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OPEN MEETING

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MEMORANDUM

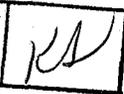
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2005 APR 19 P 4: 24

Arizona Corporation Commission

DOCKETED

APR 19 2005

DOCKETED BY 

TO: THE COMMISSION

AZ CORP COMMISSION
DOCUMENT CONTROL

FROM: Utilities Division

DATE: April 19, 2005

RE: IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE
COMPANY FOR APPROVAL OF A DEMAND SIDE MANAGEMENT
STUDY.
DOCKET NO. E-01345A-05-0182

I. Procedural History

On August 18, 2004, the Staff of the Arizona Corporation Commission ("ACC" or "Commission"), along with Arizona Public Service Company ("APS") and over 20 intervenors, entered into a settlement agreement that concluded five months of negotiations on APS' application for an increase in rates. The hearing on the settlement agreement took place over eight days beginning in November and ending on December 3, 2004.

On February 28, 2005, a Recommended Opinion and Order was issued regarding the Proposed Settlement Agreement. On the subject of Demand Side Management ("DSM"), the Recommended Opinion and Order was consistent with the Proposed Settlement Agreement in terms of the recommended overall amount of funding for DSM and the way in which DSM funds would be collected (i.e. \$10 million annually through base rates and \$6 million through an adjustor mechanism). The Proposed Settlement Agreement required APS to spend at least \$48 million on DSM over the next three years and required all DSM programs to be approved by the Commission.

On March 11, 2005, APS filed an Application for Approval of a Demand Side Management Study contingent upon Commission approval of the Preliminary Energy Efficiency DSM Plan included in the Proposed Settlement Agreement.

On March 28, 2005, the Commission issued Decision No. 67744 which approved an Amended Settlement Agreement that maintained the proposed increase in DSM programs and expenditures.

II. Background

The Energy Efficiency DSM Plan included in the *Approved Settlement Agreement* requires APS to implement DSM programs totaling \$48 million over the next three years. Annually, \$10 million of the DSM program expenditures will be recovered through base rates while the

remaining expenditures will be recovered through an adjustment mechanism. The approved funding level for DSM represents a significant increase in spending over the test-year spending level of approximately \$1 million. As such, APS has identified the need for a market assessment study that will provide a basis for developing, supporting, and evaluating future DSM programs.

On March 11, 2005, APS submitted a request for approval of a demand side management study ("DSM study" or "market study" or "baseline study") to be funded with DSM program funds. Because the proposed DSM study will be funded through DSM funds, APS requested that the Commission approve its proposal contingent upon Commission approval of the Recommended Opinion and Order that, among other things, provided for the increased funding for DSM as specified above.

The *Approved Settlement Agreement* requires APS to formally submit a final DSM plan to the Commission within 120 days and requires APS to submit all DSM programs for Commission approval.

III. APS' Proposed DSM Study

APS is requesting approval to conduct a DSM Study to be funded through the DSM budget set forth in the *Approved Settlement Agreement*.

APS states that a DSM Study is necessary to provide an assessment of current energy efficiency levels and practices to help direct APS and other interested parties in the development and evaluation of new and expanded DSM programs.

The proposed DSM study will form the basis for developing, supporting, and evaluating DSM programs. The study will build upon the energy efficiency information currently available to APS to provide a clear understanding of current market conditions, define the market potential of DSM measures, and establish a standard against which to measure progress. Specifically, the proposed DSM study will assess the potential for improving the market penetration of energy efficient technologies and practices in residential, commercial, and industrial customer segments. The study will also estimate the kWh energy and kW demand savings for energy efficiency measures and estimate the cost to achieve energy savings of energy efficiency measures.

APS will issue a Request for Proposals ("RFP") to solicit bids from qualified vendors to conduct the DSM Study. Vendors may bid on all or part of the project. In its application for approval of the DSM Study, APS states that "the successful bidder(s) will be expected to determine the state of energy efficiency implementation and the potential for additional energy savings through the following activities: analyze industry data on the sales of energy technologies; conduct surveys with home and business owners; conduct on-site inspections; interview builders, developers, architects and engineers; meet with manufacturers and vendors of technologies; and conduct energy simulations."

As per the *Approved Settlement Agreement*, APS must submit its DSM portfolio within 120 days. Due to this accelerated timeline, APS has already begun the planning and development of new DSM programs. The results of the proposed baseline study will not be available for the development of programs that APS will include in its initial portfolio. APS plans to use the information to "assist in the verification of program design assumptions during the roll-out of the initial phase of DSM programs."¹ APS also stated that the proposed study "can help target program measures that can be promoted in the second phase of programs that APS is planning to implement."² After the initial round of program development, the information obtained from the study could be used to target programs that will maximize cost effectiveness.

APS expects the DSM Study to be completed within approximately six months and to cost in the range of \$500,000 to \$700,000.

APS will provide Commission Staff with copies of all final reports. In addition, the results of the study will be reviewed and utilized by a DSM Collaborative Working Group as set forth in the *Approved Settlement Agreement* to help develop and implement programs that will produce the greatest energy savings and benefits.

IV. Staff Analysis and Recommendation

It is important that APS and the ratepayers see substantial results (i.e. actual reduction in electricity demand and consumption) from investments in DSM. Each dollar spent on DSM must yield more than a dollar in combined avoided utility costs and avoided environmental impacts. In addition, there are many different energy efficiency measures that could potentially be implemented and it is in the interest of ratepayers and the Company to choose the most effective DSM programs.

In order to effectively develop DSM programs, APS, Staff, and the Collaborative Working Group, must be able to determine those energy efficiency measures that will provide the most energy savings per dollar spent. It is essential that the parties involved in developing DSM programs have reliable information on the market potential, kW and kWh savings potential, and costs associated with energy efficiency technologies.

Finally, DSM programs are required to be cost effective as measured by the Societal Cost Test. As such, Staff must be able to determine both the incremental cost and incremental savings of a potential DSM measure. Staff finds that a DSM market assessment study is necessary to evaluate current market penetration of energy efficiency measures, develop and assess baseline end use data for products, develop and assess baseline hourly load shapes for customer segments, identify currently available DSM technologies, estimate potential and realized energy savings for DSM measures.

¹ APS' Response to Staff's First Set of Data Requests: EEC 1-1.

² APS' Response to Staff's First Set of Data Requests: EEC 1-1.

THE COMMISSION

Page 4

APS has estimated that its baseline and market potential research will be completed in about six months within a budget range of \$500,000 to \$700,000. The Company has provided the budget information and study descriptions for several DSM studies conducted in other states in support of its estimated budget. APS has also researched a variety of vendors currently performing these types of studies to help identify the scope and anticipated cost of the proposed study. Finally, APS has identified its own historical 1994 DSM Market Potential and 1996 End Use Data Acquisition Project research studies in support of its proposed budget.

Staff has considered the scope and timeframe of the proposed DSM Study and reviewed APS' support for its estimated budget. The DSM research performed in other states including Vermont, Georgia, and New York was more limited in size, scope, timeframe, and budget than the proposed DSM Study, however, they do provide points of comparison. Historical costs for comparable prior APS studies provide some perspective on the wide range of potential research costs. Its prior studies were conducted in 1994 and 1996 with the budget of the DSM Market Potential Study a good deal below \$500,000 while the budget of the End Use Data Acquisition Project far exceeded \$700,000.

Staff also conducted an analysis of the estimated billable hours and travel expenses afforded by the proposed budget and believes that the estimated budget range is reasonable. Staff does, however, recommend that the allowable cost recovery be capped at \$500,000. If, upon issuing the RFP, APS finds that \$500,000 will not be sufficient to fund the type of study it seeks, it may come before the Commission to seek recovery (through DSM funds) of the remainder of the study expenses. This recommendation will ensure that APS makes prudent decisions with respect to the vendor and the parameters of the study without creating a delay in the RFP process.

The DSM Study should be funded through the Measurement, Evaluation, and Research segment shown in the Preliminary Energy Efficiency DSM Plan (Appendix B of the *Approved Settlement Agreement*). Appendix B allocates a total of \$1.3 million per year for the Measurement, Evaluation, and Research segment.

While it is difficult to measure the benefits of such a study, and therefore difficult to satisfy the cost effectiveness test for this individual DSM program, the cost of this study will be included in APS' overall DSM portfolio which must be cost effective. Staff expects that the results will supplant research, analysis, and planning that would have been necessary for future DSM program development and evaluation.

To the extent that the market assessment study encompasses territory and potential energy efficiency technologies that APS shares with other utilities, Staff recommends that APS make every effort to collaborate with those utilities to maximize the potential of the market assessment study and to mitigate costs. APS has highlighted the accelerated implementation schedule for the submission of its first set of DSM programs and contends that it is "committed to a very aggressive ramp-up of DSM spending in order to meet the requirements of the Settlement. Co-funding a study... would lead to a longer time frame to plan study efforts. For this study to be of

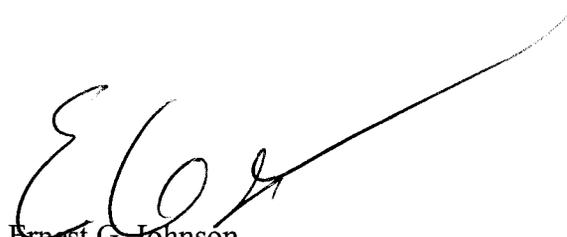
the most value to APS, it must be completed in a timely manner.”³ Ideally, Staff would like to see a more comprehensive, co-funded baseline study, but Staff recognizes that such a study will not necessarily serve APS’ needs if it would require additional time to coordinate and carry-out a comprehensive study.

V. Conclusion

Staff finds that a market assessment study is essential to provide the parties involved in developing DSM programs with reliable information on the market potential, kW and kWh savings potential, and costs associated with energy efficiency technologies.

Staff recommends that the Commission approve APS’ Application for Approval of a Demand Side Management Study filed on March 11, 2005.

Staff recommends that the Commission cap the recoverable cost at \$500,000 and require APS to seek recovery of costs above the cap at such time as APS finds that \$500,000 will not be sufficient to fund the type of study is seeks.



Ernest G. Johnson
Director
Utilities Division

EGJ:EEC:

ORIGINATOR: Erin Casper

³ APS’ Response to Staff’s First Set of Data Requests: EEC 1-6.

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BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF THE APPLICATION) DOCKET NO. E-01345A-05-0182
OF ARIZONA PUBLIC SERVICE) DECISION NO. _____
COMPANY FOR APPROVAL OF A) ORDER
DEMAND SIDE MANAGEMENT STUDY.)

Open Meeting
May 3, 2005 and May 4, 2005
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

Procedural History

1. On August 18, 2004, the Staff of the Arizona Corporation Commission (“ACC” or “Commission”), along with Arizona Public Service Company (“APS”) and over 20 intervenors, entered into a settlement agreement that concluded five months of negotiations on APS’ application for an increase in rates. The hearing on the settlement agreement took place over eight days beginning in November and ending on December 3, 2004.
2. On February 28, 2005, a Recommended Opinion and Order was issued regarding the Proposed Settlement Agreement. On the subject of Demand Side Management (“DSM”), the Recommended Opinion and Order was consistent with the Proposed Settlement Agreement in terms of the recommended overall amount of funding for DSM and the way in which DSM funds would be collected (i.e. \$10 million annually through base rates and \$6 million through an adjustor

1 mechanism). The Proposed Settlement Agreement required APS to spend at least \$48 million on
2 DSM over the next three years and required all DSM programs to be approved by the Commission.

3 3. On March 11, 2005, APS filed an Application for Approval of a Demand Side
4 Management Study contingent upon Commission approval of the Preliminary Energy Efficiency
5 DSM Plan included in the Proposed Settlement Agreement.

6 4. On March 28, 2005, the Commission issued Decision No. 67744 which approved an
7 Amended Settlement Agreement that maintained the proposed increase in DSM programs and
8 expenditures.

9
10 **Background**

11 5. The Energy Efficiency DSM Plan included in the *Approved Settlement Agreement*
12 requires APS to implement DSM programs totaling \$48 million over the next three years.
13 Annually, \$10 million of the DSM program expenditures will be recovered through base rates
14 while the remaining expenditures will be recovered through an adjustment mechanism. The
15 approved funding level for DSM represents a significant increase in spending over the test-year
16 spending level of approximately \$1 million. As such, APS has identified the need for a market
17 assessment study that will provide a basis for developing, supporting, and evaluating future DSM
18 programs.

19 6. On March 11, 2005, APS submitted a request for approval of a demand side
20 management study ("DSM study" or "market study" or "baseline study") to be funded with DSM
21 program funds. Because the proposed DSM study will be funded through DSM funds, APS
22 requested that the Commission approve its proposal contingent upon Commission approval of the
23 Recommended Opinion and Order that, among other things, provided for the increased funding for
24 DSM as specified above.

25 7. The *Approved Settlement Agreement* requires APS to formally submit a final DSM
26 plan to the Commission within 120 days and requires APS to submit all DSM programs for
27 Commission approval.

28

1 **APS' Proposed DSM Study**

2 8. APS is requesting approval to conduct a DSM Study to be funded through the DSM
3 budget set forth in the *Approved Settlement Agreement*.

4 9. APS states that a DSM Study is necessary to provide an assessment of current energy
5 efficiency levels and practices to help direct APS and other interested parties in the development
6 and evaluation of new and expanded DSM programs.

7 10. The proposed DSM study will form the basis for developing, supporting, and
8 evaluating DSM programs. The study will build upon the energy efficiency information currently
9 available to APS to provide a clear understanding of current market conditions, define the market
10 potential of DSM measures, and establish a standard against which to measure progress.
11 Specifically, the proposed DSM study will assess the potential for improving the market
12 penetration of energy efficient technologies and practices in residential, commercial, and industrial
13 customer segments. The study will also estimate the kWh energy and kW demand savings for
14 energy efficiency measures and estimate the cost to achieve energy savings of energy efficiency
15 measures.

16 11. APS will issue a Request for Proposals ("RFP") to solicit bids from qualified vendors
17 to conduct the DSM Study. Vendors may bid on all or part of the project. In its application for
18 approval of the DSM Study, APS states that "the successful bidder(s) will be expected to
19 determine the state of energy efficiency implementation and the potential for additional energy
20 savings through the following activities: analyze industry data on the sales of energy technologies;
21 conduct surveys with home and business owners; conduct on-site inspections; interview builders,
22 developers, architects and engineers; meet with manufacturers and vendors of technologies; and
23 conduct energy simulations."

24 12. As per the *Approved Settlement Agreement*, APS must submit its DSM portfolio within
25 120 days. Due to this accelerated timeline, APS has already begun the planning and development
26 of new DSM programs. The results of the proposed baseline study will not be available for the
27 development of programs that APS will include in its initial portfolio. APS plans to use the
28 information to "assist in the verification of program design assumptions during the roll-out of the

1 initial phase of DSM programs.”¹ APS also stated that the proposed study “can help target
2 program measures that can be promoted in the second phase of programs that APS is planning to
3 implement.”² After the initial round of program development, the information obtained from the
4 study could be used to target programs that will maximize cost effectiveness.

5 13. APS expects the DSM Study to be completed within approximately six months and to
6 cost in the range of \$500,000 to \$700,000.

7 14. APS will provide Commission Staff with copies of all final reports. In addition, the
8 results of the study will be reviewed and utilized by a DSM Collaborative Working Group as set
9 forth in the *Approved Settlement Agreement* to help develop and implement programs that will
10 produce the greatest energy savings and benefits.

11
12 **Staff Analysis and Recommendation**

13 15. It is important that APS and the ratepayers see substantial results (i.e. actual reduction
14 in electricity demand and consumption) from investments in DSM. Each dollar spent on DSM
15 must yield more than a dollar in combined avoided utility costs and avoided environmental
16 impacts. In addition, there are many different energy efficiency measures that could potentially be
17 implemented and it is in the interest of ratepayers and the Company to choose the most effective
18 DSM programs.

19 16. In order to effectively develop DSM programs, APS, Staff, and the Collaborative
20 Working Group, must be able to determine those energy efficiency measures that will provide the
21 most energy savings per dollar spent. It is essential that the parties involved in developing DSM
22 programs have reliable information on the market potential, kW and kWh savings potential, and
23 costs associated with energy efficiency technologies.

24 17. Finally, DSM programs are required to be cost effective as measured by the Societal
25 Cost Test. As such, Staff must be able to determine both the incremental cost and incremental
26 savings of a potential DSM measure. Staff found that a DSM market assessment study is

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28 ¹ APS' Response to Staff's First Set of Data Requests: EEC 1-1.

² APS' Response to Staff's First Set of Data Requests: EEC 1-1.

1 necessary to evaluate current market penetration of energy efficiency measures, develop and assess
2 baseline end use data for products, develop and assess baseline hourly load shapes for customer
3 segments, identify currently available DSM technologies, and estimate potential and realized
4 energy savings for DSM measures.

5 18. APS has estimated that its baseline and market potential research will be completed in
6 about six months within a budget range of \$500,000 to \$700,000. The Company has provided the
7 budget information and study descriptions for several DSM studies conducted in other states in
8 support of its estimated budget. APS has also researched a variety of vendors currently performing
9 these types of studies to help identify the scope and anticipated cost of the proposed study.
10 Finally, APS has identified its own historical 1994 DSM Market Potential and 1996 End Use Data
11 Acquisition Project research studies in support of its proposed budget.

12 19. Staff considered the scope and timeframe of the proposed DSM Study and reviewed
13 APS' support for its estimated budget. The DSM research performed in other states including
14 Vermont, Georgia, and New York was more limited in size, scope, timeframe, and budget than the
15 proposed DSM Study, however, they do provide points of comparison. Historical costs for
16 comparable prior APS studies provide some perspective on the wide range of potential research
17 costs. Its prior studies were conducted in 1994 and 1996 with the budget of the DSM Market
18 Potential Study a good deal below \$500,000 while the budget of the End Use Data Acquisition
19 Project far exceeded \$700,000.

20 20. Staff also conducted an analysis of the estimated billable hours and travel expenses
21 afforded by the proposed budget and believes that the estimated budget range is reasonable. Staff
22 did, however, recommend that the allowable cost recovery be capped at \$500,000. If, upon issuing
23 the RFP, APS finds that \$500,000 will not be sufficient to fund the type of study it seeks, it may
24 come before the Commission to seek recovery (through DSM funds) of the remainder of the study
25 expenses. Staff's recommendation ensures that APS will make prudent decisions with respect to
26 the vendor and the parameters of the study without creating a delay in the RFP process.

27 21. The DSM Study should be funded through the Measurement, Evaluation, and Research
28 segment shown in the Preliminary Energy Efficiency DSM Plan (Appendix B of the *Approved*

1 *Settlement Agreement*). Appendix B allocates a total of \$1.3 million per year for the Measurement,
2 Evaluation, and Research segment.

3 22. While it is difficult to measure the benefits of such a study, and therefore difficult to
4 satisfy the cost effectiveness test for this individual DSM program, the cost of this study will be
5 included in APS' overall DSM portfolio which must be cost effective. Staff expects that the
6 results will supplant research, analysis, and planning that would have been necessary for future
7 DSM program development and evaluation.

8 23. To the extent that the market assessment study encompasses territory and potential
9 energy efficiency technologies that APS shares with other utilities, Staff recommended that APS
10 make every effort to collaborate with those utilities to maximize the potential of the market
11 assessment study and to mitigate costs. APS has highlighted the accelerated implementation
12 schedule for the submission of its first set of DSM programs and contends that it is "committed to
13 a very aggressive ramp-up of DSM spending in order to meet the requirements of the Settlement.
14 Co-funding a study...would lead to a longer time frame to plan study efforts. For this study to be
15 of the most value to APS, it must be completed in a timely manner."³ Staff would like to see a
16 more comprehensive, co-funded baseline study but recognized that such a study would not
17 necessarily serve APS' needs if it would require additional time to coordinate and carry-out a
18 comprehensive study.

19
20 **Conclusion**

21 24. Staff found that a market assessment study is essential to provide the parties involved
22 in developing DSM programs with reliable information on the market potential, kW and kWh
23 savings potential, and costs associated with energy efficiency technologies.

24 25. Staff recommended that the Commission approve APS' Application for Approval of a
25 Demand Side Management Study filed on March 11, 2005.

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28 ³ APS' Response to Staff's First Set of Data Requests: EEC 1-6.

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IN WITNESS WHEREOF, I BRIAN C. McNEIL, Executive Secretary 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 _____ day of _____, 2005.

BRIAN C. McNEIL
Executive Secretary

DISSENT: _____

DISSENT: _____

EGJ:AJL:XXX/XXX

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2 DOCKET NO. E-01345A-05-0182

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