
UNFINISHED BUSINESS

Bill No: SB 350
Author: De León (D) and Leno (D), et al.
Amended: 9/11/15
Vote: 21

SENATE ENERGY, U. & C. COMMITTEE: 8-3, 4/7/15
AYES: Hueso, Hertzberg, Hill, Lara, Leyva, McGuire, Pavley, Wolk
NOES: Fuller, Cannella, Morrell

SENATE ENVIRONMENTAL QUALITY COMMITTEE: 5-2, 4/29/15
AYES: Wieckowski, Hill, Jackson, Leno, Pavley
NOES: Gaines, Bates

SENATE APPROPRIATIONS COMMITTEE: 5-2, 5/28/15
AYES: Lara, Beall, Hill, Leyva, Mendoza
NOES: Bates, Nielsen

SENATE FLOOR: 24-14, 6/3/15
AYES: Allen, Beall, Block, De León, Glazer, Hall, Hancock, Hernandez,
Hertzberg, Hill, Hueso, Jackson, Lara, Leno, Leyva, Liu, McGuire, Mendoza,
Mitchell, Monning, Pan, Pavley, Wieckowski, Wolk
NOES: Anderson, Bates, Berryhill, Cannella, Fuller, Gaines, Galgiani, Huff,
Moorlach, Morrell, Nguyen, Runner, Stone, Vidak
NO VOTE RECORDED: Nielsen, Roth

ASSEMBLY FLOOR: Not available

SUBJECT: Clean Energy and Pollution Reduction Act of 2015

SOURCE: Author

DIGEST: This bill enacts the "Clean Energy and Pollution Reduction Act of 2015," which establishes targets to increase retail sales of renewable electricity to

50 percent by 2030 and double the energy efficiency savings in electricity and natural gas end uses by 2030.

Assembly Amendments remove petroleum reduction goals in their entirety; remove a requirement that the Air Resources Board (ARB) develop an integrated action plan to improve freight efficiency; direct the ARB to adopt measures to remove disincentives to utilities and service providers from achieving greenhouse gas emissions reductions from other sectors through transportation electrification; deem most types of work on the electric transmission system located in California as a public works project; require state agencies to complete studies on barriers to solar photovoltaic generation and to access to renewable energy by low-income customers, to contracting opportunities for local small businesses in disadvantaged communities, and to low-income customer ownership of zero-emission and near-zero-emission vehicles; require the California Public Utilities Commission (CPUC) to enforce performance standards for energy efficiency measures; require a local publicly owned electric utility with an annual electrical demand exceeding 700 gigawatt hours to adopt an integrated resource plan; and establish a process by which the California Independent System Operator (CAISO) evolves into a regional organization.

ANALYSIS:

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 §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 §25943 et seq.)
- 3) Requires retail sellers of electricity – investor-owned utilities (IOU), community choice aggregators (CCAs), and energy service providers (ESPs) – and publicly owned utilities (POU) to increase purchases of renewable energy such that at least 33 percent of retail sales are procured from renewable energy resources by December 31, 2020. This is known as the Renewable Portfolio Standard (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 make adequate 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 §399.11 et seq.)

- 4) Establishes the CAISO, comprised of five board members appointed by the governor and subject to Senate confirmation, and requires it to manage the transmission grid and related energy markets and make the most efficient use of available energy resources including energy, capacity, ancillary services, and demand bid into markets administered by the CAISO. (Public Utilities Code §345.5)

This bill:

- 1) Establishes an RPS target of 50 percent by December 31, 2030, and thereafter for retail sellers and POUs, including interim targets of 40 percent by the end of the 2021-2024 compliance period, 45 percent by the end of the 2025-2027 compliance period, and 50 percent by the end of the 2028-2030 compliance period.
- 2) Specifies that costs shifting cannot occur between customers of electrical corporations and CCAs or ESPs and requires the CPUC to ensure that departing load does not experience cost increase as a result of an allocation of costs not incurred on behalf of departing load.
- 3) Includes the following provisions in furtherance of doubling the energy efficiency savings in electricity and natural gas end uses by 2030:
 - a) Directs CEC to adopt an update to the AB 758 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 percent 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, and 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.
- 4) Requires 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.
 - 5) 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 greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. Requires the CPUC to approve programs and investments that deploy charging infrastructure as distribution system costs.
 - 6) Requires the CPUC and CEC to take specific actions in furtherance of meeting the state's clean energy and pollution reduction objectives.
 - 7) Requires the CPUC to permit community choice aggregators (CCAs) to submit proposals for satisfying their portion of the renewable integration need.
 - 8) Requires the CPUC to adopt a process for IOUs, CCAs, and electric service providers (ESPs) to file an integrated resource plans.
 - 9) Requires locally owned public utilities to adopt IRPs, subject to review by the CEC.
 - 10) Requires the CAISO to prepare proposed governance modifications to facilitate the transformation of the CAISO into a regional organization

- 11) Requires the CEC to study barriers for low-income customers to access solar photovoltaic, other renewable energy, energy efficiency, and weatherization investments.
- 12) Requires ARB to study barriers for low-income customers to access zero-emission and near zero-emission transportation options.
- 13) 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.

Background

State efforts to address environmental effects of energy use. In California, the energy sector, broadly defined, accounts for more than 85 percent of greenhouse gas emissions. The two largest sources of California's greenhouse gases are transportation, at 39 percent, and electricity production, at 21 percent.[2013 Integrated Energy Policy Report (<http://www.energy.ca.gov/2013publications/CEC-100-2013-001/CEC-100-2013-001-CMF.pdf>)] Accordingly, the state's existing clean energy and climate change programs focus on the energy sector in general and the transportation and electricity sectors specifically.

Principal among those programs are the California Global Warming Solutions Act of 2006 (more commonly known as "AB 32"), which requires a reduction of the state's greenhouse gas emissions to 1990 levels by 2020, and the RPS, which requires the 33 percent of the state's electricity come from renewable resources by 2020. AB 32 tasks the ARB with developing a plan of measures that reduce greenhouse gas emission levels, to be updated every five years. To that end, ARB, in 2008, adopted a scoping plan that includes regulatory and market-based measures applicable to the state's major economic sectors. Among the regulatory measures included in the initial scoping plan were numerous energy efficiency measures, measures to encourage the development and adoption of alternative fuels, and a 33 percent RPS. In 2014, ARB released an update to its scoping plan. The ARB approved its first update to the scoping plan in May of 2014, which shows that the state has reduced its overall emissions of greenhouse gases since passage of AB 32.

The Legislature approved the statutory RPS program in 2011 with the passage of SB 2 x1 (Simitian, Chapter 1). Statute directs the CPUC to establish the RPS for retail sellers and ensure they progress in achieving it, levying 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 the adequately progress in meeting RPS targets and refer the POU to the ARB, which may assess penalties against it. The state's electric utilities report they are on track to meet, or exceed, the RPS goals.

Other state programs directly address energy efficiency. The state's loading order, established by the energy agencies in 2003, calls for meeting new electricity needs first with efficiency and demand response, followed by renewable energy and distributed generation, and then with fossil generation. [2003 Energy Action Plan (http://www.energy.ca.gov/energy_action_plan/2003-05-08_ACTION_PLAN.PDF)]. Under statute guidelines, the CPUC authorizes IOU spending for all available energy efficiency that is cost effective, reliable and feasible. In recent years the CPUC has authorized close to \$1 billion per year in energy efficiency spending to meet this mandate based on feasibility studies and the record developed in CPUC's energy efficiency proceedings. Since 1977, the CEC, acting under the broad authority provided to it under the Warren-Alquist Act, has set energy efficiency standards for appliances and new buildings; many credit these standards, in part, with keeping California's per-capita electricity consumption flat over the past three decades. [See, for example, http://switchboard.nrdc.org/blogs/mwaltner/energy_savings_on_the_way_for.html] Further, CEC, acting according to statutory mandate, recently released a draft plan to achieve cost-effective energy savings in California's existing residential and nonresidential buildings, which, generally, are not subject to CEC's building efficiency standards. [Existing Buildings Energy Efficiency Action Plan - Draft (<http://www.energy.ca.gov/ab758/>).]

Building upon existing structure to create new "Golden Standards". In his 2015 State-of-the-State speech, Governor Brown announced three ambitious new energy goals that would take state clean energy policy beyond 2020: (1) 50 percent of California's electricity to come from renewable energy sources; (2) reducing by 50 percent the amount of petroleum used in cars and trucks; and (3) doubling the energy efficiency of existing buildings, all by 2030. The author has described this bill as an effort to execute on the Governor's "bold vision."

To a large extent, this bill builds upon existing state programs, which the author describes as already making significant progress to the bill's two goals. This bill

builds upon existing statutory authority to achieve the expanded RPS goal. As existing statute makes extensive, specific requirements of the RPS program, so too does this bill.

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

According to the Assembly Appropriations Committee:

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

SUPPORT: (Verified 9/11/15)

350 Bay Area/Marin
 Academy of Pediatrics- California
 Advanced Energy Economy
 Alameda Building Trades Council
 Alameda County Board of Supervisors
 Alliance for Solar Choice
 American Academy of Pediatrics
 American Cancer Society Cancer Action Network
 American Farmland Trust
 American Lung Association
 American Lung Association-California
 American White Water

Annie's Natural Foods
Artesia City Councilmember Ali Sajjad Taj
Asian Pacific Environmental Network
Asthma and Sinus Center
Asthma Coalition of Los Angeles County
Attorney General Kamala Harris
Audubon
Autodesk
AzTech
Aztec Energy
Azul
Baz Allergy
Ben & Jerry's
Beneficial State Bank
Berkeley Mayor Tom Bates
Berkshire Hathaway Energy
Biosynthetic Technologies
Blattner Energy
Bloom Energy
Bonnie J. Adario Lung Cancer Foundation
Borrego Solar
Breathe California
Bright Power
BYD Motors, Inc.
CA Local conservation corps
California Association of Sanitation Agencies
California Bicycle Coalition
California Biomass Energy Alliance
California Black Health Network
California Catholic Conference
California Conference of Directors of Environmental Health
California Conservation Corps
California District Council of Ironworkers
California Energy Efficiency Industry Council
California Energy Storage Alliance
California Environmental Justice Alliance
California Equity Leaders Network
California Federation of Teachers
California League of Conservation Voters
California Municipal Utilities Association

California Natural Gas Vehicle Coalition
California Nurses Association
California Pan Ethnic Health Network
California Public Health Association- North
California Solar
California Solar Energy Industry Association
California State Association of Electrical Workers
California State Pipes Trade Council
California Teamsters Public Affairs Council
California Thoracic Society
California Trout
California Walks
California Wind Energy Association
California-Nevada Conference of Operating Engineers
Californians Against Waste
CalSTART
Canadian Solar
Catholic Charities Diocese of Stockton
Center for Climate Change and Health
Center for Sustainable Energy
Center on Race Poverty and the Environment
Central California Asthma Collaborative
Chai Energy
ChangeLab Solutions
Circulate San Diego
City of Glendale
City of Huntington Park
City of Los Angeles
City of Santa Monica
Clean Energy Collective
Clean Energy and Clean Energy Renewable Fuels
Clean Fuel Partners
Clean Power Campaign
Clean Power Finance
Clean Water Action
CleanTech San Diego
Cleveland National Forest Foundation
CLIF Bar & Co.
Climate Parents
Climate Resolve

Coalition for Clean Air
Coalition for Renewables and Gas
Coalition for Sustainable Transportation
Coalition of California Utility Employees
Coastal Environmental Rights Foundation
Code REDD
Contra Costa Building Trades Council
Controller Betty Yee
County of Los Angeles Public Health
Dignity Health
Distinguished Outreach Services
Doctors for Climate Health
Dr. Carl Wunsch (Harvard)
Dr. Roger Bales (UC Merced)
Eagle Creek
Eagle Crest Energy
Eco Factor
EDF Renewable Energy
Endangered Habitats League
EnergyHub
energyhippo
Energy Source
Environment California
Environmental and Energy Consulting
Environmental Defense Fund
Environmental Entrepreneurs
Eon Energy
EtaGen
First Fuel
First Solar
Fresno, Madera, and Kings Building Trades Council
Friends Committee on Legislation of California
Friends of the River
fs energy
Gaia Development Services
Gap, Inc.
Genability
Greenbelt Alliance
Greenlining institute
Green Star Solutions

greentech
GRID Alternatives
Harvest Power
Hawthorne City Councilmember Angie Reyes English
Health Care Without Harm
Health Officers Association of California
Heat and Frost Insulators and Allied Workers
Home Energy Analytics
Humboldt/Del Norte Building Trades Council
Hydropower Reform Coalition
icontrol Networks
Inglewood City Councilmember Eloy Morales
Imperial Building Trades Council
Independent Energy Producers Association
Insurance Commissioner Dave Jones
International Brotherhood of Boilermakers
International Brotherhood of Electrical Workers
International Union of Painters and Allied Trades
Investor Confidence Project
KB Home
Kern, Inyo & Mono Building Trades Council
kW Engineering
Lancaster Choice Energy
Large Scale Solar Association
League of Women Voters of California
Levi Strauss & Co.
Lieutenant Governor Gavin Newsom
Long Beach Mayor Robert Garcia
Los Angeles City Council
Los Angeles County Board of Supervisors
Los Angeles Mayor Eric Garcetti
Los Angeles Sustainability Collaborative
Los Angeles Unified School District Board of Education
Los Angeles/Orange Building Trades Council
Lyft
Marin Building Trades Council
Marin Clean Energy
Mars, Inc.
McCarthy Building Companies, Inc.
Medical Advocates for Healthy Air

Mercury Press International
Mid Valley Building Trades Council
Mission Data Empowering Energy Savings
Moms Clean Air Force
Montebello Mayor Jack Hadjinian
Monterey/Santa Cruz Building Trades Council
Motiv Power Solutions
Mountain Riders Alliance
Move LA
Napa/Solano Building Trades Council
Natel Energy
National Parks Conservation Association
Natural Resource Defense Council
Nature Conservancy
Nest
NextGen Climate
NextTracker, Inc
Nobel economist Dr. Kenneth Arrow (Stanford)
Nobel Prize-winning scientist Dr. Mario Molina (UCSD)
Northeastern, Shasta, Trinity, Lassen & Tehama Building Trades Council
Northface
NRG Energy, Inc.
Oakland City Council
Office of Ratepayer Advocates
OPEN
Pacific Ethanol
Pacific Gas and Electric Company
Pattern Energy
Physicians for Social Responsibility – Los Angeles
Physicians for Social Responsibility – San Francisco Bay Area Chapter
plotwatt
PolicyLink
Propel
Proterra, Inc.
Public Advocates
Public Health Institute
Rainforest Automation
Recurrent Energy
Redlands Area Democratic Club
Regional Asthma Management and Prevention

Rep. Adam Schiff
Rep. Alan Lowenthal
Rep. Anna Eshoo
Rep. Barbara Lee
Rep. Doris Matsui
Rep. Eric Swalwell
Rep. Janice Hahn
Rep. Jared Huffman
Rep. Jerry McNerney
Rep. John Garamendi
Rep. Juan Vargas
Rep. Judy Chu
Rep. Julia Brownley
Rep. Karen Bass
Rep. Lois Capps
Rep. Loretta Sanchez
Rep. Lucille Roybal-Allard
Rep. Mark DeSaulnier
Rep. Mark Takano
Rep. Mike Honda
Rep. Mike Thompson
Rep. Nancy Pelosi
Rep. Scott Peters
Rep. Susan Davis
Rep. Ted Lieu
Rep. Zoe Lofgren
Retroficiency
Sacramento Electric Vehicle Association
Sacramento Municipal Utility District
Sacramento/Sierra Building Trades Council
San Bernardino/Riverside Building Trades Council
San Diego Building Trades Council
San Fernando City Councilmember Antonio Lopez
San Fernando City Councilmember Robert Gonzales
San Francisco Asthma Task Force
San Francisco Board of Supervisors
San Francisco Building Trades Council
San Francisco Public Utilities Commission
San Joaquin, Calaveras & Alpine Building Trades Council

San Mateo Building Trades Council
Santa Ana City Councilmember Michele Martinez
Santa Barbara County Air Quality Control District
Santa Clara County Medical Society
Santa Clara/San Benito Building Trades Council
Sempra Energy Utilities
Sequoia Riverlands Trust
Service Employees International Union - California
Sierra Business Council
Sierra Club California
Signal Energy, LLC
Silicon Valley Leadership Group
Small Business California
SmartWool
Solar City
Solar Energy Industries Association
Sonoma Clean Power
Sonoma County Asthma Coalition
Sonoma, Mendocino & Lake Building Trades Council
South Yuba River Citizens League
Southern California Edison
Southern California Public Power
Southwest Wetlands Interpretive Association
Stanislaus, Merced & Mariposa Building Trades Council
State Association of Electrical Workers
State Building and Construction Trade Council of California
Stem, Inc.
Sun Edison
Sungevity
Sunpower
Superintendent of Public Instruction Tom Torlakson
Sustainable Power Group
Symantec
The Utility Reform Network
Thinkshift Communications
TransForm
Treasurer John Chiang
Tri-Counties Building Trades Council
Trust for Public Lands
Tulare County Citizens for Responsible Growth

U.S. Senator Boxer
U.S. Senator Feinstein
Unilever
Union of Bricklayers and Allied Craftworkers
Union of Concerned Scientists
Union of Elevator Constructors
United Union of Roofers, Waterproofers and Allied Trades
US Green Building Council
UtiliSave
Valley Clean Air Now
Verdafera
Vivint Solar
Vote Solar
Watersmart Software
Watsonville City Council
WeatherBug Home
Western Council of Sheet Metal Workers
Western State Council
Wireless Advanced Vehicle Electrification

OPPOSITION: (Verified 9/11/15)

None received

ARGUMENTS IN SUPPORT: Supporters note the need to build upon the success of the state's existing clean energy policies and note many co-benefits, such as cleaner air, innovation forcing, and energy supply diversity, and the value of as a leader in the fight against climate change and for clean energy.

ARGUMENTS IN OPPOSITION: Opponents contend the bill will lead to higher energy prices, which the state's poorest members will be least able to pay.

Prepared by: Jay Dickenson / E., U., & C. / (916) 651-4107
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**** END ****