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Re: Protest of the California Energy Storage Alliance and Microgrid Resources Coalition to Supplemental Advice Letter 3734-E-A, et al. of the Joint Utilities

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the California Energy Storage Alliance (“CESA”) and the Microgrid Resources Coalition (“MRC”) – collectively the Joint Parties – hereby submit this Protest to the above-referenced Supplemental Advice Letter 3734-E-A of San Diego Gas and Electric Company (“SDG&E”), Advice Letter 6153-E-A of Pacific Gas and Electric Company (“PG&E”), and Advice Letter 4462-E-A of Southern California Edison Company (“SCE”), *Supplemental: Joint Utility Evaluation Process and Criteria to Assess Microgrid Different Isolation Technologies Pursuant to Decision 21-01-018* (“First Supplemental Advice Letter”), submitted by the investor-owned utilities (“IOUs”) on July 29, 2021.

With Energy Division re-opening the protest period as authorized by General Order 96-B Section 7.5.1 for the First Supplemental Advice Letter, the Joint Parties are timely submitting this protest on August 30, 2021 to address the substance of the entire advice letter since it is intended to replace the Original Advice Letter. Subsequently, the IOUs submitted a Second Supplemental Advice Letter on August 25, 2021 to include the draft Supplier Technical Checklist; however, since it appears to be otherwise unchanged from the First Supplemental Advice Letter, aside from the inclusion of Attachment A, the Joint Parties contend that the protest to the First Supplemental Advice Letter during the re-opened protest period should equally apply to the Second Supplemental Letter.

I. INTRODUCTION & BACKGROUND.

Track 2 of the Microgrids proceeding (R.19-09-009) adopted a number of proposals to continue implementation of Senate Bill (“SB”) 1339, which directed the Commission to reduce barriers to microgrid development that ensures safety and reliability. With the issuance of Decision (“D.”) 21-01-018 on January 21, 2021, the Commission adopted Proposal 5 Option 2 in Track 2 of the Microgrids proceeding (R.19-09-009) that would direct the IOUs to develop a pathway for

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a broad range of technologies to support electrical isolation of a premises' electrical service during a grid outage. Rather than prescribing one pathway or limiting the scope to a pilot program, D.21-01-018 opted to establish a flexible approach that encourages innovation and the widespread use of electrical isolation technologies.¹ The Joint Parties lauded the Commission for adopting this proposal and looked forward to working with the IOUs on developing the criteria and evaluation process.

On April 26, 2021, the Joint Parties submitted a protest on the Original Advice Letter due to the arbitrary and vague nature of the proposed timelines and the lack of specific criteria or justifications to support a number of process steps, including replicated or additional testing and utility ownership of these solutions, among other issues. Overall, the proposed criteria and evaluation process would have created significant levels of uncertainty related to timelines of approval of isolation technologies and failed to provide upfront clarity on the criteria where third-party isolation technologies would be allowed. Subsequently, the Original Advice Letter was suspended for further staff review, which was followed by the IOUs' submission of the First and Second Supplemental Advice Letters.

Upon reviewing the First and Second Supplemental Advice Letters, the Joint Parties maintain substantial concerns with the IOUs' proposed evaluation process for new isolation technologies. Other than a few positive changes to parts of the process and timeline, the Joint Parties view the IOUs as largely entrenched in their positions and affirming their original proposal with some additional explanation or justifications. Rather than relying on standards to safely and efficiently evaluate and approve the use of new isolation technologies in a timely manner, the IOUs still propose a number of additional steps or requirements, such as IOU-conducted testing, workforce training, and case-by-case determination on the use of utility-supplied technologies. The added explanations insufficiently justify these positions, as discussed further below.

To this end, the Joint Parties maintain that the IOUs inject an excessive level of uncertainty, unilateral discretion, and excessive timelines to support a fair and timely evaluation process, despite the ability to leverage NRTL standards and certifications to ensure safety and reliability. The Joint Parties' protest can thus be summarized as follows:

- The IOUs should identify and rely on applicable standards for isolation technologies and not adopt additional steps or requirements.
- The 30-day timeline to deem an application complete and/or seek additional information is an improvement, but the timelines of the overall process still require modification.

¹ D.21-01-028 at 76.

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- Security of the meter and advanced metering infrastructure (“AMI”) is most likely not impacted by isolation technologies, where the Joint Parties maintain that customer ownership of the isolation technology should be the default assumption.
- Cursory IOU feedback on applicable standards or specifications for non-NRTL-certified isolation technologies is very helpful and appreciated.
- Test and evaluation agreements that are applicable for pilot programs should not apply to individual technologies.
- The scope of the proposed criteria and evaluation process should be clarified to retain the scope of the Original Advice Letter to avoid unintended consequences.

To support a more expeditious resolution of this issue, the Joint Parties offer an alternative solution for consideration. With the 2021 wildfire season already well underway, delayed resolution of this issue has led to a missed opportunity to quickly deploy low-cost isolation technologies for customers to meet their urgent resiliency needs. The combination of delayed resolution and the IOUs’ revised proposal insisting on unnecessarily long evaluation processes risks further missed opportunities to deploy and leverage isolation technologies to support the 2022 wildfire season.

II. DISCUSSION.

In the below sections, the Joint Parties discuss the shortcomings of the revised criteria and evaluation process in the Joint Advice Letter and recommends that the Commission reject this proposal. The IOUs create multiple opportunities for them to second guess certified technology options and create additional and unnecessary processes that are not substantiated for safety or reliability reasons if specific criteria or conditions are met. To support electrical isolation methods and technologies ahead of the 2022 wildfire season and provide resiliency to customers in the face of public safety power shutoff (“PSPS”) events, the Joint Parties urge the Commission to adopt the IOUs’ proposal with modifications as elaborated below.

A. The IOUs should identify and rely on applicable standards for isolation technologies and not adopt additional steps or requirements.

As mentioned in protests on April 26, 2021, the Joint Parties reiterate our position that suppliers must provide evidentiary proof that the technology or device submitted for IOU review be certified to the most current and relevant standards prior to authorizing their use and/or deployment, such as UL 2735 for electric meters, UL 414 for meter sockets, and others. It is a common practice for the IOUs to rely on

independent testing and certification by Nationally Recognized Testing Laboratories (“NRTLs”) to support safe, reliable, efficient, and scalable interconnection of technologies, equipment, and integrated systems. Table 1 in Appendix A of the Second Supplemental Letter highlight some of the “suggested” applicable standards that should be referenced in reviewing a particular isolation technology’s approval for installation and use.² Fundamentally, one of the key roles of the NRTL is to determine what standards are relevant and applicable.

However, in the First and Second Supplemental Advice Letter, the IOUs maintain their position on the need to replicate and validate testing conducted by NRTLs and provide additional explanations in support of this position. Pointing to their experience with nascent technologies, the IOUs explain that anomalies have been found in some circumstances related to NRTL test data where independent utility lab testing is needed and because there are infrequent cases where standards do not take into consideration interactive effects with other technologies.³ The Joint Parties find these justifications to be unreasonable and contrary to the whole purpose of leveraging standards in the first place.

Again, the Joint Parties have a major concern with the IOUs proposing to give themselves the option to “second guess” these certifications and conduct their own independent testing in “some circumstances” that are not sufficiently defined. By citing the fact that they have seen anomalies in some circumstances and thus assuming this is the case for all NRTL-certified nascent technologies, the IOUs would subject all new isolation technologies to an extensive evaluation process involving IOU lab testing. The IOUs do not specify the factors or testing results that would be assessed as outliers or be flagged as concerns for how they interact with utility infrastructure, leaving much of this evaluation process to utility discretion. This IOU-conducted independent testing process is thus unnecessary and only serves to add time and uncertainty to the process, especially as the technical evaluation criteria and the specific outcomes or results for which the technology would be tested by the IOUs are not defined.

Similarly, the IOUs maintain triggers for additional processes if it may require workforce training depending on the location of the installation and technology,⁴ yet these circumstances are still ill-defined. The location or type of technologies are not

² As previously discussed in our April 26, 2021 protest, the Joint Parties reiterate our recommendation that the IOUs maintain the list of accepted standards that have been accepted in the past for use by different isolation technologies, as well as additional ones as the IOUs review and approve them as part of this new process. Similarly, for customer benefit, the list of approved technologies and devices should also be listed similar to the approved equipment list as done for smart inverters. In this way, follow-on technology vendors can understand which standards have been approved in the past and can inform their decisions for product design and testing for use in the future. In the long term, it would be helpful to have the California Energy Commission (“CEC”) add these technologies to the approved equipment lists used for interconnection of solar, storage, and inverter technologies. This will streamline and scale the process and ultimately replace the IOU process in the future.

³ First Supplemental Advice Letter at 8-9.

⁴ First Supplemental Advice Letter at 9.

defined as triggering this need for additional review, nor do the IOUs point to how applicable standards create safety and reliability gaps that must be accounted for in utility workforce-related and operational standards. The prospect of the IOUs needed to potentially develop new utility standards as a result of this element of review could potentially lead to protracted and unbound timelines for final approval for use.⁵

As a result, the IOUs could potentially prolong the approval of isolation technologies without any substantiated benefit or reason in the pursuit of an unspecified result that the IOUs wish to confirm or validate. Simply put, the IOUs should rely on nationally-recognized standards and strike any reference to the potential for replicated testing requirements, unless these “circumstances” are further specified and justified, as required by D.21-01-018.⁶ Otherwise, the Joint Parties are unclear on how the proposed evaluation process would improve upon the current bilateral processes if any technology or supplier could be subject to case-by-case determinations as opposed to relying on NRTL testing and certifications.

B. The 30-day timeline to deem an application complete and/or seek additional information is an improvement, but the timelines of the overall process still require modification.

The Joint Parties appreciate the IOUs’ modifying the timeline for reviewing and deeming an application complete, or if not, for seeking additional information. Whereas the IOUs initially proposed a 60-day timeline, the IOUs have modified this timeline to 30 days, after which the next step of the process to draft an evaluation and test agreement and conduct and produce an initial evaluation report is initiated.⁷ The Joint Parties agree with the IOUs that the timelines for this initial step of the process is contingent on the applicants doing their part as well, in addition to the volume of requests being submitted by suppliers.⁸ As such, the Joint Parties find the 30-day timeline for this initial step in the process is reasonable to give the IOUs flexibility to manage the potential volume of applications and to account for the review time needed.

However, the Joint Parties maintain that the use of standards can facilitate a checklist approach to affirm that the new isolation technologies are tested and certified to applicable standards, informed by past technology evaluations and field tests. During this initial 30-day period, the Joint Parties also recommend that the IOUs should be encouraged to communicate with vendors and applicants in a timely manner, particularly if requests are likely to be deficient or non-compliant rather than waiting until the maximum allowed timeline (*e.g.*, 30 days) to identify how, for example, one

⁵ *Ibid.*

⁶ D.21-01-018 at 78 and OP 9.]

⁷ Original Advice Letter at 4-5 and First Supplemental Advice Letter at 5.

⁸ *Ibid.*

key document or diagram is missing. Timely and reasonably iterative communications can result in a more successful outcome.

Furthermore, the proposed 90-day timeline for completing the evaluation should be substantiated,⁹ even if it only applies to technologies that do not meet the applicable standards. As expressed above, the Joint Parties believe that the IOUs should rely on NRTL standards and certifications in a checklist approach to approve the use of new isolation technologies. During the evaluation period following the 30-day initial check period, the Joint Parties do not fully understand why a 90-day period is needed in cases where a follow-on consultation with the NRTL could not be done in a much shorter period of time. Given the urgency of the upcoming wildfire and PSPS season and the clearly stated intent of adopting Proposal 5,¹⁰ the Joint Parties believe that such an approach is fair, efficient, and reasonable without creating unnecessary safety and reliability risks.

C. Security of the meter and AMI infrastructure is most likely not impacted by isolation technologies, where the Joint Parties maintain that customer ownership of the isolation technology should be the default assumption.

In the Original Advice Letter, the IOUs proposed that the evaluation process will dictate, on a case-by-case basis, whether the isolation technology should be utility-supplied.¹¹ In response to the Joint Parties’ concerns that the “case-by-case” assessments leaves too much discretion to the IOUs and does not provide the justifications for circumstances where utility-supplied or utility-owned technologies are required, the IOUs further explained that utility ownership of isolation technologies may be appropriate in cases where the technology at hand poses interoperability issues with utility infrastructure, particularly as it relates to retrieving and securing meter data and enabling connection/disconnection of the customer premises.¹²

The Joint Parties find these justifications to be inadequate and still falling short of the orders of D.21-01-018. First, D.21-01-018 established customer-supplied and customer-owned technologies as the presumptive default option and required the IOUs to provide justifications where utility-supplied or utility-owned technologies are needed.¹³ While providing some more details on their concerns, the IOUs provide broad

⁹ *Ibid.*

¹⁰ See D.21-01-028 at Finding of Fact (“FOF”) 31: “A process for large investor owned utilities to evaluate the safety and reliability of low-cost, utility-scale technologies and methods to provide electrical isolation may allow additional isolation methods to be available prior to the 2021 wildfire season and help commercialize microgrids” [*emphasis added*].

¹¹ Original Advice Letter at 7.

¹² First Supplemental Advice Letter at 9.

¹³ D.21-01-018 at 78 and OP 9.

categories of factors that would drive the determination on whether utility ownership is required.¹⁴ For example, “results of the technical safety and reliability evaluation” and “impacts to customer service and experience” represent criteria but are overly broad and expansive to not be useful. There is no mention of how the determination on impacts to customer service and experience will be made or the specific metrics by which this will be measured, nor is there detailed explanation of the factors that will be considered in the technical evaluation.¹⁵ As a result, the proposed process is not much of an improvement over what was originally proposed and essentially boils down to the same “case-by-case” assessments, giving the IOUs too much discretion over this determination and falling short of the requirement of D.21-01-018 to specify the circumstances where IOU ownership is required.

Second, as CESA understands it, the IOUs’ AMI is secure and subject to protection against interference, such that questions about the role of isolation technologies in interfering with retrieving and securing meter data and in controlling meter connections and disconnections is not well-substantiated. With the IOUs’ AMI being designed to meet standards such as ANSI C12.22/IEEE Std 1703, the AMI should be secure and meter data is encrypted, where isolation technologies likely pose no risk to the IOUs’ secure communications and controllability of the customer meter. There is seemingly no difference between isolation technologies and any other communications technologies that are physically located near the customer meter, yet the latter does not raise interference concerns to our knowledge. With AMI designed to handle more severe threats around cyberattacks, it is perplexing to see concerns raised around simpler concerns around customer interference. If the security of AMI is a major concern, the Joint Parties believe that the IOUs must address these matters outside of the scope of this evaluation process through rate cases and proceedings specifically evaluating the IOUs’ grid modernization investments and investments.

Finally, the Joint Parties reiterate our views that legal issues, customer service, and commercial/manufacturing availability falls outside the scope of what was directed by the Commission. Yet, the IOUs continue to cite these factors as necessitating additional steps or requirements. While having these discussions occur in parallel to the technical evaluation represents an efficiency improvement, the Joint Parties maintain that this issue falls outside the scope of the core technical safety and reliability issues directed by the Commission as being part of the evaluation process for isolation technologies.

¹⁴ First Supplemental Advice Letter at 10.

¹⁵ For instance, do the IOUs have concerns about the use (or non-use of specific standards or secure communication protocols? Are there specific physical locations when the isolation technology would interfere with meter operations?

D. Cursory IOU feedback on applicable standards or specifications for non-NRTL-certified isolation technologies is very helpful and appreciated.

A positive change in the First Supplemental Advice Letter is the IOUs' proposed process to engage suppliers regarding technologies that have not yet received NRTL certification. By engaging in this dialogue, it can avoid prolonged review and evaluation processes in the future if the IOUs are able to provide utility meter socket specifications and preliminary recommendations on applicable standards.¹⁶ Given the time to proceed end-to-end through the certification and testing process, some preliminary dialogue/guidance from the IOUs is helpful to avoid certification to inapplicable standards. Understandably, the IOUs express how they are not positioned to directly assist in product design and development, and their role should not extend to such activities given they are ratepayer-funded staff, but feedback/guidance is helpful in informing suppliers on the requirements and specifications to which they should design and develop their products. The Joint Parties appreciate the accommodation of this step in the proposed process.

E. Test and evaluation agreements that are applicable for pilot programs should not apply to individual technologies.

The IOUs continue to propose to provide suppliers with a draft “test and evaluation” agreement that will include the terms and conditions for conducting the technology evaluation and assessment, modeled on the requirements adopted for Electric Program Investment Charge (“EPIC”) and Smart Grid pilots.¹⁷

As raised in our April 26, 2021 protest, the First and Second Supplemental Advice Letters still do not provide an example draft agreement and the cited decisions do not provide clarity as to what these agreements will entail. In our read, D.13-03-032 listed nine pilot plan criteria that more appropriately applies for pilot programs, not to specific technologies.¹⁸ The costs and benefits of any given technology, for example, is irrelevant to a process that should be evaluating their technical safety and reliability. For similar reasons, the Joint Parties do not understand the applicability of the EPIC renewal decision (D.20-08-042) for the purposes of this evaluation and approval process of isolation technologies.¹⁹ Finally, the Commission clearly decided against a

¹⁶ First Supplemental Advice Letter at 7.

¹⁷ First Supplemental Advice Letter at 5.

¹⁸ See, e.g., D.13-03-032 at 6-8 where the criteria focus on objectives, goals, cost-effectiveness, metrics, and best practices – none of which appear to be applicable to evaluating any given individual technology on its technical merits. Rather, these criteria more appropriately apply to a program supporting a potential portfolio of technologies. There are only general references to “performance metrics” with nothing in the cited decision pointing to how the IOUs would be informed of drafting a test and evaluation agreement for the purposes of isolation technologies.

¹⁹ See, e.g., D.20-08-042 at 2-7 where the criteria focus on the guiding principles, purpose, and administration of EPIC as a program, not for any given technology.

pilot approach and determined that an evaluation process would be established to support commercial deployment of isolation technologies,²⁰ raising question regarding the applicability of these two cited decisions.

Unless clarified otherwise, the Joint Parties believe a more simplified test and evaluation agreement could be established that assesses the applicability and relevance of particular standards in ensuring safety and reliability. With an understanding of what the applicable standard entails, the IOUs should be able to draft operational agreements with vendors on mutually acceptable processes, procedures, and agreements that define roles and responsibilities, as well as other operational concerns.

F. The scope of the proposed criteria and evaluation process should be clarified to retain the scope of the Original Advice Letter to avoid unintended consequences.

The Joint Parties appreciate the IOUs' clarification that any in-front-of-the-meter ("IFOM") isolation technologies undergo separate processes for approval but would not be precluded from being used. As a result, the IOUs imply that the proposed process herein applies to isolation technologies at or behind the customer meter. However, this should be made explicitly clear in order to avoid confusion as to whether existing technologies being widely and commercially deployed and installed today, such as automatic transfer switches ("ATS") that are non-contiguous with the utility meter, are not subject to an evaluation process appropriate for new isolation technologies.

A simple clarification can be provided by including language from the Original Advice Letter that more clearly outlined the scope of the evaluation process for new isolation technologies, with some proposed modifications below:²¹

"The Joint Utilities **understand establish** that the process outlined in this advice letter applies solely to isolation technologies at the meter. As part of the evaluation and assessment, the Joint Utilities will require lab and/or field testing to validate the safety, reliability, and functionality of the technology or device. The technology or device must meet OSHA standards to ensure worker safety and to identify specific hazardous conditions."

Since the Second Supplemental Advice Letter replaces the Original Advice Letter and Second Supplemental Advice Letter in their entirety, the Joint Parties want the evaluation process to make this clear and do not assume the proposed scope from

²⁰ D.21-01-018 at 76.

²¹ Original Advice Letter at 8.

earlier advice letters will carry over to the Second Supplemental Advice Letter, which Energy Division will assess for approval.

III. ALTERNATIVE SOLUTION.

At this stage, the possibility of leveraging low-cost, commercially-available isolation technologies at or behind the customer meter for the 2021 wildfire season has likely passed due to the prolonged resolution of this issue. At the same time, had the IOUs' original proposal been adopted, these new isolation technologies likely would have faced the same fate by not being approved and installed in time for the 2021 wildfire season.

To make up for lost time and position these technologies for wide commercial installation ahead of the 2022 wildfire season, the Joint Parties summarily propose an outline of an alternative process for Commission consideration, building off the structure of the IOUs' original and revised proposals but more effectively leveraging an "if, then" checklist and evaluation approach based on applicable standards.

1. **Application submittal:** The supplier should provide the information requested and included in the IOUs' proposal. The Supplier Technical Checklist as included in Attachment A should guide suppliers on the necessary documentation and information to be provided, as well as the applicable standards that will be used to assess approval.
2. **30 calendar days to deem application complete and approve isolation technology for use:** The application and initial technical review should amount to identifying and validating NRTL testing and certification to the applicable standards. A quick check against this list should be sufficient, similar to the standards-based approach that the IOUs use to assess Rule 21 generation facility interconnections. In other words, the "validation" should involve confirming that the NRTL has certified the technology to all relevant and applicable safety standards as opposed to the IOU making its own assessment as to whether or not a device should be certified to those standards. In contrast to the IOUs' proposed 30 business days, this timeline should be based on 30 calendar days since such a checklist approach should support such a streamlined approach while still ensuring safety/reliability and providing IOUs flexibility to handle any potential administrative burdens. If approved to the applicable standards, no follow-up evaluation should be necessary to undermine the intent and purposes of NRTL certifications, require additional workforce training, or require utility ownership of isolation technologies.
3. **30-60 calendar days to complete initial evaluation for technologies that do not pass the initial NRTL checklist review:** The criteria for this step of the review

process requires further elaboration and development since the IOUs' current revised proposal would essentially subject all isolation technologies to this step of the process. Instead, criteria should be set forward for applicable standards that warrant checklist review versus "suggested" standards that may warrant follow-on review. A test and evaluation agreement should be developed to support technical review, or the proposed EPIC agreement should be modified to only include the relevant elements (*e.g.*, not include cost-benefit analysis).

4. **Appeals process:** Suppliers should have an opportunity to appeal a negative determination or rejection from the IOU throughout this process. Relevant Energy Division staff should be involved in an informational update, at minimum, and potentially play a role in arbitration of the dispute. Such an appeals process is necessary given the Joint Parties' concerns since this evaluation process, depending on how it is modified and adopted, may be fraught with too much IOU discretion.

The Joint Parties respectfully request that the Commission take into account our comments above as well as reflect elements of our proposed alternative solution above in the adopted evaluation process, pursuant to D.21-01-018.

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IV. CONCLUSION.

The Joint Parties appreciate the opportunity to submit this Protest in response to the First and Second Supplemental Advice Letters and look forward to collaborating with the Commission and IOUs to better enable the use of microgrid isolation technologies pursuant to D.21-01-018, ahead of the 2022 wildfire and PSPS season.

Respectfully submitted,



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