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California State Assembly

NATURAL RESOURCES



LUZ RIVAS
CHAIR

AGENDA

Wednesday, July 7, 2021
9 a.m. -- State Capitol, Room 4202

Chief Consultant
Lawrence Lingbloom

Principal Consultant
Elizabeth MacMillan

Senior Consultant
Michael Jarred

Committee Secretary
Sue Fischbach

BILLS HEARD IN FILE ORDER

**** = Bills Proposed for Consent**

- | | | | |
|-----|-------------------|------------------|---|
| 1. | **SB 244 | Archuleta | Lithium-ion batteries: illegal disposal: fire prevention. |
| 2. | SB 37 | Cortese | Contaminated Site Cleanup and Safety Act. |
| 3. | SB 396 | Dahle | Forestry: internal combustion engines: industrial operations: fire toolbox. |
| 4. | **SB 332 | Dodd | Civil liability: prescribed burning operations: gross negligence. |
| 5. | **SB 671 | Gonzalez | Transportation: Clean Freight Corridor Efficiency Assessment. |
| 6. | **SB 418 | Laird | Sea level rise planning: database. |
| 7. | SB 456 | Laird | Fire prevention: wildfire and forest resilience: action plan: reports. |
| 8. | SB 372 | Leyva | Medium- and heavy-duty fleet purchasing assistance program: zero-emission vehicles. |
| 9. | SB 47 | Limón | Oil and gas: hazardous and idle-deserted wells and production facilities: expenditure limitations: updated reports. |
| 10. | SB 18 | Skinner | Hydrogen: green hydrogen: emissions of greenhouse gases. |
| 11. | SB 406 | Stern | Oil and gas: operations: notice of intent: investigations: data availability. |
| 12. | SB 419 | Stern | Oil and gas: regulation: skilled and trained workforce. |
| 13. | SB 423 | Stern | Energy: renewable and zero-carbon resources. |
| 14. | **ACR 33 | Friedman | Wildfire mitigation. |

We encourage the public to provide written testimony before the hearing by visiting the committee website at <https://antr.assembly.ca.gov>. Please note that any written testimony submitted to the committee is considered public comment and may be read into the record or reprinted. All are encouraged to watch the hearing from its live stream on the Assembly's website at <https://www.assembly.ca.gov/todaysevents>.

The Capitol will be open for attendance of this hearing. The public is strongly encouraged to participate via the web portal, Remote Testimony Stations on the Capitol grounds, or phone. Any member of the public attending a hearing in the Capitol will need to wear a mask at all times while in the building. We encourage the public to monitor the committee's website for updates.

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 244 (Archuleta) – As Introduced January 21, 2021

SENATE VOTE: 39-0

SUBJECT: Lithium-ion batteries: illegal disposal: fire prevention

SUMMARY: Requires the Department of Forestry and Fire Protection (CAL FIRE) to develop protocols and training for the detection, safe handling, and suppression of fires started from discarded lithium-ion batteries for adoption by solid waste enterprises. Requires the Department of Resources Recovery and Recycling (CalRecycle), in consultation with the Department of Toxic Substances Control (DTSC), to develop guidance for the proper handling and disposal of lithium-ion batteries and authorizes CalRecycle to form a working group on the development of this guidance document.

EXISTING LAW:

- 1) Prohibits the disposal of a lead-acid battery at a solid waste facility, or on or in any land, surface waters, watercourses, or marine waters.
- 2) Establishes the Lead-Acid Battery Recycling Act of 2016 (Act), which imposes fees on lead-acid batteries to fund lead contamination cleanup.
- 3) Establishes the California Rechargeable Battery Recycling Act, which requires retailers to have a mechanism to accept all non-vehicular rechargeable batteries from consumers for recycling.
- 4) Requires the Secretary for Environmental Protection (Secretary) to convene the Lithium-Ion Car Battery Recycling Advisory Group to review and advise the Legislature on policies pertaining to the recovery and recycling of lithium-ion batteries sold with motor vehicles in the state, and requires the Secretary to appoint members to the group from specified departments, vocations, and organizations.

THIS BILL:

- 1) By January 1, 2023, requires CAL FIRE, in consultation with relevant state agencies and stakeholders, including the Department of Toxic Substances Control (DTSC), California Highway Patrol, and representatives from the solid waste industry, including local governments, to develop a model protocol and training that identifies best practices for the detection, safe handling, and suppression of fires that originate from discarded lithium-ion batteries or products containing lithium-ion batteries in solid waste vehicles and facilities. Specifies that CAL FIRE develop the protocol using existing resources.
- 2) By January 1, 2024, requires CalRecycle, in consultation with DTSC, to develop a guidance document for local governments to better inform, educate, and increase public awareness about the proper handling and fire risk of lithium-ion batteries and products that contain

lithium-ion batteries and to reduce the likelihood of illegal disposal. Authorizes CalRecycle to solicit and use any expertise available from other state agencies.

- 3) Authorizes CalRecycle to prepare, publish on its website, or issue any materials it deems necessary to disseminate information, including existing or updated guidance developed by DTSC pursuant to universal waste provisions or the Rechargeable Battery Recycling Act of 2006 or any other relevant guidance.
- 4) Authorizes CalRecycle to convene a working group composed of representatives from the solid waste industry and local governments to advise CalRecycle on the content, development, and promotion of the guidance document.
- 5) Prohibits a person from knowingly disposing of a lithium-ion battery by depositing it in a container or receptacle that is intended for the collection of solid waste or recyclable materials except in compliance with the universal waste (u-waste) provision.
- 6) Requires reimbursement to local agencies and school districts for any incurred costs if the Commission on State Mandates determines that the provisions of this bill contain costs mandated by the state.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- 1) Likely one-time costs of approximately \$415,000 (General Fund) over a two-year period for CAL FIRE to develop the model protocol and training program. CAL FIRE was not able to provide a fiscal estimate at the time of this analysis, but the department noted that costs would likely be similar to those for SB 1156 (Archuleta, 2020), which is the basis of this estimate.
- 2) CalRecycle estimates minor costs for developing the guidance document. The department reports that it is unable to absorb these costs, and that without an appropriation from another funding source, resources would have to be redirected from another activity.
- 3) Unknown, likely minor one-time costs for DTSC and other state agencies to consult with CAL FIRE (various funds).
- 4) By requiring county fire marshals to consult with solid waste enterprises, and CAL FIRE to convene working groups that include local government representatives, this bill may create a state-mandated local program. To the extent the Commission on State Mandates determines the provisions of this bill create a new program or impose a higher level of service, local governments could claim reimbursement for costs (General Fund). The amount of the total cost is unknown.

COMMENTS:

1) **Author's statement:**

The proliferation of lithium-ion batteries and the improper disposal of these batteries has led to numerous fires at waste facilities and operations. California needs to do more to increase awareness with the public about the need to properly recycle these batteries. At the same time, California needs to implement protocols for both consumers and industry to follow in regards to the disposal of these

batteries. My bill, SB 244, looks to do just that by tasking multiple California state agencies to come up with a protocol for the proper disposal of these lithium-ion batteries.

- 2) **Lithium-ion batteries.** Lithium-ion batteries are widely used in portable electronics like laptops, smart phones, digital cameras, game consoles, and cordless power tools. The traditional lithium-ion chemistry involves a lithium cobalt oxide cathode and a graphite anode. These batteries are efficient at holding charges and can be recharged thousands of times throughout their useful lives. The life-span of a lithium-ion battery is anywhere from 10-20 years. The addition of lithium-ion batteries to the market is expected to increase up to seven-fold in the next five years as the technology improves and they are used in more products of all sizes, from ear buds to electric vehicles.

Like other batteries, lithium-ion batteries are classified as hazardous waste in California because they contain toxic components. Hazardous waste regulations designate a category of hazardous wastes called u-waste, which includes batteries. In California, batteries that are intended for disposal must be taken to a household hazardous waste disposal facility, a u-waste handler, or an authorized recycling facility.

According to CalRecycle, there are approximately 44 million lithium-ion batteries in California. In spite of their classification as hazardous waste, an estimated 800-2,000 tons enter the waste stream annually. DTSC reports that only 250 tons are recovered for proper management.

When batteries end up in the trash or a recycling bin, solid waste facility operators who discover batteries in the waste or recyclable materials are required to remove and manage the batteries separately. Upon removing the illegally disposed batteries from the waste stream as required, the facility itself is then considered the waste generator and must comply with hazardous waste management regulations or be subject to fines.

- 3) **Fire risks.** Lithium-ion batteries pose a significant fire hazard. If the material separating the electrodes within the battery is damaged, the electrodes can touch and heat up. This can cause the flammable materials inside the battery to combust. Lithium-ion batteries can start a fire if they are dropped or crushed, which poses a fire risk in solid waste trucks and facilities. A Battery Fire Report published by the California Product Stewardship Council in March 2021 found that once batteries end up in waste management facilities, they are often exposed to conditions that are ideal for battery ignition. Collection trucks dump loads onto concrete "tipping floors," where damaged batteries are then exposed to oxygen. According to a study published by the Multidisciplinary Digital Publishing Institute, "no other substance or material has ever comparably endangered the whole waste industry" than batteries. A 2018 California Product Stewardship Council survey of 26 waste facilities from all over the state found that 83% of waste facilities reported a fire in the past two years, 65% were started by batteries, and 40% of those fires were started by lithium-ion batteries.

Unlike other flammable waste, such as propane tanks, aerosols, fireworks, etc., lithium-ion batteries are small and often difficult for waste collectors to detect, especially during household waste pickup due to the automated nature of collection. In many cases, the battery is entirely contained within a product, such as a toy. The solid waste industry has expressed significant concerns about the fire hazards posed by discarded lithium-ion batteries.

- 4) **This bill.** The lithium-ion battery market is expected to reach \$98 billion by 2025, and as more battery types and battery-embedded products enter the waste stream, waste management facilities and collection trucks across the United States expect to experience an increase in fires, most of them caused by batteries.

This bill requires CalRecycle to develop guidance for local governments to raise public awareness about the proper handling of, and the risk of fire due to the mishandling or improper disposal of, lithium-ion batteries to reduce illegal disposal.

The bill also requires CAL FIRE to develop a model protocol and training that identifies best practices for the detection, safe handling, and suppression of fires that originate from discarded lithium-ion batteries or products that contain lithium-ion batteries on or in solid waste or recycling collection vehicles, transfer or processing stations, or disposal facilities to minimize the incidence and severity of these fires.

- 5) **Double referral.** This bill was previously heard in the Environmental Safety and Toxic Materials Committee on June 16th and passed 9-0.

- 6) **Previous and related legislation.**

SB 289 (Archuleta, 2021) would have established the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2021 to require the producers of batteries and battery-embedded products to establish a stewardship program for those products, with full implementation on or before June 30, 2025. SB 289 was held on the Senate Appropriations Suspense File.

SB 1156 (Archuleta, 2020) would have required CAL FIRE to develop a model protocol and training to identify best practices for managing fires that originate from discarded lithium-ion batteries within the solid waste management system, and would have required CalRecycle to develop guidance to better inform and educate the public on the proper handling and potential fire risk due to mishandling. SB 1156 died on the Senate Inactive File.

AB 1509 (Mullin, 2019) would have established the Lithium-Ion Battery Recycling Program within CalRecycle to require manufacturers of lithium-ion batteries to provide convenient collection, transportation, and disposal. AB 1509 was held in the Senate Environmental Quality Committee.

AB 2407 (Ting, 2018) would have required the Secretary for Environmental Protection to convene an advisory group to review, and advise the Legislature on policies pertaining to the recovery and recycling of lithium-ion batteries sold with motor vehicles in the state and to submit policy recommendations to the Legislature to achieve specified recycling goals. AB 2407 was held in the Senate Environmental Quality Committee.

AB 2832 (Dahle), Chapter 822, Statutes of 2018, requires the Secretary for Environmental Protection to convene a research group to review and advise the Legislature on policies pertaining to the recovery and recycling of lithium-ion vehicle batteries sold with motor vehicles in the state.

REGISTERED SUPPORT / OPPOSITION:**Support**

Alameda County Board of Supervisors
American Forest & Paper Association
BURRTEC Waste Industries, Inc.
California Chamber of Commerce
California Product Stewardship Council
California Retailers Association
California Waste Haulers Council
Californians Against Waste
City of Paramount
City of Sunnyvale
City of Thousand Oaks
CR&R, Inc.
EDCO Disposal Corporation
Industrial Environmental Association
Los Angeles County Sanitation Districts
Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force
Mendo Recycle
National Electrical Manufacturers Association
Palm Springs Disposal Services
Recology
RecycleSmart
Republic Services - Western Region
Resource Recovery Coalition of California
Rethink Waste
Rural County Representatives of California
Varner Bros., Inc.
Waste Management
Zero Waste Sonoma

Opposition

None on file

Analysis Prepared by: Elizabeth MacMillan / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 37 (Cortese) – As Amended June 30, 2021

SENATE VOTE: 39-0

SUBJECT: Contaminated Site Cleanup and Safety Act

SUMMARY: Updates statutes regarding a consolidated list of hazardous waste sites and hazardous substances sites (Cortese List) compiled by the Secretary of the Environmental Protection Agency (Secretary). Prohibits use of the California Environmental Quality Act (CEQA) guidelines “common sense” exemption for any project on a Cortese List site. Establishes a narrow exception to the existing prohibition on use of a categorical CEQA exemption for any project on a Cortese List site.

EXISTING LAW:

- 1) Requires the Secretary to consolidate lists of contaminated sites submitted by specified agencies and distribute the consolidated list in a timely fashion to each city and county in which sites on the consolidated list are located. Requires the Secretary to distribute the consolidated list to any other person upon request.
- 2) CEQA requires lead agencies with the principal responsibility for carrying out or approving a proposed project to prepare a negative declaration, mitigated negative declaration, or environmental impact report (EIR) for this action, unless the project is exempt from CEQA (CEQA includes various statutory exemptions, as well as categorical exemptions in the CEQA guidelines).
- 3) Requires the Office of Planning and Research (OPR) to prepare and develop proposed guidelines for the implementation of CEQA by public agencies, then transmit them to the Secretary of the Natural Resources Agency, who must certify and adopt the guidelines, and update them at least once every two years. Requires the CEQA guidelines to include a list of classes of projects that have been determined not to have a significant effect on the environment and that shall be exempt from CEQA (i.e., "categorical exemptions"). The categorical exemptions are subject to exceptions to ensure eligible projects do not have a significant effect on the environment, including when cumulative impacts of successive projects of the same type in the same place may result in significant effect or there is a reasonable possibility that the project will have a significant effect due to unusual circumstances.
- 4) Prohibits use of a categorical exemption for any project on a Cortese List site.
- 5) The CEQA guidelines provide that an activity is exempt from CEQA if the activity is covered by the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. (Guidelines Section 15061(b)(3))

THIS BILL:

- 1) Updates the Cortese List statutes and makes conforming changes to other statutes which reference the Cortese List.
- 2) Prohibits use of the common sense exemption for any project on a Cortese List site.
- 3) Establishes an exception to the existing prohibition on use of a categorical exemption for any project on a Cortese List site, permitting a categorical exemption if the project meets all of the following conditions:
 - a) The project does not involve excavation that would disturb soil or groundwater contamination at or beneath the site.
 - b) The Department of Toxic Substances Control (DTSC) or a regional water quality control board has certified the completion of all response actions, as defined, at the site.
 - c) The use of the site proposed by the project complies with both of the following:
 - i) All applicable land use requirements.
 - ii) All land use restrictions recorded on or required by DTSC or a regional water board for the site.
 - d) The project will not result in a change to the existing land use of the site.

FISCAL EFFECT: According to the Senate Appropriations Committee, the State Water Resources Control Board (SWRCB) estimates ongoing costs of at least \$400,000 (General Fund) to carry out the necessary CEQA processes at the SWRCB level for projects at Cortese List sites that would no longer be eligible for common sense exemptions.

DTSC estimates costs of about \$500,000 (mostly Toxic Substances Control Account, although could include some from the Hazardous Waste Control Account). All of this increased cost would be reimbursable by responsible parties, payable through oversight/reimbursement agreements.

COMMENTS:

- 1) **Background.** The Cortese List is a planning document used by agencies and developers to provide information about the location of hazardous materials release sites. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local agencies, including the state and regional water boards and Department of Public Health, are required to provide additional hazardous material release information for the Cortese List. The Cortese List statute was enacted in 1985, and some of its provisions refer to agency activities that were conducted many years ago and are no longer being implemented and, in some cases, the information to be included in the Cortese List does not exist.

This bill updates the Cortese List to reflect these changes. First, it updates the names of the correct state agencies that are responsible for compiling the list of hazardous waste sites and hazardous substances sites. Second, it acknowledges that the lists provided by the state

departments and boards are not paper lists but are provided on their internet website. Additionally, the bill changes the placement of the statute from a general code section in the Government Code to the Health and Safety Code to be more consistent with where the statutes are for DTSC and SWRCB.

The Cortese List is required to be updated annually, though the statute only refers to conditions that would cause a site to be added to the list, not removed.

Five existing statutory CEQA exemptions for housing projects, as well as all categorical exemptions, specifically prohibit exempting projects on sites included on the Cortese List. However, there are many other statutory exemptions in CEQA, including for housing projects, which do not include a Cortese List exclusion.

While the common sense exemption in the CEQA guidelines requires a lead agency to find there is no possibility that the activity in question may have a significant effect on the environment, it does not specifically exclude exempting projects on Cortese List sites. Proponents suggest the common sense exemption is being misused to bypass CEQA review of new housing development on Cortese List sites, with specific examples in San Francisco.

SB 35 (Wiener), Chapter 366, Statutes of 2017, established an approval process for certain housing projects that is ministerial, and therefore not subject to CEQA. SB 35 included a Cortese List exclusion, but provided an exception if the site had been cleared for residential use by the appropriate agency. Environmental justice advocates have expressed concerns about creating exceptions that ease development on Cortese List sites, based primarily on the difficulty obtaining clear evidence that a former toxic site has in fact been cleaned up to a standard that makes it safe for workers and residents, as well as concerns about the quality of DTSC's process and decisions in certifying cleanup of Cortese List sites.

2) **Author's statement:**

The Cortese List law must be updated to reflect our current priorities regarding the preservation of public health while also upholding the integrity of the law as it was written. We cannot continue to allow projects to bypass integral CEQA requirements and pose serious health risks to those involved, whether it be laborers on the construction site or tenants moving into a property. SB 37 achieves this goal by making a technical fix that prohibits local agencies from granting common sense exemptions to projects impacting Cortese List sites, thereby promoting increased public awareness and safeguarding public health.

- 3) **Does this bill do more than is necessary to address misuse of the common sense exemption?** This bill prohibits the use of the common sense exemption, which clearly requires the lead agency to find that there is no possibility the project will have significant effect on the environment, for any project on a Cortese List site. Under the bill, the "common sense" finding would be eliminated in the case of a project on a Cortese List site, regardless of the nature of the project or the cleanup status of the site. To the extent the common sense exemption is claimed for a project that may have a significant effect on the environment, its use is invalid under current law. In a sense, the bill is outlawing something that is already illegal.

While the bill's prohibition addresses new housing and other development projects that could create risks for workers or residents, it also includes actions that are otherwise considered projects for CEQA purposes that may pose no risk or reduce risk, such as maintenance of existing facilities or sealing a well that is a necessary step in site remediation. If making these sorts of minor and/or environmentally beneficial projects more time-consuming and expensive to complete is not the intent of the bill, *the author and the committee may wish to consider* amending the bill to limit its focus to the development projects of concern.

- 4) **Double referral.** This bill was approved by the Environmental Safety and Toxic Materials Committee on June 16, 2021 by a vote of 6-3.

REGISTERED SUPPORT / OPPOSITION:

Support

California League of Conservation Voters
California State Council of Laborers
County of Santa Clara

Opposition

Bay Area Council (unless amended)
California YIMBY (unless amended)
Housing Action Coalition (unless amended)
Rural County Representatives of California
San Francisco Bay Area Planning and Urban Research Association (SPUR) (unless amended)

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 396 (Dahle) – As Amended June 30, 2021

SENATE VOTE: Not relevant

SUBJECT: Forestry: electrical transmission or distribution lines: clearances: notice and opportunity to be heard: internal combustion engines: fire toolbox

SUMMARY: Requires, on or before April 1, 2022, the Office of Energy Infrastructure Safety (OEIS) to develop standardized content related to vegetation clearance requirements. Revises requirements related to the right to traverse by a person who owns, controls, operates, or maintains an electrical transmission or distribution line (electric utility) to meet specified vegetation clearance requirements for the electrical transmission or distribution lines.

EXISTING LAW:

- 1) Permits electric utilities with transmission or distribution lines in a High Fire-Threat District (HFTD) or the State Responsibility Area (SRA) to traverse land as necessary, regardless of landownership or express permission from the landowner, after providing notice, to prune trees to maintain clearances and to remove any hazardous, dead, rotten, diseased, or structurally defective live trees.
- 2) Requires, except as specified, any electric utility in the SRA to maintain around and adjacent to any pole or tower that supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole, a firebreak that consists of a clearing of not less than ten feet in each direction from the outer circumference of such pole or tower.
- 3) Requires electric utilities in the SRA to maintain clearances in all directions between all vegetation and all conductors of varying voltages as specified.
- 4) Requires dead trees, old decedent or rotten trees, trees weakened by decay or disease, and trees or portions thereof that are leaning toward a line, may contact the line from the side, or may fall on the line to be felled, cut, or trimmed to remove the hazard by the utility.
- 5) Holds any entity liable for trespassing and three times the damages for removal of a hazard tree where it does not have legal authority to do so, whether on public or private property.
- 6) Prohibits a person from using or operating any vehicle, machine, tool, or equipment powered by an internal combustion engine operated on hydrocarbon fuels in any industrial operation located on or near any forest, brush, or grass-covered land without providing and maintaining all of the following:
 - a) A sealed fire toolbox, located within the operating area at a point accessible in the event of fire, that includes one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and enough shovels to equip each employee at the operation to fight fire.

- b) Either:
 - i) One or more serviceable chainsaws, as specified, immediately available within the operating area, or
 - ii) A full set of timber-felling tools in the fire toolbox, as specified.
- c) Rail speeders and passenger vehicles, as defined, equipped with one shovel and one ax each. Other vehicles, as defined, and tractors must be equipped with one shovel, each.

THIS BILL:

- 1) Requires, on or before April 1, 2022, the OEIS to develop all of the following:
 - a) Standardized content for a letter that satisfies the landowner notice.
 - b) Standardized content for use by a landowner to request the removal of timber or wood, including a time limit for making the request.
 - c) A process for a landowner to exercise the opportunity to be heard when challenging the proposed traversal of land and any felling, cutting, or trimming of trees.
 - d) Recommendations to promote by entities, including, but not limited to, electric utilities, and at locations, including, but not limited to, relevant retail stores, the planting of appropriate tree and shrub species near electrical infrastructure. Appropriate tree and shrub species are tree and shrub species that, if planted in the vicinity of electrical transmission and distribution lines, cannot encroach within the vicinity of overhead conductors such that an electrical utility would need to perform vegetation management to mitigate wildfire risk.
- 2) Expands the authorization for electric utilities to traverse land as necessary, regardless of ownership or express permission to fell, cut, or trim trees to comply with Rule 35 of the California Public Utility Commission's (CPUC) General Order, if those rules are applicable.
- 3) Replaces the terms pruning and removal with fell, cut, or trim.
- 4) Removes language specifying the right to traverse to comply with specified vegetation clearance requirements does not exempt any electric utility from liability for damages for the removal of vegetation that is not covered by any easement granted to the electric utility for the electrical transmission or distribution line.
- 5) Specifies that identification of hazardous, dead, rotten, diseased leaning, or structurally defective live trees that are to be felled, cut, or trimmed be accomplished by an arborist certified by the International Society of Arboriculture or using a tree evaluation tool or method developed or approved by an arborist certified by the International Society of Arboriculture and included in the wildfire mitigation plan.
- 6) Requires that valuable timber or wood will remain on the property of the landowner with its commercial value preserved unless the removal of the timber or wood is requested by the

landowner in a timely manner. Requires the electric utility to remove the timber or wood at no cost to the landowner.

- 7) Specifies that if the landowner does not require the timber or wood to be removed, the electric utility must maintain the timber or wood on the property in a manner that complies with all applicable laws and regulations, including the forest practice rules.
- 8) Eliminates the requirement that the fire toolbox be sealed and instead requires a dedicated set of tools.
- 9) Requires a “sufficient number” of fire extinguishers, axes, and McLeod fire tools “so that, when added to any other tools on the operation, each employee at the operation can be equipped to fight fire.”
- 10) Replaces the requirement for a backpack pump-type fire extinguisher filled with water with a fire extinguisher.

FISCAL EFFECT: Unknown

COMMENTS:

1) Author’s statement:

In the last decade, California has seen some of the most destructive and unmanageable wildfires in history. It is imperative that the State assist in streamlining fire mitigation strategies and safety for utility workers and firefighters alike. Emergency response employee protection should be at the forefront of any consideration when creating standards for conduct in the field. Currently, the regulation for storing firefighting equipment on single vehicle crews requires that the tools must be stored in a “sealed box”. Many single vehicle or small crews cannot fit these large items in the required sealed box, which often leads to fines even if the crews have all the tools on hand in the event of a fire. Specified equipment like shovels, chainsaws, extinguishers and rakes will still be required to be accessible for operating crews. SB 396 will allow for these large tools to be stored elsewhere for easier access and allow for employees to perform their work more effectively.

California utilities and the International Society of Arboriculture have identified thousands of hazard trees that have not been abated because they are located on private or public property where the utility cannot utilize an easement or permission from the landowner to remove them. Currently, utilities face liability for trespassing and treble damages (triple the property value loss) for abating hazard trees where they do not have the authority to do so. This situation between utilities and landowners puts many communities at risk even though the imminent threat of wildfire is widely acknowledged. Efforts to wildfire risk should not place utilities and their employees at odds with public safety. SB 396 is simple wildfire mitigation policy that will assist and ease the stress of some of the State’s most vulnerable emergency service workers.

- 2) **Background.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned over one million acres. In total, wildfires caused 33 deaths and destroyed over 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

The use of targeted mechanical vegetation management, prescribed fire, and managed wildfire reduces the accumulated high fuel loads, promoting healthier, more resilient forests, reducing the risk of high-severity wildfires.

SB 901 (Dodd), Chapter 626, Statutes of 2018, committed \$1 billion for the Department of Forestry and Fire Protection's (CAL FIRE) Forest Health Grant Program and Fire Prevention Grant Program and dedicated fuel reduction crews over the next five years. The funds are meant to be used to do significant fuel reduction work near communities and in forested watersheds, and many projects will include a biomass utilization component. Approximately half of this commitment has already been spent. SB 901 also required all electric utilities to complete Wildfire Mitigation Plans.

On January 8, 2021, the Wildfire and Forest Resiliency Task Force (task force) released a comprehensive action plan to reduce wildfire risk for vulnerable communities, improve the health of forests and wildlands, and accelerate action to combat climate change. The task force's action plan, among other things, called for expanding the use of prescribed fire and cultural burning. The task force's action plan also called for the support of community wildfire risk reduction. The task force's action plan called for the new OEIS to work collaboratively with CAL FIRE and other agencies to review and comment on the electric utility Wildfire Mitigation Plans.

- 3) **Utility line vegetation management.** Electrical infrastructure is a common ignition point for wildfires. Other common sources of ignition include arson, campfires, equipment use, lightning, and vehicles. Many of last year's wildfires were caused by the approximately 14,000 lightning strikes that occurred during the August lightening siege. In 2019, 10% of wildfires and 65% of acres burned were caused by electrical equipment. In 2018, 9% of wildfires and 23% of acres burned were caused by electrical equipment.

While high winds can blow vegetation into utility lines from far distances, removing vegetation in contact with utility lines has been found effective in reducing fire starts. Electric utilities have released plans to tamp down wildfire risks, including trimming trees and vegetation adjacent to transmission wires more aggressively.

There are various Public Resources Code sections requiring utility line vegetation management in the SRA. These requirements have been in place since 1976. The CPUC General Order 95 also places requirements on investor-owned utilities for vegetation management. As electric utilities have increased their efforts to reduce ignitions from their electric infrastructure, they have increased the removal of vegetation. In some instances, they have had trouble gaining access to properties to do the work. Electric utilities are allowed to disconnect service to customers and landowners who obstruct access to overhead lines in SRAs or HFTDs when there is a breach of minimum vegetation clearances, or when a dead, rotten, diseased, leaning, or overhanging tree poses an imminent or immediate risk for falling onto a line, but have not been given an affirmative right to access their lines. AB 2911 (Friedman), Chapter 641, Statutes of 2018, provided the right to traverse land the electric utility did not own to complete the required vegetation clearance work.

Last year in Santa Cruz, PG&E was accused of not providing notice to homeowners, removing old growth trees, leaving debris on people's property and in sensitive waterways, and violating the forest practice rules (FPR). PG&E is subject to various enforcement actions by the California Coastal Commission and CAL FIRE for impacts from its utility vegetation management work and failure to get a Coastal Development Permit. The Board of Forestry has a regulatory process to deal with electric utilities' compliance with FPR.

Increased utility vegetation management can cause conflict between property owners and the utility over the scope of the work and effects to the property. Federal transmission line rules do not allow plants that will grow into the lines, but do allow low growing scrubs. The concept of "right tree right place" offers an opportunity to replace vegetation under distribution lines with vegetation that at maturity will not grow into the lines. This will reduce conflict over utility vegetation management and costs to the utility. When vegetation is replaced, it can also provide important habitat to monarch butterflies, bees, and other at-risk species. In addition, if the space below distribution lines is filled with appropriate vegetation it will reduce the chances of a home owner planting incompatible vegetation that will conflict with utility lines. AB 2911 declared the Legislature intends that the CPUC and CAL FIRE encourage the use of the concept "right tree right place" to reduce the need for utility vegetation management.

- 4) **This bill.** Originally this bill only dealt with providing additional flexibility to the fire tool box required to be carried in specified areas; however, recent amendments added significant provisions related to electric utility vegetation clearance requirements. This language updates terms, expands the right to traverse, specifies the identification of hazardous trees, sets requirements on how to handle material removed by the electric utility, and clarifies associated liability.

The author reports that he does not intend to affect current law regarding liability for collateral damage or negligence. One of the stated reasons for this bill is that the reference to liability in current law creates confusion and a barrier to effective implementation of the

statute. Therefore, this bill removes the confusing liability language and reverts liability to what it normally would be.

The bill also requires OEIS to sort out issues related to noticing, opportunity to be heard, and promotion of right tree, right place. However, the April 1, 2022 deadline seems unrealistic. It is also important that this process be done in a way that the public is allowed to participate. The bill also requires OEIS to determine what a timely manner is for a landowner to request the removal of the material cut, felled, and trimmed. However, the timely manner requirement will go into effect January 1, 2022 before OEIS has determined how many days that will be. Therefore, the Legislature should make that determination so it will be clear when the law goes into effect.

5) **Amendments.** The author and committee *may wish to consider* the following amendments:

- a) Extend the deadline for OEIS to develop standardized content to July 1, 2022 and require the development to be done in a public process;
- b) Allows other means of notice in addition to a letter;
- c) Rather than having OEIS determine what is a timely manner to request tree or wood removal, specify it is one week;
- d) Clarify that electric utilities must preserve the value of wood or timber left on the property to the extent feasible and that the provisions specifying how an electric utility must leave or remove wood or timber after being cut, felled, and trimmed does not interfere with other agreements made by both parties;
- e) Clarify that an electric utility must comply with all applicable laws and regulations, including the forest practices rules when felling, cutting, trimming, removing, or leaving timber or wood; and,
- f) Other technical and clarifying amendments.

6) **Related legislation.**

AB 21 (Bauer-Kahan) establishes specified civil penalties for the violation of specified utility vegetation management requirements in the SRA. Establishes the Utility Accountability and Wildfire Prevention Fund (fund) for a specified amount of penalty revenues. Requires, upon appropriation, the fund to be available for purposes of enhancing forest management, fire planning, wildfire prevention and suppression, and fire-related enforcement activities. This bill was held in the Assembly Judiciary Committee.

AB 448 (Mayes) requires, on or before April 1, 2022, OEIS to develop specified standardized content related to specified vegetation clearance requirements. Revises requirements related to the right to traverse by a person who owns, controls, operates, or maintains an electrical transmission or distribution line to meet specified vegetation clearance requirements for the electrical transmission or distribution lines. This bill passed out of the Assembly Utility and Energy Committee on a 15-0 vote, but was held in this committee.

REGISTERED SUPPORT / OPPOSITION:

Support

California Professional Firefighters
Coalition of California Utility Employees
Pacific Gas and Electric Company
Southern California Edison

Opposition

None on file

Analysis Prepared by: Michael Jarred / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 332 (Dodd) – As Amended June 23, 2021

SENATE VOTE: 38-0

SUBJECT: Civil liability: prescribed burning operations: gross negligence

SUMMARY: Provides that no person is liable for any fire suppression or other related costs recoverable for a prescribed burn if specified conditions are met, unless the burn is conducted in a grossly negligent manner.

EXISTING LAW:

- 1) Requires the State Fire Marshal (SFM) to develop a curriculum for a certification program for burn bosses, who possess authority to engage in a prescribed burning operation and to enter into the necessary contracts related to a prescribed burning operation. The curriculum shall provide for the initial certification as well as the continuing education of burn bosses.
- 2) Requires the California Department of Forestry and Fire Protection (CAL FIRE) to develop a training program for prescribed fire users to certify professionals in any agency or organization as burn bosses. Requires CAL FIRE to certify these individuals to a common standard. States the intent of the Legislature that the department use its discretion to ensure that burn bosses are thoroughly qualified to engage in prescribed burning operations prior to issuing certifications.
- 3) Provides for the creation of prescribed burn agreements and the provisions to be included in such agreements. The law also provides for the contractual apportionment of liability and the purchase of liability insurance.
- 4) Authorizes a person, firm, or corporation, or a group or combination of persons, firms, corporations, or groups, that owns or controls brush-covered land, forest lands, woodland, grassland, shrubland, or any combination thereof within a state responsibility area to apply to CAL FIRE for permission to utilize prescribed burning for specified public purposes.
- 5) Requires CAL FIRE, upon receipt of an application, to inspect the land in company with a permit applicant to determine whether a permit shall be granted, to prescribe the manner in which the site for the prescribed burning shall be prepared, and to require any precautions to be taken by the applicant as may be considered reasonable to prevent damage to the property of others by reason of the burning. The precautions shall, if deemed necessary, include the advance preparation of firebreaks and the firefighting equipment and personnel desirable to conduct the prescribed burning.
- 6) Authorizes CAL FIRE to issue burning permits that specify the site preparation requirements and required precautions to be exercised prior to and during the burning. The issuance of a permit by the department does not relieve the permit holder from the duty to exercise due diligence to avoid damage to property of others in conducting the burning as authorized by

the permit. However, compliance with a permit issued pursuant to this article shall constitute prima facie evidence of due diligence.

- 7) Provides that any person who personally or through another, willfully, negligently, or in violation of law, sets fire to, allows fire to be set to, or allows a fire kindled or attended by them to escape to, the property of another, whether privately or publicly owned, is liable to the owner of such property for any damages to the property caused by the fire.
- 8) Provides that any person who allows any fire burning upon their property to escape to the property of another, whether privately or publicly owned, without exercising due diligence to control such fire, is liable to the owner of such property for the damages to the property caused by the fire.
- 9) Provides that any person who negligently, or in violation of the law, sets a fire, allows a fire to be set, or allows a fire kindled or attended by that person to escape onto any public or private property, is liable for the cost of investigating and making any reports with respect to the fire and other administrative costs.

THIS BILL:

- 1) States that the Legislature finds and declares that in order to meet fuel management goals, the state must rely on private entities to engage in prescribed burning for public benefit.
- 2) Provides that no person is liable for any fire suppression or other related costs resulting from a prescribed burn if all the following conditions are met:
 - a) The purpose of the burn is for wildland fire hazard reduction, ecological maintenance and restoration, cultural burning, silviculture, or agriculture.
 - b) A person certified as a burn boss reviewed and approved a written prescription for the burn that includes adequate risk mitigation measures.
 - c) The burn is conducted in compliance with the written prescription.
 - d) The burner has a landowner's written permission or the approval of the governing body of a Native American Tribe to burn.
 - e) The burn is conducted in compliance with any air quality permit.
 - f) Cultural burns conducted by a cultural fire practitioner are exempt from b) and c).
- 3) Provides that the specified conditions in 2) do not grant immunity from fire suppression or other costs to any person whose conduct constitutes gross negligence.
- 4) Provides that nothing in 2) affects the ability of a private or public entity plaintiff to bring a civil action against any defendant.
- 5) Defines "cultural burn" to mean the intentional application of fire to land by Native American tribes, tribal organizations, or cultural fire practitioners to achieve cultural goals or objectives, including subsistence, ceremonial activities, biodiversity, or other benefits.

- 6) Defines “cultural fire practitioner” to mean a person associated with a Native American tribe or tribal organization with experience in burning to meet cultural goals or objectives, including subsistence, ceremonial activities, biodiversity, or other benefits.

FISCAL EFFECT: According to the Senate Appropriations Committee:

Unknown, potentially-significant loss of revenue to the extent that CAL FIRE is unable to recover its fire suppression costs related to escaped fires from prescribed burns. It is likely that this measure could result in an increase in prescribed burns, which, in turn, could increase the possibility of escaped fires from prescribed burns and the resulting fire suppression efforts by the department. For illustrative purposes, in FY 2017-2018, CAL FIRE recovered a total of \$20.7 million of fire suppression costs from responsible parties. It is estimated that about 1 percent of fire suppression efforts are related to escaped fire from prescribed burns. Using these figures as a rough proxy, this measure could result in the loss of fire suppression cost revenue to the department in the low hundreds of thousands of dollars a year. (General Fund)

Relatedly, to the extent that this measure results in increased prescribed burns, it could result in increased costs to the department related to permitting, burn boss training, and other responsibilities.

Conversely, fires in treated forests are more likely to be contained during the initial attack and are less likely to become catastrophic wildfires that require emergency fire suppression resources. Consequently, SB 332 could result in potentially-significant savings due to avoided fire suppression costs to the extent that this bill encourages forest treatment activities that reduce the occurrence of catastrophic wildfires that otherwise would have occurred. (General Fund)

COMMENTS:

1) Author’s statement:

SB 332 applies gross negligence protection for burn bosses, property owners, cultural burners and individuals supervised by burn bosses from fire suppression costs resulting from fire suppression costs due to the occurrence of a prescribed fire. Encouraging more use of prescribed fire than currently occurs in California is the goal of SB 332.

Prescribed fire is typically done or supervised by a burn boss who is qualified to plan, organize, and execute controlled burns. Prescribed fire is the controlled application of fire to the land to reduce wildfire hazards, clear downed trees, control plant diseases, improve rangeland and wildlife habitats, provide cultural values and restore natural ecosystems. Prescribed burning is one of the most important and cost effective tools used to reduce wildfire risk. California has suffered more than \$148 billion in wildfire losses over the last decade and it is paramount that we employ every effective tool to reduce the frequency, intensity, and scale of future wildfires. Experts tell us California should be treating a minimum of 500,000 acres with prescribed fire each year. However, California struggles to burn a fraction of this amount, while other states, such as Florida, which have gross negligence standards for prescribed fire, burn as much as 2 million acres a year.

There are several factors that hinder more prescribed fire in California, but chief among them is fear of liability from fire suppression costs. The concern over fire suppression costs encourages the practitioner and landowner to avoid using prescribed fire, and this is counterproductive to getting more land treated. Under the provisions of SB 332 a burn boss, cultural burner and landowner would only be liable for fire suppression costs if they acted in a grossly negligent manner. However, if they followed all the conditions of the burn permit, the burn boss is trained and certified according to a state prescribed training program, the landowner consents to the burn and the burn follows air quality directives, there is no negligence on the part of the burner, his/her supervisee, the land owner or cultural burner.

- 2) **Background.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned over one million acres. In total, wildfires caused 33 deaths and destroyed over 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

The use of targeted mechanical vegetation management, prescribed fire, and managed wildfire reduces the accumulated high fuel loads, promoting healthier, more resilient forests, reducing the risk of high-severity wildfires.

SB 901 (Dodd), Chapter 626, Statutes of 2018, committed \$1 billion for CAL FIRE's Forest Health Grant Program and Fire Prevention Grant Program and dedicated fuel reduction crews over the next five years. The funds are meant to be used to do significant fuel reduction work near communities and in forested watersheds, and many projects will include a biomass utilization component. Approximately half of this commitment has already been spent.

On January 8, 2021, the Governor's Budget proposed \$1 billion to support the Forest Management Task Force's Wildfire and Forest Resilience Action Plan; the plan included early action items and an extension of the SB 901 funding commitment for five years. In April, the wildfire early action expenditure plan contained in SB 85 (Committee on Budget and Fiscal Review), Chapter 14, Statutes of 2021, appropriated \$536 million to 15 different state agencies for fire prevention activities. This significant funding included grants and

funding for CAL FIRE crews to do prescribed fire. The Legislature and the Governor have both advocated for additional spending on fire prevention activities this year.

- 3) **Cultural and Prescribed fire.** For thousands of years, Native American tribes used fire to manage the landscape in California. These cultural burns were used to renew food, medical, and cultural resources, to create habitat for wildlife, and to reduce the risk of larger fires. As native peoples were forcibly removed from their land, the practice of cultural burning was largely eliminated. In addition to depriving native peoples of land sovereignty, access to resources, and the right to practice traditional cultural activities, fire suppression policies also contributed to the overstocked and highly flammable forest conditions that result in destructive wildfires today.

Prescribed and managed fires are a type of vegetation management where low-intensity fires are either intentionally lit or allowed to burn in specified weather conditions and in a way that is consistent with a preapproved plan (known as a burn plan) to treat a specified area. The prescribed burn eliminates hazardous surface fuels and achieves other important ecological outcomes. Prescribed burns increase short-term air pollution and greenhouse gas (GHG) emissions in order to mitigate the risk of larger fires with significantly higher air and GHG emissions in the future. In combination with other forest management practices such as forest thinning and vegetation clearing, prescribed fire can contribute to the health of California's forests and reduce the occurrence of catastrophic wildfires.

Prescribed burns reduce the risk of catastrophic wildfires primarily by reducing fuel loads in forested areas. Fire suppression has led to an accumulation of dense underbrush and dead and decaying trees on the forest floor, exacerbated by the recent drought that resulted in the death of over 140 million trees and tree mortality from infestations of bark beetles. Furthermore, the elimination of low-intensity fires, in combination with logging practices that removed old growth trees, have led to an increased density of trees and also reduced overall tree size. Consequently, fires have more fuel to burn hotter and are able to spread faster in the denser canopies. Prescribed fire, carefully planned on days with low-risk weather conditions and monitored by professionals, can remove the debris on the forest floor, reduce the density of forest stands, and therefore reduce the severity of future wildfires.

Despite widespread acknowledgement in the scientific community of the utility of the practice, a 2019 study found that implementation of prescribed burning as a forest management practice has not increased over recent decades. SB 1260 (Jackson), Chapter 624, Statutes of 2018, took important steps towards increasing the pace and scale of prescribed fire by authorizing CAL FIRE to enter into burning agreements where they limit the liability of their partners, having CAL FIRE certify burn bosses, and creating a program to assist air districts in reviewing and approving air quality burn permits. However, CAL FIRE's burn boss curriculum is still pending regulatory approval, and therefore no burning agreements have been established. As part of the SB 901 funding commitment, CAL FIRE received funding for dedicated fuel reduction crews to increase the amount of prescribed fire the agency does. There has been concern about retention within those crews because crew members can be transferred to fire suppression duties for additional pay.

Partnering with California tribes to reintroduce the practice of cultural burns provides an opportunity to restore an important cultural practice while also improving forest health and decreasing the risk of catastrophic wildfires. Several California tribes are working to create

and maintain these types of partnerships. For example, the Cultural Fire Management Council aims to facilitate the practice of cultural burning on the Yurok Reservation and Ancestral Lands. The Lomakatsi Restoration Project, a nonprofit organization that works with tribal communities in Oregon and California, aims to advance efforts to repair fire-adapted ecosystems. Representatives of the North Fork Mono have entered into an agreement with state and federal agencies near Fresno to perform more prescribed burns to restore mountain meadows that have become overgrown due to fire suppression.

A Stanford-led study with the U.S. Forest Service in collaboration with the Yurok and Karuk tribes found that incorporating traditional techniques into current fire suppression practices could help revitalize American Indian cultures, economies and livelihoods, while continuing to reduce wildfire risks.

- 4) **This bill.** This bill will assist private prescribed fire practitioners overcome a barrier to conducting prescribed fire, which is the associated liability. Federal and state prescribed fires do not have the same concerns because they are able to self-insure. Data on the amount of prescribed fire that occurs in California has gaps, because CAL FIRE only requires a burn permit during fire season and not all local air districts track the prescribed fire they permit or report it to the Prescribed Fire Incident Reporting System. The FFMTF Action plan called for CAL FIRE, in coordination with state and federal partners, to develop an annual reporting system to consolidate and report relevant data for prescribed fires in California to solve the data gap problem. Even without knowing the exact amount of prescribed fire by the federal, state, local government, and private entities it is clear that private entities contribute to a large portion of the number of acres treated in California by prescribed fire. However, many private entities, such as cultural fire practitioners and nonprofits, have stated that it is impossible to get insurance to cover any damages that could arise if the prescribed fire went out of prescription. Many private entities are unwilling to conduct public purpose burning without insurance or some liability protection. This could mean there will be a significant decrease in prescribed fire in the state even though the state is investing historic amounts in fire prevention. This bill will assist in efforts to address this lack of insurance for prescribed fire by restricting civil cost recovery for specified prescribed fire activities, which is the most likely damage a private entity will face if a prescribed fire is out of prescription. Over the last three fiscal years CAL FIRE has recovered between \$9.9 million and \$20.7 million a year for fire suppression and other related costs. It is estimated about one percent of the funds recovered is for civil cost recovery related to prescribed fire.
- 5) **Double referral.** This bill was also heard in the Assembly Judiciary Committee where it passed with an 11-0 vote.
- 6) **Related legislation.**

AB 642 (Friedman) is an omnibus fire prevention bill that makes various changes to support cultural and prescribed fire, including the creation of a Cultural Burning Liaison at CAL FIRE, and requires a proposal for creating a prescribed fire training center in California. This bill is awaiting hearing in the Senate Governmental Organization Committee.

REGISTERED SUPPORT / OPPOSITION:**Support**

American Forest Foundation
American Property Casualty Insurance Association
Arcata Fire District
Association of California Water Agencies
Butte County Fire Safe Council
Butte County Resource Conservation District
Cache Creek Conservancy
California Cattlemen's Association
California Climate & Agriculture Network
California Department of Insurance
California Forestry Association
California Forward Action Fund
California Rangeland Trust
California State Association of Electrical Workers
California State Grange
California Wilderness Coalition
Center for Natural Lands Management
Coalition of California Utility Employees
Fire Forward
Fire Restoration Group
Greenfield Ranch Association
Humboldt County Prescribed Burn Association
Humboldt Redwood Company, LLC
Institute for Sustainable Forestry
Karuk Tribe
Lake County Prescribed Burn Association
Land Trust of Santa Cruz County
Madera County Farm Bureau
Mendocino and Humboldt Redwood Companies
Mendocino County Fire Chiefs Association
Mendocino County Prescribed Burn Association
Mid Klamath Watershed Council
Napa County Farm Bureau
Napa County Regional Park and Open Space District
North Carolina Prescribed Fire Council
Northcoast Regional Land Trust
Open Canopy
Palmer Creek Association
Peninsula Open Space Trust
Personal Insurance Federation of California
Post Wildfire OHV Recovery Alliance
Potter Valley Tribe
Prometheus Fire Consulting
Resolute
Resource Conservation District of Monterey County

Round Valley Indian Tribes
San Benito County Farm Bureau
San Joaquin Forest Products
San Luis Obispo County Cattleman's Association
Sanctuary Forest, Inc.
Santa Lucia Conservancy
Save the Redwoods League
Shasta County Air Quality Management District
Sierra Business Council
Sierra Forest Legacy
Siskiyou Cattlemen's Association
Sonoma County Regional Parks
Sonoma Land Trust
Southern Humboldt Fire Safe Council
Stackhouse Guide Service
Tehama Conservation Fund
Tehama County Cattleman's Association
The Wildlands Conservancy
Trinity County Resource Conservation District
University of California
Upper Salinas-Las Tablas Resource Conservation District
Watershed Research & Training Center
Wine Institute

Opposition

None on file

Analysis Prepared by: Michael Jarred / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 671 (Gonzalez) – As Amended June 15, 2021

SENATE VOTE: 40-0

SUBJECT: Transportation: Clean Freight Corridor Efficiency Assessment

SUMMARY: Requires the California Transportation Commission (CTC), in coordination with specified agencies, to develop the Clean Freight Corridor Efficiency Assessment (Assessment) and codifies the eligibility of specified medium- and heavy-duty zero emission vehicle (ZEV) infrastructure projects for funding from the Trade Corridors Enhancement Account (TCEA).

EXISTING LAW:

- 1) The federal Clean Air Act and its implementing regulations set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, designate air basins that do not achieve NAAQS as nonattainment, and require states with nonattainment areas to submit a State Implementation Plan (SIP) detailing how they will achieve compliance with NAAQS.
- 2) Establishes the Air Resources Board (ARB) as the air pollution control agency in California and requires the ARB, among other things, to control emissions from a wide array of mobile sources and coordinate with local air districts to control emissions from stationary sources in order to implement the Clean Air Act.
- 3) Designates ARB as the state agency charged with monitoring and regulating statewide greenhouse gas (GHG) emissions, and requires ARB to ensure that GHG emissions are reduced to at least 40% below the 1990 level by December 31, 2030.
- 4) Requires ARB, in consultation with the Department of Transportation (Caltrans), California Energy Commission (CEC), and the Governor's Office of Business and Economic Development, to update ARB's 2016 mobile source strategy to include a comprehensive strategy for the deployment of medium- and heavy-duty vehicles for the purpose of bringing the state into compliance with NAAQS and reducing GHG emissions.
- 5) Requires the California State Transportation Agency (CalSTA) to develop the California Freight Mobility Plan (CFMP) in accordance with federal guidelines and establish an advisory committee to guide CFMP development.
- 6) Establishes the TCEA and requires CTC to allocate funds for infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on the Primary Freight Network, and along other corridors that have a high volume of freight movement, as determined by CTC and as identified in the CFMP. The program, known as the Trade Corridor Enhancement Program (TCEP), is funded with revenue collected from a portion of the diesel excise tax and federal funds.
- 7) Requires projects to be included in an adopted Regional Transportation Plan (RTP) in order to be eligible for TCEP funding. Projects within the boundaries of a metropolitan planning

organization (MPO) shall be included in an adopted RTP that includes a sustainable communities' strategy (SCS) determined by the ARB to achieve the region's GHG emissions reduction targets.

- 8) Establishes the Alternative and Renewable Fuels and Vehicle Technology Program (Clean Transportation Program, or CTP), to be administered by the CEC, to develop and deploy technologies and alternative and renewable fuels to help attain the state's climate change policies. The CTP is funded by vehicle and vessel registration, vehicle identification plates, and smog-abatement fees that provide up to \$100 million annually for grants, revolving loans, loan guarantees, and other financial assistance to accelerate the development and deployment of low carbon alternative fuels and technologies. The fees that fund CTP sunset January 1, 2024.

THIS BILL:

- 1) Requires CTC to develop, and submit to the Legislature by December 1, 2023, the Assessment in coordination with ARB, the Public Utilities Commission, CEC, and the Governor's Office of Business and Economic Development (GO-Biz) and in consultation with specified entities to identify freight corridors, or segments of corridors, and infrastructure needed to support the deployment of medium- and heavy-duty ZEVs. Requires CTC to consider the potential for emissions-reductions, infrastructure needed for charging and alternative fueling, including parking facilities, congestion reduction, improved road safety and resiliency, and impacts to neighboring communities.
- 2) Requires the Assessment to identify:
 - a) Freight corridors, or segments, throughout the state that would be priority candidates for the deployment of medium- and heavy-duty ZEVs;
 - b) The top five freight corridors, or segments, with the heaviest freight volume and near-source exposure to diesel exhaust and other contaminants;
 - c) Projects that would achieve the goals of the Assessment, as specified;
 - d) Potential sponsors of projects to achieve the goals of the assessment, including, but not limited to, Caltrans, regional transportation planning agencies, local governments, the freight industry, and nonprofit organizations;
 - e) Barriers and potential solutions to achieving the goals of the Assessment and the deployment of medium- and heavy-duty ZEVs;
 - f) The impact on roads and bridges due to the increased weight of ZEVs;
 - g) Methods to avoid displacement of residents and businesses on the freight corridor;
 - h) Potential funding opportunities; and,
 - i) Benefits from the deployment of medium- and heavy-duty ZEVs, including environmental, air quality, public health, highway safety, and economic competitiveness.

- 3) To the extent feasible and applicable, requires CTC, ARB, and CEC to incorporate the Assessment's findings and recommendations into the entities' programs and guideline documents related to freight infrastructure. Specifies that this provision does not limit the ability to award freight infrastructure and technology program funds on a competitive basis.
- 4) Requires the state freight plan to incorporate a description of needed infrastructure, projects, and operations for the deployment of medium- and heavy-duty ZEVs and the development of freight corridors identified in the assessment.
- 5) Requires that the California Transportation Plan incorporate the Assessment's findings and recommendations.
- 6) Specifies that projects that employ advanced and innovative technology to improve the flow of freight and environmental and community mitigation or efforts to reduce environmental impacts of freight movement are infrastructure projects eligible for funding from the TCEA.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- 1) CTC one-time costs of approximately \$900,000 for a consultant contract for the performance of research and data analysis necessary to identify the freight corridors and infrastructure needed to support MHD zero-emission vehicles, and provide other expertise and materials. (State Highway Account (SHA))
- 2) CTC ongoing administrative costs of approximately \$323,000 for three years and \$178,000 annually thereafter for 2.0 PY of staff (1.0 PY 3-year limited term, 1.0 PY permanent) to oversee the consultant contract, coordinate with state agencies, and consult with other specified public and private entities to develop the Assessment and recommendations, issue the report, and ensure adequate adoption into other programs and guidelines. (SHA)
- 3) Costs for ARB, CPUC, CEC, and GO-Biz to coordinate with the CTC on the development of the Assessment are expected to be minor. (various funds)
- 4) Minor costs for CalSTA and Caltrans to include Assessment's findings and recommendations into the CTP and the State Freight Plan. (SHA)
- 5) Minor costs for CTC, CARB, and CEC to incorporate the Assessment's findings and recommendations into the funding programs and guidelines related to freight infrastructure and technology. (various funds)
- 6) CTC indicates that changes to the project eligibility requirements under the TCEP are consistent with their 2020 guidelines for the program, and are not expected to affect funding allocations.

COMMENTS:

1) **Author's statement:**

The emissions associated with freight corridors not only contribute to global warming—they also pose a serious risk to the health of our communities. In my district, as in many across the state, families that live near freight corridors are

heavily burdened by pollution and suffer disproportionately from high rates of chronic diseases such as cancer, asthma, and other respiratory illnesses. Building cleaner freight corridors is not just an option, it is necessary to protect the health of our communities. We need to create a well-informed, robust assessment that will guide us to develop infrastructure that will support clean vehicles and emissions-reductions goals. The Clean Freight Corridor Efficiency Assessment will support these goals and build towards a future where every Californian has access to clean, breathable air.

- 2) **Background.** According to a recent study by the American Council for an Energy-Efficient Economy, trucks ranging from heavy-duty pickup trucks to 18-wheelers, account for 22% of vehicle carbon dioxide emissions and emit substantial amounts of other pollutants, contributing to climate change and health problems. Therefore, reducing emissions from these types of vehicles is critical to achieving the state's climate goals.

California has been working aggressively to advance the transition to medium- and heavy-duty ZEVs by funding the purchase of these types of vehicles and related infrastructure. On September 23, 2020, Governor Newsom signed Executive Order N-79-20, which established a goal that 100 percent of California sales of new passenger car and trucks be zero-emission by 2035. In addition, the Governor's order set a goal to transition all drayage trucks to zero-emission by 2035, all off-road equipment to zero-emission where feasible by 2035, and the remainder of medium- and heavy-duty vehicles to zero-emission where feasible by 2045. Under the order, ARB is required to work with other state agencies to develop regulations to achieve these goals taking into account technological feasibility and cost effectiveness.

On November 24, 2020, ARB released an updated draft Mobile Source Strategy that demonstrates how California can determine the pathways forward for the various mobile sectors that are necessary in order to achieve California's numerous goals and targets over the next 30 years. The 2020 Strategy intends to maximize the criteria pollutant reductions by going to zero-emission where feasible. Specifically, the 2020 Strategy calls for the deployment of approximately 1.4 million medium- and heavy-duty ZEVs in California by 2045.

- 3) **This bill.** A robust support network of infrastructure is necessary to advance the deployment of medium- and heavy-duty ZEVs. Involvement of the state's transportation entities such as CTC, Caltrans, and CalSTA is important to making this transition successful. This bill would foster greater engagement of the state's transportation entities by requiring them to lead this Assessment and advance the state's medium- and heavy-duty ZEV goals.

Current TCEP program guidelines allow for the funding of medium- and heavy-duty ZEV infrastructure and related projects that are tied to public benefits; this bill codifies these as eligible projects.

This bill requires the CTC to complete its assessment by December 1, 2023. This assessment may be slightly premature because the medium- and heavy-duty ZEV technology has not fully evolved. For example, the potential distance that medium- and heavy-duty ZEVs will ultimately be able to travel on a single charge is unknown, but is currently very limited. Also, it is not yet known how businesses that purchase medium- and heavy-duty ZEVs will charge or fuel their fleets. Further, because the technology to develop these vehicles is complex and

expensive, there are not many of these types of vehicles in operation, but increasing numbers of ZEV trucks and buses are expected to be on the market in the next few years.

- 4) **Double referral.** This bill passed out of the Assembly Transportation Committee on June 21st 15-0.

REGISTERED SUPPORT / OPPOSITION:

Support

Alameda County Transportation Commission
Breathe Southern California
CALSTART
Community Action to Fight Asthma
Edison International and Affiliates, Including Southern California Edison
Elders Climate Action, NorCal and SoCal Chapters
Los Angeles County Metropolitan Transportation Authority
Nevada County NorCal Elders Climate Action Network
Port of Long Beach
Regional Asthma Management and Prevention
San Diego Association of Governments
The Climate Reality Project Orange County Chapter
Union of Concerned Scientists

Opposition

None on file

Analysis Prepared by: Elizabeth MacMillan / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 418 (Laird) – As Amended March 17, 2021

SENATE VOTE: 39-0

SUBJECT: Sea level rise planning: database

SUMMARY: Extends the sunset for the Planning for Sea Level Rise Database (PSLRD) managed by the Natural Resources Agency (NRA) from January 1, 2023 to January 1, 2028.

EXISTING LAW: Creates the PSLRD to be managed by NRA. Requires various public and private entities to provide NRA with existing sea level rise planning information that is to be posted and updated biannually on the PSLRD.

FISCAL EFFECT: According to the Senate Appropriations Committee, ongoing costs of approximately \$65,000 annually (General Fund) for NRA to continue to maintain and update the database.

COMMENTS:

- 1) **Background.** The state’s recent Fourth Climate Change Assessment found that climate change impacts in the coastal zone already are “unprecedented,” and will include the direct impacts of sea level rise, changes in ocean conditions, increased flooding (including from rising groundwater tables, but also high “king” tides), and other hazards. Sea level rise poses an immediate and real threat to coastal ecosystems, livelihoods and economies, public access to the coast, recreation, private property, public infrastructure, water supplies, and the well-being and safety of coastal communities, including vulnerable populations.

The sea level along the state’s coastline is currently predicted to rise by as much as one-half foot by 2030 and up to 7 feet by 2100. According to the National Oceanic and Atmospheric Administration, 12.3 million people were employed in coastal California in 2015, earning about \$883.5 billion, which corresponds to over \$2 trillion in annual gross domestic product. Just over two-thirds of the state’s residents live in coastal counties. Sea level rise puts this at risk.

In 2014, AB 2516 (Gordon), Chapter 522, Statutes of 2014, established the PSLRD. The database is overseen by NRA in coordination with the Ocean Protection Council (OPC). The database provides sea level rise planning information, which includes studies, modeling, mapping, cost-benefit analysis, vulnerability assessments, adaptation projects as well as statuses and updates of Local Coastal Programs. The database is an educational tool that is beneficial to the state, local governments, and the public by showing actions taken to address sea level rise, enabling a more effective and coordinated response.

Since the PSLRD was established in 2014, the state’s efforts to collect and make climate adaptation and resilience information available to the public have expanded, as have coordinated efforts between state entities related to climate adaptation and resilience. The Adaptation Clearinghouse website (“resilientCA.org”) came into use in 2018. The

information collected for the PSLRD is now hosted there. (The last PSLRD update on OPC's website is dated August 2018.)

2) Author's statement:

SB 418 will prolong the lifespan of the Planning for Sea Level Rise Database, which has become an effective educational tool benefitting local governments, communities, and the public. Unfortunately, the negative impacts of climate change have become commonplace in California. Communities across the state have been forced to grapple with worsening wildfires, droughts, and a host of other extreme weather events, sometimes impacting critical infrastructure.

Sea level rise is an often-overlooked aspect of climate change, but it has the potential to be one of the most damaging of threats. A 2019 team of U.S Geological Survey scientists found that even a small increase in sea level rise could be an overwhelming force when a storm hits. This database includes information on a variety of project details from a host of different public and private projects; these insights have become a useful tool for stakeholders to stay informed on the actions taken by relevant entities in their policies to combat sea-level rise. Extending this sunset provision is necessary to ensure this invaluable educational tool can be used to assess our most vulnerable infrastructure, and communities.

REGISTERED SUPPORT / OPPOSITION:

Support

California State Association of Counties
Heal the Bay
League of California Cities
Pacific Coast Shellfish Growers Association

Opposition

None on file

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 456 (Laird) – As Amended May 20, 2021

SENATE VOTE: 39-0

SUBJECT: Fire prevention: wildfire and forest resilience: action plan: reports

SUMMARY: Requires the Forest Management Task Force (task force) to develop a comprehensive implementation strategy to achieve the goals and key actions identified in the task force’s “Wildfire and Forest Resilience Action Plan (Plan)”. Requires specified annual reporting by the task force related to the progress achieving the goals and key actions in the Plan.

EXISTING LAW:

- 1) Requires the Board of Forestry and Fire Protection (Board) to classify all lands within the state for the purpose of determining areas in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state [known as the State Responsibility Area (SRA)].
- 2) Requires the Department of Forestry and Fire Protection (CAL FIRE) to identify certain areas in the local responsibility area (LRA) as very high fire hazard severity zones (VHFHSZ) based on consistent statewide criteria and based on the severity of fire hazard that is expected to prevail in those areas.
- 3) Requires the Secretary of the Natural Resources Agency (NRA) to create a working group on expanding wood product markets that can utilize woody biomass, especially biomass removed from high hazard zones, as determined by CAL FIRE.
- 4) Requires the NRA, in consultation with the State Fire Marshal (SFM) and the task force to review regional capacity of each county that contains a VHFHSZ.
- 5) Requires, on or before July 1, 2020, the task force or its successor entity to, in consultation with the Governor’s Office of Business and Economic Development, the Joint Institute for Wood Products Innovation in the Board of Forestry and Fire Protection, private industry, investors, and other stakeholders it deems appropriate, develop recommendations for siting additional wood product manufacturing facilities in the state.
- 6) Requires, pursuant to SB 901 (Dodd), Chapter 626, Statutes of 2018, the following appropriations from the Greenhouse Gas Reduction Fund (GGRF) be made through the 2023-24 Fiscal Year to CAL FIRE:
 - a) \$165 million for healthy forest and fire prevention programs and projects that improve forest health and reduce greenhouse gas emissions caused by uncontrolled wildfires.
 - b) \$35 million to complete prescribed fire and other fuel reduction projects through proven forestry practices consistent with the recommendations of the Forest Carbon Plan, including

the operation of year-round prescribed fire crews and implementation of a research and monitoring program for climate change adaptation.

THIS BILL:

- 1) Requires, on or before January 1, 2022, the task force including, but not limited to, the NRA, the California Environmental Protection Agency, the Office of Planning and Research, and CAL FIRE, in coordination with the relevant lead federal, state, local, and tribal agencies to develop a comprehensive implementation strategy to achieve the goals and key actions identified in the Plan issued by the task force in January 2021.
- 2) Requires the implementation strategy to include, but not be limited to, the identification of lead agencies and a description of the activities necessary to achieve the goals and key actions identified in the “Wildfire and Forest Resilience Action Plan”.
- 3) Requires the implementation strategy to address all of the following actions:
 - a) Increasing the pace and scale of wildfire and forest resilience activities, including all of the following:
 - i) A joint strategy to annually treat 500,000 acres of federal land and 500,000 acres of nonfederal land by 2025.
 - ii) A strategy to expand forest management and improve the health and resilience of forested lands in the state.
 - iii) A comprehensive program to coordinate and align state and federal assistance programs for small private landowners, including grant programs, stewardship education workshops, and postfire rapid response teams.
 - iv) A strategic action plan to expand the use of prescribed fire.
 - v) Expansion of the Department of Conservation’s regional fire and forest capacity program through the development of a statewide network of regional forest and community fire resilience plans.
 - vi) A comprehensive statewide reforestation strategy.
 - vii) A permit synchronization plan to align permitting under the Forest Practice Act and regulatory requirements of the State Water Resources Control Board and the Department of Fish and Wildlife.
 - viii) A science-based review and recommendations to guide and inform state investments and regional strategies on actions needed to improve the health and fire resilience of chaparral, scrublands, and surrounding communities.
 - b) Strengthening the protection of communities and reducing their fire risk, including all of the following:
 - i) A statewide framework, including performance measures, to support local and regional community fire risk reduction and adaptation programs and projects.

- ii) Development and maintenance of a network of more than 500 fuel break projects across the state.
 - iii) Expansion of existing defensible space and home hardening programs.
 - iv) Strengthening investor-owned utility wildfire mitigation plans.
 - v) A framework for collaborative fuel reduction projects to protect roadway travelers and communities along highways, and to reduce roadside ignitions along primary and secondary emergency evacuation routes.
 - vi) A Smoke Ready California campaign to provide coordinated messaging and content to help Californians plan for and protect themselves from wildfire smoke impacts.
- c) Creating a sustainable wood products market in California.
 - d) Sustaining and expanding outdoor recreation on forestland.
 - e) Protecting and expanding urban canopy and forestry, including a comprehensive program, with regional targets, to significantly increase California's urban tree canopy, targeting disadvantaged and low-income communities and low-canopy areas.
 - f) Driving innovation and measuring progress in achieving goals through research and data collection.
- 4) Requires the task force to seek to coordinate and integrate the implementation strategy with the key goals and priorities of the specified frameworks.
 - 5) Requires the task force, on or before January 1, 2023 and annually thereafter until January 1, 2048, to submit a report to the appropriate policy and budget committees of the Legislature on progress made in achieving the goals and key actions identified in the Plan on state expenditures made to implement these key actions, and on additional resources needed to achieve these goals and key actions.
 - 6) Requires the annual report to also include information on the prior year's acreage treatment goals including total acres treated, level of risk for catastrophic fires within treated areas, statewide fire risk reduction, and resources expended to treat and barriers to treatment, if any.
 - 7) Requires the task force to use the most advanced predictive tools to determine priority areas for treatment, with the goal of most effectively and efficiently reducing the overall fire risk to the state.
 - 8) Requires, on or before January 1, 2026, and every five years thereafter, the task force to update the Plan.
 - 9) Requires the task force to invite the participation of the United States Forest Service and other federal entities, as applicable, in the creation, alignment, and coordination of joint efforts.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- 1) Unknown costs, likely in the low hundreds of thousands of dollars annually (General Fund), to continue the Task Force to regularly update the Task Force's Action Plan, and to develop a comprehensive implementation strategy to achieve the goals and key actions identified in the action plan.
- 2) Very significant ongoing cost pressure, potentially in the hundreds of millions or even billions of dollars annually (General Fund or special fund), to provide funding and perform activities called for in the action plan and implementation strategy.
- 3) To the extent the bill helps landowners and agencies to perform forest treatment activities that reduce the occurrence of catastrophic wildfires from what otherwise would have occurred, this bill would result in potentially significant state savings due to avoided fire suppression and other costs (General Fund).

COMMENTS:**1) Author's statement:**

SB 456 establishes in statute the Forest Management Task Force to implement a long-term forest management plan to reduce California's overall wildfire risk. The goals of the Task Force will be achieved through the following programs: fuels reduction and prescribed fire; vegetation management; fuels management crews; fuel breaks; and, complementary partnerships at the local level through tribal governments, cities and counties, fire safe councils, regional collaboratives, resource conservation districts, and others who protect forested landscapes and at-risk communities.

- 2) **Background.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned over one million acres. In total, wildfires caused 33 deaths and destroyed over 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

The use of targeted mechanical vegetation management, prescribed fire, and managed wildfire reduces the accumulated high fuel loads, promoting healthier, more resilient forests, reducing the risk of high-severity wildfires.

SB 901 (Dodd), Chapter 626, Statutes of 2018, committed \$1 billion for CAL FIRE's Forest Health Grant Program and Fire Prevention Grant Program and dedicated fuel reduction crews over the next five years. The funds are meant to be used to do significant fuel reduction work near communities and in forested watersheds, and many projects will include a biomass utilization component. Approximately half of this commitment has already been spent.

- 3) **Task force.** On January 8, 2021, the task force released a comprehensive action plan to reduce wildfire risk for vulnerable communities, improve the health of forests and wildlands, and accelerate action to combat climate change. The FMTF's action plan, among other things, called for expanding the use of prescribed fire and cultural burning. The FMTF's action plan also called for the support of community wildfire risk reduction.

On January 8, 2021, the Governor's Budget proposed \$1 billion to support the Task Force's Plan; the Plan included early action items and an extension of the SB 901 funding commitment for five years. In April, the wildfire early action expenditure plan contained in SB 85 (Committee on Budget and Fiscal Review), Chapter 14, Statutes of 2021, appropriated \$536 million to 15 different state agencies for fire prevention activities. A significant amount of this funding will be used to implement the Task Force goals and key actions. The recently passed SB 129 (Committee on Budget and Fiscal Review) appropriates \$258 million from the General Fund for a wildfire prevention and forest resilience package contingent upon future legislation.

This bill would require implementation and regular updating of the Plan. The bill also requires integration with specified state climate and adaptation plans. The task force renamed itself the Wildfire & Forest Resilience Task Force and is currently in the process of overseeing the implementation of the Plan. However, the bill still uses the old name. In addition, the bill needs clarification that the implementation strategy is not another document needed in order to begin implementing the Plan. Instead, the implementation strategy should be used to track and provide accountability on the implementation of the Plan. In 2021, the Plan calls for CAL FIRE, through a public process, to assist the Board in updating defensible space regulations to meet AB 3074 (Friedman), Chapter 259, Statutes of 2020, which requires a five-foot ember-resistant zone around homes. However, the bill fails to mention the ember-resistant zone around homes as an action.

- 4) **Amendments.** The author and committee *may wish to consider* the following amendments:
- a) Rename the task force in the bill to reflect its current name;
 - b) Clarify the implementation plan will track the progress of goals and key actions, including which items have been completed;
 - c) Require the defensible space action called for in the bill to include the ember-resistant zone;
 - d) Adds Pathways to 30 by 30 Report to the list of plans the Plan is required to seek to integrate and coordinate with;
 - e) Specify the report should include policy recommendations in addition to fiscal resources needed;

- f) Require the annual report to include the type of treatment and acres that received maintenance treatment; and,
- g) Other technical and clarifying amendments.

5) **Related legislation.**

AB 9 (Wood) establishes the Regional Forest and Fire Capacity Program in the Department of Conservation to support regional leadership, build local and regional capacity, and develop, prioritize, and implement strategies and projects that create fire-adapted communities by improving watershed health, forest health, community wildfire preparedness, and fire resilience. This bill is awaiting hearing in the Senate Natural Resources and Water Committee.

AB 642 (Friedman) is an omnibus fire prevention bill that makes various changes to support cultural and prescribed fire, including the creation of a Cultural Burning Liaison at CAL FIRE, and requires a proposal for creating a prescribed fire training center in California. This bill is awaiting hearing in the Senate Natural Resources and Water Committee.

SB 63 (Stern) makes multiple changes in state law to enhance fire prevention efforts by CAL FIRE, including, among other things, improved vegetation management and expanding the area where fire safety building standards apply. This bill is awaiting hearing in the Assembly Housing and Community Development Committee.

SB 332 (Dodd) provides that no person is liable for any fire suppression or other related costs recoverable for a prescribed burn if specified conditions are met, unless the burn is conducted in a grossly negligent manner. This bill is also scheduled to be heard by this committee on July 7th.

REGISTERED SUPPORT / OPPOSITION:

Support

Association of California Water Agencies
 California Association of Resource Conservation Districts
 California Forestry Association
 League to Save Lake Tahoe
 Rural County Representatives of California
 Save the Redwoods League
 Sierra Business Council
 Sierra Consortium
 The Nature Conservancy
 The Watershed Research and Training Center

Opposition

California Chaparral Institute
 Endangered Habitats League
 Los Padres ForestWatch

Analysis Prepared by: Michael Jarred / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 372 (Leyva) – As Amended June 28, 2021

SENATE VOTE: 37-2

SUBJECT: Medium- and heavy-duty fleet purchasing assistance program: zero-emission vehicles

SUMMARY: Establishes the Medium- and Heavy-Duty Zero Emission Vehicle Fleet Purchasing Assistance Program (Program) in the Air Quality Improvement Program (AQIP) to make financing tools and nonfinancial supports available to transition medium- and heavy-duty vehicle fleets to zero-emission vehicles (ZEVs).

EXISTING LAW:

- 1) The federal Clean Air Act and its implementing regulations set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, designate air basins that do not achieve NAAQS as nonattainment, and require states with nonattainment areas to submit a State Implementation Plan (SIP) detailing how they will achieve compliance with NAAQS.
- 2) Establishes the Air Resources Board (ARB) as the air pollution control agency in California and requires the ARB, among other things, to control emissions from a wide array of mobile sources and coordinate with local air districts to control emissions from stationary sources in order to implement the Clean Air Act.
- 3) Designates ARB as the state agency charged with monitoring and regulating statewide greenhouse gas (GHG) emissions, and requires ARB to ensure that GHG emissions are reduced to at least 40% below the 1990 level by December 31, 2030.
- 4) Requires ARB, in consultation with the Department of Transportation (Caltrans), California Energy Commission (CEC), and the Governor's Office of Business and Economic Development, to update ARB's 2016 mobile source strategy to include a comprehensive strategy for the deployment of medium- and heavy-duty vehicles for the purpose of bringing the state into compliance with NAAQS and reducing GHG emissions.
- 5) Establishes the AQIP, administered by ARB in consultation with local air districts, to fund programs that reduce criteria air pollutants, improve air quality, and provide research for alternative fuels and vehicles, vessels, and equipment technologies.
- 6) Establishes the California Pollution Control Financing Authority (CPCFA) consisting of the Director of Finance, the State Treasurer, and the State Controller, and authorizes it to approve financing for projects or pollution control facilities to prevent or reduce environmental pollution.

THIS BILL:

- 1) Establishes the Program within the AQIP to make financing tools and nonfinancial supports available by January 1, 2023 to the operators of medium- and heavy-duty vehicle fleets to

enable those operators to transition their fleets to ZEVs. Requires ARB to designate the CPCFA as the agency responsible for administering the Program through an interagency work agreement.

- 2) When developing the interagency work agreement, requires the ARB and CPCFA to:
 - a) Seek input from environmental justice organizations, medium- and heavy-duty vehicle fleets of diverse sizes and types, financiers, original truck equipment manufacturers, transportation logistics and fleet management companies, nongovernmental organizations, and other relevant stakeholders on the following topics:
 - i) Which medium- and heavy-duty fleets should be designated as high-priority fleets, as specified;
 - ii) How to apply GO-Biz' findings on critical barriers that impede medium- and heavy-duty fleets from transitioning to ZEVs;
 - iii) Financing tools and nonfinancial supports that should be used to overcome the critical barriers identified; and,
 - iv) Measuring Program success.
 - b) Develop and design financing tools and nonfinancial supports that are most appropriate for different sizes and sectors of medium- and heavy-duty vehicle fleets.
 - c) Ensure the financing tools and nonfinancial supports have no redundancies or inefficiencies with other state programs.
 - d) Ensure that a maximum of 75% of financing products offered under the Program are directed towards operators of medium- and heavy-duty fleets that directly impact, or operate in, underserved communities.
 - e) Designate high priority fleets that will have first access to the Program, as specified. Requires CPCFA to designate port and drayage truck fleets as one of the high-priority fleets until a date determined by ARB.
 - f) Provide financing tools to operators of large fleets, small fleets, and microfleets of medium- and heavy-duty vehicles, as specified. Requires CPCFA and ARB to determine the size of large fleets, small fleets, and microfleets.
 - g) Enable the stacking or coordinated combination of financial tools and nonfinancial supports and the development of replicable business models.
 - h) Facilitate the decommissioning of high-polluting medium- and heavy-duty vehicles in accordance with the state's clean air targets and goals.
 - i) Include optimal financing tools and appropriate nonfinancial supports that are designed and targeted to catalyst electrification at scale.

- j) Encourage emerging flexible business, operational, and ownership models that accomplish the goals of the bill, such as lease-backs or electric vehicle managers and lessors.
- 3) Upon appropriation, authorizes the ARB to allocate funds to the Program from, but not limited to, the Air Quality Improvement Fund, the Greenhouse Gas Reduction Fund, and the General Fund.
- 4) Requires ARB to ensure that the Program aligns with related state programs and to:
 - a) Establish penetration targets for deployment of financing tools and nonfinancial supports to operators, including those that directly impact, or operate in, underserved communities;
 - b) Compile data and information about the deployment of financing tools and nonfinancial supports provided under the Program to operators, including those that impact or operate in underserved communities; and,
 - c) Coordinate with the Public Utilities Commission (PUC), CEC, and CPCFA to provide marketing, education, and outreach to underserved communities.
- 5) Requires CPCFA, in consultation with ARB, to develop a data collection and sharing strategy for the Program to facilitate informed decision making by state agencies and financial institutions and to track project implementation and report the outcomes no less often than annually, as specified.
- 6) Requires ARB and CPCFA to consult with the CEC and PUC on the use of on-bill tariff products for charging and fueling infrastructure that would allow operators of medium- and heavy-duty fleets to see fuel cost savings of ZEVs relative to diesel fuel.
- 7) Requires ARB to establish a “one-stop shop” that provides information on its website to operators of medium- and heavy-duty fleets about potential financing and grant options, as well as technical assistance available.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- 1) Ongoing costs of less than \$195,000 annually (Air Quality Improvement Fund) for the ARB to develop and design financing tools and nonfinancial supports, set program criteria, define metrics, and collect data, among other things.
- 2) Unknown but likely significant ongoing cost pressure to provide funding for the Medium- and Heavy-Duty Zero-Emission Vehicle Fleet Purchasing Assistance Program.

COMMENTS:

1) Author’s statement:

California has been on the forefront of setting strong air quality goals and actions for decades and has worked to create and distribute cleaner and greener modes of transportation. Despite numerous successful emission reduction regulations, heavy-duty trucks remain a large source of air pollution and the largest source of diesel

particulate matter (PM 2.5)—a carcinogenic and toxic air contaminant—in California. In order to make continued progress towards our clean air and climate goals, we must also make the transition to ZEV a viable and equitable option for fleet owners and operators. California's current solution for financing the transition to zero emission vehicles has been largely limited to rebate programs.

Unfortunately, these limited options do not meet the diverse financial needs of current and future fleet owners. SB 372 will create more options to maximize California's available funding, prioritize deployment in underserved communities, and ensure that electric vehicle transition is a real and lasting option for all fleets. In doing so, it will expand the amount of money California has available for the ZEV transition.

- 2) **Background.** Nearly 40% of California's GHG emissions are generated by the transportation sector, which includes both the light-duty (passenger) and medium- and heavy-duty fleets. Diesel trucks also contribute to unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen oxides, and sulfur dioxide, affecting local air quality. According to a recent study by the American Council for an Energy-Efficient Economy, trucks ranging from heavy-duty pickup trucks to 18-wheelers, account for 22% of vehicle carbon dioxide emissions and emit substantial amounts of other pollutants, contributing to climate change and health problems. Therefore, reducing emissions from these types of vehicles is critical to achieving the state's climate goals.

California has been working aggressively to advance the transition to medium- and heavy-duty ZEVs by funding the purchase of these types of vehicles and related infrastructure. On September 23, 2020, Governor Newsom signed Executive Order N-79-20, which established a goal that 100 percent of California sales of new passenger car and trucks be zero-emission by 2035. In addition, the Governor's order set a goal to transition all drayage trucks to zero-emission by 2035, all off-road equipment to zero-emission where feasible by 2035, and the remainder of medium- and heavy-duty vehicles to zero-emission where feasible by 2045. Under the order, ARB is required to work with other state agencies to develop regulations to achieve these goals taking into account technological feasibility and cost effectiveness.

ARB's Advanced Clean Truck regulation (approved in June 2020) requires an increasing percentage of medium- and heavy-duty ZEVs to be sold from 2024 through 2035. On November 24, 2020, ARB released an updated draft Mobile Source Strategy that demonstrates how California can determine the pathways forward for the various mobile sectors that are necessary in order to achieve California's numerous goals and targets over the next 30 years. The 2020 Strategy intends to maximize the criteria pollutant reductions by going to zero-emission where feasible. Specifically, the 2020 Strategy calls for the deployment of approximately 1.4 million medium- and heavy-duty ZEVs in California by 2045. This bill requires that Program deadlines align with the milestones in EO N-79-20 and in the Advanced Clean Truck regulation.

A November 2020 report by the bill's sponsor, the Environmental Defense Fund (EDF), examined barriers and provided recommendations on how to more effectively leverage public dollars and engage private capital to electrify truck and bus fleets. The report states:

The traditional public and private mechanisms that have been developed to assist the purchase of cleaner trucks and buses are often mismatched with the highest priority

needs for fleet transitions. Nationwide, most programs have been designed for one-to-one replacements of older internal combustion trucks with new, less polluting ones. These programs have been limited in their ability to support new infrastructure or address the additional costs, risks, uncertainties and frictions that arise when shifting vehicle technology. Further, fleet owners often find existing grant programs to be administratively difficult and costly to navigate, given constraints such as reporting and vehicle scrappage requirements. The end result is a lost opportunity to replace more internal combustion vehicles with zero-emission ones.

This bill codifies recommendations from EDF's report and identifies a number of financial tools that CPCFA could leverage to provide capital to support fleets in making the transition to zero emission. This bill directs CARB and CPCFA to identify financing tools for small fleet, microfleet, and large fleet operators, which would tailor support to each kind of truck fleet.

This approach is not without precedent. ARB's Truck Loan Assistance Program helps small-business fleet owners affected by the In-Use Truck and Bus Regulation secure financing to upgrade their fleets with newer trucks. The Truck and Bus Regulation requires older heavy vehicles (diesel trucks and buses greater than 26,000 pounds) to be replaced with 2011, or newer, vehicles by January 1, 2023. ARB administers the Truck Loan Assistance Program in partnership with CPCFA and leverages public funding with private funding from participating lending institutions.

This bill creates a "one-stop-shop" to provide consumer information about all of the potential state ZEV financing options. This bill does not specify a new funding source, but instead aims to leverage existing public dollars. CPCFA could offer a variety of financial tools that may or may not need a diversion of funds from existing programs. By creating the Program under AQIP, this bill ensures that fleet assistance is integrated into an existing strategy and planning process. Each fiscal year, ARB submits a Clean Transportation Incentives Funding Plan, which includes AQIP programs. The plan prioritizes and balances between investing in technologies that are just coming to market and providing support to emerging advanced technologies that help meet all of California's goals. As part of the plan, the Heavy-Duty Investment Strategy provides insight into how ARB plans to invest its Low Carbon Transportation and AQIP funding on a combination of transformational technologies for heavy-duty vehicles, off-road equipment, and fueling infrastructure.

- 3) **Suggested amendment.** The *committee may wish to amend the bill* to require CPCFA to submit the report on project implementation to ARB.
- 4) **Double referral:** This bill passed out of the Assembly Transportation Committee on June 21st 15-0.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Bay Area Action
 350 Humboldt: Grass Roots Climate Action
 350 Sacramento
 350 Silicon Valley

American Lung Association in California
Amplify Power
Arrival
Association of California Water Agencies
California Hydrogen Business Council
California Hydrogen Coalition
California Interfaith Power & Light
California League of Conservation Voters
California Municipal Utilities Association
CALSTART
Center for Community Action & Environmental Justice
Central California Asthma Collaborative
Ceres
Coalition for Clean Air
Community Action to Fight Asthma
E2 (Environmental Entrepreneurs)
East Bay Municipal Utility District
Elders Climate Action, NorCal and SoCal Chapters
Environment California
Environmental Defense Fund (sponsor)
Environmental Entrepreneurs
Fluid Truck
Inland Empire Utilities Agency
Lordstown Motors
Los Angeles Cleantech Incubator
Motiv Power Systems
Natural Resources Defense Council
NextGen California
NRDC
Port of San Diego
Regional Asthma Management and Prevention
San Diego 350
San Diego Unified Port District
San Francisco Bay Area Planning and Urban Research Association
San Francisco Bay Physicians for Social Responsibility
Santa Clara Valley Water District
Sierra Club California
SPUR
The Climate Center
The Climate Reality Project Orange County Chapter
Union of Concerned Scientists
ZEV 2030

Opposition

None on file

Analysis Prepared by: Elizabeth MacMillan / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 47 (Limón) – As Amended June 29, 2021

SENATE VOTE: 25-10

SUBJECT: Oil and gas: hazardous and idle-deserted wells and production facilities: expenditure limitations

SUMMARY: Authorizes, starting in fiscal year 2022-23, the Geologic Energy Management Division (Division) to make expenditures up to \$5 million to plug and abandon hazardous or deserted wells or hazardous or deserted production facilities and extends related reporting requirements.

EXISTING LAW:

- 1) Renames the Division of Oil, Gas, and Geothermal Resources to the Geologic Energy Management Division (Division).
- 2) Requires the operator of any well, before commencing the work of drilling the well, to file with the Oil and Gas Supervisor (Supervisor) or the district deputy a written notice of intention to commence drilling. Specifies that if the Supervisor or the district deputy fails to give the operator written response to the notice within 10 working days from the date of receipt, that notice is considered approved. Requires the notice to be deemed canceled if operations have not commenced within one year of receipt of the notice.
- 3) Defines “production facility” to mean any equipment attendant to oil and gas production or injection operations, including, but not limited to, tanks, flowlines, headers, gathering lines, wellheads, heater treaters, pumps, valves, compressors, injection equipment, and pipelines that are not under the jurisdiction of the State Fire Marshal.
- 4) Defines “idle well” as any well that has had 24 consecutive months of not producing oil, natural gas, or water to be used in production stimulation, enhanced oil recovery, or reservoir pressure management. Defines “long-term idle well” as any well that has been an idle well for eight or more years.
- 5) Requires an operator who engages in the drilling, redrilling, deepening, or in any operation permanently altering the casing of a well, or who acquires a well to file with the Supervisor an individual indemnity bond for each well in the following amount:
 - a) \$25,000 for each well that is less than 10,000 feet deep; and,
 - b) \$40,000 for each well that is 10,000 feet deep or more.
- 6) Allows an operator to file one blanket indemnity bond with the Supervisor to cover 20 or more wells instead of individual indemnity bonds. Requires the bond to be the following amounts:
 - a) \$200,000 for 20 to 50 wells;

- b) \$400,000 for 51 to 500 wells;
 - c) \$2,000,000 for 501 to 10,000 wells; and,
 - d) \$3,000,000 for more than 10,000 wells.
- 7) Requires an operator to do one of the following:
- a) File with the Supervisor annual fees of the following amounts:
 - i) \$150 for each idle well that has been idle for three to eight years;
 - ii) \$300 for each idle well that has been idle for eight to 15 years;
 - iii) \$750 for each idle well that has been idle for 15 to 20 years; and,
 - iv) \$1,500 for each idle well that has been idle for 20 years or longer.
 - b) File an idle well management plan with the Supervisor for approval that eliminates between 4% and 6% of their long-term idle wells each year.
- 8) Requires a well to be properly abandoned before an individual or blanket indemnity bond can be terminated or canceled.
- 9) Authorizes the Supervisor to require an operator to provide an additional amount of security in an amount not to exceed the reasonable costs of plugging and abandoning all of the operator's wells or \$30 million, whichever is less.
- 10) Authorizes, until fiscal year 2022-23, the Division to make expenditures up to \$3 million to plug and abandon hazardous or deserted wells or hazardous or deserted production facilities.
- 11) Requires the Department of Conservation (DOC) to report in two separate reports to the Legislature on the number of hazardous wells, idle-deserted wells, deserted facilities, and hazardous facilities it has abandoned and decommissioned and the number remaining including the estimated costs and timelines of future abandonment.
- 12) Requires, on or before January 1, 2020, the Supervisor to do all of the following:
- a) Evaluate and estimate the costs associated with the decommissioning, including plugging and abandoning the offshore oil and gas wells under the Supervisor's jurisdiction.
 - b) If necessary, develop a schedule to increase the bond amounts or other financial surety provided by an operator of an offshore oil or gas well to ensure sufficient moneys are available to the state to decommission the well if no other entity is responsible for those decommissioning costs.
 - c) Coordinate with State Lands Commission to ensure the actions required are not duplicative and consistent with the current process of setting and adjusting bonds and securities.
- 13) Requires the Supervisor to submit to the Legislature a comprehensive report on the status of idle and long-term idle wells each year.

- 14) Requires, commencing July 1, 2022, each operator of an oil and gas well to submit a report with specified criteria to the Division that demonstrates the operator's total liability to plug and abandon all wells and to decommission all attendant production facilities, including site remediation, on a schedule determined by the Supervisor.

FISCAL EFFECT: According to the Senate Appropriations Committee (prior version of the bill):

- 1) Ongoing costs of \$9 million annually from the Oil, Gas, and Geothermal Administration Fund (OGGAF) due to increasing the annual spending authority for the Division to plug deserted wells.
- 2) Division estimates costs of \$1,062,000 in the first year and \$989,000 ongoing (OGGAF) for six positions and limited-term contract authority to administer and oversee the increased spending on plugging and abandonment of hazardous or idle-deserted wells.
- 3) OGGAF is funded by fees on oil and natural gas produced in California. Any state costs supported by OGGAF are recovered from operators of oil and gas wells.

COMMENTS:

1) **Author's statement:**

Without a responsible operator, taxpayers will be the funding source of last resort for environmental remediation. The 2018 California Council on Science and Technology Report estimated California might already have 5,540 wells without a viable operator, resulting in taxpayer costs ranging from \$500 million to billions of dollars. These wells are hazardous both to surrounding communities and the environment.

SB 47 is a significant step to ensure that the oil and gas industry pays for the remediation of hazards that the industry has historically left behind and those the State and taxpayers continue to inherit.

- 2) **Idle/orphan wells.** Oil and gas wells that are not operated and maintained on a regular basis present several hazards to the environment as well as public health and safety. Deteriorating wells can create a conduit for contaminants such as hydrocarbons, lead, salt, and sulfates to enter freshwater aquifers and pose potential risks to ground water, surface water, air quality, soils, and vegetation.

Idle and orphan wells also present a liability risk to California. Operators with a large inventory of idle wells may be postponing the cost to permanently plug and abandon the wells for financial reasons. If the operator becomes insolvent, the idle wells may become orphan wells and the state may inherit liability to plug those idle wells. Many of these are "buried-idle" wells with antiquated, vague, or nonexistent records below densely-built and populated urban areas in southern California. Some of these wells may never result in problems or may be remediated as a condition of permitting new construction projects as downtown Los Angeles and other areas are redeveloped. However, with so many wells, some dating back to the turn of the last century, it is probable that some will present health or safety concerns. Just one or two in any given year in an urban environment has the potential to consume the Division's entire hazardous deserted

idle well budget, leaving it unable to plug more than a few orphan wells every year throughout the entire state. Since 2011, the Division has plugged and abandoned 117 wells (and some attendant facilities) across the state with a total cost of over \$13 million.

In March 2021, the Division released the second annual idle well report for calendar year 2019. Among the report's findings, the number of idle wells increased (by about 8,000) to 37,095, while the number of long-term idle wells remained about the same at 17,560. In 2019, the Division identified 3,265 wells as potentially deserted because the operator failed to pay idle well fees for the associated wells.

In a related effort, and at the Division's request, the California Council on Science and Technology (CCST) investigated the status of the state's oil and gas wells in order to estimate the potential cost to the state should the wells become orphaned. In January 2020, the CCST report was released; it suggested that there were about 5,540 wells that were either likely to be orphaned or at high risk of becoming orphaned soon. The potential liability to the state was estimated to be roughly \$500 million for these two categories alone. While there are indemnity bonds in place for many of these wells, the sum of the bond amounts is much less than the likely costs.

CCST recommended, among other things, that its methodology should be refined to improve its predictive ability, that the ownership history of wells should be assessed, and the potential environmental impacts of the orphaned wells should be investigated.

On July 15, 2020, California Resources Corp., the state's largest oil and gas production company with more than 2 million acres of reserves spanning four major basins, filed for Chapter 11 bankruptcy protection, seeking relief from \$5 billion in debt and looming interest payments. According to the Desert Sun newspaper, oil and gas company bankruptcies have been rising in recent years, and the demand downturn caused by business closures and stay-at-home orders has only exacerbated the issue.

The Division is authorized to spend \$3 million a year for plugging and abandoning hazardous or idle-deserted wells and decommissioning hazardous or deserted facilities. In fiscal year 2022-23, that amount will go down to \$1 million a year. The Division can also spend idle well fees and penalty revenues on this work. Instead of allowing the amount to decrease to \$1 million, this bill would increase it to \$5 million a year permanently. In addition, this bill would extent the related reporting requirements on how the funding is spent.

3) Related/previous legislation.

AB 896 (Bennett) requires the Supervisor to establish a collections unit within the Division. Authorizes the Supervisor to impose a claim and lien upon the real property in the state owned by any operator or responsible party of an oil or gas well under specified conditions. This bill is awaiting hearing in the Senate Natural Resources and Water Committee.

SB 84 (Limón) requires additional reporting on specified oil and gas wells and production facilities including the location of the applicable wells and facilities. This bill is awaiting hearing in the Senate Appropriations Committee.

SB 1012 (Hurtado, 2020) was almost identical to SB 84. This bill was held on the Assembly Floor.

AB 1057 (Limón), Chapter 771, Statutes of 2019, renames the Division of Oil, Gas, and Geothermal Resources to the Geologic Energy Management Division. Authorizes the Supervisor to require an operator to provide an additional amount of security in an amount not to exceed the reasonable costs of plugging and abandoning all of the operator's wells or \$30 million.

REGISTERED SUPPORT / OPPOSITION:

Support

1000 Grandmothers for Future Generations
350 Bay Area Action
350 Butte County
350 Conejo / San Fernando Valley
350 Humboldt
350 Sacramento
350 Silicon Valley
350 South Bay Los Angeles
350 Ventura County Climate Hub
Alliance of Nurses for Healthy Environments
Audubon California
Ban Sup (Single Use Plastic)
California Coastal Protection Network
California Interfaith Power & Light
California League of Conservation Voters
Center for Biological Diversity
Change Begins With Me
Citizens Climate Lobby Ventura
Clean Water Action
Climate 911
Climate First: Replacing Oil & Gas
Climate Health Now
Climate Reality Project, Los Angeles Chapter
Conejo Climate Coalition
County of Santa Barbara
Earthjustice
East Valley Indivisibles
Environmental Defense Center
Environmental Working Group
Facts: Families Advocating for Chemical & Toxins Safety
Feminists in Action
Food & Water Watch
FracTracker Alliance
Greenpeace USA
Indivisible 43

Indivisible Alta Pasadena
Indivisible CA 37
Indivisible CA-33
Indivisible California Green Team
Indivisible Media City Burbank
Indivisible Sacramento
Indivisible San Pedro
Indivisible Sonoma County
Indivisible South Bay LA
Indivisible Stanislaus
Indivisible Ventura
Interfaith Climate Action Network of Contra Costa County
Livermore Indivisible
Long Beach Alliance for Clean Energy
Los Angeles County
Los Padres Forest Watch
Mi Familia Vota
Natural Resources Defense Council
Normal Heights Indivisible
Orinda Progressive Action Alliance
Progressive Democrats of Santa Monica Mountains
Project Super Bloom
Rodeo Citizens Association
Rooted in Resistance
San Francisco Bay Physicians for Social Responsibility
SanDiego350
Santa Barbara County Action Network
Santa Barbara Standing Rock Coalition
Sierra Club
SoCal 350
SoCal 350 Climate Action
South Coast Interfaith Council
Sunflower Alliance
Sunrise Movement LA
Surfrider Foundation
Take Back Our Planet
Together We Will/Indivisible - Los Gatos
Voices for Progress

Opposition

California Independent Petroleum Association
California State Association of Electrical Workers
California State Pipe Trades Council
Western States Petroleum Association

Analysis Prepared by: Michael Jarred / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 18 (Skinner) – As Amended June 30, 2021

SENATE VOTE: 38-0

SUBJECT: Hydrogen: green hydrogen: emissions of greenhouse gases

SUMMARY: Requires the Air Resources Board (ARB), California Energy Commission (CEC), and Public Utilities Commission (PUC) to evaluate, consider, and report on various issues related to the potential role of hydrogen in meeting state “decarbonization” goals.

EXISTING LAW:

- 1) Defines “green electrolytic hydrogen” as hydrogen gas produced through electrolysis and does not include hydrogen gas manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock.
- 2) Requires the PUC, CEC, and ARB to consider green electrolytic hydrogen an eligible form of energy storage and consider its potential uses.
- 3) Requires, pursuant to the California Global Warming Solutions Act [AB 32 (Núñez), Chapter 488, Statutes of 2006], ARB to adopt a statewide GHG emissions limit equivalent to 1990 levels by 2020 and to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.
- 4) Requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030.
- 5) Establishes, pursuant to Executive Order B-55-18, a statewide goal to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter.
- 6) Requires ARB to prepare and approve a scoping plan at least once every five years for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs.
- 7) Requires utilities and other retail sellers of electricity to procure 60% of their retail electricity sales from eligible renewable energy resources by 2030 and thereafter, including interim targets of 33% by 2020, 44% by 2024, and 52% by 2027.
- 8) Establishes a policy that eligible renewable energy resources and zero-carbon electric generating facilities will supply all electricity procured to serve California customers by December 31, 2045, and directs the PUC, CEC, and ARB to incorporate this policy into all relevant planning and programs.
- 9) Requires the CEC to adopt the Integrated Energy Policy Report (IEPR) every two years, which must contain an overview of major energy trends and issues facing the state, including,

but not limited to, supply, demand, pricing, reliability, efficiency, and impacts on public health and safety, the economy, resources, and the environment.

THIS BILL:

- 1) Requires ARB, as part of the 2022 scoping plan update, to identify the role of hydrogen, and particularly green hydrogen, in helping California achieve its climate goals.
- 2) Requires ARB, in consultation with the CEC and PUC, by June 1, 2023, to prepare a hydrogen evaluation, including:
 - a) Policy recommendations to accelerate production and use of hydrogen, and specifically green hydrogen, to help achieve climate, clean energy, and clean air objectives.
 - b) Strategies supporting hydrogen infrastructure and end uses in difficult to decarbonize sectors.
 - c) Potential for other forms of hydrogen, outside of green hydrogen, to achieve emissions reductions.
 - d) An analysis of how curtailed electrical generation could be used to meet climate goals, including for the production of green hydrogen.
 - e) An estimate of emissions reductions the state could achieve through deployment of green hydrogen.
- 3) Requires ARB, in conjunction with the CEC and PUC, by June 1, 2023, to:
 - a) Make recommendations to the Legislature on definitions and potential end uses for different categories of hydrogen.
 - b) Provide guidance to the Legislature on which categories may be used to meet eligibility requirements for agency programs.
 - c) Jointly develop prohibitions against double counting of environmental attributes associated with hydrogen production, distribution, and use.
 - d) Calculate life-cycle carbon intensity values for hydrogen pathways.
- 4) Requires the CEC, as part of the 2023 and 2025 IEPR, to study and model potential growth for hydrogen and its role in decarbonizing the electrical and transportation sectors.
- 5) Requires the PUC, ARB, and CEC to consider potential uses of green electrolytic hydrogen in their decarbonization strategies.
- 6) Establishes related findings.

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Background.** Hydrogen, or H₂, has the potential to be used in a multitude of applications – from fuel cells in cars; to replacing natural gas in homes; to fuel replacement in aviation, shipping, and trucking industries; and to generate electricity. One, much discussed, potential application of H₂ is to firm our renewable energy grid. By using low-cost, abundant electricity from intermittent renewables during the day (i.e. solar and wind) to produce H₂, and then using that H₂ in fuel cells or injecting into a pipeline to provide power at other times, hydrogen can act as a form of storage. However, in practice, many of the technologies used to produce H₂ from renewables are still expensive and unable to economically cycle on and off in line with the availability of intermittent renewables. This example in the energy sector is characteristic of many other hydrogen applications – where the GHG footprint, cost, and availability of the hydrogen are uncertain or unclear – calling for a more thorough understanding of which hydrogen product is best suited to which application. Moreover, certain uses for hydrogen will strongly depend on reliable methods for safely storing and transporting it in large quantities. It is not as simple as injecting hydrogen directly into the natural gas pipeline. Hydrogen can embrittle and crack gas pipeline materials. As the percentage of hydrogen in the pipeline increases, the operating pressure of the pipeline may need adjustment, potentially compromising older pipelines in the state. The PUC currently has a \$1.5 million contract with the University of California Riverside and the Gas Technology Institute to conduct experimental work on the safety and efficacy of injecting hydrogen into California’s pipeline.

Current conversations around H₂ often confuse the various types of hydrogen production, mistakenly treating all hydrogen equally. The type of feedstock (what material is used to make the H₂) and the production method (what is done to break apart the feedstock into H₂) determines the emissions profile of hydrogen produced.

Some notable feedstocks of hydrogen include biomass, biomass-derived liquids like ethanol and bio-oil, biogas, coal, natural gas, and water. These feedstocks are then broken down through thermochemical processes to generate H₂. The thermochemical processes vary and can generate different amounts and types of particulate pollution and GHGs. In every process, energy is needed in order to generate H₂. Some processes rely on clean resources exclusively for their power, while others are less discriminating.

The various combinations of feedstocks and processes result in a multitude of hydrogen products. Historically, H₂ typically has been produced from a natural gas feedstock and whatever energy is cheapest, via natural gas steam methane reforming. The vast majority of H₂ currently used in the United States comes from this process. While cheap and efficient, it generates carbon dioxide and other pollutants, depending on the energy source used.

This bill uses the term “green hydrogen” without defining it. In fact, one of the objectives of the bill is to solicit recommendations from ARB, CEC, and PUC on definitions, as well as potential end uses, for different categories of hydrogen. While “green hydrogen” is commonly understood to be produced using only renewable feedstock – such as biomass, renewable natural gas, or water – and renewable electricity to generate the hydrogen, the current definition of “green electrolytic hydrogen” in Section 400.2 of the Public Utilities Code allows non-renewable electricity to be used, as long as the hydrogen is produced from

water through electrolysis, rather than steam reformation. This can result in hydrogen with a relatively high carbon intensity, confusing the question of what “green” actually means.

2) Author’s statement:

The most basic element in the universe – hydrogen – may be poised to help California and the world move to a cleaner economy while protecting well-paying jobs for our workers. Green hydrogen – which can be created through multiple clean pathways including splitting water using excess renewable electricity from solar and wind, steam reformation of biogas, and gasification of biomass – can be a game changer to decarbonize some of California’s most difficult to decarbonize sectors: transportation, long haul trucking, ocean shipping, even air travel. It can also store renewable energy for later use, and power industry or the electrical grid. All while preserving well-paying jobs in traditional industries. Many countries around the world are accelerating their green hydrogen production capabilities with the explicit goal of becoming a major global exporter. California has an opportunity to also develop a global leadership position in green hydrogen.

SB 18 advances green hydrogen by requiring ARB and other state agencies to start planning so our state can take full advantage of the decarbonization and job creation benefits associated with multi-sectoral green hydrogen production and use at scale.

- 3) Double referral.** This bill was approved by the Utilities and Energy Committee with amendments on June 16, 2021 by a vote of 15-0.

REGISTERED SUPPORT / OPPOSITION:

Support

AquaHydrex
California Environmental Justice League
Green Hydrogen Coalition
HydrogenPro AS
Natural Resources Defense Council
Sempra Energy Utilities

Opposition

Climate Health Now (unless amended)

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 406 (Stern) – As Amended May 20, 2021

SENATE VOTE: 36-0

SUBJECT: Oil and gas: operations: notice of intent: investigations: data availability

SUMMARY: Makes numerous changes to existing oil and gas conservation law to enhance public transparency and improve data availability, among other things.

EXISTING LAW:

- 1) Renames the Division of Oil, Gas, and Geothermal Resources to the Geologic Energy Management Division (Division).
- 2) Requires the operator of any well, before commencing the work of drilling the well, to file with the Oil and Gas Supervisor (Supervisor) or the district deputy a written notice of intention (NOI) to commence drilling. Specifies that if the Supervisor or the district deputy fails to give the operator written response to the notice within 10 working days from the date of receipt, that notice is considered approved. Requires the notice to be deemed canceled if operations have not commenced within one year of receipt of the notice.
- 3) Requires the Supervisor, on or before the first day of October of each year, to make public, for the benefit of all interested persons, a report in writing showing specified information, including the total amounts of oil and gas produced in each county in the state during the previous calendar year.
- 4) Requires the operator of a well to file a written notice of intention to commence drilling with, and prohibits any drilling until approval is given by, the Supervisor or district deputy.
- 5) Authorizes a city or county to request a list of all idle wells within its jurisdiction from the Supervisor and take certain actions related to those wells.
- 6) Requires the Department of Conservation (DOC) to provide recommendations to the Legislature as part of an April 1, 2021-required legislative report for improving and optimizing the involvement of local agencies in the process of plugging and abandoning wells and decommissioning facilities.
- 7) Requires an owner or operator of a well to keep, or cause to be kept, a careful and accurate log, core record, and history of the drilling of the well.

THIS BILL:

- 1) Requires, on or before an unspecified date, the Supervisor to make all public information collected or maintained by the Division, including well records, well logs, notices of intention, notice of violation, supplementary notices, field reports, inspection reports, correspondence, and other materials readily available to the public on its internet website,

except well records required to be held as confidential information. Requires all online materials to be organized by well, operator, or project, and searchable.

- 2) Requires, on or before an unspecified date, the Division to provide training to local governmental entities on materials collected and maintained by the Division related to oil and gas operations.
- 3) Requires the Division to modify its forms used to evaluate NOI to include information on the expiration date or other conditions placed upon any local government permits or other authorization. Requires any notice that does not include this information to be deemed incomplete.
- 4) Authorizes the city council or county board of supervisors, where a well or production facility is located for which an NOI was approved before January 1, 2022, to request the Division to revise its records to incorporate the information.
- 5) Requires, on or before an unspecified date, all operators shall provide the Division with specified production information electronically.
- 6) Requires the DOC to post the information supporting the rate or rates charged to support supervision of oil and gas operations by specified state agencies to be publicly available on its internet website.

FISCAL EFFECT: According to the Senate Appropriations Committee:

- 1) Unknown one-time costs, likely more than \$250,000 and potentially in the millions of dollars (Oil, Gas, and Geothermal Administrative Fund [OGGAF]), for external contracts to implement additional changes to the WellSTAR database and to amend forms as required.
- 2) Unknown ongoing costs, likely in the low hundreds of thousands of dollars (OGGAF), for roughly two positions at the Division to support the database and posting of records, among other things.
- 3) Unknown ongoing costs (OGGAF) for staff workload at the Division from expanding the public complaint procedures.
- 4) OGGAF is funded by fees on oil and natural gas produced in California. Any state costs supported by OGGAF are recovered from operators of oil and gas wells.

COMMENTS:

1) Author's statement:

Oil and gas wells, particularly those near population centers or wildlife areas, pose a large number of health risks to people and the environment. With that in mind, it is important that information on these wells be transparent, easily accessible, and publicly available. When there are shortcomings in data transparency about whether a well is active or idle, whether it has been properly capped and maintained, and much more has exacerbated the health risks communities are exposed to by impeding effective oversight and regulation. SB

406 addresses the lack of easily available data by requiring a number of improvements to the California Geologic Energy Management (CalGEM) Division's oil and gas reports. It requires CalGEM to make data collected and maintained by the division publicly available and searchable on its website as well as expanding what is required on well reports. Furthermore, it will encourage greater communication between local and state regulators by requiring CalGEM to create community outreach programs. Finally, SB 406 is an important step in improving accountability for wells drilled in population centers. It expands the list of people who can file a complaint to include those residing within one mile of a well, not just those who own land or operate wells, as is permitted under current law.

- 2) **Background.** California is a major oil and gas producing state. According to the US Energy Information Administration, the state was 7th and 14th for oil and natural gas production, respectively, among the 50 states in 2020. Production of oil was about 135 million barrels. Approximately 70% of oil production is in Kern County, followed by Los Angeles County (about 11%), and Monterey, Ventura and Fresno Counties (about 4 – 5% each) (2018 data).

According to data obtained from the Division's website, there are approximately 125,000 active and idle oil and gas wells in the state (2021 data) and related production facilities located in over 180 oil and gas fields. The Division typically issues annually several thousand permits (notices of intention) for drilling new wells, re-working existing wells, and plugging and abandoning existing wells, although not all of the work is performed.

- 3) **WellSTAR.** The Well Statewide Tracking and Reporting system (WellSTAR) was much needed in order to replace vintage software systems previously in use at the Division. WellSTAR has been in development since Fiscal Year 2015-16, and the Legislature has appropriated on the order of \$69 million to fund it thus far. While the public part of WellSTAR apparently continues to be improved and WellSTAR itself has considerable potential, committee staff received numerous error messages recently while navigating through the system and making simple data requests. It appears that at least part of the legacy systems (pre-2018) continue to be maintained as a resource, and it remains unclear if some of the long-standing issues with data availability (that existed in the legacy system) will be resolved.
- 4) **Where is the data?** The overdue 2019 annual idle well report – originally due July 1, 2020 – and the overdue 2019 “Shall-witness/may-witness” report were both released recent. There remain several other required reports that have not been received by the Legislature, or, as applicable, made available to the public. These include:
- a) The 2019 Annual Report of the Supervisor (due October 1, 2020);
 - b) The 2019 Well Stimulation Treatment (“SB 4”) report (due July 30, 2020);
 - c) The 2019 Underground Injection Control (UIC) Program report (due July 30, 2020); and
 - d) The April 1, 2021 report detailing the estimated costs of abandoning hazardous and deserted wells and decommissioning hazardous and deserted facilities with a timeline and

specific future goals for the abandoning and decommissioning, as specified.

It is difficult to assess CalGEM's current performance without the timely submission of these reports. Additionally, CalGEM has acknowledged that some of the information provided in the 2019 "Shall-witness/may-witness" report warrants revision.

In addition, in the last decade-plus, the state's oil and gas regulator has made repeated commitments to modernize and improve its data management and improve public transparency of regulatory data (Renewal Plans of 2015 and 2017). Despite receiving ongoing legislative support, there remains significant work to be done to improve in this area. For example, in response to AB 434 (Baker), Chapter 780, Statutes of 2017, that required state websites to comply with the Americans with Disabilities Act (ADA), many agencies "complied" by removing documents from their websites entirely. As a result, the process of obtaining information on oil and gas wells remains opaque and prevents effective oversight. In September of 2020, the Division required an e-mail to obtain certain documents citing compliance with AB 434. This bill addresses the lack of easily available data by requiring the Division to make more data available on their internet website.

- 5) **Amendments.** This bill has several blank dates in it. Committee staff has worked with the author's office to fill in those dates with committee amendments. The dates would be July 1, 2026 for making all public information collected by the division readily available and July 1, 2023 for the other blank dates. However, it is important to make it clear that the Division should make progress toward more public information being available before the deadline in the bill. The author and committee *may wish to consider* amending the bill to require continuous progress and to prioritize information that was previously available and for wells that have not been plugged and abandoned.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Butte County
350 Conejo / San Fernando Valley
350 South Bay Los Angeles
350 Ventura County Climate Hub
Conejo Climate Coalition
Environmental Working Group
Indivisible California Green Team
Natural Resources Defense Council
Sierra Club

Opposition

Western States Petroleum Association

Analysis Prepared by: Michael Jarred / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 423 (Stern) – As Amended July 1, 2021

SENATE VOTE: 31-9

SUBJECT: Energy: firm zero-carbon resources

SUMMARY: Requires the California Energy Commission (CEC) to submit to the Legislature an assessment of firm zero-carbon resources that support a clean, reliable, and resilient electrical grid in California, as specified.

EXISTING LAW:

- 1) Requires utilities and other retail sellers of electricity to procure 60% of their retail electricity sales from eligible renewable energy resources by 2030 and thereafter, including interim targets of 33% by 2020, 44% by 2024, and 52% by 2027.
- 2) Establishes a policy that eligible renewable energy resources and zero-carbon electric generating facilities will supply all electricity procured to serve California customers by December 31, 2045, and directs the Public Utilities Commission (PUC), CEC, and the Air Resources Board (ARB) to incorporate this policy into all relevant planning and programs. Requires the PUC, in consultation with the CEC, ARB, and all California balancing authorities, to issue a joint report to the Legislature by January 1, 2021, reviewing and evaluating the 100 percent clean energy policy (SB 100 Report).
- 3) Requires the PUC to identify a diverse and balanced portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner. Requires the portfolio to rely upon zero carbon-emitting resources to the maximum extent reasonable and be designed to achieve any statewide greenhouse gas (GHG) emissions limit established pursuant to the California Global Warming Solutions Act of 2006 or any successor legislation.
- 4) Requires the CEC to adopt the Integrated Energy Policy Report (IEPR) every two years, which must contain an overview of major energy trends and issues facing the state, including, but not limited to, supply, demand, pricing, reliability, efficiency, and impacts on public health and safety, the economy, resources, and the environment.

THIS BILL:

- 1) Requires the CEC, by December 31, 2022, to submit to the Legislature an assessment of firm zero-carbon resources that support a clean, reliable, and resilient electrical grid in California. Requires the assessment to:
 - a) Identify all available, commercially feasible and near-commercially feasible firm zero-carbon resources that could support a clean, reliable, and resilient electrical grid, and distinguish which resources are capable of addressing system reliability needs and local reliability needs.

- b) Evaluate the magnitude of potential needs for and role of firm zero-carbon resources using a reasonable range of resource cost and performance assumptions that reflect emerging technology trends in order to help integrate generation from eligible renewable energy resources into the electrical grid on a daily, multiday, and seasonal basis.
 - c) Identify barriers to the procurement of firm zero-carbon resources and possible solutions to address those barriers, including pathways for additional procurement of those resources by load-serving entities, including joint procurements by electrical corporations, community choice aggregators, direct access customers, local publicly owned electric utilities, and other public entities, or a central procurement entity.
 - d) Recommend changes to research and development projects, demonstration projects, and energy incentives to support the contributions of firm zero-carbon resources to the near-, mid-, and long-term reliability and resiliency of California's electrical grid, consistent with California's goals to reduce localized air pollutants and GHG emissions, including early priority in disadvantaged communities.
 - e) Evaluate the reliability of load-serving entities' integrated resource plans under multiday extreme and atypical weather events, which shall include, at minimum, events with extended periods of low renewable energy generation and events that occur in all seasons at least as frequently as once per 10 years.
- 2) Defines "firm zero-carbon resources" as zero-carbon electricity resources that can deliver electricity with high availability for the expected duration of multiday extreme or atypical weather events, including periods of low renewable energy generation. "Firm zero-carbon resources" may include geothermal, green electrolytic hydrogen, long-duration energy storage, multiday energy storage, and other resources.
- 3) Requires the CEC to timely incorporate firm zero-carbon resources into the IEPR.
- 4) Establishes related findings.

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Background.** Firm electricity resources can deliver electricity at any time, for as long as needed, and may include anything from fossil fuel plants to biomass, geothermal, hydroelectric, and nuclear energy. These firm resources can supply electricity even when variable resources – such as solar and wind – are offline (such as at night or on cloudy days). Much of the firm power currently in use in California is from natural gas. With California moving towards a 100% clean energy future, and on the eve of closing its last remaining nuclear plant at Diablo Canyon, other sources of firm power are likely necessary to maintain system reliability.

Recent studies have highlighted the need for clean firm power to contribute to this future. The studies suggest clean firm power can provide reliability benefits at long-term cost savings over an all-variable renewable portfolio. However, the studies raise concerns that California is not adequately preparing these resources for future procurement, as these

resources have long-lead times to development and are often more expensive than variable renewables (solar and wind).

Since 2015, with the passage of SB 350 (De León), Chapter 547, Statutes of 2015, California regulators have worked to identify a diverse mix of resources to achieve our clean energy goals. SB 350 requires the PUC to adopt a process for each load-serving entity (LSE) to file an integrated resource plan (IRP) starting in 2017 and for each publicly-owned utility (POU) to file an IRP by January 1, 2019. The goal of the IRP is to reduce the cost of achieving GHG emission reductions by looking broadly at system needs, rather than at individual LSEs or resource types, in order to identify generation that reduces GHGs, improves reliability, and reduces overall cost.

The IRP operates on a 2-year planning cycle, and forecasts system need 10 years into the future. The most recent IRP analysis identified almost 20 gigawatts (GW) of new resources needed by 2031, arising from a mix of geothermal, land-based wind, solar, battery storage, and long-duration storage resources. The PUC also conducts sensitivity analyses for the IRP for emerging resources whose pricing data and availability are not robust enough for inclusion as a main resource, but whose sensitivity analysis can provide more insight into how the technology may contribute to the overall portfolio. Recent IRP sensitivities have examined offshore wind and hydrogen.

While the IRP focuses on what energy mix is best suited to meet our GHG and reliability goals 10 years into the future, the Joint Agency SB 100 Report looks at a planning horizon 24 years out, to determine how best to implement the 100%-clean-electricity-by-2045 policy enacted under SB 100 (De León), Chapter 312, Statutes of 2018. The first SB 100 report was finalized in March 2021, and included analyses of many pathways to achieve the state's 2045 clean energy goal, including a core scenario which selected offshore wind resources and long-duration storage, as well as study scenarios examining "zero-carbon firm resources." The SB 100 Report will be updated every four years, with future work focused on system reliability, among other considerations.

Alongside the IRP and SB 100 Report, which focus on potential mid- and long-term procurement needs for the electricity system, the CEC prepares the IEPR to forecast all aspects of energy industry supply, production, transportation, delivery, distribution, demand, and pricing. The CEC is then required to use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The CEC adopts an IEPR every two years with updates every other year.

2) **Author's statement:**

The growing effects of climate change are revealing more and more the serious limitation of our energy grid. This was made evident last August, when an extreme heat wave across the west resulted in energy demand reaching high enough levels that it required the California Independent Systems Operator (CASIO) to issue a Flex Alert, for the first time in nearly 20 years. The energy agencies' Final Root Cause Analysis identified this as a 1-in-30 year weather event, based on historic data. Yet even more abnormal weather events followed in September and October of last year. And during the week of June 14, record-setting temperatures were experienced throughout California and the West, with a

Flex Alert in place for multiple days urging energy conservation. A 1-in-30 event, now seems to be a frequent occurrence.

During the August events from last year, CAISO called upon all Californians to conserve energy in order to avert rolling power outages. Millions of Californians heeded the call and did their part to conserve power, but it was not enough to avert CASIO from ordering rolling blackouts for a brief period of time. We quickly learned from the rolling blackouts in August, and were able to avoid power disruptions in September and October.

But it could have been worse, and it reveals that our energy grid is simply not prepared to withstand extreme weather events or multi-day periods of low renewable energy generation. Just last February, Texas experienced extreme cold weather affecting parts of the Midwest where demand for energy to heat homes in freezing temperatures and a lack of energy reliability and resiliency measures resulted in rolling blackouts that lasted for days at a time. On Tuesday, June 15, Texas called on its energy customer to again conserve power in the midst of a developing heat-wave in order to again avoid rolling-blackouts. These extreme weather events are not going away but are likely to increase, and if we rely on the same energy planning processes that got us to last August, then the same outcome is certain to happen, especially as we become more dependent on variable renewable energy resources that are affected by weather and climate change. It is vitally important for our state's energy agencies better plan for these extreme weather events and assess how to increase and integrate emerging renewable energy and firm zero-carbon resources that support a clean, reliable, resilient electrical grid in California. Texas has already adopted legislation in response to the winter 2021 blackouts to require its electricity regulator to ensure grid reliability during extreme heat and extreme cold conditions, as well as during times of low non-dispatchable power. California has yet to ensure that our energy agencies are planning for these conditions, and we must.

The impacts of climate change are also affecting hydro production, with a “normal” hydro year looking increasingly abnormal, and the resource overall becoming more variable and less reliable. And at the same time, California is rapidly moving toward clean energy, trying to move away from reliance on natural gas power plants, and facing the shutdown of its last, baseload nuclear power plant. All this points to a need to rapidly plan for clean alternatives to these firm and dispatchable resources, so that we can quickly and reliably meet our clean energy goals. Fortunately, there are several promising technologies to fill this role, including geothermal power, green hydrogen, offshore wind, long duration storage and multi-day storage. CEC and CPUC are actively promoting development of each of these technologies, and even considering requiring procurement of them, yet haven't fully integrated them into their planning processes. It's past time they do so.

- 3) **More than zero?** The definition of “firm zero-carbon resources” in this bill is imprecise and includes general examples of technologies where carbon emissions are not zero by definition and are highly dependent on electricity source, including electrolytic hydrogen (which is a fuel not an electricity resource) and energy storage. *The author and the committee may wish to consider* amending the bill to use a term other than “zero carbon” that accurately reflects this broader array of resources that may be used to support integration of renewable energy and the transition to a zero-carbon electricity grid. Alternatively, if the term “zero carbon” is retained, *the author and the committee may wish to consider* adding language to the

definition to clarify that zero-carbon resources are resources “that don’t produce greenhouse gas emissions.”

- 4) **Should the CEC dabble in procurement?** This bill asks the CEC to identify barriers to, and pathways for, procurement of zero-carbon resources by utilities and other LSEs. This assignment stands at odds with the CEC’s historic purpose. Utility procurement has never been the province of the CEC. In fact, since 1978, the Warren-Alquist Act has included a provision saying the CEC is not authorized to mandate a specified supply plan for any utility (reenacted as Section 25323 of the Public Resources Code in 2002). Even though this bill is asking for recommendations, not mandates, asking the CEC to dabble in procurement may create conflicts with the CEC’s core planning, analysis, and siting duties. *The author and the committee may wish to consider* amending the bill to use an alternative term, such as “development,” in place of “procurement” and/or clarifying that the CEC assessment is not intended to mandate procurement or otherwise affect the procurement process for any particular LSE.
- 5) **Double referral.** This bill was approved by the Utilities and Energy Committee with amendments on June 30, 2021 by a vote of 13-0.

REGISTERED SUPPORT / OPPOSITION:

Support

350 Bay Area Action
350 Silicon Valley
California Energy Storage Alliance
Clean Power Campaign
Coalition of California Utility Employees
Form Energy
Plug in America

Opposition

California Municipal Utilities Association
Northern California Power Agency
Pacific Gas and Electric Company
Sempra Energy Utilities
Southern California Edison
Southern California Public Power Authority

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /

Date of Hearing: July 7, 2021

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

ACR 33 (Friedman) – As Introduced February 19, 2021

SUBJECT: Wildfire mitigation

SUMMARY: This resolution declares that the Legislature is committed to improving wildfire outcomes in the State of California, by investing in science-based wildfire mitigation strategies that will benefit the health of California forests and communities.

EXISTING LAW:

- 1) Requires the Board of Forestry and Fire Protection (Board) to classify all lands within the state for the purpose of determining areas in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state [known as the State Responsibility Area (SRA)].
- 2) Requires the Department of Forestry and Fire Protection (CAL FIRE) to identify certain areas in the local responsibility area (LRA) as very high fire hazard severity zones (VHFHSZ) based on consistent statewide criteria and based on the severity of fire hazard that is expected to prevail in those areas.
- 3) Requires the Secretary of the Natural Resources Agency (NRA) to create a working group on expanding wood product markets that can utilize woody biomass, especially biomass removed from high hazard zones, as determined by CAL FIRE.
- 4) Requires the NRA, in consultation with the State Fire Marshal (SFM) and the task force to review regional capacity of each county that contains a VHFHSZ.
- 5) Requires, on or before July 1, 2020, the Forestry Management Task Force (FMTF) or its successor entity to, in consultation with the Governor's Office of Business and Economic Development, the Joint Institute for Wood Products Innovation in the Board of Forestry and Fire Protection, private industry, investors, and other stakeholders it deems appropriate, develop recommendations for siting additional wood product manufacturing facilities in the state.
- 6) Requires, pursuant to SB 901 (Dodd), Chapter 626, Statutes of 2018, the following appropriations from the Greenhouse Gas Reduction Fund (GGRF) be made through the 2023-24 Fiscal Year to CAL FIRE:
 - a) \$165 million for healthy forest and fire prevention programs and projects that improve forest health and reduce greenhouse gas emissions caused by uncontrolled wildfires.
 - b) \$35 million to complete prescribed fire and other fuel reduction projects through proven forestry practices consistent with the recommendations of the Forest Carbon Plan, including the operation of year-round prescribed fire crews and implementation of a research and monitoring program for climate change adaptation.

THIS RESOLUTION:

- 1) Makes the following findings:
 - a) Forests in California are increasingly vulnerable to major wildfires and droughts that threaten the social, economic, and environmental benefits they provide;
 - b) Anthropogenic climate change is one of the leading factors contributing to increased frequency and severity of these fires;
 - c) Decades of fire suppression on California's forested lands have created ecosystems that are increasingly vulnerable to megafires;
 - d) Small-acreage family forest owners are particularly vulnerable to the environmental, economic, and health impacts of these wildfires; and,
 - e) Partnership between federal, state, local, nonprofit, and private-sector stakeholders will be necessary to address the scale of the problem.
- 2) Declares that the Legislature is committed to improving wildfire outcomes in the State of California, by investing in science-based wildfire mitigation strategies that will benefit the health of California forests and communities.
- 3) Declares that the Legislature calls upon public and private stakeholders to work jointly to identify, discuss, and refine, as necessary, procedures concerning treatment of forested lands for the purpose of wildfire risk mitigation, allowing family forest owners to access resources that will allow for fire mitigation on their lands, and more broadly shifting the state's firefighting efforts towards a more proactive and ecological approach.

FISCAL EFFECT: Non-fiscal

COMMENTS:**1) Author's statement:**

Addressing the wildfire crisis in California requires a new approach to reducing wildfire risk and increasing resiliency across a patchwork of lands that are owned by a range of public and private owners. Family forest owners are critical to several sectors of California's economy, from forest products, like paper and timber, to outdoor recreation. These landowners manage over seven million acres of the state's woodlands and want to implement risk reduction projects on their lands, but often lack the resources required to see a project through from start to finish. According to California's Wildfire and Forest Resilience Action Plan, "Significantly increasing the pace and scale of forest management across the state can only be achieved through significant contributions from small private landowners." ACR 33 commits the state to investing in science-based wildfire mitigation strategies and convening private and public stakeholders to ensure risk reduction is achieved across the state. The Resolution affirms the support of the California State Assembly for finding solutions to the state's wildfire crisis,

representing a step forward for California family forest owners that have been impacted by increasingly catastrophic wildfires in recent years.

- 2) **Wildfires.** Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to public health, property, infrastructure, and ecosystems. In 2020, wildfires burned more than 4.1 million acres. The August Complex Fire in northern California, the largest fire in California's modern history, burned over one million acres. In total, wildfires caused 33 deaths and destroyed over 10,000 structures in 2020. The land area burned in 2020 more than doubled the previous record, roughly 1.8 million acres, which was set in 2018. Furthermore, seven of the state's deadliest fires have occurred since 2017, with over 100 fatalities in 2017 and 2018.

Fire has always been present in California landscapes either occurring by lightning strikes or used by Native American tribes to preserve certain useful plants and prevent larger fires. Low-intensity fires have clear ecological benefits, such as creating habitat and assisting in the regeneration of certain species of plants and trees. Low-intensity fire also reduces surface fuel, which decreases future wildfire intensity.

A century of suppressing low-intensity fires, logging of older growth and more fire-resistant trees, and a significant five-year drought has increased the size and severity of California's fires. Climate change has also contributed to wildfire risk by reducing humidity and precipitation and increasing temperatures.

The use of targeted mechanical vegetation management, prescribed fire, and managed wildfire reduces the accumulated high fuel loads, promoting healthier, more resilient forests, reducing the risk of high-severity wildfires.

SB 901 (Dodd), Chapter 626, Statutes of 2018, committed \$1 billion for CAL FIRE's Forest Health Grant Program and Fire Prevention Grant Program and dedicated fuel reduction crews over the next five years. The funds are meant to be used to do significant fuel reduction work near communities and in forested watersheds, and many projects will include a biomass utilization component. Approximately half of this commitment has already been spent.

On January 8, 2021, the FMTF released a comprehensive action plan to reduce wildfire risk for vulnerable communities, improve the health of forests and wildlands, and accelerate action to combat climate change. The FMTF's action plan, among other things, called for expanding the use of prescribed fire and cultural burning. The FMTF's action plan also called for, by December 31, 2021, CAL FIRE to develop an implementation strategy for a Wildfire Resilience and Forest Assistance Program targeted to small private landowners.

On January 8, 2021, the Governor's Budget proposed \$1 billion to support the FMTF's action plan; the budget included early action items and an extension of the SB 901 funding commitment for five years. In April, the wildfire early action expenditure plan contained in SB 85 (Committee on Budget and Fiscal Review), Chapter 14, Statutes of 2021, and appropriated \$536 million to 15 different state agencies for fire prevention activities. A significant amount of this funding will be used to implement the Task Force goals and key actions. The recently passed SB 129 (Committee on Budget and Fiscal Review) appropriates \$258 million from the General Fund for a wildfire prevention and forest resilience package contingent upon future legislation.

REGISTERED SUPPORT / OPPOSITION:

Support

American Forest Foundation (sponsor)
Association of California Water Agencies
California Fire Chiefs Association

Opposition

None on file

Analysis Prepared by: Michael Jarred / NAT. RES. /