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Public Comments  
by Marshall Magruder to the Arizona Corporation  
Santa Cruz County Building, Nogales, Arizona  
22 March 2016

ORIGINAL

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UNS Electric Rate Case, ACC Docket E-04204A-15-0142

Good evening Commissioner's, my name is Marshall Magruder, a UNS Electric customer, who address is PO Box 1267, Tubac, Arizona.

2016 MAR 25 AM 11:00

AZ CORP COMMISSION  
DOCKET EVIDENTIARY

Attached are my Public Comments filed and given on 1 March 2016. The Evidentiary Hearings in this case provide my background, my solar system and its production. It also contains four issues that I will re-emphasis tonight. Attached is a "white paper" giving the present and UNS Electric proposed (from its Rejoinder Testimony), a summary of the impacts of the proposed rate structure and rates. Also, a summary from a Regulatory Assistance Project (RAP) webinar that discussed "Demand Charges" that unfairly impact smaller users and provide unintended benefits for larger users.

The issues of major concern in this case, involve interactions between TOU, Demand Charges, Netmetering, and unfair relief for lower-income customers.

1. **Time of Use (TOU).** As shown in my 1 March comments, my experience with TOU and netmetering was a failure due to TOU rate structure design. It was not possible to benefit using extraordinary demand shifts, such as waking up after the winter morning On-Peak period, doing all wash on weekends, drying clothes with the sun, CFL bulbs, etc. The details of the proposed MANDATORY TOU rate structure are not known but having more On-Peak hours in the Winter, with only 10 hours of sun and fewer hours of On-Peak rates in the summer, with 14 hours of Sunshine, at the same On-Peak rate for both seasons just didn't work. I shifted to "Net metering" and am happy.

Summary. TOU rate structure must be fair and reasonable for customers and utility, a complex issue that requires significant study to ensure fair and reasonable results.

2. **Demand Charge.** At a rate of \$5.00/kW for residential customers who cannot measure or know when this occurs, based on hindsight data accumulated by the utility, this backdoor charge is absolutely unjustified. Residential customer demands are like grass growing on a football field, with a few "trees" representing larger commercial customers. The continual changes in the thousands of blades of grass are trivial when compared to the few trees, and thus is equivalent of harassment instead of a fair "rate design." As discussed in the RAP webinar, **smaller users have unfair high demand charge impacts while high consumption users have less demand charge impacts.** Please see "Demand Charges: Pathway or Detour?"

- Why aren't more tiers (such as FIVE) so higher usage customers pay these costs for higher demands, and not shift revenue needs to the lower using customers?
- How can the Burbank residential rates meet revenue needs while being fair?

3. **Netmetering.** The PURPA Act of 1973 and Energy Policy Act of 2005 established the netmetering ground rules that were approved by the Commission and added as Article 23 in the ACC R-14-2. These are the regulations/rules the Commission must follow.

Arizona Corporation Commission

Can the ALJ violate the Administrative Code and recommend anything other than compliance? A legal review will be necessary before these rules can be changed.

MAR 25 2016

DOCKETED BY *JK*

Received on March 22, 2016  
From Tucson  
By Richard Martinez

- Can my solar system contract with my utility be changed by this case, when it clearly states net metering for 15 years or if staff proposed removal of grandfathering is approved, then **is this a breach of contract?**
- My contract said my panels must face due south. Now utilities recommend SW

4. **Lower-Income rates.** UNS Electric has 34,000 customers who qualify for CARES; however, only 6,200 receive these lower rates. Thus, over 27,000 eligible lower income customers DO NOT receive these rates. Some 30% Nogales residents, and over 25% in Mohave County have incomes less than (100%) of poverty level. Increasing to 200% isn't the answer because **27,000 with lower incomes are presently NOT being served.**

- Can the Commission require at least 50% of those eligible to receive the CARES rates within the next six months and 75% within a year?

5. **Lower Customer Usage.** UNS Electric needs to understand usage will continue to decrease and such "lost revenue" should be made up by **reducing its cost** and not by ratepayers who are conserving natural resources to decrease electricity usage.

- Why are the utility workers the highest paid group at \$98,000 annually (AZ DOA)?
- Why aren't any Arizona utilities ISO 9000 certified for Quality Management?
- Why has no one testified how the company significantly reduced its cost of business just 4% to make up for lower demands? How has UNSE reduce its "costs"?  
When income decreases, **companies, not their customers, must tighten their belts!!**

Other Issues:

6. In order to reduce local property taxes, some utilities use a Public Administration rate class for schools, county buildings, such as this one, and other government services.

- Why does UNSE not have a Public Administration rate class?

7. Newspapers.

- *The Arizona Republic* today has a page A1 article concerning water conservation.
- *Arizona Daily Star* today has a page A2 article concerning the TEP "tree" program.
- Today's *Nogales International* did not have a required Public Notice for this meeting.

8. The electric utility industry is the highest user at 38% of groundwater in Arizona.

- What steps has UNSE taken to reduce ground water consumption for cooling for its four natural generators in Nogales?
- How much groundwater did UNSE use during the Test Year?
- Will it be reduced 22%, as its customers will do in the EE program?
- Why does the Commission not require "dry" coolers instead that cost just 15% more with less long-term O&M costs that are recovered from ratepayers?

9. **Tree Demand Side Management program.** In the last UNSE rate case I intervened, 5-gallon trees were subsidized at \$15 per tree, if planted and inspected by UNSE to be within 15-feet of one's home on its S, W, or East sides. The program cost was \$65 a tree.

- How much shade will a tree provide in 10 years to reduce customer demand?
- Is this an effective program? The manual used by the company indicated "maybe".
- Why isn't UNSE ISO 14000 (Environment Management) certified?

10. *Company Rules and Regulations.*

- Why are UNSE rules and regulations not in Spanish as required by a prior Decision?

**Comments to Santa Cruz Valley Citizens County (White Paper)  
21 March 2016**

The Commissioners are holding a Public Comment session on **Tuesday, 22 March** from **6 to 8 PM** in the **Santa Cruz County Building, 2150 N. Congress Drive** on the **SECOND FLOOR** in **ROOM A**. [Note, Presidential Primary ballots are being tabulated in the Supervisors Conference Room on the First Floor]

**SUMMARY RESIDENTIAL RATES**

**PRESENT 2-PART RATES**

1. Monthly residential fixed customer charge: \$10.00
2. Volumetric charge (cost/kWh) Three rate tiers:
  - 0-400 kWh 8.3810 cents/kWh
  - 401-1,000 kWh 9.8860 cents/kWh
  - Over 1,000 kWh 10.3009 cents/kWh

A Flat rate change this year (June?) with transition 2-part rate schedule in **April 2017** to

**PROPOSED 3-PART MANDATORY TIME OF USE (TOU) DEMAND RATES**

(From USNE Rejoinder Testimony)

1. Monthly residential fixed customer charge: \$15.00
2. Volumetric charges (cost/kWh) with Energy Charge = 1.534 cents/kWh:
  - ON Peak (summer/winter) cost/kWh 12.114/10.264 cents/kWh
  - OFF Peak (summer/winter) cost/kWh 5.817/5.395 cents/kWh
3. Demand Charge based on Highest 1-hr usage Peak demand x **\$5.00/kW** = TBD

**Estimated average residential customer bill to increase \$8.29, for average 795 kWh customers to \$90.08 (pretax) or 10.1%. Also, higher % increases for smaller loads.**

**SOLAR ROOF TOP CUSTOMERS**

Grandfathered, if solar application was prior to 1 June 2015:

1. Netmetering where excess is credited at retail monthly against usage with annual credit zeroed in October with a billing credit at **3.698 cents/kWh**, avoided cost (not retail) rate.
2. Two-part rates proposed by company, staff proposes three-part rates above.

If a new rooftop solar system application is after 1 June 2015:

1. No net metering but if any monthly excess versus usage a credit of **5.84 cents/kWh**, **not the retail rate, the current cost to purchase solar electricity in the open market.**
2. Required three-part rates proposed above by company.

Overall, residential rates were increased more than commercial and mines/large the least. A "buy-through" rate was proposed for largest users (Wal-Mart) but was dropped by UNSE, however, Staff supports.

CARES goes to a \$17.00 month discount, (\$27.00 for medical CARES), to offset the \$15.00 Service Charge, also includes Volumetric and Demand Charges.

Other non-fuel charges may include a Lost Fixed Cost Recovery (LFCR), Renewable Energy Standard Tariff (REST), Demand Side Management (DSM), a Transmission Charge Adjustment (TCA), and then the fuel-dependent Purchase Power and Fuel Adjustment Charge (PPFAC) changed to Base Fuel (On/Off Peak), both ACC and RUCO surcharges, plus Arizona and County sales tax.

Do you understand your present bill?

**FROM THE REGULATORY ASSISTANCE PROJECT (RAP)  
at [www.raponline.org](http://www.raponline.org)**

***"DEMAND CHARGES: PATHWAY OR DETOUR?"*  
(WEBINAR, 10 DECEMBER 2015)**

**BURBANK RESIDENTIAL RATES IN 2015**

<b>Rate Component</b>	<b>Units</b>	<b>Amount</b>
<b>Customer Charge</b>	<b>\$/month</b>	<b>\$7.11</b>
<b>Service Charge:</b>	<b>\$/month</b>	
• <b>Small</b>	<b>Multifamily apartments</b>	<b>\$1.40</b>
• <b>Medium</b>	<b>Most single family homes</b>	<b>\$2.50</b>
• <b>Large</b>	<b>Over 400 Amp service panel</b>	<b>\$8.40</b>
<b>First 300 kWh</b>	<b>\$/kWhr</b>	<b>\$0.1153</b>
<b>Over 300 kWh</b>		<b>\$0.1872</b>

This design was designed to recover the cost of connection to the grid and other fixed costs and other incentives are in their plan to incentive energy efficiency and conservation.

Ref: slide 33 at <http://www.raponline.org/event/rate-advisory-demand-charges-ahead>

APS has the largest number of volunteer demand charge customers, about 11%; however, only those with over 1,000 kWh per month demand are considered because APS recommends smaller customers to not use Demand Charge. These demand charge customers average 2,000 kWh per month, which are larger residential customers, who have multiple AC units and/or swimming pools. An analysis is performed before shifting to Demand Charges, showing the savings for customers before shifting to this program.

**TOU is the best way to recover demand costs.**

**A SIMPLE COST-BASED RATE DESIGN**

**Customer-Specific Charges**

<b>Customer Charge</b>	<b>\$/month</b>	<b>\$3.00</b>
<b>Transformer:</b>	<b>\$/kVA/month</b>	<b>\$1.00</b>

**Bi-Directional Energy Charges**

<b>Off-Peak</b>	<b>\$/kWh</b>	<b>\$0.08</b>
<b>Mid-Peak</b>	<b>\$/kWh</b>	<b>\$0.12</b>
<b>On-Peak</b>	<b>\$/kWh</b>	<b>\$0.18</b>
<b>CRITICAL PEAK</b>	<b>\$/kWh</b>	<b>\$0.75</b>

Ref: slide 38 at <http://www.raponline.org/event/rate-advisory-demand-charges-ahead>

<b>GARFIELD AND LOVEJOY CRITERIA (for fair and reasonable rates) (from <i>Public Utility Economics</i>, 1964)</b>	<b>CP Demand Charge</b>	<b>NCP Demand Charge</b>	<b>TOU Energy Charge</b>
All customers should contribute to the recovery of capacity costs	No	Yes	Yes
The longer the period of time that customers preempt the use of capacity, the more they should pay for the use of that capacity	No	No	Yes
Any service making exclusive use of capacity should be assigned 100% of the relevant cost	Yes	No	Yes
The allocation of capacity costs should change gradually with changes in the pattern of usage	No	No	Yes
Allocation of costs to one class should not be affected by how remaining costs are allocated to other classes	No	No	Yes
More demand costs should be allocated to usage on-peak than off-peak	Yes	No	Yes
Interruptible service should be allocated less capacity costs, but still contribute something.	Yes	No	Yes