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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Mike Gleason, Chairman  
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AZ CORP COMMISSION  
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IN THE MATTER OF THE  
APPLICATION OF UNS ELECTRIC,  
INC. FOR APPROVAL OF THE  
ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND  
CHARGES DESIGNED TO REALIZE  
A REASONABLE RATE OF RETURN  
ON THE FAIR VALUE OF THE  
PROPERTIES OF UNS ELECTRIC,  
INC.

Docket No. E-04204A-06-0783

Notice and Filing of the

Opening Brief

of

Marshall Magruder

05 November 2007

As provided by the Procedural Orders of 1 February 2007, 27 March 2007, and 25 June 2007, 29 October 2007, and instructions on 2 October 2007, herein is the Opening Brief of Marshall Magruder.

I certify this filing has been mailed to all known and interested parties, as shown on the Service List.

Respectfully submitted on this 5<sup>th</sup> day of November 2007

MARSHALL MAGRUDER

By Marshall Magruder

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1 **Service List**

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**OPENING BRIEF**

**OF**

**MARSHALL MAGRUDER**

**05 November 2007**

**In the matter of  
the**

**APPLICATION  
OF UNS ELECTRIC, INC.,  
FOR THE APPROVAL OF THE  
ESTABLISHMENT OF JUST AND REASONABLE  
RATES AND CHARGES  
DESIGNED TO REALIZE A  
REASONABLE RATE OF RETURN ON THE  
FAIR VALUE OF THE PROPERTIES OF  
UNS ELECTRIC, INC.**

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7 **of**  
8 **Marshall Magruder**

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**OPENING BRIEF  
OF  
MARSHALL MAGRUDER**

**PART I – INTRODUCTION**

**1.1 Organization of this Opening Brief.**

This brief is a summary of recommendations based on testimonies in this matter. Each recommendation, in §1.2 below, is presented in Part II that

- a. Defined and discussed the issue(s) with source references for evidentiary basis used to determine conclusions and recommendations, with
- b. Stated conclusions,
- c. Summarized supporting facts and findings, and
- d. Provided action-oriented recommendations for the Commission.

The appendix has a copy of Exhibit M-15 for action consideration by the Commission.

**1.2 Summary of Recommendations in this Matter before the Commission.**

In my testimonies and those of other parties, facts and conclusions from these proceeding have been proven facts and concluded recommendations for the Commission to

- a. Orders the Mohave and Santa Cruz service areas residential rates and small general service rates be combined as proposed by the Company in §2.1;
- b. Orders the Company to implement its proposed mandatory Time of Use rate structure for all new customers. The Commission also orders that TOU rates be made available to all existing customers within 30 days at no charge for changing meters in §2.2;
- c. Orders the Company to implement its proposed “reverse slope” rate structure as a cost-oriented customer energy conservation measure in §2.3;
- d. Orders the Company to implement its DSM programs including combining all training and educations activites, delete he Residential Shade Tree DSM Program, and show prudence for all DSM expenses in annual DSM program reviews, in §2.4;
- e. Orders implementing the annual DSM, RES, and PPFAC rate adjustors to be effective on one annual date instead of three, so one annual customer rate change notification and implementation schedule is to unify customer information in one process, in §2.5;
- f. Orders the Company to implement an emergency customer notification program with local first responders whenever an electricity outage occurs to any known customer requiring electricity for a person on life support equipment in §2.6;

- 1 g. Orders the Company to prove completion of all Articles from the City of Nogales  
2 Settlement Agreement in Commission orders including awarding of local scholarships and  
3 re-establishment of the Citizens Action Council in §2.7;
- 4 h. Orders the withholding from rate base \$15.5 million until the Company has accomplished  
5 20 utility pole replacement and 12 underground cable replacement reliability projects  
6 previously ordered by the Commission unless the Company can prove each such project's  
7 reliability will not be improved by these equipment replacement projects in §2.8;
- 8 i. Orders the Company to cease using loan companies as billing agents within 90 days of  
9 this order in §2.9;
- 10 j. Considers implementing the Consumer Law Center's recommendations to avoid  
11 customers from subjection to predatory loan conditions when paying utility bills in §2.10;
- 12 k. Understands that this Company has never meet the Environmental Portfolio Standard but  
13 banked over \$1.8 million in unspent customer-derived ESP funds that were not used to  
14 purchase long-term renewable energy sources, such as providing rebates to customers for  
15 solar electric systems or constructing renewable energy generation sites, and that these  
16 customer-derived funds were mostly used to purchased biogas from TEP as short-term  
17 expenditures in §2.11; and
- 18 j. Orders the Company to rewrite the Company's Rules and Regulations in simple, plain  
19 English and Spanish, provide key portions to all customer, disseminate appropriate  
20 excerpts its Rules and Regulations to new customers, building and construction  
21 companies, reformat the billing statement to increase customer understanding, and absorb  
22 customer debit and credit card fees as a business expense in §2.12 below.
- 23

24 **1.3 Limitations on this Brief.**

25 Transcripts quotations are not included herein due to limited resources, the cost to purchase  
26 the transcripts, and driving over 350 miles to read a transcript was not realistic option for this  
27 party. Evidentiary Exhibits are used for RUCO, ACC Staff, and UNSE testimonial evidence.  
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**PART II**

**SUMMARY OF TESTIMONIES, CONCLUSIONS, FACTS AND  
RECOMMENDATIONS TO THE COMMISSION**

**2.1 Organization of Part II.**

Each recommendation in §1.2 above is presented to

- a. Define and discuss the issue with source references,
- b. State conclusions,
- c. Summarize supporting facts and findings, and
- d. Provide the Commission with action-oriented recommendations

**2.2 Recommend Combine the Residential and Small Business Rates in Santa Cruz and Mohave Service Areas.**

- a. Issues. Due to the legacy as separate companies acquired by Citizens Utilities decades ago, the rate tariffs in Mohave and Santa Cruz County were different. Over the years, these rate tariffs have been combined at the larger customer rate categories and narrowed during rate cases for residential (including CARES) and small business service customers. [Ex. UNSE-26 at 20]

As shown in Magruder Exhibits M-1 and M-29, the Company has proposed to combine the energy charge tariffs for these two rate categories as contained in its Final Schedules of 11 October 2007. Magruder showed there would be rate reductions in Santa Cruz service area for these two customer categories, even after including the Purchase Power and Fuel Adjustment Clause (PPFAC) rate adjustor and Black Mountain Generation Station (BMGS) costs were included, a 0.8% decrease for residential customers and 17.5% for small general service [Ex M-1, M-29].

Since the last rate case in 1997 and before, this disparity in rates has resulted in Santa Cruz service area customers paying more for electricity than the same customers in Mohave County. The Company's proposal eliminates this discriminatory practice and to reduce its administration cost. Arizona Public Service has one rate structure throughout Arizona for each rate category. [Ex. UNSE-27 at 15] No justification was presented for two rate structures.

The ACC Staff opposes combining these rate tariffs. The Staff argument presented is to prevent "rate shock" in Mohave service area and to spread this rate adjustment over the next two rate cases. [Ex. S-62 at 5, S-61 at 20-21]

The UNSE, ACC Staff and RUCO Final Schedules will continue only to 1 June 2008; when additional major energy cost increases are expected under the new PPFAC provision

1 and potentially for BMGS costs. Mr. Pignatelli Rejoinder stated the new PPFAC impacts will  
 2 increase costs on the average about 15% higher after 1 June 2008, which is on top of the  
 3 Company's average rate increase of 5.5%. [Ex. UNSE-7 at 0]

4 Using combined rates recommended by the Company, for natural gas fuel costs  
 5 ranging from \$6.00 to \$9.00, the proposed residential rate increases are between 6.8% and  
 6 34.2% for June 2008 to June 2009, after the planned PPFAC changes in June 2008 [Ex.  
 7 UNSE-43; S-56 at 1]. These increases are shown in Table 1 below.

8  
 9 **Table 1 – Proposed Monthly Residential and Small General Service Rates Differences in the  
 Santa Cruz and Mohave Areas at Present, Before, and After June 2008**

10 Condition – Gas @7.50/mmbtu	11 SANTA CRUZ		12 MOHAVE	
13 <u>RESIDENTIAL for 1,000 kWh</u>	Rate In Dollars (\$)	Change from Present (%)	Rate In Dollars (\$)	Change from Present (%)
14 <b>Present rates</b>	<b>\$104.05</b>	<b>Present</b>	<b>\$99.65</b>	<b>Present</b>
15 ACC Staff <u>Not Combined before</u> June 2008	\$105.05	+1.00%	\$102.19	+2.50%
16 <b>Company Combined before</b> <b>June 2008</b>	<b>\$100.53</b>	<b>-3.48%</b>	<b>\$100.53</b>	<b>+1.12%</b>
17 <b>Company Combined after June</b> <b>2008 with PPFAC, BMGS</b>	<b>\$116.34</b>	<b>+11.81%</b>	<b>\$116.34</b>	<b>+16.74%</b>
18 <u>SMALL GENERAL SERVICE</u> <u>for 5,000 kWh</u>	Rate In Dollars (\$)	Change from Present (%)	Rate In Dollars (\$)	Change from Present (%)
19 <b>Present rates</b>	<b>\$692.75</b>	<b>Present</b>	<b>\$473.75</b>	<b>Present</b>
20 ACC Staff <u>Not Combined before</u> June 2008	\$694.75	+0.30%	\$480.68	+1.50%
21 <b>Company Combined before</b> <b>June 2008</b>	<b>\$564.14</b>	<b>-18.56%</b>	<b>\$564.14</b>	<b>+19.07%</b>
22 <b>Company Combined after June</b> <b>2008 with PPFAC, BMGS</b>	<b>\$650.18</b>	<b>-6.15%</b>	<b>\$650.18</b>	<b>+37.40%</b>

23 **Note:** Residential for 1000 kWh is from Ex. UNSE-44 at 1 and Small General Service for 5,000 kWh is  
 24 from Ex. UNSE-44 at 3, the percent changes determined from present rates, calculated for combined  
 25 before June 2008, and for combined from Ex. UNSE-44 including PPFAC, BMGS after June 2008;  
 26 ACC Staff values are not for combined before June 2008 from Ex. S-61 FWR-3 at 1 and 3; no ACC  
 27 Staff values were located for after June 2008 with PPFAC. The new DSM and RES Adjustments  
 28 and various taxes and fees are not shown, thus actual bill will be higher in all cases.

29  
 30 Table 1 shows the pre-June 2008 ACC Staff recommended rates without combining  
 31 the two counties. There is some narrowing between the two residential rates but is  
 32 insignificant compared to the expected post-June 2008 anticipated increase, thus closing the  
 33 residential gap will be trivial. The small general service rates at 5,000 kWh makes it very easy  
 34 the differences between the two areas under the ACC Staff proposal, with Santa Cruz paying  
 35 \$694.75 compared to Mohave at \$480.68, over \$214 per month [Ex. S-61 FWR-3 at 1, 3].

How can this be fair and reasonable without some very important justification?

1 The Santa Cruz rebuttal to not combine rates is simple. Santa Cruz has always had  
2 higher rates than Mohave as shown in Table 1 shows this for the present rates and ACC Staff  
3 proposed rates. All that is recommended is to finally equalize these rates for the same service  
4 in these two service areas. RUCO and I, and my discussions with our County Board of  
5 Supervisors and the City of Nogales also agree with this a very significant Company's  
6 proposal to eliminate decades of rate discrimination. The results for 1,000 kWh residential, in  
7 June 2008, for natural gas at \$7.50 will result in a total rate increase for Mohave of 16.74%  
8 compared to Santa Cruz rate increase of 11.81% [Ex UNSE-44 at 1]. ACC Staff's concern  
9 about this difference is not significant for residential customers; with Mohave having a 4.93%  
10 (= 16.74 – 11.81) greater increase eliminates this negative aspect of the UNSE rates.

11 No parties fully discussed the major difference between these two service areas that is  
12 for the Small General Service (SGS) rates. The Company proposed reducing Santa Cruz SGS  
13 by 18.56% and increasing Mohave SGS by 19.07% [UNSE Ex 44 at 1, 2].<sup>1</sup> After the PPFAC  
14 adjustment in June 2008 for 5,000 kWh with natural gas at \$7.50, then Santa Cruz SGS will  
15 see a decrease of 6.15% while Mohave SGS will increase by 37.24% [Ex UNSE-44 at 3].  
16 This difference is 43.39% {37.24 – (-6.15)} and 6 % higher than proposed which included the  
17 new PPFAC and BGMS rate changes after June 2009 [Ex M-1, M-29].

18 This difference is extremely important for Santa Cruz County and City of Nogales small  
19 businesses, the dominant economic engine in this small and mostly rural county. Santa Cruz  
20 small businesses have suffered significant economic losses for many decades from the  
21 present unfair and discriminatory rates at least 35% higher than this Company's customers in  
22 another county for the same electricity usage. This rate case should stop now, and not  
23 continue, this practice anymore and not to "wait" for the next rate case. No justification exists  
24 for this difference between two counties.

25 b. Conclusions. Rate tariffs should be the same in all service areas, otherwise, without any  
26 justification; one service area will pay more for the same services provided to another.  
27 Combined residential and small business rates must be combined to eliminate a significant  
28 rate discrimination that has existed for several decades.

29 c. Facts and Findings.

- 30 1. Santa Cruz service area residential (including CARES) and small general service rates are  
31 considerably higher than these same rate categories in Mohave service area
- 32 2. No justification exists for different rates other than as a legacy from former companies.

33  
34  
35 <sup>1</sup> It should be noted Exhibits M-1 and M-29 showed Santa Cruz decreasing by 17.2% and Mohave  
with an increase at 18.5% accounting for both BMGS and PPFAC impacts.

3. Rates should not be based on "legacy" but on a validated financial basis.
4. Continuing rate differences is discriminatory to customers in the Santa Cruz service area.
5. The ACC Staff recommended spread reduction of this difference over several rate cases to avoid 'rate shock' in the Mohave service area.
6. There is no justification to continue this discrimination any longer.

d. Recommendation for Action in the final Order.

1. The Commission orders the combined rate tariffs for the residential and small general service rates for both service areas as proposed by the Company.

**2.3 Recommend Approval of the Company's Proposed Time of Use (TOU) for Residential and Small General Service Customers.**

- a. Issues. The Company proposed to implement a TOU rate structure for a new residential and business customers (<1000 kW), for other customers that request changing to the TOU rate structure, and mandatory for large business customers (>1000 kW) [Ex. UNSE-26 at 17-19]. New customers pay the cost of their meter at present and should continue for TOU. The TOU service requires a new meter. The Company should be required to provide the new TOU meter and rates within 30 days of an existing customer's request.
- b. Conclusions. The Company proposed new TOU rate structures should be approved and the Company should provide this service capability within 30-days of a customer's request.
- c. Facts and Findings.
  1. All parties recommended approval of the proposed TOU rate structure for new residential and businesses (<1000 KW) and for other customers in these categories that request changing to the TOU rate structure.
  2. The TOU rate structure requires a new TOU-capable meter.
  3. The new customers should bear the cost of the new TOU-capable meter.
  4. The Company should bear the cost of new TOU-capable replacement meters for existing customers who change to TOU rate structure.
  5. The Company should provide TOU service within 30 days of a customer's request.
- d. Recommendation for Action in the Final Order.
  1. The Company's proposed TOU rate structure should be approved.
  2. The Company shall require all new customers to bear the TOU-capable meter cost.
  3. The Company shall bear replacement cost for TOU-capable meters for existing customers.
  4. The Company shall provide TOU service within 30 days of an existing customer's request.

1 **2.4 Recommend a "Inverted Block" Rate Structure for Residential and Small General**  
2 **Service Rates.**

- 3 a. Issues. The Company proposed a inverted block residential and small business rate structure  
4 to encourage less total consumption of electricity. The rate is in terms of a level rate the first  
5 400 kW of the residential bill and for small general service customers. When consumption  
6 exceeds this amount an additional 1.0 cents per kWh is added to the energy charge rate.  
7 [UNSE-26 at 19-20]

8 This "inverted block" mechanism may reduce the overall Company electrical demand.

9 A Time of Use (TOU) rate structure is a deliberate mechanism to reduce the peak  
10 demand requirements for the utility. This should reduce peak consumption, critical for both  
11 infrastructure and economic reasons. The Company peak demand is reduced by this  
12 mechanism when customers take actions during the peak times by shifting their consumption  
13 to the less expensive shoulder or off-peak hours. All ratepayers benefit since peak electricity  
14 costs are significantly higher than off-peak. This is an energy conservation measure that  
15 requires the customers to take deliberate customers actions (to make a deliberate behavior  
16 change) to reduce their peak demand or shift their demand to the lower cost shoulder and off-  
17 peak hours.

18 The combination of the inverted block and TOU rate structures are complementary but  
19 neither will be successful if the customer fails to take action. This will require a customer  
20 education program to be successful.

21 Both reverse slope and TOU should be implemented. Each has a separate purpose to  
22 benefit both the Company and the customer.

23 The ACC Staff has recommended TOU but not the inverted block part of the energy  
24 conservation measure at this time. ACC Staff agrees with this reverse slope energy  
25 conservation measure but ACC Staff does not recommend implementation because it might  
26 cause "customer confusion" at this time when there is a small rate increase [Ex. S-61 at 13].

27 TOU will yield weaker results because monthly bill cost signals will be less significant  
28 without the inverted block mechanism.

29 The ACC Staff position is based on not having too many rate changes at once but did  
30 not also indicate that a new DSM rate Adjustor, RES rate Adjustor and fundamental initial and  
31 later PPFAC changes will impact on customer's bills. Inverted block is where a wise customer  
32 can see, reducing demand can be translated as a second way, with TOU, to lower costs.

33 The newer rates, when PPFAC kicks in on 1 June 2008, will significantly increase all  
34 customers rates, and the few months of a TOU and reverse slope "break-in-period" before is  
35 when the Company should emphasize its proposed DSM educational program that includes a

1 TOU education objective [Ex. UNSE-Smith Rebuttal at 6] that should be started almost  
2 concurrent with the Commission's Order for this case. Every way customers can manage  
3 these higher rates will be required to ensure the 1 June 2008 transition is met with minimum  
4 turbulence. Denial of the reverse slop rate structure mechanism will NOT benefit the  
5 customers or reduce Company's cost.

6 b. Conclusion. The Company's proposed inverted block rate structure should be approved as  
7 denial mechanism will NOT benefit customers.

8 c. Facts and Findings.

- 9 1. The Company proposed a inverted block rate structure mechanism for residential and  
10 small business rates.
- 11 2. The inverted block mechanism is an energy conservation measure.
- 12 3. To be successful, the inverted block mechanism requires customer behavioral changes to  
13 reduce their total monthly demand.
- 14 4. The Company has proposed a TOU rate structure mechanism for the same customers to  
15 provide a way to reduce electricity costs during peak demand hours.
- 16 5. The TOU mechanism is an energy conservation measure.
- 17 6. To be successful, the TOU rate structure requires customer behavioral changes to reduce  
18 their daily peak demand.
- 19 7. Customer education is a key to provide knowledge so customers can make deliberate  
20 changes in their peak and overall electrical usage.
- 21 8. The Company's DSM Education and Training Program include TOU education that must  
22 be expanded to include inverted block impacts.
- 23 9. The Company's DSM TOU and reverse slope customer education program must start  
24 within 30-days after the Commission issues its Order for this rate case.
- 25 10. On 1 June 2008, a significant rate increase is anticipated when the PPFAC changes from  
26 the existing fixed Purchase Power Agreement (PPA) to a market-based PPA.
- 27 11. Customers will need every mechanism available to contain costs after 1 June 2008.
- 28 12. The ACC Staff recommended denial of the inverted block mechanism due to the "small"  
29 rate increase under the existing PPA in order to avoid customer confusion.
- 30 13. Without a inverted block mechanism customer savings for TOU are less; **the** "Price signal"  
31 purpose of these complementary rate structure mechanisms maybe weak or missed.

32 d. Recommendations for Action in the final Order.

- 33 1. The UNS Electric proposed inverted block mechanism for residential and small general  
34 service customers shall be approved.

35

1 2. UNS Electric shall start a focused TOU and inverted block customer educational program  
2 within 30 days of approval to prepare for the June 2008 significant rate increase.  
3

4 **2.5 Recommendations concerning the proposed DSM Programs.**

- 5 a. Issues. The Magruder Exhibits [M-24 at 12-31, M-23 at 11-18, and M-22 at 16-38] contain  
6 many recommendations concerning the proposed UNS Electric DSM Programs. Of all 80 plus  
7 recommendations, four are most important. Each final recommendation in Magruder  
8 Surrebuttal [Ex. M-24 at 12-31] needs to be assessed in the separate ongoing DSM docket.

9 First, the proposed Training and Outreach DSM Program is not a DSM program that  
10 could be categorized as an Energy Conservation, Energy Efficiency, or Demand Reduction  
11 program [Ex. M-22 at 18 lines 20-22]. Each proposed DSM Program has some educational  
12 and training components. I proposed moving the separate education and training components  
13 into a Training and Education Program so synergy occurs, overlap is reduced, and customers  
14 are provided information for all programs from one nexus, and common terminology are used  
15 by all UNS Electricity personnel and customers. Only budget allocations were shifted under  
16 this recommendation. As proposed, each new DSM program will not generate from prior  
17 programs, all material will be new, which does not capitalize on the significant overlap  
18 between these programs. [Ex M-24 at 19-20; M-23 at 12-14; and M-22 at 17-20; UNSE-Smith  
19 Rebuttal at 12-13]

20 Second, the DSM-terms Energy Conservation, Energy Efficiency, and Demand  
21 Reduction definitions used by the Commission vary significantly from the Department of  
22 Energy's usage. In summery, Energy Conservation actions are a voluntary behavior action  
23 that reduce energy usage such as turning off a light and is not directly measurable. Energy  
24 Efficiency actions are when equipment is used to reduce energy usage, such as replacement  
25 of incandescent lights with compact fluorescent lights, and there is always is measurable cost  
26 associated with this action. Demand Reduction is an action done by an outside source, such  
27 as the Company, to physically reduce energy demand, and can be accurately measured. Use  
28 of these terms must be consistent because mixing meanings will negate making the proper  
29 performance measure necessary for impacts on the DSM rate Adjustor. Subjective Energy  
30 Conservation performance measures are possible, mainly through inference, that customers  
31 have changed their habits. Energy Efficiency ad Demand Reduction for DSM programs can  
32 easily be measured. [Ex M-24 at 14; M-22 ¶3.1.1 at 12-13; footnotes 11-12; UNSE-Smith  
33 Rebuttal at 11]

34 Third, there is one proposed DSM Program I do not recommend as a customer-  
35 funded program using the DSM rate Adjustor. This is the Residential Shade Tree DSM

1 program which has dubious energy savings but more importantly, has higher administrative  
2 cost than customer incentive. UNS Electric has proposed a \$30 rebate coupon per tree be  
3 providing for up to two 15-gallon mesquite or palo verde (Spanish for "green stick") shade  
4 trees planted within 15-feet of the East, South, and West sides of residences. Home  
5 inspections will be required to measure tree's performance for years. Overall cost is \$65 per  
6 coupon, with 30% of the trees not expected to survive. In addition, the program also calls  
7 funding trees for schools, parks, and road medians [Ex. UNSE-17 at 21]. The total cost is  
8 \$65,000 per year for 1,000 trees. This program is a great marketing program but fails as a  
9 DSM Program. [Ex. M-24 at 26-29, M-23 at 16, M-22 at 34-36; UNSE-17 at 20-21]]

10 Fourth, all DSM programs need a prudency review prior to implementation [Ex. M-24  
11 at 9]. My review of the programs indicated the overhead expenses were significantly higher  
12 than those of lean organizations. DSM Program audits should be conducted during annual  
13 DSM reviews. It is important that these new DSM Programs produce as the older DSM  
14 Programs being replaced cost about \$175,000 per year [UNSE-Ferry Direct at 13] with  
15 negligible results. DSM Programs should not be used as "corporate welfare" with ratepayer  
16 funds. [UNSE-Smith ltr of 13 June 2007]

17 b. Conclusion. The Company's DSM Programs be approved except for combining all education  
18 and training into one program, DSM terms be standardized with objective definitions  
19 necessary to measure performance, the Residential Shade Tree Program be denied, and all  
20 DSM Program have detailed prudency audits prior to approval and annual audits to preclude  
21 corporate welfare programs.

22 c. Facts and Findings.

- 23 1. All detailed recommendations in the Magruder Surrebuttal be reviewed, assessed, and  
24 considered for implementation in the ongoing separate DSM review proceedings.
- 25 2. All education and training DSM actions should consolidated and closely coordinated in  
26 one Education and Training DSM Program to service all training needs without reducing  
27 any budgetary funding.
- 28 3. The proposed draft ACC Staff DSM terms for Energy Conservation, Energy Efficiency,  
29 and Demand Reduction are confusing, overlapping with conflicting performance measures  
30 and do not facilitate comparison with Department of Energy DSM programs.
- 31 4. The proposed Residential Shade Tree DSM Program is flawed, uses customer DSM  
32 surcharge funds for not-related community programs, and should be denied because of  
33 doubtful effectiveness but would be an excellent public relations or marketing program.
- 34 5. All DSM programs need a detailed effectiveness and prudency reviews and annual audits  
35 to prevent these programs from being corporate welfare programs.

1 d. Recommendations for Action in the Final Order.

- 2 1. The ongoing UNS Electric DSM programs reviews shall include all recommendations  
3 proposed in Magruder Surrebuttal Testimony.  
4 2. The DSM terms Energy Conservation, Energy Efficiency, and Demand Reduction shall be  
5 reviewed and redefined to ensure clarity exists for performance measures necessary to  
6 determine DSM rate Adjustors and to match DOE definitions, so all Commissioners, ACC  
7 Staff and all utilities are consistent.  
8 3. The proposed UNS Electric Residential Shade Tree DSM Program shall be denied use of  
9 DSM rate Adjustor funds but the Company may want to use this as a public relations  
10 program.

11 **2.6 Recommendations Concerning Annual DSM, RES and PPFAC Rate Adjustors.**

- 12 a. Issues. Due to separate handling in these proceedings for the annual DSM, RES and PPFAC,  
13 rate adjustors, there are three different applications, ACC and RUCO reviews, and  
14 implementation tracks. This results in up to three separate customer rate changes every year.  
15 Customers require notification of any future rate changes. Each rate adjustor change modifies  
16 billing rates on customer bills. These three different tracks are essential for expert benefit and  
17 prudence reviews; however customers need one annual sequential set of events to occur so  
18 these adjustments are transparent, clear, objective and understandable. The PPFAC rate  
19 Adjustor changes is planned to be implemented annually on 1 June<sup>2</sup>, RES about 1 January<sup>3</sup>,  
20 and DSM Plans in January<sup>4</sup>. An independent process for each adjustor would indicate that the  
21 total customer bill process is not being considered for these three "adjustors".  
22 b. Conclusion. The annual rate adjustor processes must be coordinated so customers are given  
23 proper advance notice, each adjustor is properly reviewed, and one date is used for the annual  
24 adjustments to avoid three rate changes per year.  
25 c. Facts and Findings.  
26 1. The annual DSM, RES and PPFAC rate adjustment tracks are not coordinated so there is  
27 an annual rate change for these adjustors, not three, rate changes per year.  
28 2. The Company is required to provide customers advance notification for each rate adjustor.  
29

30  
31 <sup>2</sup> The UNSE Purchase Power and Fuel Adjustment Clause Plan of Administration (POA) of 12 June 2007  
32 [Ex. UNSE-15, Exhibit MJD-3], as modified [Ex. S-58 Attachment RCS-8 at 5], has a detailed PPFAC  
33 process schedule.

34 <sup>3</sup> ACC Order 69127 of 14 November 2006 R15-2-1808 at A-17 stated initial implementation plans submitted  
35 on 12 October 2007 and annually 1 July thereafter. The ACC has 180 days to approve, thus about 1  
January a new RES Adjustor will be implemented.

<sup>4</sup> ACC Staff Report of 7 February 2005, "Staff Report on Demand Side Management" ACC Docket No. E-  
00000A-02-0051 et al, at 12-13, 14-16, page 3-5, et al, do not specify an implementation date schedule.  
The proposed DSM rate Adjustor is planned to go into effect about 1 January biannually.

- 1 3. The Commission should coordinate a single, annual ACC Staff and RUCO review  
2 schedule and process for each rate adjustor to avoid customer confusion.
- 3 4. The Customer expects these three adjustments are developed in a transparent process  
4 that results in a clear, objective and understandable determination for each adjustor.

5 d. Recommendations for Action in the Final Order,

- 6 1. The Commission shall require the annual DSM, RES and PPFAC rate Adjustors be  
7 effective on one date each year.
- 8 2. The Company shall develop a customer notification process that includes the annual  
9 adjustment process for customers that is transparent, clear, objective and understandable.
- 10 3. The Commission staff shall, with RUCO, develop a unified schedule and review process  
11 for the annual DSM, RES, and PPFAC rate adjustors to be implemented on one date.  
12 Each adjustor could be on independent tracks to meet this requirement.

13  
14 **2.7 Recommendations for Customers on Life-Support Equipment during an Outage.**

- 15 a. Issues. There was evidence presented that the Company is responsible for the safety of its  
16 customers and that the Company is not permitted to terminate customers on life-support from  
17 the Arizona Administrative Code in section R-14-2-211.A.5. [Ex. M-8]

18 The Company does not have the ability to notify those on life-support when there is an  
19 outage. "We have no way of reliably tracking where these customers are on the system. We  
20 have no way of tracking if the customer's medical equipment has a back-up battery system."  
21 [Ex. UNSE-19 at 6] The Company has "recognized for its efforts of contacting emergency  
22 agencies during extended outages and have set up emergency relief stations for all  
23 customers." [Ex. *Ibid.*] Thus there is some acknowledgement that the Company understands it  
24 needs to contact emergency agencies so "all customers" obtain relief. Its solutions are not  
25 practicable. "We have gone door to door to check on customers to keep them advised on the  
26 status of repairs" [Ex. *Ibid.*] but would divert valuable company personnel from outage  
27 correction when all customers on life-support are not contacted in the most rapid manner.

28 In 2005, Commissioner Gleason asked me, in ACC Docket E-01032A-99-0401, what  
29 happens to customers on life-support if there is an outage? Exhibit M-8 is clear. The Company,  
30 in its responsibility for the safe transmission and distribution of electricity,<sup>5</sup> should make  
31 reasonable provisions to prevent customer deaths from an electrical power outage. I discussed  
32 this issue with our Santa Cruz County Sheriff who told me he would set up a system for the  
33

34  
35 <sup>5</sup> "Each utility shall be responsible to the safe transmission and distribution of electricity ... Each utility shall  
make reasonable provisions to meet emergencies resulting from failure of service..." [See A.A.R. R-12-  
208A (1) and D (20)].

1 "first responders" (police, deputies, fire, paramedics, County Emergency Center, Border Patrol  
2 agents, etc.) to make such notifications as that is his job, public safety. This process needs  
3 information only the Company can provide. New applicants should provide the Company with

4 (1) Who at the customer's facility is on life support?

5 (2) What is the exact street address of this customer's facility?

6 (3) What specific type of life support equipment is at that facility and what is its  
7 installed backup power, if any, and the nominal time it can support the person?

8 (4) What is the Company's circuit that services this particular facility?

9 The Company initially interrupted Exhibit M-8 to only the "low income" customers on  
10 life support. The broader, "all" customers on life support, should be the Company's safety  
11 concern for human safety must always override economic concerns.

12 To implement "all" customers on life support, the information (1) to (3) is required for  
13 the Sherriff to make these notifications.<sup>6</sup> Unfortunately, this information has not been collected  
14 by the Company as the information it now has is only for CARES-M customers. To solve this,  
15 the Company will have to aggressively seek information (1) to (3) for all customers on life  
16 support. The present data are not of the fidelity necessary for first responders to determine the  
17 priority sequence to notify these persons on life support. For example, (1) might not even be  
18 the customer but another person such as a child or elderly, (2) the address must be located on  
19 the first responder's maps, (3) this information is not presently available for CARES-M, as the  
20 Company's CARES application will need to be revised, and, (4) the Company has to  
21 predetermine which life support dependent people are impacted during any circuit outage.

22 In addition, privacy issues must be incorporated into this process.<sup>7</sup>

23 In a typical distribution outage scenario, when feeder line "A" goes out:

- 24 1. All life-support dependent people on that line must be notified soonest to determine  
25 if this life-support equipment outage requires medical assistance.
- 26 2. The Company's control center uses its database and determines feeder line A has  
27 life support dependent customer numbers Y to Z customers.
- 28 3. The company then informs the Sherriff those customer numbers.
- 29 4. The sheriff looks on his map which shows the location of ALL life support  
30 dependent customers, determines which as highest priority from (3), and directs the  
31 appropriated first responder unit for highest priority, until all are notified.

32  
33  
34 <sup>6</sup> New utility customers are required to provide these data. [see A.A.R. R14-2-203A(1) sub paras. a, b and j]  
35 <sup>7</sup> A.A.C R14-2-203A (2) states "Customer-specific information shall not be released without specific prior  
written customer authorization unless the information is requested by a law enforcement officer or other  
public agency... or is necessary to provide safe and reliable service to the customer."

1           Some "life support" equipment may remain fully operable for several hours and would  
2 have lower priority than an iron lung without a backup power capability.

3 b. Conclusion.

4           There is no existent UNSE notification program for those on life support equipment during an  
5 electrical outage. This is a critical human safety concern is a Company responsibility.

6 c. Facts and Findings.

- 7           1. The A.A.C. requires the Company not to terminate service for low income personnel on  
8           life-support.
- 9           2. The Company has a paramount human safety responsibility for all its customers.
- 10          3. Human safety is not income related.
- 11          4. It is reasonable for the Company to develop for life-support customers a notification  
12          capability during an electrical outage.
- 13          5. The Company is the only possible source of required information essential to notify those  
14          on life support during an outage.
- 15          6. The County Sheriff is responsible for public safety and to dispatch first responders to  
16          check on the status of all those on life support (not just the low income customers).
- 17          7. The Company must inform the Sheriff the name, address, kind of life support equipment,  
18          battery backup capabilities expeditiously during an outage as previously arranged in type  
19          of Company-County Mutual Support Agreement.
- 20          8. After receiving the Company's information, the Sheriff will determine the notification  
21          priority and sequence for first responders to determine the status of those on life support.
- 22          9. This process must consider privacy concerns and patient privacy security.
- 23          10. If a customer does not want to participate in this outage notification program, the  
24          Company needs to obtain a signed waiver of this service.

25 d. Recommendations for Action in the Final Order,

- 26          1. The Company shall identify which customers have life support equipment, its type, and  
27          battery power capabilities.
- 28          2. The Company shall develop and sign a mutual support agreement with the County Sheriff  
29          or appropriate law enforcement officer charged with public safety in its service area.
- 30          3. A current Company's life-support customer list shall be provided to the County Sheriff or  
31          other appropriate law enforcement officer charged with public safety.
- 32          4. The Sheriff or appropriate law enforcement officer will check, based on priority, the status  
33          of all customers requiring life-support equipment during an outage.

1 **2.8 Recommend Completing the Citizens-City of Nogales Settlement Agreement.**

2 a. Issues. On 1 June 1999, Citizens and the City of Nogales signed a Settlement Agreement  
3 with articles requiring various forms of compensation and mitigation of damages to the  
4 Citizens customers in Santa Cruz County as result of a Formal Complaint to the Commission.  
5 This Citizens-Nogales Agreement was implemented in ACC Decision No. 61793 on 29 June  
6 1999. Some required actions have been completed or have lapsed. This agreement was  
7 novated to UNS Electric on 11 August 2003. [Ex. M-24 at 36-38, Ex. M-23 at 22-26]

8 In particular, the funding a four-year, interest free, loans for Santa Cruz County high  
9 school graduates that will be forgiven if the student returns to live and work in the County for  
10 two years. Even through Mr. Pignatelli said seven scholarships have been awarded, my  
11 School Board contacts in Santa Cruz County state NONE have been awarded in compliance  
12 with this agreement. [Ex. M-24 at 37-38, Ex. M-23 at 24] I believe Mr. Pignatelli is mistaken.

13 In this agreement there were several items to improve future electric service and  
14 community participation and public relations. The Company created a Citizens Advisory  
15 Council but held its last meeting in September 2000, just after TEP-Citizens agreed to joint  
16 project for a second transmission line. The ACC Decision included many electric and natural  
17 gas issues that the CAC should be addressing to keep the public informed. Also, the spirit of  
18 some economic development, determine circuit restoration order, and develop a mutually  
19 acceptable service upgrade plan have been overcome by events, without interactions with the  
20 community. [Ex M-23 at 23-26]

21 Of these, the annual scholarships and re-establishing the CAC remain as open actions.  
22 [Ex. M-24 at 37-38, Ex, M-23 at 23-26]

23 b. Conclusion.

24 This City of Nogales settlement agreement remains partially incomplete and an in-depth  
25 compliance audit should be done by the Commission, in particular, the annual awarding of  
26 scholarship and re-establishing the CAC to keep the public informed.

27 c. Facts and Findings.

- 28 1. The City of Nogales-Citizens (UNS Electric) Settlement Agreement is incomplete.  
29 2. The required annual scholarship does not appear to have been ever awarded.  
30 3. The Citizens Advisory Council, as a public information forum for the Company, has not  
31 met since September 2003. Several issues in this rate case were indicated as issues to  
32 be decided by the CAC.  
33 4. Other Articles in the City of Nogales-Citizens Settlement Agreement not completed have  
34 been overtaken by events.

35 d. Recommendations for Action in the Final Order.

- 1 1. Complete and continue to take all actions required by the City of Nogales-Citizens  
2 Settlement Agreement including
- 3 a. UNS Electric shall award annual scholarships, including any not awarded since 1999  
4 and
- 5 b. UNS Electric shall re-establish the Citizens Advisory Council (CAC) to meet at least  
6 every two months or more frequently when community information exchanges are  
7 necessary.
- 8 2. UNS Electric shall provide to the Commission the accomplishment status of all Articles in  
9 the City of Nogales-Citizens Agreement and report this to the CAC.

10 **2.9 Recommend withhold \$15,561,520 from Rate Base due to Incomplete Reliability**  
11 **Obligations on 32 Utility Pole and Underground Replacement Projects.**

- 12 a. Issues. As required by ACC Decision 61383, Citizens filed a Supplemental Plans of Action in  
13 August of 1999 for actions not dependent on a second transmission line. Many projects were  
14 presented by Citizens and approved by the Commission in ACC Order 62011 to improved  
15 reliability in the Santa Cruz service area. [Ex. M-24 at 38-39, 51; Ex. M-23 at 26-49]

16 In particular, Citizens agreed to replace 3,060 above ground utility poles that "have  
17 reached the end of their life cycle" in 20 different projects, in different parts of the County or  
18 City of Nogales, mostly identified by subdivisions [Ex. M-23 at 31-22, Table 5]. Another 12  
19 underground cable replacement projects included 161,388 feet of underground cable  
20 replacement, for cable deemed defective and improperly laid by Citizens. One is replacement  
21 of cable to the Harvard-Smithsonian Observatory on Mt. Hopkins that has continually reported  
22 outages for years including this summer. [Ex. M-23 at 33-34, Table 6]

23 None of these 32 projects are known to have been completed as scheduled. The cost  
24 of the 20 utility pole replacement projects was \$9,155,000 and \$6,406,520 for underground  
25 cable replacement projects for a total of \$15,561,520. Some projects were never started,  
26 some were more costly or used more poles or feet of cable than planned, and some nothing is  
27 know. EACH project is a separate and in a different location than any other, thus each should  
28 be considered as a separate, agreed contract that was implemented by ACC Order No. 62011  
29 on 2 November 1999. [Ex. M-24 at 38-39, 51; Ex. M-23 at 34-35]

30 The ACC Staff testimony showed standard distribution reliability indices significantly  
31 decreased from 2004 and 2006. In general, the distribution reliability indices moved from the  
32 second quartile to the fourth quartile with respect to a national utility reliability index average  
33 of 50%. That is from better than average in the 50-75% quartile in 2004 to the lowest quartile  
34

1 (below 25%) in 2006 for SAIFI and SAIDI and the third quartile (25-50%) for CAIDI.<sup>8</sup> [Ex. S-25  
2 Report at 4, Table 2] This dramatic shift is more than expected from weather or other local  
3 impacts. The Taylor Report assessed the three worst feeders [Ex. S-25 Report at 5-9]. The  
4 Company's response was "no action was taken" on all of these three "worst feeders" [Ex. M-  
5 26]. During oral hearing I tried to introduce information about a formal complaint to the ACC  
6 about a 100 mile long feeder with excessive outages. [Ex. M-27 may not have been admitted].

7 My testimony showed that distribution reliability is the primary cause of reliability  
8 problems in the Santa Cruz service area [Ex. M-23 at 43-49, Tables 10-12] which now  
9 appears to be deteriorating.

10 Conflicting testimony introduced by UNSE concerned

- 11 a. generation capabilities [Ex. M-23 at 39-40; M-24 at 45-51; UNSE-Beck Direct at 6, 9;  
12 UNSE-14 at 3, Exhibit MJD-1];
- 13 b. peak demand requirements [Ex. M-23 at 39-41, Table 8; M-24 at 35-40, Table 7  
14 (Rev); UNSE-Beck Direct, Exhibit EAB-3];
- 15 c. transmission line capabilities [Ex. M-23 at 42-45, Table 9; UNSE-Beck Direct at 8];
- 16 d. transmission line outages [Ex. M-23 at 46; UNSE-Beck Direct at 10]

17 This seems to indicate TEP personnel in Tucson, who are de facto managers for the  
18 Santa Cruz area, are not concerned about improving reliability, especially distribution  
19 reliability [Ex. UNSE-Beck Direct at 5-12], in Santa Cruz service area. This is another reason  
20 why routine CAC meetings are necessary to keep the Company focused on local concerns.

21 b. Conclusion.

22 Unless UNS Electric can prove otherwise, for each of these 32 reliability pole/cable  
23 replacement projects, this \$15,561,520 should not be included in the rate base as this work  
24 was not completed as previously ordered by the Commission.

25 c. Facts and Findings.

- 26 1. Citizens [now UNS Electric] was ordered by the ACC to complete 20 overhead utility pole  
27 and 12 underground cable replacement projects to improve reliability.
- 28 2. These agreed projects were to replace 3,060 "overage" utility poles and 161,388 feet of  
29 defective underground cable at a total cost of \$15,561, 520 in 1999.
- 30 3. All projects were planned to be completed by end of 2003.
- 31 4. Some projects were never started, others partially completed, and some overran the  
32 project plan.

---

33  
34 <sup>8</sup> When one compares UNSE to TEP distribution indices for 2005, the TEP's SAIFI and CAIDI were in the  
35 upper quartile (75-100%), compared to UNSE in 2005 in the Third (25-50%) and Bottom (0-25%) Quartiles  
based on Edison Electric Institute 2005 Distribution Reliability Report. [Exhibit JRP-1]

- 1 5. Each project is located in different areas or subdivision and independent of other projects.
- 2 6. This ACC Order from 1999 has not been completed; therefore the Company should not
- 3 receive any value in rate base in these hearings.
- 4 7. Distribution reliability has not improved since Citizens was purchased by UniSource in late
- 5 2003, in fact, distribution reliability significantly decreased.
- 6 8. Utility poles and underground cables are essential elements of the distribution system.
- 7 9. The Company testimonies conflicted with known information concerning generation, peak
- 8 demand and transmission capabilities in the Santa Cruz service area.

9 d. Recommendations for Action in the Final Order,

- 10 1. UNS Electric shall determine the status of each of the 32 projects, in terms of the number
- 11 of utility poles or feet of underground cable replaced and replacement expenses to date.
- 12 2. UNS Electric shall determine the remaining budget necessary to complete each project.
- 13 3. UNS Electric shall review with the ACC Staff each project to verify if reliability has
- 14 improved for that particular subdivision or project area since 2003. Upon completion of
- 15 this review, the ACC Staff shall submit a report to the Commission verifying the status and
- 16 additional actions and schedule. This report shall propose mitigation measures necessary
- 17 to ensure compliance and, when all actions have been completed, adjust the Company's
- 18 rate base to account for only prudent costs associated with these 32 projects.
- 19 4. UNS Electric shall complete reliability projects including the Mt Hopkins 52,800 feet of
- 20 underground cable that still fails for this national observatory by 1 September 2008.
- 21 5. Until the status for each of the 32 projects has been determined and the reliability has
- 22 improved for that project's area, UNS Electric shall have its rate base decreased by
- 23 \$15,561,520.
- 24 6. UNS Electric shall take action on its three worst feeder lines in each service area, with at
- 25 least 50% of all feeder line circuits above the national average indices by 1 January 2010.

26  
27 **2.10 Recommend Predatory Loan Companies not be Contracted as Billing Agents.**

- 28 a. Issues. The Company uses several "predatory" loan companies as billing agents to accept
- 29 "cash only" bill payments from customers [Ex. M-22 at 53]. As shown in several studies,
- 30 those who pay in cash are lower income, without bank accounts, and most vulnerable to
- 31 assume such loans. These loans have excessive interest charges, usually near 400%, annual
- 32 percentage rates.<sup>9</sup> These companies incentivize its agents to obtain loans from customers.

33  
34 <sup>9</sup> A typical \$100 dollar loan usually has \$115 due in two weeks, next payday. This is 15% for 2-weeks or

35 \$390 annual interest or 390% per annum before any "late" fees and other dunning charges are added to the required payment when late. These kinds of loans are generally known as predatory loans.

1 These loans, on the average, cost more than twice than the original loan when being repaid.  
2 The Company stated it will cease using these billing agents for many months but the UES  
3 webpage still shows 9 such billing agents. [Ex. M-22 at 40, 53-55, 58-59]

4 b. Conclusion.

5 The Company's use of billing agents is despicable and should cease as soon as possible.

6 c. Facts and Findings.

- 7 1. The Company uses predatory loan companies as its billing agents for cash payments.
- 8 2. These loan customers are usually lower income, do not have bank accounts, and are  
9 vulnerable to high pressure sales tactics.
- 10 3. The high interest rates from these loans results in, on the average, over twice the original  
11 loan being required to close the loan.
- 12 4. The Company has not ceased using these billing agents as promised in these, the UNS  
13 Gas Rate Case, and in various news reports.

14 d. Recommendation for Action in the Final Order,

- 15 1. UNS Electric and UES cease using loan companies as billing agents within 60 days of this  
16 Order unless these loan companies meet the requirements recommended in §2.11.

17  
18 **2.11 Recommend the Commission Implement Loan Company Conditions.**

19 a. Issues. In June of 2007, the Consumer Law Center provided recommendations for utility  
20 commissions to avoid utility customers from being subject to predatory loan conditions when  
21 paying their utility bills. As shown in Ex M-15, these conditions do permit loan companies to  
22 be billing agents as long as loan rates are 36% APR or less. These conditions have been  
23 passed into law by the US Congress for loans to members of the US Armed Forces. See  
24 Appendix A herein for these recommendations [Ex. M-15]. [Ex. M-24 at 34-35; M-23 at 21, Ex.  
25 B Enclosures B-1, B-2; M-22 at 21, Exhibit Enclosures B-3, B-4]

26 b. Conclusion.

27 The Commission should review and implement the recommendations from the Consumer Law  
28 Center in this and ALL future utility rate cases or issue these rules as a condition for all  
29 electric, natural gas, communications, water and sewage public service companies in Arizona.

30 c. Facts and Findings.

- 31 1. The Consumer Law Center recommended and published conditions for utility regulators,  
32 to consider as reasonable to avoid predatory loan conditions for utility rate payers.
- 33 2. A review of these conditions shows they are reasonable for Arizona for implementation,  
34 with only administrative changes to reflect Arizona nomenclature.
- 35 3. There are two ways the Commission could implement these conditions, either

- 1 a. Add them to each separate rate case or  
2 b. Issue them as a general condition for all public service companies in Arizona.  
3 d. Recommendations for Action by the Commission,  
4 1. The Arizona Corporation Commission **shall** implement the Consumer Law Center  
5 recommendations to avoid customers from being subjected to predatory loan conditions,  
6 a. For this and in future utility rate cases or  
7 b. As a general condition required for all Arizona public service companies.  
8

9 **2.12 Recommendations Concerning a Large EPS “Bank” and RES Transition.**

- 10 a. Issues. This Company never met its EPS solar energy goals [Ex. UNSE-Hansen Rejoinder at  
11 2-3]. “During the test year, UNS Electric met 40.68% its EPS requirements with 6,577 MWh  
12 of renewable energy provided to its customers” [Ex. UNSE-Hansen Rebuttal at 2-3]. All  
13 customers are assessed an ACC-mandated EPS surcharge on every monthly bill to  
14 administer the EPS program including purchasing solar electric generation systems and  
15 renewable or “green energy” from appropriate sources [Ex. M-23 at 55].

16 During the Test Year, the Company received \$543,798 from customer’s monthly EPS  
17 surcharges and \$5,296 from the Company’s GreenWatts customer’s contributions for Test  
18 Year EPS revenue of \$543,798. Of this revenue, \$303,979 was spent on Landfill Gas Credits  
19 (\$150,000), customer rebates (\$130,649), and EPS administration (\$33,330) with an excess  
20 of \$239,979 EPS revenue than EPS expenses. [Ex. M-18 at 3, Table 1]

21 The Company had a cumulative balance of \$1,834,784 of EPS Revenues minus  
22 Expenses at the end of the Test Year on 30 June 2006. [Ex Ibid] This is in an unspent,  
23 customer-funded EPS “bank” account.

24 Unspent, banked EPS funds have NOT used to purchase long-term renewable energy  
25 sources that could generate energy year after year. Most renewable energy credits have been  
26 purchased by the Company in the form of short-term, one-time, purchases of landfill gas  
27 credits from TEP [Ex. Ibid].

28 These actions resulted in not achieving overall renewable energy goals and specifically  
29 the modest EPS solar production goals. If the “banked” funds were used as received for solar  
30 and other renewable generation sources, and not credits, the renewable energy generated  
31 would have been significantly higher as these sources generate energy year after year.

32 The test year \$1,834,786 EPS “bank” could have provided customers solar-electric  
33 rebates. The Test year customer rebate (or buydown) was \$2.40 per Watt DC.<sup>10</sup> A total of  
34

35 <sup>10</sup> ACC Decision 69201 at 2 in ACC Docket No. E-04204A-06-0621 approved \$3.00 per Watt DC.

1 764.5 kW DC {= \$1,834,786/ (\$2.40 per Watt x 1kW/1000W)} in new solar-generation  
2 systems could be purchased with the EPS "bank" to generate solar-electricity. With Mr.  
3 Hansen's conversion of 1,300 kWh AC per kW-DC of solar nameplate capacity [Ex. UNSE-  
4 Hansen Rebuttal at 3],<sup>11</sup> then 954,200 kWh {(=1,385 kWh AC/kW AC x 764.5 kW-DC)/ (1000  
5 kWh per MWh) = **1058.8 MWh AC**} year of solar-generated power that was unused in the  
6 "EPS Bank."

7 The new REST requirements for 2007 indicate that the Company requires 1,267 MWh  
8 DC for residential solar generated electricity (Ex. M-23 at 58, Table 15]. The addition of the  
9 above 1058.8 MWh generated solar-electric shows 208.2 MWh (= 1,267 - 1058.8) is required  
10 for that year. This will need an additional 150 kW DC<sup>12</sup> (=208.2 MWh DC / 1,385 kW DC /  
11 1000 kWh per MWh) of solar-electric capacity to meet the 2007 RES residential solar-electric  
12 goal. This requires \$450,000 of funding with solar rebates at \$3.00 per kW DC (150x3x1000)  
13 to meet the 2007 RES residential solar-electric goal. Assuming 95,000 UNSE customers, then  
14 at an average of \$4.37 per customer for 2007 (= 450,000/95,000) or on the average \$0.3642  
15 per month for 2007 (4.37/12). This average is not prorated to customer categories. If UNSE  
16 had used its unspent EPS "bank" for solar electric prior to 2006, the first 2007 RES rate  
17 Adjustor should not be excessive.

18 UNSE has not been prudent with these ESP funds.

19 From August 2004 to the end of the Test Year, 20 customers received \$120,649 [Ex.  
20 M-18 at 6] in customer-funded rebates from the Company which is equivalent to 48.260 kW  
21 DC = (\$120,649/\$2,500 per kW DC), about **48 kW DC** for solar-electric systems in the  
22 Mohave and Santa Cruz service areas. Only 48 kW DC solar-electric generation capacity has  
23 been added to the UNS Electric grid by the end of the Test Year since August 2004.

24 If the accumulating funds in the EPS "Bank" were used, twenty-two times more solar  
25 generation capability (= 1,059kW DC/48kW DC ≥22) could have been allocated to its  
26 customers to generate solar electricity during the Test Year.

27 The Test Year "EPS Bank" balance excess is over 121 kW (= \$303,979/\$2.5 per kW)  
28 of customer rebates based on excess EPS surcharges received and not expended by the  
29 Company. Therefore, over 2.5 times (121kW/48kW) of electric solar generation could have  
30 been added to the Company's solar electric generation capability during the Test Year.

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34 <sup>11</sup> *Ibid.* approved use of 1,385 kWh-AC for this conversion, which is used instead of 1,300 in Hansen Rebuttal.  
35 <sup>12</sup> *Ibid.* limited incentives for "120 kW of solar capacity in 2007 and 2008" is an artificial, Company-imposed,  
limit that will prohibit meeting the 2007 RES residential solar-electric requirements. The "other" docket will  
resolve these issues. Another imprudent constraint to prevent meeting the RES goal,

1 This was "bank" balance reported to the ACC Staff in annual ESP Reports that  
2 included the Company's continual failure to meet the solar and renewable energy goals.  
3 These annual EPS reports do not appear to have been adequately reviewed or critiqued by  
4 the Commission, other than filing in the docket as confirmed during oral testimony.

5 The Company, in another docket, submitted on 12 October 2007 two different 2008  
6 Renewable Energy Standard (RES) and Tariff plans. One RES is for full attainment; the other  
7 RES plan does NOT meet the RES goals. As this is being reviewed elsewhere, the resultant  
8 RES rate Adjustor may result in over a \$5.00 increase in the Company's full attainment plan  
9 and much lower under the other plan. The public, who will spend at least 50% of the capital  
10 acquisition costs themselves, want renewable energy funds to be spent to purchase local,  
11 solar-electric systems and not remote power plants 100% funded by ratepayers.

12 b. Conclusions.

13 The Company failed to wisely use customer-contributed EPS funds to purchase long-term  
14 solar energy sources but expended these funds for renewable short-term energy credits from  
15 TEP's biogas system. The Company never met the annual EPS solar energy generation  
16 goals. "Excess" customer-derived RES funds must purchase long-term renewable energy  
17 sources as a higher priority than purchase of one-time renewable gas credits. The former  
18 accumulate year-after-year while the later are one-time expenses.

19 c. Facts and Findings.

- 20 1. During the test year, the Environmental Portfolio Standard customer-derived revenues  
21 were mostly "banked" and not expended on long-term generation sources such as solar  
22 electric systems that will generate for the next 25-years or so.
- 23 2. The "EPS bank" increased \$239,819 during the Test Year to accumulate a balance of  
24 \$1,834,786 while \$120,649 was spent on solar-generation since August 2004.
- 25 3. The Company has always failed to met its annual EPS solar-generation goals,
- 26 4. The Company could have met its solar-generation goal but decided to retain a large EPS  
27 bank balance.
- 28 5. The Company did not spend its customer-funded ESP "bank" funds prudently, as most  
29 funds were expended on landfill gas credits from TEP, which does not accumulate for a  
30 25-year life, but is expended once.

31 d. Recommendations for Action in the Final Order.

- 32 1. UNS Electric should consider lessons learned from the EPS program and purchase long-  
33 term renewable energy sources instead of "banking" customer funds for years.
- 34 2. UNS Electric failed to achieve solar energy goals due to not aggressively pursuing  
35 renewable energy sources in its portfolio.

- 1 3. UNS Electric shall use its annual RES Rate Adjustor revenues for renewable energy
- 2 sources, including solar-electric systems, with a higher priority, than one-time renewable
- 3 energy credits.
- 4 4. UNS Electric shall explore all ways possible ways, such as customer loans, to exceed all
- 5 REST requirements, especially for the distributed and solar-energy standards.
- 6 5. UNS Electric shall not "cap" the annual capacity or limit rebates for solar-electric systems.
- 7

## 8 **2.13 Recommendations Concerning Rules and Regulations.**

- 9 a. Issues. The Company proposed revising its Company Rules and Regulations (R&Rs) during
- 10 these proceedings. There are several administrative areas where these rule changes have
- 11 been challenged as not been beneficial or positive.

12 First, the complexity and wording in the R&Rs can be translated to "plain" and legally-

13 compliant language at the eighth-grade or lower<sup>13</sup> because 19.4% of the adults in Santa Cruz

14 County have less than ninth grade reading level. [Ex. M-22 at 57] In this case, and the prior

15 UNS Gas case, there has been no agreement in interpreting the R&Rs as to a simple

16 understanding of when a bill is overdue and interest is charged and when service can be

17 terminated for non-payment of one's bill. [Ex. M-24 at 32-34, Table 3 (Rev); M-23 at 19-20; M-

18 22 at 40; UNSE-19 at 5; UNSE-18 at 2; UNSE-17 TJF-1 at 82]

19 Second, the R&Rs are not given to customers contrary to Arizona Administrative Code

20 (A.A.C).<sup>14</sup> In general, the Company's R&Rs track very closely with the A.A.C.

21 Third, testimony proposed a "minimum distribution requirements" for the R&Rs to

22 present customers, new customers, builders or contractors and when to be provided. [Ex. M-

23 22 at 60, Table B-3] The R&Rs are available online, but that precludes customers without

24 Internet access from obtaining and complying with these rules.

25 Fourth, the existing R&Rs are not available into Spanish. (Ex. M-22 at 60)

26 Fifth, the revised billing schedules, as testified by Mr. Ferry, are being changed to

27 "avoid confusion for customers served by both UNS Electric and UNS Gas." [Ex. UNSE-18 at

28 2] The A.A.C. has different billing schedules for all five utility types regulated by the ACC. [Ex.

29 M-24 at 32-24, Table 3] and, until the A.A.C. is revised, customer "confusion" will continue.

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31

32 <sup>13</sup> Most word processing programs can do this automatically.

33 <sup>14</sup> A.A.C. R14-2-204(A)(3) requires the Company to make available the Commission's rules are regulations

34 concerning

35 a. deposits

b. termination of Service

c. billing and collection

d. complaint handling

1 Sixth, the UNSE and UNSG billing statement formats were recently revised. I provided  
2 14 formatting recommendations to facilitate readability, clarify, and add emphasis as  
3 necessary. [Ex. M-22 at 57, 60; M-23 at 21] Due to an error during my oral testimony, these 14  
4 formatting recommendations were not re-introduced here but are in the UNS Gas case in  
5 Docket No. G-04204A-06-0463. The company understands these format changes. A new  
6 billing statement needs basic human factors (cognitive) engineering to emphasize key points  
7 to customers. A Company's IT "experts" usually are not qualified cognitive engineers.

8 Seventh, an "administrative fee" of \$3.95 per credit or debit card payment is charged  
9 by a third-party subcontractor. Compared to ATM or other charges this is excessive and  
10 should be absorbed by the company. [Ex. M-24 at 35; M-23 at 21, Exhibit B-4 at 61]

11 b. Conclusions:

12 Administrative changes will improved clarity of the Company's Rules and Regulations,  
13 provides copies to customers, meets the A.A.C. minimum distribution requirements, retains the  
14 existing billing schedule as the A.A.C. regulations already confuse billing dates, re-formatting  
15 the billing statement to improve clarity and customer understanding, and delete a fee for a  
16 customer to use a debit or credit card to pay their bill.

17 c. Facts and Findings.

- 18 1. The existent Company Rules and Regulations are confusing and beyond the reading level  
19 of many customers.
- 20 2. The Company Rules and Regulations can be re-written in simple, plain English without  
21 loss of any meaning but significant improvement in customer understanding.
- 22 3. The Company does not provide key regulations concerning deposits, termination of  
23 service, billing and collection and complaint handling to customers.
- 24 4. Some customers, such as builders, new customers, and others need copies of the official  
25 Rules and Regulations to plan and make important decisions.
- 26 5. The Rules and Regulations do not exist in Spanish.
- 27 6. The revised billing schedules did not reduce confusion or improve understanding at to  
28 when bills are overdue, when late fees start and when service is terminated for non-  
29 payment of one's bill. Parties could not agreed when these common events occur.
- 30 7. The revised billing schedule reduced the time between when the bill is due to overdue,  
31 starting late fees and service termination.
- 32 8. All five types of utilities regulated by the ACC have different billing schedules.
- 33 9. There are regulatory differences between UNS Electric and UNS Gas billing schedules  
34 thus customers with both will continue to be confused
- 35 10. The revised billing statement format was less user-friendly than the former.

1 11. Billing statement formats need professional user-friendly engineers to create desired  
2 customer comprehension, understanding and knowledge basis to make sound decisions.

3 d. Recommendations for Action in the Final Order.

- 4 1. UNSE shall rewrite the Company's Rules and Regulations in simple, plain English and  
5 Spanish with goals to improve customer compliance and improved understanding.  
6 2. UNSE shall provide key portions of its Rules and Regulations to all customers, including  
7 actual excerpts to appropriate types of customers, to aid understanding and compliance.  
8 3. UNSE shall facilitate understanding of billing schedules and collection, deposits, service  
9 termination, and complaint handling to reduce its administrative costs in these areas by  
10 making these areas and others very understandable for customers.  
11 4. The UNSE shall reformat its billing statement with readability, clarity, information grouping,  
12 and human-factored to enhance customer understanding of its key information elements.  
13 5. UNSE shall absorb customer credit and debit card fees as a business expense.  
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4 **Recommendations**  
5 **From**

6 ***Utilities and Payday Lenders:***  
7 ***Convenient Payments, Killer Loans***<sup>15</sup>

- 8
- 9 1. State regulators should prohibit utilities or their agents from entering into arrangements to  
10 pay for bill collection services from financial service companies or other lenders that lend  
11 money at exorbitant rates (typically, an annual percentage rate above 36 percent).
- 12 2. State regulators should require utilities to maintain company operated and staffed service  
13 centers, including counters for in-person bill payments using cash, at locations  
14 convenient for customers throughout utility service territories.
- 15 3. Regulators should allow utilities to sign contracts for bill payment services at additional  
16 locations that enhance convenience for customers but only with supermarkets, drug  
17 stores, convenience stores, other retail outlets, community groups and banks or other  
18 financial service providers that do not lend money at exorbitant rates.
- 19 4. Regulators should require utilities to verify the eligibility of all retail service providers to act  
20 as bill payment agents. Utilities should be required to verify that all authorized or  
21 unauthorized bill payment agents from whom utilities accept payment do not hold  
22 licenses that allow them to lend money at exorbitant rates.
- 23 5. When utilities accept payments from third parties that offer bill payment services to  
24 customers but have no contracts with utilities, regulators should require utilities to receive  
25 from those agents certifications that they have charged customers no more than a  
26 nominal amount (typically, \$1 or 1 percent of the amount due, whichever is lower) for bill  
27 payment, and that those customers have not been solicited to take out loans.
- 28 6. Utilities should only be allowed to close down company operated and staffed service  
29 centers if they can demonstrate that the cost of those centers would put an unreasonable  
30 burden on ratepayers.
- 31 7. State and federal laws and financial services regulations should prohibit lenders who  
32 collect utility bill payments from promoting or soliciting lending services before, during or  
33 after the transaction, and from lending money at exorbitant rates for use in utility bill  
34 payments.

35 <sup>15</sup> By the National Consumer Law Center, 77 Summer Street, 10<sup>th</sup> Floor, Boston, MA 02110  
[www.consumerlaw.org](http://www.consumerlaw.org) June 2007, at 27-28.