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ME Consultants
10202 N. 58th Place
Scottsdale, Arizona 85253
(480) 703-1951
joemcguirk@gmail.com

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AZ CORP COMMISSION
DOCUMENT CONTROL
Mr. Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Arizona Corporation Commission
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Re STAFF REPORT ON PROPOSED CHANGES TO THE ENVIRONMENTAL PORTFOLIO STANDARD RULES (DOCKET NOS. RE-00000C-00-0377 AND RE-00000C-05-0030)

Dear Mr. Johnson:

In response to your January 21, 2005 request for comments and recommendations about the Staff Report, following are ME Consultants' comments and recommendations:

COMMENTS:

1. The chart "Revised Annual Solar Electricity Requirements for the Portfolio Standard" on page 13 of the report shows in 2012 that 331,484 MWhr of retail sales would be required from solar electric sources. For a solar facility operating at a capacity factor of about 24%, a plant size of 159 MW would be required to produce this amount of energy.

At the same time, 662,967 MWhr would be required from power purchase agreements and 414,354 MWhr would be required from distributed renewable energy sources. If capacity factors of 25% were realized from these sources, their corresponding sizes would be 303 MW from power purchase agreements, and 189 MW from distributed renewable energy sources.

The total EPS capacity, including a 15% Other category, would be 757 MW, based on the above-stated assumptions. In addition, Arizona generating capacity in 2012 might be approximately 30,462 MW, using Platt's POWERdat April 2002 data escalated at 3% per year. (These calculations would be more accurate if they were adjusted for the following factors: ACC regulated retail sales do not include SRP, some sales in Arizona come from capacity outside the state, and other generation from Arizona capacity is not sold in Arizona.)

This outcome for 2012 would be about 2.5% renewable energy capacity as a % of total capacity in Arizona, to get the 3.5% energy requirement. Similar values for 2015, 2020 and 2025 are shown on the attached chart. **These are very modest goals, representing a "market-driven", hands-off approach.** They reflect a regulated utility philosophy of least cost and high reliability.

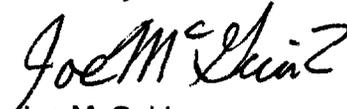
2. The proposed rules should allow for "overlap" between the allocation categories. For example, if the 20% allocation for solar electric is used up, additional allocation could be obtained from power purchase agreements category if that category were not "full".
3. In any event, the proposed rule changes place the development of large-scale solar at a distinct disadvantage vs. the other technologies/allocation categories included in the EPS program. Does the ACC really believe that all of the "small" technologies with aggregate to anything substantial? What about marketing and ownership costs? A truly utility-scale approach will have much greater impact.
4. The Western Governors Association goal of 1,000 MW of concentrating solar power in the Southwestern US by 2015 would receive about 25% of that energy from Arizona according to the scenario describe above. Is Arizona satisfied with this level of commitment?
5. Arizona is already known for promoting nuclear and natural gas at the expense of solar. Will wind be the next alternative to delay the introduction of solar in a significant way?

RECOMMENDATIONS:

1. Increase the solar electric allocation to 50%.
2. Increase the surcharge schedule recommended by Staff by another 50% to support large-scale solar.
3. As an alternative to ACC-mandated surcharges, encourage the development of a Solar Energy Improvement District (SEID) in Arizona. The elements of a SEID are:
 - Build solar farms throughout the state to produce electricity
 - Encourage landowners (i.e., farmers) to grow electricity instead of agriculture crops. If necessary, use federal land
 - Incorporate the higher costs for solar energy into the rate base so that all customers pay for the benefits derived from the cleaner energy source
 - Look at low capacity-factor, high energy value (peaking) markets
 - Define the Solar Energy Improvement District as the solar farmers and utility customers who are aggregated to fund and benefit from the project
 - The initial solar technology would be the natural gas-assisted solar thermal trough system. Other possible technologies are solar thermal central receivers (power towers), and concentrating photovoltaics
 - The goal is 500 MW of solar in Arizona within the next 5 years

Thank you for the opportunity to be involved in this important Commission activity.

Sincerely,


Joe McGuirk
President

Year	Regulated A/C Retail Sales MWhr	(est.) (est.) Arizona Capacity MWh	% of Retail Sales	EPS Schedule			Solar Electric			Distributed Renewable Energy			Power Purchase Agreements			Other						
				Capacity (@ 25% Factor) MW	Renewable Energy Capacity as a % of Est. Capacity	% of EPS Energy	Solar Electric Capacity (23.8% @ 17.8% Capacity Factor) MW	Capacity (@ 25% Factor) MW	% of EPS Energy	Distributed Renewable Energy MWhr	Capacity (@ 25% Factor) MW	% of EPS Energy	Power Purchase Energy MWhr	Capacity (@ 25% Factor) MW	% of EPS Energy		Other Energy MWh	Capacity (@ 25% Factor) MW				
2002	35,236,414	22,667																				
2003	36,293,506	23,347																				
2004	37,382,311	24,047																				
2005	38,503,781	24,768																				
2006	39,658,894	25,512																				
2007	40,848,861	26,277																				
2008	42,074,121	27,065																				
2009	43,336,344	27,877																				
2010	44,638,435	28,713																				
2011	45,975,528	29,575																				
2012									312,542	150	200											
(current)																						
2012	47,264,798	30,482	3.5	1,657,418	757	2.5	321,484	169	219	25	414,869	199	40	646,823	295	40	1,034,917	473	15	388,094	177	
2013	48,775,437	31,376																				
2014	50,238,700	32,317																				
2015	51,745,861	33,287	5	2,587,293	1,181	3.5	517,459	248	332	25	646,823	295	40	1,034,917	473	15	388,094	177				
2016	53,298,237	34,285																				
2017	54,897,184	35,314																				
2018	56,544,100	36,373																				
2019	58,240,423	37,465																				
2020	59,987,536	38,588	10	5,998,764	2,739	7.1	1,199,753	575	769	25	1,499,691	665	40	2,399,505	1,096	15	899,815	411				
2021	61,787,265	39,746																				
2022	63,640,883	40,939																				
2023	65,550,109	42,167																				
2024	67,516,612	43,432																				
2025	69,542,111	44,736	15	10,431,317	4,789	10.8	2,086,263	1,001	1,358	25	2,697,633	1,191	40	4,173,277	2,006	15	1,172,277	544				

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