Date of Hearing: May 12, 2021

ASSEMBLY COMMITTEE ON APPROPRIATIONS
Lorena Gonzalez, Chair
AB 427 (Bauer-Kahan) – As Amended April 26, 2021

Policy Committee: Utilities and Energy Vote: 11 - 2

Urgency: No State Mandated Local Program: No Reimbursable: No

SUMMARY:

This bill requires the California Public Utilities Commission (CPUC) to establish a capacity value for behind the meter (BTM) energy storage resources.

This bill requires the California Public Utilities Commission (CPUC), by July 1, 2022, as part of its 2023 resource adequacy requirements applicable to providers of retail electric service, to, in consultation with the Independent System Operator (CAISO) and the California Energy Commission (CEC), establish a "capacity valuation methodology" for customer-sited (also known as BTM) energy storage resources and customer-sited hybrid resources. The bill direct the CPUC, in determining this value, to consider the full electrical output of the resource, including all electricity delivered to the grid.

FISCAL EFFECT:

This bill will entail significant ongoing work for the CPUC, likely in the low to mid hundreds of thousands of dollars, to establish a capacity value for BTM energy storage resources and to conduct the ongoing resource-adequacy related work to account for BTM storage resources described by this bill participating in the commission Resource Adequacy (RA) program. This work will require the CPUC to: develop and review load impact protocols to assess historical performance; develop capacity valuation methodology for BTM resources; coordinate with the CEC on load forecast adjustments to account for BTM storage resources; and coordinate with CAISO to ensure RA credits are fully counted and to avoid double procurement.

The CPUC anticipates this workload to result in annual costs of approximately $555,000 for salary, overhead and benefit costs for three program analysts.

This analysis assumes the work required of the CEC is entailed in the load forecasting work the CEC would conduct absent this bill and, therefore, requires no new CEC resources.

COMMENTS:

1) **Purpose**. The author intends this bill to result in reliance on batteries located in homes and other locations, all on the customers' side of the electricity meter, as a backup to the electrical grid. According to the author:

> The blackouts of 2020 showed us that our grid needs a more sustainable backup mechanism. This does not mean we need whole

new power plants or purchase energy from other states. California had enough energy in home batteries to resolve the demand imbalances during the blackouts. This bill directs the CPUC to maximize usage of our existing storage and clean generation – providing a path for a more sustainable and more sustained energy.

2) **Background**. Statute requires the CPUC, in coordination with CAISO, to adopt resource adequacy, or "RA," requirements. In simple terms, resource adequacy is a standard meant to ensure electricity providers have sufficient supplies of electricity available, if needed, to meet peak demand.

RA requirements are classified as system RA, local RA and flexible RA. System RA describes the availability of resources to meet peak demand on the CAISO system. The CPUC currently sets the system RA requirement as a load-serving entity's (LSE's) proportional share of CAISO's peak system demand, plus a 15% planning reserve margin. Local RA refers to resources the CPUC requires an LSE to have available in certain resource-constrained areas to meet demand in those areas. Finally, flexible RA refers to the need of LSE to have available a certain amount of electricity generation available to quickly increase or decrease generation, usually in response to variations in output from renewable resources like wind and solar.

Owners of a resource used to meet and LSE's RA requirement is compensated by the LSE for the availability to call on resource, if needed, a condition known as a "must-offer obligation." To be compensated, the owner registers the RA resource with CAISO, which tests the resource to confirm the resource will be able to deliver a certain amount of electricity, based on the capacity of the resource, to the CAISO transmission system when CAISO says it needs it, at which point owner must offer the resource to the CAISO system.

As is widely known, the RA program failed last summer during a prolonged, region-wide heatwave, combined with several other factors, some unusual, some mundane.

This bill requires the CPUC, in consultation with CAISO and the California Energy Commission (CEC), establish a capacity valuation methodology for customer-sited (meaning on the customers' side of the electricity meter) energy storage resources and customer-sited renewable generations-storage "hybrid resources." Equipped with such a capacity value, such a customer-sited system could, as the author puts it, "sell excess energy back to electrical companies during spikes of electrical need." The bill, however, is silent on whether such resources, before being allowed to sell their output back to the CAISO system, would need rigorously demonstrate they would be available, should CAISO need to call on them. For its part, the CPUC understands this bill to enable customer-sited storage resources to receive RA capacity payments, following the commission's establishment of a capacity valuation methodology for these resources.

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