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**SENATE COMMITTEE ON ENERGY, UTILITIES AND  
COMMUNICATIONS**

**Senator Ben Hueso, Chair**

**2021 - 2022 Regular**

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<b>Bill No:</b>	SB 1158	<b>Hearing Date:</b>	4/26/2022
<b>Author:</b>	Becker		
<b>Version:</b>	4/18/2022 Amended		
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
<b>Consultant:</b>	Nidia Bautista		

**SUBJECT:** Retail electricity suppliers: greenhouse gas emissions: integrated resource plans

**DIGEST:** This bill requires every retail supplier of electricity to annually report hourly greenhouse gas (GHG) emissions data, including as part of the California Energy Commission's (CEC's) Power Source Disclosure Program, among other provisions.

**ANALYSIS:**

Existing law:

- 1) Establishes and vests the California Public Utilities Commission (CPUC) with regulatory authority over public utilities. (Article XII of the California Constitution)
- 2) Requires every entity that offers an electricity product for sale to retail consumers in California to disclose its electricity sources and the associated intensity of GHG emissions for the previous calendar year. Requires a retail supplier to disclose its electricity sources as a percentage of annual sales that is derived from specified sources of energy, including eligible renewable energy resources. (Public Utilities Code §§398.1-398.5)
- 3) Requires the CPUC, in consultation with the California Independent System Operator (CAISO), to establish resource adequacy (RA) requirements for all load-serving entities (LSEs), including electrical corporations, electric service providers (ESPs), and community choice aggregators (CCAs), in accordance with specified objectives. (Public Utilities Code §380)
- 4) Requires each local publicly owned electric utility serving end-use customers to prudently plan for and procure resources that are adequate to meet its planning reserve margin and peak demand and operating reserves, sufficient to provide reliable electric service to its customers. (Public Utilities Code §9620)

- 5) Requires the CPUC to adopt a process for each LSE to file an integrated resource plan (IRP) and a schedule for periodic updates to the plan to ensure that the LSE meets, among other things, the state's GHGs reduction targets and the requirement to procure at least 60 percent of its electricity from eligible renewable energy resources by December 31, 2030. (Public Utilities Code §454.52)
- 6) Requires the governing board of a local publicly owned electric utility with an annual electrical demand exceeding 700 gigawatt hours (GWh) to adopt an IRP and a process for updating the plan at least once every five years to ensure that the local publicly owned electric utility meets, among other things, the state's GHGs reduction targets and the requirement to procure at least 60 percent of its electricity from eligible renewable resources by December 31, 2030. (Public Utilities Code §9621)
- 7) Requires the reduction of statewide emissions of GHGs 40 percent below 1990 levels by 2030. This is known as the *Global Warming Solutions Act of 2006*. (Health and Safety Code §38500 et seq.)
- 8) Requires the California Air Resources Board (CARB) to develop regulations to require the annual reporting and verification of GHG emissions. As part of this mandatory reporting, requires all retail sellers of electricity to Account for GHGs from all electricity consumed in the state, including transmission and distribution line losses from electricity generated within the state or imported from outside the state. (Health and Safety Code §38530)

This bill:

- 1) Specifies that "purchases of electricity from specified sources" means delivered electricity transactions, as defined.
- 2) Requires, beginning January 1, 2026, every retail supplier to annually report specified information to the State Energy Resources Conservation and Development Commission (CEC), including an analysis of the retail supplier's sources of electricity and the GHG emissions associated with those sources of electricity, as specified.
- 3) Requires, on or before July 1, 2024, the CEC to adopt rules, through an open process, subject to public comment, and adopted by a vote of the CEC, to implement these reporting requirements. Requires the CEC to annually publish on its internet website an aggregated summary of the data reported by each

retail supplier. Requires generation facilities, energy storage facilities, and buyers of centrally procured electricity from specified sources to provide each retail supplier with the retail supplier's hourly share of electricity and the greenhouse gas emissions associated with that electricity, as specified.

- 4) Requires the CPUC to calculate and publish on its internet website an annual report showing the percentage of each LSE's local and system resource adequacy requirements from the previous calendar year that was met with capacity from eligible renewable energy resources or other zero-carbon resources, as specified.
- 5) Requires the CPUC to consider, and a governing board of a local publicly owned electric utility to review, the GHG emissions associated with each LSE's and local publicly owned electric utility's reporting of annual GHG emissions to the CEC, and other available data on GHG emissions, and determine whether each LSE's and local publicly owned electric utility's GHG emissions, combined with their procurement plans for subsequent years, demonstrates adequate progress towards achieving the electricity sector GHG emissions reductions targets, or whether changes to future procurement plans are required to achieve those targets.

## **Background**

*SB 100 (De León, Chapter 312, Statutes of 2018).* SB 100 establishes the 100 Percent Clean Energy Act of 2017 which increases the Renewables Portfolio Standard (RPS) requirement to 60 percent by 2030, and creates the policy of planning to meet all of the state's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100 percent clean energy. SB 100 also requires CARB, CEC, and CPUC to issue a joint report by January 1, 2021, and at least every four years, that describes technologies, forecasts, affordability, and system and local reliability. The report is required to include an evaluation of costs and benefits to customer rate impacts, as well as, barriers to achieving the SB 100 policy. The first SB 100 Joint Agency report was released in 2021.

*Renewable Portfolio Standard (RPS).* California's ambitious RPS program is jointly implemented and administered by the CPUC and the CEC. The RPS program requires the state's energy LSEs, including investor-owned utilities (IOUs), CCAs, ESPs and publicly owned utilities (POUs) to procure 60 percent of their total electricity retail sales from eligible renewable energy resources by 2030, and a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100 percent clean energy. The RPS requires milestones on the path to 2030, including interim goals of 25 percent by 2016, 33 percent by 2020, 44

percent by 2024, and 52 percent by 2027. The state is well on its way to achieving its existing RPS targets. Most POU's are on track to meet their 2020 goals and working towards their 2030 goals. The state's three largest electric utilities generally have met current procurement goals and anticipate exceeding future procurement goals, with each having procured over 40 percent eligible renewable energy resources.

*Integrated Resources Plan (IRP).* As required in SB 350 (De León, Chapter 547, Statutes of 2015), the IRP process requires the CPUC to identify a portfolio of resources for electricity procurement that provides optimal integration of renewable energy in a cost-effective manner, and minimize impacts on ratepayer's bills. The identification of this portfolio is intended to guide LSEs' IRPs, which help ensure that utilities meet GHG reduction targets for the electricity sector. As part of the IRP planning cycle, the CPUC adopts a reference system plan, which identifies the energy procurements needed to help the LSEs meet specific GHG reduction goals. In the most recent IRP decision (D.22-02-004) adopted in February of this year, the CPUC adopted a 38 million metric ton (MMT) 2030 electric sector GHG planning target for the 2021 Preferred System Plan (PSP) portfolio. The PSP portfolio includes approximately 25,500 megawatts (MW) (nameplate capacity) of new supply-side renewables, and 15,000 MW of new storage and demand response resources, by 2032, in addition to existing resources. The PSP portfolio includes long-lead time resources, including out-of-state renewables and offshore wind—two resource types the CPUC will continue evaluating moving forward. The PSP orders procurement of two storage resources that were identified by the CAISO as alternatives to transmission upgrades in the previous TPP cycle.

*Clean System Power calculator.* CPUC staff developed a Clean System Power (CSP) calculator tool for use in estimating GHG and criteria pollutant emissions of energy portfolios. The CSP calculator tool for LSEs to use in estimating the GHG and criteria pollutant emissions of their portfolios. Importantly, the calculator is not intended to be used as an after-the-fact compliance tool, but rather to provide LSEs a simple and uniform way of estimating the emissions associated with their IRP portfolios. The core function of the CSP tool is to assign GHG and criteria air pollutant emissions associated with the CAISO system's dispatchable thermal generation and unspecified imports ("system power") to LSEs based on how each LSE plans to rely on CAISO system power to meet its load on an hourly basis. The tool also calculates GHG and criteria air pollutant emissions from other electric generation sources that can be attributed to an LSE's energy resource portfolio. The CSP methodology enables the CPUC to address three critical needs in the IRP process: (1) to evaluate the expected 2030 GHG emissions associated with individual LSE plans and energy resource portfolios on a fair and consistent

basis; (2) to compare each LSE's expected 2030 GHG emissions against its CPUC-assigned benchmark; and (3) to compare expected 2030 LSE GHG and criteria air pollutant emissions in aggregate against the Reference System Plan to meet the 2030 GHG planning target for the electric sector, at least cost. To aid planning, the CSP tool also provides GHG and criteria air pollutant emissions estimates for years before 2030.

*CARB GHG Mandatory Reporting Requirements.* Reporting of GHG emissions by major sources is required by the California Global Warming Solutions Act of 2006 (AB 32). The Regulation for the Mandatory Reporting of GHG Emissions (MRR) is applicable to electricity generators, industrial facilities, fuel suppliers, and electricity importers. A summary of reported GHG emissions data reported under MRR are made public each year, and the data used by the Cap-and-Trade Program and included in the state's GHG Inventory.

*CEC Power Source Disclosure program.* The Power Source Disclosure (PSD) program was established by SB 1305 (Sher, Chapter 796, Statutes of 1997) in an effort to provide retail electricity consumers "accurate, reliable, and simple to understand information on the sources of energy that are used to provide electric services." In 2016, the CEC adopted modifications to the regulations to incorporate statutory changes to program rules and reporting requirements as required by statute. AB 1110 (Ting, Chapter 656, Statutes of 2016) further modified the PSD Program and Power Content Label by requiring retail suppliers to disclose the GHG emissions intensity (the rate of emissions per unit of electricity) associated with each electricity portfolio beginning in 2020 for the 2019 reporting year. AB 1110 also required the CEC, among other things, to determine a format for disclosing unbundled renewable energy credits (RECs) as a percentage of annual retail sales.

The PSD program provides consumers a detailed view into the sources of electricity purchased by their retail suppliers to power their homes and businesses. This information is provided through annual Power Content Labels, which resemble nutrition labels, with a breakdown of energy resources such as solar photovoltaic and thermal-electric, wind, geothermal, nuclear, large hydroelectric, and natural gas. For comparison, the labels include a summary of California's energy resource mix, which is called total system power. Retail electricity suppliers report their electricity purchases and retail sales to the CEC annually. The reports are used to create the labels for each product offered the prior year.

Below is an example of Pacific Gas and Electric's (PG&E's) 2020 Power Content Label.

2020 POWER CONTENT LABEL										
Pacific Gas and Electric Company										
www.pge.com/billinserts										
Greenhouse Gas Emissions Intensity (lbs CO <sub>2</sub> e/MWh)					Energy Resources	Base Plan	50% Solar Choice	100% Solar Choice	Green Saver	2020 CA Power Mix
Base Plan	50% Solar Choice	100% Solar Choice	Green Saver	2020 CA Utility Average						
160	80	0	0	466	<b>Eligible Renewable</b>	<b>30.6%</b>	<b>65.3%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>33.1%</b>
					Biomass & Biowaste	2.6%	1.3%	0.0%	0.0%	2.5%
					Geothermal	2.6%	1.3%	0.0%	0.0%	4.9%
					Eligible Hydroelectric	1.2%	0.6%	0.0%	0.0%	1.4%
					Solar	15.9%	57.9%	100.0%	100.0%	13.2%
					Wind	8.3%	4.2%	0.0%	0.0%	11.1%
					<b>Coal</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.7%</b>
					<b>Large Hydroelectric</b>	<b>10.1%</b>	<b>5.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>12.2%</b>
					<b>Natural Gas</b>	<b>16.4%</b>	<b>8.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>37.1%</b>
					<b>Nuclear</b>	<b>42.8%</b>	<b>21.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>9.3%</b>
					<b>Other</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.2%</b>
<b>Unspecified Power<sup>2</sup></b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>5.4%</b>					
<b>TOTAL</b>						<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Percentage of Retail Sales Covered by Retired Unbundled RECs<sup>3</sup>:</b>						<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	

**Comments**

*SB 1158.* This bill proposes to require hourly GHG emissions reporting by retail suppliers, including in the PSD, IRP, and RA program. This bill proposes prescriptive changes to the PSD program, beginning January 1, 2026, to require every retail supplier that offers an electricity product for sale to retail customers in the state to annually report to the CEC specified information to account for hourly GHG emissions of their electricity load. Additionally, this bill proposes to better align GHG hourly reporting among the various reporting and planning processes: PSD, IRP, and RA program, with consideration for the CARB MRR.

*Concerns with annual reporting of GHGs.* Proponents of this bill support the proposed hourly reporting of the GHG emissions. Many of the current reporting requirements use an annual accounting methodology which proponents of this bill argue is insufficient as it does not consider the mismatch between hourly deliveries from supplies procured by retail suppliers and the hourly customer load they serve. Proponents take particular issue with the annual methodology’s failure to capture reliance on unspecified power by retail suppliers during many hours of the year (much of which is primarily produced by fossil fuel generation).

*Is the additional reporting beneficial or unnecessary burden to retail sellers?* Many of the retail sellers opposed to this bill take issue with the complexity and prescriptive requirements of this bill. They argue that the granular data will not lead to greater GHG emissions reductions for difficult-to-serve time periods. As the California Municipal Utility Association (CMUA) notes: “the key challenge is developing cost-effective, dispatchable, and reliable clean energy technologies that today do not exist at scale.” They state that they already track and report GHG emissions and a new program to annually report hourly GHG emissions would be “a burdensome requirement, distracting from the core mission of providing clean,

affordable, and reliable energy.” California Community Choice Aggregators (CalCCA) argues that the reporting framework is overly complex and recommends the legislation instead direct the energy agencies to examine the feasibility of the hourly reporting requirements.

*Too soon?* The proposed changes to the PSD program require the CEC to develop rules by July 1, 2024. CalCCA notes that the previous effort to modify the PSD, via AB 1110 changes, took two-and-a-half years for the CEC to adopt new rules. Given the highly prescriptive requirements of this bill, the CEC may take more or less time. This bill provides the CEC with flexibility to delay the date by when retail suppliers must report their hourly GHG emissions data. However, the CEC is not afforded the same flexibility in developing rules.

*Simple to understand?* One of the driving principles of the PSD is to keep the power content label simple and easily understandable for the public. However, it is not clear whether the proposed modifications for hourly GHG reporting may create more confusion for the public. The author may consider whether the proposal may need to be modified to ensure the public can easily understand the data collected and shared.

*Amendments needed.* While well-intentioned, the inclusion of hourly reporting from the PSD in the IRP may not be necessary. The IRP is forward planning exercise where the PSD is an after-the-fact disclosure. In order to maintain the focus of the bill on the PSD, *the author and committee may wish to delete the sections related to the IRP.*

### **Prior/Related Legislation**

SB 1020 (Laird, *et al*, 2022) among its many provisions, establishes interim targets to achieve the SB 100 policy of 100 percent renewable energy and zero-carbon resources by 2045.

SB 881 (Min, 2022) requires the CPUC to require each energy LSE to undertake sufficient procurement to achieve a diverse, balanced, and reliable statewide portfolio and realize specified electricity sector GHG emissions reductions. The bill is pending the Senate Committee on Appropriations.

SB 1432 (Hueso, 2022) makes clarifying changes to the RA statute, including requiring a report of each LSE’s compliance status and ensure the associated GHG emissions attributes of backstop procurement are equitably allocated.

SB 100 (De León, Chapter 312, Statutes of 2018) established the 100 Percent Clean Energy Act of 2017 which increases the RPS requirement from 50 percent by 2030 to 60 percent, and created the policy of planning to meet all of the state's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100 percent clean energy.

AB 1110 (Ting, Chapter 656, Statutes of 2016) required every retail supplier of electricity in California annually to report to its customers the GHG emissions intensity of the supplier's electricity sources.

AB 162 (Ruskin, Chapter 313, Statutes of 2009) modified and streamlined power source disclosure reporting requirements for POUs and other electricity providers.

SB 1305 (Sher, Chapter 796, Statutes of 1997) first required retail suppliers to disclose their power sources.

**FISCAL EFFECT:** Appropriation: No Fiscal Com.: Yes Local: Yes

**SUPPORT:**

350 Humboldt: Grass Roots Climate Action  
350 Silicon Valley  
Breathe California  
California Efficiency + Demand Management Council  
California Energy Storage Alliance  
California Environmental Justice Alliance  
California Environmental Voters  
California Public Interest Research Group  
Carbon Free Mountain View  
Carbon Free Palo Alto  
Carbon Free Silicon Valley  
Clean Air Task Force  
Coalition of California Utility Employees  
Elders Climate Action, NorCal Chapter  
Elders Climate Action, SoCal Chapter  
Environment California  
Menlo Spark  
Natural Resources Defense Council  
San Diego Gas & Electric, if amended  
Silicon Valley Youth Climate Action  
The Climate Reality Project – San Fernando Valley Chapter  
The Utility Reform Network



**OPPOSITION:**

California Community Choice Association, unless amended  
California Municipal Utilities Association  
Northern California Power Agency  
Sonoma Clean Power, unless amended  
Southern California Public Power Authority

**ARGUMENTS IN SUPPORT:** According to the author:

As California's electricity sector makes progress toward 100% clean energy, the main interim requirements for electricity suppliers will be the annual greenhouse gas (GHG) emissions targets set for each of them.

Unfortunately, we have no information today on what the actual GHG emissions are for each electricity supplier, so we have no means for holding suppliers accountable to achieving their targets. How can we manage something that we are not measuring? SB 1158 establishes reporting requirements for electricity suppliers to close this gap – so that we can measure progress against their GHG emissions targets and ensure that the electricity sector is on track to achieve our 100% clean energy goals.

We have ways to measure whether suppliers are meeting their RA obligations (for reliability) and their RPS obligations, but we have no equivalent measurement of their actual GHG emissions for a year that can be compared to their targets. How can we hold suppliers accountable to a target if we never measure their results?

**ARGUMENTS IN OPPOSITION:** The retail sellers opposed to this bill argue that the prescriptive hourly reporting requirements of this bill will be burdensome and costly, and provide no benefit to actual GHG emissions reductions. Many of the retail sellers opposed to this bill state that they are already exploring opportunities to achieve SB 100 goals and additional reporting, particularly such granular reporting, will only distract from their core mission to provide clean, safe, and affordable service.

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