



Rule 21 Working Group 3

CONFERENCE CALL

FEBRUARY 6, 2019

[HTTPS://WWW.UBERCONFERENCE.COM/GRIDWORKS](https://www.uberconference.com/gridworks)

Agenda

2:00-2:10 Monthly Working Group Update for ALJ

2:10-2:50 Issue 23

- CESA proposal and IOU comments
- Scope and next actions for WG3

2:50-3:10 Issue 16

- IOU scenarios for de-energized systems
- GPI-Clean Coalition written proposal and questions

3:10-3:40 Issue 12

- Timelines and reporting
- Goals and accountability

3:40-3:55 Issue 15

- SCE comments on cost-accounting option
- Comments and update on PG&E fixed-cost option
- Industry poll

3:55-4:00 Wrap-up, Feb 13 meeting

Feb 2019 Working Group Update for ALJ

Issue 23

Should the Commission consider issues related to the interconnection of electric vehicles and related charging infrastructure and devices and, if so, how?



Issue 23 Scoping Thoughts

- Stakeholders requested more procedural clarity
- ED staff met to discuss which elements of the initial discussions on Issue 23 should be handled in WG3
- Based on both procedural and practical considerations, the following three items were identified:
 1. Rule 21 process streamlining for DC-coupled EVs
 2. Process for pilot projects involving AC-coupled EVs
 3. Standards for AC-coupled inverters

**Staff thoughts only—not an official stance
of the CPUC**



Issue 23

CESA-Nuvve-Honda Proposal (Jan 24)	IOU Comments (Feb 5)
<p>1. Establish applicability of Rule 21 only when bi-directional capabilities are activated and utilized</p>	<p>PG&E: V1G must comply w/Rules 2, 15, 16</p> <p>SCE: clarify that Rule 21 does not apply to V1G</p> <p>PG&E: V2G-capable with V2G turned off; (a) need to verify and guarantee turned off; (b) safeguards to avoid unapproved activation; (c) customer awareness--submit interconnection request and obtain approval prior to V2G use</p> <p>SCE: V2G-capable with V2G turned off; (a) Rule 21 should still apply (b) agree to streamlined interconnection process equivalent to section N & O (c) need certification to ensure V2G not enabled</p> <p>SCE: term bidirection “capable” problematic; use section O to determine if inverter is “capable”; use model from UL CRD to protect from unintentional changes if software control</p>

Issue 23

CESA-Nuvve-Honda Proposal (Jan 24)	IOU Comments (Feb 5)
2. Authorize V2G DC interconnections and make the appropriate modifications to the Rule 21 tariff and portal	<p>PG&E: V2G DC with off-board EVSE certified Rule 21 compliant acceptable for interconnection. Still need to be reviewed & approved for local facility impact, voltage, loading, similar to any other interconnection.</p> <p>SCE: V2G DC with off-board EVSE should follow existing Rule 21 and UL1741/SA certification process, and may use section N.</p> <p>SCE: “does not support determining the technical requirements, implementation mechanisms, and specific changes to tariff language within this proceeding”; consider other venues such as IC Discussion Forum</p>

CPUC: Would updates to interconnection paperwork and portals be beneficial? What updates? An option to select EVs as the interconnecting resource has been mentioned. How does this topic tie into Issue 22? Are tariff changes required?

staff thoughts only, not an official stance of the CPUC

Issue 23

CESA-Nuvve-Honda Proposal (Jan 24)	IOU Comments (Feb 5)
<p>3. Broaden the definition of “smart inverter” to include a system of components and allow certification to IEEE 1547 standards to enable V2G AC interconnections</p> <p>4. Direct a sub-group in this proceeding to consider SAE J3072 applicability or changes needed for certain V2G AC systems to meet smart inverter requirements</p>	<p>PG&E: V2G AC on-board inverter must be certified Rule 21 compliant. May be UL-1741 SA or a new SAE standard compliant with 1547.1. Need certification by a NRTL, could update Rule 21 to accept an equivalent SAE standard once reviewed and accepted by California IOUs.</p> <p>SCE: need a working group for <u>all</u> V2G issues WG3 should (only) discuss venue and scoping</p>

CPUC: Should CPUC encourage the development of standards for inverters for AC-coupled EVs that will facilitate their interconnection in the future? If so, how?

- Would a workshop be an appropriate discussion venue for this topic?
- Does J3072 test all functionality that is important for grid safety and reliability? If not, can it be updated to do so?
- Do other standards or standards-making bodies better meet the needs of consumers and of the CA grid?
- Is there a stakeholder who is familiar with both UL 1741SA and with J3072 who would be willing to present a comparison?

staff thoughts only, not an official stance of the CPUC

<https://gridworks.org/initiatives/rule-21-working-group-3/>

Issue 23

CESA-Nuvve-Honda Proposal (Jan 24)	IOU Comments (Feb 5)
5. Clarify a pathway for parties to interconnect V2G AC systems on a timely basis for experimental and/or temporary use until the appropriate rules are updated in the future, consistent with any recommendations resulting from R.18-12-006, the VGI Roadmap, or other transportation electrification proceedings	PG&E: no specific comments SCE: same comment as for #4

CPUC:

- Should the process for granting interconnection approvals to pilots projects involving AC-coupled EVs be streamlined?
- What existing pilots are seeking this type of interconnection and what is their current status?
- Should specific eligibility criteria for such a streamlined process be developed?
- Should the Commission establish a target number of pilots or a limit on how many pilots may qualify for the streamlined process? Should only pilots be eligible for this streamlined process?

staff thoughts only, not an official stance of the CPUC

Issue 23

CESA-Nuvve-Honda Proposal (Jan 24)	IOU Comments (Feb 5)
	<p>OTHER GENERAL COMMENTS</p> <p>PG&E: coordinate with CEC VGI Roadmap Update, CPUC TE, other inter-agency efforts</p> <p>PG&E: WG3 findings should be consistent with joint IOU SI white paper and approaches</p> <p>PG&E: address aggregation and sub-metering in other venues and coordinate w/Rule 21, because scope extends beyond interconnection</p> <p>SCE: concerned about other aspects of V2G in this proceeding not directly related to interconnection, take on in other proceedings</p>

Issue 16

Should the Commission encourage third party construction of upgrades to support more timely and cost-effective interconnection and, if so, how?

Issue 16 IOU Scenarios for De-energized Systems

Issue 16 GPI-Clean Coalition Written Proposal (Feb 2)

Propose tariff changes as follows:

1. Refer to and incorporate Rule 15 rules for 3rd party “competitive bidding” eligibility requirements and bidding framework
2. Strike language providing IOU discretion to disallow third parties
3. Extend Rule 15 to de-energized existing facilities, and describe scenarios where existing facilities can be safely and practically de-energized

Issue 16 GPI-Clean Coalition

Key Questions for Resolution

1. Are parties ok with incorporating by reference Rule 15 eligibility rules and the "competitive bidding" framework in Rule 21?
2. Are parties ok with removing the discretion language with respect to 3rd party upgrades in Rule 21?
3. In what circumstances will PG&E and SCE allow energized facilities to be de-energized and become eligible for 3rd party work?
4. Does SDG&E still hold the view, stated in the Jan. 16 workshop, that under no circumstances will energized facilities be eligible for 3rd party work?

Issue 12

How can the Commission improve certainty around timelines for distribution upgrade planning, cost estimation, and construction? Should the Commission consider adopting enforcement measures with respect to these timelines? If so, what should those measures be?

Issue 12 – Timelines and Reporting

CALSSA and IREC Proposals	IOU Comments (SCE Jan 23; SDG&E Jan 24)
<p>CALSSA (Jan 10):</p> <ol style="list-style-type: none"> 1. Establish timeline for NGOM installation 2. Report timeline data 3. Increased notification of timeline exceedances <p>IREC (Jan 10):</p> <p>What will be reported:</p> <ul style="list-style-type: none"> • Identify timelines that will be tracked <ul style="list-style-type: none"> • Major steps in process • Include construction timelines • Be clear regarding starting and end point for each increment • Report anonymized data for each project with aggregated percentages • Determine frequency of reporting (quarterly?) <p>IREC (Feb 4):</p> <ul style="list-style-type: none"> • Proposes 20 metrics for times to track 	<p>SCE: reporting should demonstrate adherence to process timelines & identify deficiencies</p> <p>SCE: proposes metrics consistent with CALSSA proposal: Intake acknowledgement, IR deemed complete, FastTrack Process, Detailed Study Process, Contract Execution, Project Design, Project Construction, Permission to Operate</p> <p>SCE: proposes to establish tracking mechanism per “Framework A”; requires changes to existing systems; quarterly reporting could start 7/2019</p> <p>SDG&E: proposes customized schedule created and agreed to by developer and the IOU and tracked based on milestones in schedule</p> <p>SDG&E: agree on two-way transparency and establishing baseline data; apply and customize project-by-project</p>

Issue 12 – Timelines and Reporting

CALSSA and IREC Proposals	IOU Comments (SCE Jan 23; SDG&E Jan 24)
<p>CALSSA for NGOM projects (Jan 10): proposal for 20 days design and 20 days installation for all projects</p>	<p>SCE for NGOM projects: evolve Rule 21 Multi-Tariff processes to apply similar approach to NGOM processing to achieve same 1-2 month average</p>

Issue 12 – Goals and Accountability

CALSSA and IREC Proposals	IOU Comments (SCE Jan 23; SDG&E Jan 24)
<p>CALSSA (Jan 10):</p> <p>4. Consideration of penalties</p> <p>IREC (Feb 4):</p> <ul style="list-style-type: none"> • IREC is open to setting customized goals for each timeline/utility • Goal 1: All projects completed on a timely basis: track percent of projects meeting timelines in different steps • Goal 2 shortening delays: for specific project delays per criteria, utility should document the unique reasons for the delay and discuss steps taken to address or resolve 	<p>SCE: proposes that only upon identifying baseline data will goals for each process sub-segment be established and tracked; analyze data and determine if need exists by Q4 2019</p> <p>SCE: on enforcement and penalties, cites existing GRC disallowances for failures, Public Utilities Code and basic tenets of ratemaking</p> <p>SDG&E: argues goals not beneficial to SDG&E ratepayers; no clear need for workshop after 2 years; don't agree to enforcement mechanisms</p> <p>SDG&E: Rule 21 applicants greater than 30kW make up less than 0.1% of all applicants</p>

Issue 15

Should the Commission require itemized billing for distribution upgrades to enable customer comparison between estimated and billed costs and verification of the accuracy of billed costs?

Issue 15 SCE Comments on Cost-Accounting Option (Feb 5)

- The viable option for SCE is to extract raw data from Design Manager and SAP and manually generate an estimate and final invoice, re-organized into the same level of detail as the Unit Cost Guide.
- This manual process will take additional time and resources.
- SCE will provide additional details regarding the manual process along with any additional developer charges and related timeline impacts to the WG on Feb 13.
- SCE is also reviewing what would be involved in any potential automation option and whether this is an efficient option based on system integration needs.

Issue 15 PG&E “Fixed Cost” Option (Jan 23) – Status and Update

Recap of Prior Brainstorming

- Phase I (IT) – for projects using Special Facilities (bill on estimate) process, provide Job Estimate with cost by upgrade (itemized like Unit Cost Guide)
 - Requires IT funding to adjust estimating tool functionality
- Phase II (Tariff) - All projects billed on Job Estimate cost (affects Rule 21 Export and NEM2 > 1 MW)
 - Would like Working Group stakeholder pulse prior to evaluating further
 - Potential timeline for approval:
 - 1/31: Stakeholder feedback
 - by 2/8: Meet with PG&E management
 - 2/13: Update Working Group

Discussion

- Phase II (all projects bill on estimate) feedback
 - By 1/31, can industry groups poll members? Other stakeholders weigh in as well
- Discussion points
 - Restrictions or exceptions for expanding to Rule 21 Export and NEM > 1 MW
 - MW or \$ threshold?
 - Upfront funding will remain required via bill on estimate or Financial Security
 - Increase Interconnection Request fee to create improvement funding bucket?

Issue 15 Industry Poll

Action item from Jan 23 meeting:

CALSSA to poll members, restrictions or exceptions for expanding R21 export and NEM > 1MW (MW or \$ threshold; upfront billing), and increase interconnection request fee to create funding bucket

Proposed for Feb 13 Meeting

Issues A and B

- Continue discussion from Jan 23 meeting

Issue 12 and Issue D

- SCE comments on Issue D (Feb 5) and recap of Dec 12 Issue D discussion
- Discuss and finalize

Issue 15

- Additional details from SCE
- Stakeholder feedback / industry groups poll results
- Discuss and finalize

Issue 16

- Final comments on GPI-Clean Coalition Feb 2 proposal
- Discuss and finalize

Issue 23

- Continue discussion from today
- Proposal for workshop and/or continuing venue

Issues 20 and 22

- Issue briefs not yet available for initial discussion