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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Comments Of
Citizens for Pennsylvania's Future
(PennFuture)**

INDEPENDENT REGULATORY
ENERGY COMMISSION

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Regarding

Docket No. L-00050175

**Proposed Rulemaking Re Interconnection Standards for Customer-
generators pursuant to Section 5 of the Alternative Energy Portfolio
Standards Act,**

73 P.S. § 1648.5

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**Submitted by:
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April 25, 2006**

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PennFuture is a statewide public interest membership organization working to enhance Pennsylvania's environment and economy, with offices in Harrisburg, West Chester, Philadelphia and Pittsburgh. We appreciate the opportunity to provide comments on the Commission's proposed rulemaking on interconnection standards as published in the Pennsylvania Bulletin on February 25, 2005.

PennFuture worked for 3 years to pass a state law that set portfolio standards for renewable and alternative electricity generation technologies. We provided testimony to the Pennsylvania Senate and House of Representatives as they drafted legislation. We have had numerous conversations about this topic with the Governor and his representatives as well as many Republican and Democrat members of the General Assembly. PennFuture enjoyed a close working relationship with key members of the General Assembly such as Senator Erickson, Representative Adolph, Representative Ross, and Representative Veon, as they played decisive roles in writing and passing Act 213.

PennFuture has also been involved in the implementation of Act 213, assuring the Commission's rulemaking process reflects the legislative intent of the Act and is favorable to the clean energy industry. We helped shape the Energy-Efficiency and Demand Side Management rules for Act 213; provided comments to the net metering and interconnection working groups; and submitted comments to the Commission on: Docket No. M-00051865 - Implementation of the Alternative Energy Portfolio Standards Act of 2004.

While heavily involved in the regulatory and policy aspects of Act 213, PennFuture also has an imprint in the private clean energy sector. We are helping to create solar projects to jumpstart the solar Renewable Energy Credit market, demonstrate the enterprise model that will enable further solar availability, and provide a highly visible Pennsylvania retailer with clean solar energy that will be of strong media and consumer interest. We also work collaboratively with the wind industry, commonwealth agencies and various stakeholders on such key issues as local ordinances, tax policy and wildlife interaction with wind projects.

As a result of our work in policy, regulation and markets, PennFuture understands what policy makers intended Act 213 to accomplish and what the clean energy industry needs to help fulfill the goals of the Act.

Introduction

PennFuture has reviewed the Public Utility Commission's proposed rulemaking on interconnection standards as published in the Pennsylvania Bulletin on February 25, 2005. While we recognize that significant effort has gone into the process, and significant progress has been made in removing traditional barriers to interconnection, we continue to see the need for improvement.

We believe that making viable interconnection rules is more difficult than other components of Act 213 implementation. Our electric power systems have followed a central distribution model for many decades. The precedent has been that permitting interconnection was the exception not

the rule and the interconnection of new generation systems was seen primarily as a potential safety and business threat to the system.

The passage of Act 213 requires new standards that will fully address all system safety and reliability concerns, while simultaneously encouraging, rather than discouraging, the growth of clean distributed generation resources. Act 213 recognizes that these resources will not only help to provide a more stable transmission system but also decrease our dependence on fossil fuels and benefit both our economy and environment. While safety and reliability remain vital and priority concerns, it is also the responsibility of the Commission to draft regulations that not only allow for interconnection but encourage its development.

While states including Colorado, New Jersey, Nevada, California and others have enacted interconnection standards to encourage clean distributed generation, there is less working knowledge on this subject than with traditional regulations. Act 213 requires electric distribution companies (EDCs) to open their systems to new technologies, in the form of clean distributed generation. Distributed generation is a threat to utility revenues and the utilities' natural tendency is to protect their existing processes and structure. However, in order for Pennsylvania to fully benefit from Act 213, the Commission needs to draft regulations that encourage our new, clean renewable generation future by streamlining interconnection processes and requirements, drawing upon the best practices that have been established elsewhere. To do less, will create unnecessary barriers and hamper progress towards the goals of Act 213.

General Comments:

Act 213 is designed to encourage the development of clean, renewable distributed energy generation, not to just allow for it. PennFuture recognizes the significance of this proceeding and has provided the Commission with comments specific to the interconnection rulemaking on April 14th, 2005, April 27th, 2005 and September 19th, 2005.

We find that the proposed rules have indeed eliminated many of the traditional barriers to interconnection of distributed generation and applaud the Staff and participating parties for this progress. However, the proposed rules as issued on February 25th can still be improved and they often fall short of encouraging the market transformation designed by the Act. For instance, the timelines for EDC approvals of interconnection applications are the longest of any state we have surveyed. The proposed timelines appear to be more concerned with providing the EDC's protection for potentially slow application processing and review, rather than encouraging the EDCs to create a system that will provide clear and timely processing of interconnection requests. When a Level 1 review of an interconnection application for a solar system can typically be completed in an hour or less, a one week review window is encouraging; a five week period to review the application and determine if the facility can be interconnected is not.

We will specifically comment on this and a number of other instances in which further modifications to the rules will more strongly support the market development.

While understanding Pennsylvania's desire to pave their own path in implementing Act 213, we should not miss the opportunity to increase the ease of developing the profitable clean energy

sector by creating mirror interconnection standards to our neighbor New Jersey. Not only is New Jersey within the borders of PJM, but several Pennsylvania utilities also serve customers in both states. Creating inconsistent regulations only increases the cost of compliance as generators will have to maintain and operate according to two sets of regulations. It also places undue burden on market actors, who will have to adopt two sets of business practices depending upon which side of a river a project is located. Streamlining regulations for developers to participate in both New Jersey and Pennsylvania markets is sound regulatory practice that will increase the economic development of clean energy resources in both states.

We commend the Commission for convening the Act 213 working group on interconnection standards and providing for participation in the MADRI process. However, the MADRI process was not specifically charged to facilitate the implementation of Act 213 or to address the concerns that some parties (e.g. the agricultural sector) have with existing practice. Going forward the Commission should further flesh-out how interconnection regulations can most appropriately address these concerns. We believe the best venue for discussing these open-ended issues is to reconvene the Act 213 Working Group. While it is important to expedite the process of developing and implementing new interconnection rules in order to comply with Act 213, if these rules do not encourage alternative energy resources then the goals of the Act will not be met.

There are several areas, outlined below, where the Commission has requested further comments on the Proposed Rulemaking Order, or where we believe further clarifications or simplifications to the proposed rules should be considered. We believe our proposed modifications will result in regulations that are more straightforward and transparent, and that these changes will help to promote more efficient and more rapid adoption of renewable distributed generation and its associated benefits.

- 1) **Limiting Level 2 review to inverter based equipment:** As noted in our earlier comments (September 19, 2005 p. 2) PennFuture supports Level 2 review for non-inverter based equipment under appropriate conditions. Pennsylvania should not adopt interconnection rules that automatically require a more extensive, timely and expensive Level 3 review on non-inverter based interconnection applications. Specifically, we note that the FERC 2006 Order, which was based on extensive stakeholder input, consensus and review, does not restrict Level 2 reviews to inverter based equipment.¹ In the rules adopted by FERC, rotating machines (synchronous and induction generators) must provide additional information (in comparison to inverter based systems) as part of their interconnection application form, they are not automatically assigned to a Level 3 interconnection review. We note that automatically requiring Level 3 review for non-inverter based systems is a particular barrier for many types of systems such as farm based methane digesters, or low impact hydro that Act 213 is explicitly designed to support. The restriction of Level 2 review to only inverter based systems is unwarranted, and should be removed from the proposed rule.
- 2) **Appropriate limit for exposure of distribution protective devices to fault currents.** PennFuture understands the need to insure that potential fault currents on a circuit do not

¹ FERC Order 2006, Attachment 2, Small Generator Interconnection Request Form page 4.

exceed the rated short circuit interrupting capabilities of protective devices. However, care needs to be taken that the limit for fault currents established by this rule, in combination with existing system infrastructure and operating practices does not create a de facto barrier, and inadvertently establish a situation where a large number of distribution circuits are not eligible for new distributed generation.

Therefore, before adopting a specific limit, PennFuture would like see the Commission require the EDCs to provide more information on the percent of distribution circuits that would be disqualified for new distributed generation under the proposed 85% limit. Approximately how many circuits are impacted, and how long do they typically operate under these conditions? Are circuits where the potential fault current approaches the 85% limit routinely upgraded in a timely fashion? If so, this would mean the number of circuits excluded from receiving new distributed generation at any given time would be relatively small. However, if there are a significant number of circuits that routinely function near or above the 85% limit then the proposed rule will unduly restrict the future development of distributed generation resources.

PennFuture contends that to be consistent with the intent of Act 213 the rules need to create an environment where distributed generation is encouraged and the distribution infrastructure is operated by the EDCs in a fashion so that new distributed generation can be accepted onto the system.

PennFuture also notes that the limits adopted under the FERC 2006 (87.5%), and MADRI (90%) interconnection rules are less restrictive than the proposed level of 85% for Pennsylvania.

- 3) **Certificate of completion.** Although in most cases it would be slight, the proposed certificate of completion creates another potential barrier and delays. Consistent with the position that Pennsylvania's Interconnection rules should encourage greater development of distributed generation resources, PennFuture recommends that requiring applicants for interconnection to simply submit signed copies of all required building and electrical code inspections as part of their final documentation packet is sufficient, simpler, faster, and easier.
- 4) **Timelines for EDC reviews.** PennFuture has provided previous comment (April 14, 2005, under issue #10) recommending that the Level 1, 2, and 3 timelines adopted by New Jersey were appropriate and should be adopted by Pennsylvania. These are more expedient than those recommended by MADRI process and now proposed in the rulemaking for Pennsylvania. As stated above, PennFuture strongly supports the development of rules that encourage new distributed generation. Establishing an expedient time horizon for interconnection review and approval accomplishes this goal. We note that our recommendation provides benefits for the applicant, for installers, for future applicants, for general market development (installers are able to complete more jobs, more rapidly, and thereby lower costs) and for EDC administrative staff, who benefit from the adoption of consistent rules for serving both the Pennsylvania and New

Jersey markets. We also note the FERC 2006 timelines, adopted after extensive stakeholder review and input, are more expedient than the proposed rule for Pennsylvania (e.g. allowing 3 days for EDC application review as opposed to 10 days). The New Jersey EDCs have demonstrated that compliance with an accelerated timeframe is feasible and practicable.

We commend the Commission for adopting the reporting requirements regarding interconnection requests and processing times. We also agree that emergency situations should allow for more flexible timelines, but by definition these should be extraordinary and emergency situations

- 5) **Screening of new capacity.** The Commission requests comments from the parties on whether additional capacity at a site shall be treated as incremental or total capacity at a site with respect to the screening and interconnection of the new capacity. As stated in previous comments (September 19, 2005) PennFuture recommends that the level of review assigned to new interconnection applications be based on the proposed new incremental capacity. The aggregate impact of existing distributed generation capacity (whether at the same customer site or others) on a circuit is addressed by each Level of the screening criteria. We therefore contend that using the existing screens, and evaluating each new application on the basis of incremental new capacity, will address Staff's stated concern that any interconnection review must evaluate the total capacity which may flow onto an EDC's electric distribution system at a given point.
- 6) **External lockbox in lieu of disconnect switch.** PennFuture has previously commented on this issue (April 14, 2005, Issue #6), and continues to encourage the Commission to adopt a rule that follows the precedent set by New Jersey of not requiring an external disconnect or lockbox. As noted previously, the additional level of safety provided by an external disconnect (or the proposed lockbox in lieu of external disconnect) is minimal for equipment and systems that are compliant with IEEE and NEC standards. The relative risk/cost assessment arguments supporting the position that an external disconnect (or lockbox in lieu of disconnect) have been effectively and repeatedly argued by the Interstate Renewable Energy Council (IREC), and solar advocates.
- 7) **kW cap in addition to % limit for network applications.** PennFuture is unaware of reasons why for spot and area network applications that a 50 kW cap would be required in addition to the 5% of maximum load limit. Since, in some cases, a 50 kW cap would be more restrictive PennFuture favors the percentage only limit.
- 8) **Cost responsibility for a single point of interconnection.** If the EDC requests a single point of interconnection in order to reduce costs, then the costs associated with the single point of interconnection must be borne by the EDC. Absent these terms, and EDC could reduce its costs – at the expense of the customer generator - by requiring a single point of interconnection for systems that are widely distributed, or even served by different meters at a customer's site. This would clearly be a potential and unwarranted barrier to distributed generation.