

AMENDED IN SENATE SEPTEMBER 3, 2021

AMENDED IN SENATE AUGUST 26, 2021

AMENDED IN SENATE JULY 14, 2021

AMENDED IN SENATE JUNE 24, 2021

AMENDED IN SENATE JUNE 17, 2021

AMENDED IN ASSEMBLY APRIL 26, 2021

CALIFORNIA LEGISLATURE—2021–22 REGULAR SESSION

ASSEMBLY BILL

No. 525

**Introduced by Assembly Members Chiu, Cunningham, and
Friedman**

(Principal coauthors: Senators Becker and Eggman)

**(Coauthors: Assembly Members Bauer-Kahan, Bennett, Berman,
Calderon, Carrillo, Chen, Gabriel, Lorena Gonzalez, Holden,
Irwin, Muratsuchi, Quirk, and Ting)**

(Coauthors: Senators Cortese, Laird, Min, Rubio, Stern, and Wiener)

February 10, 2021

An act to add and repeal Chapter 14 (commencing with Section 25991) of Division 15 of the Public Resources Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 525, as amended, Chiu. Energy: offshore wind generation.

The 100 Percent Clean Energy Act of 2018 established as a policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045. The act requires the Public Utilities Commission

(PUC), State Energy Resources Conservation and Development Commission (Energy Commission), and State Air Resources Board to, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every 4 years thereafter, that includes specified information relating to the implementation of the policy.

Existing law requires the PUC and the Energy Commission to undertake various actions in furtherance of meeting the state's clean energy and pollution reduction objectives.

This bill would require the Energy Commission, on or before ~~March~~ ~~June 1, 2023, 2022,~~ to evaluate and quantify the ~~range of~~ maximum feasible ~~capacities~~ *capacity* of offshore wind to achieve reliability, ratepayer, employment, and decarbonization ~~benefits, taking into account other eligible renewable energy resources,~~ *benefits* and to establish offshore wind planning goals for 2030 and 2045, as specified.

The bill would require the Energy Commission, in coordination with specified agencies, to develop a strategic plan for offshore wind energy developments installed off the California coast in federal waters, as specified. The bill would require the Energy Commission to submit the strategic plan to the Natural Resources Agency and the Legislature on or before June 30, 2023.

The bill would require the Energy Commission, in coordination with specified agencies, to work with stakeholders, state, local, and federal agencies, and the offshore wind energy industry to identify suitable sea space for wind energy areas in federal waters sufficient to accommodate the offshore wind planning goals for 2030 and 2045. The bill would require the Energy Commission, in coordination with relevant state and local agencies, to develop a plan to improve waterfront facilities that could support a range of floating offshore wind energy development activities. The bill would require the Energy Commission, in consultation with the PUC and Independent System Operator, to assess the transmission investments and upgrades necessary to support the offshore wind planning goals for 2030 and 2045, as specified. The bill would require the Energy Commission to develop and produce a permitting roadmap that describes timeframes and milestones for a permitting process for offshore wind energy facilities and associated electricity and transmission infrastructure off the coast of California. The bill would require the information described in this paragraph and potential impacts on coastal resources, fisheries, Native American and Indigenous peoples, and national defense, and strategies for addressing those potential impacts, to be included in the strategic plan, as specified.

The bill would require the Energy Commission, on or before December 31, 2022, to submit to the Natural Resources Agency and the relevant fiscal and policy committees of the Legislature a preliminary assessment of the economic benefits of offshore wind as they relate to seaport investments and workforce development needs and standards.

The bill would repeal all of these provisions on January 1, 2027.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. The Legislature finds and declares all of the
2 following:

3 (a) If developed and deployed at scale, the development of
4 offshore wind energy can provide economic and environmental
5 benefits to the state and the nation.

6 (b) Offshore wind energy can advance California’s progress
7 toward its statutory renewable energy and climate mandates.

8 (c) The 2021 SB 100 Joint Agency Report issued pursuant to
9 Section 454.53 of the Public Utilities Code conducted portfolio
10 modeling that selected at least 10 gigawatts of offshore wind energy
11 developments to achieve the state’s climate goals, finding a total
12 reduction in total resource costs by an estimated one billion dollars
13 (\$1,000,000,000).

14 (d) California may need to build at least 48 gigawatts of new
15 renewable energy and energy storage developments by 2030 and
16 at least 145 gigawatts of new renewable energy and energy storage
17 developments by 2045 to achieve the goals established in SB 100
18 (Chapter 312 of the Statutes of 2018).

19 (e) Diversity in energy resources and technologies lowers overall
20 costs. Offshore wind can add resource and technology diversity
21 to the state’s energy portfolio.

22 (f) Offshore wind energy development presents an opportunity
23 to attract investment capital and to realize community economic
24 development and workforce development benefits in California,
25 including the development and preservation of a skilled and trained
26 construction workforce to carry out projects, long-term job creation,
27 and development of an offshore wind energy supply chain.

28 (g) Offshore wind energy can contribute to a diverse, secure,
29 reliable, and affordable renewable energy resource portfolio to

1 serve the electricity needs of California ratepayers and improve
2 air quality, particularly in disadvantaged communities.

3 (h) Subsea electricity transmission could reduce transmission
4 congestion.

5 (i) With existing technology, each 1,000 megawatts of offshore
6 wind energy will require between 100 and 120 square miles of sea
7 space for development.

8 (j) The Ocean Protection Council’s strategic plan for 2020 to
9 2025, inclusive, sets an objective for development of a commercial
10 scale offshore wind energy project in California that minimizes
11 impacts on marine biodiversity and habitat, currents and upwelling,
12 fishing, cultural resources, navigation, aesthetics and visual appeal,
13 and military operations by 2026.

14 (k) In 2016, California initiated a collaborative process with the
15 federal government through the formation of the Bureau of Ocean
16 Energy Management California Intergovernmental Renewable
17 Energy Task Force, which includes a broad public outreach process
18 to examine potential wind leasing areas in federal waters. The
19 federal Bureau of Ocean Energy Management identified areas in
20 Humboldt, Morro Bay, and Diablo Canyon as the first three
21 potential offshore wind “call areas” and issued a call for
22 nominations of interest in 2018.

23 (l) The Bureau of Ocean Energy Management California
24 Intergovernmental Renewable Energy Task Force has developed
25 and collected important data and information relevant to the
26 assessment of potential offshore wind energy resources, including
27 the creation of the California Offshore Wind Energy Gateway,
28 which assembles geospatial information on ocean wind resources,
29 ecological and natural resources, commercial and recreational
30 ocean uses, and community values and makes this information
31 publicly available.

32 (m) Offshore wind should be developed in a manner that protects
33 coastal and marine ecosystems. The State of California should use
34 its authority under state programs and policies to ensure (1)
35 avoidance, minimization, and mitigation of significant adverse
36 impacts, and (2) monitoring and adaptive management for offshore
37 wind projects and their associated infrastructure.

38 (n) The President of the United States and federal Departments
39 of Interior, Energy, and Commerce have announced a shared goal
40 to deploy 30,000 megawatts of offshore wind energy by 2030,

1 employing tens of thousands of workers, protecting biodiversity,
2 and promoting ocean co-use.

3 (o) Offshore wind energy development can provide clean air
4 benefits to inland communities that experience increased impacts
5 from poor air quality.

6 (p) Investment in offshore wind energy development can offer
7 career pathways and workforce training in clean energy
8 development. Offshore wind energy will provide additional blue
9 collar industrial work opportunities and support apprenticeship
10 opportunities for a diverse labor pool, and provide those
11 opportunities to local communities experiencing high
12 unemployment through prioritization of local hiring first.

13 SEC. 2. Chapter 14 (commencing with Section 25991) is added
14 to Division 15 of the Public Resources Code, to read:

15

16 CHAPTER 14. OFFSHORE WIND GENERATION

17

18 25991. (a) (1) The commission, in coordination with the
19 California Coastal Commission, the Ocean Protection Council,
20 the State Lands Commission, the Office of Planning and Research,
21 the Department of Fish and Wildlife, the Governor’s Office of
22 Business and Economic Development, the Independent System
23 Operator, and the Public Utilities Commission, and other relevant
24 federal, state, and local agencies as needed, shall develop a strategic
25 plan for offshore wind energy developments installed off the
26 California coast in federal waters.

27 (2) Development of the strategic plan shall incorporate, but not
28 delay, progress to advance responsible development of offshore
29 wind in other relevant policy venues.

30 (b) (1) The commission shall submit the strategic plan to the
31 Natural Resources Agency and the Legislature on or before June
32 30, 2023.

33 (2) The plan submitted to the Legislature pursuant to paragraph
34 (1) shall be submitted in compliance with Section 9795 of the
35 Government Code.

36 (c) The strategic plan shall include, at a minimum, the following
37 five chapters:

38 (1) Identification of sea space, including the findings and
39 recommendations resulting from activities undertaken pursuant to
40 Section 25991.2.

1 (2) Economic and workforce development and identification of
2 port space and infrastructure, including the plan developed pursuant
3 to Section 25991.3.

4 (3) Transmission planning, including the findings resulting from
5 activities undertaken pursuant to Section 25991.4.

6 (4) Permitting, including the findings resulting from activities
7 undertaken pursuant to Section 25991.5.

8 (5) Potential impacts on coastal resources, fisheries, Native
9 American and Indigenous peoples, and national defense, and
10 strategies for addressing those potential impacts.

11 (d) (1) The strategic plan shall emphasize and prioritize
12 near-term actions, particularly related to port retrofits and
13 investments and the workforce, to accommodate the probable
14 immediate need for jobs and economic development.

15 (2) In considering port retrofits, the strategic plan shall strive
16 for compatibility with other harbor tenants and ocean users to
17 ensure that the local benefits related to offshore wind energy
18 construction complement other local industries.

19 (3) The strategic plan shall emphasize and prioritize actions that
20 will improve port infrastructure to support land-based work for
21 the local workforce.

22 (e) The development of the strategic plan regarding workforce
23 development shall include consultation with representatives of key
24 labor organizations and apprenticeship programs that would be
25 involved in dispatching and training the construction workforce.

26 (f) The commission shall provide an opportunity for public
27 review and comment on a draft strategic plan.

28 25991.1. (a) On or before ~~March~~ *June 1, 2023, 2022*, the
29 commission shall evaluate and quantify the ~~range of~~ maximum
30 feasible ~~capacities~~ *capacity* of offshore wind to achieve reliability,
31 ratepayer, employment, and decarbonization ~~benefits, taking into~~
32 ~~account other eligible renewable energy resources as defined in~~
33 ~~Section 399.12 of the Public Utilities Code, benefits~~ and shall
34 establish megawatt offshore wind planning goals for 2030 and
35 2045.

36 (b) In establishing the goals pursuant to subdivision (a), the
37 commission shall consider all of the following:

38 (1) The findings of the 2021 joint report issued pursuant to
39 Section 454.53 of the Public Utilities Code.

1 (2) The need to develop a skilled and trained offshore wind
2 workforce.

3 (3) The potential to attract supply-chain manufacturing for
4 offshore wind components throughout the Pacific region.

5 (4) The need for reliable renewable energy that accommodates
6 California’s shifting peak load.

7 (5) The generation profile of offshore wind off the coast of
8 California.

9 (6) The need for economies of scale to reduce the costs of
10 floating offshore wind.

11 (7) The need to initiate long-term transmission and infrastructure
12 planning to facilitate delivery of offshore wind energy to
13 Californians.

14 (8) The availability of federal tax incentives for offshore wind
15 investments.

16 (9) The National Renewable Energy Laboratory report finding
17 that California has 200 gigawatts of offshore wind technical power
18 potential.

19 (10) The opportunity for California to participate in the federal
20 government’s intention to deploy 30,000 megawatts of offshore
21 wind by 2030 and to create a pathway to unlocking 110,000
22 megawatts by 2050.

23 (11) Any executive action from the Governor regarding offshore
24 wind.

25 (12) Potential impacts on coastal resources, fisheries, Native
26 American and Indigenous peoples, and national defense, and
27 strategies for addressing those potential impacts.

28 25991.2. (a) The commission, in coordination with the
29 California Coastal Commission, Department of Fish and Wildlife,
30 Ocean Protection Council, and State Lands Commission, shall
31 work with stakeholders, other state, local, and federal agencies,
32 and the offshore wind energy industry to identify suitable sea space
33 for wind energy areas in federal waters sufficient to accommodate
34 the offshore wind planning goals established pursuant to Section
35 25991.1, as follows:

36 (1) The commission shall first identify the sea space identified
37 by the federal Bureau of Ocean Energy Management in its 2018
38 call for nominations, as published in the Federal Register, Volume
39 83, Number 203, on October 19, 2018, and any other relevant

1 information necessary to achieve the 2030 offshore wind planning
2 goal established pursuant to Section 25991.1.

3 (2) The commission, in coordination with the California Coastal
4 Commission, Department of Fish and Wildlife, Ocean Protection
5 Council, and State Lands Commission, shall next identify suitable
6 sea space for a future phase of offshore wind leasing to
7 accommodate the 2045 offshore wind planning goal established
8 pursuant to Section 25991.1.

9 (b) In identifying suitable sea space, the commission shall
10 consider all of the following:

11 (1) Existing data and information on offshore wind resource
12 potential and commercial viability.

13 (2) Existing and necessary transmission and port infrastructure.

14 (3) Protection of cultural and biological resources with the goal
15 of prioritizing least-conflict ocean areas.

16 (c) In fulfilling the requirements of this section, the commission
17 shall incorporate the information developed by the Bureau of Ocean
18 Energy Management California Intergovernmental Renewable
19 Energy Task Force.

20 (d) The commission shall use the California Offshore Wind
21 Energy Gateway, or functionally equivalent publicly accessible,
22 commission-approved internet website, to provide relevant
23 information developed pursuant to this section to the public.

24 (e) The commission, in coordination with the California Coastal
25 Commission, the Department of Fish and Wildlife, the Ocean
26 Protection Council, the State Lands Commission, stakeholders,
27 other state, local, and federal agencies, and the offshore wind
28 energy industry, shall make recommendations regarding potential
29 significant adverse environmental impacts and use conflicts, such
30 as avoidance, minimization, monitoring, mitigation, and adaptive
31 management, consistent with California's long-term renewable
32 energy, greenhouse gas emission reduction, and biodiversity goals.

33 (f) Nothing in this section is intended to modify the authority
34 of state agencies over project-specific siting and permitting.

35 (g) The findings and recommendations resulting from activities
36 undertaken pursuant to this section shall be included in the chapter
37 of the strategic plan relating to the identification of sea space as
38 specified in paragraph (1) of subdivision (c) of Section 25991.

39 25991.3. (a) Based on the sea spaces identified pursuant to
40 Section 25991.2, the commission, in coordination with relevant

1 state and local agencies, shall develop a plan to improve waterfront
2 facilities that could support a range of floating offshore wind
3 energy development activities, including construction and staging
4 of foundations, manufacturing of components, final assembly, and
5 long-term operations and maintenance facilities.

6 (b) The plan developed pursuant to subdivision (a) shall include
7 all of the following:

8 (1) A detailed assessment of the necessary investments in
9 California seaports to support offshore wind energy activities,
10 including construction, assembly, and operations and maintenance.
11 The assessment shall consider the potential availability of land
12 and water acreage at each seaport, including competing and current
13 uses, infrastructure feasibility, access to deep water, bridge height
14 restrictions, and potentially impacted natural and cultural resources,
15 including coastal resources, fisheries, and Native American and
16 Indigenous peoples.

17 (2) An analysis of the workforce development needs of the
18 California offshore wind energy industry, including occupational
19 safety requirements, the need to require the use of a skilled and
20 trained workforce to perform all work, and the need for the
21 Division of Apprenticeship Standards to develop curriculum for
22 in-person classroom and laboratory advanced safety training for
23 workers.

24 (3) Recommendations for workforce standards for offshore wind
25 energy facilities and associated infrastructure, including, but not
26 limited to, prevailing wage, skilled and trained workforce,
27 apprenticeship, local hiring, and targeted hiring standards, that
28 ensure sustained and equitable economic development benefits.

29 (c) In developing the plan pursuant to subdivision (a), the
30 commission shall consult with representatives of key labor
31 organizations and apprenticeship programs that would be involved
32 in dispatching and training the construction workforce.

33 (d) On or before December 31, 2022, the commission shall
34 complete and submit to the Natural Resources Agency and the
35 relevant fiscal and policy committees of the Legislature a
36 preliminary assessment of the economic benefits of offshore wind
37 as they relate to seaport investments and workforce development
38 needs and standards.

39 (e) The plan developed pursuant to this section shall be included
40 in the chapter of the strategic plan relating to economic and

1 workforce development and identification of port space and
2 infrastructure as specified in paragraph (2) of subdivision (c) of
3 Section 25991.

4 25991.4. (a) The commission, in consultation with the Public
5 Utilities Commission and the Independent System Operator, shall
6 assess the transmission investments and upgrades necessary,
7 including potential subsea transmission options, to support the
8 2030 and 2045 offshore wind planning goals established pursuant
9 to Section 25991.1. This assessment shall include all relevant
10 information on the cost of subsea high-voltage transmission and
11 information made available by the Independent System Operator
12 on the cost of network upgrades and the extent to which existing
13 transmission infrastructure and available capacity could support
14 offshore wind energy development.

15 (b) The findings resulting from activities undertaken pursuant
16 to this section shall be included in the chapter of the strategic plan
17 relating to transmission planning as specified in paragraph (3) of
18 subdivision (c) of Section 25991.

19 25991.5. (a) The commission shall develop and produce a
20 permitting roadmap that describes timeframes and milestones for
21 a coordinated, comprehensive, and efficient permitting process for
22 offshore wind energy facilities and associated electricity and
23 transmission infrastructure off the coast of California.

24 (b) In developing the permitting roadmap, the commission shall
25 consult and meaningfully collaborate with all relevant local, state,
26 and federal agencies, including, but not limited to, the California
27 Coastal Commission, the Department of Fish and Wildlife, and
28 the State Lands Commission, ~~fisheries groups, and interested~~
29 California Native American ~~tribes;~~ *tribes, and affected*
30 *stakeholders.*

31 (c) The permitting roadmap shall include a goal for the
32 permitting timeframe, clearly define local, state, and federal agency
33 roles, responsibilities, and decisionmaking authority, and include
34 interfaces with federal agencies, including timing, sequence, and
35 coordination with federal permitting agencies, and coordination
36 between reviews under the California Environmental Quality Act
37 (Division 13 (commencing with Section 21000)) and the federal
38 National Environmental Policy Act of 1969 (42 U.S.C. Sec. 4321
39 et seq.).

1 (d) The commission shall provide an opportunity for stakeholder
2 input in the development and communication of the permitting
3 roadmap and an opportunity for public comment on a draft
4 permitting roadmap.

5 (e) The findings resulting from activities undertaken pursuant
6 to this section shall be included in the chapter of the strategic plan
7 relating to permitting as specified in paragraph (4) of subdivision
8 (c) of Section 25991.

9 (f) On or before December 31, 2022, the commission shall
10 complete and submit the permitting roadmap to the Natural
11 Resources Agency and the relevant fiscal and policy committees
12 of the Legislature.

13 *25991.6. For purposes of this chapter, “stakeholders” includes,*
14 *but is not limited to, fisheries groups, labor unions, industry,*
15 *environmental justice organizations, environmental organizations,*
16 *and other ocean users.*

17 ~~25991.6.~~

18 *25991.7.* Nothing in this chapter is intended to create a
19 technology set-aside or mandatory minimum for any type of
20 eligible renewable energy resource.

21 ~~25991.7.~~

22 *25991.8.* This chapter shall remain in effect only until January
23 1, 2027, and as of that date is repealed.