Date of Hearing: March 22, 2023

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
AB 463 (Hart) – As Introduced February 6, 2023

SUBJECT: Electricity: prioritization of service: public transit vehicles

SUMMARY: Requires the investor-owned utilities' (IOUs) to add public transit operations to the list of priority customers during rotating blackouts, and the list of Critical Facilities and Critical Infrastructure during public safety power shutoffs (PSPS).

EXISTING LAW:

1) Requires the CPUC to consider specified effects when establishing priorities among types or categories of electrical or gas customers for exemption from rotating blackouts. (Public Utilities Code § 2772)

2) Requires each IOU to develop a wildfire mitigation plan (WMP) which must include, among the specified elements, if deenergizing (a.k.a. PSPS) is used, protocols related to mitigating the public safety impacts of deenergizing portions of the electrical distribution system, that consider the impacts on critical first responders, health and communication infrastructure, and medical baseline customers, and include procedures for notifying impacted customers who may be impacted by deenergizing. (Public Utilities Code § 8386 [c][6])

FISCAL EFFECT: Unknown. This bill is keyed fiscal and will be referred to the Assembly Committee on Appropriations for its review.

BACKGROUND:

Rotating Outages and PSPSes: What's the Difference? – In California, rotating outages are called for a specified period of time, usually 30-90 minutes, to help ease demand on the electric grid. Their primary function is to control the risk of a larger outage occurring across the western-wide electric grid. These outages are unique from PSPSes, which are called by the IOUs to reduce wildfire risk. In PSPSes, power on at-risk circuits is shut off until a weather event (such as high wind and low humidity) is lessened and the risk of utility infrastructure sparking a wildfire is reduced. In rotating outages, power is shut off to lessen overall demand on the electric system, and the outages are rotated from area to area so no single neighborhood's electricity is down for a prolonged period of time.

Rotating Outages and Essential Customers – Rotating outage plans go back to the 1970s. In 1973, there was a sharp reduction in the availability of fossil fuels for electric generation as a result of imported oil embargoes. At the same time, oil prices rose sharply. A drought the next year resulted in reduced availability of electricity from hydroelectric generation. To meet the potential shortages, the CPUC issued decisions in 1973 and 1974 ordering that electric IOUs to institute voluntary plans for conservation of electric energy, along with reduction of load by forced outage, if necessary.

The Public Utilities Code was amended in 1974 to require the CPUC to adopt a plan for allocating scarce electricity among customers in the event of shortages. The CPUC adopted a system of priorities for statewide reduction of electric service in 1976, with utilities filing necessary action plans. Utility action plans are filed, reviewed, and revised annually. Since 1980, specific entities providing essential services are exempt from rotating outages. Since rotating outages are implemented by blocks of customers on electric circuits, many customers are exempt from rotating outages when they are on the same circuit as an essential customer.[1]

Currently, the CPUC's list of essential customers protected from rotating outages includes[2]:

- Government and other agencies providing essential fire, police, and prison services.
- Government agencies essential to the national defense.
- Hospitals and skilled nursing facilities.
- Communication utilities, as they relate to public health, welfare and security, including telephones.
- Navigation communication, traffic control, and landing and departure facilities for commercial air and sea operations.
- Electric utility facilities and supporting fuel and fuel transportation services critical to continuity of electric power system operation.
- Radio and television broadcasting stations used for broadcasting emergency messages, instructions, and other public information related to the electric curtailment emergency.
- Water and sewage treatment utilities may request partial or complete rotating outage exemption from electric utilities in times of emergency identified as requiring their service, such as firefighting.
- Areas served by networks, as allowed at the utility's discretion.
- **Rail rapid transit systems as necessary to protect public safety, to the extent exempted by the CPUC.**
- Customers served at transmission voltages to the extent that (a) they supply power to the grid in excess of their load at the time of the rotating outage, or (b) their inclusion in rotating outages would jeopardize system integrity.
- Optional Binding Mandatory Curtailment Program (OBMC) participants, which exempts participants from rotating outages if they can consistently reduce the load on their entire circuit when needed.
- Petroleum refineries, vital ancillary facilities, and other customers in the critical fuels chain of production, to the extent exempted by the CPUC.

Public Safety Power Shutoffs and Critical Facilities & Critical Infrastructure – Over the last decade, California has experienced increased, intense, and record-breaking wildfires throughout the state. These fires have resulted in devastating loss of life and billions of dollars in damage to property and infrastructure. Electric utility infrastructure has historically been responsible for less than ten percent of reported wildfires; however, fires attributed to power lines comprise roughly half of the most destructive fires in California history. With the continuing threat of wildfire, utilities may proactively cut power to electrical lines that may fail in certain weather

[1] D.01-04-006, pg. 8
[2] D. 02-04-060

conditions to reduce the likelihood that the infrastructure could cause or contribute to a wildfire. This effort to reduce the risk of fires via PSPSes, can likewise leave communities and essential facilities without power, which brings its own risks and hardships, particularly for vulnerable communities and individuals. From 2013 to the end of 2019, California experienced over 57,000 wildfires (averaging 8,000 per year) and the three large IOUs conducted 33 PSPS events.

Although Pacific Gas & Electric Company effectuated a year-over-year one-third reduction in the footprint and use of PSPS from 2019 to 2020, the frequency and footprint of events in Southern California Edison territory increased dramatically in 2020 and early 2021. From May through December 2020, Edison initiated 16 PSPS events, with the majority of the events occurring in November and December, including two PSPS events during major holidays. The IOUs have developed extensive protocols since the early PSPS events in 2019 to try to reduce customer harm, including maintaining a list of Critical Facilities and Critical Infrastructure—per legislative and CPUC mandate—that receives priority notice during PSPS events and are provided assessments for backup power connectivity.

The Critical Facilities and Critical Infrastructure list has been updated over the last few years in a series of Decisions that add more sectors, industries, and considerations to the lists the IOUs must maintain.[3] Relevant to this bill, in a 2020 Decision the CPUC added transportation and transit agencies to the list as: "*The transportation sector shall be included in the list of critical facilities and infrastructure to ensure transportation resilience is a priority during deenergization events. The definition of transportation facilities and infrastructure for this purpose includes facilities associated with automobile, rail, aviation, major public transportation, and maritime transportation for civilian and military purposes*."[4]

Electrifying Public Transit – The Legislature has set a number of goals to reduce greenhouse (GHG) emissions and address climate change. The Global Warming Solutions Act of 2006, AB 32 (Nunez, Chapter 488, Statutes of 2006), and subsequent companion legislation SB 32 (Pavley, Chapter 249, Statutes of 2016) requires California to reduce statewide GHG emissions to 40% below the 1990 level by 2030. AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022) establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045. The California Air Resources Board (CARB) is responsible for developing a Scoping Plan to detail how the state will achieve its mandated GHG emissions reduction targets across sectors.

Nearly 40% of California's GHG emissions are generated by the transportation sector, which includes both light-duty (passenger) and medium- and heavy-duty fleets. Heavy-duty diesel trucks also contribute to unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, oxides of nitrogen (NOx), and sulfur dioxide, affecting local air quality. In the transportation sector, measures to reduce GHG emissions include requiring the use of low carbon fuels, cleaner vehicles, and strategies to promote sustainable communities and improved transportation choices that reduce growth in number of vehicle miles traveled.

To further these efforts, at the end of 2020, Governor Newsom issued Executive Order (EO) N-79-20 which requires 100% of in-state sales of new passenger cars and trucks to be zero-emission by 2035. EO N-79-20 charges CARB with developing and proposing passenger vehicle

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[3] D. 19-05-042 (Appendix A, pgs. A3-A7); D. 20-05-051 (Appendix A, pg. A 10); and D. 21-06-034 (Appendix A, pgs. A5-A7)
[4] Pg. 10, D. 20-05-051

and truck regulations requiring increasing volumes of new zero-emission vehicles sold in the State towards that goal. EO-N-79-20 also tasked the State Energy Resources Conservation and Development Commission (also known as the Energy Commission or CEC) to update the biennial statewide assessment of zero-emission vehicle infrastructure required by AB 2127 (Ting, Chapter 365, Statutes of 2018) to support the level of EV adoption required by the EO.

For public transit, the electrification mandates come sooner. In 2018, CARB adopted the Innovative Clean Transit Regulation to require all public transit agencies to transition 100% of their fleet to zero-emission buses, with the requirement that all new purchases must be zero-emission buses by 2029, now just six years away.[5] The regulation also establishes the goal for a full fleet transition by 2040, and applies to all transit agencies that own, operate, or lease buses with a gross vehicle weight rating greater than 14,000 pounds. With the passage of SB 350 (De León, Chapter 547, Statutes of 2015) the CPUC was directed to require the electric IOUs to develop proposals to accelerate widespread transportation electrification. This has led to funding programs from the IOUs for medium- and heavy-duty charging infrastructure, including higher incentives for transit agencies seeking to electrify their operations.

COMMENTS:

1) *Author's Statement.* According to the author, "While the transition to 100% electric public bus fleet is important in meeting our state's climate goals, the instability of the electric grid that lead to rolling blackouts, public safety power shutoffs and other disruptions can jeopardize the ability of public transit operators to provide essential services. Beyond providing reliable service to daily commuters, public transit operators are called upon to help aid in emergency response efforts, including evacuating residents, moving folks to warm/cooling centers, and transporting emergency supplies. By adding transit agencies to the state's list of essential use customers, AB 463 can help public transit fulfill important emergency functions."

2) *Picking winners.* There has been growing concern among entities meant to comply with transportation electrification mandates that California's electricity grid will be incapable of meeting the growing demand. There is worry among this bill's proponents, public fleet operators, that they will be unable to charge their fleets, especially during emergency events when the electrical grid is vulnerable. It is during these very emergency events when access to public transit can be most critical, especially for low income individuals and persons of color who make up the majority of public transit ridership.

   There is certainly recognized value in ensuring transit agencies are able to operate during periods of grid outage, either rolling blackouts or PSPS events. However, as noted above, the transportation sector is already included in the IOUs' Critical Facilities and Critical Infrastructure list for PSPS emergencies; while public rail is included in the essential customers list for rotating outages. It is unclear to the committee how the modifications to PUC § 8386 proposed in this bill would improve public transit energization during PSPS events. Moreover, when asked to provide examples of how public transit had been impacted by PSPS events to date, no examples were provided.

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[5] CARB, "Innovative Clean Transit Regulation Fact Sheet," May 16, 2019; https://ww2.arb.ca.gov/resources/fact-sheets/innovative-clean-transit-ict-regulation-fact-sheet

Regardless, there is benefit in reviewing the list of essential customers for rotating outage events, as the current list is exclusive to public rail transit and that list has not been updated since 2002.[6] However the statutory change proposed by this bill would insert public transit vehicles in the list of considerations for essential customers, which currently does not include any industry- or sector-specific directive. Rather the statute offers attributes for the CPUC to consider such as prioritizing customers that "provide the most important public benefits and serve the greatest public need" or "effects…on the health and safety of residential customers." As such, and unlike the PSPS statutes, the essential customer statute does not list industries such as hospitals, schools, or senior living facilities. This bill adds public transit vehicle operations to the statute, seemingly giving transit priority over these other sectors, when the consideration for transit that this bill seeks would already be permitted under the statutory language. An Application filed at the CPUC requesting an update to the essential customer list might have achieved the same aim as this bill.

3) *What it takes to update the list.* According to the CPUC, to update the essential customers list for rotating outage events, the CPUC would need to make a determination regarding what priority level electric vehicle charging stations for public transit vehicles should receive within the list of essential customers. The CPUC would need to obtain data from the IOUs and statewide transit agencies related to the number of electric charging stations for public transit vehicles and which circuits they are connected to across California. The CPUC would likely need to collaborate with regional transit agencies, the six electric IOUs, and other State agencies, like CARB who oversees compliance with the Innovative Clean Transit regulation, to determine the amount and location of existing and additional circuits that power electric charging stations for public transit vehicles. This information, cross referenced to ensure that identified circuits are not already covered by the current list of essential customers, could help determine which circuits would need to be added to the exemption list in the event of rotating outages. This information would be necessary for the IOUs to determine at what point they must deenergize a public transit electric charging station, depending on its prioritization within the list of essential customers. The IOUs need to ensure that by including electric charging stations for public transit vehicles within a given category of essential customers they can still "maintain at least 40% of their load available for rotating outage to avoid involuntary load shedding and general system collapse."[7] The CPUC notes that the issue warrants closer examination.

4) *Prior Legislation.*

SB 167 (Dodd) requires electrical corporations to include within their wildfire mitigation plans impacts on customers enrolled in specified programs as part of the protocols for deenergizing portions of their electric distribution system. Status: Chapter 403, Statutes of 2019.

SB 1055 (Morrow) requires the CPUC when establishing priorities among types or categories of electrical or gas customers for exemption from rotating blackouts to consider specified effects. Status: Chapter 447, Statutes of 2001.

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[6] D. 02-04-060
[7] D.02-04-060, pg. 72.

REGISTERED SUPPORT / OPPOSITION:

Support

Alameda-Contra Costa Transit District (AC Transit)
California Transit Association – *sponsor*
Monterey-Salinas Transit (MST)
San Diego Metropolitan Transit System
San Francisco Bay Area Water Emergency Transportation Authority
Santa Barbara Metropolitan Transit District

Opposition

None on file.

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