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August 11, 2005

AZ CORP COMMISSION
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Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Re: Comment on Docket No. E-0000A-99-0431

To Whom It May Concern:

The U.S. Combined Heat and Power Association (USCHPA) is pleased to comment on your Distributed Generation Workshop: Interconnection Issues docket. We applaud the Arizona Corporation Commission for initiating these proceedings, and hope that our comments help you to maximize the effectiveness of your interconnection standard.

The USCHPA brings together diverse market interests to promote the growth of clean, efficient CHP in the United States. It is a private, non-profit association, formed in 1999 to promote the merits of CHP and achieve public policy support.

The USCHPA and its members have been active participants in interconnection proceedings in virtually all jurisdictions, including California, Texas, Massachusetts, Illinois, New York, New Jersey and FERC. It is from this experience that **we strongly encourage Arizona to adopt the strawman standard proposed by American Solar Energy Industry Association et al** as you move forward in your important proceeding. Conversely, we urge the state not to use the comments prepared by the Arizona utilities, as their proposal:

- (a) would provide too much discretion to the utilities, and therefore too little certainty to interconnecting customers in matters of cost and schedule, and
- (b) do not fully incorporate IEEE 1547, which has become the de facto national standard based on its *complete* incorporation in other jurisdictions.

Historically, many electric utilities have raised technically unreasonable objections to interconnection of non-utility generators as an indirect means to protect kWh sales, and thus utility revenue. The national trend towards interconnection standards is slowly but inexorably eliminating this barrier to competition, and we commend you for your contribution to this effort. In order to facilitate this process, we offer the following observations on national, "best in class" interconnection standards, such that Arizona may learn and advance from the progress made in other jurisdictions.

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While no one standard is perfect, each standard has built on those that have come before in important areas. As these standards advance, they reduce barriers to competitive, non-utility power sources and thus help lower the cost of energy, encourage the deployment of clean, end-of-the-wire generation and help to facilitate the development of an emerging industry. In our judgment, the current "best-in-class" standards on selected standard criteria are as follows:

Hardware Requirements (Radial Grids)

IEEE 1547 has become the de facto standard in all states for the hardware requirements for interconnection on radial grids. It is incorporated *in toto* in CA, NY, MA and NJ standards, to name just a few. The final interconnection rule adopted in Arizona incorporate IEEE 1547 in its entirety.

Network Interconnection

Interconnection to radial electric grids is largely settled at this point, with a national consensus emerging around IEEE 1547 and screen-based applications (see next). However, interconnection to network grids has not yet gained such consensus either at IEEE or among the few states that have developed network standards. Given this immaturity, and the susceptibility of these urban (network) areas to blackouts during peak grid usage, network standards development should be a primary focus of all emerging interconnection standards. As a strawman for Arizona, we would recommend New York's network interconnection standard, as it is far superior in terms of the range of DG technologies covered to any those in any other jurisdiction.

Basis for Application

Most jurisdictions are transitioning to a screen-based protocol for assessing the requirements for any particular interconnection, as opposed to one that was limited only to the size of the generator. This approach has more technical validity, insofar as it is based on the impact that a particular generator will have on a particular section of the state electric grid, rather than unnecessarily excluding generators with no adverse grid impact. CA, MA, TX and FERC all rely on a similar screen-based methodology. We would encourage Arizona to adopt the methodology proposed by American Solar Energy Industry Association et al, which is derived from the FERC approach.

Dispute Resolution

While most treat that an interconnection standard as a technical document, its commercial terms can require comparable effort, and can be more important to the overall effectiveness of the standard. Included in these commercial terms *must* be a dispute resolution process that equitably addresses the disparity in resources between the utility and interconnecting customer, if only to put "teeth" in the technical standard. Our judgment is that NY and MA have the two best approaches, for quite different reasons:

- New York has appointed staff at the NYPSC dedicated to interconnection issues, who have intimate familiarity with both the details of the state interconnection standard and with the electrical challenges associated with interconnection. The expertise of these staff enables the state to make time- and cost-effective judgments in response to an interconnection dispute, even though the state does not have a formal dispute resolution process.
- Massachusetts has developed a detailed Alternative Dispute Resolution process, modeled on existing state standards for telecoms disputes. This process ensures that in the case of an interconnection dispute, the disputing party is ensured a quick, low-cost decision, even though the staff at the MA DTE may not have detailed understandings of the technical issues at hand. (See <http://www.mass.gov/dte/electric/02-38/515tariff.pdf> for details, Section 9.0.)

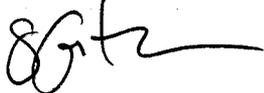
Information Tracking

As noted previously, “best in class” national interconnection standards are a moving target, advancing new state’s standard. Given the understandable conservative bias of many standards (“walk before you run”), we expect the technical requirements, application fees and timelines for application processing to all become more “DG-friendly” in upcoming years as experience allows states to remove the overly cautious elements of past standards. However, if this structure for regular modernization is not built into a standard from the start, a state standard can become cemented and outdated shortly after it’s adoption. It is for this reason that the best standards incorporate regular “information tracking” into their standard. Both MA and CA have effective models for this process.¹ Likewise, the New York standard has been continuously modernized since it was first introduced (although not by a formalized process).

We recognize that not all of these issues are incorporated in the Arizona “strawman” standards. However, of those proposed we believe that the American Solar Energy Industry Association et al proposal is much closer to these “best in class” provisions, and encourage the state to use that standard as a starting point for subsequent consideration.

Should you have any additional questions, or require further guidance on this issue, or any other related to the deployment of combined heat and power in Arizona, please do not hesitate to contact us.

Sincerely,



Sean Casten
Chair, Energy Issues Committee

¹ These information tracking processes also provide a structure to monitor utility compliance with standards on issues of application timelines, costs for application processing, etc. to ensure that the commercial requirements of the standards in these states are indeed being met.