

UNITED STATES OF AMERICA
BEFORE THE FEDERAL REGULATORY COMMISSION

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SOLAR ENERGY INDUSTRIES ASSOCIATION PETITION FOR RULEMAKING TO
UPDATE SMALL GENERATOR INTERCONNECTION RULES AND PROCEDURES FOR
SOLAR ELECTRIC GENERATION

CLEAN COALITION COMMENTS ON
PETITION FOR RULEMAKING

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CLEAN COALITION COMMENTS ON PETITION FOR RULEMAKING

The Clean Coalition is a California-based advocacy group, part of Natural Capitalism Solutions, a non-profit based in Colorado. The Clean Coalition advocates for policies that lead to high penetrations of wholesale distributed generation (WDG), which we define as renewable energy projects interconnected to the distribution grid close to load. We actively work for vigorous and efficient energy procurement programs, simplified and accelerated interconnection procedures, and a smart grid that can integrate and balance large amounts of local energy.

The Clean Coalition supports the Solar Energy Industries Association (SEIA) petition but suggests an expanded scope, to include, in addition to the revision of the 15% screen:

- Ensure that SGIP reform also applies to states that have combined SGIP and LGIP
- A requirement that entities regulated by the Commission use smart meter data, when available, to obtain minimum load data at the level of line sections and circuits
- New rules for determining independence of distribution grid projects from the transmission grid
- Transmission cost responsibility – limiting responsibility for distribution-level projects that have no impact on the transmission grid
- Interconnection cost averaging, allowing greater cost certainty for developers earlier in the interconnection process

I. Discussion

a. The Clean Coalition supports the SEIA Petition

The SEIA Petition calls for allowing a 100% minimum load screen rather than 15% peak when the 15% screen is exceeded on a particular circuit (p. 3). We fully support this recommendation, but we also urge the Commission to develop rules that encourage grid operators to collect minimum load data as a general practice (not only for circuits exceeding the 15% peak level) and to use minimum load data as the default, rather than peak load data, when evaluating interconnection requests.

As SEIA describes, peak load data is used today only as a proxy for minimum load data. As smart meters and smart grid initiatives more generally are implemented around the country, grid operators should be switching to minimum load data as the default.

The Clean Coalition also supports SEIA's recommendation to eliminate the 2 MW SGIP limit (p. 3) and instead allow the SGIP screens to act as the appropriate size limit. We can see no valid and empirically-supported argument for an independent size limit when the screens themselves are designed to filter out projects that cannot be connected safely and reliably.

We also support SEIA's suggestion (p. 4) that SGIP should be revised to allow developers to obtain third-party technical reviews of proposed interconnection upgrade requirements, and to use these reviews in challenging grid operators' requirements. We have obtained anecdotal evidence from numerous developers that "gold-plated upgrade" requirements are an increasingly common problem. Developers should not be charged more than is necessary to safely and reliably interconnect to the grid, and should have options to help reduce unwarranted costs.

b. The Clean Coalition recommends expanding the scope of the new proceeding

The Clean Coalition supports the SEIA Petition but we also suggest an expanded scope, to include a number of additional beneficial reforms.

- Ensure that SGIP reform also applies to states that have combined SGIP and LGIP into a single GIP

The SEIA Petition calls explicitly for SGIP reform. This is necessary and urgent. However, some states (California, for example) have eliminated SGIP as a separate interconnection procedure by combining SGIP and LGIP into a single "Generator Interconnection Procedure" (GIP), administered by the California Independent System Operator for the transmission system, and by Participating Transmission Operators (PTOs) for non-state-jurisdictional distribution-level interconnections.

In order for reforms achieved under this new proceeding at the Commission to be most effective nation-wide, the Clean Coalition strongly urges the Commission to ensure that any SGIP reforms apply equally to grid operators using SGIP and to those that have combined SGIP and LGIP into a single GIP. The problems highlighted

by SEIA apply equally to states using SGIP and a combined GIP, so any reforms should flow to both.

Similarly, the problems we highlight below apply to both SGIP and GIP and we urge the Commission to proactively address these issues in a way that affects both SGIP and GIP.

- A requirement that entities regulated by the Commission use smart meter data, when available, to obtain minimum load data at the level of line sections and circuits

As discussed above, minimum load data is the primary data required to determine whether a facility can interconnect safely and reliably. With the advent of smart grid initiatives around the country, and installation of smart meters in a number of states, we urge the Commission to include within the scope of this reform a requirement that grid operators develop the tools for integrating smart grid and smart meter information into their interconnection process.

For example, in California, smart meters will be installed state-wide by the end of 2013 for all investor-owned utilities (PTOs). However, we have been informed that some PTOs do not currently have the ability to integrate smart meter data in a way that will allow them to calculate minimum load data at the line section or circuit level. We urge the Commission to develop rules for this integration as part of this SGIP reform effort.

- New rules for determining independence of distribution grid-interconnected projects from the transmission grid

Wholesale distributed generation (WDG) is becoming a major market segment in various parts of the country. We define WDG as electricity generation interconnected to the distribution grid, where the electricity is sold to the host utility and is not transmitted over high voltage transmission lines.

Dependency on the transmission grid is an increasingly common problem for WDG. This means that interconnection of WDG projects is being delayed, sometimes for a year or more, while transmission grid-connected projects are being studied or, sometimes, as long as it takes to build new transmission lines to accommodate new transmission-connected generators – which can amount to multi-year delays. These delays imperil the viability of WDG development, which can otherwise be deployed

far more quickly, and often more cheaply (due to avoiding costly transmission grid upgrades) than transmission grid projects.

For example, California's limited feed-in tariff program allows projects up to 1.5 MW to interconnect under the state-jurisdictional Rule 21 interconnection tariff. Approximately 100 MW of projects are in the Southern California Edison interconnection queue, almost all of which are held up by SCE's determination that these projects are subordinate to queued-ahead transmission-level projects. A major problem is that SCE's test for determining dependency is entirely vague. Vagueness is highly uncondusive for market development.

For example, here is actual language from an SCE combined System Impact Study/Facilities Study, under Rule 21, for a 1.5 MW solar feed-in tariff project seeking interconnection in Southern California, specifying only that there is a problem with transmission but providing no insight at all into how or when the problems may be resolved with respect to the 1.5 MW interconnection request:

[T]he study identified the need to install appropriate relays, protection, and telecomm necessary to ensure coordinated tripping of the entire Antelope- Del Sur 66 kV line under outage conditions of any portion of this line. This upgrade was triggered by higher queued projects but is also required to support interconnection of this Project along with the higher queued projects. Until this upgrade is implemented, the amount of projects that can be interconnected will be limited. It is important to note that queue priority along with actual project development is currently envisioned to be used as the determining factors to identify which projects can be interconnected now and which projects need to wait for facility upgrades to be put into place.

...

In addition, because of the dynamic nature of the queue, withdrawals of any higher queued project, whether it triggered an upgrade or not, may shift triggering responsibility of the upgrades identified for queued ahead generation which were modeled in the Project's starting queue order base case study. Therefore, since higher queued projects were found to trigger significant upgrades, it is possible that the triggering responsibility for those upgrades may shift to the Project, as the queue changes.

Generally vague electrical independence rules have been developed in California and elsewhere, under FERC-jurisdictional tariffs, but these rules are insufficiently defined and are often unfair to WDG developers – as just described for the Rule 21

tariff. Simple and fair rules for electrical independence could be developed¹ and we urge the Commission to include this highly important issue in this new reform effort.

- Transmission cost responsibility

The Commission should also clarify that transmission upgrade cost responsibility is to be borne only by generators delivering energy to the transmission system, not by generators entering into contracts to serve load on the local distribution system. Distributed generation and storage, including Combined Heat and Power systems and many renewable technologies, are able to be easily and rapidly sited at or near the point of demand. When the cost of transmission services and system losses are considered, smaller local generation can often provide energy at a lower total delivered cost. Such opportunities allow rapid deployment of new clean and efficient generation and can dramatically reduce the need and related cost for new transmission resources in many instances. However, under current rules, many distribution-interconnected projects are required to pay for some transmission upgrades even if there is no or limited flow from the project to the transmission grid. Uncertainty and inconsistent policy regarding the assignment of transmission infrastructure costs to such facilities is unwarranted and severely inhibits their adoption and deployment. We have suggested in recent interconnection reform efforts in California the test described in footnote 1.

- Interconnection cost averaging

“Cost averaging” refers to the Clean Coalition’s policy initiative to adopt consistent predictable interconnection pricing formulas by category as an alternative to customized study and assessment of each individual application. This approach would allow grid operators to assign interconnection costs early in the interconnection process, based on historical average interconnection costs for the type of interconnection being sought. This will provide cost certainty to developers far earlier than under current procedures and will help solve many queue dropout problems that serial and cluster study procedures are still facing. Cost averaging will

¹ For example, the Clean Coalition has proposed in recent interconnection reform efforts in California that any WDG project that comprises, either alone or in the aggregate with other DG projects on the same circuit, less than 100% minimum load on the substation at issue should be deemed electrically independent from the transmission grid.

not be available to all applicants because some situations are unique and will require special study. But most distribution-level interconnections should be susceptible to a cost averaging approach. We provide more information on this concept below.

The Commission should clarify that interconnection cost averaging and the application of pre-determined pricing formulas is allowed under SGIP and GIP. Ideally, the Commission will study this option and encourage states to adopt cost averaging.

We note that the FERC-jurisdictional GIP is not working well in California. As of November 2011, only 14 out of the 392 applications submitted to PG&E have reached interconnection agreements, only six in the past two years; very few projects have attempted CAISO's GIP, and success has been limited.

Cluster studies incorporate large numbers of projects that will not proceed once interconnection costs are estimated, impacting the study model and necessitating iterative reevaluation of costs for remaining projects.

A key problem with the GIP is now easy to identify:

- Many applications will ultimately be withdrawn, but generally require cost determination in order to make that decision. Under current practices, such determination first requires completion of the study process. However, individual cost determination is often highly dependent upon which applications are withdrawn, delaying decisions further.

Meanwhile, current study procedures assume full transmission impact from all applications, thereby resulting in grossly exaggerated interdependence and capacity impacts, and dramatically reduced access to accelerated interconnection study options. For example, in SCE territory in California, almost all distribution-level projects are held up by queued-ahead transmission-level projects, with no clarity from SCE as to the test being applied in order to make the finding of dependence on the transmission grid. Accordingly, numerous 1.5 MW projects under SCE's feed-in tariff program are held up, potentially for years, while the transmission-level projects work their way through the system.

This combination of dependent interactions makes system modeling and estimation of cost allocation highly problematic and ineffective. The core issue is early access to critical interconnection cost determination - from pre-application cost estimates to

subsequent cost certainty, either in the form of firm costs or in reasonably narrow cost ranges and cost liability limits.

Knowing the applicant's costs early on has been the cornerstone for the success of net energy metering (NEM) interconnection in California. While NEM faces several issues that ultimately limit its application, this feature is transferable to wholesale generation interconnection and would address many of the problems currently plaguing the system. Applicant decision-making depends upon knowing the cost liability, and if this can be established within a reasonable range prior to conducting project-based group or individual studies, studied projects will more accurately reflect likely development, project retention rates will be dramatically higher, and interdependent reevaluations drastically reduced.

Any one of a variety of cost averaging or risk allocation approaches could be applied to achieve a comparable outcome for wholesale interconnections without putting the ratepayer or utility at risk. The result will be a dramatically faster path to interconnection agreement or application withdrawal, reduced study burdens, the release of reserved capacity and access to existing cost-effective interconnection capacity.

NEM is of course not the only example of interconnection working well. Germany installed over 7 gigawatts of solar DG in each of the last two years, and that enviable pace is continuing this year. The largest factor that enables rapid interconnection agreements in Germany is not who pays for interconnection costs or technical differences between Germany's system and ours, but the fact that interconnection agreements are not generally dependent upon detailed studies and decisions by other applicants, thereby allowing parties an early opportunity to assess the financial viability of their project proposals.

II. Conclusion

In sum, the Clean Coalition supports the SEIA Petition but we also urge the Commission to expand the scope of this new reform effort to include the much-needed reforms described above.

Respectfully submitted,

TAM HUNT

A handwritten signature in black ink, consisting of stylized, overlapping letters that appear to read 'TH' followed by a long horizontal flourish.

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Dated: March 27, 2012

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing document to be served electronically according to Rule 385.2010(f) of the FERC's Rules of Practice and Procedure.

Dated at Santa Barbara, California, this 27th day of March, 2012.

A handwritten signature in black ink, appearing to read 'TH', with a long horizontal flourish extending to the right.

Tamlyn Hunt