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# OPEN MEETING



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## MEMORANDUM

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ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission  
**DOCKETED**

JAN - 5 2010

DOCKETED BY *[Signature]*

TO: THE COMMISSION

FROM: Utilities Division

DATE: January 5, 2010

RE: UNS ELECTRIC, INC. - APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN (DOCKET NO. E-04204A-09-0347)

On July 2, 2009, UNS Electric, Inc. ("UNS" or "Company") filed for Commission approval of its 2010 Renewable Energy Standard and Tariff ("REST") Implementation Plan. As part of its application, UNS is seeking variances from REST rules regarding funding flexibility for distributed energy ("DE") funds and the allocation of DE between the residential and commercial sectors. UNS is also seeking approval of research and development ("R&D") spending and is requesting the ability to recover lost fixed revenue from DE projects.

On November 4, 2009, UNS filed a supplement to its REST implementation plan ("supplement"), presenting several new budget options as well as requesting Commission approval of a purchased power contract. Given the late date of the November supplemental filing, Staff is only addressing in this memorandum matters which must be considered in conjunction with approval of UNS' 2010 REST plan and thus will not address possible approval of the purchased power contract at this time.

UNS' original filing identifies a number of specific changes to various aspects of the REST plan, including:

1. Reduce Commercial performance-based incentives ("PBI") from \$0.18 per kWh (20 year contract) to \$0.162 per kWh
2. Increase the threshold between small and large commercial projects from 20 kWac<sup>1</sup> to 100kWac
3. Clarify the process for allocating funds to PBI projects
4. Change specifications for day lighting projects to better reflect industry standards
5. Develop a specific incentive program for ground source heat pumps

<sup>1</sup> kWac refers to kilowatt alternating current. Photovoltaic panels produce direct current ("dc") which is then converted to alternating current.

6. Alter incentives for residential and small commercial ground source heat pump cooling technology to be an up-front incentive ("UFI") set at \$500/ton, not to exceed 30% of the system cost (commercial cap only)
7. Incentives for commercial pool-heating PBI (including useful heat/square foot of pool surface) to be at \$0.010 - \$0.011 per kWh (currently \$.011 - \$0.012 per kWh)
8. Add a small commercial solar hot water UFI
9. Award all commercial off-grid PV incentives at a UFI

Staff does not object to these specific changes.

### **Purchased Power Agreement Description**

This section of the memorandum provides a brief description of the purchased power agreement referenced by UNS in its supplemental filing. As noted above, approval of this project is not addressed in this memorandum, but will be at a later date. UNS' supplemental filing requests approval of a 20-year agreement with West Wind Energy for between 7 and 11 MW of wind power and a minimum of 300 kW of solar generation, with the entire project producing approximately 22,000 MWh per year.

### **Variations from REST Rules**

UNS is requesting a number of variances from the REST rules. Some confusion in this docket exists regarding these matters, as in some places UNS has indicated it either wants the Commission to change the REST rules, or grant waivers to the REST rules. However, Staff has determined in discussions with UNS that the Company is seeking waivers regarding certain provisions.

### *Regulatory Contract Approval*

UNS is requesting that the Commission specifically approve purchased power and other REST-related contracts, and the full stream of payments over the lifetime of such contracts. In UNS' supplemental filing, the Company further requested creation of an expedited and streamlined approval process for contracts and purchased power agreements related to the REST rules. Under the streamlined process proposed by the Company, UNS would need to demonstrate that the contract was selected via competitive bidding, meets REST rules and requirements, is an appropriate part of UNS' energy portfolio, and is of reasonable cost compared to other renewable resources.

Staff is cognizant of UNS' desire for quick regulatory approval of a variety of contracts, but also recognizes that such approval constitutes a significant commitment of future ratepayer dollars to pay for these projects over the coming decades. While a quick process would certainly

make it easier to process pre-approval filings at the Commission, particularly in cases such as this where many contracts are before the Commission for approval, Staff believes further consideration must be given to such a process before it is implemented by the Commission, and sufficient safeguards would need to be in place to ensure that projects are carefully analyzed and in the public interest. This issue may be explored further as Staff considers UNS' request for approval of a purchased power agreement in this application that is not being addressed in the current memorandum.

### *REST Funding Flexibility*

UNS is seeking REST funding flexibility in a number of forms, including the flexibility to move funding between the residential and commercial segments for distributed energy and a possible removal of the cost recovery caps for customers in each customer class, per customer.

Regarding the cost recovery caps for each customer class, per customer, past UNS REST plans have included a cap on how much a customer in each customer class can pay via the REST charge on customer bills. UNS' initial filing in this case requested approval of a REST plan where there are no caps in any customer class, but rather all customer classes pay the same per kilowatt-hour ("kWh") REST charge. Past UNS REST plans have had proportionately much lower caps for larger users, such as industrial users, than for smaller users such as residential customers. Thus, UNS' initial proposal represented a significantly different, though more balanced, cost recovery allocation than UNS' past REST plans and their caps. In UNS' supplemental filing, it includes two more options, one which moderates the shift contained in the original option but still has no caps, and another that takes the caps contained in UNS' 2009 REST plan and increases them all by the same percentage. UNS is not proposing adoption of any one plan.

Use of caps has been widespread in REST plans in Arizona, as they limit the exposure any one customer has to paying REST charges. However, by having caps, inevitably low use customers and those customers in classes, such as the residential class, with proportionately higher caps end up paying proportionately more in REST charges, and high use customers and those customers in classes, such as the industrial class, with proportionately lower caps end up paying proportionately less in REST charges. While Staff, as discussed later in this memorandum, is recommending increasing the caps on an equal percentage basis in this matter, Staff believes that some movement toward a more equal payment of REST charges between and within customer classes warrants further consideration in the future by the Commission.

UNS' July 2, 2009 filing indicated that the proposed REST plan (and thereafter, the additional options contained in the supplemental plan) was based on a proposed 25/75 residential/commercial split for distributed energy between residential and commercial customers, rather than the 50/50 split required by the REST rules. The July 2nd filing also contained a request for a waiver from the 50/50 split requirement. In subsequent communications with Staff, UNS has indicated that these items were erroneously included in the initial filing, and UNS' initial filing and subsequent filings intended to put forth scenarios

reflecting only the 50/50 DE split. Staff has confirmed with UNS that the budget and other information provided in the initial filing and subsequent filings reflect the cost related to a 50/50 DE split, not a 25/75 DE split. Thus, no waiver is required regarding this issue.

UNS is also requesting funding flexibility to move funds between the residential and commercial segments for DE. The Company has indicated that this would allow them to shift funds from one segment where they are not using some of the funds to another segment where they could use more funds. While Staff supports some level of flexibility in concept, a significant problem with UNS' proposal is that it would likely result in shifting of funds from the residential segment to the commercial segment. Given the higher cost of residential DE projects than commercial DE projects, UNS would likely end up collecting significantly more funds through the REST charge than they actually need if funds were shifted to do commercial, rather than residential plans. Further, allowing movement of funds would raise the likelihood of UNS not meeting its residential DE requirements and could even lessen the impetus to meet that requirement. Additionally, UNS has not identified when such shifting could take place, how much could be shifted, and other details. Rather, UNS appears to be seeking broad discretion in how any shifting would take place between the residential and commercial DE segments. Thus, Staff recommends against granting UNS funding flexibility to move funds between the commercial and residential DE segments.

#### **Use of Previous Years' Funds to Pay for 2010 REST plan**

UNS' budget for the 2010 REST plan includes use of \$871,284 of 2008 REST funds to help pay for the 2010 REST plan. UNS is not proposing use of any 2009 carryover funds to fund the 2010 REST plan.

#### **Recovery of Lost Net Fixed Revenue for DE Projects**

UNS is requesting Commission approval for the recovery of lost net revenue resulting from lower energy purchases from the Company by customers who have deployed DE systems. The Commission has not granted lost net revenues as a result of DE deployments to any utility in Arizona. A variety of factors can cause consumption to increase and decrease. Granting this request would in essence create a form of revenue decoupling for UNS, without taking into consideration a variety of issues revenue decoupling entails, including other factors that might increase consumption by some UNS customers or UNS overall. Staff believes that this issue is more appropriately addressed in utility rate proceedings.

#### **UNS REST Experience Under 2009 REST Plan**

The Commission-approved implementation plan for 2009 contemplated a budget of \$5.0 million. UNS projects spending \$4.3 million in 2009.

Regarding installations and reservations, the table below summarizes UNS' installations through September 2009 and reservations for future installations.

Residential	Photovoltaics		Solar Hot Water		Wind	
	Number of Systems	kW	Number of Systems	kW	Number of Systems	kW
2009 Installations	134	639	48	46	76	161
Reservations	85	423	5	5	6	16

Commercial	Photovoltaics		Solar Hot Water		Wind	
	Number of Systems	kW	Number of Systems	kW	Number of Systems	kW
2009 Installations	7	1069	0	0	4	11
Reservations	5	5277	0	0	0	0

The table below shows UNS' estimates of required MWh and Produced/Banked MWh under the 2009 REST requirements. UNS provided Staff with three different numbers for the produced/banked MWh for meeting the Company's REST requirements. Staff believes that the metered number corresponds to the actual REST requirements, but has included the other two numbers for informational purposes. The metered number is the actual amount of MWh that was metered in 2009. Installed-annualized reflects if every system that is expected to be installed by the end of 2009 had operated for the full year in 2009. Installed-annualized/reserved reflects the installed-annualized number, plus an annualized number for all systems that have been reserved, but have not been installed as of the end of 2009.

	Required (MWH)	Produced/Banked (MWH)
Residential DE	2,656	906 (Metered) 2,324 (installed – annualized) 2,332 (installed – annualized/reserved)
Commercial DE	2,656	39 (metered) 74 (installed – annualized) 411 (installed – annualized/reserved)
Non-DE	29,774	29,774

**Research and Development**

UNS is requesting approval of funding for three research and development (“R&D”) projects. UNS is participating in these projects jointly with Tucson Electric Power Company (“TEP”) by providing a portion of the funding for each project. The projects include a grid stability analysis project, a grid management DE impact analysis, and a number of projects through UNS' partnership with AZRise. AZRise projects include various work at the TEP Solar Test Yard. Funding for these projects is as shown in the following table.

Project	2010 Funding Level
Grid Stability Analysis Project	\$5,000
Grid Management DE Impact Analysis	\$25,000
AZRise Research	\$20,000

**Proposed 2010 REST Budgets**

UNS' supplemental filing contains a budget request of approximately \$8 million for its 2010 REST plan, but it must be recognized that to achieve UNS' proposed spending in 2010, UNS is also relying on use of approximately \$0.9 million in carryover 2008 REST funds. This would result in total projected spending in 2010 of approximately \$8.9 million. However, only the \$8.1 million would have to be recovered through the 2010 REST charge.

Staff's proposed budget is \$7.8 million, removing approximately \$0.2 million for lost revenue costs Staff is recommending not be approved as well as somewhat lower administrative costs. As with the proposed UNS plans, Staff would include the roughly \$0.9 million in funding from 2008 carryover funds to help pay for total spending in 2010 of approximately \$8.7 million under Staff's proposal. The table below summarizes the proposed budgets.

	UNS Budget	Staff Proposed Budget
Amount To Be Recovered Through 2010 REST Charge	\$8,059,704	\$7,834,136
2008 REST Funding Carried Forward	\$871,183	\$871,183
Total 2010 Projected Spending	\$8,930,887	\$8,705,319

The table below shows proposed spending levels by area for each of the three budget options discussed herein.

Budget Components	2009 Approved REST Plan	UNS Proposed Budget	Staff Proposed Budget
<i>Purchased Renewable Energy</i>			
Above market cost of conventional generation	\$497,303	\$1,877,284	\$1,877,284
Other	\$27,000	\$27,000	\$27,000
Subtotal	\$524,303	\$1,904,284	\$1,904,284
<i>Customer Sites Distributed Renewable Energy</i>			
Up-front payments to customers	\$2,796,771	\$5,146,623	\$5,146,623
Production based payments to customers	\$682,303	\$782,412	\$782,412
Lost net revenue and performance incentive	\$0	\$198,188	\$0
Outreach efforts	\$400,000	\$200,000	\$200,000

Other	\$340,000	\$471,000	\$471,000
Subtotal	\$4,219,074	\$6,798,221	\$6,600,035
<i>Information Systems</i>			
Subtotal	\$175,000	\$50,000	\$50,000
<i>Net Metering</i>			
Subtotal	\$24,000	\$48,382	\$36,000
<i>Reporting</i>			
Subtotal	\$60,500	\$60,500	\$60,500
<i>Outside Coordination and Support</i>			
Support to university research	\$20,000	\$20,000	\$20,000
Other	\$20,000	\$49,500	\$34,500
Subtotal	\$40,000	\$69,500	\$54,500
Total Budget	\$5,042,877	\$8,930,887	\$8,705,319

**Recovery of Funds Through 2010 REST Charge**

As noted in the previous section, there are two different amounts to be recovered through the 2010 REST charge, depending upon which budget above is chosen, either \$8.1 million under UNS' proposed budget or \$7.8 million under the Staff proposal.

*50/50 Residential/Commercial DE Split Options*

The following tables and text show the three options UNS put forth in its supplemental filing, Original Plan, Modified Plan, and Proportional Plan, with the DE split set at 50/50 between residential and commercial customers, as required by the REST rules. The following tables also show Staff's proposed plan, which uses the 50/50 split and a roughly proportional plan approach, but with a lower total amount to be recovered, as discussed in the budget section of this memorandum.

For UNS' three options, as well as the Staff proposed plan, the following table summarizes the charge per kWh for each class under each option.

	2009 Approved REST Charge (per kWh)	Originally Filed Option REST Charge (per kWh)	Modified Option REST Charge (per kWh)	Proportional Option REST Charge (per kWh)	Staff Proposal REST Charge (per kWh)	2009 Approved Cap	Proportional Option Cap for 2010 REST Plan	Staff Proposal Cap for 2010 REST Plan
Residential	\$0.006	\$0.004308	\$0.004989	\$0.008575	\$0.007134	\$4.00	\$8.00	\$9.00
Commercial	\$0.006	\$0.004308	\$0.004413	\$0.008575	\$0.007134	\$60.00	\$120.00	\$140.00
Industrial	\$0.006	\$0.004308	\$0.002866	\$0.008575	\$0.007134	\$1,000.00	\$2,000.00	\$2,700.00
Lighting/ Public Authority	\$0.006	\$0.004308	\$0.004413	\$0.008575	\$0.007134	\$60.00	\$120.00	\$140.00

The cost recovery by customer class and average bill by customer class for all three options and the Staff proposal, as well as the percentage of customers at the cap for each customer class for the proportional option and the Staff proposal are shown in the table below.

THE COMMISSION

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	Originally Filed Option	Modified Option	Proportional Option	Staff Proposal
Residential	\$3,506,147 (43.5%)	\$4,060,253 (50.4%)	\$4,999,852 (62.0%)	\$4,781,326 (61.0%)
Commercial	\$2,697,241 (33.5%)	\$2,762,981 (34.3%)	\$2,589,278 (32.1%)	\$2,449,876 (31.3%)
Industrial	\$1,852,069 (23.0%)	\$1,232,133 (15.3%)	\$464,143 (5.8%)	\$596,908 (7.6%)
Lighting/Public Authority	\$4,044 (0.1%)	\$4,143 (0.1%)	\$6,302 (0.1%)	\$5,770 (0.1%)
Total	\$8,059,502	\$8,059,511	\$8,059,575	\$7,833,785
Residential - Average Bill	\$3.72	\$4.31	\$7.41	\$6.16
Commercial - Average Bill	\$21.86	\$23.32	\$21.86	\$20.68
Industrial - Average Bill	\$8,123.11	\$5,404.09	\$2,035.72	\$2,618.02
Lighting/Public Authority - Average Bill	\$1.65	\$1.69	\$2.56	\$2.35
Residential - Percent at Cap	-	-	34.4%	21.7%
Commercial - Percent at Cap	-	-	6.8%	5.1%
Industrial - Percent at Cap	-	-	95.92%	68.88%
Lighting/Public Authority - Percent at Cap	-	-	0.5%	0.5%

Customer bill impacts for various types of customers under the 2009 plan, the three UNS options and the Staff proposal are shown in the table below.

Customer Types	kWh / mo.	UNS Plans				
		2009 Approved Plan	Original Plan	Modified Plan	Proportional Plan	Staff Plan
Low Consuming Residence	400	\$2.40	\$1.72	\$2.00	\$3.43	\$2.85
Avg. Consuming Residence	864	\$4.00	\$3.72	\$4.31	\$7.41	\$6.16
High Use Residence	2,000	\$4.00	\$8.62	\$9.98	\$8.00	\$9.00
Dentist Office	2,000	\$12.00	\$8.62	\$8.83	\$17.15	\$14.27
Hairstylist	3,900	\$23.40	\$16.80	\$17.21	\$33.44	\$27.82
Department Store	170,000	\$60.00	\$732.36	\$750.21	\$120.00	\$140.00

Mall	1,627,100	\$60.00	\$7,009.55	\$7,180.39	\$120.00	\$140.00
Retail Video Store	14,400	\$60.00	\$62.04	\$63.55	\$120.00	\$102.73
Large Hotel	1,067,100	\$60.00	\$4,597.07	\$4,709.11	\$120.00	\$140.00
Large Building Supply	346,500	\$60.00	\$1,492.72	\$1,529.10	\$120.00	\$140.00
Hotel/Motel	27,960	\$60.00	\$120.45	\$123.39	\$120.00	\$140.00
Fast Food	60,160	\$60.00	\$259.17	\$265.49	\$120.00	\$140.00
Large High Rise Office Bldg	1,476,100	\$60.00	\$6,359.04	\$6,514.03	\$120.00	\$140.00
Hospital (< 3 MW)	1,509,600	\$60.00	\$6,503.36	\$6,661.86	\$120.00	\$140.00
Supermarket	233,600	\$60.00	\$1,006.35	\$1,030.88	\$120.00	\$140.00
Convenience Store	20,160	\$60.00	\$86.85	\$88.97	\$120.00	\$140.00
Hospital (> 3 MW)	2,700,000	\$1,000.00	\$11,632	\$7,738	\$2,000.00	\$2,700.00
Copper Mine	72,000,000	\$1,000.00	\$310,176	\$206,352	\$2,000.00	\$2,700.00

### REST Adjustor Mechanism

The Commission established a REST adjustor mechanism for UNS in Decision No. 70360 (May 28, 2008). The REST adjustor rate is reset as part of the approval of each year's new REST implementation plan.

### Staff Recommendations

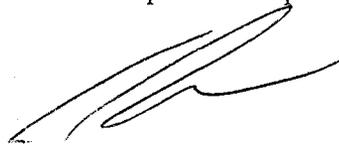
1. Staff recommends that the Commission approve the Staff proposed 2010 REST plan, reflecting the 50/50 DE split between residential and commercial customers, REST charge of \$0.007134 per kWh, and related caps. This includes a total budget of \$8,705,319, the carry forward of \$871,183 of 2008 REST funds, and the recovery of \$7,833,785 through the proposed REST charge and related caps.
2. Staff recommends approval of UNS' proposed research and development projects and funding.
3. Staff recommends that the Commission not approve of UNS' request for the flexibility to move funds between the residential and commercial segments.
4. Staff recommends that the Commission not approve UNS' request for an expedited and streamlined pre-approval process for contracts and projects.
5. Staff recommends that the Commission not approve UNS' request for lost net revenue resulting from DE deployments and related costs at this time, but that the Commission review and address lost net revenue resulting from DE deployments and related costs if requested to do so by the affected utility in its rate case and the affected utility provides documentation/records supporting its request in the rate application.

THE COMMISSION

January 5, 2010

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6. Staff further recommends that TEP may, at its own initiative, submit to the Commission, as part of its annual REST reports, documentation showing any lost net revenue resulting from DE deployments.
7. Staff recommends that the Commission not act on the request for pre-approval of the purchased power contract at this time.



Steven M. Olea  
Director  
Utilities Division

SMO:RGG:lhm\MAS

ORIGINATOR: Robert Gray

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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

IN THE MATTER OF THE APPLICATION  
 OF UNS ELECTRIC INC. FOR APPROVAL  
 OF ITS RENEWABLE ENERGY  
 STANDARD AND TARIFF  
 IMPLEMENTATION PLAN

DOCKET NO. E-04204A-09-0347  
 DECISION NO. \_\_\_\_\_  
ORDER

Open Meeting  
 January 12 and 13, 2010  
 Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Electric Inc. ("UNS" or "Company") is engaged in providing electric service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.
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5 waiver is required regarding this issue.

6 14. UNS is also requesting funding flexibility to move funds between the residential  
7 and commercial segments for DE. The Company has indicated that this would allow it to shift  
8 funds from one segment where they are not using some of the funds to another segment where they  
9 could use more funds. While Staff supports some level of flexibility in concept, a significant  
10 problem with UNS' proposal is that it would likely result in shifting of funds from the residential  
11 segment to the commercial segment. Given the higher cost of residential DE projects than  
12 commercial DE projects, UNS would likely end up collecting significantly more funds through the  
13 REST charge than it actually needs if funds were shifted to do commercial, rather than residential  
14 plans. Further, allowing movement of funds would raise the likelihood of UNS not meeting its  
15 residential DE requirements and could even lessen the impetus to meet that requirement.  
16 Additionally, UNS has not identified when such shifting could take place, how much could be  
17 shifted, and other details. Rather, UNS appears to be seeking broad discretion in how any shifting  
18 would take place between the residential and commercial DE segments. Thus, Staff recommends  
19 against granting UNS funding flexibility to move funds between the commercial and residential  
20 DE segments.

#### 21 Use of Previous Years' Funds to Pay for 2010 REST plan

22 15. UNS' budget for the 2010 REST plan includes use of \$871,284 of 2008 REST  
23 funds to help pay for the 2010 REST plan. UNS is not proposing use of any 2009 carryover funds  
24 to fund the 2010 REST plan.

#### 25 Recovery of Lost Net Fixed Revenue for DE Projects

26 16. UNS is requesting Commission approval for the recovery of lost net revenue  
27 resulting from lower energy purchases from the Company by customers who have deployed DE  
28 systems. The Commission has not granted lost net revenues as a result of DE deployments to any

1 utility in Arizona. A variety of factors can cause consumption to increase and decrease. Granting  
 2 this request would in essence create a form of revenue decoupling for UNS, without taking into  
 3 consideration a variety of issues revenue decoupling entails, including other factors that might  
 4 increase consumption by some UNS customers or UNS overall.

5 UNS REST Experience Under 2009 REST Plan

6 17. The Commission-approved implementation plan for 2009 contemplated a budget of  
 7 \$5.0 million. UNS projects spending \$4.3 million in 2009.

8 18. Regarding installations and reservations, the table below summarizes UNS'  
 9 installations through September 2009 and reservations for future installations.

Residential	Photovoltaics		Solar Hot Water		Wind	
	Number of Systems	kW	Number of Systems	kW	Number of Systems	kW
2009 Installations	134	639	48	46	76	161
Reservations	85	423	5	5	6	16

Commercial	Photovoltaics		Solar Hot Water		Wind	
	Number of Systems	kW	Number of Systems	kW	Number of Systems	kW
2009 Installations	7	1069	0	0	4	11
Reservations	5	5277	0	0	0	0

17  
 18 19. The table below shows UNS' estimates of required MWh and Produced/Banked  
 19 MWh under the 2009 REST requirements. UNS provided Staff with three different numbers for  
 20 the produced/banked MWH for meeting the Company's REST requirements. Staff believes that  
 21 the metered number corresponds to the actual REST requirements, but has included the other two  
 22 numbers for informational purposes. The metered number is the actual amount of MWh that was  
 23 metered in 2009. Installed-annualized reflects if every system that is expected to be installed by  
 24 the end of 2009 had operated for the full year in 2009. Installed-annualized/reserved reflected the  
 25 installed-annualized number, plus an annualized number for all systems that have been reserved,  
 26 but have not been installed as of the end of 2009.

27 ...

28 ...

	Required (MWH)	Produced/Banked (MWH)
Residential DE	2,656	906 (Metered) 2,324 (installed – annualized) 2,332 (installed – annualized/reserved)
Commercial DE	2,656	39 (metered) 74 (installed – annualized) 411 (installed – annualized/reserved)
Non-DE	29,774	29,774

### Research and Development

20. UNS is requesting approval of funding for three research and development (“R&D”) projects. UNS is participating in these projects jointly with Tucson Electric Power Company (“TEP”) by providing a portion of the funding for each project. The projects include a grid stability analysis project, a grid management DE impact analysis, and a number of projects through UNS’ partnership with AZRise. AZRise projects include various work at the TEP Solar Test Yard. Funding for these projects is as shown in the following table.

Project	2010 Funding Level
Gris Stability Analysis Project	\$5,000
Grid Management DE Impact Analysis	\$25,000
AZRise Research	\$20,000

### Proposed 2010 REST Budgets

21. UNS’ supplemental filing contains a budget request of approximately \$8.1 million for its 2010 REST plan, but it must be recognized that to achieve UNS’ proposed spending in 2010, UNS is also relying on use of approximately \$0.9 million in carryover 2008 REST funds. This would result in total projected spending in 2010 of approximately \$8.9 million. However, only the \$8.1 million would have to be recovered through the 2010 REST charge.

22. Staff’s proposed budget is \$7.8 million, removing approximately \$0.2 million for lost revenue costs Staff is recommending not be approved as well as somewhat lower administrative costs. As with the proposed UNS plans, Staff would include the roughly \$0.9 million in funding from 2008 carryover funds to help pay for total spending in 2010 of approximately \$8.7 million under Staff’s proposal. The table below summarizes the proposed budgets.

	UNS Budget	Staff Proposed Budget
Amount To Be Recovered Through 2010 REST Charge	\$8,059,704	\$7,834,136
2008 REST Funding Carried Forward	\$871,183	\$871,183
Total 2010 Projected Spending	\$8,930,887	\$8,705,319

23. The table below shows proposed spending levels by area for each of the three budget options discussed herein.

Budget Components	2009 Approved REST Plan	UNS Proposed Budget	Staff Proposed Budget
<i>Purchased Renewable Energy</i>			
Above market cost of conventional generation	\$497,303	\$1,877,284	\$1,877,284
Other	\$27,000	\$27,000	\$27,000
Subtotal	\$524,303	\$1,904,284	\$1,904,284
<i>Customer Sites Distributed Renewable Energy</i>			
Up-front payments to customers	\$2,796,771	\$5,146,623	\$5,146,623
Production based payments to customers	\$682,303	\$782,412	\$782,412
Lost net revenue and performance incentive	\$0	\$198,188	\$0
Outreach efforts	\$400,000	\$200,000	\$200,000
Other	\$340,000	\$471,000	\$471,000
Subtotal	\$4,219,074	\$6,798,221	\$6,600,035
<i>Information Systems</i>			
Subtotal	\$175,000	\$50,000	\$50,000
<i>Net Metering</i>			
Subtotal	\$24,000	\$48,382	\$36,000
<i>Reporting</i>			
Subtotal	\$60,500	\$60,500	\$60,500
<i>Outside Coordination and Support</i>			
Support to university research	\$20,000	\$20,000	\$20,000
Other	\$20,000	\$49,500	\$34,500
Subtotal	\$40,000	\$69,500	\$54,500
Total Budget	\$5,042,877	\$8,930,887	\$8,705,319

#### Recovery of Funds Through 2010 REST Charge

24. As noted in the previous section, there are two different amounts to be recovered through the 2010 REST charge, depending upon which budget above is chosen, either \$8.1 million under UNS' proposed budget or \$7.8 million under the Staff proposal.

....

1 50/50 Residential/Commercial DE Split Options

2 25. The following tables and text show the three options UNS put forth in its  
3 supplemental filing, Original Plan, Modified Plan, and Proportional Plan, with the DE split set at  
4 50/50 between residential and commercial customers, as required by the REST rules. The  
5 following tables also show Staff's proposed plan, which uses the 50/50 split and a roughly  
6 proportional plan approach, but with a lower total amount to be recovered, as discussed in the  
7 budget section of this memorandum.

8 26. For UNS' three options, as well as the Staff proposed plan, the following table  
9 summarizes the charge per kWh for each class under each option.

	2009 Approved REST Charge (per kWh)	Originally Filed Option REST Charge (per kWh)	Modified Option REST Charge (per kWh)	Proportional Option REST Charge (per kWh)	Staff Proposal REST Charge (per kWh)	2009 Approved Cap	Proportional Option Cap for 2010 REST Plan	Staff Proposal Cap for 2010 REST Plan
Residential	\$0.006	\$0.004308	\$0.004989	\$0.008575	\$0.007134	\$4.00	\$8.00	\$9.00
Commercial	\$0.006	\$0.004308	\$0.004413	\$0.008575	\$0.007134	\$60.00	\$120.00	\$140.00
Industrial	\$0.006	\$0.004308	\$0.002866	\$0.008575	\$0.007134	\$1,000.00	\$2,000.00	\$2,700.00
Lighting/ Public Authority	\$0.006	\$0.004308	\$0.004413	\$0.008575	\$0.007134	\$60.00	\$120.00	\$140.00

16 27. The cost recovery by customer class and average bill by customer class for all three  
17 options and the Staff proposal, as well as the percentage of customers at the cap for each customer  
18 class for the proportional option and the Staff proposal are shown in the table below.

	Originally Filed Option	Modified Option	Proportional Option	Staff Proposal Option
Residential	\$3,506,147 (43.5%)	\$4,060,253 (50.4%)	\$4,999,852 (62.0%)	\$4,781,326 (61.0%)
Commercial	\$2,697,241 (33.5%)	\$2,762,981 (34.3%)	\$2,589,278 (32.1%)	\$2,449,876 (31.3%)
Industrial	\$1,852,069 (23.0%)	\$1,232,133 (15.3%)	\$464,143 (5.8%)	\$596,908 (7.6%)
Lighting/Public Authority	\$4,044 (0.1%)	\$4,143 (0.1%)	\$6,302 (0.1%)	\$5,770 (0.1%)
Total	\$8,059,502	\$8,059,511	\$8,059,575	\$7,833,785
Residential - Average Bill	\$3.72	\$4.31	\$7.41	\$6.16
Commercial - Average Bill	\$21.86	\$23.32	\$21.86	\$20.68
Industrial - Average Bill	\$8,123.11	\$5,404.09	\$2,035.72	\$2,618.02
Lighting/Public	\$1.65	\$1.69	\$2.56	\$2.35

1	Authority - Average Bill				
2	Residential – Percent at Cap	-	-	34.4%	21.7%
3	Commercial – Percent at Cap	-	-	6.8%	5.1%
4	Industrial – Percent at Cap	-	-	95.92%	68.88%
5	Lighting/Public Authority – Percent at Cap	-	-	0.5%	0.5%
6					

7           28.     Customer bill impacts for various types of customers under the 2009 plan, the three  
8     UNS options and the Staff proposal are shown in the table below.

Customer Types	kWh / mo.	2009 Approved Plan	UNS Plans		Proportional Plan	Staff Plan
			Original Plan	Modified Plan		
Low Consuming Residence	400	\$2.40	\$1.72	\$2.00	\$3.43	\$2.85
Avg. Consuming Residence	864	\$4.00	\$3.72	\$4.31	\$7.41	\$6.16
High Use Residence	2,000	\$4.00	\$8.62	\$9.98	\$8.00	\$9.00
Dentist Office	2,000	\$12.00	\$8.62	\$8.83	\$17.15	\$14.27
Hairstylist	3,900	\$23.40	\$16.80	\$17.21	\$33.44	\$27.82
Department Store	170,000	\$60.00	\$732.36	\$750.21	\$120.00	\$140.00
Mall	1,627,100	\$60.00	\$7,009.55	\$7,180.39	\$120.00	\$140.00
Retail Video Store	14,400	\$60.00	\$62.04	\$63.55	\$120.00	\$102.73
Large Hotel	1,067,100	\$60.00	\$4,597.07	\$4,709.11	\$120.00	\$140.00
Large Building Supply	346,500	\$60.00	\$1,492.72	\$1,529.10	\$120.00	\$140.00
Hotel/Motel	27,960	\$60.00	\$120.45	\$123.39	\$120.00	\$140.00
Fast Food	60,160	\$60.00	\$259.17	\$265.49	\$120.00	\$140.00
Large High Rise Office Bldg	1,476,100	\$60.00	\$6,359.04	\$6,514.03	\$120.00	\$140.00
Hospital (< 3 MW)	1,509,600	\$60.00	\$6,503.36	\$6,661.86	\$120.00	\$140.00
Supermarket	233,600	\$60.00	\$1,006.35	\$1,030.88	\$120.00	\$140.00
Convenience Store	20,160	\$60.00	\$86.85	\$88.97	\$120.00	\$140.00
Hospital (> 3 MW)	2,700,000	\$1,000.00	\$11,632	\$7,738	\$2,000.00	\$2,700.00
Copper Mine	72,000,000	\$1,000.00	\$310,176	\$206,352	\$2,000.00	\$2,700.00

### 23     REST Adjustor Mechanism

24           29.     The Commission established a REST adjustor mechanism for UNS in Decision  
25     Number 70360 (May 28, 2008). The REST adjustor rate is reset as part of the approval of each  
26     year's new REST implementation plan.

27     ...

28     ...

1 Staff Recommendations

2 30. Staff recommends that the Commission approve the Staff proposed 2010 REST  
3 plan, reflecting the 50/50 DE split between residential and commercial customers, REST charge of  
4 \$0.007134 per kWh, and related caps. This includes a total budget of \$8,705,319, the carry  
5 forward of \$871,183 of 2008 REST funds, and the recovery of \$7,833,785 through the proposed  
6 REST charge and related caps.

7 31. Staff recommends approval of UNS' proposed research and development projects  
8 and funding.

9 32. Staff recommends against approval of UNS' request for the flexibility to move  
10 funds between the residential and commercial segments.

11 33. Staff recommends that the Commission not approve UNS' request for an expedited  
12 and streamlined pre-approval process for contracts and projects.

13 34. Staff recommends that the Commission not approve UNS' request for lost net  
14 revenue resulting from DE deployments and related costs at this time, but that the Commission  
15 review and address loss net revenue resulting from DE deployments and related costs if requested  
16 to do so by the affected utility in its rate case and the affected utility provides  
17 documentation/records supporting its request in the rat application.

18 35. Staff recommends that UNS may, at its own initiative, submit to the Commission,  
19 as part of its annual REST reports, documentation showing any lost net revenue resulting from DE  
20 deployments.

21 36. Staff recommends that the Commission not act on requests for pre-approval of the  
22 purchased power contract.

23 CONCLUSIONS OF LAW

24 1. UNS is an Arizona public service corporation within the meaning of Article XV,  
25 Section 2, of the Arizona Constitution.

26 2. The Commission has jurisdiction over UNS and over the subject matter of the  
27 application.

28 ...



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