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The DG Advocates

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The Arizona Solar Energy Industries Association
The Distributed Energy Association of Arizona
Energy Innovations
The Greater Tucson Coalition for Solar Energy
The Intermountain Combined Heat and Power Application Center
The Southwest Energy Efficiency Project
SunEdison
Venture Catalyst Inc.
Vote Solar**

**Distributed Generation Workshop: Interconnection Issues
Docket No. E-00000A-99-0431**

Submitted February 21, 2007

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Arizona Corporation Commission
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The DG Advocates submit the following comments upon the proposed interconnection standards posted by the Arizona Corporation Commission (ACC) Staff in the above-referenced proceeding. We thank the Commission for undertaking this important work. The recent approval of the Renewable Energy Standard and Tariff (Docket No. RE-00000C-05-0030) will requires ever increasing amounts of distributed generation in Arizona. With the REST, establishing interconnection standards that ensures the highest safety standards while removing unnecessary costs, delays, procedures or equipment takes on added urgency. The DG Advocates also thanks Commission staff members Barbara Keene and Erinn Andreasen for their efforts in developing the proposed standards.

The undersigned organizations include original members of the DG Advocates that participated in the DG Interconnection Workshop and additionally some companies with experience developing distributed generation projects that require interconnection and as such have relevant expertise.

Introduction

Staff recommends that the Commission direct staff to begin a rulemaking process on this subject. The DG Advocates agree.

The Commission noted in subsection r of Decision No 67744 that the Workshop should employ the Texas Distributed Generation standards as well as California CPUC Rule 21 in developing standards for Arizona. As the Public Utility Commission of Texas noted in the Purpose Section of its distributed generation regulations: “[t]he purpose of this section is to clearly state the terms and conditions that govern the interconnection and parallel operation of on-site distributed generation ... to provide cost savings and reliability benefits to customers, to establish technical requirements that will promote the safe and reliable parallel operation of on-site distributed generation resources, to enhance both the reliability of electric service and economic efficiency in the production and consumption of electricity, and to promote the use of distributed resources in order to provide electric system benefits during periods of capacity constraints”. PUCT 25.211(b) Purpose. The reasons that the PUCT noted for issuing DG regulations are equally applicable here in our State of Arizona. Since the Commission also ordered employing the Texas DG standards as a model in developing the proposed Arizona standards, we encourage similarly codifying the proposed DG standards here.

Section 1.2 (b) Islandable Systems

We continue to urge the Commission to include the following definition—from the DG Advocate’s position—of islandable systems in the ‘Types of Generating Facilities’ of the Interconnection standard. Contrary to the Joint Utilities opinion, the inclusion of this definition does not create safety or reliability risks. The DG Advocates are not asking for specific requirements and standards regarding

islandable systems. Instead, the inclusion offers protection against arbitrary, irrelevant and cost-producing terms and conditions for islandable system interconnection.

The requested definition of islandable systems is:

1.2 (b) Islandable System. An Islandable System is a Generating Facility interconnected to a bus common with the Utility's system, where the Generating Facility is designed to serve part of the Utility grid that has become or is purposefully separated from the rest of the grid.

Currently there are no rules, standards, or protocols governing this type of Generating Facility operation. The ACC may revisit Islandable Systems after a successful balloting of IEEE Standard 1547.4.

Since the work of the stakeholder draft in 2005/06, the interest and need in the market-place for recognizing islandable systems has increased. Islandable systems are key characteristics of microgrids. Regional efforts have begun to implement microgrid applications, including specific research and development proposals. In addition, the approach is key to energy surety application, especially in military applications. As a recent study put it:

“The energy surety microgrid addresses the surety needs of military bases by using a combination of distributed generators and storage to provide power near the load. These surety microgrids go beyond energy savings. They address in a modular and flexible manner a base's requirements for energy safety, security, reliability, sustainability and cost effectiveness. It is widely anticipated that the application of the surety microgrid will produce a much more robust energy system in military and civilian communities in the US and the world.”¹

The DG Advocates suggest that the condition be recognized as the legitimate approach to DG, and be given the proper consideration and response from utilities. Islandable systems already exist on the Arizona service grid, and the terms and conditions of their operation are negotiated. The recognition will protect DG developers from arbitrary, irrelevant and costly negotiating postures from the utilities, and create a fair and level playing field. By recognizing islandable systems, Arizona sends a clear message that it is responsive to the market-place and the growing concern with energy security.

2.2 Utility Rights and Responsibilities

Staff proposes to add a sentence to this section reading: “If facility upgrades are needed to accommodate the Generating Facility, a Utility will reduce the charge to the customer by the amount of any benefits to the grid that are readily quantifiable” (emphasis added)

¹ David Menicucci. Research engineer, Sandia National Labs. Distributed Energy - July/August 2006

The DG Advocates note the "beauty is in the eyes of the beholder". The Joint Utilities claim that "no benefits of non-firm non-dispatchable can ever be quantified because the utility does not control the operation of the Generating Facility." For these utilities, no control means no benefits. The DG Advocates disagree. There are indeed system benefits.

Staff notes that "including the value of benefits when calculating costs may be beneficial," however it believes it may not always be practical to do so, i.e. that the benefits may be difficult to quantify.

In an effort to avoid slowing down the current process by arguing over the value of every potential benefit for a DG system, the DG Advocates suggests resolving the issue by including a quick and efficient process to resolve interconnection disputes between the a utility and an applicant. For suggested language, see e.g., Texas PUCT Rule 25.211(o) which requires the Commission to attempt to resolve interconnection disputes informally within 20 days of filing. Application of a similar process may prove useful for resolving disputes regarding facility upgrades. <http://www.puc.state.tx.us/rules/subrules/electric/25.211/25.211.pdf>

2.5 Non-Circumvention

Staff cites the AECC position which reads:

"A utility and its affiliates shall not use knowledge of proposed distributed generation projects submitted to it for interconnection or study to initiate competing proposals to the customer that offer either discounted rates in return for not installing the distributed generation, or offer competing distributed generation projects. Customers are not precluded from sharing information in their possession regarding a potential distributed generation project with a utility or its affiliates, or from using information regarding a potential distributed generation project to negotiate a discounted rate or other mutually beneficial arrangement with a utility or its affiliates."

The DG Advocates believes that Staff's position on non-circumvention, does not offer any realistic protection to a DG project developer and seeks to call out an existing right of customers that requires no additional protection. We advocate adoption of the original recommendation of the DG Advocates.

A Utility and/or its affiliates shall not use information or knowledge of proposed distributed generation projects submitted to it for interconnection or study to initiate competing proposals to the customer that offer either discounted rates in return for not installing the distributed generation, or offer competing distributed generation projects, unless the rate offered is pursuant to an existing published tariff rate and the rate is available to all other customers in that rate class.

Customers are not precluded from sharing information in their possession regarding a potential distributed generation project with a utility or its affiliates, or from using information regarding a potential distributed generation project to negotiate a discounted rate or other mutually beneficial arrangement with a

utility or its affiliates, so long as any negotiated discounted rates or arrangements are 1) pursuant to an existing published tariff rate, or 2) available to all other customers in that rate class.

In the Ross Labs case (circa 1995) APS offered Ross Labs in Casa Grande their proposal that equaled the value of third party Distributed Generation (Cogeneration at that time) proposal that Ross Labs had previously approved. The APS offer caused Ross Labs not to install DG as recommended in their own internal Facility Report.

When the ACC approved the APS petition and approved the APS' 'by-pass' of the third party DG proposal, the DG industry essentially stopped presenting offers to the industrial customers in Arizona. It became useless and unproductive for parties to submit proposals that APS would simply use to offer a competitive-rate bargain. The Utility could always take the case to the ACC and see if the ACC would allow the utility to play "Let's Make a Deal". The customer has no risk or capital exposure while still managing to receive equivalent financial benefits.

The DG Advocates believe that if the ACC allows a similar "utility bypass" to occur and does nothing to curtail this improper use there will be no major DG installations in Arizona.

The DG Advocates believe that the proposed AECC language simply is a "disguised" method of circumventing but by authorizing the customer do the exact same thing as the Power company would attempt. We encourage the staff to reject such language and instead employ language similar to Texas Section 25.211(j) of the PUCT DG regulations: "[a] utility and its affiliate shall not use such knowledge of the proposed distributed generation projects submitted to it for interconnection or study to prepare competing proposals to the customer that offer either discounted rates in return for not installing the distributed generation, or offer competing distributed generation projects". *Id.*

Alternatively at a minimum the proposed provision should acknowledge that neither the customer nor the utility should be allowed to disclose or discuss any information that the DG developer has contractually designated as confidential.

To the extent ACC R14-2-1606.C.6 or any other Commission regulation contains requirements contrary to the above proposed language, that regulation should also be revised as part of the Commission's DG regulatory process.

Otherwise the Commission will essentially undercut the market's ability to respond to the significant DG requirements contained in the Commission's pending REST rules.

3.7 Disconnect from or Reconnect with the Grid Procedure: Incremental Demand Charges

On this issue, Staff takes the position that the language proposed by the DG Advocates should not be included in the Interconnection Document because “the topic of rates in regard to distributed generation will be addressed separately.”

We submit that this is not a rate issue. The DG Advocates did not propose *reduced or otherwise modified* demand charges for periods when the utility takes a customer’s DG system offline, thus requiring a calculation of a new demand rate. Rather, DG Advocates proposed that during these periods, no incremental demand charges be assessed. A customer’s electric utility service rates, including demand charges, are properly determined in formal rate proceedings with all the rights and responsibilities of interested parties. The issue here however is different – it is a matter of policy as to whether the utility shall have the right to charge for incremental demand when it is the party taking the DG system offline. This issue is wholly appropriate for, and indeed better determined within, the interconnection standards.

Ironically, this issue arises due to the Joint Utilities’ ability to control the output of DG systems, contrary to their argument in regards to Section 2.2.

3.9 Other issues — Distribution or Transmission Line Charge, and Interconnection Operations and Maintenance Costs.

Similar to the issue addressed in Section 3.7 regarding incremental demand charges, Staff takes the position that language on distribution or transmission line charges and interconnection operations and maintenance costs should not be included in the Interconnection Document, that “the topic of rates in regard to distributed generation will be addressed separately.”

There are two issues here. First are such charges are appropriate at all. Second what those charges should be, if the policy is resolved in favor of the utilities. Should the policy be that no such charges are appropriate in a DG context, then the rate matter is moot. The Staff recommendation, taken at face value, appears to *de facto* decide that access and line charges, transformation charges, line loss charges, and charges for operation and maintenance of the utility system's facilities are already acceptable.

We don’t believe that this was the intent of the Staff on these issues.

The DG Advocates note that determining the point of delivery, power flows exported from the DG system, and any facility upgrades necessary for receipt by the utility of DG energy are standard interconnection issues. Indeed, transmission and distribution upgrades, if necessary, are addressed in another section of the interconnection document. Not until these determinations are made does the question of cost arise.

To the extent that a DG facility produces energy in excess of its consumption and exports it to the grid, then the utility will not have to deliver that energy across its

transmission and distribution facilities, thus reducing the load on the utility's existing systems.

We believe the Joint Utilities may have DG facilities confused with independent power producers that require new distribution or transmission lines or transformers. These are significantly different types of facilities and policies for one do not carry over to the other.

The bottom line is that piling extra charges and costs on to a DG system, like the incremental demand charge issue above, is a policy matter first and foremost.

4.4 Application fees

The DG Advocates concur in setting these fees in a process before the ACC.

4.4 Additional Review

Having the opportunity to participate in a process setting the fees for additional review is a fair compromise to all of the parties.

5. Utility Reporting Requirements

We believe that there are significant benefits provided by the DG Advocates' proposal in this matter. In order to monitor the efficacy of the program and to identify any problems, it is important and appropriate to gather the information suggested in the DG Advocates' proposal. Data on applications approved and denied will be useful to the Commission in monitoring the usefulness of the standard in smoothing and accelerating the interconnection process.

It is also appropriate to list specific customers that receive special rate considerations in lieu of connecting to a generating facility. While such considerations must be approved as part of an official ACC proceeding, it is administratively difficult to monitor all such proceedings for special rate considerations, and compiling the data in one place will allow ratepayers to analyze whether their funds are being used appropriately.

Respectfully submitted on February 21, 2007.

By


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All parties of record

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