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AZ CORP COMMISSION
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9 **BEFORE THE ARIZONA CORPORATION COMMISSION**

10 SUSAN BITTER SMITH, Chairman
11 BOB STUMP
12 BOB BURNS
13 DOUG LITTLE
14 TOM FORESE

15 IN THE MATTER OF THE APPLICATION
16 OF UNS ELECTRIC, INC. FOR THE
17 ESTABLISHMENT OF JUST AND
18 REASONABLE RATES AND CHARGES
19 DESIGNED TO REALIZE A REASONABLE
20 RATE OF RETURN ON THE FAIR VALUE
21 OF THE PROPERTIES OF UNS ELECTRIC,
22 INC. DEVOTED TO ITS OPERATIONS
23 THROUGHOUT THE STATE OF
24 ARIZONA, AND FOR RELATED
25 APPROVALS.

Docket No. E-04204A-15-0142

NOTICE OF ERRATA

Arizona Corporation Commission

DOCKETED

NOV 09 2015

DOCKETED BY

Southwest Energy Efficiency Project ("SWEEP"), through its undersigned counsel, hereby provides notice that it has this day filed corrected direct testimony for Jeff Schlegel reflecting the following changes:

Page 5, DELETE the following text on lines 28-30:

The 2014 authorized budget was \$4.79 million, and the current total two-year budget for 2015-2016 is about \$6.4 million, or about \$3.2 million annually on average.

1 INSERT:

2 The 2014 authorized program budget was \$4.79 million, and the current authorized
3 program budget for 2015 and 2016 is \$6.42 million each year.

4 Page 7, line 30, after 37,500, INSERT:

5 To 40,000 MWh

6 Page 7, DELETE the following text on lines 37-42:

7 SWEEP estimates that the total energy efficiency budget for 2016 should be about \$4.2
8 million – higher than the \$3.2 million approved by the Commission in Decision No. 75297 for
9 2015, but lower than the \$4.79 million Commission-authorized budget for 2014. SWEEP also
10 estimates that the annual energy efficiency budget for 2017 and each year for the balance of the
11 decade should be about \$5.0-5.5 million,

12 INSERT:

13 SWEEP estimates that the total energy efficiency program budget for 2016 should be
14 about \$4.85 million – which is less than the \$6.42 million approved by the Commission in
15 Decision No. 75297 for 2015 and 2016 each year, and only slightly higher than the \$4.79 million
16 Commission-authorized budget for 2014 (note that these numbers for authorized and estimated
17 program budgets do not include other costs such as the performance incentive and evaluation).
18 SWEEP also estimates that the annual energy efficiency program budget for 2017 and each year
19 for the balance of the decade should be about \$5.0-5.5 million,

20 A full copy of the corrected testimony is attached to this Notice.

21 ///

22 ///

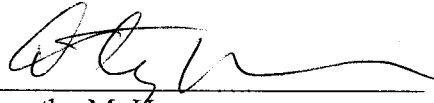
23 ///

24

25

1 DATED this 9th day of November, 2015.

2 ARIZONA CENTER FOR LAW IN
3 THE PUBLIC INTEREST

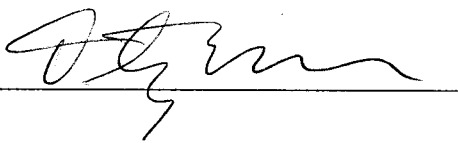
4 By 
5 Timothy M. Hogan
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8 Attorneys for Southwest Energy Efficiency
9 Project

10 ORIGINAL and 13 COPIES of
11 the foregoing filed this 9th day
12 of November, 2015, with:

13 Docketing Supervisor
14 Docket Control
15 Arizona Corporation Commission
16 1200 W. Washington
17 Phoenix, AZ 85007

18 COPIES of the foregoing
19 electronically mailed this
20 9th day of November, 2015 to:

21 All Parties of Record

22 
23
24
25

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

SUSAN BITTER SMITH, CHAIRMAN
BOB STUMP
BOB BURNS
DOUG LITTLE
TOM FORESE

IN THE MATTER OF THE APPLICATION OF
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AND FOR RELATED APPROVALS.

Docket No. E-04204A-15-0142

Direct Testimony of

Jeff Schlegel

Southwest Energy Efficiency Project (SWEEP)

November 6, 2015
(Corrected November 9, 2015)

Direct Testimony of Jeff Schlegel, SWEEP
Docket No. E-04204A-15-0142

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Introduction

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Q. Please state your name and business address.

A. My name is Jeff Schlegel. My business address is 1167 W. Samalayuca Drive, Tucson, Arizona 85704-3224.

Q. For whom are you testifying?

A. I am testifying on behalf of the Southwest Energy Efficiency Project (SWEEP).

Q. Please describe the Southwest Energy Efficiency Project (SWEEP).

A. SWEEP is a public interest organization dedicated to advancing energy efficiency as a means of promoting customer benefits, economic prosperity, and environmental protection in the six states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming. SWEEP works on state legislation; analysis of energy efficiency opportunities and potential; expansion of state and utility energy efficiency programs as well as the design of these programs; building energy codes and appliance standards; and voluntary partnerships with the private sector to advance energy efficiency. SWEEP collaborates with utilities, state agencies, environmental groups, universities, and energy specialists in the region. SWEEP is funded by foundations and the U.S. Department of Energy. I am the Arizona Representative for SWEEP.

Q. What are your professional qualifications?

A. I am an independent consultant specializing in policy analysis, evaluation and research, planning, and program design for energy efficiency programs and clean energy resources. I consult for public groups and government agencies, and I have been working in the field for over 30 years. I have testified before the Arizona Corporation Commission in many proceedings. In addition to my responsibilities with SWEEP in Arizona, I am working or have worked extensively in many states that have effective energy efficiency programs, including California, Connecticut, Massachusetts, Michigan, New Jersey, Vermont, and Wisconsin.

Q. What is the purpose of your testimony?

A. In my testimony, I will summarize the public interest in increasing electric energy efficiency; discuss the status of UNS Electric's energy-saving offerings for its customers; recommend an increase in energy efficiency program funding and offerings to benefit UNS Electric's customers; and propose that energy efficiency, as a core energy resource meeting the real energy needs of customers at lowest cost, should be funded through a stable cost recovery mechanism, with cost recovery in base rates.

The Public Interest in Increasing Electric Energy Efficiency

1
2
3 Q. What is the public interest in increasing electric energy efficiency?
4

5 A. Electric energy efficiency is in the public interest. Increasing energy efficiency
6 will provide significant and cost-effective benefits for all UNS Electric customers,
7 the electric system, the economy, and the environment. Electric energy efficiency
8 is a reliable energy resource that is less expensive than other available energy
9 resources. Consequently, increasing energy efficiency will save consumers and
10 businesses money through lower electric bills and the deferral of unnecessary,
11 more expensive resources, resulting in lower total costs for customers.
12

13 Increasing energy efficiency also reduces load growth; diversifies energy
14 resources; enhances the reliability of the electricity grid; reduces the amount of
15 water used for power generation; reduces air pollution; creates jobs that cannot be
16 outsourced; and improves the economy. In addition, meeting a portion of load
17 growth through increased energy efficiency can help to relieve system constraints
18 in load pockets. By reducing electricity demand, energy efficiency mitigates
19 electricity and fuel price increases and reduces customer vulnerability and
20 exposure to price volatility. Energy efficiency does not rely on any fuel and is not
21 subject to shortages of supply, increased prices, or price volatility of energy fuels.
22

23 Q. What are the estimated costs for energy efficiency savings?
24

25 A. Energy efficiency is a reliable energy resource that costs significantly less than
26 other resources for meeting the energy needs of customers in UNS Electric's
27 service territory. For example, in 2014, the cost of energy efficiency programs
28 per lifetime kWh saved was \$0.011.¹ Notably, in its 2014 Integrated Resource
29 Plan, UNS Electric identifies energy efficiency as the "lowest cost resource."² In
30 comparison, the levelized cost of new generation for other energy resources is
31 substantially more: natural gas combined cycle generation costs between \$0.088-
32 \$0.119/kWh; coal generation costs between \$0.125-\$0.261/kWh; and nuclear
33 generation costs \$0.154/kWh.³
34

35 Q. Why should energy efficiency be considered in the context of the UNS Electric
36 rate case proceeding?
37

¹ UNS Electric, January-December 2014 Demand Side Management Report, February 27, 2015, <http://images.edocket.azcc.gov/docketpdf/0000160426.pdf>. Costs include the cost of rebates and incentives; training and technical assistance; consumer education; program implementation; program marketing; measurement, evaluation, and research; and program development, analysis, and reporting costs. Demand response programs were excluded from this calculation.

² UNS Electric, 2014 Integrated Resource Plan, April 1, 2014, <http://images.edocket.azcc.gov/docketpdf/0000152211.pdf>. Note that UNS Electric in its 2014 Integrated Resource Plan used a much higher levelized cost of energy efficiency of \$60/MWh (\$0.060/kWh), which is much higher than the current costs of energy efficiency programs.

³ Ibid.

1 A. The Commission, in approving any order that changes or increases rates for
2 customers, should ensure that the least cost resource – energy efficiency – is fully
3 pursued. Consequently, in its order on the UNS Electric rate case, the
4 Commission should ensure that UNS Electric is on a path to meet the energy
5 savings levels set forth in the Electric Energy Efficiency Standard and Rule
6 (“EEES”) beginning in 2016; ensure that there is adequate funding to achieve the
7 EEES energy savings levels and attain the associated customer and public
8 benefits; and treat energy efficiency as the core energy resource that it is by
9 providing a stable, long-term cost recovery mechanism and adequate funding in
10 base rates.

11 **The Status of UNS Electric’s Energy Efficiency Programs for Customers**

12
13 Q. What energy efficiency programs and measures does UNS Electric offer to its
14 customers?

15
16 A. UNS Electric offers a suite of programs for both residential and commercial
17 customers, including homeowners, renters, limited income customers, small
18 businesses, schools, and large commercial and industrial customers. Some of
19 these programs have been recognized as best practice programs. For example
20 UNS Electric’s Efficient Home program was recognized as “exemplary” in a
21 recent national review of utility energy efficiency programs conducted by the
22 American Council for an Energy Efficient Economy (ACEEE).⁴

23
24 Q. At what levels has UNS Electric invested in energy efficiency in the past?

25
26 A. From 2011-2014 UNS Electric invested about \$13.7 million in energy efficiency,
27 with the average annual expenditure being about \$3.85 million over the 2012-
28 2014 period (after the 2011 ramp up year).⁵ The 2014 authorized program budget
29 was \$4.79 million, and the current authorized program budget for 2015 and 2016
30 is \$6.42 million each year.⁶

31
32 Q. What have UNS Electric’s energy efficiency programs accomplished?

33
34 A. UNS Electric’s cost-effective programs have delivered significant economic,
35 energy, and environmental benefits for customers. For example, from 2011-2014,
36 UNS Electric reports that its energy efficiency portfolio delivered net benefits
37 exceeding \$40 million dollars and lifetime savings exceeding 988,320 MWh.⁷

38

⁴ American Council for an Energy Efficient Economy, ACEEE’s Third National Review of Exemplary Energy Efficiency Programs, June 20, 2013, <http://aceee.org/sites/default/files/publications/researchreports/u132.pdf>

⁵ See UNS Electric Annual Demand Side Management Reports for 2011-2014.

⁶ See Arizona Corporation Commission Decision No. 75297, page 24.

⁷ See UNS Electric Annual Demand Side Management Reports for 2011-2014.

1 Q. Have there been recent enhancements to or expansions of UNS Electric's energy
2 efficiency programs?
3

4 A. Yes. Commission Decision No. 75297, dated October 27, 2015, approved several
5 program enhancements including new lighting and appliance measures for
6 residential customers through the Efficient Products program; new opportunities
7 for renters to save on cooling costs through the Multi-family program; and new
8 opportunities for commercial and school customers to save on cooling and
9 lighting costs through the Commercial and Industrial Facilities and Schools
10 programs. In the Decision, the Commission also enhanced program flexibility to
11 allow UNS Electric to offer cost-effective emerging technologies through
12 multiple programs. It also created a pathway for UNS Electric to restart a Home
13 Energy Reports program. A similar program offered by Arizona Public Service
14 Company (APS) enrolled about 27% of APS' residential customers in 2015⁸ and
15 delivered about 17% of all residential energy savings in 2014.⁹
16

17 SWEEP appreciates the Commission's actions in approving these additional
18 measures and providing the enhanced program flexibility for UNS Electric.

19 **Increasing Energy Efficiency to Reduce Utility Bills for UNS Electric Customers**
20

21 Q. What should the Commission do to increase opportunities for UNS Electric
22 customers to reduce their energy bills through energy efficiency – which will also
23 help customers mitigate the effects of any rate increase?
24

25 A. In its order in the UNS Electric rate case, the Commission should ensure that UNS
26 Electric is on a path to meet the energy savings levels set forth in the Electric
27 Energy Efficiency Standard and Rule ("EEES") by 2016; ensure that there is
28 adequate funding to achieve the EEES energy savings levels and attain the
29 associated public benefits, including through some additional program offerings;
30 and treat energy efficiency as the core energy resource that it is by expensing the
31 energy efficiency program funding in base rates.
32

33 Because of SWEEP's proposal to recover costs in base rates, we need to estimate,
34 in the rate case proceeding, the amount of funding that would be necessary to
35 support the energy efficiency programs, though the specific details of the
36 programs and budgets would be addressed in the Implementation Plan process.
37

38 Q. What energy savings levels should UNS Electric meet, by when?
39

⁸ Arizona Public Service Company, January-June 2015 Demand Side Management Report, September 1, 2015, <http://images.edocket.azcc.gov/docketpdf/0000166015.pdf>

⁹ Arizona Public Service Company, January-December 2014 Demand Side Management Report, February 27, 2015, <http://images.edocket.azcc.gov/docketpdf/0000160423.pdf>

1 A. The Commission, in approving any order that increases rates for UNS Electric
2 customers, should ensure that the least cost resource – energy efficiency – is fully
3 pursued, consistent with the Commission-adopted EEES, which established
4 cumulative annual energy savings requirements to make certain that energy
5 efficiency and all of its associated public interest benefits would be realized.
6 While UNS Electric is not currently meeting the EEES savings levels in terms of
7 cumulative annual savings, due to a variety of reasons, SWEEP recommends that
8 UNS Electric increase annual energy savings slightly in 2016 and 2017 in order to
9 meet the cumulative annual energy savings levels in the EEES beginning in 2016,
10 and then stay on track to achieve the savings levels throughout the remaining
11 years of the EEES.

12
13 The cumulative annual energy savings requirements set forth in the EEES are as
14 follows (expressed below as cumulative annual energy savings as a percent of
15 retail energy sales in the prior calendar year):

- 16 ▪ 2015: 9.50% cumulative annual energy savings
- 17 ▪ 2016: 12.00% cumulative annual energy savings
- 18 ▪ 2017: 14.50% cumulative annual energy savings
- 19 ▪ 2018: 17.00% cumulative annual energy savings
- 20 ▪ 2019: 19.50% cumulative annual energy savings
- 21 ▪ 2020: 22.00% cumulative annual energy savings

22
23 Staff has estimated that UNS Electric may reach a cumulative annual savings
24 percentage of 9% in 2015 compared to the EEES level of 9.50%, and Staff has
25 recognized that UNS Electric may have a better opportunity to meet the 12.0%
26 standard in 2016 with the implementation of new measures.¹⁰ SWEEP
27 recommends that UNS Electric increase its annual energy savings in order to meet
28 or exceed the savings levels set forth in the EEES beginning in 2016. SWEEP
29 estimates that annual energy savings in 2016 and 2017 would need to be about
30 37,500 to 40,000 MWh each year, or slightly higher than the 35,004 MWh UNS
31 Electric and its customers achieved in 2014.¹¹

32
33 Q. What should the UNS Electric energy efficiency budget be in order to fund and
34 fully support the achievement of the higher energy savings in 2016, 2017, and the
35 remainder of the decade?

36
37 A. SWEEP estimates that the total energy efficiency program budget for 2016 should
38 be about \$4.85 million – which is less than the \$6.42 million approved by the
39 Commission in Decision No. 75297 for 2015 and 2016 each year, and only
40 slightly higher than the \$4.79 million Commission-authorized budget for 2014
41 (note that these numbers for authorized and estimated program budgets do not
42 include other costs such as the performance incentive and evaluation). SWEEP
43 also estimates that the annual energy efficiency program budget for 2017 and each
44 year for the balance of the decade should be about \$5.0-5.5 million, reflecting an

¹⁰ See Arizona Corporation Commission Decision No. 75297, page 26.

¹¹ UNS Electric Annual Demand Side Management Report for 2014.

1 assumption that the cost per kWh saved in future years will probably be
2 somewhat higher than the \$0.011 cost per lifetime kWh saved during 2014.
3

4 Q. What new or additional energy efficiency programs or measures should UNS
5 Electric implement?
6

7 A. Significant energy saving opportunities for UNS Electric customers exist and
8 remain untapped. For example, UNS Electric should implement a Home Energy
9 Reports program, a Small Business Energy Reports program, and a Conservation
10 Voltage Reduction program. The Home Energy Reports programs will provide
11 additional opportunities to inform customers about other ways to save energy, and
12 will generate additional leads for other program services in addition to saving
13 energy through changes in customer actions and behavior. UNS Electric should
14 also explore ways to integrate energy efficiency and demand response offerings
15 (often called "integrated demand response") and provide new energy efficiency
16 measures such as smart thermostats. Additional efforts at targeted outreach and
17 tailored assistance should be offered to the main types of business customers in
18 the service territory through the Commercial and Industrial (C&I) programs.
19

20 These and perhaps other additional energy efficiency programs and measures, and
21 the specific details, should be considered, analyzed, and approved during the
22 Implementation Plan process before the Commission. UNS Electric is scheduled
23 to submit its next Implementation Plan during 2016, and the specific details
24 regarding programs and measures for 2017 and beyond can and should be
25 addressed in the Implementation Plan proceeding. The total level of energy
26 efficiency program funding, which SWEEP proposes be recovered in base rates,
27 should be determined in the rate case. In the interim, prior to the 2017
28 Implementation Plan proceeding, the additional funding for 2016 recommended
29 by SWEEP above, if approved in the rate case, should be used to increase the
30 number of customers served by the current Commission-approved programs and
31 measures, and could be used to help support the ramp up of a Home Energy
32 Reports program (if there is adequate progress in the field and demonstrated cost-
33 effectiveness in early 2016), as well as support the implementation of emerging
34 technologies.

35 **The Costs of Energy Efficiency Programs Should be Recovered in Base Rates**
36

37 Q. How can adequate funding to achieve higher energy savings for UNS Electric
38 customers be ensured? What cost recovery approach should be used?
39

40 A. UNS Electric has positioned energy efficiency as an important, core resource to
41 meet energy needs and load over the next decade. For example in 2024, energy
42 efficiency will comprise more than 14% of UNS Electric's energy resource

1 portfolio, up from 5.4% in 2014.¹² As a result, energy efficiency is one of UNS
2 Electric's fastest growing energy resources for meeting customers' energy needs
3 and UNSE-projected load growth over the next few years.
4

5 As a core resource meeting the real energy needs of customers at lowest cost,
6 energy efficiency should be adequately funded through a stable, fully imbedded
7 funding and cost recovery mechanism. In order to provide adequate and
8 appropriate treatment for this core, fundamental energy and capacity resource, a
9 total of \$5 million of energy efficiency program funding should be expensed in
10 base rates. As a core resource, it is appropriate for energy efficiency cost
11 recovery to be in base rates rather than in a separate adjustor mechanism.
12 Recovery of energy efficiency program costs in base rates will help ensure that
13 the numerous public interest benefits of this core resource will be fully realized.
14

15 The demand side management (DSM) adjustor mechanism should still remain
16 intact, but it should be used as an adjustor to recover or refund any energy
17 efficiency funding amounts above or below the \$5 million in base rates, needed to
18 implement energy efficiency programs to meet the energy savings levels
19 established by the EEES. In this way, the DSM adjustor mechanism would serve
20 as a flexible means of accounting and adjusting for the market realities of actual
21 energy efficiency spending not necessarily being exactly what was projected in
22 the Implementation Plan budgets. The planned level of funding for energy
23 efficiency programs would be recovered in base rates.
24

25 Note that SWEEP plans to expand on this recommendation to recover energy
26 efficiency program costs in base rates in my direct testimony in the rate design
27 phase of this proceeding. At this point SWEEP is notifying UNS Electric, the
28 Commission, Staff, and the parties of this proposal from SWEEP, since the
29 energy efficiency funding would affect the revenue requirement and the base
30 rates, with additional details to be provided during the rate design phase.
31

32 Q. Has the Commission allowed energy efficiency program funding to be expensed
33 in base rates previously?
34

35 A. Yes. In Commission Decision No. 67744, approving the settlement agreement to
36 increase Arizona Public Service Company (APS) rates in 2005, an annual \$10
37 million allowance for DSM costs was approved for inclusion within base rates. In
38 2006, the year directly following that decision, the Company spent \$10.6 million
39 on energy efficiency programs. Thus the \$10 million of funding in base rates
40 equated to more than 90% of energy efficiency program expenditures in that year.
41

¹² UNS Electric, 2014 Integrated Resource Plan, April 1, 2014,
<http://images.edocket.azcc.gov/docketpdf/0000152211.pdf>.

Conclusion

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Q. Does this conclude your testimony?

A. Yes. Thank you for the opportunity to provide my testimony on behalf of SWEEP.