016). Massachusetts Offshore Wind Future Cost Study. Prepared for the Commonwealth of Massachusetts.

[3] Department of Energy Wind Energy Technologies Office (2022). Offshore Wind Market Report: 2021 Edition.

[4] Labor Energy Partnership (2022). Building a Domestic Offshore Wind Supply Chain: Workshop Summary Report," p. 12.

Stakeholder benefits

In addition to SIOW's seminal work on the role of market visibility in lowering the levelized cost of offshore wind energy and on forecasting the supply chain needs for a U.S. offshore wind industry, SIOW has been, both an observer of and an active facilitator of ocean co-existence stakeholder negotiation. We have observed and worked with stakeholders including ocean industries, communities, wildlife conservation advocates, and local officials through the first proposals of offshore wind projects, to initial visibility, to now the east coast commitments of 40 GW of offshore wind.

I have also personally been working in stakeholder and community engagement for offshore wind developers for nearly two decades – including for Ørsted, the world's largest offshore wind developer. I have learned over the years that clear and consistent communication builds trust, which is the foundation for any successful relationship.

The piecemeal nature of offshore wind targets on the east coast has meant that many ocean users and ocean advocates have been unsure what offshore wind might mean for them. Did it mean a 200 MW project, whose siting and practices were to be negotiated with one developer? Or was it going to mean a few projects dotting the landscape? And what about now that a floor of 30 GW by 2035 has been established on the east coast by the state laws requiring procurement? They were unsure of what resources to dedicate to the issue of offshore wind since they didn't appreciate how big the development targets would become.

Stakeholders sense of what offshore wind will mean for them is almost always directly related to scale and process. Signaling a small scale of offshore wind may result in less concern among some stakeholder groups – and may suggest the desire among policymakers to manage and address stakeholder concerns. That said, targets that grow in piecemeal fashion from small scale to the scale necessary to meet the state's clean energy needs may result in a lack of trust due to a seeming lack of transparency. Being clear with stakeholders about the need for large amounts of offshore wind, paired with a commitment to resolving stakeholder concerns, can result in bringing stakeholders to the table early and often and to better outcomes.

In addition, including stakeholders very early in how the targets will be reached will be key to the development of successful industry. We recommend this as your very first step once the targets are established. We have seen the path when policy makers employ an "announce and defend" model where an entity releases a road map that is done without the robust engagement by all relevant ocean, coastal, and land-based sectors. This inevitably causes consternation and objection by large groups of upset constituents. Conversely, bringing in stakeholders immediately once this target is established and then letting them provide meaningful input to how the targets will be achieved will be instrumental to the success of the California offshore wind program.

Conclusion

SIOW appreciates the opportunity to provide its perspective and some lessons from the east coast experience, as California looks to establish its offshore wind planning goals and strategic plan. Indeed, east coast offshore wind was informed by the European experience before it. We were able to leapfrog over some of the hurdles that were presented to Europe's offshore wind buildout. And we hope that the west coast can also remove early on some of the obstacles that the east coast encountered.

The issue of scale – how much, how fast – is one of those important issues that the east coast didn't get quite right from the beginning. Indeed, policymakers from Delaware and New Jersey thought that keeping a project small was desirable because it would limit the project's ratepayer impact and manage the opposition seen by the coast's earliest project, Cape Wind. However, the small projects proposed in those states failed and the states around them learned that the cost of offshore wind energy can only be lowered when projects are large enough to drive economies of scale and competition along the value chain. States like Massachusetts thought they'd gotten it right when they established in 2016 a target of just over 3 GW – at the time the nation's largest. However, their offshore wind solicitations resulted in little to no in-state investment in the offshore wind supply chain. That investment went to New York, which as a later-mover on the east coast, set a binding target three times larger than Massachusetts.

We hope that California uses this ensuing time to fully and deeply engage ocean, coastal, and land-based stakeholders in a robust process that demonstrates the most reasonable and responsible ways to advance to the set targets. Fishermen, tribes, conservation organizations, coastal community members, and so many other interested parties have strong connections to the ocean and how it is used. There is a great opportunity for California to actively solicit their feedback and have them drive the implementation of the goals that are soon to be established.

To put a fine point on it, small scale won't enable California to meet its clean energy goals while satisfying the stakeholder community. Small scale does not bring the price down through clear signals to the whole value chain. Small scale does not animate the supply chain to locate in the US. And small-scale targets that shift over time – in an unplanned and unsupported way – do not provide a pathway for transparent stakeholder engagement that will support California's bold energy targets and further the environmental, energy, and economic benefits that offshore wind delivers.