Office of Senate Floor Analyses
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UNFINISHED BUSINESS

Bill No: SB 68
Author: Becker (D), et al.
Amended: 9/7/21
Vote: 21

SENATE ENERGY, U. & C. COMMITTEE: 10-2, 4/19/21
AYES: Hueso, Becker, Dodd, Eggman, Gonzalez, Hertzberg, McGuire, Min, Rubio, Stern
NOES: Dahle, Grove
NO VOTE RECORDED: Borgeas, Bradford

SENATE APPROPRIATIONS COMMITTEE: 5-2, 5/20/21
AYES: Portantino, Bradford, Kamlager, Laird, Wieckowski
NOES: Bates, Jones

SENATE FLOOR: 35-1, 5/28/21
AYES: Allen, Archuleta, Bates, Becker, Bradford, Caballero, Cortese, Dodd, Durazo, Eggman, Glazer, Gonzalez, Hertzberg, Hueso, Hurtado, Jones, Kamlager, Laird, Leyva, McGuire, Melendez, Min, Newman, Nielsen, Ochoa Bogh, Pan, Portantino, Roth, Rubio, Skinner, Stern, Umberg, Wieckowski, Wiener, Wilk
NOES: Dahle
NO VOTE RECORDED: Atkins, Borgeas, Grove, Limón

ASSEMBLY FLOOR: 64-0, 9/10/21
(ROLL CALL NOT AVAILABLE)

SUBJECT: Building electrification and electric vehicle charging

SOURCE: Author

DIGEST: This bill (1) requires the California Energy Commission (CEC) to develop and publish guidance on best practices to help reduce barriers for building owners to transition to electric equipment and appliances, and install electric

vehicle (EV) charging equipment; and (2) authorizes awarding of moneys from an existing grant program, funded by surcharges on energy ratepayer utility bills, for technological advancements that reduce the costs of electrifying building-related applications.

Assembly Amendments address chaptering issues and conflicts with the Budget Bill, AB 148 (Committee on Budget, Chapter 115, Statutes of 2021), adopted in July.

ANALYSIS:

Existing law:

1) Requires the CEC to assess the potential for the state to reduce the emissions of greenhouse gases (GHG) from the state's residential and commercial building stock by at least 40 percent below 1990 levels by January 1, 2030. (Public Resources Code §25403)

2) Requires the CEC to develop and implement the Electric Program Investment Charge (EPIC) program to award moneys for projects that will benefit electricity ratepayers, lead to technological advancement and breakthroughs, and result in a portfolio of projects that is strategically focused and sufficiently narrow to make advancement on the most significant technological challenges, as specified. (Public Resources Code §25711)

This bill:

1) Includes several findings and declarations regarding the intent to reduce barriers that impede building owners from electrifying their buildings or adding EV charging equipment as a means of accelerating the reduction of GHG emissions.

2) Requires the CEC to gather or develop, and publish on its internet guidance and best practices to help building owners, the construction industry, and local governments overcome barriers to electrification of buildings and installation of electrical vehicle charging equipment.

3) Authorizes the award of moneys under the EPIC program for projects that will benefit electricity ratepayers and lead to technological advancements that reduce the costs of building electrification.

Background

SB 32 GHG goals. California must reduce statewide GHG emissions to a level 40 percent below 1990 levels by 2030, as adopted in SB 32 (Pavley, Chapter 249, Statutes of 2016). The state's Climate Change Scoping Plan outlines the path for California reaching the 2030 climate target, as well as, reducing GHG emissions 80 percent below 1990 levels by 2050.

Reducing emissions from the building sector. According to the California Air Resources Board (CARB), residential and commercial buildings are responsible for roughly 25 percent of California's GHG emissions when accounting for electricity demand, fossil fuels consumed onsite, and refrigerants. Of the 25 percent, roughly 10 percent of emissions are attributable to fossil fuel combustion, including natural gas, with residential buildings accounting for slightly more of those emissions than commercial buildings. However, CARB has noted that these emissions numbers can vary from year-to-year. There are several strategies that can be employed to reduce GHG emissions from the building sector, these include: improved energy efficiency of buildings and appliances, reducing carbon emissions from fossil fuel sources, ensuring cleaner sources of energy to operate buildings and associated appliances, addressing methane leaks, and others. CARB has noted that refrigerants used for space-cooling and refrigeration systems also contribute directly to building-related GHG emissions and these are a growing source of GHGs from buildings which must also be reduced. The Climate Change Scoping Plan identifies actions to reduce GHG emissions from the building sector, including progressively improving building codes and standards, pursuing voluntary efforts to exceed code requirements, and completing existing building retrofits.

CEC tasked to assess the potential for reducing GHGs from buildings. AB 3232 (Friedman, Chapter 373, Statutes of 2018) required the CEC by January 1, 2021, to develop an assessment of the feasibility of reducing the GHG emissions of California's buildings 40 percent below 1990 levels by 2030, working in consultation with the California Public Utilities Commission (CPUC) and other state agencies. The CEC has developed a draft of the report, primarily focused on the emissions sources and challenges with quantifying these sources. The CEC has recently released the reports. AB 3232 does not require specific actions to implement the plan. Rather, the results of the assessments required of the CEC are intended to help inform whether future policies have merit and are cost-effective to achieve the stated goal. It is important to note that AB 3232 only required a cost-

effectiveness assessment addressing emissions from space and water heating, but not other applications, such as cooking.

BUILD and TECH. SB 1477 (Stern, Chapter 378, Statutes of 2018) directed the CPUC to develop, in consultation with the CEC, two programs (BUILD and TECH) aimed at reducing GHG emissions associated with buildings. SB 1477 makes available $50 million annually for four years, for a total of $200 million, derived from the revenue generated from the GHG emission allowances directly allocated to gas corporations and consigned to auction as part of CARB's Cap-and-Trade program. The CPUC is responsible for a Building Decarbonization proceeding to implement SB 1477, develop pilot programs to address new construction in areas damaged by wildfires, coordinate policies with CEC's Energy Code and Appliance Efficiency Standards, and establish a policy framework. The CPUC allocate 40 percent of the $200 million budget for the BUILD Program and 60 percent for the TECH Initiative. The CEC is preparing to launch the BUILD Program later this year.

EPIC. The EPIC program, which is funded by a surcharge on energy ratepayers of Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) (collectively, the investor-owned electric utilities), supports the development of new, emerging, and pre-commercialized clean energy technologies in California. These projects must be designed to produce electricity ratepayer benefits in the form of increased reliability, improved safety, and/or reduced electricity costs. EPIC consists of three program areas: Applied Research and Development, Technology Demonstration and Deployment, and Market Facilitation. To date, more than $1 billion has been allocated to fund EPIC projects. In a recent decision, the CPUC authorized the collection of $148 million for the EPIC surcharge through December 31, 2030. The decision requires the CEC to file investment plan applications for the five-year investment cycle periods 2021-2025 and 2026-2030 on October 1, 2021 (EPIC 4) and October 1, 2025 (EPIC 5) respectively. In its EPIC 5 application, the CEC is allowed to request an adjustment for inflation for years 2026-2030. The collection for the funding collection of EPIC is required to continue to be allocated to the utilities in the following percentages: PG&E 50.1 percent, SCE 41.1 percent, and SDG&E 8.8 percent.

SB 68. This bill requires the CEC, working with other agencies, to publish guidance and best practices for building owners, contractors, and local government building departments to overcome barriers to electrification of buildings and installation of electric vehicle charging equipment, with specified approaches,

tools, and technologies. SB 68 also explicitly authorizes EPIC program to fund technological advancements that reduce the costs of building electrification. The proposed efforts by this bill would seem to complement the state's numerous existing efforts to reduce GHGs, including from the building sector.

Related/Prior Legislation

SB 31 (Cortese, 2021) incorporates, explicitly, building decarbonization within several aspects of electric utility ratepayer funded programs and within future, yet to be provided, federal moneys to address economic recovery, and incorporates requirements for prevailing wage, as specified. The bill is being held by the author in the Senate Appropriations Committee.

AB 1026 (Wood, Chapter 446, Statutes of 2019) required an electrical or gas corporation to apply only those construction and design specifications, standards, terms, and conditions that are applicable to a new extension of service project for the 18 months following the date the application for a new extension of service project is approved.

SB 1477 (Stern, Chapter 378, Statutes of 2018) required the CEC to develop a statewide market transformation initiative to transform the state's market for low-emission space and water heating equipment for new and existing residential and nonresidential buildings and to develop an incentive program to fund near-zero emission technology for new residential and commercial buildings.

AB 3232 (Friedman, Chapter 373, Statutes of 2018) required the CEC to assess the potential for the state to achieve the goal of reducing the emissions of GHGs by the state's residential and commercial building stock by at least 40 percent below the 1990 levels by January 1, 2030.

AB 2861 (Ting, Chapter 672, Statutes of 2016) authorized the CPUC to establish an expedited distribution grid interconnection dispute resolution process to resolve disputes within 60 days, unless it determines more time is needed. Specifies the elements to be included in the dispute resolution process and requires the CPUC to establish a technical panel, a review panel, and a public process for each dispute.

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

According to the Assembly Appropriations Committee, one-time costs of $150,000 to CEC to support one position to develop a comprehensive guide on building electrification and installation of electric vehicle charging equipment (Energy

Resources Program Account (ERPA)). The ERPA fund—the CEC's main funding source for operations—has a significant, ongoing structural deficit and seems unable to support new costs, such as those imposed by this bill.

SUPPORT: (Verified 9/3/21)

350 Silicon Valley
A.O. Smith
Acterra
Bay Area for Clean Environment
Bay Area Youth Lobbying Initiative
California Building Industry Association
California Efficiency + Demand Management Council
California Solar & Storage Association
Carbon Free Palo Alto
Center for Sustainable Energy
Climate Youth Ambassador Program
Diablo Valley Democratic Club
Elders Climate Action, NorCal Chapter
Elders Climate Action, SoCal Chapter
Harker Green Team
Homestead High School Green Ops
Marin/Sonoma Building Electrification Squad
Mothers Out Front Silicon Valley
Napa Climate Now
Natural Resources Defense Council
Pacifica Climate Committee
Peninsula Clean Energy
Peninsula Interfaith Climate Action
San Jose Community Energy Advocates
Sierra Club California
Silicon Valley Youth Climate Action
Span.IO
Sunnyvale Democratic Club
Sunrun
Together We Will - San Jose
52 Individuals

OPPOSITION: (Verified 9/3/21)

Southwest Gas Corporation

ARGUMENTS IN SUPPORT: According to the author, "In order to achieve the state's climate goals, we need to see widespread switching away from fossil fuel use in buildings and vehicles. The technology to do this exists today, but there are major barriers to its adoption. In particular, when building owners want to switch to electric equipment for heating or to install vehicle chargers or energy storage equipment, they often face high costs and long delays to upgrade their electrical service capacity, rewire their electrical panels to handle the extra load, and get permission to operate (PTO) their storage systems. …This bill directs the CEC to gather and publish best practices to help get better information out there to help building owners, the construction industry, and local governments do this more efficiently. We also need to drive down costs, and here technology can help. …This is an area where R&D funding could help, so the bill adds reducing the costs of building electrification to the list of challenges targeted by the EPIC program."

ARGUMENTS IN OPPOSITION: Southwest Gas Corporation opposes this bill because they "believe building electrification is a shortsighted policy that will increase costs for consumers, jeopardize energy resiliency, and prohibit the state from taking advantage of emerging technologies that can help contribute to the state's decarbonization goals."

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9/10/21 20:27:45

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