

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



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Order Instituting Rulemaking to
Update Distribution Level
Interconnection Rules and
Regulations.

R.25-08-004
August 14, 2025

**TESLA, INC.'S REPLY COMMENTS ADDRESSING UTILITY RESPONSES TO
RULING SEEKING INTERCONNECTION APPLICATION REVIEW COST DATA**

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Pursuant to the Administrative Law Judge's Ruling issued on July 14, 2026 and amended via email Ruling on July 24, 2026, Tesla, Inc. (Tesla) respectfully submits these Reply Comments addressing the Responses filed by the Investor Owned Utilities (IOUs) in which they provided answers to the questions posed by the ALJ regarding the costs associated with reviewing interconnection applications for non-Net Energy Metering and non-Net Billing Tariff projects.

I. INTRODUCTION

Tesla welcomed the Ruling given our fundamental position that the existing \$800 fee fails to reflect the actual costs of receiving and reviewing non-NEM projects generally and is, given its basis, an especially poor estimate of the costs associated with receiving and reviewing interconnection applications for residential-scale non-NEM projects.¹ Regarding the latter,

¹ Tesla's current understanding of the \$800 fee is that it was set in the early 2000s and was based on an estimate of the amount of engineering time and labor associated with reviewing the interconnection applications for behind the meter commercial or industrial projects.

given the technical similarities between residential scale non-NEM projects and residential scale NEM projects, there is no credible basis for the costs of review for a non-NEM residential scale project to be 5-9 times higher than NEM projects. Even adjusting for inflation since the application fees were originally established for NEM projects via D.16-01-044, Rule 21's \$800 fee for non-NEM projects still appears wildly excessive.² The Ruling sought to add empirical rigor and evidence into the discussion by asking the utilities to provide cost data associated with reviewing non-NEM interconnection applications which could then be used to identify if there are key project characteristics or variables which serve as key drivers of the costs to review them. This information could then, presumably, be used to establish an updated fee or fee schedule based on whether a project has certain characteristics that the data indicates would systematically result in materially different review costs as compared to projects that lack those characteristics.

II. THE UTILITY RESPONSES ARE NOT GROUNDED IN THE REAL WORLD **PROJECT-LEVEL COST DATA NEEDED TO EMPIRICALLY ASSESS THE** **IMPACT OF PROJECT CHARACTERISTICS ON REVIEW COSTS**

Unfortunately, the information the utilities provided appears inadequate to the goal of empirically assessing how interconnection review costs systematically change as a function of project attributes. The empirical assessment discussed above is fundamentally dependent on real-world, project-level cost data that can be used to evaluate how project interconnection application review costs correlate with different project characteristics, like project size, project

² The NEM IX application fees adopted in D.16-01-044 for PG&E, SCE and SDG&E were based on cost and application data filed via Advice Letter by each of the utilities in June 2015, and resulted in NEM IX fees at the time of \$145 for PG&E, \$75 for SCE, and \$132 for SDG&E. According to the Bureau of Labor Statistics, these values, adjusted for inflation would be equivalent to ~\$201, \$105, and \$184 today for PG&E, SCE and SDG&E, respectively.

technology type, geographic location and associated grid conditions, whether a project is exporting, etc. The information provided by the utilities is based on estimates as opposed to actual project-level cost information, with SDG&E stating that “SDG&E does not track staff hours or costs at the individual project level for all interconnection applications. Given the volume of applications processed annually, it is not operationally feasible to capture and maintain project-specific labor hours across all functions involved in the interconnection process. Accordingly, SDG&E’s estimates are based on representative averages derived from operational experience and the typical activities required to process applications within defined project categories.”³ PG&E states that the numbers included in its Response “signify PG&E’s best attempt to estimate for non-net-metering costs for applications completed in 2024 and 2025.”⁴. SCE similarly indicates that the costs reflected in its Response are based on “[estimates] of the amount of the effort required to process an interconnection request for a project as it proceeds through application review, Fast Track Initial Review, preparation and execution of an Interconnection Agreement, and issuance of final Permission to Operate.”⁵

Tesla is not comfortable nor should the Commission be comfortable relying on what are essentially unvetted cost estimates provided by the utilities for purposes of adjusting the Rule 21 interconnection application fees. While we do not question that the utilities did their best to be responsive to the Commission Ruling, the wide range of average review costs per application as reported by the utilities in their Responses, ranging from \$740 to \$1887 per application, in of

³ SDG&E Response, pgs. 1-2.

⁴ PG&E Response, pg. 1.

⁵ SCE Response, Interconnection Fees Responses, pg. 2

itself suggests further interrogation is needed of the underlying assumptions and inputs used by the utilities to develop these estimates if real-world cost data is unavailable.

Furthermore, to the degree one of the goals of the Commission for this phase of the proceeding is to ascertain the extent to which different project attributes materially impact review costs and thus provide a basis to establish a fee schedule that differentiates by project type, the responses of the utilities only provide a limited, and questionable foundation for doing so. PG&E does not appear to provide sufficient information to allow any disaggregation of its estimated application review costs by project size, anticipated grid interaction (e.g. exporting vs. non-exporting) or technology type (e.g. solar, storage, solar + storage) and SCE disaggregated only between exporting and non-exporting projects. Of the IOUs, only SDG&E appears to have provided a breakdown, in Appendix A to its Response, that offers a means to assess average application review costs based on multiple project characteristics, specifically system size and technology type. However, the average per application review costs that can be calculated from the information SDG&E provided strains credulity, particularly for the smaller scale projects as shown in the table below.

Project Size	Non-NEM Technology Type	# of Applications Approved	% of Approved Applications that are Non-Exporting	Cost to Review	Average Cost Per Application
< 30 kW	Solar	501	100%	\$ 908,766.80	\$ 1,813.91
	Battery	134	96%	\$ 239,494.40	\$ 1,787.27
	Solar + Battery	367	100%	\$ 724,794.40	\$ 1,974.92
>=30 kW to 500 kW	Solar	0	N/A	0	
	Battery	4	100%	\$ 9,624.80	\$ 2,406.20
	Solar + Battery	2	100%	\$ 8,443.20	\$ 4,221.60

Based on the information SDG&E provided, it costs the utility 13 to 14 times what it costs to review a NEM project based on the current NEM IX application fee, which was established based on utility reported costs in 2016. Even after adjusting the current NEM application fee for inflation, the estimated cost to review these non-NEM projects is 10 to 11 times higher than the cost to review NEM applications. The fact that the vast majority of these

projects, per the information provided in SDG&E's Appendix A, are non-exporting, makes these results even more perplexing, recognizing that non-exporting systems should generally be relatively simple to review compared to NEM projects which typically involve exporting systems. This calls into question both the assumptions underlying SDG&E's cost inputs as well the nature of the process being applied to these projects, which, if the above results are an accurate reflection of real-world costs, suggest significant inefficiencies in SDG&E's approach to application processing.

III. A STEP-BY-STEP PROCESS REVIEW BY PROJECT TYPE PROVIDES AN ALTERNATIVE APPROACH TO ASSESSING AND RE-CALIBRATING INTERCONNECTION APPLICATION REVIEW COSTS

In lieu of actual project-level interconnection review cost information, SCE's and SDG&E's Responses do offer an alternative approach pursuant to which one could estimate how much time it takes the relevant personnel to complete each step or set of steps in the interconnection review process and, based on those estimates and associated hourly labor rates and company overhead, develop a modelled estimate for the total cost to review an interconnection application. Of the two utilities, SCE took a more granular approach, providing labor type, time and cost estimates for each individual step in the interconnection review process, whereas SDG&E provided time estimates to complete various groupings of individual steps in the review process.

To the degree real world project-specific cost information is not available, SCE's modelled approach could serve as a template, provided it is appropriately expanded to tease out how costs may vary based on various project attributes beyond just whether a project is exporting to the grid. To pursue this approach, Tesla envisions a workshop where the utilities

would walk through each step of the interconnection review process for projects with different key attributes and discuss how much time it takes and what types of personnel and associated labor rates are involved to complete each step for projects with those attributes. This approach involves more subjective judgement than the data-based approach that the Ruling appeared to envision, but in the absence of real-world cost data, this approach provides a workable, if less than ideal alternative. If this approach is pursued it cannot be based on utility input alone but should be approached as part of a stakeholder process to ensure the cost estimates are reasonable and reflect opportunities for process improvements.

To ensure the assessment is manageable, it will be important to identify those project characteristics that seem more likely than not to systematically and materially impact the complexity and cost of interconnection review to narrow the scope of project/application scenarios that need to be considered.

Tesla's hypothesis is that project size is a critical factor in determining the complexity and associated cost of interconnection review. This hypothesis is supported by the utilities' responses which indicate that projects below certain defined size thresholds bypass certain review screens and other general statements in which they explicitly state that smaller projects require less intensive review. SCE, in the table appearing on page 13 of its Response to the Ruling, highlights that projects of 30 kVa or less in size bypass a number of Rule 21 review screens (this same table also notes the other size thresholds below which certain other review screens do not apply). PG&E states, that "Generally, projects under 30 kW, i.e. standard NEM projects, are less complex and do not require detailed analysis."⁶ Additionally, the existing NEM

⁶ Pacific Gas and Electric Company's (U 39 E) Response to Administrative Law Judge's Ruling Directing Utilities to Produce Rule 21 Application Data, pg. 6.

fees, which at the time they were adopted largely reflected the average cost for residential scale projects (which presumably accounted for the vast majority of interconnection application requests), are significantly lower than overall average cost numbers the utilities present in their Responses to the instant Ruling. To the degree that smaller scale non-NEM projects are technically similar to smaller scale (i.e. residential) NEM-projects, it follows that their complexity and review costs should be similar. In addition to system size, other project characteristics that seem salient based on the information provided in the utility responses include whether a project will be exporting or not, and what technologies are being deployed.

Whether using SCE’s modelling approach or an approach that utilizes real world data, Tesla believes that at a minimum, the interconnection review costs associated with the something like the twenty-four project scenarios captured in the table below should be assessed to determine if there is a systematic and material difference in the costs to review a standard application based on the identified characteristics (where “standard application”, consistent with SCE’s approach, refers to one that does not require supplemental review or detailed study).⁷

	Solar Only		Storage Only		Solar + Storage	
Project Size	Non-Exporting	Exporting	Non-Exporting	Exporting	Exporting	Non-Exporting
<= 30 kW						
> 30 kW to <= 500 kW						
> 500 kW to <= 1,000 kW						
> 1000 kW						

In developing these cost estimates, we reiterate that they should not rely exclusively on information grounded only in experience to date. As Tesla has noted previously in this docket,

⁷ Tesla is not married to conducting the process level assessment for each project scenario captured by the table if there are reasons to suggest that the review for some of the project scenarios would be the same and thus allow for some scenarios to be consolidated.

reliance on historical costs and processes inherently accepts any process inefficiencies as a given rather than something that can be improved upon to drive costs lower. SDG&E's cost and application information suggests significant opportunities to make dramatic improvements in the efficiency of application review, particularly for smaller scale systems. To the degree there are substantial differences across the utilities in terms of time spent on certain activities, this suggests opportunities for improvement. As part of the Commission's deliberations on this issue, process improvements that could be made and their anticipated impact on the costs of review should be factored into the cost estimates and fee levels that are ultimately adopted.

In terms of next steps, Tesla asks that the Commission issue another ruling directing the utilities to provide their initial estimate of application review costs, either based on real-world project-level cost information, if additional time would enable them to collect and compile that, or built up from their best estimate for the amount of time and labor required to complete each process step for each of the project scenarios in the table above (or a pared down version if consolidating some project types can be justified). Subsequent to this, the Commission should convene a workshop to discuss a number of issues implicated by the utilities' Responses including the availability of real world representative project-level application review cost data, a discussion of the application review process steps and associated labor time, labor rates, and costs each step involves for each of the project scenarios, and potential process improvements that could be adopted, including the role of AI and automation and how their use might reduce costs further.⁸ The workshop should be followed by a staff proposal with a proposed fee

⁸ Tesla is aware of utilities that are already adopting or piloting such technology. Notable examples include PG&E itself, which recently announced incorporation of AI to support its Service Planning and Design Teams to facilitate faster response times to customer requests for new or upgraded gas and electric service (see <https://www.pge.com/en/newsroom/currents/customer-service/ai-helps-service-planning-with-project-and-customer->

structure/schedule, a round of Opening and Reply Comments after which the Commission should issue a Proposed Decision.

IV. PENDING A FINAL DECISION ADOPTING UPDATED RULE 21
INTERCONNECTION APPLICATION FEES, THE COMMISSION SHOULD
SET THE APPLICATION FEE FOR NON-NEM PROJECTS OF 30 KW OR
LESS TO MATCH THE NEM APPLICATION FEE.

Tesla further recommends the Commission issue an interim Decision in the immediate term directing the utilities to modify the fees for residential scale (≤ 30 kW) non-NEM/NBT projects to the same level applicable to NEM projects during the pendency of this phase of the proceeding. At the conclusion of this process, the fees for new applications transition to whatever has been adopted in the final Decision. Tesla makes this recommendation based on the fact that no party has contested Tesla's assertion that from a technical standpoint, residential-scale, non-NEM projects are no more complex than a similarly situated/sized NEM projects. As such there is no basis for charging these projects 5-9 times the amount that is charged NEM/NBT projects. Additionally, setting the fee in reference to the NEM interconnection application fee level rather than a specific dollar amount will ensure that if the NEM fee is changed while the instant proceeding and deliberations are ongoing, (i.e. if the IOUs submit Advice Letters (ALs) proposing the NEM fees be changed and those ALs are approved by the Commission) the fee applicable to non-NEM projects under 30 kW would be adjusted accordingly.

[connections.html](#)) and Eversource Energy which is using envelio's Integrated Grid Planning Software specifically to streamline the interconnection process (see <https://envelio.com/en-us/news/eversource-energy-adapts-envelio-intelligent-grid-platform>).

V. CONCLUSION

Tesla appreciates the opportunity to submit these Reply Comments addressing the utility responses to the Ruling seeking interconnection application review cost information. In the absence of real world, project-level interconnection application review cost data, which, if available could be used to empirically assess if review costs are systematically different based on different project attributes, it becomes necessary to evaluate the review process on a step-by-step basis for different project types to update the interconnection application fee to better reflect the review costs that different types of projects, differentiated by size, technology and grid interaction (exporting or non-export) are likely to engender. During the pendency of this effort, Tesla encourages the Commission to issue an interim order setting the interconnection fee level of non-NEM projects of 30 kW or less to match that of NEM systems, recognizing that non-NEM projects of this size or no more technically complex than NEM projects nor likely to have greater grid impacts and thus there is no basis for subjecting them to fees that are significantly higher.

Respectfully submitted,

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