(**Without Reference to File**)

SENATE THIRD READING
SB 350 (De León)
As Amended September 10, 2015
Majority vote

SENATE VOTE: 24-14

Committee	Votes	Ayes	Noes
Utilities	9-5	Rendon, Bonilla, Burke, Eggman, Cristina Garcia, Quirk, Santiago, Ting, Williams	Patterson, Achadjian, Hadley, Roger Hernández, Obernolte
Natural Resources	6-2	Williams, Cristina Garcia, McCarty, Rendon, Mark Stone, Wood	Hadley, Harper
Appropriations	12-5	Gomez, Bloom, Bonta, Calderon, Nazarian, Eggman, Eduardo Garcia, Holden, Quirk, Rendon, Weber, Wood	Bigelow, Chang, Gallagher, Jones, Wagner
Natural Resources	5-2	Williams, Cristina Garcia, McCarty, Rendon, Mark Stone	Dahle, Harper

SUMMARY: Enacts the "Clean Energy and Pollution Reduction Act of 2015" and establishes targets to increase retail sales of renewable electricity to 50% by 2030, and double the energy efficiency savings in electricity and natural gas end uses by 2030. Specifically, **this bill**:

1) Establishes a Renewable Portfolio Standard (RPS) target of 50% by December 31, 2030, and thereafter, for retail sellers and publicly-owned utilities (POUs), including interim targets of 40% by the end of the 2021 to 2024 compliance period, 45% by the end of the 2025 to 2027 compliance period, and 50% by the end of the 2028 to 2030 compliance period.

2) Authorizes unlimited banking of "bucket 1" resources, regardless of contract length, beginning in 2021. Requires at least 65% of RPS procurement be from contracts of 10 years or more or ownership of eligible renewable energy resources. Applies these standards uniformly to all retail sellers and POUs.

3) Requires the California Public Utilities Commission (CPUC) to direct each investor-owned utility (IOU) to include in its proposed procurement plan a strategy for procuring a diverse portfolio of resources that provide a reliable electricity supply, including renewable energy integration needs, and using zero carbon-emitting resources to the maximum extent reasonable. Requires the net capacity costs of those resources to be allocated on a fully nonbypassable basis.

4) Removes specified criteria and reporting requirement from the RPS cost limit, instead directing the CPUC to set the cost limit at a level that prevents disproportionate rate impacts.

5) Limits the RPS eligibility of a facility engaged in the combustion of municipal solid waste located in Stanislaus County to energy generated before January 1, 2017.

6) Permits a POU to exclude, from total retail sales, generation that is produced through a voluntary green pricing or shared renewable generation program. Prohibits use of any renewable energy credits associated with electricity credited to a customer to be counted toward procurement requirements.

7) Allows compliance flexibility for those POUs that satisfy 50% or more of their retail sales from specified, large hydroelectric power, as well as POUs that have coal contracts entered into prior to June 1, 2010, in their electricity resource mix.

8) Specifies that costs shifting cannot occur between customers of electrical corporations and community choice aggregators (CCAs) or energy service providers (ESPs), and requires the CPUC to ensure that departing load does not experience cost increase as a result in an allocation of costs not incurred on behalf of departing load.

9) Includes the following provisions in furtherance of doubling the energy efficiency savings in electricity and natural gas end uses by 2030:

   a) Directs California Energy Commission (CEC) to adopt an update to the AB 758 [(Skinner), Chapter 470, Statutes of 2009] program by January 1, 2017, and every three years thereafter.

   b) Defines energy savings and end uses.

   c) Directs the CEC to specify energy efficiency targets to meet the goal, and specifies programs that may be used to achieve the goal.

   d) Specifies how the goals will be measured and counted, makes clarifying changes.

   e) Requires assessments of the effects of energy efficiency on electricity demand statewide, and locally, hourly, and seasonally.

   f) Directs the CPUC to authorize energy efficiency programs to meet the 50% energy efficiency goal.

   g) Specifies CPUC energy efficiency procurement and reporting requirements.

   h) Directs POUs to meet the energy efficiency targets specified by the CEC.

   i) Directs the CEC to establish consumer protection guidelines for energy efficiency products, directs the CEC to promote greater project penetration in disadvantaged communities, and to use workforce development and job training for residents in disadvantaged communities.

   j) Directs the CEC to evaluate "negative therm interaction" effects generated as a result of electricity efficiency improvements.

10) Establishes the following "transportation electrification" provisions:

a) Requires Air Resources Board (ARB) to identify and adopt appropriate policies to remove regulatory disincentives facing retail sellers from facilitating the achievement of greenhouse gas (GHG) emission reductions in other sectors through increased investments in transportation electrification, including an allocation of GHG emissions allowances to retail sellers to account for increased emissions in the electric sector from transportation electrification.

b) Requires the CPUC, in consultation with the ARB and CEC, to direct IOUs to propose multiyear programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative, and reduce emissions of GHGs to 40% below 1990 levels by 2030, and to 80% below 1990 levels by 2050. Requires the CPUC to approve programs and investments that deploy charging infrastructure as distribution system costs.

c) Requires the CPUC to review data concerning current and future electric transportation adoption rates and charging infrastructure utilization rates no less than every three years, and prior to any further authorization, to collect additional new program costs related to transportation electrification in ratepayer rates. If market barriers unrelated to the investment prevent electric transportation from adequately utilizing available charging infrastructure, the CPUC shall not permit additional investments without adequate assurance that the investments would not result in stranded costs recoverable from ratepayers.

d) Establishes a new RPS compliance "offramp" for unanticipated increases in retail sales due to transportation electrification, if the waiver would not result in an increase in GHG emissions. In making a finding, the CPUC must consider whether transportation electrification significantly exceeded forecasts in that retail seller's service territory, and whether the retail seller has taken reasonable measures to procure sufficient resources to account for the unanticipated increases.

11) Requires the CPUC and CEC to do all of the following in furtherance of meeting the state's clean energy and pollution reduction objectives:

a) Take into account the use of distributed generation to the extent that it provides economic and environmental benefits in disadvantaged communities.

b) Take into account the opportunities to decrease costs and increase benefits, including pollution reduction and grid integration.

c) Where feasible, authorize procurement of resources to provide grid reliability services that minimize reliance on system power and fossil fuel resources and, where feasible, cost-effective, and consistent with other state policy objectives, increase the use of large- and small-scale energy storage with a variety of technologies, targeted energy efficiency, demand response, eligible renewable energy resources, or other technologies to protect system reliability.

d) Review technology incentive, research, development, deployment, and market facilitation programs overseen by the CPUC and CEC, and make recommendations to advance state

clean energy and pollution reduction objectives, and provide benefits to disadvantaged communities.

e) To the extent feasible, give first priority to the manufacture and deployment of clean energy and pollution reduction technologies that create employment opportunities, including high wage, highly skilled employment opportunities, and increased investment in the state.

f) Establish a publicly available tracking system to provide up-to-date information on progress toward meeting the clean energy and pollution reduction goals of the Clean Energy and Pollution Reduction Act of 2015.

g) Establish an advisory group consisting of representatives from disadvantaged communities to review and advise on programs proposed to achieve clean energy and pollution reduction, and determine whether those proposed programs will be effective and useful in disadvantaged communities.

12) Requires the CPUC to permit CCAs to submit proposals for satisfying their portion of the renewable integration need.

13) Requires the CPUC to adopt a process for IOUs, CCAs, and ESPs to file an integrated resource plan (IRP) to:

a) Meet the greenhouse gas emissions reduction targets established by the ARB for the electricity sector and each load-serving entity that reflect the electricity sector's percentage in achieving economy-wide GHG emissions reductions of 40% from 1990 levels by 2030.

b) Procure at least 50% eligible renewable energy resources by December 31, 2030, consistent with the RPS.

c) Enable each IOU to fulfill its obligation to serve its customers at just and reasonable rates.

d) Minimize impacts on ratepayers' bills.

e) Ensure system and local reliability.

f) Strengthen the diversity, sustainability, and resilience of the bulk transmission and distribution systems, and local communities.

g) Enhance distribution systems and demand-side energy management.

h) Minimize localized air pollutants and other GHG emissions.

14) Requires POUs to adopt IRPs according to similar standards, subject to review by the CEC.

15) Requires the California Independent System Operator (ISO) to prepare proposed governance modifications to facilitate the transformation of the ISO into a regional organization; requires the ISO to study specified issues, the CPUC, CEC and ARB to hold a joint workshop to

review the ISO's proposed modifications; and provides that the proposed governance modifications do not take effect unless the Legislature enacts a statute implementing them.

16) Requires the CEC to study barriers for low-income customers to access solar photovoltaic, other renewable energy, energy efficiency, and weatherization investments.

17) Requires ARB to study barriers for low-income customers to access zero-emission and near zero-emission transportation options.

18) Amends the public works provision of the Labor Code to specify that construction, alteration, demolition, installation, or repair work on the electric transmission system located in California constitutes a public works project, subjecting these projects to prevailing wage.

EXISTING LAW:

1) Directs the CEC to continually assess energy consumption trends and to analyze the social, economic, and environmental consequences of these trends; carry out energy conservation measures; and recommend to the Governor and the Legislature new and expanded energy conservation measures. (Public Resources Code Section 25200, et seq.)

2) Requires the CEC to develop and implement a comprehensive program to achieve greater energy savings in California's existing residential and nonresidential building stock. (Public Resources Code Section 25943, et seq.)

3) Establishes the Electric Program Investment Charge Fund to fund projects that benefit electricity ratepayers and lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals. (Public Utilities Code Section 25710, et seq.)

4) Requires retail sellers of electricity – IOUs, CCAs, ESPs, and POUs - to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. This is known as the RPS. The CPUC establishes the RPS for retail sellers and ensures they progress in achieving it, and levies penalties for failure. The governing board of each POU establishes its own RPS. The CEC may issue a notice of violation against a POU for failure to adequately progress in meeting RPS targets and refer the POU to the ARB, which may assess penalties against it. The RPS provides numerous cost containment provisions and exceptions to compliance obligations. (Public Utilities Code Section 99.11, et seq.)

5) Requires all renewable electricity products to meet the requirements of a "loading order" that mandates minimum and maximum quantities of three product categories (or "buckets"), which includes renewable resources directly connected to a California balancing authority or provided in real time without substitution from another energy source, energy not connected or delivered in real time yet still delivering electricity, and unbundled renewable energy credits (RECs). (Public Utilities Code Section 399.16.)

FISCAL EFFECT: According to the Assembly Appropriations Committee:

1) Ongoing annual costs of $5.6 million for staffing and one-time costs of $3.5 million in contracts [General Fund (GF) and special fund] for the CEC to implement the requirements of this bill.

2) Ongoing annual costs of $1.65 million for personnel services and $2.3 million in operating expenses (special fund) for the CPUC to fulfill the requirements of the bill.

3) Ongoing annual costs of up to $275,000 (various special funds) for ARB to develop policies to remove regulatory disincentives and facilitate GHG reductions through transportation electrification.

4) Unknown ratepayer costs to the GF and various special funds to the state, as an electricity user and ratepayer, to the extent electricity prices are affected by increasing the RPS standard.

5) Unknown costs pressures (special fund) for the CPUC and CEC to review renewable integration needs and consider grid integration in RPS implementation proceedings.

COMMENTS:

1) *Governor's goals*. In his January 5, 2015, Inaugural Address, Governor Brown announced the following "objectives for 2030 and beyond":

> Toward that end, I propose three ambitious goals to be accomplished within the next 15 years:
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> - Increase from one-third to 50% our electricity derived from renewable sources;
> - Reduce today's petroleum use in cars and trucks by up to 50%; and,
> - Double the efficiency of existing buildings and make heating fuels cleaner.
>
> We must also reduce the relentless release of methane, black carbon and other potent pollutants across industries. And we must manage farm and rangelands, forests and wetlands so they can store carbon. All of this is a very tall order. It means that we continue to transform our electrical grid, our transportation system and even our communities.
>
> I envision a wide range of initiatives: more distributed power, expanded rooftop solar, micro-grids, an energy imbalance market, battery storage, the full integration of information technology and electrical distribution and millions of electric and low-carbon vehicles. How we achieve these goals and at what pace will take great thought and imagination mixed with pragmatic caution. It will require enormous innovation, research and investment. And we will need active collaboration at every stage with our scientists, engineers, entrepreneurs, businesses and officials at all levels.

> Taking significant amounts of carbon out of our economy without harming its vibrancy is exactly the sort of challenge at which California excels. This is exciting, it is bold and it is absolutely necessary if we are to have any chance of stopping potentially catastrophic changes to our climate system.

2) *Regional energy market*. This bill sets in motion a process for allowing the California ISO to expand its wholesale electricity market programs to include out-of-state transmission owners. While there may be benefits to regionalizing the wholesale electricity market, there are a number of issues that are not understood about this effort, specifically:

   a) How will this affect California's efforts to expand energy efficiency, demand response, and distributed generation if the wholesale market operator projects and determines that electricity, reliability, or other services shall be fulfilled through transmission and generation projects?

   b) How will this affect other Balancing Authorities operating in California with respect to having equal access and address interactions between participants and non-participants in the new market?

   c) How will transmission costs be allocated to ensure that California ratepayers do not bear a disproportionate burden?

   d) How will California's greenhouse gas goals be honored?

3) *Integrated Resource Planning*. According to a recent survey[1] by Lawrence Berkeley Labs of the utilities in the Western States, the IRP they have prepared are done inconsistently. All utilities in the Western State have formal IRP reporting processes, except for California, which has a Long Term Procurement Planning Process. One issue that was raised in this study is that there are significant data inconsistencies between IRPs. One issue discovered in this survey is that load-serving entities "rarely reported additions (or improvements) to transmission interconnections, fuel delivery systems, and energy storage facilities. Furthermore, there are numerous examples of resource plans that do not provide sufficient clarity on units of measurement related to important risks (e.g., short tons vs. long tons of GHGs; carbon price vs. CO2e price; hub vs. delivered natural gas price)."

   The CPUC may need to ensure that all of the IRPs that are prepared pursuant to this new statute are done consistently and in coordination with POUs to ensure that the results of the effort are usable.

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[1] http://emp.lbl.gov/sites/all/files/lbnl-6545e.pdf