

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Consider
Streamlining Interconnection of Distributed
Energy Resources and Improvements to
Rule 21.

Rulemaking 17-07-007
(Filed July 13, 2017)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO THE ADMINISTRATIVE LAW JUDGE'S RULING DIRECTING RESPONSES TO
ATTACHED QUESTIONS AND REVISING SCHEDULE**

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits this response to the *Administrative Law Judge’s Ruling Directing Responses to Attached Questions and Revising Schedule* (“Ruling”), issued by Administrative Law Judge (“ALJ”) Kelly A. Hymes on November 27, 2019.

I. INTRODUCTION.

CESA supports the tremendous amount of work and collaboration involved in Rule 21 Working Group 3 that dealt with a wide range of interconnection issues that affect distributed energy resources (“DERs”) and culminated in the Working Group 3 Final Report (“Report”) published on June 14, 2019. CESA supports the continued improvements to the Rule 21 interconnection review process to ensure the technical reliability of DERs but also to enable streamlined and less costly processes to deploy more DERs to support our broader policy objectives.

II. RESPONSE TO QUESTIONS.

In this section, CESA provides our responses to the questions related to select issues, particularly Issue 23 and the interconnection issues involving vehicle-to-grid (“V2G”) direct current (“DC”) and alternating current (“AC”) resources. Even though no questions were posed on the consensus proposals for Issue 20, CESA recommends that the Commission adopt the consensus proposals to offer clarifications on the Rule 21 to Wholesale Distribution Access Tariff (“WDAT”) transition process that ensures that resources support customer value and project viability while minimizing disruption. Furthermore, CESA is generally supportive of: consensus proposals to allow interconnection customers to change smart inverter default settings by mutual agreement (Issue 27); consensus proposals to have generating facilities with outlined specifications to be treated as non-/limited-export and inadvertent export in interconnection review (Issue A); and the proponent position on allowing for different maximum export value settings at different times of the year for an inverter approved for non-export and limited export (Issue B), which enables the delivery of different services across the year, which may differ based on grid needs or customer loads, and/or allow for the stacking of services.

A. Issue 23: Interconnection of Electric Vehicles

22-b: Given that the Working Group agrees in 23-c that no Rule 21 changes are needed, why are the changes recommended in Proposal 23-b necessary?

While major changes to the Rule 21 tariff are not needed, CESA believes it is important to make the Proposal 22-b changes in order to ensure that the processes and studies outlined in Rule 21 for stationary energy storage are also applicable to mobile energy storage resources. This provides regulatory and market certainty to interconnection applicants of V2G-DC systems.

22-c: Is Commission action required in order to implement this proposal?

The only Commission action that could recognize that V2G-DC systems may interconnect under the current Rule 21 tariffs would be through the adoption of changes in consensus proposal 22-b, which clarifies the applicability of current Rule 21 language and processes to stationary and V2G systems.

22-d: How will said testing demonstrate that the factory default settings are set to unidirectional mode?

CESA understands that testing to the factory default settings for electric vehicle supply equipment (“EVSEs”) to operate in unidirectional mode will occur with the UL testing bodies, as these EVSEs will be tested to the UL Power Control Systems (“PCS”) Certificate Requirements Decision (“CRD”) as well as the broader UL 1741-SA. This testing is no different from stationary storage systems that wish to use the UL PCS CRD to enable interconnection, such as for ensuring net energy metering (“NEM”) integrity. It will be up to the EVSE provider to make the certifications to these requirements, though CESA understands that some follow-up discussion with the utilities and other stakeholders may be needed to establish the process by which this will occur.

22-d: Assuming that a Vehicle to Grid direct current electric vehicle supply equipment system is certified in compliance with the stated requirements, would any action be necessary on the part of the customer in order to receive permission to connect to the distribution system? If a process is necessary and has yet to be established, what venue would be appropriate for determining the details?

CESA believes that it is important for the Commission to maintain the existing service connection process for unidirectional EVSEs and only require EVSEs with bidirectional capabilities to be certified to the UL PCS CRD. Not all unidirectional EVSEs should be subject to a new service connection process and be required to work through Rule 21 processes if they are incapable of providing bidirectional power flow and discharge. However, if EVSEs do have these

bidirectional capabilities, these additional certification requirements are reasonable. Customers with such systems should be required to indicate these bidirectional capabilities and their certification to only operate in unidirectional mode until permission to operate (“PTO”) is approved through the Rule 21 process. This may involve an additional “check-the-box” type of process for new EVSE service connections. Such discussions would likely need to occur in the R.18-12-006 and R.17-07-007 proceedings since service connections and transitions to Rule 21 would likely touch upon issues addressed in these two proceedings. CESA recommends that the Interconnection Discussion Forum as a possible venue in which these implementation details could be raised and addressed.

22-d: Are changes to Rule 21 needed to effectuate this recommendation? Explain any necessary changes.

CESA does not believe that these changes need to be reflected in Rule 21 to effectuate this recommendation, but guidance in the Interconnection Handbooks would provide EVSE providers with certainty on how to develop and manufacture V2G-DC/EVSE systems and proceed through interconnection upon seeking to get approval to operate in bidirectional mode.

22-d: Since the publishing of the Working Group Three Report, is there an update to when IEEE 1547.1-2019 will be approved?

CESA has no response at this time.

22-e: Is Commission action required in order to implement this proposal? If so, describe the action.

CESA recommends that the Commission direct the utilities to implement this proposal by reflecting them in the Interconnection Handbooks. The process by which V2G-DC/EVSE systems to proceed through the Rule 21 process to receive PTO from the utility would be extremely helpful for EVSE owners to navigate the process to enable bidirectional mode. As noted in the Working Group 3 Report, among other things, the utilities should be directed to consider how EVSEs can

initiate a Rule 21 interconnection process in parallel with the service connection process and to determine that EVSEs should be subject to the Rule 21 requirements from the time of service connection to a period ending, for example, 12 months later to provide V2G DC interconnections some certainty on their technical interconnection requirements while providing some buffer for these systems to be able to navigate a relatively new process and for utility engineers to be able to review a new technology asset class for interconnection.

22-e: Are specific Rule 21 tariff changes needed in order to implement this proposal?

CESA does not believe any Rule 21 tariff changes are needed at this time.

22-e: The WG Three Report mentions implementation details that need to be worked out. Describe what these details entail, and the regulatory process for determining how and when to resolve implementation.

As noted in the Working Group 3 Report, there are implementation details related to the transition between allowing for V2G-DC/EVSE systems from the existing service connection process to the Rule 21 process. The Interconnection Discussion Forum may be a suitable venue to have such informal conversations on how they should be implemented.

22-f: Estimate and justify an appropriate timeline for the development of this functionality.

The utilities are better positioned to provide estimates of timeline and cost of developing interconnection portal modifications to simply track V2G interconnections; however, CESA imagines that the resources required to get tracking functionality should not be significant.

22-h: Explain why you support or oppose the modifications to Section N.

So long as Section N is in place, CESA believes that V2G systems should be able to take advantage of expedited processes for stationary energy storage systems if the pre-defined criteria

are met. CESA recognizes, however, that not all V2G systems will meet the pre-defined criteria under Section N.

22-i: Both San Diego Gas & Electric Company (SDG&E) and Pacific Gas and Electric Company (PG&E) suggest that it is premature to consider eligibility criteria for the streamlining of Vehicle to Grid alternating current pilot. At what point would this consideration be timely?

CESA thanks the Commission for considering V2G AC interconnection issues through a separate subgroup effort in R.17-07-007 and R.18-12-006. However, CESA continues to believe that various existing pilots seeking V2G AC interconnection, as outlined in Table 3, should be created a pathway for interconnection to allow for critical learning and lessons learned to be gained on not only V2G AC technical interconnection issues but also the value and use cases for V2G AC systems. The subgroup identified several gaps that could be addressed to enable such interconnections such that eligibility criteria could be considered when the standards (*e.g.*, SAE J3072, UL 9741) are updated around the Summer of 2020. At that point, CESA believes it is reasonable for the Commission to reconsider expedited interconnection pathways for the V2G AC pilots since many of the key reliability and safety issues will likely be addressed. In the meantime, CESA encourages the utilities to work with the pilot projects to find an interim, one-off interconnection solution.

22-i: The proposed implementation of this proposal is unclear. What venue would be appropriate for the determination of implementation details?

The current Rule 21 proceeding is likely the appropriate venue to make a determination on the implementation details of proposal 22-i.

III. CONCLUSION.

CESA appreciates the opportunity to submit these responses to the Ruling and comments to the Working Group 3 Report. CESA looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



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CALIFORNIA ENERGY STORAGE ALLIANCE

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