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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

Arizona Corporation Commission
DOCKETED
DEC 10 2010

DOCKETED BY nr

IN THE MATTER OF UNS ELECTRIC,
INC.'S APPLICATION FOR APPROVAL OF
MODIFICATION AND EXPANSION OF
ITS RESIDENTIAL HVAC RETROFIT
PROGRAM

DOCKET NO. E-04204A-07-0365
DECISION NO. 72024
ORDER

Open Meeting
November 22 and 23, 2010
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Electric, Inc. ("UNS Electric" or "the Company") is certificated to provide electric service as a public service corporation in the State of Arizona.

BACKGROUND

2. In Decision No. 70377 (June 13, 2008), the Arizona Corporation Commission ("Commission") approved the Residential HVAC Retrofit program for UNS Electric but ordered the Company to "review the energy savings from the program in order to determine whether a contractor qualification and incentive component, similar to that in place for Arizona Public Service ("APS") Residential HVAC DSM program, would help to ensure cost-effective energy savings."

3. As a result of such review, on April 2, 2010, UNS Electric filed a Request for Approval of Modification and Expansion of Residential HVAC Retrofit Program, now called the "Existing Homes Program" (the "Program"). The expanded Program proposes to provide

1 incentives for high-efficiency heating, ventilation, and air conditioning (“HVAC”) equipment and
2 for home performance services, such as sealing leaky duct work; and installing insulation, air
3 sealing, and other thermal envelope improvements in existing homes.

4 4. Upon Program approval by the Commission, UNS Electric will issue a request for
5 proposal (“RFP”) to select an implementation contractor. UNS Electric anticipates it will take two
6 months to complete the RFP process to select and hire an implementation contractor and three
7 months for the contractor to complete final Program operational design and launch the Program.

8 **PROGRAM DESCRIPTION**

9 5. Goals. The expanded Program will focus on proper sizing and quality installation
10 of high efficiency HVAC equipment, sealing leaky duct work, and installation of thermal envelope
11 measures as well as advancing the building science skills of participating contractors leading to
12 eventual Building Performance Institute (“BPI”) certification. Total Program participation in 2011
13 for all measures is estimated at 665 units.

14 6. According to UNS Electric, the Program is intended to be a precursor to the launch
15 of the statewide Arizona Home Performance Program, currently being researched by a
16 collaborative of Arizona utilities through a grant from the U.S. Department of Energy. After
17 design is complete, the Arizona Home Performance Program will be submitted to the U.S.
18 Environmental Protection Agency (“EPA”) with a request to utilize EPA labeling as Home
19 Performance with Energy Star.

20 7. Eligibility. Customer eligibility: Program participants must be in existing residential
21 homes currently served by UNS Electric. Existing residential homes include single-family
22 detached homes, town homes and other attached residential buildings with up to four units.

23 8. Contractor eligibility: According to UNS Electric, participating contractors will be
24 rigorously screened for inclusion on a list of qualified contractors. Criteria for inclusion will
25 include training requirements that result in successful BPI Building Analyst certification. BPI
26 certification must be obtained within one year of participation in the Program, or before the
27 statewide Arizona Home Performance with Energy Star program is launched, whichever is sooner.
28 This phrase should be interpreted to mean that within one year of implementation of the Program,

1 all participating contractors must be BPI certified. This gives contractors twelve months to
2 become certified, which is meant to ease the transition. Once the twelve months has elapsed,
3 however, all contractors whether just joining the Program or not, will have to be BPI certified.
4 Contractors must also be licensed, bonded and insured and maintain a good standing with the
5 Better Business Bureau.

6 9. Measures. UNS Electric has determined that its current residential HVAC program,
7 which offers incentives for residential HVAC equipment, is not achieving the desired cost-
8 effective savings. According to UNS Electric, significant energy savings and demand savings
9 opportunities exist to achieve residential energy savings through the proposed Program.

- 10 • HVAC Replacement on Burnout: Incentives are offered for the installation of
11 HVAC equipment (Central Air Conditioners and Heat Pumps – split or
12 packaged) that are ENERGY STAR qualified. For simplicity, UNS Electric
13 proposes that the efficiency eligibility criteria be based solely on HVAC
14 equipment meeting minimum ENERGY STAR efficiency standards.
15 Additionally, quality installation and duct-sealing are required for all HVAC
16 measures, as described below.
 - 17 ○ Quality Installation: includes proper sizing and matching of system
18 condenser and coil, correct refrigerant charge, and proper air-flow.
19 Completion of a Manual J system sizing test, published by the Air
20 Conditioning Contractors of America, is required and will be collected and
21 reviewed by the Program manager.
 - 22 ○ HVAC Equipment Downsizing Incentive: An additional incentive is
23 available if the participating contractor demonstrates that the new system
24 installed is at least 0.5 tons smaller than the system being replaced, yet still
25 within the recommended sizing guidelines per the Manual J test.
- 26 • HVAC Early Retirement: Incentives for Energy Star HVAC equipment
27 (Central A/Cs and Heat Pumps – split or packaged) are offered for the early
28 retirement of existing HVAC systems that are fully operational and have a
SEER rating of less than or equal to 9.0. Quality installation and duct-sealing
are also required for this incentive.
 - The HVAC Equipment Downsizing Incentive is also available for HVAC
Early Retirement.
- Duct Sealing: This measure/incentive is for customers that have not participated
in the HVAC replace on burnout or early retirement programs. This incentive
is based on how the effectiveness of the duct-work is reported. Contractors
have two options:

- 1 ○ Prescriptive Duct Sealing: The prescriptive duct sealing approach requires
2 contractors to complete a duct-sealing check-list that identifies typical high-
3 duct leakage locations and identify actions taken to repair/seal leaks. This
4 approach does not require the use of diagnostic testing equipment such as a
5 Duct Blaster. As part of quality assurance/quality control, UNS Electric
6 will randomly sample installations to confirm contractors are complying
7 with the prescriptive duct sealing requirements.
- 8 ○ Performance Duct Sealing: The performance duct sealing approach is
9 similar to the prescriptive duct sealing method, requiring a contractor check-
10 list of work completed, however, the incentive is based on performance
11 tested pre and post duct-sealing leakage reductions as measured in CFM-25
12 (cubic feet per minute at 25 Pascals of pressure). This performance-based
13 incentive option is available only for participating BPI certified contractors.
- 14 • Air Sealing and Thermal Air Barrier: A blower door test by a trained and
15 participating contractor shall be required with reported air leakage numbers in
16 CFM-50 (cubic feet per minute at 50 Pascals of pressure) before air sealing and
17 thermal air barrier measures are implemented, and CFM-50 after air sealing has
18 been completed. A summary showing net air leakage reduction and methods
19 used to achieve the reduction will be required to receive an incentive.
20 Combustion safety testing is required.
- 21 • Air Sealing, Thermal Air Barrier, and Insulation: Homes are eligible for this
22 joint air sealing and attic insulation incentive only if the existing attic insulation
23 has an R-value (resistance to heat flow) of less than or equal to R-13 and the
24 insulation upgrade is greater than or equal to R-38. Participating contractors
25 will be required to use a Blower Door Test and report pre and post air-leakage
26 reductions recorded in CFM-50. Combustion safety testing is required. A
27 prerequisite for the insulation rebate is a blower door test by a trained and
28 certified contractor. If the blower door test shows building air leakage is great
29 than 0.35 ACH (air changes per hour), then air sealing and thermal air barrier
30 repair must be completed prior to the installation of new insulation.
- 31 • Solar Shade Screens/Window Film: This measure requires that shade
32 screens/window film is installed at a minimum on the South and West exposure
33 of the home. Shade screens and window film must have a shading coefficient
34 of less than or equal to 0.40 or equivalent to blocking "80% of the sun's heat."
35 Participating contractors who only install shade screens/window film will not
36 be required to obtain BPI certification.

10. All program-approved HVAC, duct sealing, air sealing, and insulation contractors
must be able to perform a combustion appliance safety test with a combustion appliance and notify
the customer of any deficiencies. All deficiencies must be corrected before duct system repairs or
air leakage and insulation measures are performed.

11. Incentives. Incentives for the purchase of qualifying high-efficiency equipment and/or home performance services will be paid directly to contractors, with a requirement that the customer invoice clearly show the utility rebate and customer discount. UNS Electric believes this approach of paying the incentive directly to the contractor will assist with overall Program promotion and contractors agreeing to abide by the new required terms and conditions, and heightened standards of professional installation that UNS Electric will be requiring.

Table 1. Proposed Incentives Schedule

Measure	Max Incentive/ Measure	Projected Units Rebated		
		2010	2011	2012
Replace On Burnout HVAC with Quality Installation and Duct Sealing, Prescriptive	\$850	50	100	150
Replace On Burnout HVAC with Quality Installation and Duct Sealing, Performance	\$1,000	25	50	75
Early Retirement HVAC with Quality Installation and Duct Sealing, Prescriptive	\$1,500	50	75	100
Early Retirement HVAC with Quality Installation and Duct Sealing, Performance	\$1,700	25	50	75
Duct Sealing, Prescriptive	\$350	50	100	150
Duct Sealing, Performance	\$650	20	40	60
Air Sealing	\$250	50	100	150
Air Sealing & Attic Insulation	\$800	50	100	150
Shade Screens/Window Film	\$250	30	50	100

DELIVERY STRATEGY AND ADMINISTRATION

12. UNS Electric will provide Program management oversight and marketing and rebate processing.

13. Field delivery and implementation of the Program, including responsibilities for recruitment, training, and mentorship of participating contractors will be outsourced to a competitively selected third party provider. This third party implementation contractor will also be responsible for data tracking, technical support and for participating contractors.

14. The actual direct delivery of efficiency services to residential customers will be by participating independent contractors.

1 15. UNS Electric anticipates that this program will be delivered in conjunction with its
2 proposed Residential Energy Assessment Program (“REAP”).¹ As part of the energy audit within
3 the REAP, customers will be provided information on available incentives offered through the
4 Existing Homes Program. However, participation in the REAP is not a prerequisite for taking
5 advantage of the incentives offered through this Program.

6 16. Key partnering relationships will include:

- 7 • Community interest groups;
- 8 • HVAC, insulation, and air sealing training professionals;
- 9 • HVAC, insulation, and air sealing contractors trained in Program procedures;
10 and
- 11 • The Arizona Energy Office and local community colleges, or other industry
12 experts and institutions to provide training, education and awareness.

13 17. Building Performance Institute Certification. The Program will initially recruit local
14 contractors, encouraging those with existing BPI certified technicians, and Home Energy Rating
15 System (“HERS”) certifications to become participating contractors. There are currently more
16 than 100 BPI certified contractors in the state of Arizona but none of these are located in UNS
17 Electric service territory.

18 18. BPI certification will not be required for the initial launch of the Program redesign
19 with consumer marketing and contractor training in 2010 emphasizing the importance of BPI
20 certification. BPI certification, or its equivalent, as a Building Analyst, will, however, be required
21 within 1 year of Program participation or prior to the launch of the Arizona Statewide Home
22 Performance Program, whichever is sooner. Equivalent training and/or certification may include,
23 but not be limited to, certification in air conditioner or heat pump installation by North American
24 Technician Excellence, training provided or sponsored by Arizona Energy Office, training
25 provided through the Air Conditioning Contractors of America, certification by HVAC Excellence
26 or training provided or sponsored by the utility.

27
28 ¹ See Docket No. E-04204A-07-0365.

1 19. To aid in the BPI certification process, UNS Electric will organize and deliver BPI
2 certification classes and will reimburse a portion of training costs associated with certification (up
3 to 50 percent of the cost) and ownership of program-required diagnostic equipment. BPI Building
4 Analyst Certification is currently available through the Foundation for Senior Living for
5 approximately \$1300. Program-required diagnostic equipment includes a monometer to check
6 pressures (with a cost of about \$500), a blower-door to determine air-tightness (with a cost of
7 about \$1,500), and possibly a duct blaster or pressure pans for determining duct tightness (with a
8 cost of about \$1,500). UNS Electric estimates that it will assist approximately 20 contractors per
9 year with BPI certification. Reimbursement will be paid after the contractor receives BPI
10 certification and completes a minimum number of qualifying jobs, which may include any measure
11 available under the Program, as specified by the Program and described in the next section.

12 20. Contractor Training and Certification. UNS Electric's implementation contractor
13 will provide an orientation of the Program, outlining Program requirements, contractor
14 responsibilities, reporting, and data collection procedures. Contractors interested in participating
15 in the Program must attend the orientation as well as meet all Program requirements for training,
16 technician certification, and Program mentoring.

17 21. The quality assurance process begins with UNS Electric's implementation
18 contractor who is responsible for providing training and mentoring to all participating
19 contractor(s). UNS Electric's Program manager and/or the implementation contractor will review
20 documents, and may mail the homeowner surveys or perform random sampling and field
21 inspections of work completed. UNS Electric's program manager will also document contractor
22 deficiencies, track homeowner complaints, issue corrective action, and provide constructive
23 feedback to ensure Program quality.

24 22. After successful completion of the general UNS Electric Program participation
25 class, contractors wishing to join the Program will be enrolled in a "mentor" phase. An RFP has
26 been issued by UNS Electric, and the Company is in the process of choosing an organization that
27 is a leading authority in energy consulting and testing and certification that will provide mentoring
28 services, likely producing local staff that are hired specifically to work as mentors with the

1 Program. During the "mentor" phase, the contractor will receive a ride-a-long for their first three
2 jobs. At that time, the mentor will complete a contractor assessment to determine if the work the
3 contractor is conducting complies with minimum Program standards. If so, the contractor will exit
4 the mentoring phase, but the next five jobs completed will be inspected. After the completion of
5 the first three jobs, the contractor will be reimbursed for training and equipment as described
6 above, with those first three jobs counting as qualifying jobs. If the mentor determines that the
7 contractor is not yet ready to start delivering services in compliance with Program guidelines, the
8 mentor will recommend up to three more ride-a-longs, extending the number of qualifying jobs
9 that need to be completed prior to the contractor receiving reimbursement for training and
10 equipment. If the contractor is still not ready to deliver services in compliance with Program
11 guidelines after these additional ride-a-longs, the contractor will be placed on hold for six months
12 before they can reapply for participation in the Program.

13 23. This mentorship review process will be used for both BPI certified and non-BPI
14 certified contractors, with a heightened level of expectation for BPI contractors. Non-BPI certified
15 contractors are eligible to install shade screens and window film and, for the first year of the
16 program only, all non-performance based measures.

17 24. Participating contractors must employ properly trained staff, and must allow
18 inspection of work performed by the Program manager or the implementation contractor to ensure
19 that all measures are properly installed and safety precautions are observed. Only contractor firms
20 with BPI certified technicians on staff may take advantage of any "performance based" incentive
21 options, which are currently restricted to the duct sealing component of the Program.

22 25. A list of qualifying contractors will be posted on UNS Electric's website providing
23 a source of qualified contractor referrals for UNS Electric customers.

24 26. Rebate Processing. Rebate processing will be provided by an outsourced Program
25 implementation contractor. Rebate application forms will be available online at UNS.com.
26 Applications must be submitted by the contractor, by mail, along with supporting documentation
27 and proof of paid invoices for all work conducted. All applications received will go through a
28 quality control review for completeness, accuracy and consistency of data. In cases where

1 questions are identified, processing staff will call the customer or installation contractor for
2 verification. Random inspections will be conducted to verify proper installation of all rebated
3 measures.

4 **MARKETING**

5 27. UNS Electric will provide Program marketing and customer awareness-building
6 through a range of strategies including:

- 7 • Providing information on incentives as part of the REAP energy audit;
- 8 • Promotions on the UNS Electric website about the benefits of purchasing high
9 efficiency equipment;
- 10 • Promotion through community interest groups;
- 11 • Advertising in major newspapers and other selected print media in UNS Electric
12 service territory to raise awareness of the availability of the Program;
- 13 • Providing information through UNS Electric's customer care center;
- 14 • Developing marketing pieces including brochures and other collateral pieces to
15 promote the benefits of qualifying equipment, air sealing and duct sealing;
- 16 • Assistance with responding to customer inquiries about the Program and how to
17 purchase qualifying equipment; and
- 18 • Training and seminars for participating trade allies.

19 28. The advertising campaign will communicate that high-efficiency systems and home
20 performance services will help reduce customer energy bills, provide equal or better comfort
21 conditions, and are beneficial for the environment.

22 **PROGRAM BUDGET**

23 29. Due to the expanded list of Program measures, the Program budget is expected to
24 increase as detailed below. The first-year expanded Program budget has been reduced to account
25 for only a partial year ramp-up. The budget projection for 2011 also anticipates a partial year
26 ramp-up as UNS Electric concentrates on more contractor recruitment and training necessary to
27 support full program offerings.

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30. Impacts from this program on the DSM Adjustor Clause would be reflected with the true up of the adjustor rate at the annual reset, as estimated in Table 2. Staff estimates that at full implementation, an average residential bill would increase by \$5.25 per year, assuming consumption of 800 kWh per month. Additionally, the expanded program budget follows the framework of the originally proposed program budget. (See Table 3.)

Table 2. Proposed Incremental Increase in Program Budget

	2010	2011	2012
Original Program Budget	\$318,270	\$327,818	\$337,653
Expanded Program Budget	\$581,100	\$992,284	\$1,315,035
Incremental Increase in Program Budget	\$262,830	\$664,466	\$977,382
Incremental Increase in Adjustor Rate due to Expanded Program	\$0.000147/ kWh	\$0.000372/ kWh	\$0.000547/ kWh

Table 3. Total Proposed Program Budget 2010 – 2012

	Budget		
	2010	2011	2012
Financial Incentives	\$275,500	\$511,000	\$754,000
Program Delivery	\$189,000	\$274,550	\$302,464
Program Marketing	\$69,675	\$117,833	\$158,470
Utility Program Administration	\$30,000	\$60,000	\$61,800
Measurement, Evaluation, and Research	\$16,925	\$28,901	\$38,302
Total Incentive	\$275,500	\$511,000	\$754,000
Total Non-Incentive	\$305,600	\$481,284	\$561,036
TOTAL	\$581,100	\$992,284	\$1,315,036

ESTIMATED ENERGY SAVINGS AND ENVIRONMENTAL BENEFITS

31. UNS Electric anticipates that after the 2010 ramp-up of the expanded Program, energy savings will significantly surpass energy savings from the original Program design.

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Table 4. Projected Energy Savings 2010 – 2012

Energy Savings	2010	2011	2012	Total
Expanded Annual Demand Savings (kW)	431	800	1,200	
Expanded Annual Energy Savings (MWh)	549	1,013	1,513	3,075
Original Annual Demand Savings (kW)	250	257	265	
Original Annual Energy Savings (MWh)	660	680	700	2,040

Table 5. Projected CO₂ Reductions 2010 – 2012

CO ₂ Reductions	2010	2011	2012	Total
Annual (Metric Tons)	346	642	959	1,947
Lifetime (Metric Tons)	6,565	12,219	18,090	36,874

COST-EFFECTIVENESS

32. The Commission's 1991 Resource Planning Decision established the Societal Cost Test ("SCT") as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the SCT, in order to be cost-effective, the ratio of benefits to costs must be greater than one. The societal costs for a DSM program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of a DSM program include the avoided demand and energy costs as well as avoided environmental impacts, which are quantified, but do not have to be monetized.

33. Due to the whole-house effect of the measures included in the Existing Homes program, certain measures will result in both electric and natural gas savings in homes that utilize both energy sources. To capture the total economic benefits of these measures, Staff has included the cost savings associated with estimated natural gas savings (therms) for relevant measures in the benefit-cost analysis. Relevant measures are those that include duct test and repair, air sealing and attic insulation. If all natural gas cost savings were excluded, the program would have an SCT benefit-cost ratio of 1.06. If estimated natural gas savings are included, Staff has concluded that UNS Electric's Existing Homes Program would be cost-effective, with an SCT benefit-cost ratio of 1.20, with most individual measures within the program also being cost-effective as shown in Table 6.

34. In its application, UNS Electric included potential costs of complying with carbon dioxide (CO₂) regulation in its benefit-cost calculations. UNS Electric has estimated low, medium, and high carbon values of approximately \$14, \$25, and \$43 per ton, respectively. Staff understands that the Commission has yet to make a determination as to the potential value of CO₂ or its inclusion in the calculation of cost-effectiveness under the SCT. Staff conducted its benefit-cost analysis including and excluding the CO₂ values provided by UNS Electric. With the inclusion of a low CO₂ value and estimated natural gas savings, the Existing Homes Program would be cost-effective with an SCT benefit-cost ratio of 1.44 with all measures being cost-effective as shown in Table 6.

Table 6. Measure and Program Cost-Effectiveness

Measure	Benefit to Cost Ratio	
	No CO ₂	With Low CO ₂ value
Replace On Burnout HVAC with Quality Installation and Duct Sealing, Prescriptive	1.13	1.38
Replace On Burnout HVAC with Quality Installation and Duct Sealing, Performance	1.13	1.38
Early Retirement HVAC with Quality Installation and Duct Sealing, Prescriptive	1.75	1.84
Early Retirement HVAC with Quality Installation and Duct Sealing, Performance	1.75	1.84
Duct Sealing, Prescriptive	1.03	1.28
Duct Sealing, Performance	1.03	1.40
Air Sealing	0.90	1.03
Air Sealing & Attic Insulation	1.07	1.27
Shade Screens/Window Film	0.89	1.18
Program Total	1.20	1.44

IMPLEMENTATION CONTRACTOR(S)

35. Rebate Administration. UNS Electric will use a third party implementation contractor for assistance with rebate processing. Field delivery and implementation of the Program, including responsibilities for recruitment, training, and mentorship of participating

1 contractors will be outsourced to a competitively selected third party provider. This same provider
2 will also be responsible for data tracking, technical support and for participating contractors.
3 Direct delivery of services to residential customers will be by participating independent
4 contractors.

5 36. Program training and mentoring. UNS Electric will work closely with the
6 implementation contractor to recruit, train and manage trade allies to ensure optimum effectiveness
7 in Program delivery. UNS Electric's implementation contractor will provide an orientation of the
8 Program outlining Program requirements and contractors' responsibilities as well as discuss
9 reporting and data collection procedures. The implementation contractor is also responsible for
10 providing training and mentoring to all participating contractor(s) as part of the quality assurance
11 process. The implementation contractor may also review documents, and may mail the
12 homeowner a survey or perform random sampling and field inspections of work completed. The
13 implementation contractor may also perform inspection of work performed to ensure that all
14 measures are properly installed and safety precautions are observed.

15 MONITORING AND EVALUATION

16 37. UNS Electric will adopt a strategy that calls for integrated data collection designed
17 to provide a quality data resource for Program tracking, management and evaluation. This
18 approach will entail the following primary activities:

- 19 • Database management: UNS Electric will collect the necessary data elements to
20 populate the tracking database and provide periodic reporting;
- 21 • Integrated implementation data collection: UNS Electric will establish systems
22 to collect the data needed to support effective Program management and
23 evaluation through the implementation and application processes. The database
24 tracking system will be integrated with implementation data collection
25 processes;
- 26 • Field verification: UNS Electric will conduct field verification of the
27 installation of a sample of measures throughout the implementation of the
28 Program; and

- Tracking of savings using deemed savings values: UNS Electric will develop deemed savings values for each measure and technology promoted by the Program, periodically review and revise the savings values to be consistent with Program participation, and accurately estimate the savings being achieved by the Program.

RECOMMENDATIONS

38. Staff has recommended that the UNS Electric Existing Homes Program be approved.

REPORTING REQUIREMENTS

39. Staff has recommended that UNS Electric's DSM reports should include, at a minimum, (i) the number of incentives provided per measure; (ii) copies of marketing materials; (iii) estimated cost savings to participants; (iv) gas and electric savings as determined by the monitoring and evaluation process; (v) estimated environmental savings; (vi) the total amount of the program budget spent during the previous six months, the previous year, and since inception of the program; (vii) any significant impacts on program cost-effectiveness; (viii) the number of contractors that were BPI-certified using program funds; (ix) the total number of BPI contractors in UNS Electric service territory; and (x) descriptions of any problems and proposed solutions including movements of funding from one program to another.

40. The Commission believes a financing mechanism could help the customers of the Company adopt energy efficiency measures in a more timely, broad-based manner. Additionally, financing mechanisms enhance the ability of the Company to meet its EES requirements. The Commission notes that similar programs have been developed at other Arizona utilities.

41. We believe that under such a program, customers of UNS Electric, Inc. could be given the opportunity to receive loans for the up-front costs associated with implementing energy efficiency measures such as efficient air conditioning or ductwork, and could pay off these loans through the savings they achieve on their electric bills created by the energy efficiency measures that have been installed. The financing program could be launched through the DSM adjustor mechanism, or through the DSM adjustor in combination with a partnership between UNS Electric and a bank, or potentially in partnership with the state Energy Office, and could then be replenished by the loans that are paid off by customers. Given the

1 interest among customers in UNS Electric's service territory in implementing energy efficiency measures,
2 and the need to deploy energy efficiency as widely as possible to assist as many customers as possible in
3 keeping their bills low, we believe it is in the public interest to require UNS Electric to file, by March 30,
4 2011, a proposed financing program for Commission consideration. The Company should investigate the
5 possibility of partnering with a bank in addressing how the financing program would be initiated.
6 Additionally, we believe that UNS Electric should craft its proposal for a financing program in conjunction
7 with interested community groups in the Company's service territory.

8 42. The Commission believes that Arizona utilities must ensure that the societal cost test used
9 for measuring and approving energy efficiency programs fully encompasses avoided costs, including
10 certain externalities. UNS Electric, Inc should work with stakeholders to develop appropriate metrics and
11 monetize costs for water, Sox, PM10, and Nox emissions savings as part of the societal cost test in future
12 program filings and Energy Efficiency Implementation plans.

13 CONCLUSIONS OF LAW

14 1. UNS Electric, Inc. is an Arizona public service corporation within the meaning of
15 Article XV, Section 2, of the Arizona Constitution.

16 2. The Commission has jurisdiction over UNS Electric and over the subject matter of
17 the Application.

18 3. The Commission, having reviewed the application and Staff's Memorandum dated
19 November 9, 2010, concludes that it is in the public interest to approve the UNS Electric Existing
20 Homes Program, as discussed herein.

21 ORDER

22 IT IS THEREFORE ORDERED that UNS Electric, Inc.'s Existing Homes Program be and
23 hereby is approved, as discussed herein.

24 IT IS FURTHER ORDERED that UNS Electric, Inc.'s DSM reports shall include, at a
25 minimum:

- 26 • the number of incentives provided per measure;
- 27 • copies of marketing materials;

- 1 • estimated cost savings to participants;
- 2 • gas and electric savings as determined by the monitoring and evaluation
- 3 process;
- 4 • estimated environmental savings;
- 5 • the total amount of the program budget spent during the previous six months,
- 6 the previous year, and since inception of the program;
- 7 • any significant impacts on program cost-effectiveness;
- 8 • the number of contractors that were BPI-certified using program funds;
- 9 • the total number of BPI contractors in UNS Electric service territory; and
- 10 • descriptions of any problems and proposed solutions including movements of
- 11 funding from one program to another.

12 IT IS FURTHER ORDERED that UNS Electric, Inc. shall file for Commission consideration, by
13 March 30, 2011, a proposed energy efficiency financing program for energy efficiency measures such as
14 ductwork and efficient air conditioning, and shall work with interested community groups in UNS Electric,
15 Inc.'s service territory in the crafting of the proposal. The proposal shall include a description of the steps
16 UNS Electric, Inc. took to work with local community groups in the formation of the proposal.

17 IT IS FURTHER ORDERED that UNS Electric, Inc. shall seek out participation in the fund by the
18 State Energy Office, and shall investigate the possibility of partnering with a bank in addressing how the
19 financing program will be initiated.

20 IT IS FURTHER ORDERED that UNS Electric, Inc. shall craft its proposal for an energy
21 efficiency financing program fund in conjunction with interested community groups in the Company's
22 service territory.

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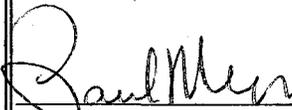
IT IS FURTHER ORDERED that UNS Electric, Inc. shall work with stakeholders to develop appropriate metrics and monetize costs for water, Sox, PM10, and Nox emissions savings as part of the societal cost test as a supplement to its 2012 Energy Efficiency Implementation plan, but no later than July 1, 2011.

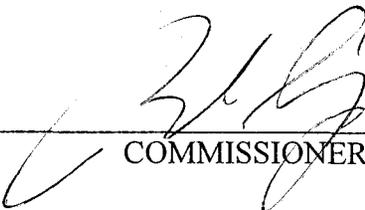
IT IS FURTHER ORDERED that this Order shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION


CHAIRMAN

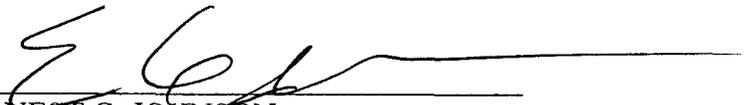

COMMISSIONER


COMMISSIONER


COMMISSIONER


COMMISSIONER

IN WITNESS WHEREOF, I, ERNEST G. JOHNSON, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 10th day of December, 2010.


ERNEST G. JOHNSON
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

SMO:LAF:lhM\MAS

1 SERVICE LIST FOR: UNS Electric, Inc.
2 DOCKET NO. E-04204A-07-0365

3 Mr. Michael Patten
4 Roshka DeWulf & Patten, PLC
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6 Mr. Philip Dion
7 UniSource Energy Corporation
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9 Mr. Steven M. Olea
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13 Chief Counsel, Legal Division
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