

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



FILED

08/28/26

04:59 PM

R2508004

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

Rulemaking 25-08-004
(Filed August 14, 2025)

**REPLY COMMENTS OF FORD MOTOR COMPANY ON IOUS' RESPONSES TO
ADMINISTRATIVE LAW JUDGE'S RULING DIRECTING UTILITIES TO PRODUCE
RULE 21 INTERCONNECTION APPLICATION DATA**

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Date: August 28, 2026

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), Ford Motor Company (“Ford”) hereby submits these reply comments on the responses of Pacific Gas and Electric Company (“PG&E”), Southern California Edison Company (“SCE”), and San Diego Gas & Electric Company (“SDG&E”) (collectively, the “IOUs”) to the *Administrative Law Judge’s Ruling Directing Utilities to Produce Rule 21 Interconnection Application Data* (“Ruling”), issued July 14, 2026, as modified by the Administrative Law Judge’s email ruling on July 27, 2026.¹

I. INTRODUCTION

Ford appreciates the Commission’s consideration and diligence on whether to revise the interconnection fee for non-NBT and non-NEM resources, and the IOUs’ support in preparing additional information on their costs associated with interconnection application review and processing. The interconnection fee for non-NBT and non-NEM resources is important to Ford and its customers because bidirectional EVs (that operate in parallel with the grid) are currently classified as non-NEM/non-NBT resources by the California IOUs. Ford has an existing electric

¹ Administrative Law Judge’s Ruling Directing Utilities to Produce Rule 21 Interconnection Application Data, R.25-08-004 (July 14, 2026) (“Ruling”); Email Ruling Granting Investor-Owned Utilities’ Request for Deadline Extension, R.25-08-004 (July 27, 2026).

vehicle (“EV”), the Ford F-150 Lightning, with bidirectional features in market today, and has announced plans to bring another full battery EV to market with bidirectional charging features by 2027.² Customers with these two EVs would need to go through a non-NEM/non-NBT interconnection and pay the subsequent \$800 application fee before operating their EVs in parallel with the grid.

In these reply comments, Ford offers feedback on the following:

- Issues and gaps with the application data supplied by the utility responses (Section II);
- Process inefficiencies with the existing interconnection application process for non-NEM/non-NBT resources (Section III);
- Application categories and fee differentiation for less complex (often smaller) projects (Section IV);
- Secondary benefits (e.g., supporting clean energy, EV, and bidirectional charging goals) driven by improving the efficiency of existing interconnection application submission and review processes for non-NEM/non-NBT projects (Section V);
- The need for immediate interim fee relief for small non-NEM/non-NBT projects (Section VI);
- Recommended next steps for the Commission to consider in this proceeding (Section VII).

II. ISSUES AND GAPS WITH THE APPLICATION DATA SUPPLIED PREVENTS THE ABILITY TO UNDERSTAND THE TRUE COSTS

On July 14, 2026, the Administrative Law Judge (ALJ) issued a ruling requesting the utilities provide interconnection application data on non-NEM/non-NBT projects to better understand the utilities’ true costs for reviewing and processing non-NEM/non-NBT interconnection applications, the deadlines for which were subsequently modified by email

² [Why The First Universal EV is Named Ford Fathom.](#)

ruling. While all three large California investor-owned utilities (“IOUs”) responded, none were able to fully supply the requested data with the desired granularity. Both SCE³ and SDG&E⁴ reported that they don’t have actual labor-hour data available to report on non-NEM/non-NBT interconnection application processing times. SCE’s and SDG&E’s labor-hour estimates are based primarily on observations and operational experience from the staff involved.

Estimated labor hours, while helpful, are not a good indicator for evaluating the true cost of a process as it is not auditable and has the added challenge of being over- or under-estimated based on subjective circumstances. PG&E’s response seems to get closer than SCE’s and SDG&E’s in including actual cost data, where possible. However, PG&E also indicated that estimates were supplied in their response due to the time constraints of this ruling, implying that better data might have been possible with more response time.⁵ Unlike SCE and SDG&E, PG&E notes that they have “...standard charging practices [and they]... can capture these costs by running financials for those orders and the hours charged for a given year.”⁶

Furthermore, PG&E estimated the time needed to complete a non-NEM/non-NBT interconnection application review in 2025 to be roughly 6.5 hours.⁷ This is almost half the time estimated by SCE (9.25-14 hours) and SDG&E (13 hours), indicating an almost 50% better processing time for PG&E customers. This level of variability in application processing time across the utilities – despite implementing the same PUC interconnection rules and procedural requirements – likely indicates either inefficiencies in SCE’s and SDG&E’s processes and/or issues/gaps in the underlying estimated data. This high level of discrepancy and the lack of

³ SCE Response to the Ruling at 3.

⁴ SDG&E Response to the Ruling at 1-2.

⁵ PG&E Response to the Ruling at 1.

⁶ PG&E Response to the Ruling at 3.

⁷ PG&E Response to the Ruling at 3. The estimated labor hours of ~6.5 hours were calculated by dividing the total cost per application (\$740/App) by the estimated staff labor rate (\$114/hour) for 2025.

transparency into the actual accounting data for labor costs indicates that the data provided is insufficient at this time to evaluate and/or adjust the interconnection application fee for non-NEM/non-NBT projects.

Lastly, in question 5b, the ALJ points to the allowable engineering labor rate pursuant to Rule 21.⁸ SCE's and PG&E's loaded labor rates are within the Rule 21 allowable engineering labor rate of \$150/hour, however, SDG&E reported a fully loaded labor rate of \$237, which is almost two times the average labor rates charged by SCE and PG&E and higher than the rate previously approved by the Commission for inclusion in Rule 21⁹. This variability seems unreasonable given labor rates across the state on average. For instance, the Bureau of Labor Statistics reported that in May 2025, the average hourly rate in San Francisco-Oakland-Fremont for architecture/engineering was \$67.39 and office and administrative support was \$32.96; the same hourly rates in San Diego-Chula Vista-Carlsbad were \$59.40 and \$27.84, respectively.¹⁰ This discrepancy further emphasizes the lack of transparency and gaps in the data, making the data insufficient to assess a valid adjustment to the interconnection application fee for non-NEM/non-NBT projects.

III. APPLICATION PROCESS INEFFICIENCIES SHOULD BE ADDRESSED BEFORE A NEW FEE IS SET

According to the responses provided by the IOUs, a significant number of non-NEM/non-NBT projects that were submitted and ultimately interconnected between 2024 and 2025 had application deficiencies. According to SDG&E, over 90% of applications had at least

⁸ The Ruling at 5 (Question 5.b).

⁹ See Decision No. 12-09-018 (Sep. 22, 2011) (originally establishing \$150 per hour rate).

¹⁰ https://www.bls.gov/regions/west/news-release/occupationalemploymentandwages_sanfrancisco.htm; https://www.bls.gov/regions/west/news-release/occupationalemploymentandwages_sandiego.htm.

one deficiency, with over 60% of applications having at least two deficiencies.¹¹ While PG&E did not discuss the deficiency rate of their non-NEM/non-NBT applications in their response, SCE indicated that “[h]istorical operational experience indicates that a substantial percentage of applications require one or more deficiency notices prior to being deemed valid. The estimated review times therefore reflect the expected effort associated with additional review cycles.”¹² Based on this feedback from SDG&E and SCE, this means that “deficient” applications are skewing the review time (and thus, estimated costs) for processing interconnection applications for those customers and experienced installers that submit fully complete and valid applications. The concern with basing a new non-NEM/non-NBT interconnection application fee on cost averages across valid and invalid applications is that customers with fully complete/valid applications on first submittal are penalized with higher application fees for the extra review time and added costs incurred by installers and/or customers that submit incomplete and/or invalid applications upon first submittal.

This high deficiency rate should also be alarming and something that Ford believes needs to be assessed and addressed before a new fee is evaluated. An efficient, well-understood, clear and streamlined process for application submittal should not have such a high (>90%) deficiency rate. The fact that only one in 10 applicants successfully complete an application on the first try suggests the process itself is in need of improvement. It would behoove the Commission to request the utilities to improve their process efficiency and/or create better informational materials for applicants before a new fee is evaluated. It is also worth examining if there are common errors or other items that could be caught through a real-time, automatic check prior to

¹¹ SDG&E Response to the Ruling at 13.

¹² SCE Response to the Ruling at 3.

submission, to avoid wasted time on behalf of both the applicant and the utility. Given the currently high-level of inefficiencies in the existing application review process, customer funds collected as part of the existing \$800 non-NEM/non-NBT interconnection application fee could be seen as superfluous and not being used in the best interest of all parties (including both those that successfully complete their application and those that do not). Increasing the non-NEM/non-NBT interconnection application fee without first looking at existing processes and ways to improve them would be a missed step as part of this review.

Furthermore, based on Ford's own internal research of publicly available data, the California IOUs have the highest interconnection application fee in the country for bidirectional EV charging systems (currently assessed as non-NEM/non-NBT by California IOUs), and in some cases more than eight or more times higher than in other states and utility jurisdictions for the equivalent project type. Based on this information and Ford's assessment, it's reasonable to infer that the California IOUs' processes can be improved to reduce their cost. If other utilities in other states can keep their application submission and review fees low, Ford encourages the Commission and California IOUs to take a closer look at process efficiency before a new fee is assessed.

Before raising fees for ratepayers, the Commission needs to determine if utilities have appropriately attempted to increase efficiencies and improve their processes to lower costs. According to SCE, a limited amount of automation and artificial intelligence ("AI") is currently being used in the review and processing of non-NEM/non-NBT interconnection applications¹³ and SDG&E only recently "...implemented a cloud-based interconnection application platform for non-NBT and non-NEM..." projects which means any cost efficiencies associated with that

¹³ SCE Response to the Ruling at 9, 15.

improvement are not reflected in their cost estimates provided in their response for 2024 and 2025.¹⁴ Given the prevalence of more companies adopting AI for rote tasks, there are likely areas of improvement in the existing IOUs' processes. Ford's Chief Policy Officer and General Counsel, Steven Croley, recently wrote an op-ed in Bloomberg highlighting the benefits of AI and its market disruption in the legal field. Based on lumped categories of activities, it can be inferred that some utility estimates of their time processing interconnection applications included more than an hour of time to draft an interconnection agreement once engineering review is complete; creating a draft of such a standardized form of an agreement is the type of work AI may be able to help speed.¹⁵ As Croley noted, "AI agents...fundamentally decoupl[e] the time spent on a task from the market value of the output."¹⁶ Similarly, AI may be able to create drafts of deficiency notices to customers that can be quickly reviewed by utility staff, rather than requiring staff to create them from scratch.¹⁷

The Commission should consider requiring California IOUs to undertake a targeted and organized process to evaluate and address current inefficiencies in the non-NEM/non-NBT application review process before fees are adjusted. It is prudent to first evaluate efficiency measures and improvements, including from automation and AI, before reassessing costs, in order to make the best use of ratepayer funds.

¹⁴ SDG&E Response to the Ruling at 11.

¹⁵ SDG&E Response to the Ruling at 3-4. SCE Response to the Ruling at 4-5.

¹⁶ [Ford Motor GC to Law Firms: We Are Outpacing Your AI Adoption.](#)

¹⁷ For another examples of AI's ability to add efficiencies in Ford's experience, see <https://www.fromtheroad.ford.com/us/en/articles/2026/ford-pro-ai-fleet-management-software>.

IV. APPLICATION CATEGORIZATION WILL SUPPORT AFFORDABILITY FOR LESS COMPLEX (OFTEN SMALLER) PROJECTS

Question 3 of the ALJ's ruling tries to ascertain whether there are specific elements of a project (i.e., capacity, complexity, configuration) that make the interconnection application take more or less time to review and process.¹⁸ Although none of the IOUs have actual cost data demonstrating the cost differentiation between projects of different elements (i.e., capacities, technology type and/or configurations), all IOUs commented that *in general* less complex projects typically cost less to review. According to SCE, "...non-export projects generally require less staff review effort during the Initial Review, although the actual difference varies...."¹⁹ Furthermore, "[when] the proposed configuration satisfies the applicable non-export and no-increase-in-demand criteria, SCE's interconnection review is generally less complex...."²⁰ Similar to SCE, SDG&E indicated that "...non-export systems can sometimes require less engineering review...."²¹ Although PG&E noted that "[n]o: both types of projects are reviewed using the same process..."²² when discussing whether non-export projects require less processing time, PG&E did indicate that "...the practical thresholds [for complexity] are whether systems are located on generation constrained circuits... Generally, projects under 30kW...are less complex...[but] complexity can vary due to technology type, i.e., inverter vs machine generation projects, PV vs PV plus storage projects...."

While there's no actual cost data to justify these anecdotes, Ford believes that developing a few project categorizations to better assign costs to the appropriate customer type would

¹⁸ The Ruling at 4.

¹⁹ SCE Response to the Ruling at 13-14.

²⁰ SCE Response to the Ruling at 14.

²¹ SDG&E Response to the Ruling at 15.

²² PG&E Response to the Ruling at 6-7.

benefit ratepayers as a whole so that more costly projects (i.e., exporting projects) aren't penalizing the less costly projects (i.e., non-exporting projects). Based on SCE's and SDG&E's anecdotes, Ford would recommend the IOUs and Commission investigate a differentiation in the non-NEM/non-NBT interconnection application fee based on whether the project is non-export or export/limited export.

Ford notes that bidirectional EV charging system interconnections, while still small in scale, are anticipated to be standardized and look very similar to routine small-scale stationary storage interconnection applications. Bidirectional EV charging systems will have standardized equipment deployed at every customer site because at the original equipment manufacturer ("OEM") level, the products for every customer have (or will have) the same product specifications (i.e., manufacturer/model, nameplate and inverter ratings, certifications, etc.). Moreover, based on Ford's experience, Ford estimates that approximately half of its customers that use grid-parallel features opt to use a preferred installer, meaning applications that come in for bidirectional EV charging systems should also have the benefit of an applicant with experience interconnecting this equipment repeatedly. As more bidirectional EVs are adopted and in market by Ford and other OEMs, economies of scale will make reviews for the interconnection of bidirectional EV charging systems quicker and more standardized. The best categories for differentiation of the non-NEM/non-NBT fee can be further discussed at a subsequent workshop as discussed in Section VI.

V. MORE EFFICIENT PROCESSES WILL DRIVE SECONDARY BENEFITS SUPPORTING CALIFORNIA'S CLEAN ENERGY AND EV GOALS

California has aggressive clean energy and vehicle electrification goals, including reaching 100% zero carbon by 2045 pursuant to SB 100, and authorizing state regulators to

require automakers to equip battery EVs with bidirectional charging capability pursuant to SB 59.²³ Furthermore, PG&E has a goal of supporting two million EVs using bidirectional charging by 2030.²⁴ However, inefficient interconnection application processes will undercut California's clean energy and vehicle electrification goals. By making installation and permitting processes, such as interconnection, more affordable for customers across California through process improvements and automation, California's clean energy, EV and bidirectional EV charging goals will be more fully realized as a secondary and subsequent benefit.

According to Cal Advocates' Distribution Grid Electrification Model (DGEM)²⁵ and Part 2 of PG&E's Electrification Impact Study (EIS)²⁶, greater EV adoption, and specifically optimized EV charging/discharging can put downward pressure on electricity rates and further amplify California's clean energy goals and help with affordability. In sum, by improving interconnection process efficiency and application costs for non-NEM/non-NBT projects (such as bidirectional EV charging systems) not only will ratepayer funds be more prudently utilized, but there will also be secondary benefits of helping California achieve its clean energy goals.

Finally, Ford notes that right now, some utilities require a customer to give the utility notice for use of their vehicle as a backup generator by filling out the interconnection application. This is a costly and burdensome way of providing a simple notice for a system that does not operate in parallel and may overall increase processing costs/time for interconnection applications for equipment that operates in parallel. A more streamlined notification form would increase customer convenience and lower the barrier for customers using their EVs as backup

²³ See Cal. Pub. Util. Code § 399.11 *et seq.*; Cal. Public Res. Code § 25740 *et seq.*; Cal. Health & Safety Code § 44269 *et seq.*

²⁴ [Can an Electric Vehicle Help Power a Home? | PG&E.](#)

²⁵ [Distribution Grid Electrification Model Findings.](#)

²⁶ [New PG&E Study Shows Electrification Will Lower Electricity Rates Over Time | PG&E.](#)

generation – allowing customers to use a quieter, safer backup power option (e.g. eliminating the risks from fuel handling and of carbon monoxide poisoning). Additionally, separating the backup power notice process²⁷ from the utilities’ interconnection process would have the added benefit of avoiding added or wasted costs associated with customers or installers that mistakenly bucket themselves into a grid-parallel technology track, and increase staff time for unnecessary reviews.

VI. IMMEDIATE INTERIM FEE RELIEF FOR SMALL NON-NEM/NON-NBT PROJECTS GIVEN DEFICIENCY IN PROCEDURAL RECORD

To date, the IOUs have not provided sufficient evidence or data to justify that an \$800 interconnection application fee is appropriate for smaller (<30 kW), less complex non-NEM/non-NBT projects. A small non-NEM/non-NBT energy storage or solar project should require the same amount of review time as a small NEM/NBT energy storage or solar project because the equipment used is the same. The interconnection application fee for non-NEM/non-NBT projects was originally set at \$800 over 20 years ago based on best estimates on the time that would be required to complete application review and processing for projects in this category.²⁸ Looking at SDG&E’s response to this Ruling, ~96% of non-NEM/non-NBT interconnection applications received in the last 24 months were residential (meaning, they are most likely smaller capacity projects, requiring less review).²⁹ SCE’s and PG&E’s responses on the residential project rate are not as significant.³⁰

Given the gaps in data supplied by the utilities to this Ruling, and the likelihood that additional data requests and/or a workshop to diligently discuss, assess and address the issues in the data and inefficiencies in existing interconnection application processes may take significant

²⁷ California Code, Health and Safety Code - HSC § 119085 (b).

²⁸ D.00-12-307.

²⁹ SDG&E Response to the Ruling at 16.

³⁰ PG&E Response to the Ruling at 8. SCE Response to the Ruling at 15.

time, Ford would recommend that temporary, interim relief be immediately provided to non-NEM/non-NBT small (<30 kW) customers by setting a temporary lower interconnection application fee for non-NEM/non-NBT projects less than 30 kW. Small non-NEM/non-NBT projects with similar equipment (i.e., energy storage, solar) to NEM/NBT customers should not continue to be unfairly treated and pay a significantly higher, discriminatory price due to 1) a lack of utility data justifying the true cost of a non-NEM/non-NBT interconnection application and 2) high-levels of inefficiencies in existing non-NEM/non-NBT interconnection application processes (in comparison to NEM/NBT interconnection application processes).

VII. RECOMMENDED NEXT STEPS

Given the lack of actual cost data presented by the utilities and the apparent inefficiencies in the existing application review process for non-NEM/non-NBT projects, Ford would recommend that the Commission require the utilities to convene a public stakeholder workshop to discuss, evaluate, and address how they can improve existing application review processes (including such ideas as creating better informational materials/guides for installers) before setting fees related to the costs of the current process. California IOUs could convene a series of stakeholder meetings to present proposed actions for improving the efficiency of their application review and study processes, solicit stakeholder feedback on those actions, and subsequently submit proposed application review and study process improvement recommendations to the Commission. Utilities/regulators from other states, as well as industry stakeholders, such as technology providers, OEMs, automakers, electric vehicle supply equipment (“EVSE”) suppliers, and installers, can be invited to attend the workshop. The proposed recommendations on process improvements by the utilities should be benchmarked against industry best practice.

Lastly, Ford recommends this workshop be convened with a resulting report inclusive of interconnection process improvement recommendations be provided to the Commission for review by the end of the year (i.e., no later than December 31, 2026) given the urgency and importance of this topic to making the best use of ratepayer funds. Furthermore, the report should document the utilities findings and planned actions they will take, with proposed timelines, to improve the interconnection application review processes for non-NEM/non-NBT projects.

VIII. CONCLUSION

Ford appreciates the opportunity to offer these reply comments on the IOUs' responses to the Ruling. Given the gaps in the cost data supplied by the IOUs, the inefficiencies in current interconnection application submission and review processes for non-NEM/non-NBT projects, and the prudence to be responsible with ratepayer funds, Ford recommends the Commission hold off on evaluating a new fee until the present inefficiencies are addressed. To support process improvement and the differentiation in the interconnection application fee for less complex non-NEM/non-NBT projects, Ford encourages the Commission to direct the IOUs to hold a workshop and issue a resulting report by December 31, 2026. At this workshop and throughout this proceeding, Ford looks forward to continued collaboration with the IOUs and Commission to modernize Rule 21 for new(er) technologies such as bidirectional EV charging systems.

Respectfully submitted,

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Date: August 28, 2026