

California Public Utilities Commission  
Energy Division  
Rule 21 Working Group

Clean Coalition comments on  
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## **Clean Coalition Comments on Rule 21 Reform**

### **Introduction**

The Clean Coalition is a California-based policy organization, part of Natural Capitalism Solutions, a non-profit entity based in Colorado. The Clean Coalition focuses on policies that deliver cost-effective and timely clean energy, including within the underserved “wholesale distributed generation” (WDG) market segment, which is comprised of wholesale generation projects interconnected to the distribution grid. WDG is a particular focus given the combination of cost-effective energy and economic benefits that it delivers, while at the same time avoiding all of the challenges associated with transmission build-outs. The Clean Coalition is active in proceedings at the California Public Utilities Commission, California Air Resources Board, California Energy Commission, the California Legislature, US Congress, the Federal Energy Regulatory Commission, and in various local governments around California.

The Clean Coalition strongly supports the reconvening of the working group for reform of the CPUC’s Rule 21 Interconnection Standard and welcomes this opportunity to submit comments.

Governor Brown has established a goal of 12,000 megawatts of distribution generation (DG) to help meet the 33% by 2020 renewable portfolio standard recently passed into law. To achieve this goal, California needs to dramatically improve its interconnection procedures for wholesale DG – the key component for meeting this 12,000 megawatt goal.

The utilities have recently reformed their WDAT interconnection procedures, which are FERC-jurisdictional. There are numerous major problems with the new procedures, however, as the Clean Coalition has described in its comments to the utilities during their stakeholder processes and in our Protests to FERC. Unfortunately, FERC rejected all but one of the concerns and protests submitted by all parties, including the Commission itself, IREC and the Clean Coalition. FERC did agree with the parties that data transparency is very important for improving the new interconnection procedures and FERC required that the utilities post comprehensive interconnection data on a monthly basis online, for 24 months.

These new data requirements imposed by FERC will be very helpful over time and we are optimistic that this increased data will help correct the problems we’ve identified – but it will take far too long for any improvements unless the Commission is proactive now.

The Clean Coalition has argued in requests for rehearing to FERC that FERC's overly deferential review and approval of the utility WDAT proposals was effectively an abdication of FERC's responsibility to regulate. By dismissing all but one of the concerns expressed by three parties, all of whom have great expertise in the areas addressed, FERC was not doing its job. It thus falls upon the Commission to do what it can to ameliorate the impacts of FERC's actions.

Rule 21 has previously led the way nationally in establishing distribution grid interconnection processes, with the use of screens and operating standards for simplified review of small systems. The Clean Coalition urges the Commission to update and expand on this foundation to allow expedited interconnection of vastly greater quantities of wholesale DG. Historically, advances from Rule 21 have been adopted in other interconnection standards, such as the WDATs, so breakthroughs from this Rule 21 revision process can be far reaching.

## **Discussion**

There are numerous technical factors that must be addressed in the interconnection of generation to the distribution grid in order to maintain safe and reliable grid operation, and such factors are essential to consider in development of achievable policy goals. While it is critical to acknowledge technical limits, standards and procedures exist to support implementation of policy goals. As we move forward in updating Rule 21, we must maintain focus on the foreseeable demands of California's energy development and the intended outcome of this urgently needed revision – improving procedures to allow safe and cost effective integration of at least 1,500 MW of wholesale DG annually, in order to meet the 33% RPS with the appropriate level of wholesale DG. Any proposal that does not meet these criteria will not represent a workable standard.

Numerous foreign jurisdictions have already demonstrated that rapid deployment and grid integration of wholesale DG is readily achievable, and that high penetration levels are manageable. Solar PV is the most common example, particularly in Germany, which has deployed as much in the past two years as California seeks to deploy for all DG renewables in this entire decade.

Transparent and reliable market signals have driven Germany's remarkable deployment, with standard contracts, predefined power purchase pricing, and simplified interconnection procedures, as a recent KEMA study for the Energy Commission made clear. Economies of scale and increased experience have resulted in profitable wholesale

DG PV generation prices in Germany to below a California equivalent of 12¢/kWh (with no time of use adjustment, based on our calculations, which we're happy to share).

The Clean Coalition has been arguing for some time that Europe's experience with rapid WDG interconnection is highly relevant to California. . The KEMA study commissioned by the CEC and released two weeks ago backs up these claims, showing that there are not critical technical differences between the design and capacity of European distribution grids and California's. The salient differences are, rather, procedural and financial, with interconnection costing much more in California, both when it is rate-based and when it is not, and taking a lot longer.

Rule 21 interconnection procedures were previously revised to better accommodate net-metered generation, but interconnection of WDG (as opposed to net-metered generation) has emerged as the key bottleneck for WDG. As mentioned, the Governor has established a goal of 12,000 megawatts of distribution generation to help meet the 33% by 2020 renewable portfolio standard recently passed into law. To achieve this goal, California needs to dramatically improve its interconnection procedures for wholesale DG.

The WDAT interconnection procedures have incorporated advances originating in the current Rule 21, and have improved upon these in some significant respects. However, the recent revisions in WDAT failed to incorporate numerous critical recommendations made by the CPUC, the Clean Coalition, and other parties. Without these changes, the new WDAT procedures provide a highly problematic and very lengthy path for interconnection of WDG, with extremely limited potential for expedited review because the alternatives to the default cluster process are not viable.

We highlighted the numerous problems with the alternatives to the cluster process (Fast Track and Independent Study Procedure) in our recently filed Request for Rehearing to the Federal Energy Regulatory Commission (these comments apply to PG&E but our concerns about SCE's WDAT are very similar):

- A "poison pill" inserted after the completion of the stakeholder process that exposes Fast Track applicants to uncapped, undefined and indefinite cost liability that may result from distribution grid and network upgrades at literally any point in the future. It is highly unlikely that banks will finance renewable energy projects subject to this uncapped liability. New facts have come to light since our Protest of PG&E's WDT amendment, including increased developer concern about the poison pill provisions. We have included in Attachment A a list of companies who believe this poison pill language will make Fast Track projects unfinanceable.

- An unworkable Screen 10 for the Fast Track expedited interconnection procedure due to the requirement that any distribution or network upgrades trigger an ISP or cluster study procedure for Fast Track applicants. The Commission makes important factual errors with respect to the viability of the Fast Track process, as described further below.
- Undefined criteria for the Independent Study Procedure (ISP) that prevent an applicant from having any idea of its potential for success before committing \$50,000 plus \$1,000 per megawatt for the application fee. If the ISP applicant fails, it must then wait for the next cluster window and pay an additional \$50,000 plus \$1,000 per megawatt fee and have literally nothing to show for its ISP application except a large hole in its bank account.
- A statement in the GIP itself that PG&E's entire distribution grid will "generally" be studied as one cluster, which will generally obviate the ISP entirely because if the entire grid is one cluster no proposed projects will be found to be electrically independent.
- Moreover, no timelines for completion of studies is included for the Independent Study Procedure, which may well give rise to a backlog of requests like that which prompted the reform efforts to begin with.

The failure of the utilities and FERC to address these concerns leaves the WDAT as a highly inadequate model for Rule 21 reform. Meeting the Governor's goal of 12 GW of DG requires expedited and predictable interconnection procedures, at reasonable cost, and the new WDATs don't provide these features.

FERC did agree with intervenors in the utilities' WDAT reform proceedings that data transparency is very important for improving the new interconnection procedures and FERC required that the utilities post comprehensive interconnection data on a monthly basis online, for 24 months. These new data requirements imposed by FERC will be very helpful over time and we are optimistic that this increased data will help correct the problems we've identified – but it will take far too long to improve interconnection for WDG unless the Commission is proactive now and revises Rule 21 such that it becomes an effective interconnection tariff for WDG.

The Clean Coalition argued in our Requests for Rehearing to FERC that FERC's overly deferential review and approval of the utility WDAT proposals was effectively an abdication of FERC's responsibility to regulate. By dismissing all but one of the concerns expressed by three parties, all of whom have great expertise in the areas addressed, FERC was not doing its job. It thus falls upon the Commission to do what it can to ameliorate the impacts of FERC's actions by improving Rule 21.

While Rule 21 has worked very well for net-metered project interconnection since its last revision, it lacks many key details for optimally interconnecting wholesale DG projects. For example, SCE's CREST program uses Rule 21 and this program is fraught with problems, many of which relate to interconnection. It is clear that Rule 21 needs some major modifications to be used effectively for wholesale interconnection.

The Clean Coalition urges the CPUC to reassert its jurisdiction over WDG interconnection, as far as current law allows. Given FERC's failure to exercise oversight of utility WDAT procedures, increased responsibility falls on the Commission to do what it can to improve WDG interconnection procedures.

We outline below our recommendations for improving Rule 21 such that it can become an efficient and reliable interconnection tariff for both net-metered and wholesale projects. Over time, we hope the Commission will require Rule 21 to be the preferred interconnection tariff for all wholesale DG.

## **Overview**

Broadly speaking, the Clean Coalition supports interconnection processes that can handle the expected scale of interconnection requests in a timely and cost-effective manner, including:

- Clear and enforceable timelines (with full data transparency, including reporting of application processing results and reasons for missing any deadlines)
- Increased grid transparency that allows developers to know "what can go where" ahead of time, and gain some idea of likely interconnection costs before going through a lengthy interconnection study.
- Expedited interconnection options for resolving most common issues and upgrade requirements. This will generally mean Fast Track interconnection, which should be relaxed such that more projects can qualify – while ensuring grid reliability and safety.
- Standardization of interconnection costs for smaller projects (3 MW and smaller). This is a longer-term goal but should be worked toward.

## **Grid Data**

Fully updated grid interconnection capacity information should be available, along the following lines:

- It should be clear what limits exist at each substation, on each circuit, and ultimately on each line segment, including current and pending interconnections.
- It should be predictable what standard categories of upgrades would be triggered by exceeding these limits.
- It should be reasonably predictable what the costs would be for each level of upgrades required, including backflow or interconnection directly to a substation or P-node.
- Information should be made available on planned capacity increases related to system upgrades and new loads.
- All grid information should be presented in improved map and spreadsheet formats with viewer/user search and rank order ability enabled

## Screens

It is clear that the existing Rule 21 screens (analogous to the Fast Track screens for WDAT) are overly conservative in some cases, and on the other hand do not address some significant factors related to WDG that may need to be addressed, but can usually be handled with revised technical standards and little or no additional study.

The purpose of the screens is to define issues that will not require further study if they can be addressed in advance - either because the project would not trigger an issue, or it would allow more standard issues to be addressed with known requirements and limited fixed cost review, instead of requiring a more detailed interconnection study.

We recommend that the screens be improved along the following lines:

- Expedited project review be made available with fewer limitations. This would include expanded Fast Track access, but also intermediate levels of relatively simple studies where standard categories of system impact and upgrade are triggered by the screens.
- To support this, we'd like to see a clearly defined matrix between categories of projects and existing capacities at the point of interconnection, to determine exactly how much review or study is required, and ideally how much interconnection and upgrades will cost.

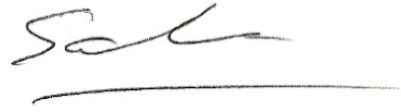
## Goals for improved studies

- Back testing against prior applications to ensure that any interconnection reforms are improvements over the current procedures.
- Predictable and enforced costs and timelines for each study category, with review and accountability for efficient queue processing.
- Public queue information should be sufficiently detailed to identify what is and is not working and where tariff requirements are not being met. Examples of detailed information to be provided include:
  - Tracking, by project application, of all dates cited in Rule 21, such as Date Received, Date Deemed Valid, Date of Scoping Meeting, Date of Feasibility Study, Date of System Impact Study, Date of Facility Study, etc.
  - Tracking of projects that apply for Accelerated Options and information on which projects pass and which projects fail, including reasons for failure.
- ‘First come, first served’ rights to circuit capacity, with allowance for small projects that do not materially impact rights of queued projects to proceed without delay.
- If an Independent Study Procedure is included in the revised Rule 21, electrical independence needs to be clearly defined, with a strong emphasis on maximizing flexibility and capacity not yet allocated to existing or queued projects. i.e. a new project that assumes responsibility for any network upgrades and protection, without the benefit of conditionally allocated capacity or actions by prior queued projects, will be considered independent. Current project studies under Rule 21 or WDAT that have an effect upon line capacity should have that effect reflected in the published available capacity information.
- Independent review and timely and equitable dispute resolution when there is a question about how the standards are applied in the study process
- Last but not least, the standard interconnection agreements need to be revised to accommodate WDG instead of just net metering and excess sales, but this is well recognized by all parties.

The Clean Coalition appreciates the opportunity to submit these comments and we look forward to participating further in this stakeholder process. We will be submitting more detailed comments during the course of the stakeholder process.



Respectfully submitted,

A handwritten signature in black ink, appearing to read "Sahm", with a horizontal line underneath it.

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