

AMENDED IN ASSEMBLY APRIL 28, 2025

AMENDED IN ASSEMBLY MARCH 12, 2025

CALIFORNIA LEGISLATURE—2025–26 REGULAR SESSION

ASSEMBLY BILL

No. 740

Introduced by Assembly Member Harabedian

February 18, 2025

An act to add Section 25302.8 to, and to add Chapter 6.6 (commencing with Section 25560) to Division 15 of, the Public Resources Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 740, as amended, Harabedian. Virtual power plants: load shifting: integrated energy policy report.

Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission), in consultation with specified entities, to adopt a biennial integrated energy policy report containing certain information, including an overview of major energy trends and issues facing the state.

This bill would require the Energy Commission, on or before November 1, 2026, to adopt a ~~strategy to enable virtual power plants to be deployed at scale, as specified.~~ *plant deployment plan*. The bill would require the Energy Commission, in developing the ~~strategy,~~ *plan*, to take certain actions, and would require that the ~~strategy~~ *plan* meet specified requirements. The bill would require the ~~strategy~~ *plan* adopted pursuant to these provisions to be included in the above-described integrated energy policy report.

~~This bill would require the Energy Commission, on or before July 1, 2026, to complete a study that includes 2030, 2035, and 2045 scenarios~~

~~of the effects of virtual power plant deployment at scale on electrical system costs, rate reduction, and the reduction of greenhouse gas emissions, as specified. The bill would require the Energy Commission to report the results of the study to the Legislature within 30 days of its completion.~~

Existing law requires the Energy Commission, in consultation with the Public Utilities Commission and the Independent System Operator, to adopt a goal for load shifting to reduce net peak electrical demand and adjust this target in each biennial integrated energy policy report thereafter.

This bill would require each electrical corporation to annually report to the Energy Commission its contribution towards meeting that load-shift goal.

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. Section 25302.8 is added to the Public Resources
2 Code, to read:

3 25302.8. Each electrical corporation, as defined in Section 218
4 of the Public Utilities Code, shall annually report to the commission
5 its contribution towards meeting the load-shift goal adopted
6 pursuant to Section 25302.7.

7 SEC. 2. Chapter 6.6 (commencing with Section 25560) is added
8 to Division 15 of the Public Resources Code, to read:

9
10 CHAPTER 6.6. VIRTUAL POWER PLANTS

11
12 25560. For purposes of this chapter, all of the following
13 definitions apply:

14 (a) "Smart" means a device or appliance that adjusts its energy
15 use, is internet connected, is able to be controlled remotely, with
16 explicit customer consent, by the consumer, the manufacturer, or
17 an aggregator, provides information about its operating status, and
18 enables the customer to enable or disable the smart features.

19 (b) "Virtual power plant" means an actively coordinated
20 aggregation of behind-the-meter distributed energy resources,
21 including, but not limited to, electric vehicles and chargers, electric
22 water heaters, smart thermostats, smart plugs, smart buildings and

1 their controls, battery storage systems like those installed with
2 rooftop solar systems, and flexible commercial and industrial loads,
3 that are dispatchable and can balance electricity demand and supply
4 and reduce or shift demand.

5 25561. (a) On or before November 1, 2026, the commission,
6 at a publicly noticed voting meeting, shall adopt a ~~strategy, with~~
7 ~~milestones, to enable virtual power plants to be deployed at scale.~~
8 *plant deployment plan.*

9 (b) In developing the ~~strategy plan~~ adopted pursuant to
10 subdivision (a), the commission shall do all of the following:

11 (1) Consult and collaborate with the Public Utilities
12 Commission, the Independent System Operator, and the
13 disadvantaged community advisory group established pursuant to
14 Section 400 of the Public Utilities Code.

15 (2) Hold no less than two public workshops to solicit public
16 input on the development of the ~~strategy plan~~.

17 (3) Convene stakeholder sessions to solicit input from
18 organizations representing industry, the affected workforce,
19 ratepayer organizations, consumer organizations, load-serving
20 entities, as defined in Section 380 of the Public Utilities Code, and
21 local publicly owned electric utilities, as defined in Section 224.3
22 of the Public Utilities Code.

23 (c) The commission shall ensure that the ~~strategy plan~~ adopted
24 pursuant to subdivision (a) does all of the following:

25 ~~(1) Estimates the size of the resource potential of virtual power~~
26 ~~plant resources by 2030, 2035, and 2045.~~

27 *(1) Identifies the resources, policies, and timelines needed for*
28 *virtual power plants to help meet the statewide load-shift goals*
29 *adopted pursuant to Section 25302.7.*

30 ~~(2) (A) Identifies the existing and potential policy and regulatory~~
31 ~~barriers and opportunities for virtual power plant resources to~~
32 ~~qualify for or reduce resource adequacy obligations.~~ *adequacy.*

33 ~~(3) Includes a recommended pathway and policy and regulatory~~
34 ~~changes to resolve the policy and regulatory barriers identified in~~
35 ~~paragraph (2).~~

36 ~~(4) Includes an assessment of virtual power plant resources that~~
37 ~~are currently eligible for resource adequacy pursuant to Section~~
38 ~~380 of the Public Utilities Code, and estimates of how this resource~~
39 ~~type would change if the policy changes identified in paragraph~~
40 ~~(3) are made.~~

1 ~~(5) Includes recommendations on the compensation framework~~
2 ~~for virtual power plants.~~

3 (B) Includes an assessment of virtual power plant resources
4 that are currently eligible for resource adequacy pursuant to
5 Section 380 of the Public Utilities Code.

6 (C) Includes recommendations to resolve the barriers identified
7 in subparagraph (A).

8 (D) Estimates the cost of virtual power plants relative to
9 alternative sources of resource adequacy qualifying capacity.

10 (E) Assesses the data needs for state agencies and the
11 Independent System Operator to fully value virtual power plant
12 resources for resource adequacy.

13 (3) (A) Identifies the barriers and opportunities for virtual
14 power plant resources to act as load-modifying resources that
15 reduce a load-serving entity's resource adequacy obligations.

16 (B) Includes recommendations to resolve the barriers identified
17 in subparagraph (A).

18 (C) Estimates the cost to the load-serving entity of
19 load-modifying virtual power plants relative to the cost of other
20 load-modifying resources to reduce a load-serving entities'
21 resource adequacy obligations.

22 (D) Identifies which virtual power plant resources are the most
23 cost-effective as load-modifying resources.

24 (E) Assesses the data needs for state agencies and the
25 Independent System Operator to fully account for virtual power
26 plant resources to reduce a load-serving entity's resource adequacy
27 obligations.

28 ~~(6)~~

29 (4) Assesses the barriers to customer energy data access
30 necessary for the creation and limiting the operation and value of
31 virtual power plants at scale and recommended ways to address
32 them.

33 ~~(7) Maximizes cost savings to ratepayers.~~

34 (5) (A) Evaluates how the operational configuration of virtual
35 power plants can be optimized to support specific objectives,
36 including maximizing cost savings to participating and
37 nonparticipating ratepayers, and maximizing electrical grid system
38 benefits, such as reduction of greenhouse gas emissions and easing
39 of local congestion.

1 (B) Provides recommendations on how to align incentive
2 structures that maximize both electrical grid system benefits and
3 cost-savings to participating and nonparticipation ratepayers.

4 (C) Ensures the recommendations of subparagraph (B) do not
5 result in increased costs for any nonparticipating ratepayers as a
6 result of virtual power plant deployment.

7 (d) The ~~strategy plan~~ adopted pursuant to subdivision (a) shall
8 be included in the report prepared pursuant to Section 25302.

9 ~~25562. (a) On or before July 1, 2026, the commission shall~~
10 ~~complete a study that includes 2030, 2035, and 2045 scenarios of~~
11 ~~the effects of virtual power plant deployment at scale on electrical~~
12 ~~system costs, rate reduction, and the reduction of greenhouse gas~~
13 ~~emissions. The study shall include, but not be limited to, both of~~
14 ~~the following:~~

15 ~~(1) The avoided transmission, distribution, and generation costs.~~

16 ~~(2) The impacts on greenhouse gas emissions.~~

17 ~~(b) (1) The commission shall report the results of the study to~~
18 ~~the Legislature within 30 days of its completion.~~

19 ~~(2) The report submitted pursuant to paragraph (1) shall be in~~
20 ~~compliance with Section 9795 of the Government Code.~~