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February 2, 2005

(Hand Delivered)

James J. McNulty, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
P. O. Box 3265
Harrisburg, Pennsylvania 17105-3265

**RE: Advance Notice of Proposed Rulemaking Order Regarding
Small Generation Interconnection Standards and Procedures
Docket No. L-00040168**

Dear Secretary McNulty:

Enclosed for filing are an original and fifteen (15) copies of the "Comments of the Energy Association of Pennsylvania" on the above-captioned docket.

Please note that service of this filing has been made in accordance with the attached service list.

Cordially,

A handwritten signature in black ink, appearing to read "J. Michael Love", is written over a horizontal line.

J. Michael Love
President and CEO
Energy Association of Pennsylvania

Enclosures

CC: Certificate of Service

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SECRETARY'S BUREAU

Before the
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Advance Notice of Proposed Rulemaking :
Order Re: Small Generation Interconnection : Docket No. L-00040168
Standards and Procedures :

ENTRY OF APPEARANCE

Please enter the appearance of the following as counsel for Energy Association of Pennsylvania (EAPA) in the above-captioned matter:

J. Michael Love, Esquire
President and CEO
ENERGY ASSOCIATION of PENNSYLVANIA
800 North Third Street, Suite 301
Harrisburg, Pennsylvania 17102-2025

On the basis of this notice, we request a copy of each document filed hereafter by any party, or issued by the Commission, on this matter.

Respectfully submitted,



J. Michael Love

DATED: February 2, 2005

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Before the
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that I have this 2nd day of February 2005 served a true and copy of the foregoing "**Comments of the Energy Association of Pennsylvania**" on the persons listed below, by first class mail, postage prepaid:

Hon. Wendell F. Holland, Chairman
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Hon. Robert K. Bloom, Vice Chairman
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Hon. Glen R. Thomas, Commissioner
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Hon. Kim Pizzigrilli, Commissioner
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

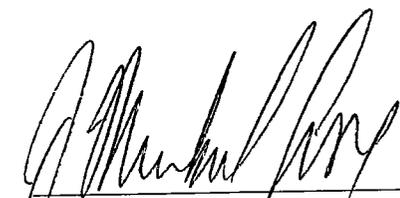
Irwin Popowsky, Esquire
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Forum Place, Fifth Floor
Harrisburg, PA 17101-1923

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Suite 1102 – Commerce Building
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Harrisburg, PA 17101

John E. Simms, Esquire
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Pennsylvania Public Utility Commission
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Robert Young, Esquire
Law Bureau
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

John Hanger, President and CEO
Citizens for PA's Future
212 Locust Street, Suite 410
Harrisburg, PA 17101



J. Michael Love
President and CEO
Energy Association of Pennsylvania

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Advanced Notice of Proposed Rulemaking for :
Regarding Small Generation Interconnection : **Docket No. L-00040168**
Standards and Procedures :

COMMENTS of ENERGY ASSOCIATION of PENNSYLVANIA

I. INTRODUCTION

The Energy Association of Pennsylvania (“EAPA”) hereby submits its Comments in response to the Pennsylvania Public Utility Commission’s (“Commission”) Advance Notice of Proposed Rulemaking Order (“ANOPR”), issued in the above-referenced docket, regarding the possible establishment of standardized methods in which small generation connects to the distribution grid. The ANOPR was issued by the Commission on November 18, 2004, and published in the *Pennsylvania Bulletin*, Volume 34, Number 49, Saturday, December 4, 2004, Harrisburg, PA, Pages 6426—6429. The ANOPR set forth six separate goals with this rulemaking: (1) eliminate unnecessary barriers to entry in the distributed generation market; (2) promote distributed generation in order to provide peak demand responsiveness; (3) enhance grid reliability; (4) increase transparency in the interconnection process; (5) create uniformity and thereby ease the difficulty presented by a patchwork of different procedures; and (6) lower the overall cost of locating and placing distributed generation across the Commonwealth.

II. PJM MODEL AND IEEE STANDARDS

While it is within the Commission’s authority to adopt Small Generation Interconnection Standards and procedures, the authority is subject to the legal requirement to maintain distribution system reliability and integrity. The Association members support the use of the PJM Interconnection, LLC (“PJM”) standards in the development of the Commission’s Small Generation Interconnection Standards and Procedures. The Commission should draft the standard that is not in conflict with PJM Open Access Transmission Tariff (“OATT”), which is under the jurisdiction of the Federal Energy Regulatory Commission (“FERC”). For example, customers who participate in PJM load management programs related to capacity credits,

which are FERC jurisdictional, would conform to the minimum interconnect requirements of the PJM program. The resources that are state jurisdictional would meet the requirements of the Commission's rulemaking under this docket. As with most of the models referenced in ANOPR, the PJM model's technical requirements are based on the Institute of Electrical and Electronic Engineers (IEEE) 1547 Standard for Interconnecting Distributed Resources with Electric Power System. Existing standards in other states are primarily based on IEEE 1547 standards. IEEE 1547 is intended to provide minimum technical requirements for interconnection. The PJM standard recognizes the uniqueness of different Electric Distribution Company ("EDC") systems, particularly with regard to grounding & fault protection. It also provides for additional consideration for power quality issues and additional requirements for voltage balance regulation, which incidentally may likely be incorporated into future revisions to the IEEE standard.

The Commission should not adopt any standard, which in any way diminishes the integrity, reliability and safety of the interconnection of Distributed Generation ("DG") to the EDC's electrical system. For example, all generation systems must have a readily accessible, outdoor and lockable disconnect switch in order to ensure safety of workers and the public, as well as to timely prevent potential damage to the distribution system. IEEE 1547 provides for the requirement of this switch, where the EDC deems it necessary. Any standard that pre-empts the EDC's ability to enforce this important safety requirement should not be followed. Pennsylvania should ensure that EDCs may insist upon such a reasonable requirement which adds only minimally to the cost, but significantly to worker and system safety.

Net Metering

It should be noted that the ANOPR did not include or address the issue of Net Metering, which we submit is the appropriate course to take. It is fundamental that net metering should be considered separately from interconnection standards. Interconnection is a technical and safety issue. It should be strictly limited in scope to operational and safety parameters and the appropriate allocation of costs associated with the interconnection of DG. Conversely, the financial issues related to net metering are significant, and represent the business rules between the parties related to the transfer of energy and its associated value, and is not otherwise directly related to the interconnection issue.

Islanding

Islanding (the ability to deliver energy into the utility system while the system is down) of any type should not be permitted. Islanding would leave the DG responsible for providing PUC mandated voltage, frequency, and power quality to both the utilities' and other customers' equipment making up the island. The DG would have to shoulder the responsibility of resultant damage either to utilities' or other customers' equipment, to which they would provide power during the island condition. Also, the islanded system creates a problem for system restoration. Utilities would not be able to reconnect with this islanded system using standard utility reclosing practices. For example, reclosing without regard to synchronism after a predetermined time delay could not be done because synchronism would be required in order to prevent possible damage to the DG. This would force the installation of synchronism checking relays for every island interconnection point, not just the DG interconnection point.

Additionally, if the utility energized system and the DG energized system are running closely in frequency, but are out of synchronism, then the DG powered island must be forced to "push" its frequency to bring the two systems into synchronism. The utility system cannot be adjusted since it is running in parallel with major portions of the United States. This would require communications between the DG facility and the points in the utility system where synchronism check relays were installed. There are no national standards for allowing a DG to export energy in event of a utility outage.

Safety

Any DG seeking to connect to an EDC's distribution system must be required to meet three safety standards. Regardless of other considerations, safety cannot be compromised.

The three standards that the Association believes need to be adhered to are: (1) the National Electrical Code (NFPA 70); (2) all equipment must comply with IEEE 1547, which, for example, does not permit islanding; and (3) any pre-certified equipment must be tested in accordance with UL 1741 (equipment testing standard).

Compliance with these three national safety standards is necessary due to the complexity of operating an electrical distribution system. The nature of the electric system is such that variable conditions exist at many points and at different times. The introduction of distributed generators, even small ones, can have an impact on system parameters, including voltage, load balance, fault current and power quality criteria, in general.

Safety is a fundamental issue for DG installations of any size. While the Association does not particularly endorse any expedited process, any such process should be limited to approval for smaller inverter-based systems, not exceeding 10 kW single-phase, and 25 kW three-phase. For larger inverter-based systems, and especially rotating equipment systems, there should be a complete and thorough review process prior to allowing connection.

This requirement is based primarily on safety. In the event of a fault, rotating equipment has the potential to generate current five to seven times its full-load rating, which can cause damage to the distribution system and further to customer equipment. As was noted earlier, fluctuations in voltage, changes in load balance, and fault current can all have negative impacts on service, safety and reliability. These impacts are magnified as the size and complexity of the generator is increased. Therefore, the final rules should always permit the necessary time for an EDC to conduct a more rigorous review than that for a smaller DG unit. This review should include an analysis of the detailed system impact and such facility studies as needed to determine the need for system upgrades and ultimately ensure reliable operation of the electric system.

Generator Disconnection

An EDC must have the ability to disconnect a distributed generation unit from the utility system when certain events occur. Primarily this would encompass such events as system emergencies and normal system maintenance. During a system emergency, the EDC, without prior customer notice, must be able to disconnect a generating facility where the interconnection is endangering persons or property and during forced outages of the connected distribution feeder where repairs are required. Additionally the EDC should, with prior customer notice, have the ability to disconnect a generator during normal system maintenance in order to perform the required work in a safe and efficient manner. Other reasons for disconnection by the EDC may include customer non-compliance with the required technical standards or the terms of the interconnection agreement.

Response Time

The Association believes it is appropriate to establish time limits to govern the relationship between the DG and the EDC. As noted earlier, larger units will require greater EDC review than smaller ones. The Association would offer the following: (1) applications would be sent to the utility, return receipt requested, as confirmation of receipt by the EDC of

information from the DG, and (2) a ten-business-day turnaround on notification from the EDC to the DG regarding the completeness of the information.

After this initial data collection time period, the Association requests that EDCs have 30 business days to review the information offered by small DG units (10 kW single-phase, and 25 kW three-phase), as long as the unit meets established pre-certification requirements. For the more complex, larger DGs, the Association would propose a 90-business-day review period. It is intended that within the applicable review, the successful applicant would receive a completed interconnection agreement for signature.

Application Fee and Upgrade Costs

In order to facilitate the recovery of costs associated with the review, the Association would suggest that the application fees be charged to every interconnection service customer, and said application fee should be \$350 minimum for up to 50 kW units, with a \$5 increase per kW for larger systems.

The minimum fees will not permit recovery of all the costs of undertaking a high-level preliminary feasibility study. Therefore, all interconnection impact study fees for larger DG units should be recovered from the applicant to cover the out-of-pocket costs, plus overhead, but without profit.

All applicants need also to represent that they have insurance and can provide indemnification for costs incurred by customers and EDCs as a result of actions by the interconnection service customer.

In certain instances, the interconnection service customers will require construction and other upgrades to the system. Such upgrade costs, together with any costs related to required periodic inspection and maintenance performed by the EDC to protect safety and reliability of the system, should be allocated to the interconnection service customer.

Standardized Interconnection Agreement

The Association urges the Commission to adopt a standardized interconnection agreement format based upon the PJM model. In particular, insurance and indemnification must be included in every interconnection agreement.

III. CONCLUSION

The Energy Association and its members support the establishment of Small Generation Interconnection Standards for generation units up to 2 MW. The PJM guidelines should be adopted, as should the three safety standards consisting of NFPA 70, IEEE 1547 and UL 1741.

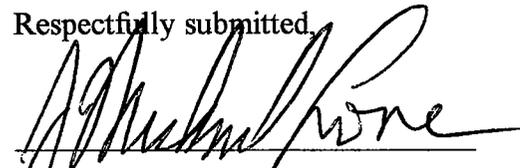
Additional requirements that should be adopted include the prohibition against islanding, requirement for insurance and indemnification, and the allocation to the DG of all out-of-pocket costs related to the connection to the EDC electric system. Application fees should be required in every case, and review times of applications should be consistent with the comments.

Net-metering should not be included with Small Generation Interconnection Standards and Procedures because they represent the business rules between the parties.

Reliability and safety should not, and indeed cannot, be compromised by reducing any of the requirements specified in the aforementioned standards.

Dated: February 2, 2005

Respectfully submitted,



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