BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE NOTICE OF PROPOSED ELECTRIC ENERGY EFFICIENCY RULES

Docket No. RE-00000C-09-0427

SWEEP COMMENTS ON THE DRAFT PROPOSED ELECTRIC ENERGY EFFICIENCY RULES

December 11, 2009

The Southwest Energy Efficiency Project (SWEEP) appreciates the opportunity to submit its comments on the *revised* draft of the proposed Electric Energy Efficiency Rules filed by Commission Staff on December 4, 2009.

SWEEP supports the majority of Staff's revised draft of the proposed Energy Efficiency Rules and the Energy Efficiency Standard (EES) set forth therein. SWEEP provides the following comments to improve the effectiveness of the draft proposed Rule in several areas, including the specification of the EES and the percentages for each year, a reasonable ramp-up period, the resources eligible for the EES, a credit for demand response, a credit for program energy savings prior to 2011, the performance incentives, financial disincentives and fixed cost recovery, and other sections of the proposed Rule. All of these issues were discussed during the workshop process and in prior comments.

Increasing energy efficiency is in the public interest because doing so will provide significant and cost-effective benefits for Arizona customers (residential consumers and businesses), the electric system, the economy, and the environment. Increasing energy efficiency will save money for consumers and businesses through lower electric bills, resulting in lower total costs for customers. Increasing energy efficiency will also reduce load growth, diversify energy resources, enhance the reliability of the electricity grid, reduce the amount of water used for power generation, reduce air pollution and carbon emissions, and create jobs and improve the Arizona economy.

Therefore, SWEEP urges the Commission to adopt the Energy Efficiency Rule and the Energy Efficiency Standard, with the revisions SWEEP recommends herein.

COMMENTS ON THE REVISED PROPOSED ENERGY EFFICIENCY RULE

1. **The specification of the Energy Efficiency Standard (EES) in R14-2-2404 should be revised to:**
   (a) State explicitly the cumulative annual energy savings resulting from the standard by 2020 (i.e., 22% by 2020) rather than specifying only the energy savings in each year, so that the Commission can clearly communicate the full impact of its adopted standard to others;
   (b) By 2020, achieve cumulative annualized energy savings, measured in kWh, equivalent to at least 22% of the affected utility's retail electric energy sales in the prior calendar year;
   (c) Allow a reasonable period for the energy efficiency programs to ramp up to the level of effort necessary to provide the higher levels of energy savings;
   (d) Provide a credit of up to 2% of the EES cumulative annualized energy savings requirements for measured peak demand reductions from demand response programs.

To address the comments above, all of which were discussed extensively in the workshops and in prior comments regarding the draft proposed Energy Efficiency Rule, SWEEP recommends the following specification of the EES.

CALENDAR YEAR	ENERGY EFFICIENCY STANDARD (Cumulative Annualized Energy Savings in Each Calendar Year as a Percent of the Retail Energy Sales in the Prior Calendar Year)
2011	1.25%
2012	3.00%
2013	5.00%
2014	7.25%
2015	9.50%
2016	12.00%
2017	14.50%
2018	17.00%
2019	19.50%
2020	22.00%

As shown in the table above, and more fully in the comparison table below, there is a reasonable period (several years) for the programs to ramp up to the level of effort necessary to provide the higher levels of energy savings. This ramp-up period is essential, and it was discussed in the workshops and incorporated in prior drafts of the Rule. The revised draft of the Rule does not include a ramp up period.

During the 2009 EES workshops, SWEEP proposed energy savings of at least 20% of retail energy sales in 2020. Adding a 2% credit for demand response, which was also discussed extensively in the workshops, would result in a total EES of at least 22% by 2020. [1] Also, the resulting 20% by 2020 energy savings level is consistent with the goals of the Western Governors' Association to increase energy efficiency by 20% from projected levels in 2020, and to do so cost effectively.[2]

SWEEP recommends using the actual retail energy sales in the prior year as the basis to which to apply the EES percentages.[3] Using the prior year retail sales as the basis for application of the EES percentages results in a more consistent standard applied across utilities that are growing at different rates (see SWEEP's prior comments filed on November 16, 2009). The required energy savings levels are very consistent even though the retail sales for APS and TEP are forecasted to grow at very different rates.

SWEEP understands and appreciates the value of applying the EES percentages to a known quantity to calculate the savings levels in each year. The SWEEP-recommended approach of using the *prior* year retail sales achieves the objective of providing a known, fixed quantity as a basis for the calculation of the standard for the subsequent year, but does so in a manner that results in higher energy savings and a more consistent standard applied across the utilities.

See the following table, the middle columns, for the application and analysis of SWEEP's proposed approach and the percentages SWEEP recommends for each year. Note that the EES requirements now would begin in 2011, considering the schedule for the Rulemaking at this point (during the workshops the modeling generally started with 2010 as the first year). The columns to the left summarize the percentages in the *revised* draft proposed EES, for comparison. The two columns to the far right show the actual

[1] Throughout its comments, SWEEP generally estimates that an EES standard of 22% in 2020 would result in a combination of 20% *energy savings* and a 2% credit for *peak demand reductions* from demand response programs, totaling 22% in 2020.

[2] Western Governors' Association, Clean and Diversified Energy Initiative, *Energy Efficiency Task Force Report*, January 2006, p. v.

[3] Initially, SWEEP proposed using Total Energy Resources as the basis for applying the EES savings percentages for each year. However, during the EES workshop process, SWEEP agreed to a compromise that would use retail energy sales as the basis for the application of the EES percentages.

cumulative and annual percent energy savings that would result (the true energy savings) once the 2% credit for demand response peak load reductions is considered. SWEEP recommends applying the credit for demand response at 10% per year up to the 2% maximum credit in any year.

	EES in Draft Rule 12/04/09		EES SWEEP Proposal		Resulting % Energy Savings	
Year	EES: Energy Efficiency Standard as % of Prior Year Retail Sales	Nominal Annual Percent Savings	EES: Energy Efficiency Standard as % of Retail Sales in Prior Year	Nominal Annual Percent Savings	Cumulative Annual Energy Savings as % of Retail Sales in Prior Year	Nominal Annual Percent Energy Savings
2005					*Estimated Resulting % Energy Savings*	
2006						
2007						
2008						
2009						
2010						
2011	2.00%	2.00%	1.25%	1.25%	1.13%	1.13%
2012	4.00%	2.00%	3.00%	1.75%	2.70%	1.58%
2013	6.00%	2.00%	5.00%	2.00%	4.50%	1.80%
2014	8.00%	2.00%	7.25%	2.25%	6.53%	2.03%
2015	10.00%	2.00%	9.50%	2.25%	8.55%	2.03%
2016	11.75%	1.75%	12.00%	2.50%	10.80%	2.25%
2017	13.50%	1.75%	14.50%	2.50%	13.05%	2.25%
2018	15.25%	1.75%	17.00%	2.50%	15.30%	2.25%
2019	17.00%	1.75%	19.50%	2.50%	17.55%	2.25%
2020	18.75%	1.75%	22.00%	2.50%	20.00%	2.45%
					Resulting % for energy savings (new and prior)	
					Maximum 2% credit for DR to get to 22%	
					Applied as a 10% annual credit for DR peak kW savings	

See the attachments for examples of the application of the SWEEP-proposed EES percentages to APS and TEP.

2. SWEEP recommends that the following resources should be eligible for meeting the EES.

- Reported energy savings from Commission-approved programs in 2005-2010 should be allowed to be credited to help meet the EES during the last five years (2016-2020), beginning in 2016. The credit for pre-2011 savings should be applied as follows (as a percent of the total pre-2011 annual energy savings that may be applied as a credit in each year):

2016	7.5%
2017	15.0%
2018	20.0%
2019	25.0%
2020	32.5%
	100.0%

- Energy savings from Combined Heat and Power (CHP) installations should count towards meeting the EES.
- Energy savings resulting from a DSM building code and standards support and training program that can be quantified and reported in a reliable manner (through an evaluation study) should be able to be counted towards meeting the EES, capped at 1/3 of the code or standard savings.

Improvements to utility delivery systems should not count towards the EES.

3. SWEEP provides the following additional comments on the revised draft of the proposed Energy Efficiency Rule.

- To address the financial disincentives to utility program administrators associated with higher levels of energy efficiency program savings, SWEEP recommends that the Commission include language in the Rule that would require the Commission to consider and address the issue of financial disincentives and unrecovered fixed costs associated with the EES in each affected utility's rate case filed after the effective date of the Rule.
- While a performance incentive should be authorized generally in the Rule, the detailed specification of the performance incentive mechanism should not be set forth in the Rule. The specification of the performance incentive mechanism should be in the Implementation Plan. The Commission will likely want to revise

the Performance incentive at some point, and it would be extremely difficult and time consuming to do so through a rulemaking process.

- The definition of the Societal Test should be less detailed. There are several efforts in the industry currently underway to revise or better specify the standard tests, and Arizona practice may wish to consider such revisions as part of the review of Implementation Plans rather than in Rule specifications. Also, currently there are disagreements in Arizona regarding the application of the Societal Test and the treatment of carrying costs for capacity, and these disagreements are not resolved at this point – and therefore should not be specified in the Rule.
- The cost-effectiveness section should be permissive and allow that the analysis *may* include the consideration of environmental benefits.
- If the Energy Efficiency Implementation Plan is going to be changed to a two-year plan rather than an annual plan (which SWEEP does not support), there needs to be a process for an annual reset of DSMAC in any event, so there will need to be an update filing of some kind annually.
- Regarding the pie charts for the surcharges in 2409(E) -- if it is disclosure that one is seeking, then SWEEP suggests the Commission should also require disclosure of the characteristics and costs of all resources, e.g., how much coal and other resources are being used and paid for in the customer bill. This issue would best be addressed in a separate proceeding.
- There are some sections of the Rule that are more focused on DSM vs. energy efficiency. The Rule and its title may need to be revised to clarify the intent and scope of the Rule.

Thank you for the opportunity to submit these comments on the *revised* draft proposed Energy Efficiency Rules and Energy Efficiency Standard.

ENERGY EFFICIENCY STANDARD (EES) DRAFT RULES: 22% by 2020

Southwest Energy Efficiency Project (SWEEP)

APS Example

EES % as floor; programs should achieve all available cost-effective EE

Net Energy Savings Impact, with 20% EE, and 2% DR Credit of the 22% Total (Does not analyze the 3% credit for prior savings)

	APS Forecast of Retail Energy Sales				EES in Draft Rule 12/04/09		EES SWEEP Proposal		Resulting % Energy Savings		Net Energy Savings at Customer Meter		Savings as % of Forecasted Retail Sales		Savings as % of Sales Adjusted for EE Savings	
	Forecast of Sales		Adjusted Sales													
Year	Retail Energy Sales Forecast (MWh)	% Annual Sales Growth	Adjusted Retail Energy Sales (MWh)*	% Annual Sales Growth	EES: Energy Efficiency Standard as % of Prior Year Retail Sales	Nominal Annual Percent Savings	EES: Energy Efficiency Standard as % of Retail Sales in Prior Year	Nominal Annual Percent Savings	Cumulative Annual Energy Savings as % of Retail Sales in Prior Year	Nominal Annual Percent Energy Savings	Cumulative Annual Energy Savings (MWh)	Incremental Annual Energy Savings (MWh)	Cumulative Annual Energy Savings as a % of Forecasted Retail Sales	Annual Energy Savings as % of Forecasted Retail Sales	Cumulative Annual Energy Savings as % of Adjusted Retail Sales*	Annual Energy Savings as % of Adjusted Retail Sales*
2005	26,477,551		26,477,551						*Estimated Resulting % Energy Savings*		*17,967*	*17,967*				
2006	27,970,397	5.6%	27,970,397	5.6%							*94,433*	*76,467*				
2007	29,171,321	4.3%	29,171,321	4.3%							*288,279*	*193,846*				
2008	28,793,588	-1.3%	28,793,588	-1.3%							*524,552*	*236,273*				
2009	29,220,779	1.5%	29,220,779	1.5%							*739,765*	*215,213*				
2010	29,591,837	1.3%	28,555,225	-2.3%							*1,036,611*	*296,846*	*3.50%*	*1.00%*	*3.63%*	*1.04%*
2011	29,962,894	1.3%	29,641,648	3.8%	2.00%	2.00%	1.25%	1.25%	1.13%	1.13%	321,246	321,246	1.07%	1.07%	1.08%	1.08%
2012	30,426,716	1.5%	29,626,392	-0.1%	4.00%	2.00%	3.00%	1.75%	2.70%	1.58%	800,324	479,078	2.63%	1.57%	2.70%	1.62%
2013	31,168,831	2.4%	29,835,644	0.7%	6.00%	2.00%	5.00%	2.00%	4.50%	1.80%	1,333,188	532,863	4.28%	1.71%	4.47%	1.79%
2014	32,189,239	3.3%	30,242,464	1.4%	8.00%	2.00%	7.25%	2.25%	6.53%	2.03%	1,946,776	613,588	6.05%	1.91%	6.44%	2.03%
2015	33,395,176	3.7%	30,809,446	1.9%	10.00%	2.00%	9.50%	2.25%	8.55%	2.03%	2,585,731	638,955	7.74%	1.91%	8.39%	2.07%
2016	34,647,495	3.8%	31,320,075	1.7%	11.75%	1.75%	12.00%	2.50%	10.80%	2.25%	3,327,420	741,689	9.60%	2.14%	10.62%	2.37%
2017	35,946,197	3.7%	31,858,927	1.7%	13.50%	1.75%	14.50%	2.50%	13.05%	2.25%	4,087,270	759,850	11.37%	2.11%	12.83%	2.39%
2018	37,198,516	3.5%	32,324,100	1.5%	15.25%	1.75%	17.00%	2.50%	15.30%	2.25%	4,874,416	787,146	13.10%	2.12%	15.08%	2.44%
2019	38,404,453	3.2%	32,731,573	1.3%	17.00%	1.75%	19.50%	2.50%	17.55%	2.25%	5,672,880	798,464	14.77%	2.08%	17.33%	2.44%
2020	39,610,390	3.1%	33,064,075	1.0%	18.75%	1.75%	22.00%	2.50%	20.00%	2.45%	6,546,315	873,435	16.53%	2.21%	19.80%	2.64%
20%		2.80%		1.13%					Resulting % for energy savings (new and prior)		32,532,176					
of 2020	7,922,078										6,546,315					
	Losses: 1.078								Maximum 2% credit for DR to get to 22%		17.4% lower					
									Applied as a 10% annual credit for DR peak kW savings		63.0% of sales growth (forecasted)				Adjusted 2020 Sales*	33,064,075
															Adjusted Growth	3,843,296

Notes:

Example forecast above based on APS forecast of retail sales (from EES workshops)

* Forecasted retail sales are adjusted by subtracting the cumulative annual energy savings.
This results in "adjusted" retail sales accounting for the impact of the energy efficiency savings.

ENERGY EFFICIENCY STANDARD (EES) DRAFT RULES: 22% by 2020

Southwest Energy Efficiency Project (SWEEP)

TEP Example

EES % as floor; programs should achieve all available cost-effective EE

Net Energy Savings Impact, with 20% EE, and 2% DR Credit of the 22% Total (Does not analyze the 3% credit for prior savings)

	APS Forecast of Retail Energy Sales				EES in Draft Rule 12/04/09		EES SWEEP Proposal		Resulting % Energy Savings		Energy Savings		Savings as % of Forecasted Retail Sales		Savings as % of Sales Adjusted for EE Savings	
	Forecast of Sales		Adjusted Sales													
Year	Retail Energy Sales Forecast (MWh)	% Annual Sales Growth	Adjusted Retail Energy Sales (MWh)*	% Annual Sales Growth	EES: Energy Efficiency Standard as % of 2005 Retail Sales	Nominal Annual Percent Savings	EES: Energy Efficiency Standard as % of Retail Sales in Prior Year	Nominal Annual Percent Savings	Cumulative Annual Energy Savings as % of Retail Sales in Prior Year	Nominal Annual Percent Energy Savings	Cumulative Annual Energy Savings (MWh)	Incremental Annual Energy Savings (MWh)	Cumulative Annual Energy Savings as a % of Forecasted Retail Sales	Annual Energy Savings as % of Forecasted Retail Sales	Cumulative Annual Energy Savings as % of Adjusted Retail Sales*	Annual Energy Savings as % of Adjusted Retail Sales*
2005	8,874,985		8,874,985						*Estimated Resulting % Energy Savings*		*7,003*	*7,003*				
2006	9,201,419	3.7%	9,201,419	3.7%							*12,204*	*5,201*				
2007	9,634,406	4.7%	9,634,406	4.7%							*15,564*	*3,360*				
2008	9,502,644	-1.4%	9,502,644	-1.4%							*38,454*	*22,890*				
2009	9,505,340	0.0%	9,505,340	0.0%							*79,513*	*41,059*				
2010	9,653,820	1.6%	9,504,022	0.0%							*149,798*	*70,285*	*1.55%*	*0.73%*	*1.58%*	*0.74%*
2011	9,813,592	1.7%	9,706,672	2.1%	2.00%	2.00%	1.25%	1.25%	1.13%	1.13%	106,920	106,920	1.09%	1.09%	1.10%	1.10%
2012	10,003,633	1.9%	9,741,553	0.4%	4.00%	2.00%	3.00%	1.75%	2.70%	1.58%	262,080	155,160	2.62%	1.55%	2.69%	1.59%
2013	10,147,800	1.4%	9,709,430	-0.3%	6.00%	2.00%	5.00%	2.00%	4.50%	1.80%	438,370	176,290	4.32%	1.74%	4.51%	1.82%
2014	10,299,385	1.5%	9,665,845	-0.4%	8.00%	2.00%	7.25%	2.25%	6.53%	2.03%	633,540	195,170	6.15%	1.89%	6.55%	2.02%
2015	10,452,599	1.5%	9,626,169	-0.4%	10.00%	2.00%	9.50%	2.25%	8.55%	2.03%	826,430	192,889	7.91%	1.85%	8.59%	2.00%
2016	10,600,942	1.4%	9,561,315	-0.7%	11.75%	1.75%	12.00%	2.50%	10.80%	2.25%	1,039,626	213,197	9.81%	2.01%	10.87%	2.23%
2017	10,743,598	1.3%	9,495,846	-0.7%	13.50%	1.75%	14.50%	2.50%	13.05%	2.25%	1,247,752	208,125	11.61%	1.94%	13.14%	2.19%
2018	10,884,712	1.3%	9,431,847	-0.7%	15.25%	1.75%	17.00%	2.50%	15.30%	2.25%	1,452,864	205,113	13.35%	1.88%	15.40%	2.17%
2019	11,022,755	1.3%	9,367,466	-0.7%	17.00%	1.75%	19.50%	2.50%	17.55%	2.25%	1,655,289	202,425	15.02%	1.84%	17.67%	2.16%
2020	11,164,391	1.3%	9,290,898	-0.8%	18.75%	1.75%	22.00%	2.50%	20.00%	2.45%	1,873,493	218,204	16.78%	1.95%	20.16%	2.35%
20%		1.47%		-0.21%					Resulting % for energy savings (new and prior)		9,686,163					
of 2020	2,232,878										1,873,493					
	Losses:								Maximum 2% credit for DR to get to 22%		16.1% lower					
	1.078															
									Applied as a 10% annual credit for DR peak kW savings		112.9% of sales growth (forecasted)				Adjusted 2020 Sales*	9,290,898
															Adjusted Growth	-214,443

Notes:

Example forecast above based on TEP forecast of retail sales

* *Forecasted* retail sales are adjusted by subtracting the cumulative annual energy savings.
This results in "adjusted" retail sales accounting for the impact of the *energy efficiency* savings.