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CALIFORNIA ENERGY COMMISSION

In the matter of,)
))
California Offshore) Docket No. 17-MISC-01
Renewable Energy)

Workshop on Assembly Bill 525: Preliminary Assessment of
the Economic Benefits of Offshore Wind Related to
Seaport Investments and Workforce Development Needs and
Standards

REMOTE VIA ZOOM

MONDAY, DECEMBER 19, 2022

9:00 A.M.

Reported By:
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Reporter's Certificate

Transcriber's Certificate

1

P R O C E E D I N G S

1
2 December 19, 2022 9:02 A.M.

3 MS. MACDONALD: Good morning. I'm Rachel
4 MacDonald with the Energy Commission's Siting,
5 Transmission, and Environmental Protection Division.
6 Welcome to this morning's workshop focused on a staff
7 presentation of the Draft Preliminary Assessment of
8 Economic Benefits of Offshore Wind Related to Seaport
9 Investments and Workforce Development.

10 After the presentation, we will have
11 opportunity for question and answers before we move to
12 public comments. Before we begin, I'm going to cover a
13 few housekeeping items. First, this meeting is remote
14 access only and is being recorded. The workshop
15 recording will be made available on the Energy
16 Commission's website.

17 Please note that to make the Energy
18 Commission's Workshop more accessible, Zoom's closed
19 captioning has been enabled. Attendees can use the
20 service by clicking on the live transcript icon and then
21 choosing either show subtitle or view full transcript.
22 The closed captioning service can be stopped by exiting
23 out of the live transcript or selecting the hide
24 subtitle icon.

25 Before we begin the presentation, are our

1 Commissioners available and would they like to make
2 opening comments?

3 MS. ANDERSON: And if any commissioners are on
4 the phone calling in, that is star-six to unmute your
5 line.

6 MS. MACDONALD: Okay, that being said, we can
7 also hear closing comments. At this point, we can move
8 to the presentation. I'm going to hand it over to Jim
9 Bartridge and Paul Deaver who will present the draft
10 report. Jim, go ahead and please turn on your camera.

11 MR. BARTRIDGE: Okay, good. Can you see me?
12 All good? You can hear me good. Okay. Well good
13 morning, everyone, and welcome to another workshop on
14 offshore wind energy in California. I'm Jim Bartridge
15 with the Siting, Transmission, and Environmental
16 Protection Division.

17 Today we'll be discussing our Preliminary
18 Assessment of Economic Benefits from Offshore Wind
19 Related to Seaport Investments and Workforce Development
20 report. We published that on Friday. And just for your
21 information this afternoon, we'll be having another
22 workshop on the permitting roadmap.

23 Next slide, please.

24 Okay, so here's our schedule for today. We'll
25 go over the requirements of AB 529 -- 525, excuse me,

1 and share some news on the federal lease auctions. Then
2 we'll have a presentation on the report by Paul Deaver,
3 followed by questions and answers, and finally, public
4 comments.

5 Next slide, please.

6 California's been working with BOEM since 2016
7 to explore potential offshore wind opportunities, and
8 the first meeting of the BOEM California
9 Intergovernmental task force was held in the fall of
10 2016. In October 2018, BOEM published a call for
11 information and nominations for three areas off the
12 California coast: Diablo Canyon call area, Morro Bay
13 call area, and Humboldt call area.

14 Following extensive engagement with and
15 comment from the CEC, local, state and federal agencies,
16 tribal governments, ocean users, and other interested
17 parties and agencies, in May of 2021, Governor Newsom
18 and the Biden-Harris administration announced an
19 agreement to advance areas for wind energy development
20 off Northern and Central Coast of California, for the
21 Humboldt call area and areas within the adjacent --
22 within and adjacent to the Morro Bay call area. BOEM
23 later identified Morro Bay Wind Energy Area and the
24 Humboldt Wind Energy Area and conducted an environmental
25 review of the leasing areas.

1 Of note and related to the BOEM process is the
2 California Coastal Commission's review of BOEM's
3 consistency determination for leasing areas off offshore
4 California. The consistency review is one of the first
5 regulatory opportunities for California under the
6 Coastal Zone Management Act, to set a direction for
7 leasing that reflects the state's coastal and ocean laws
8 and policies. And earlier this year the Coastal
9 Commission conditionally concurred with BOEM's
10 consistency determinations.

11 On May 26th, BOEM announced a public comment
12 period on proposed auction details and lease terms
13 presented in a proposed sale notice for the two wind
14 energy areas. And on June 3rd, BOEM and the state of
15 California held a task force meeting to discuss the
16 public sale notice and other related topics. On August
17 1, 2022, nine California state agencies jointly
18 submitted a comment letter to BOEM in response to the
19 public sale notice.

20 The comment letter was submitted by the
21 California Energy Commission, the Ocean Protection
22 Council, State Lands Commission, California Coastal
23 Commission, the Public Utilities Commission, the
24 Department of Fish and Wildlife, Governor's Office of
25 Planning Research, and the Governor's Office of Business

1 and Economic Development, and the California Labor and
2 Workforce Development Agency.

3 Next slide, please.

4 On December 6th, just recently, BOEM held the
5 first online lease auction for the outer continental
6 shelf of California. The auction offered five lease
7 areas covering over 373,000 total acres off the central
8 and northern California coast. The lease areas have the
9 potential to produce over 4.6 gigawatts of offshore wind
10 energy, and enough power for over 1.5 million homes.
11 The lease auction resulted in winning bids of over \$757
12 million from five developers.

13 Next slide, please.

14 So, let's discuss how offshore wind
15 development in California relates to the state's SB 100
16 goals, and more specifically to the 2021 SB 100 Joint
17 Agency Report. With the passage of the Hundred Percent
18 Clean Energy Act of 2018, more commonly referred to as
19 SB 100, California requires that eligible renewable
20 energy resources and zero carbon resources supply a
21 hundred percent of the total retail sales of electricity
22 in California to end use customers, and a hundred
23 percent of electricity procured to serve all state
24 agencies by 2045.

25 SB 100 also increased the state's renewable

1 portfolio standard to ensure that at least 60 percent of
2 the state's electricity comes from eligible renewable
3 energy resources by 2030. SB 100 requires the Energy
4 Commission, the Air Resources Board, and the Public
5 Utilities Commission to prepare a joint policy report
6 every four years that meets certain statutory
7 requirements. The first report was issued in 2021 and
8 found that we need a significant build out of clean
9 energy generation over the next 25 years to meet our
10 goals.

11 AB 525 told us to consider the findings of the
12 SB 100 Joint Agency report in establishing the offshore
13 wind megawatt planning goals. A range of scenarios and
14 technologies were considered in the portfolio modeling
15 completed for the SB 100 report, and the core scenarios
16 assumed that 10 gigawatts of offshore wind is included
17 in the 2045 scenario.

18 It also reflects that the core high
19 flexibility scenario showed a total resource cost
20 savings of a billion dollars in 2045 with a portfolio
21 that included 10 gigawatts of offshore wind. The SB 100
22 report acknowledged that there are additional
23 investments and actions that would be necessary to
24 realize the 10 gigawatts of offshore wind by 2045 and
25 found that while a significant resource potential off

1 California coast, there are also considerable barriers.

2 Among the foremost challenges are significant
3 anticipated transmission needs, and competing coastal
4 uses including shipping, fishing, recreation, marine
5 conservation, and department of defense activities. The
6 SB 100 report and modeling guided the offshore wind
7 megawatt planning goals, indicating that with additional
8 actions and investments to address such challenges, a
9 minimum of 10 gigawatts of offshore wind could be
10 achievable by 2045.

11 Next slide, please.

12 Okay. Assembly Bill 525 became effective
13 January 1st of this year and set the analytical
14 framework for offshore wind energy development off the
15 California coast in federal waters. AB 525 tasks the
16 CEC, in coordination with an array of specified local,
17 state, and federal partners, and with input from
18 stakeholders, to develop a strategic plan for offshore
19 wind energy developments installed off California in
20 federal waters by June 30th, 2023.

21 In enacting 525, the legislature found and
22 declared the following. If developed and deployed at
23 scale, the development of offshore wind energy can
24 provide economic and environmental benefits to the state
25 and the nation. Offshore wind can advance California's

1 progress towards its statutory renewable energy and
2 climate goals. Diversity in energy resources and
3 technology lowers the overall cost of offshore wind and
4 can add resource and technology diversity to the state's
5 energy portfolio.

6 Offshore wind energy development presents an
7 opportunity to attract investment capital and to realize
8 community economic and workforce development benefits in
9 California, including the development and preservation
10 of a skilled and trained construction workforce to carry
11 out projects, long-term job creation, and development of
12 an offshore wind energy supply chain.

13 Offshore wind can contribute to a diverse,
14 secure, and reliable, and affordable renewable energy
15 resource portfolio to serve the electricity needs of
16 California rate payers and improve air quality,
17 particularly in disadvantaged communities. Offshore
18 wind should be developed in a manner that protects
19 coastal and marine ecosystems. And finally, investments
20 in offshore wind energy development can offer a career
21 pathway and workforce training in clean energy
22 development.

23 Next slide, please.

24 Okay. In addition to developing the strategic
25 plan, AB 525 includes interim work products or reports

1 to inform the plan. These include evaluating and
2 quantifying the maximal feasible capacity of offshore
3 wind to achieve reliability, rate payer, employment, and
4 decarbonization benefits, and establishing megawatt
5 offshore wind planning goals for 2030 and 2045. The CEC
6 established the planning goals in August of this year,
7 which I'll describe the next slide.

8 AB 525 also required that on or before
9 December 31st, the CEC shall complete and submit to
10 CNRA, and relevant fiscal and policy committees, a
11 preliminary assessment of economic benefits of offshore
12 wind as they relate to seaport investments and workforce
13 development needs and standards, and a permitting
14 roadmap, which is our workshop this afternoon. This
15 morning we're presenting the preliminary assessment of
16 economic benefits. And again, this afternoon we'll have
17 another workshop on the permitting roadmap.

18 So next slide, please.

19 Okay. In August 2022, the CEC adopted the
20 offshore wind planning goals of two to 5,000 megawatts
21 by 2030, and 25,000 megawatts by 2045. These goals were
22 established for the purpose of guiding the development
23 of the strategic plan, including informing the plan to
24 improve waterfront facilities to support offshore wind
25 deployment.

1 Next slide, please.

2 And so, some additional requirements. AB 525
3 further required the CEC to perform analysis that would
4 in inform the strategic plan. These include identifying
5 suitable sea space for wind energy areas in federal
6 waters sufficient to accommodate the offshore wind
7 planning goals, develop a plan to improve waterfront
8 facilities that could support a range of floating
9 offshore wind development activities, including
10 construction and staging, manufacturing, assembly and
11 operations and maintenance.

12 And finally, assess the transmission
13 investments and upgrades necessary, including potential
14 sub-sea transmission options to support the 2030 and
15 2045 offshore wind planning goals. So, with that, let
16 me turn it over to Paul Deaver to present the report.
17 Paul, are you here?

18 MR. DEAVER: Hello? My audio good?

19 MR. BARTRIDGE: I can hear you. There you go.

20 MR. DEAVER: All right, perfect

21 MR. BARTRIDGE: Take it away. Paul

22 MR. DEAVER: Can we move on to the next slide
23 please?

24 Thank you, Jim. Good morning, everyone. My
25 name is Paul Deaver. I am in the Siting, Transmission,

1 and Environmental Protection Division on the offshore
2 wind team. Today I'm going to present the Preliminary
3 Assessment of Economic Benefits From offshore Wind, as
4 required by AB 525. Specifically, AB 525 section
5 25981.3d requires on or before December 31st, 2022, the
6 commission shall complete and submit to the Natural
7 Resources Agency and the relevant fiscal and policy
8 committees of the legislature, a preliminary assessment
9 of the economic benefits of offshore wind as they relate
10 to seaport investments in workforce development needs
11 and standards.

12 I will present the potential economic
13 development opportunities that could be realized from
14 developing floating offshore wind. I will also discuss
15 experiences from fixed bottom offshore wind development
16 on the East Coast.

17 Next slide, please.

18 Before getting into the potential economic
19 benefits of offshore wind, I will discuss the role that
20 seaports can play. Simply, seaports can be defined as a
21 harbor where ships are docked and facilities where goods
22 are loaded, unloaded, and transported to other uses.

23 The American Society of Civil Engineers 2021
24 Infrastructure Report Card shows that the nation's more
25 than 300 coastal and inland ports are significant

1 drivers of the US economy, supporting almost 31 million
2 jobs in 2018, and 26 percent of total gross domestic
3 product.

4 Some ports include multiple terminals,
5 including industry specific terminals, piers, wharves,
6 yards, marinas, deep water channels, and sheltered
7 harbors. For California ports, the port authorities
8 that comprise the California Association of Port
9 Authorities are responsible for handling 40 percent of
10 all containerized imports, and 30 percent of all exports
11 in the US.

12 Next slide. please.

13 Seaports, or ports, are essential for the
14 development of a new offshore wind industry in
15 California and will also be an important driver of
16 potential economic benefits, including job creation and
17 economic growth opportunities. Ports have the potential
18 to serve as strategic hubs to support a workforce that
19 can assemble, fabricate, install, and operate and
20 maintain offshore wind turbines and related components.

21 Initially, California ports may not be able to
22 handle all the required activities to support industry
23 development, and significant investment is required to
24 develop these offshore wind port facilities. These
25 facilities must be able to support the construction and

1 transport of floating offshore wind turbines. Floating
2 offshore wind turbines are made up of components larger
3 than any now used or assembled at California ports, so
4 their construction and maintenance will require new
5 configurations of ports and port facilities.

6 The offshore wind industry will require port
7 facilities with sheltered harbor areas, large lay-down
8 areas, deep navigable waters, and heavy load capacity.
9 Wet storage areas will be required within port
10 facilities as a place for the floating foundations or
11 integrated turbines can be safely moored until they can
12 be towed out to their generation sites.

13 Some of the types of activities at ports that
14 support offshore wind. Manufacturing and fabrication
15 includes receiving raw materials via road, rail, or
16 waterborne transport, creating larger components in the
17 offshore wind supply chain, and exporting the completed
18 components via waterborne transport. Construction
19 includes construction and commissioning of the offshore
20 wind farm. Assembly activities include receiving,
21 staging, and storing offshore wind components, and
22 assembly of the floating turbine system for towing out
23 to the offshore wind area. Operations and maintenance
24 during the operation period of the offshore wind farm
25 include operation and maintenance visits and

1 inspections, and wind turbine servicing and repair work.

2 Next slide.

3 A California offshore wind industry could
4 produce significant economic benefits for California,
5 including creating a wide range of good paying jobs that
6 require skills, training and education. Most jobs would
7 likely be in the supply chain and manufacturing sectors,
8 providing long-term skilled position for Californians.
9 Port and waterfront investments can serve as a
10 significant economic driver to local regions and the
11 state, potentially resulting in hundreds of millions of
12 dollars in new economic activity, particularly in supply
13 chain and manufacturing. Also, investment in spending
14 related to port and workforce development could generate
15 significant tax revenues at all levels of government
16 including state, county, and city or local levels.

17 Next slide please.

18 One of the first priorities in developing the
19 Preliminary Assessment of Economic Benefits was to have
20 a definition for economic benefits. To do this, we
21 reviewed definitions of economic benefits through our
22 literature review, including applications of economic
23 benefits in past CEC reports and programs. Based on the
24 information reviewed and how we have seen the term
25 economic benefits applied in the past, for purposes of

1 the preliminary assessment, staff is construing economic
2 benefits to mean any benefit that can be quantified in
3 terms of the money that it generates, such as net
4 income, revenue, profit, and cash flow. Some common
5 measures for economic benefits include gross domestic
6 product and gross state product, labor income, and wages
7 from the jobs created, economic output, and tax revenue
8 generated.

9 Next slide.

10 In addition to defining economic benefits,
11 staff determine the types or scope of benefits that
12 would be studied in this preliminary assessment. CEC
13 staff reviewed studies on offshore wind to better
14 understand the scope of potential economic benefits and
15 how they're considered. The studies generally consider
16 the following types of economic benefits from offshore
17 wind. Direct benefits come from product development
18 benefits from offshore wind activities that are directly
19 related to the port operations.

20 Examples include construction activities,
21 assembly of offshore wind platforms, towers, and blades,
22 operation and maintenance of the offshore wind
23 resources. Indirect benefits are benefits related to
24 economic growth and upstream industries spurred by
25 spending at the port for offshore wind. These can

1 include benefits from supply chain development and
2 component manufacturing. An example, a regional asphalt
3 provider is hired to provide road access to a
4 specialized wind port. These benefits are not directly
5 related to offshore wind operations at the port.

6 Finally, we have induced benefits, which are
7 ripple or multiplier effects that occur at all points in
8 the supply chain from both direct and indirect impacts.
9 Examples here include extra spending in port areas from
10 increased wage earnings such as those at restaurants or
11 local businesses offshore. Offshore wind can create
12 economic benefits in both the short term and the long
13 term, where short term is until construction is
14 complete.

15 Examples include construction upgrades to
16 existing ports, and construction assembly, staging, and
17 integration of offshore wind energy. Long-term economic
18 benefits can span the life of the offshore wind plant.
19 This could be 25 to 30 years. These include operations
20 and maintenance, and manufacturing and supply chain.

21 There is some uncertainty around the amount of
22 economic benefits and when they occur. Economic
23 benefits depend on a number of variables, such as port
24 upgrade needs and costs, how much and how fast offshore
25 wind projects, ports, and the supply chain are built.

1 The amount of domestic versus foreign, or imported
2 content, tax incentives, and government support, and
3 wind turbine size and technology changes.

4 Next slide, please.

5 Staff reviewed several studies to understand
6 the potential economic benefits associated with port
7 investments and workforce development needs to support
8 offshore wind energy. The studies made various
9 assumptions about how much and when offshore wind
10 capacity is built, sourcing of the content, domestic
11 versus foreign, or imported, scope of the supply chain,
12 technology and geographical scope of the economic
13 benefits. The studies indicate that to realize economic
14 benefits of offshore wind, it must be developed at
15 scale, and will require ports with sufficient capacity
16 to meet industry needs, which requires investment.

17 I will not go over all the studies, but I'll
18 highlight two of them. One recent study by the
19 California Polytechnic State University related to
20 construction of a specialized offshore wind port in San
21 Louis Obispo County, estimated local economic benefits
22 of over 2 billion and the creation of nearly 12,000
23 full-time construction jobs over the project duration.

24 Although California's 2030 planning goal is
25 two to five gigawatts, a recent study by the USC

1 Schwarzenegger Institute estimated that total annual
2 jobs associated with the offshore wind industry may be
3 as great as 5,000 by 2030 for three gigawatts of
4 offshore wind. And by 2040 and beyond, this could
5 increase up to 13,000 jobs for 10 gigawatts of offshore
6 wind capacity. These estimates are preliminary. They
7 are a starting point for additional analysis.

8 Next slide please.

9 Port and waterfront facilities are critical
10 for developing a domestic offshore wind industry
11 deploying a nascent technology, and will likely require
12 significant investments to meet the AB 525 megawatt
13 planning goals. California has started making strategic
14 investments to prepare ports for offshore wind.

15 In March of this year, the CEC approved a
16 \$10.45 million grant to the Humboldt Bay Harbor
17 Recreation and Conservation District to support the
18 development of a new multipurpose offshore wind marine
19 terminal at the port of Humboldt. The grant supports
20 environmental reviews and engineering design.

21 In September of this year, AB 209 authorized
22 the CEC to create and administer a new program to
23 support offshore wind infrastructure improvements that
24 advance the capabilities of California ports, harbors,
25 and other waterfront facilities. This will support the

1 buildout of offshore wind facilities and maximize the
2 economic and environmental benefits of an offshore wind
3 industry in California. As part of AB 209, the 2022-
4 2023 state budget appropriated \$45 million to the CEC
5 for this program, which will be developed in 2023.

6 Next slide, please.

7 Fixed bottom offshore wind has been
8 commercially deployed on the East Coast, which is more
9 mature than the floating offshore wind technology
10 required on the West Coast. New Jersey has allocated
11 over \$500 million in public funding to develop the New
12 Jersey wind port, which will be the first purpose-built
13 offshore wind marshaling and manufacturing port in the
14 us.

15 The New Jersey wind port is expected to create
16 over 1,000 jobs and \$500 million in economic output
17 during construction using union workers and targeted
18 hiring practices. The New Jersey wind port is expected
19 to support manufacturing, construction, and operations
20 and maintenance, and produce thousands of jobs per year
21 and up to \$500 million in economic output per year.
22 Construction started in late 2021 and the first phase of
23 the New Jersey wind port is expected to be completed in
24 2024.

25 New York assessed existing ports and

1 infrastructure to understand which ports could support
2 construction and maintenance of offshore wind energy and
3 found that most port locations will need upgrades. In
4 2022, the New York governor announced a \$500 million
5 investment in offshore wind port infrastructure and
6 supply chain development. This \$500 million investment
7 is expected to leverage more than \$2 billion in private
8 capital while creating more than 2000 jobs.

9 In Maine, an initiative was launched to
10 explore development of floating offshore wind energy in
11 the Gulf of Maine. In August 2021, the Port of Virginia
12 secured a \$20 million federal grant to upgrade the
13 Portsmouth Marine Terminal. Port construction and
14 readiness is expected to create 900 direct and indirect
15 jobs between 2020 and 2026, and annual operations and
16 maintenance of the offshore wind plants will support
17 1,100 direct and indirect jobs.

18 These states have also invested in workforce
19 training and development. Based on the studies, it is
20 clear that a comprehensive workforce is needed to
21 support offshore wind. This will require significant
22 investment to capture workforce benefits.

23 Next slide.

24 A wide range of skill sets and occupational
25 types will be required for the offshore wind workforce.

1 These include construction, manufacturing, engineering,
2 operations and maintenance, sales, and maritime
3 services. Many other jobs will also be needed, such as
4 longshoreman, and tugboat, and other watercraft
5 operators. Creating a durable domestic floating
6 offshore wind industry in California can provide good
7 paying jobs and career paths for Californians,
8 particularly those in communities near ports and
9 waterfront facilities.

10 Most of the new offshore wind related
11 workforce will require training and or certification
12 that matches the pace of deployment for offshore wind,
13 particularly for construction and manufacturing. Based
14 on a 2022 NREL study, most of the jobs created in the
15 offshore wind industry will be supply chain and
16 manufacturing related. Supply chain and manufacturing
17 jobs include regional professionals, factory level
18 management, design and engineering, quality and safety,
19 factory level workers, and facilities maintenance.

20 Next slide please.

21 California is pursuing recent federal funding
22 made available by the Inflation Reduction Act of 2022,
23 the Infrastructure Investment and Jobs Act, along with
24 Department of Energy funding to support offshore wind
25 development and investment in local floating offshore

1 and supply chains. These programs include incentives
2 and tax credits including production and investment tax
3 credits, as well as competitive grants to support
4 offshore wind.

5 These include a new tax credit for
6 manufacturers of wind components and specialized
7 offshore wind installation vessels that are produced
8 domestically. An investment tax credit for offshore
9 wind up to 30 percent is available for projects that pay
10 a prevailing wage and meet registered apprenticeship
11 requirements, and competitive grants for modernization
12 and expansion of US ports. The US Department of Energy
13 FLOWIN prize investment targets opportunities to grow
14 the domestic manufacturing and supply chain capabilities
15 to support floating offshore wind.

16 Next slide, please.

17 The preliminary assessment report has been
18 posted to the CEC docket. As Jim mentioned, comments
19 are due by January 9th, 2023. And based on the comments
20 and feedback, this report will be finalized and then
21 presented for adoption at a CEC business meeting in
22 January. The Preliminary Assessment of Economic
23 Benefits will inform the AB 525 offshore wind strategic
24 plan, which is due by June 30th, 2023.

25 Next slide, please.

1 That concludes my presentation. I'm happy to
2 answer any questions. I'll turn it back over to
3 Rachel.

4 MS. MACDONALD: Thank you, Jim and Paul, for a
5 comprehensive overview of the draft report. We're now
6 going to spend some time here for questions and answers
7 on the presentation before we move to public comment.
8 Please ask questions specific to the report we just
9 presented. If you have comments, please hold them for
10 the public comment period. Both Jim and Paul are
11 available for your questions, and we can start this
12 now.

13 MS. ANDERSON: If you have a question, please
14 raise your hand, use the raise hand function. It should
15 be at the bottom of your screen. If you are calling in,
16 that is a star-nine to raise your hand and a star-six
17 will allow you to unmute once we notify you that your
18 line is available to speak.

19 I am currently seeing no raised hands. Oh, we
20 have one. John Reed, your line is open. You should be
21 able to unmute yourself.

22 MR. REED: Okay. Hello everybody. You hear
23 me?

24 MS. ANDERSON: Yes.

25 MR. REED: I didn't want to be the first one

1 to talk, but that's okay. I'm engineer in Santa
2 Barbara, and I submitted a question back in October at
3 one of your workshops. Before I ask my question, I just
4 want to thank all the people that must have been
5 involved, you know, probably hundreds of people to put
6 this report together and continue the offshore wind
7 momentum.

8 But I was asking last October if this is the
9 forum, or the group of people, that will assess a
10 slightly different alternative that could augment
11 seaports. And that's doing some of the final assembly
12 at sea with these floating ports. They're quite large,
13 but just wondering if that's something that this team or
14 good California government officials and other smart
15 people can look at. I've got a pitch that I could even
16 share

17 MR. BARTRIDGE: I was having a hard time
18 hearing your question. Can you repeat the last part? I
19 apologize for that.

20 MR. REED: Oh, no problem. Last October, I
21 asked if this assessment can include an alternate
22 solution. And that is doing some of the final assembly
23 at a floating port. Quite large structure, think of oil
24 and gas, you know, with hundreds of people on a floating
25 structure, but using that arena to do the work that's

1 needed to put the large structures together.

2 MR. BARTRIDGE: So I guess I'd say to that is
3 the port work is ongoing and there's alternative -- the
4 Alternative Port Study is out there. What we tried to
5 look at in this report is the potential economic
6 benefits of port work and workforce development. It's -
7 - I don't think that we had an example of a floating
8 port to look at, so I don't exactly know how to respond
9 to your question other than we could take it into
10 consideration. Apologize, this is the first time I've
11 heard this comment.

12 MR. REED: Okay. Yeah, it was last October
13 31st in one of your other workshops, but I can send it
14 to you or whoever.

15 MR. BARTRIDGE: Yeah, if you could just drop
16 it in with the public comments or in with the letters.
17 You know, we're expecting to receive public comments
18 back by January 9th. So, if you drop that in, we'll take
19 a look at it.

20 MR. REED: Okay. Thank you, Jim. Thanks.

21 MR. BARTRIDGE: Good, thank you very much.

22 MS. ANDERSON: Alright, thank you. And the
23 next hand we have raised is Karen Villatoro. I hope I
24 said that correctly. You should be able to unmute
25 yourself. Karen?

1 MS. VILLATORO: Hi, good morning. Can you hear
2 me?

3 MS. ANDERSON: Yes, I can.

4 MS. VILLATORO: Hi. So, thank you so much for
5 this wonderful presentation. I was just curious to ask
6 a little bit more about the definition of economic
7 benefits as you've presented them here. I'm wondering
8 if there would be any consideration of benefits that
9 were perhaps not necessarily monetary, but can still be
10 derived.

11 So, I'm thinking of those kinds of benefits,
12 like quality-of-life adjustments for things like, you
13 know, cleaner air because you're integrating some kind
14 of alternative energy source. Or even taking a look at
15 the distribution of economic benefits in this climate of
16 awareness with respect to the flows of the benefits
17 associated with any projects to, you know, communities
18 of color or disadvantaged communities.

19 MR. DEAVER: Thank you for your comment. So,
20 for this report, we wanted to go back to the -- what was
21 in AB 525 and focus on what they were asking. There are
22 definitely other benefits associated with offshore wind
23 -- GHG benefits, energy reliability, but please submit
24 your comment. We are going to, you know, we'll consider
25 these when we're making the strategic plan over the next

1 few months, but for this report it was very focused on
2 what the AB 525 was asking.

3 MS. ANDERSON: Okay, thank you so much. If
4 anyone else has a question they'd like to ask for this,
5 regarding this report and the presentation that we had
6 today, please raise your hands. If you're on the phone,
7 again, that's the star-nine. And I'm seeing no more
8 raised hands. Okay.

9 MR. BARTRIDGE: Okay, so if questions and
10 answers is over with, then we're moving on to public
11 comment.

12 MS. MACDONALD: Yes, this is Rachel McDonald.
13 And that wraps up our question-and-answer period. We'll
14 now move to Dorothy Murimi for the public comment
15 portion of our agenda.

16 MS. MURIMI: Thank you, Rachel. So, for
17 individuals who'd like to make a comment, once again,
18 utilize the raise hand feature if you're on Zoom, looks
19 like an open palm. And if you're on the phone, press
20 star-nine to raise your hand and star-six to unmute on
21 your end. Once you're called on, please state and spell
22 your name, and give your affiliation, if any, for the
23 record. Folks will have three minutes or less per
24 person, and one person per organization.

25 I'll call out names. We'll start with Marvin

1 Pineda. Apologies if I've misstated your name. Please
2 state, spell your name, give your affiliation. You may
3 begin your comment.

4 MR. PINEDA: Yeah, good morning. Thank you
5 for having this workshop. Marvin Pineda with California
6 Advocacy on behalf of International Longshore and
7 Warehouse Union representing thousands of workers at
8 California ports, or near ports and through different
9 industries in California. We want to thank the CEC
10 Commission and staff for including the longshore
11 workforce as part of developing the offshore wind
12 industry. We strongly believe that the IOW can play a
13 critical role in ensuring that offshore wind energy
14 jobs, from turbine unloading to offshore wind platform
15 maintenance, and barge transport are safe and well-
16 paying jobs.

17 We are committed to achieving a just
18 transition for workers currently employed at the ports
19 who deserve the opportunity to participate in the new
20 green economy. We do not want to see well-paying jobs
21 displaced, or communities that are at ports that
22 contribute to the local business, as mentioned by the
23 presenter, to not be part of this industry.

24 For over three decades, longshore worker
25 members in Vancouver, Washington, Longview, Portland,

1 Oregon, and Stockton, California have played a critical
2 role in unloading and transporting components for
3 massive onshore wind turbines up and down the west coast
4 of the United States. We look forward to working with
5 the California Energy Commission, all stakeholders,
6 business, community groups, and labor unions to
7 implement AB 525, and to ensure that all projects are
8 successful so that we can move California forward.
9 Thank you.

10 MS. MURIMI: Thank you for your comment.
11 Next, we'll move to Manley McNinch. Please state and
12 spell your name, give your affiliation, if any. You may
13 begin your comment.

14 MR. MCNINCH: Good morning. Manley McNinch,
15 M-A-N-L-E-Y, M-C, capital N-I-N-C-H. I am a special
16 representative for the Southwest Mountain States
17 Regional Council of Carpenters. And just like to thank
18 you, Mr. Deaver and Bartridge, for the report they gave
19 this morning; a lot of good information was in it.
20 We're definitely making progress on the requirements for
21 hiring and the good paying jobs in this area.

22 And one thing I'd like to hear more stressing
23 on would be for local hire. If we don't get very sound
24 solid inform-- wording into these documents about local
25 hire, a lot of these jobs will probably go out of the

1 area. A lot of the developers and stuff will be most
2 likely be wanting to bring in a good portion of their
3 workforce from out of the area, and that'd be a real
4 disservice to the local.

5 A lot of the cities and stuff in the area of
6 this Morro Bay project are underserved, and it's-- be a
7 shame to see too many of these jobs go out of the area.
8 Again, thank you for all the work you've been doing.
9 Please consider putting stronger language in for local
10 hire. Thank you.

11 MS. MURIMI: Oh, apologies. That's Nancy
12 Kirschner Rodriguez.

13 MS. KIRSHNER-RODRIGUEZ: Yes.

14 MS. MURIMI: Please -- yes. Please state,
15 spell your name for the record, and you may begin your
16 comment.

17 MS. KIRSHNER-RODRIGUEZ: Great, thank you.
18 Good morning. Nancy Kirshner-Rodriguez. So, N-A-N-C-Y,
19 K-I-R-S-H-N-E-R, and then hyphen Rodriguez, R-O-D-R-I-G-
20 U-E-Z. I am with the Business Network for Offshore
21 Wind. We are a national non-profit organization,
22 member-based companies, unions, researchers, everything
23 along the supply chain from small welding companies to
24 the developers. And I would like to thank the Energy
25 Commission for this work. It's been a pleasure for the

1 business network to provide information to see the
2 reports that you are utilizing, which include work that
3 we have proudly done with the National Renewable Energy
4 Lab.

5 And I want to just mention that last week
6 following the auction, the Business Network was very
7 pleased to host our first supplier day based in Southern
8 California. We had a terrific turnout of interested
9 companies and individuals and had a really robust
10 agenda. And I will happily provide information from
11 that to the Energy Commission, and we look forward to
12 continuing to partner as we work with all of you to
13 build out a localized supply chain. Thank you.

14 MS. MURIMI: Thank you. Next, we have Michael
15 Monagan, followed by Adam Stern. Please state, spell
16 your name, give your affiliation if any. You may begin
17 your comment.

18 MR. MONAGAN: Good morning. Thank you. It's
19 Mike Mongan, M-O-N-A-G-A-N. I'm representing the
20 California State Building and Construction Trades
21 Council, over 500,000 men and women in the construction
22 industry, including 73,000 in our state approved
23 apprenticeship programs. The building trades are
24 prepared to be a full partner in offshore wind
25 development, providing skilled and trained workers

1 needed to support seaport investment and workforce
2 development, including getting locals into our
3 apprenticeship programs. Thank you.

4 MS. MURIMI: Thank you. Next, we have Adam
5 Stern, followed by R-O-D-A, Roda. Please state, spell
6 your name, Adam, and you may begin your comment.

7 MR. STERN: Thanks very much. I'm Adam Stern,
8 that's S-T-E-R-N, with Offshore Wind, California, a
9 trade group that represents the offshore wind industry
10 in our state. I want to begin by thanking the staff,
11 the commissioners and other state agencies for the
12 continuing work that's underway on the essential steps
13 for realizing California's planning goals to add
14 offshore wind to its diverse clean power portfolio, and
15 generate up to five gigawatts of offshore wind by 2030,
16 and a nation leading 25 gigawatts by 2045.

17 Just two weeks ago, the Bureau of Ocean Energy
18 Management successfully concluded its initial auction
19 that identified five provisional lease holders and made
20 California the big winner in this first lease sale for
21 the state's multi-gigawatt floating offshore wind
22 resource. The auction was great news for California's
23 offshore wind industry, its workers, and for electricity
24 rate payers. It may have been the most consequential
25 milestone yet for establishing California, and the US as

1 a whole, as global leaders in going big on floating
2 offshore wind.

3 To make that a reality, the CEC is working
4 with other state and local agency staff and leaders on
5 what it will take to bring California's offshore wind
6 online following the landmark AB 525 law signed by
7 Governor Newsom last year. And I just want to add to
8 thank the CE staff for this excellent report. Your
9 coverage of the seaport investments that have already
10 been initiated on the East coast, the plans for doing
11 similar investments in California, and articulating
12 what's going to be required in that area to realize the
13 promise of offshore wind.

14 And then similarly, the descriptions of the
15 workforce development, the jobs potential for offshore
16 wind, the summary of all of the reports that have
17 already been issued, I think is an excellent background
18 from which to build going forward. And our organization
19 and the offshore wind industry in California looks
20 forward to working with CEC in the coming months as you
21 build out this report and develop the recommendations
22 necessary to make the very large investments still
23 required to make offshore wind a reality for California.
24 Thank you very much.

25 MS. MURIMI: Thank you. Next, we have R-O-D-

1 A. Roda, please state spelling your name, give your
2 affiliation if any. Once again for individuals that are
3 calling in, please use the raise-hand. Oh oh, sorry.
4 Please use -- press star-nine to raise your hand and
5 star-six to unmute on your end. And folks on Zoom, use
6 a raise hand feature, looks like an open palm. You may
7 begin your comment. Roda.

8 MR. CONROY: Yeah. Hi, thanks. My name is
9 Mike Conroy from the Responsible Offshore Development
10 Alliance, a collection of fishing community members
11 across the nation, including California.

12 The report does talk of the economic benefits
13 of offshore wind but fails to discuss the costs or
14 losses that will result from offshore wind. Excluding
15 references in the glossary, fishing is mentioned twice
16 in passing. As BOEM and others have stated, floating
17 offshore wind farms will functionally bar most if not
18 all fishing operations in areas that are very important
19 to our small businesses, and the state's seafood
20 economy. And we agree.

21 The draft report mentions four types of
22 economic benefits: direct, indirect, induced, and tax
23 revenues. I want to take a moment to briefly describe
24 some of the economic losses that will result. Direct
25 losses, there will be job losses. Small family owned

1 commercial and charter boat businesses will be
2 challenged to weather the storm, and some won't. Some
3 may have to relocate their operations somewhere else in
4 California, assuming that they can, or most likely out
5 of state.

6 In 2019 alone, the last year for which data is
7 publicly available in Department of Efficient Wildlife's
8 website, California seafood producers landed 20 million
9 pounds of seafood in the Eureka port complex with an x-
10 vessel value of 38.6 million. This does not account for
11 the very real possibility of dramatic impacts to the
12 marine ecosystem. As shown in a November 24th study
13 entitled, Offshore Wind Farms Are Projected to Impact
14 Primary Production and Bottom water Deoxidization in the
15 North Sea.

16 With regard to indirect, there will once again
17 be job losses -- vessel crew members, net trap
18 manufacturers, et cetera. There are real concerns about
19 increased competition for limited harbor space.
20 Questions remain how transient vessels will be treated.
21 Will there be sufficient space to occupy seasonal
22 fishing operations?

23 In terms of induced costs, once again there
24 will be job losses. Fishing community members, be it
25 processors, fish mongers who sell locally harvested

1 seafood, marine mechanics, gear shops, tackle shops are
2 all dependent on our operations. This makes up a
3 significant portion of the seafood economy. As we
4 mentioned above, x-vessels revenues of 36.6 mil in the
5 Eureka port complex in 2019. Assuming a conservative
6 downstream multiplier of five times, that is roughly 200
7 million a year.

8 The BOEM leases off California are for 33
9 years once operations commence. That represents an
10 opportunity cost of roughly \$6.5 billion in today's
11 dollars to the North Coast alone over the lease term.
12 For the vast majority of Californians, the only real
13 access they have to the living marine resources off the
14 California coast is via the seafood we harvest for their
15 benefit. Reducing or eliminating our ability to serve
16 our fellow citizens, many of whom choose locally
17 harvested seafood because they can be confident that
18 it's sustainably sourced, will bear an immeasurable
19 cost.

20 And then finally, tax revenues. In addition
21 to lost income, sales and use, property, and other tax
22 revenue from the fishing activities, the Department of
23 Fish and Wildlife will be directly impacted by the loss
24 of landing tax revenues. Thank you.

25 MS. MURIMI: Thank you. Next, we'll have

1 Chris Voss. Please state, spell your name, give your
2 affiliation, if any. You may begin your comment.

3 MR. VOSS: --the Commercial Fisherman of Santa
4 Barbara. And I'd like to support the comments of RODA
5 and Mike Conroy and add that our concerns are around the
6 big picture with respect to the economic and
7 environmental impacts due to offshore wind development.

8 While we recognize that the ports are anxious
9 for a renewed economic activity of associated with that,
10 with offshore wind, we need to analyze (AUDIO CUT OUT)
11 in detail the costs as delineated by the (AUDIO CUT
12 OUT). Our concern is that the state is going to accept
13 a significant financial liability associated with an
14 incredibly expensive electricity. And so, as rate
15 payers, we're going to see what will be costly
16 electricity that we collectively will be subsidizing.
17 Plus, there'll be significant environmental impacts that
18 are now beginning to be analyzed and understood.

19 So, I urge the Energy Commission to not just
20 look at the economic benefits but also comprehensively
21 try to gather together what information's available as
22 to what will inevitably be significant economic and
23 environmental impacts, before you know, charging into
24 this very unproven and highly experimental means of
25 achieving carbon neutral, environmentally friendly

1 energy.

2 I think there's a measure of kind of hysteria
3 that should be kind of pushed back against, and a more
4 rational, analytical approach should be applied to the
5 situation. So those are my comments. Thank you very
6 much.

7 MS. MURIMI: Thank you. Once again, for
8 individuals that are calling in, press star-nine to
9 raise your hand and star-six to unmute. And for those
10 on Zoom, please use a raise-hand feature, looks like an
11 open palm.

12 And just to note a written comment, deadline
13 is January 9th, 2023, by close of business 5:00 PM. And
14 again, written comments are due, or the deadline is
15 January 9th, 2023, by 5:00 PM.

16 Seeing no more raised hands. That concludes
17 this public comment period. Rachel, I hand the mic back
18 to you.

19 MS. MACDONALD: Thank you, Dorothy. I want to
20 close today's workshop by expressing our appreciation.
21 Thank you to our Offshore Wind Energy Group and our
22 division team: Jim Bartridge, Paul Deaver, Melissa
23 Jones, Hillarie Anderson, and Jack Bastida, and our
24 director Elizabeth Hubert. I'd also like to thank our
25 workshop attendees. Thank you for attending us our

1 workshop this morning. We're looking forward to your
2 continued engagement and participation as we move
3 forward with the development of the strategic plan.

4 The presentation today as well as other
5 materials from this workshop will be posted to the
6 docket. That is available on the workshop Notice as
7 well. Of course, my name is on there as well, Rachel
8 MacDonald, and you can contact me with any questions you
9 have and I'll be glad to help. That being said, we are
10 adjourned.

11

12 (Whereupon the meeting was adjourned at 9:57
13 a.m.)

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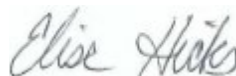
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 28th day of December, 2022.



ELISE HICKS, IAPRT CERT**2176

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And I further certify that I am not
of counsel or attorney for either or any of
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interested in the outcome of the cause named
in said caption.

I certify that the foregoing is a
correct transcript, to the best of my
ability, from the electronic sound recording
of the proceedings in the above-entitled
matter.

Martha L. Nelson

December 28, 2022