



Rule 21 Working Group 3

MARCH 20, 2019 CONFERENCE CALL

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

Agenda

2:00-3:20 Issue 22

- Review of GPI's 19 suggestions and survey results
- Issue 23 discussion regarding portal improvements
- Other proposal items
- Plan for final discussion in 3/27 meeting

3:20-4:00 Issue 20

- Revised CESA proposal and clarification of use cases from 3/6 meeting
- What type and level of clarity for an “exit ramp” from Rule 21?
- Are Rule 21 language changes required?

Issue 22

Should the Commission require the Utilities to make improvements to their interconnection application portals? If yes, what should those improvements be?

Action after 3/6 meeting: online survey posted 3/11 on the 19 potential portal improvements presented at 3/6 meeting. Responses were requested by 3/18, and survey remains open through 3/22.

Issue 22 Discussion: Interconnection portal improvements

Tam Hunt and Rebecca Davis, Green Power Institute

Subgroup activities

GPI convened two subgroup calls to:

1. discuss a number of survey questions posed by GPI in the preliminary issue brief and;
2. brainstorm and vet portal improvement options
3. In order to have a foundation for full working group discussions

Gridworks new survey responses

Received responses from:

- SDG&E
 - “Many of these suggestions have already been included within the SDG&E interconnection portal and processes. SDG&E needs to hear what customers are looking for within our system specifically so that we can evaluate the ability to incorporate them within our existing portal. We want to make sure it is cost effective for the customers.”[*]
- PG&E
 - “There was not an option for already have the functionality or already implementing functionality, so some answers represent what it did take to implement those features.
 - Additionally, our answers may be skewed towards longer term due to the high volume of work on the application portals already mandated this year. There are NEM Consumer Protection decision requirements, Working Group 1 requirements, potential Working Group 2 requirements, Smart Inverter requirements, and upcoming Zero Net Energy requirements. Additionally, we have our own initiatives underway improving the application portals for NEM Paired Storage and Enterprise Login functionality currently in-flight.”
- Nuvve
- LG Chem
- GPI
- SCE

1. Chat box for real-time conversations about issues that arise (proposed by CALSSA)

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Not needed	Long-term	Moderate
Nuvve			
GPI	Needed	Short-term	Low
LG Chem	Needed	Medium-term	Moderate
SCE	Not needed	Long-term	High

2. Include an option for transmission or distribution interconnection in the online application (JKB Energy)

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Needed	Medium-term	Low
Nuvve	Not needed		
GPI	Needed	Short-term	Low
LG Chem	Must-have	Short-term	Low
SCE	Needed	Long-term	Moderate

3. Provide an Application Programming Interface (API), harmonized across utilities, to the online portals as this will be helpful when interconnecting large numbers of DERs like EVs (Nuvve)

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Not needed	Long-term	High
Nuvve	Needed	Long-term	Moderate
GPI	Needed	Medium-term	Moderate
LG Chem	Not needed	Long-term	High
SCE	Needed	Long-term	Moderate

4. Include interconnection of EVSE inverters in online portals (Nuvve)

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Needed	Medium-term	Moderate
Nuvve	Must-have	Short-term	Moderate
GPI	Must-have	Short-term	Low
LG Chem	Not needed	Medium-term	Low
SCE	Needed	Medium-term	Moderate

5. Add DC V2G (vehicle to grid) interconnection options to portal (CESA)

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Needed	Medium-term	Moderate
Nuvve	Must-have	Short-term	Moderate
GPI	Must-have	Short-term	Low
LG Chem	Not needed	Medium-term	Low
SCE	Must-have	Long-term	Moderate

6. Add automated PAR option to portals. This would allow applicants to apply for, pay for, and receive PAR reports almost instantaneously.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Not needed	Medium-term	High
Nuvve			
GPI	Needed	Short-term	Moderate
LG Chem	Needed	Short-term	Low
SCE	Needed	Long-term	High

7. Automate the “deemed complete” process for standardized or template-based single-line diagram projects

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve			
GPI	Needed	Medium-term	Moderate
LG Chem	Must-have	Short-term	Low
SCE	Needed	Long-term	High

8. Online signature option for all required interconnection application and related signatures such as Generator Interconnection Agreements.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve	Must-have	Short-term	Low
GPI	Needed	Short-term	Low
LG Chem	Must-have	Short-term	Low
SCE	Must-have	Medium-term	Moderate

9. Add link in ICA maps that allows applicant to jump from the ICA map to the online interconnection portal, with location-specific information automatically populated

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		High
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve			
GPI	Needed	Medium-term	Low
LG Chem	Not needed	Long-term	Low
SCE	Needed	Medium-term	Moderate

10. Eliminate manual data entry as much as possible by integrating with applicant databases or allowing batch uploads

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve	Not needed		
GPI	Needed	Short-term	Moderate
LG Chem	Not needed	Medium-term	Moderate
SCE	Needed	Medium-term	Moderate

11. Eliminate requirement to provide existing system info when applying for additional interconnection capacity (either solar or storage).

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Medium-term	Moderate
Nuvve	Needed	Medium-term	Moderate
GPI	Needed	Short-term	Low
LG Chem	Needed	Short-term	Low
SCE	Not needed		

12. Automated data validation check when submitting application. Automatically perform a data validation check (on a minimal number of data points) to prevent the application from being submitted if the customer’s data is not accurate. Auto-populate data from utility systems after the installer enters data to validate that they are have a relationship with the customer.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve	Needed	Medium-term	Moderate
GPI	Needed	Short-term	Moderate
LG Chem	Must-have	Medium-term	Moderate
SCE	Must-have	Medium-term	Moderate

13. Notification-only process for standard residential interconnections (certain configurations of pre-defined “standard” residential systems under a certain size).

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Not needed	Long-term	High
Nuvve	Needed	Medium-term	Low
GPI	Needed	Short-term	Moderate
LG Chem	Must-have	Short-term	Low
SCE	Not needed		

14. Remove customer interaction requirements in favor of customer notifications only. Implement a process in which the customer is not required to sign any documents or be involved in the interconnection process.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Not needed	Medium-term	Moderate
Nuvve	Needed	Short-term	Low
GPI	Needed	Short-term	Moderate
LG Chem	Not needed	Long-term	Low
SCE	Not needed		

15. Create one-click Authority Having Jurisdiction (AHJ) approval process, possibly app-based or web-based. The utility should create a means by which the AHJ can automatically submit inspection approval to the utility using an automated “one click” process.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve	Not needed		
GPI	Needed	Medium-term	Moderate
LG Chem	Needed	Medium-term	High
SCE	Not needed		

16. Allow applicants to access updated project status at any time, make edits at any time, and add search and filter functions based on contractor, customer, etc.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Medium-term	High
Nuvve	Needed	Medium-term	Low
GPI	Needed	Short-term	Low
LG Chem	Must-have	Short-term	Low
SCE	Needed	Medium-term	Moderate

17. Online payments for all payments, including standard payments such as NGOMs for residential storage systems or meter socket adapters.

	Priority	Timeframe	Difficulty/cost
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Pacific Gas and Electric Company	Needed	Long-term	High
Nuvve	Needed	Medium-term	Moderate
GPI	Needed	Short-term	Low
LG Chem	Not needed	Short-term	Low
SCE	Must-have	Long-term	Moderate

18. Allow contractors to generate forms for standard agreements like IFFOA, NGOM, etc.

	Priority	Timeframe	Difficulty/cost
San Diego Gas & Electric	Not needed		
Pacific Gas and Electric Company	Needed	Long-term	Moderate
Nuvve	Not needed		
GPI	Needed	Short-term	Low
LG Chem	Needed	Medium-term	Moderate
SCE	Needed	Medium-term	Moderate

19. Have one state-wide portal for consistency. Or, if the portals remain separate, there should be consistency in project status names, visibility on whether the application is in the utility’s hands or the installer’s hands, and due date tracking.

	Priority	Timeframe	Difficulty/cost
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GPI	Needed	Medium-term	Moderate
LG Chem	Must-have	Short-term	Low
SCE	Not needed		

Issue 22 – Portal improvements for EVSE (DC/stationary) interconnection

CESA Issue 23 Proposal #2: Authorize V2G DC interconnections and make the appropriate modifications to the Rule 21 tariff and portal

CPUC questions from Issue 23 discussions:

- 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 20 – GPI discussion questions from March 6 meeting

- What are IOUs currently doing to improve their portals?
- What plans are pending for improving the portals?
- What types of automation may help improve the portals and the application process more generally (tying into Issue 8 automation discussions)
- What types of automation are already planned for improved portals?
- What other tools or process improvements could be relevant?
- What kinds of costs are implicated for improvements to the portals (automation-related or otherwise)?
- What potential funding mechanisms are available?
- To what degree should application portals be harmonized across IOUs?
- In light of all of these questions, should the Commission require IOUs to make improvements?
- What should those improvements be?

Issue 22 – Next Steps

- Prioritized portal improvements for more detailed discussion in 3/27 meeting
- Other open items
- Plan for final discussion in 3/27 meeting

Issue 20

How should the Commission coordinate Commission-jurisdictional and Federal Energy Regulatory Commission- jurisdictional interconnection rules for behind-the-meter distributed energy resources, including modification of queuing rules for Rule 21 and Wholesale Distribution Access Tariff (WDAT) projects seeking to interconnect at the same location, clarification of the rules for projects wanting to transfer between the Rule 21 and WDAT queues, and streamlining of the transfer process?

Rule 21 WG #3 Issue #20

Rule 21 & WDAT Transitions

March 19, 2019



Agenda

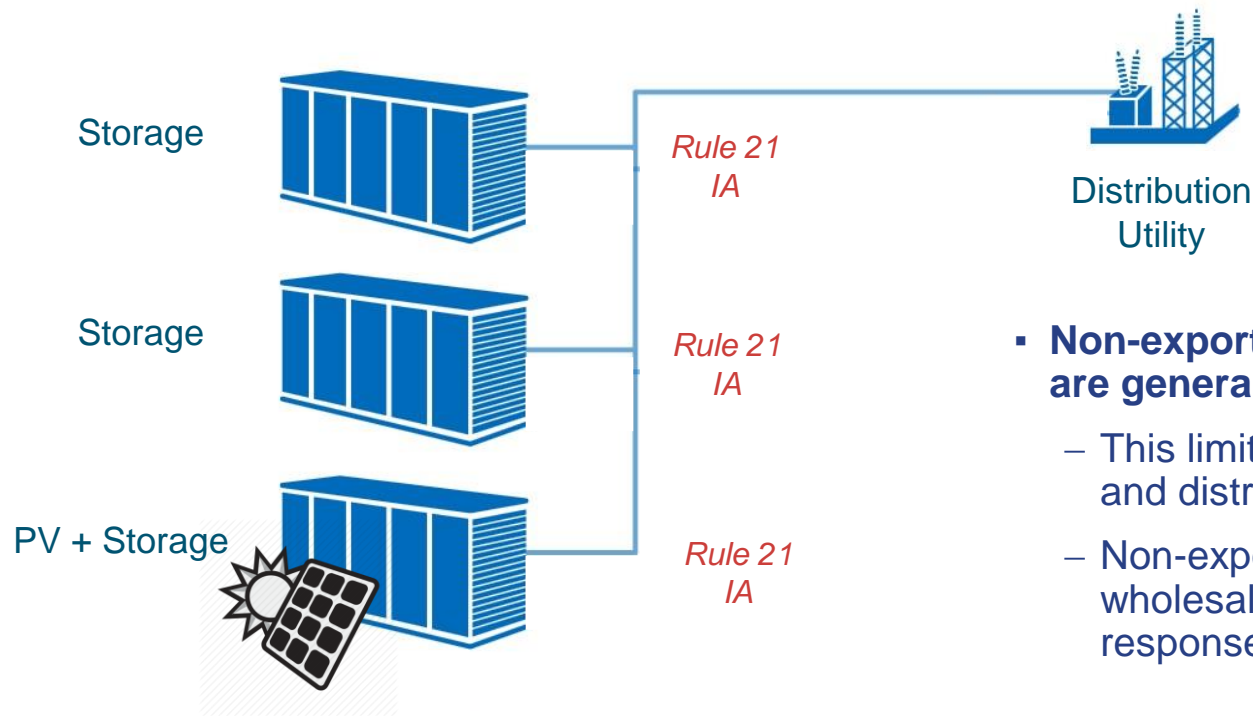
- **Introduction & Level Setting:**

- Why this is important
- Understand status quo process for managing Rule 21 and WDAT transitions

- **Proposal Concepts:**

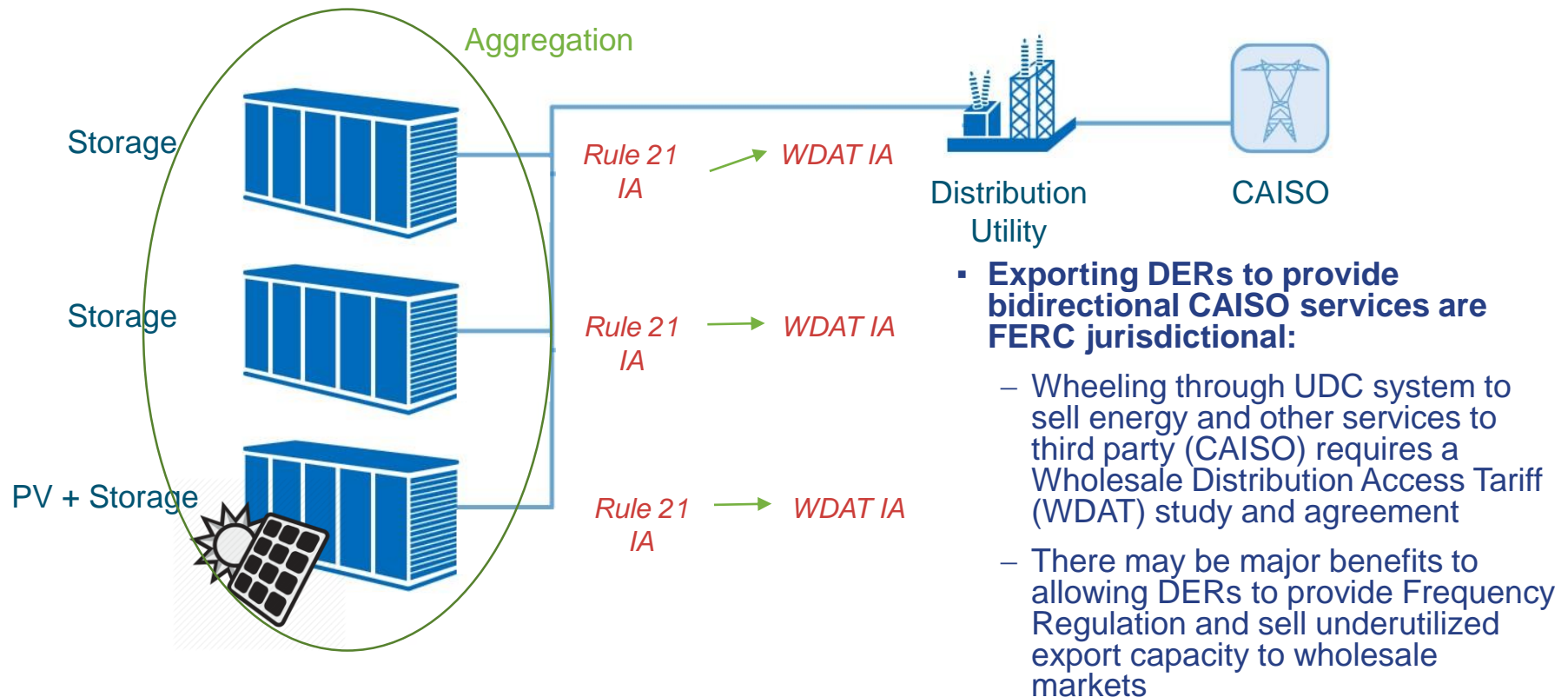
- Clarify transfer processes for projects in the Rule 21 interconnection queue to the WDAT interconnection queue
- Allow Rule 21 interconnection agreements to remain applicable until a project begins new resource implementation (NRI)
- Authorize limited export configurations previously interconnected under Rule 21 to avoid the cluster study process
- Direct further working group discussions on studying DER aggregations in Rule 21 to support streamlining when moving to WDAT processes, among other things

Status Quo

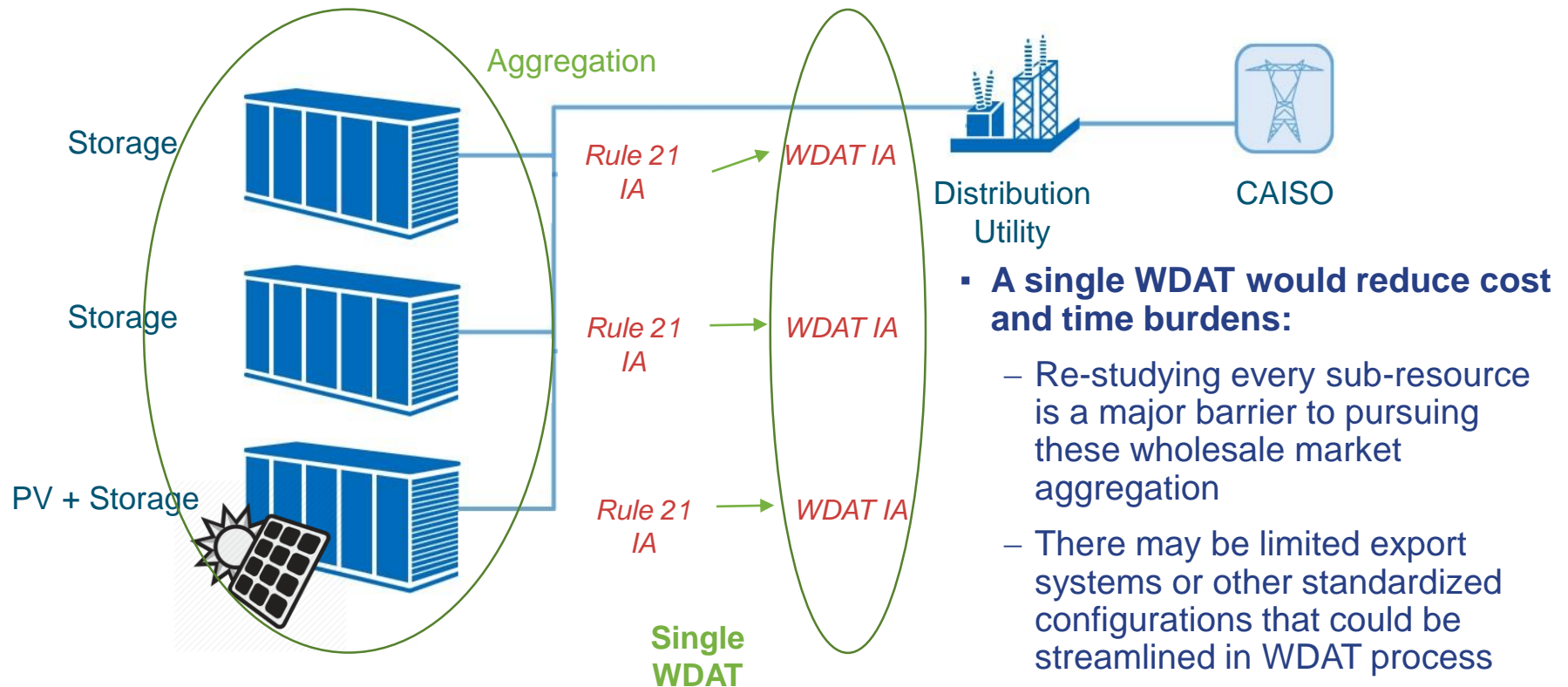


- **Non-exporting and exporting DERs are generally Rule 21 jurisdictional:**
 - This limits DERs to customer-sited and distribution services
 - Non-exporting DERs can access wholesale markets as demand response

Enabling Aggregations & Wholesale Participation



Streamlining Rule 21 to WDAT Transitions



- **A single WDAT would reduce cost and time burdens:**

- Re-studying every sub-resource is a major barrier to pursuing these wholesale market aggregation
- There may be limited export systems or other standardized configurations that could be streamlined in WDAT process

Key Questions to Address

- **Working group discussions should focus on the following:**
 - Is the WDAT interconnection process required to re-study resources already studied under the Rule 21 processes?
 - If so, what are the key differences (e.g., reliability criteria) that must be re-studied?
 - How have the investor-owned utilities (IOUs) managed Rule 21 and WDAT transitions in the past, if there are any such examples?
 - Is the WDAT interconnection process required for assessing or establishing Resource Adequacy (RA) deliverability or for assessing deliverability impacts to other generators in the queue?
 - Are the deliverability impacts minimal to the degree that screens and pre-determined criteria for automatically exempting resources from the WDAT process?

Proposal Concepts

Updated (March 19, 2019)

- Clarify transfer processes for projects in the Rule 21 interconnection queue to the WDAT interconnection queue
- Allow Rule 21 interconnection agreements to remain applicable until a project begins new resource implementation (NRI)
- Authorize limited export configurations previously interconnected under Rule 21 to avoid the cluster study process
- Direct further working group discussions on studying DER aggregations in Rule 21 to support streamlining when moving to WDAT processes, among other things

Thank You

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Issue 20 – Next Steps

Next steps for March 26 meeting:

- IOUs providing views by 3/22 on workable options for providing clarification to parties on how an “exit ramp” works for Rule 21 transition to WDAT (presuming there is no change in operational characteristics).

(What type and level of clarity do parties want for an “exit ramp” from Rule 21?)

- Are Rule 21 language changes required?

Working Group Schedule

Date	Meeting	Initial discussion	Final discussion	Location
Mar 20	Call			
Mar 27	In person	24	22 & 23 (proposals #3, #4, #5)	CPUC – Courtyard Room
Apr 10	Call			
Apr 17	In person		20 & 24; 27 & 28	CPUC – Courtyard Room
May 1	Call			
May 8	In person	Final report		CPUC – Golden Gate Room
May 22	Call			
May 29	In person		Final report	CPUC – Courtyard Room
Jun 12	Call			
Jun 24	Report due			