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Morro Bay Site Proposal

Additional submitted attachment is included below.



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California Energy Commission
1516 Ninth Street
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September 30, 2020

<u>Subject: Docket No. 17-MISC-01 - Notice of Availability of Outreach on Additional Considerations</u> <u>for Offshore Wind Energy off the Central Coast of California</u>

Dear Commissioner Douglas,

Thank you for the opportunity to provide comments to the proposed modification of the Morro Bay Call Area. We would like to share our proposal for how a Morro Bay project approach could become a building block, rather than a further impediment, to develop California's Floating Offshore Wind (FLOW) to 10 GW and help meet the 2045 energy goals of SB100. To be clear – our comments are not intended to suggest any opinion, pro or con, about the modification of the Morro Bay Call Area as described in the Carbajal-DOD proposal. Our comments in this letter are intended to suggest ways in which this proposal, if indeed it is adopted, should be further modified in its framework to enhance early action, avoid delays, and expand economic benefits.

Background

We have been involved in offshore wind projects since the very first deployment of a wind turbine offshore in 1989. From this time until today, fixed bottom wind has come from zero to become a cost competitive energy source favoured in many parts of the world. The sector's development in the EU environment has shown the value of a stepwise approach that has allowed risks to be mitigated over time and has enabled early deployments to build a pathway for larger projects. We believe the success of this stepwise approach should serve as an example for California.

The stepwise approach and values of demonstration

The history of the offshore wind industry in the EU and U.S. East Coast shows the benefits of demonstration project deployments. There has not been a single demonstration project that has adversely impacted commercial pathways, but only to the contrary. This benefit is created when demonstration projects have a defined purpose and plan that link one demonstration to the next and cumulatively deliver environmental, commercial, industrial and socio-economic values to form basis of wide-scale commercial launch.

Most recent and current demonstration scale projects in the EU use offshore wind turbine platforms of 5-7 MW, optimised to reach capacity up to 9.5 MW. In this configuration, demonstration projects have been considered with a project capacity limit of up to 100 MW (currently the demonstration project limit with the Crown Estate in the UK). With rapidly shifting wind turbine sizes expected to reach and even exceed 15 MW, commercial project size threshold in the UK has recently been increased to 400 MW, and the demonstration project limit is being considered as 250-300 MW. At a project size of 250 MW, there is a sufficient volume produced to substantiate serial production (17 units of 15 MW), and a project can reach lowest generation cost short of being fully commercially competitive. Hence support programs can be more modest and bring ideal value balance between project deliverables and invested cost. If such project size can be delivered in a multiple format (cluster array) and with an overall envelope of a commercially developed project, there can be considerable development and infrastructural cost benefits to enhance power generation cost further.

A maximized value proposal for a Morro Bay project approach

Obviously, the proposed modifications to the Morro Bay Call Area, if accompanied by removal of the Diablo Canyon Call Area, would not provide sufficient area for more than 1 GW and thus would not enable the economies of scale and development pathway for a full-scale offshore wind industry on the Central Coast.

Decisions to progress such larger scale proposals will require further information and analysis, so the proposition for Morro Bay must be designed for maximum value. If BOEM and California were to launch a traditional commercial tender for this site, potentially leaving a single award winner, the impact for California could be negative. The EU experience shows many cases of single-developer projects in which the developer secures the site but then just sits on it until the most advantageous conditions emerge for that company, or simply chose not to develop the site and instead wait for other more advantageous projects. Such a single-developer approach also would only promote a single technology with associated risk profiles and considerations. For these reasons and the lack of financial support structure, the Carbajal-DOD proposal could very likely be used by the sole winner of the lease to "bank" the resource and possibly delay development until ideal conditions are in place, further expansion of Central Coast call areas is allowed, and/or the North Coast's transmission challenges have been resolved. This outcome would delay, not accelerate, the development of California offshore wind, and it would not be in the state's interest.

Therefore, we propose that the Morro Bay proposal be converted into a multi-array pre-commercial project proposition of 4 x 250 MW. This would create a competitive process for four different sites, introducing at least four different technology propositions. This approach would have several key advantages:

- It would ensure that these projects advance as quickly as possible, minimizing the likelihood that single-site developers would "bank" their lease to wait for additional call area expansion.
- It would facilitate information-gathering on environmental impacts, technology suitability, and cost of energy, which could then help the state build support for tough infrastructure decisions by the state and the formulation of a realistic pathway to 10 GW.

- It would enable active collaboration with key parties like the environmental community, local fishing industry and DoD (to mention a few) to explore creative and meaningful coexistence.
- It would provide the opportunity to explore the pathway for additional capacity at the Diablo Canyon grid connection point as well as for site areas in the North Coast.
- By dividing the project into four, it would allow development of multiple local port infrastructures and a more diverse supply chain to accommodate for serial fabrication, thus maximizing new employment opportunities in California.

In pursuing a project proposal of this kind, it is important for CEC and the state to recognize the precommercial nature of these projects and to offer sufficient power purchase agreement "top-off" or similar support. Different markets have chosen various approaches over time, such as: fixed price per kWh (Japan and France); Carbon Certificates on top of PPA (former ROCs in the UK and Green Certificates in Sweden); and Contract for Difference (CfD) bidding for PPAs from specific FLOW pot, (currently under consultation in the UK). In addition, consideration should be given to engaging the permit process independently of the eventual lease holder, thus accelerating the pathway. Working with a worst-case project approach, the arrays can be predefined with what we know from the industry and its impacts, allowing BOEM to accelerate and undertake the permit and multiple lease proposals into a "ready" state in parallel with the tendering process.

As we see it, there is a clear opportunity for such a proposition to form a balance and engagement with the surrounding interests where the outcome will lead to not only a commercial launch pad for California, but a focal point for FLOW with global attention.

Sincerely yours,

Mikael Jakobsson

CEO