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

**Senator Benjamin Allen, Chair
2025 - 2026 Regular**

Bill No:	SB 1011	Hearing Date:	4/13/2026
Author:	McNerney		
Version:	2/10/2026	Introduced	
Urgency:	No	Fiscal:	Yes
Consultant:	Sarah Smith		

SUBJECT: Energy: Utility Infrastructure AI Safety, Oversight, and Workforce Protection Act

DIGEST: This bill limits electrical and gas utilities' ability to use automated decision systems (ADS) in certain aspects of utility operations, as specified. This bill requires utilities to enable qualified utility personnel to override or modify outcomes from an ADS, and sets standards for requiring human review and approval for use of an ADS in certain circumstances, including, but not limited to requiring a licensed engineer to oversee the use of an automated decision system in any circumstance that meets this bill's definition of an "engineering decision." This bill requires a utility to provide notices to labor organizations and affected employees before implementing an ADS that impacts workers' duties, training, or staffing levels. This bill requires the California Public Utilities Commission (CPUC) to regulate an investor-owned utility (IOU) use of an ADS and requires the California Energy Commission (CEC) to regulate a publicly owned utility (POU) use of an ADS.

ANALYSIS:

Existing law:

- 1) Establishes the CPUC, consisting of five members appointed by the Governor, and authorizes the CPUC to fix rates and establish rules for public utilities. (Article XII of the California Constitution)
- 2) Requires the CPUC to establish rules for a public utility and revise those requirements through an order or rule whenever the CPUC, after a hearing, finds that existing rules, practices, equipment, appliances, facilities or service of any public utility or manufacturing, distribution, transmission, storage or supply methods employed by the public utility are unjust, unreasonable, unsafe, improper, inadequate, or insufficient. (Public Utilities Code §761)

- 3) Requires every public utility to establish and maintain adequate, efficient, just, and reasonable services, instruments, equipment and facilities needed to promote the health, safety and comfort of customers, employees, and the public. Any rule adopted by a public utility regarding its services or rates for the public must be just and reasonable. (Public Utilities Code §451)
- 4) Establishes the California Wildfire Safety Advisory Board, consisting of seven members to advise utilities and the Office of Energy Infrastructure Safety on utility wildfire safety issues, as specified. (Public Utilities Code §326.1)
- 5) Establishes the Office of Energy infrastructure Safety in the Natural Resources Agency to oversee electrical corporations' compliance with wildfire safety requirements, as specified. (Government Code §15470 et. seq.)
- 6) Establishes the CEC, consisting of five members appointed by the Governor, and specifies the duties of the CEC. Every two years, the Governor must designate a chair and vice chair from the CEC's membership. The CEC must appoint a public adviser every three years to carry out certain public engagement duties. (Public Resources Code §25200 et. seq.)
- 7) Assigns various duties to the CEC, including but not limited to, duties regarding energy research and development, clean transportation infrastructure, powerplant siting, energy demand and supply analysis, energy efficiency standards, and administration of the renewable portfolio standard. (Public Resources Code §25000 et. seq.)
- 8) Requires the CEC to assess trends in energy consumption and analyze the social, economic, and environmental consequences of these trends. The CEC must establish energy conservation measures, including building and appliance energy efficiency standards, and recommend additional conservation measures to the Governor and the Legislature. (Public Resources Code §25216)
- 9) Defines an "artificial intelligence model" as an engineered or machine-based system that varies in its level of autonomy and that can, for explicit or implicit objectives, infer from the input it receives how to generate outputs that can influence physical or virtual environments. Existing law establishes requirements for large developers of artificial intelligence models. (Business and Professions Code §22757.10 et. seq.)

This bill:

- 1) Defines an “automated decision system” as a computational process, including one derived from machine learning, statistical modeling, data analytics, or artificial intelligence, that issues simplified output, including a score, classification, or recommendation, and that is used to assist or replace human discretionary decision-making and materially impacts natural persons.
- 2) Specifies that the bill’s definition of an “automated decision system” does not include the following:
 - a) Spam email filters.
 - b) Firewalls.
 - c) Antivirus software.
 - d) Identity and access management tools.
 - e) Calculators.
 - f) Databases, datasets, or other compilations of data.
- 3) Defines an “engineering decision” as a decision, recommendation, or configuration change affecting the design, operation, maintenance, or configuration of electrical circuits, substations, gas pipelines, compressor stations, or other utility infrastructure that is subject to review by, or is required to be performed by, a person licensed under the Professional Engineers Act.
- 4) Defines a “high-risk automated decision system” as an ADS used by a utility that does any of the following:
 - a) Creates or modifies records, including geographic information system (GIS) layers, asset registers, and configuration logs, used in operational or engineering decision-making.
 - b) Issues, populates, or prioritizes operational actions, such as switching, fault isolation, circuit reconfiguration, load transfers, or gas-flow adjustments.
 - c) Prioritizes specified safety critical or wildfire risk mitigation decisions, line de-energization, vegetation clearance, and gas leak or electrical hazard classification.
 - d) Makes recommendations affecting whether or when emergency response or field personnel dispatch is initiated.
 - e) Generates, prioritizes, or recommends supervisory control and data acquisition.
 - f) Control room or operational control actions that alter operating states, including set points, valve lineups, compressor controls, pressure or flow adjustments, alarms, interlocks, or operating limits.

- g) Creates, modifies, or recommends changes to certain safety critical data that governs utility operations.
- 5) Designates the CPUC as the regulator of ADS use by an IOU and requires the CEC to regulate the use of an ADS by a POU.
- 6) Requires every electrical or gas utility using an ADS to maintain a process by which qualified personnel can override or change the output of the ADS.
- 7) Prohibits electrical and gas utilities from using a high-risk ADS without a human reviewing and approving the outcome produced by the ADS.
- 8) Requires electrical and gas utilities to obtain human review and approval from a licensed engineer in circumstances where a high-risk ADS would produce an outcome that constitutes an engineering decision. This bill prohibits electrical and gas utilities from using high-risk ADS systems that can independently execute actions or update records.
- 9) Requires electrical and gas utilities to maintain a log of all ADS actions with specified data.
- 10) Prohibits electrical and gas utilities from using high risk ADS systems without first filing a specified safety plan with the CPUC or CEC. An electrical or gas utility must provide a copy of this safety plan to affected labor organizations at the time it files the plan with the CPUC or CEC – or within 15 days of receiving a request.
- 11) Requires an electrical or gas utility to test the use of an ADS in a staging mode for 18 months, or a time determined by the CPUC or CEC. This staging mode must include human auditing and approval for all changes before the ADS can be used in utility operations.
- 12) Establishes specified requirements for a high-risk ADS used for certain modeling and recordkeeping, including maintaining an audit trail of all changes from the ADS and human review for an unspecified number of years. This bill requires the utility to make this audit trail available to the CEC or CPUC upon request.
- 13) Requires electrical and gas utilities to provide at least 180 days notice to affected labor organizations and impacted employee classifications before introducing any ADS that materially impacts utility workers' job duties,

classifications, staffing levels, or required training. This bill specifies items that must be included in this notice

- 14) Prohibits electrical and gas utilities from deploying a high-risk ADS that results in layoffs for utility engineering workers, mapping, design or technical operations until the utility exhausts retaining, redeployment, or reclassification options.

Background

ADS encompass many activities – not just AI. The use of AI can have benefits; however, some recent demonstrations of AI have also shown that generative AI can also lead to unsafe and erroneous decisions. Biases in algorithms or poor AI training can lead to systemically reproduced biased and erroneous outcomes. Superintelligent AI systems are capable of creating systems that lack sufficient human input to stop harmful outcomes. While this bill is aimed at preventing the proliferation of AI decisions that may impact utility safety and jobs of utility employees, this bill does not solely limit actions that would fall under the umbrella artificial intelligence models. This bill establishes limitations on electrical and gas utilities' use of ADS and establishes requirements for the use of ADS in certain circumstances. ADS encompasses a broad number of systems, including automated actions and technologies that do not use any artificial intelligence models. This bill's definition of ADS may encompass the use of AI models; however, this definition may also include many automated systems and technologies that have long been used by utilities to help utilities respond to grid conditions, market signals, and safety needs in real time. By incorporating a broad definition of ADS, this bill may impact a wide variety of utility operations.

How do utilities use AI and ADS? Utilities' use of generative AI is nascent; however, some utilities are seeking ways to develop AI tools that are trained to help with specific power sector needs. Diablo Canyon Power Plant partnered with Atomic Canyon to deploy a generative AI system that uses the Nuclear Regulatory Commission database and the Oak Ridge National Laboratory's Frontier supercomputer to search data from Diablo Canyon's files to synthesize information for federal regulatory filings. This use of AI is the first commercial use of generative AI at any nuclear power facility in the nation.

While some utilities are exploring options for using generative AI, the vast majority of automated systems used by utilities are not generative AI. While some ADS technologies are implemented to improve safety and enhance reliability, others are necessary to participate in real-time energy markets. For example, automatic reclosers on power lines can help detect faults on electrical lines and

shut off power to ensure the fault does not continue. When the recloser senses that the fault is temporary and not-recurring, the recloser re-sets and allows power to return. Similarly, gas utilities can use automatic shut-off valves (ASVs), which will automatically respond to pressure changes in a pipeline or work with seismic sensors to shut off the flow of gas in the event of an earthquake. Utilities are also increasingly using automatic sensors and predictive modeling tools as part of wildfire threat modeling. Smoke mapping can help utilities project the path of a fire's spread and anticipate the need for additional mitigation and evacuation strategies. Electric utilities use Supervisory Control and Data Acquisition (SCADA) systems that use automatic sensors and data synthesis to help monitor real time conditions on the grid, including voltage levels. These SCADA systems are also used by utilities to participate in the Energy Imbalance Market because they provide the information, speed and resources necessary to transact energy in real-time to ensure a balance between supply and demand of resources.

As currently written, this bill's definition of a "high-risk" ADS would apply to a utility's use of reclosers, ASVs, wildfire modeling, and SCADA systems. This bill does not clarify whether its restrictions on ADS apply to already-operating systems. By requiring the utility to operate these systems in a staging mode for 18 months before using these existing systems, this bill could limit or delay the use of essential utility tools needed to safely and reliably operate. This bill also requires human approval for every output of a high-risk ADS, which may prevent utilities from using automatic reclosers, ASVs, or other technologies aimed at responding to real-time events to reduce injuries and ignitions from utility infrastructure. Limiting the use of these resources may prevent utilities from complying with existing wildfire mitigation plans and utility safety standards.

Multiple agencies oversee utility safety requirements, but few standards exist for AI utility use. The CPUC is one of several state and federal agencies that have adopted rules setting forth specific requirements for certain utility safety measures. Multiple CPUC general orders establish requirements for safe installation and operation of electric and natural gas infrastructure. Under existing utility safety rules, utilities under the CPUC's jurisdiction must report certain critical incidents to the CPUC within two working hours or four non-working hours if the incident resulted in death, hospitalization, major news coverage, significant property damage, or prompted an investigation regarding potential utility wildfire ignition. Additionally, CPUC General Order 166 (GO 166) establishes standards for electric utilities' operation during emergencies and disasters, which includes mandatory reporting regarding major power outages. This bill would establish a 24-hour reporting requirement if an ADS-related outcome resulted in the following:

- An outage or service interruption affecting more than 500 customers.

- Equipment damage, a failure, or a safety hazard.
- A mis-switching event, incorrect mapping or asset register update, erroneous configuration change, or data-integrity breach with safety or reliability implications.

This bill's notification requirements may be more permissive than current emergency response requirements and major incident notification rules under existing CPUC general orders. While this bill attempts to establish standards for preventing and responding to incidents stemming from AI or ADS use, it is not clear that the standards would provide greater protections for utility safety than existing rules. However, it is possible that the CPUC may need to modify existing safety standards and disclosures if utilities intend to integrate AI into more utility operations.

Need for Amendments. As currently written, this bill's definition of an automated decision system potentially encompasses and limits a utility's ability to use systems intended to ensure stability of grid operations, reliable electricity supply, effective participation in certain energy market functions, and effective implementation of utility safety requirements. Additionally, this bill assigns regulatory oversight of utilities' use of automated decision systems to the CEC, which does not currently have any oversight duties related to POU and IOU utility safety, workforce needs, or rates. Portions of this bill may also conflict with existing rules established by the CPUC for preventing, mitigating, and reporting utility safety incidents. *For these reasons, the author and committee may wish to amend this bill to do the following:*

- *Remove requirements for the CEC to administer this bill.*
- *Require the CPUC to adopt standards for utilities' use of artificial intelligence models.*
- *Conform this bill's definition of an artificial intelligence model to definitions in existing law.*
- *Specify that the CPUC's standards must include at least the following:*
 - *Requirements for electrical corporations to specify the types of artificial intelligence models used and how those models are used.*
 - *Identification of employee job classifications impacted by the planned implementation of any artificial intelligence models and efforts taken to ensure effective education and training and retention for impacted workers.*
 - *Measures the utility has adopted to ensure that the models used will not impact utility safety, affordability, and reliability requirements.*
 - *Requirements for human approval for AI deployment to ensure the safe, affordable and reliable operation of electrical and gas services.*

- *Ensure that AI deployment is not intended to displace utility workers needed for the safe, affordable and reliable provision of services.*
- *Require the CPUC to direct electrical corporations to file plans disclosing their use of artificial intelligence models and compliance with CPUC standards for these models.*
- *Specify that the CPUC may prohibit the use of an artificial intelligence model if the CPUC finds that deployment of the model would negatively impact the provision of safe, reliable, and affordable electrical or gas service.*
- *Require the CPUC to ensure that plans filed by the IOUs are provided to the Office of Energy Infrastructure Safety to ensure consistency with IOUs' wildfire mitigation plans.*
- *Require boards of POU to adopt plans consistent with the standards established by the CPUC.*

Dual Referral. Should this bill be approved by this committee, it will be re-referred to the Senate Privacy, Digital Technologies, and Consumer Protection Committee.

Prior/Related Legislation

SB 947 (McNerney) of 2026, limits employers' use of ADS in certain employment decisions and requires the Labor Commissioner to oversee employers' use of ADS in workplace decisions. The bill is pending in the Senate Privacy, Digital Technologies, and Consumer Protection Committee.

SB 833 (McNerney) of 2025, establishes requirements for human oversight over AI systems used with critical infrastructure. The bill also defined AI as including ADS. The bill is pending in the Assembly.

SB 420 (Padilla) of 2025, regulates the use of high-risk ADS, including requiring ADS developers and deployers to performing impact assessments on their systems. The bill establishes the right of individuals to know when an ADS has been used, details about the systems, and an opportunity to appeal ADS decisions, where technically feasible. The bill is pending in the Assembly.

SB 53 (Weiner, Chapter 138, Statutes of 2025) required large developers of certain AI tools to adopt protocols to address catastrophic risks associated with AI, disclose certain information about their AI models, and submit specified reports to Office of Emergency Services.

SB 7 (McNerney) of 2025, would have established limitations and notices for the use of ADS in employment decisions. The bill was vetoed.

AB 1018 (Bauer-Kahan) of 2025, would have regulated the use of ADS. It established obligations on developers and deployers of ADS designed or used to make or facilitate “consequential decisions. The bill is on the Senate Inactive File.

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

SUPPORT:

California Federation Labor Unions, AFL-CIO (Co-Sponsor)
California School Employees Association, AFL-CIO (Co-Sponsor)
Engineers and Scientists of California, Local 20, IFPTE (Co-Sponsor)
Utility Workers Union of America, Local 132 (Co-Sponsor)
Utility Workers Union of America, Local 483 (Co-Sponsor)
Utility Workers Union of America, Local 522 (Co-Sponsor)

OPPOSITION:

Burbank Water and Power
California Municipal Utilities Association
San Diego Gas and Electric Company, unless amended
Southern California Gas Company, unless amended
Southern California Public Power Authority

ARGUMENTS IN SUPPORT: According to the author:

AI has the potential to improve efficiency in California’s power grid and quicken response to wildfires and life-threatening dangers, but AI also presents significant risks. AI can hallucinate – make mistakes that could pose serious threats. Without human oversight, unchecked AI could trigger catastrophic equipment failures, service outages for thousands of residents, or life-threatening safety hazards. California can’t afford to outsource the safety of our power grid to unproven, unmonitored algorithms. California also needs to protect workers in the power sector from widespread job displacement. SB 1011 is a commonsense solution that will reduce risk by ensuring that AI use supports human decision-making rather than replacing it.

ARGUMENTS IN OPPOSITION: Opponents argue that this bill would limit the use of a wide variety of measures and utility systems that provide reliability, safety and wildfire mitigation services. In opposition, the California Municipal Utilities Association states:

The extensive regulatory requirements contained in SB 1011 would function as a de-facto ban on the use of Automated Decision Systems (ADS) by POU's. Such a ban will negatively impact a POU's ability to manage the electrical grid, mitigate wildfire risk, and improve overall efficiency, reliability and reduce ratepayer costs...Furthermore, we are concerned about the impacts the bill would have on utility grid operations and wildfire mitigation activities – all of which use some form of ADS currently and have for many years. For example, while the bill lists exclusions to these ADS compliance rules for things such as spam filters, firewalls, and basic IT security tools, it does not provide exclusions for grid and operational management platforms commonly used in utility operations and does not take into account wildfire and outage mitigation tools, such as automatic reclosers. We are concerned that utility operations would be hindered by this bill because it does not account for the nuances of our existing automated programs and systems.

-- END --