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Bold goals to achieve decarbonization success

Additional submitted attachment is included below.

California Energy Commission

Docket #: 17-MISC-01

Project Title: California Offshore Renewable Energy

American Clean Power Association - California

March 11, 2022

Re: Comments to the California Energy Commission on 2030/2045 Offshore Wind Goals

The American Clean Power Association - California (ACP-CA)[1] welcomes the opportunity to provide comments on the California Energy Commission (CEC) establishment of state offshore wind goals. Under California Assembly Bill (AB) 525, the California State Assembly has directed the CEC to establish offshore wind-specific megawatt (MW) targets for 2030 and 2045 by June 1, 2022. We believe the targets must be bold, because the targets are what will drive the public and private investment in ports, technologies, supply chain, and leases that will make a California offshore wind industry a reality. We have seen this on the East Coast, where state procurement goals in nearly every state between Massachusetts and North Carolina have catapulted the Northeast and Mid-Atlantic to the vanguard of the US offshore wind industry. We need the same long-range vision from the CEC to ensure that California can follow suit to jumpstart the commercial-scale floating offshore wind industry on the Pacific Coast, advance ambitious state climate targets, and advance national decarbonization goals.

Accordingly, ACP-CA supports targets of 3,000 MW by 2030 and 18,000 MW by 2045, with the latter target deployed at a minimum average rate of 1,000 MW per year between 2031 and 2045. As we demonstrate below, these goals represent the "maximum feasible capacity" of offshore wind generated off the coast of California, optimize the reliability, ratepayer,

[1] ACP-CA is the California branch of American Clean Power Association, the national trade association representing the renewable energy industry in the United States, bringing together over 1,000 member companies and a national workforce located across all 50 states with a common interest in encouraging the deployment and expansion of renewable energy resources in the United States. By uniting the power of wind (both land-based and offshore), solar, storage, and transmission companies and their allied industries, we are enabling the transformation of the U.S. power grid to a low-cost, reliable, and renewable power system. The American Wind Energy Association (AWEA) merged into ACP on January 1, 2021. Additional information is available at http://www.cleanpower.org.

employment, and decarbonization benefits of offshore wind, and satisfy all twelve of the factors set forth in AB 525. Most importantly, these goals will send a green light to the offshore wind market and unleash a flood of investment that will create jobs and build the infrastructure needed to help California achieve its climate goals.

I. California Needs Offshore Wind to Reduce the Impacts of Climate Change and Maintain a Resilient Power Grid

Although the exact target has not yet been established as of the date these comments were submitted, the offshore wind potential off California is massive: a recent National Renewable Energy Laboratory (NREL) study found there are 201 GW of technical potential for offshore wind off the coast of California.[2] Realizing even 10 or 15 percent of this potential would provide an immense boost to California's climate goals.

California is experiencing first-hand the effects of climate change and has been at the forefront of climate change policy for decades, implementing some of the most aggressive clean energy goals in the nation. In the last five years alone, California has experienced the vast majority of the worst wildfires in the state's history. Scientists at Lawrence Berkeley National Laboratory and California water managers have recently projected that California's snowpack — upon which its water supply largely depends — could disappear within 25 years if greenhouse gases continue unabated. Should this occur, the water supply for California, the fifth largest economy in the world, would be in grave jeopardy. California's coast is also experiencing the effects of climate change, including larger and more frequent storms, coastal erosion, higher ocean temperatures, algal blooms, and kelp forest degradation. Put simply, California and its coastal resources need every tool in the climate mitigation toolbox—including offshore wind.

California's power grid is not keeping up with the impacts of climate change. According to the Governor's July 30, 2021, emergency proclamation, California could face a shortfall of up to 5,000 MW this summer, given the likelihood of extended drought, wildfire, and heatwaves.[3] Record-breaking heat and drought conditions caused 2021 reservoir levels to dwindle, reducing hydroelectric power capacity by nearly 1,000 MW in the summer of 2021, while the heat

[2] https://www.nrel.gov/docs/fy21osti/77642.pdf
[3] Proclamation of a State of Emergency. 30 July 2021. https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf

increased demand for electricity. We recognize that offshore wind projects cannot practicably come online in time to address these near-term shortfalls, but recent developments show that California, as a state, is behind schedule in developing the clean energy resources needed to maintain a stable grid in the face of climate change. California will need to avail itself to all clean energy resources available to achieve reliable, affordable decarbonization, and offshore wind fills that need.

Clean energy deployment is also a massive priority for California, and offshore wind must be a critical piece of this. In 2018, California Senate Bill (SB) 100 established a policy for the state of California that renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045.[4] Offshore wind is an essential addition to California's clean power mix because of its generation profile: it typically generates during the late afternoon and evening and in the summer, when our solar-dominant renewable system is the most stretched.[5] By 2035, California will need to dispatch more than 18 GW *per hour* to meet its maximum 3-hour net load ramp as a result of declining solar production in the afternoon.[6] To be able to replace dispatchable resources facilities with variable renewables, California's system needs resources with complementary generation profiles to provide clean generation at all hours of the day.[7]

The 2021 California Joint Agency Study published by the California Energy Commission, California Public Utilities Commission, and California Air Resources Board concluded that California needs to develop an estimated 145 GW of renewables and energy storage by 2045 to achieve 100 percent clean energy.[8] The study also concluded that California needs to design and develop a diverse renewable portfolio that includes not only solar and battery storage, but also regional wind, long-duration storage, and offshore wind. The study selected all 10 GW of offshore wind made available to the study model as part of the ideal

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[4] Senate Bill 100. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB
[5] California Polytechnic Institute, https://doi.org/10.1088/2515-7620/ab4ee1 & E3, The Economic Value of Offshore Wind Power in California, http://castlewind.com/wp-content/uploads/2019/08/2019-08-08_E3- CastleWind-OffshoreWindValueReport_compressed.pdf
[6] Energy Strategies for Western Interstate Energy Bureau, https://westernenergyboard.org/wp-content/uploads/2019/12/12-10-19-ES-WIEB-Western-Flexibility-Assessment-Final-Report.pdf
[7] Brightline Defense Project, https://www.brightlinedefense.org/news/caoffshorewind
[8] SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity

renewable portfolio in a "SB 100 Core Scenario." The report also confirmed the value of resource diversity and offshore wind specifically, finding that a portfolio that achieved the goals of SB 100 but excluded 10 GW of offshore wind would increase total annual resource costs by $1 billion annually. A 2019 study from E3 arrived at a similar conclusion: a resource portfolio that includes between 7 and 9 GW of offshore wind could save California customers between $1 billion and $2 billion (net present value) between now and 2040 when compared to a less diverse energy portfolio.[9] The right portfolio of resources, including large-scale offshore wind, will enable and ensure reliability at the least cost to all consumers. Indeed, costs and system reliability are imperative to all ratepayers alike.

Offshore wind will also bring substantial economic benefits to California, creating jobs and revenue in areas of the state (e.g., the Central Coast and Humboldt County) that need these economic opportunities. A recent study from the University of Southern California and the Schwarzenegger Institute found California could see a gross domestic product increase of $24 billion between 2020 and 2040 and job gains of up to 195,000 job-years in construction and 4,500 annual operation/maintenance for 40 years through development of 10 GW of offshore wind.[10] Generation of these opportunities for these regions of California would therefore also further the Biden Administration's focus on addressing socioeconomic disparities through development of high paying jobs in this quickly growing industry.

Finally, California offshore wind is essential to help meet the Biden Administration's climate mitigation and clean energy goals. In the Executive Order on Tackling the Climate Crisis at Home and Abroad ("Climate EO"), signed on January 27, 2021, President Biden called deployment of clean energy technologies, such as offshore wind, "critical for climate protection" and established that "[i]t is the policy of [the] Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy … especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure."[11] The Climate EO further calls for the executive branch to "accelerate the deployment of clean energy .

[9] Available at https://www.nrel.gov/docs/fy21osti/77642.pdf.
[10] USC Schwarzenegger Institute, "California's Offshore Wind Electricity Opportunity," 2021 http://schwarzeneggerinstitute.com/images/files/OSW_Report.pdf
[11] Executive Order 14008, available at https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad.

. . in an environmentally stable manner."[12] Most recently, the President issued an executive order stating that, in 2022, BOEM "will conduct reviews of wind energy areas offshore northern California (Humboldt) and central California (Morro Bay). . . ."[13] California has the opportunity to set ambitious offshore wind planning goals that will serve as a call for the offshore wind industry and supply chain to directly support both the state and national visions.

II. The CEC's Offshore Wind Goals Should Be Bold Enough To Meet This Moment

The CEC should appropriately and aggressively set its goals for offshore wind planning in order to meet the targets in the 2021 CPUC/CEC joint report and the intent of AB 525. As discussed in more detail below, setting bold targets meets the intent and statutory requirements of AB 525, is feasible, and will spur investment dollars in California and in the U.S. offshore wind industry. As a preliminary recommendation, ACP-California recommends a goal of **3 GW by 2030, and 18 GW (with a minimum average of 1 GW added per year) by 2045** of offshore wind installations.

California is a pioneer in renewable energy planning. For instance, in 2020, California ranked second in the U.S. for both installed clean power capacity at more than 20 GW, as well as new addition of clean power capacity at 2.1 GW in the calendar year.[14] However, in order to meet the goals of AB 525 and the SB 100 Study, about 53 GW of utility-scale solar, 37 GW of battery energy storage, 24 GW of wind power generation, 4 GW of long-duration energy storage, and 2 GW of geothermal energy will be needed.[15]

The "SB 100 Core Scenario" calling for 10 GW of offshore wind by 2045, or as much as the model would allow, is dated and sets its sights too low based on what we know now about.[16] According to an NREL report, California has 200 gigawatts GW of technical potential for generating offshore wind power, and the SB 100 Joint Report names California as having some of the "best offshore wind resources in the country" to take advantage of to reach these goals.[17] The SB 100 Study was imperfect and utilized dated price information, although it still selected

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[12] *Id.*
[13] January 12, 2022, White House Fact Sheet: Biden-Harris Administration Races to Deploy Clean Energy that Creates Jobs and Lowers Costs, https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/12/fact-sheet-biden-harris-administration-races-to-deploy-clean-energy-that-creates-jobs-and-lowers-costs/
[14] American Clean Power Association,
[15] CAISO report
[16] https://www.nrel.gov/docs/fy21osti/77642.pdf
[17] https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349

offshore wind as a viable option in California reaching renewable energy goals. More recent studies expect the cost of offshore wind has projected to be even less. For instance, NREL estimated that floating offshore wind costs could drop by an average of 44% between 2019 and 2032.[18]

18 GW of offshore wind power represents a small fraction of California's full technical potential, yet its potential benefits are huge. Studies show that 10 GW of offshore wind power would supply almost 15% of the state's current electricity needs, and even more could be achieved with 18 GW.[19] Moreover, building out 18 GW of offshore wind power generation incrementally will create thousands of good-paying jobs, save ratepayers $1 billion or more for installed clean power capacity, create new domestic supply chains, enable California to cost-effectively meet its 100% clean energy goals, and also help the state to manage its growing climate risks.[20]

In addition, the rationale for ambitious goal setting has grown stronger. Internationally - IRENA has called for 2,000 GW of OSW by 2050 to maintain 1.5 degrees warming pathway.[21] That include 360 GW in North America. UK, South Korea, Japan, Norway have set or are contemplating Floating OSW targets, with GWEC forecasting 16.5 GW of FOSW operational by 2030.[22] Nationally, the Biden Administration has set goals of 30 GW by 2030 and 110 GW by 2050. East coast state targets now total 40 GW by 2035, and with the successful start of construction of the 800-MW Vineyard Wind I project, utility procurement totaling 17 GW, and 8 active leases with an estimated potential of 25.5 GW of total capacity (not including the recent New York Bight Lease sale), the East coast is well on its way to achieving those targets. All of this activity in the east coast started with a few states looking at their long term decarbonization goals, their access to clean resources, realizing offshore wind projects had to be a big part of the future.

Based on the above, we are confident that our goal proposal of 3 GW by 2030 and 18 GW by 2045 can help spur offshore wind development in California a way that is technically

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[18] https://www.nrel.gov/docs/fy21osti/77642.pdf
[19] 2019 IEPR https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report
[20] https://www.nrel.gov/docs/fy21osti/77642.pdf
[21] IRENA Offshore Report, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jul/IRENA_G20_Offshore_renewables_2021.pdf
[22] https://gwec.net/global-offshore-wind-report-2021/

feasible, that provides competitively-priced power, that is environmentally responsible, and protects our coastal and marine resources, and co-exists with other ocean users. And as discussed in more detail below, we believe this goal is technically feasible, and in line with the resource planning efforts that the California Public Utilities Commission ("CPUC") and California Independent System Operator Corporation ("CAISO") have recently taken.

We urge CEC to set bold offshore wind targets to procure offshore wind energy as soon as possible so that the technology will be readily available in the future and the market will be able to make the necessary changes. To bring offshore wind to market for Californians and realize these benefits will require scale, speed, and sustained federal and state support. Economies of scale will be key to driving down costs, delivering competitively priced clean power, and encouraging industries and jobs to locate in our state. Achieving these targets requires getting started now with a focused effort to advance development at both the Morro Bay and Humboldt WEAs through the necessary reviews and leasing process.

III. 3GW by 2030 and 1GW/Year to 2045 represent "maximum feasible capacity" under AB 525.

ACP-CA's proposed goals of 3,000 MW by 2030 and 1,000 MW per year until 2045 are possible based on what we know today, and will be *even more possible* once they are set. The CEC's offshore wind goal must represent the 'maximum feasible capacity of offshore wind to achieve reliability, ratepayer, employment, and decarbonization benefits." . While this term is undefined in the statute, we believe the intent is to direct CEC to select a goal that is at the upper end of what is possible with action.

a. 3,000 MW by 2030

For several reasons, the 2030 goal of 3,000 MW is well within the range of what is achievable. Any 2030 goal must account for the following key factors, each of which are satisfied:

- *The availability of BOEM leases.* BOEM has designated two Wind Energy Areas (WEAs) offshore Central and Northern California--Morro Bay and Humboldt, respectively—that it is presently analyzing for potential offshore wind leasing.[23] BOEM

[23] https://www.boem.gov/renewable-energy/state-activities/california.

has stated in its Offshore Wind Leasing Path Forward 2021-2025 that it intends to conduct lease sales in these areas in late 2022.[24] BOEM has estimated that these WEAs could generate around 5 GW of offshore wind energy once developed—3,100 MW in the Morro Bay WEA[25] and 1,605 MW in the Humboldt WEA.[26]

- *The federal and state permitting timetable.* Assuming BOEM auctions leases within the Morro Bay and Humboldt WEAs by the end of 2022, we estimate that the winning developers will obtain their necessary federal and state permits by the end of 2026.[27] Once the permits are obtained, in parallel to securing energy offtake agreements, assuming expeditious development of ports and supply chain facilities, this should leave more than sufficient time for these developers to construct projects totaling over 3,000 MW for deployment by 2030.
- *The availability of grid interconnection capacity.* Assuming reasonable onshore upgrades, there is currently a high likelihood that sufficient interconnection capacity will be available by 2030 for all 3,100 MW of offshore wind generation within the Morro Bay WEA, through a combination of the retired Morro Bay Power Plant and the soon-to-be-retired Diabolo Canyon Power Plant. The Humboldt WEA is more transmission constrained due to challenges connecting from the North Coast to the I-5 transmission corridor, but could send up to 140 MW to power local communities in the short to medium term while these transmission constraints are being resolved.[28] The California General Assembly is already taking necessary steps to ensure the first 3 GW of offshore wind can be absorbed into the grid. On February 17, 2022, Sen. Robert Hertzberg introduced Senate Bill 1174, which is designed to accelerate the development of power lines needed to connect offshore wind farms and other energy sources to the electric grid. To meet the California goal of 100% clean electricity by 2045, the bill requires the CPUC

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[24] https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/OSW-Proposed-Leasing-Schedule.pdf.
[25] https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Area-ID-CA-Morro-Bay.pdf at 40.
[26] *Id.*, https://www.boem.gov/sites/default/files/documents//App.%20A%20Area%20ID%20Humboldt%20Memo%20Final.pdf at 2.
[27] https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/CA/BOEM-Offshore-Renewables-Factsheet--02-22-17.pdf
[28] CAISO Draft transmission plan, http://www.caiso.com/InitiativeDocuments/Draft-2021-2022TransmissionPlan.pdf

to identify and advance all interconnection or transmission approvals necessary to address potential transmission capacity shortfalls, and execute an accelerated approval and completion process. Second, the CPUC recently adopted Decision 22-02-004 in its IRP proceeding, making use of the CAISO's draft analysis of the 8.3 GW offshore wind sensitivity case.[29] Here they acknowledged the possibility of a near-term increase in 2032 offshore wind deployment set out in the preferred system plan; and affirmed the CPUC's intention to engage with stakeholders on the establishment of an appropriate entity to conduct offshore wind procurement.[30] This commitment provides the investment capability needed for this goal. Furthermore, the offshore wind development process could take as long as seven years from lease auction to commencement of operations. Large scale in-state transmission development projects to interconnect offshore wind involve lengthy permit and planning requirements. The initiation of projects sooner can help ensure that needed transmission and generation are completed on a timetable that aligns with the goals of AB 525.

- *Port construction.* These initial projects must have access to ports suitable for both pre-construction assembly and operations and maintenance. While there is no port in California that currently meets all these requirements, Humboldt County is several steps ahead in planning the infrastructure needed to support offshore wind installations in the Humboldt Call Area, and has developed studies and plans developed to support its efforts. If the proper support is provided in these regions, (i.e., analysis and funding to support where and how will floating offshore wind be assembled to install the first set of projects in the Morro Bay and Humboldt wind energy areas to come on line by 2030), there should be no major roadblock in port development and buildout to construct 3 GW. In the near term, the state needs to define the plan for ensuring port capacity for the first 3GW of offshore wind to come online. That work is in the process of being organized by the CEC, State Lands Commission and BOEM. Once identified the plan will require both federal and state support to upgrade port capacity to facilitate this first phase. These initial financial investments to upgrade ports will create job opportunities for workers in the building and construction trades. With an 18GW by 2045 goal with consistent

[29] See D.22-02-004 at 123.
[30] See D.22-02-004 at 143-44.

investment, the state will be sending a signal to port operators and funders that these investments will be needed long term. Thus, having a large long-term target will increase the likelihood of the first round of projects getting built.

b. Adding 1 GW/ Year after 2030

In assessing the maximum feasible capacity by 2045, we see that with action, it is plausible that California could achieve the construction of 18GW of offshore wind. The wind resources exists, there is sea space, it is possible to build the needed transmission and system upgrades, there is demand for clean energy with the generation profile of offshore wind, and the technology exists to develop this resource.

Part of the benefit of offshore wind is the ability to harness emissions free energy on a large scale. To build on this scale requires a skilled workforce, port capacity, and time. The logistics of wind turbine assembly show us that to build the maximum amount of offshore wind is done with a consistent steady effort, as the construction must make the best use of what port capacity is developed. From a workforce perspective, finding and keeping the skilled workers for this construction is easiest when there is consistent work.

In terms of transmission capacity, as the CEC is aware, CAISO, recently outlined a 20-year transmission plan to produce 120 GW of new resources on the grid by 2040.[31] CAISO examined an 8.9 GW buildout in its sensitivity analysis, which was adopted by CPUC, but also did a high-level assessment at the possibility of a buildout of 21.2 GW of offshore wind on the California coast—14.4 GW in the north coast and 6.7 GW in the central coast.[32] In the high-level assessment, CAISO found that a concept based on two high capacity AC lines, two LCC HVDC lines, and two VSC-HVDC lines would have enough capacity to transfer the 14.4 GW north coast offshore wind out of the area. Although further reliability, deliverability, and production cost simulation studies are required to determine the optimum configuration, capacity, interconnection points, and staging of different components of required system enhancements, there is potential for this concept.[33] To determine maximum feasible capacity, CEC should work with CAISO to do a more detailed assessment of the 21.2 GW of potential offshore wind.

[31] CAISO Draft transmission plan, http://www.caiso.com/InitiativeDocuments/Draft-2021-2022TransmissionPlan.pdf
[32] See CAISO Draft Plan at 220.
[33] See CAISO Draft Plan at 235.

At the rate BOEM is conducting offshore wind leasing on the Atlantic coast, we expect 15 years (between 2030 and 2045) to be ample time for BOEM to conduct leasing required for buildout. In our experience, BOEM responds to state demand—as noted above, nearly half of the Atlantic offshore wind capacity goals have already been leased, with more on the way. BOEM will be more likely to expedite the planning process for the next round of California leasing if CEC sets a robust post-2030 goal. For these reasons, we see that having a goal of steady and continuous development of offshore wind is the best path towards achieving significant development.

IV. The statutory factors all weigh in favor of ACP's proposed goal

In addition to driving the market and being feasible, ACP-CA's proposed goals are also supported by each of the factors that the CEC must weigh under AB 525. We have broken these factors into three categories: (1) sending a market signal based on long-term expected needs; (2) directing planning at the right scale to solve port infrastructure, supply chain and workforce challenges; and (3) quantifying future potential sea-space needs so BOEM and California can work with industry and other stakeholders to do the appropriate environmental and spatial planning ahead of the next wave of BOEM offshore wind lease sales.

a. <u>Sending a market signal based on long-term expected needs: see sections I & II</u>

If CA needs OSW in the future – given what we know about requirements of decarbonization and OSW's suitability for that portfolio, send a big signal now that will drive the future economics. This covers the following statutory criteria:

- (1*) The findings of the 2021 joint report issued pursuant to Section 454.53 of the Public Utilities Code.*
- *(4) The need for reliable renewable energy that accommodates California's shifting peak load.*
- *(5) The generation profile of offshore wind off the coast of California.*
- *(6) The need for economies of scale to reduce the costs of floating offshore wind.*
- *(7) The need to initiate long-term transmission and infrastructure planning to facilitate delivery of offshore wind energy to Californians.*
- *(8) The availability of federal tax incentives for offshore wind investments.*

b. Directing planning at the right scale to solve the port infrastructure, supply chain and workforce challenges – see section III.1

- (*2) The need to develop a skilled workforce*: Beyond what has been discussed above, deployment of offshore wind will generate significant demand for construction and maintenance work in California. CEC itself has indicated its belief that renewable energy will bring a stream of new jobs for workers.[34] Studies by American Jobs have estimated that the California offshore wind industry could support about 185,000 job-years with the buildout of 18 GW of offshore energy capacity between now and 2045.[35] The American Jobs Report also projected Offshore Wind to bring new investment through industrial clusters pointing to a study on East Coast offshore wind rollouts that estimated 'every $1 invested into a project resulted in $1.83 in regional economic GDP. In addition, another 4,000 - 4,500 jobs have been projected annually for stead operation under a projection of 10 GW of Offshore Wind by 2040.[36]

c. Quantifying future potential sea-space needs ahead of the next wave of BOEM California auctions

ACP-CA's proposed offshore wind goals dovetail with the AB 525 factors that address the marine spatial planning process necessary to identify the best areas for offshore wind development:

- *(9) The National Renewable Energy Laboratory report finding that California has 200 gigawatts of offshore wind technical power potential.* We recognize that by accounting for other human uses and conservation goals, the amount of offshore wind that can eventually deployed off California will be a fraction of the 200 GW of technical power potential estimated by NREL. However, NREL's estimate represents the magnitude of offshore wind's potential impact, and puts into perspective the relatively minor impact of an ambitious target. Indeed, ACP-CA's proposed offshore wind goal of 18,000 MW by 2045 represents a mere 7% of the Outer Continental Shelf within the 1,100 m of water

[34] CEC, California Releases Report Charting Path to 100 Percent Clean Electricity (Mar. 15, 2021) https://.energy.ca.gov/news/2021-03/california-releases-report-charting-path-100-percent-clean-electricity
[35] USC Schwarzenegger Institute, "California's Offshore Wind Electricity Opportunity," 2021 http://schwarzeneggerinstitute.com/images/files/OSW_Report.pdf
[36] *Id.*

depth off California—and we believe that water depth does not represent the ultimate outer bounds of what is technically feasible.

- *(10) The opportunity for California to participate in the federal government's intention to deploy 30,000 megawatts of offshore wind by 2030 and to create a pathway to unlocking 110,000 megawatts by 2050.* 3,000 MW of offshore wind deployed by 2030 would give California a "fair share" of the federal government's goal of 30,000 MW of offshore wind generation by 2030, while positioning the state to make an even greater contribution to the 2050 goal by 2045 and beyond.
- *(12) Potential impacts on coastal resources, fisheries, Native American and Indigenous peoples, and national defense, and strategies for addressing those potential impacts.* Setting ambitious but achievable targets for 2030 and 2045 will facilitate better results in addressing and mitigating potential impacts from offshore wind development. Setting a long-term objective will incentivize BOEM and the State of California to plan to scale and view the Outer Continental Shelf as a whole. This will allow BOEM to do what it does best: start from a large planning or Call Areas; take public comment at multiple stages regarding potential conflicts with (among other things) commercial fisheries, sensitive habitats, navigational corridors, and Department of Defense activities; and winnow down to the areas it deems most suitable for offshore wind development. BOEM has done this to great effect in the New York Bight when guided by New Jersey and New York procurement targets,[37] and could replicate this effort in California with a bold 2045 objective as its lodestar.

V. Importance of formalizing intergovernmental coordination

In the March 3rd workshop, multiple parties noted the strong collaborative efforts of state and federal agencies in moving forward on offshore wind. It is notable how intentional agency leaders and staff are being in creating a strong collaborative engagement.

We are appreciative and supportive of this collaboration. As we look forward, the work on offshore wind for California is really now just beginning as we are considering goals 23 years into the future. We think that the state should take the time now, as we are in the beginning

[37] https://cleanpower.org/wp-content/uploads/2022/01/NY_BightCaseStudy_v4_final_revision.pdf.

stages of this work, to formalize these collaborative relationships. We suggest the state and federal agencies work together to enter into a joint MOU similar to what was done in prior years to facilitate and speed the development of renewable energy.

VI. Bibliography of additional studies to include in CEC list of data sources

- Castle E3 Study (2019)
- Schwarzenegger Institute Study (2021)
- Cal Poly Study (April 2021)
- Brightline Defense Report (December 2021)

CONCLUSION

ACP-CA appreciates the opportunity to submit these comments and looks forward to continued participation in the Commission's efforts to achieve California's decarbonization, reliability and affordability goals.

Sincerely,

Varner Seaman, Offshore Wind Director, ACP-CA
Josh Kaplowitz, VP of Offshore Wind, ACP
Johanna Jochum, Counsel, ACP
Elizabeth Goldstein, Legal Fellow, ACP