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BEFORE THE ARIZONA CORPORATION COM

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

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AZ CORP COMMISSION
DOCUMENT CONTROL

IN THE MATTER OF THE GENERIC
PROCEEDINGS CONCERNING
ELECTRIC RESTRUCTURING ISSUES.

Docket No. E-00000A-02-0051

IN THE MATTER OF ARIZONA PUBLIC
SERVICE COMPANY'S REQUEST FOR
A VARIANCE OF CERTAIN
REQUIREMENTS OF A.A.C. R14-22-1606.

Docket No. E-01345A-01-0822

IN THE MATTER OF THE GENERIC
PROCEEDING CONCERNING THE
ARIZONA INDEPENDENT
SCHEDULING ADMINISTRATOR.

Docket No. E-00000A-01-0630

IN THE MATTER OF TUCSON
ELECTRIC POWER COMPANY'S
APPLICATION FOR A VARIANCE OF
CERTAIN ELECTRIC COMPETITION
RULES COMPLIANCE DATES.

Docket No. E-01933A-02-0069

DIRECT TESTIMONY OF

DAVID BERRY

LAND AND WATER FUND OF THE ROCKIES

November 12, 2002

Arizona Corporation Commission
DOCKETED

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Direct Testimony of David Berry
Land and Water Fund of the Rockies
Docket No. E-00000A-02-0051 et al.

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1 **Introduction**

2

3 Q. Please state your name and business address.

4 A. My name is David Berry. My business address is Post Office Box 1064, Scottsdale,
5 Arizona 85252-1064.

6

7 Q. By whom are you employed and in what capacity?

8 A. I am Senior Policy Advisor with the Land and Water Fund of the Rockies (LAW
9 Fund).

10

11 Q. Please describe the LAW Fund.

12 A. The LAW Fund is a regional environmental law and policy center serving the Rocky
13 Mountain and Desert Southwest states, headquartered in Boulder, Colorado. The
14 LAW Fund's Energy Project promotes the development of clean energy power
15 production technologies, energy efficiency, renewable resources, and other measures
16 that help to minimize the environmental impacts of meeting the demand for energy
17 services in an economically and politically acceptable fashion. The LAW Fund has
18 been involved in proceedings before the Commission for about ten years.

19

20 Q. What is the purpose of your testimony in this proceeding?

21 A. I am requesting that the Commission set up processes to incorporate demand side
22 management and environmental risk management in future competitive solicitations.
23 In addition, I am proposing several implementation measures for the initial
24 competitive solicitation process.

25

26 Q. What are your professional qualifications related to these matters?

27 A. A summary of my qualifications is provided in Exhibit DB-1.

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Demand Side Management

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Q. What is Demand Side Management (DSM)?

A. The Office of Energy Efficiency and Renewable Energy of the U.S. Department of Energy defines DSM as "...actions taken on the customer's side of the meter to change the amount or timing of energy consumption. Utility DSM programs offer a variety of measures that can reduce energy consumption and consumer energy expenses."

Q. What is the public interest in DSM?

A. Cost effective DSM is a resource which can help meet the demand for electric energy services at lower cost than conventional generation resources. The public interest in DSM is to ensure that consumers' electric energy service bills are as low as possible. If cost effective DSM measures are not pursued, consumers will pay more for electric energy services than necessary. In addition, because DSM displaces electricity and generally has a stable cost, it helps consumers and utilities avoid fluctuations in the price of electricity and natural gas used to generate electricity. Further, DSM may reduce or eliminate the need for more transmission or distribution capacity, may avoid transmission constraints, and can reduce the environmental impacts of electricity consumption, including compliance costs associated with future environmental regulation.

Q. Has the Commission expressed support for DSM?

A. Yes. The Recommended Decision on Springerville Units 3 and 4 (which the Commission adopted in relevant part at its October 29, 2002 Open Meeting) states that "We encourage TEP and all Arizona utilities to practice energy efficiency and to implement energy efficiency measures when feasible and cost effective, not only as a means of pollution control, but also as a means of cost containment, both of which we support." Track B provides a means for the Commission to act on that support.

1 Q. What evidence is there that DSM achieves savings in kW and kWh?

2 A. There have been numerous studies and DSM programs that conclude that DSM
3 measures can reliably reduce power and energy consumption and that indicate how
4 such reductions can be achieved.¹

5
6 Q. Are Arizona utilities currently conducting large scale DSM programs?

7 A. Apparently not. In response A4 to Harquahala Generating Company's first set of data
8 requests, Arizona Public Service Company (APS) reported that it did not include any
9 DSM in its forecasts. In response to question A3, APS stated that no DSM funding
10 was authorized after 1999. In response to the same questions, Tucson Electric Power
11 Company (TEP) provided a forecast of 6 to 7 MW of DSM per year but no MWh
12 savings due to its Guarantee Home Program. (TEP did not explain the absence of
13 energy savings). However, huge opportunities for cost effective DSM remain.²

14
15 A. How can DSM fit into the Commission's Track B process?

16 A. Track B is concerned with developing a competitive procurement process for APS
17 and TEP to obtain power to serve their ratepayers. Cost effective DSM would be a
18 greater benefit for ratepayers than some purchases of electricity from the wholesale

¹ Among these studies are the following: Pacific Northwest Laboratory, *Industrial Demand Side Management: A Status Report*, prepared for the Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, May 1995, Report No. PNL-10567. Arizona Corporation Commission, Staff Reports on Resource Planning, 1990, 1993, and 1996. Charles Goldman, Joseph Eto, and Galen Barbose, "California Customer Load Reductions during the Electricity Crisis: Did They Help to Keep the Lights On?" Lawrence Berkeley National Laboratory, LBNL-49733, May 2002. Connecticut Energy Conservation Management Board, *Report of the Energy Conservation Management Board*, Year 2001 Programs and Operations, 2002. Kim Clark and David Berry, "House Characteristics and the Effectiveness of Energy Conservation Measures," *Journal of the American Planning Association*, Summer 1995: 386-396. Kim Clark and David Berry, "Targeting Residential Conservation Measures," *Home Energy*, September/October 1994: 14-15. Howard Geller, "Utility Energy Efficiency Programs and Systems Benefit Charges in the Southwest," Southwest Energy Efficiency Project, 2002. Marilyn Brown et al. *National Impacts of the Weatherization Assistance Program in Single-Family and Small Multifamily Dwellings*, Oak Ridge National Laboratory ORNL/CON-326, 1993. E. Gregory McPherson, "Evaluating the Cost Effectiveness of Shade Trees for Demand-Side Management," *The Electricity Journal*, November 1993: 57-65.

² See Southwest Energy Efficiency Project (SWEEP), *The New Mother Lode: The Potential for More Efficient Electricity Use in the Southwest*, Boulder, CO: 2002.

1 market. As Track B has developed, DSM resources could be bid, but the emerging
2 competitive solicitation process is not conducive to acquiring DSM in lieu of more
3 expensive conventional generation. For instance, DSM is generally a long term
4 resource while the utilities may seek only short term supply contracts. DSM, with its
5 higher up-front costs and longer life spans, may not be readily comparable to short
6 term power purchases. In addition, the performance-related risks of DSM are very
7 different than the performance-related risks of conventional power supplies and need
8 to be managed differently. Utilities have focused on managing the risks of power
9 purchases. The LAW Fund proposes that the Commission adopt a policy to ensure
10 that cost effective DSM resources are actively sought and acquired.

11
12 Q. What should the major features of the Commission's DSM policy be?

13 A. The DSM policy should include the following features:

- 14 • A resource acquisition process separate from competitive solicitations for
15 conventional generation. The separate process would be more attractive to
16 vendors of DSM than would an all-source bidding process.
- 17 • Target levels of cost effective DSM kW and kWh savings, considering the costs
18 of DSM and the (avoidable) costs of conventional generation resources.
- 19 • DSM implementation time tables for APS and TEP.

20
21 Q. How can DSM resources be considered without delaying the Commission's schedule
22 for starting competitive solicitations in Track B?

23 A. The Commission desires to implement competitive solicitations for wholesale power
24 acquisitions quickly, but setting up effective DSM programs will take time. The
25 LAW Fund does not wish to slow down the initial competitive solicitations
26 undertaken by utilities as a result of Track B. Therefore, I propose that the
27 Commission set up a separate process for developing its DSM policy which would be
28 in place in time for the second and subsequent rounds of competitive solicitations.

29

1 Q. Why should the Commission address DSM policy now if that policy would not
2 become effective until after the first round of competitive solicitations?

3 A. Developing a DSM policy will take time. Staff, utilities, and others need to update
4 their knowledge of DSM, DSM programs in other jurisdictions should be reviewed,
5 costs of DSM programs need to be considered, target levels of DSM (kW and kWh
6 savings) must be established considering avoided costs associated with conventional
7 resources, and program delivery methods must be examined. The DSM policy
8 analysis should start as soon as possible, i.e., in early 2003. The Commission might
9 need about a year to sort through the issues, resulting in an Order by the spring or
10 summer of 2004. Specific utility programs will then have to be developed and
11 reviewed by the Commission. If this process is completed in 2005, it will then be
12 time to address the second cycle of competitive solicitations. That second cycle will
13 require considerable attention from utilities, Staff, and other parties. It would be too
14 burdensome to develop a DSM policy and new competitive solicitation guidelines for
15 conventional resources at the same time. Further, the results of the DSM analysis
16 would be needed as inputs into the competitive solicitation process for conventional
17 resources. Therefore, I recommend that the Commission use the current proceeding
18 to formally start the process of workshops and hearings necessary to implement a
19 DSM policy.

20
21 Q. What is your recommendation for how the Commission should proceed so that DSM
22 proposals can be developed and brought to the Commission for its consideration?

23 A. The Commission should direct Staff to conduct workshops and then request a
24 hearing. Exhibit DB-2 sets forth a process.

25

Environmental Risk Management

1
2
3 Q. What is the public interest in the environmental aspects of utility resource
4 acquisitions?

5 A. The public interest in environmental aspects of utility resource acquisitions stems
6 from: a) Commissioners' previous statements on environmental matters; b) the
7 recovery, through rates, of the costs of meeting environmental targets and
8 requirements, including consideration of the allocation of risk of recovering future
9 costs from ratepayers, power suppliers, and utility shareholders; and c) the
10 environmental externalities (such as pollution) of power production imposed on
11 society and the ecology of the State.

12
13 Q. What have Commissioners stated regarding environmental matters?

14 A. In a letter to parties to the present docket, dated July 18, 2002, Commissioner Spitzer
15 wrote, "... the end state of this proposal is a future in which the wholesale electric
16 market is competitive fair, and in which modern, efficient and clean generation
17 replaces aged and highly polluting plants..." (p. 3). Decision No. 65154, regarding
18 Track A, states that, through the competitive solicitation process in track B, "APS and
19 TEP may decide to retire or displace inefficient, uneconomic, environmentally
20 undesirable plants" (p. 23, note 8).

21
22 Q. Please illustrate the implications of environmental issues for ratepayers.

23 A. I will use the example of climate change. With growing evidence that the earth's
24 climate is being altered by emissions of carbon dioxide and other greenhouse gases,
25 including recent recognition of climate change by the White House, it is increasingly
26 likely that the United States will act to stop worsening this situation. Resource
27 acquisition decisions that do not take into account the potential future regulation of
28 carbon dioxide emissions run the risk that the wrong resource choices will be made.
29 The wrong resource choices could include those which have high carbon dioxide
30 emissions causing the utility, power plant owners, and perhaps ratepayers, to pay

1 more to offset carbon dioxide emissions than the difference in the costs between those
2 resources (without carbon offsets) and alternative resources with lower carbon
3 dioxide emissions. If Arizona utilities lock into generation resources with high
4 carbon dioxide emission rates and the costs of complying with future carbon dioxide
5 regulation are passed on to consumers, the competitive solicitation process could be
6 leading to needlessly high electric rates.

7
8 Second, the Commission could approach climate change as a question of good public
9 policy quite apart from whether the federal government will impose carbon
10 regulations. The current scientific consensus on climate change is that climate
11 change could impose large costs on agriculture, businesses, and consumers as they try
12 to adapt to changes in precipitation, temperature, and other weather patterns. The
13 ecological impacts could also be significant. In a report prepared at the request of the
14 Bush Administration, the National Research Council stated that the "U.S. National
15 Assessment makes a strong case that ecosystems are the most vulnerable to the
16 projected rate and magnitude of climate change, in part because the available
17 adaptation options are very limited. Significant climate change will cause disruptions
18 to many U.S. ecosystems, including wetlands, forests, grasslands, rivers, and lakes."³
19 The Commission could explicitly address whether the resource choices of the utilities
20 under its jurisdiction are contributing to greater climatic variability and how to foster
21 resource acquisition decisions that are less destructive of the environment.

22
23 Utilities may reduce the effect of power generation on climate change by engaging in
24 DSM, fuel or resource substitution, including greater use of renewable resources,
25 sequestration of carbon dioxide and other greenhouse gases, improved heat rates at
26 power plants, and purchase of tradable carbon credits. Each of these responses
27 imposes a cost that might raise a utility's average costs and show up in rate increases.

³ National Research Council, *Climate Change Science: An Analysis of Some Key Questions*, Washington, D.C.: National Academy Press, p. 20. The reference to the U.S. National Assessment is to: U.S. National Assessment, U.S. Global Change Research Program, "Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change," 2001, Cambridge University Press.

1 DSM responses would, in general, lower ratepayers' energy service bills. The other
2 responses would, in general, tend to raise utility costs. Carbon offset or reduction
3 costs could range from around a few dollars per metric ton of carbon to over \$100 per
4 metric ton of carbon.⁴ To put these numbers in perspective, a carbon removal or
5 offset cost of \$40 per metric ton of carbon (\$9.74 per U.S. ton of carbon dioxide)
6 would add about \$0.0086 per kWh to the cost of producing electricity at a coal plant
7 and about \$0.0038 per kWh to the cost of producing electricity at a natural gas fired
8 combined cycle plant.⁵ Rate impacts would be similar, depending on rate treatment
9 by the Commission.

10
11 Q. How can Track B serve as a vehicle for achieving environmental improvements?

12 A. Competitive solicitations arising from Track B will accomplish environmental
13 improvements only by happenstance unless environmental issues are directly
14 addressed by the Commission. In the absence of managing environmental risks,
15 Arizona faces the potential of locking in generation from more carbon-intensive
16 generation resources or dirtier power plants or power plants consuming large volumes
17 of water. The potential impact of not considering these issues at the time of resource
18 acquisition is higher costs in the long run.

⁴ See, for example: Tellus Institute, *The American Way to the Kyoto Protocol*, prepared for the World Wildlife Fund, 2001. Andrew Plantinga, Thomas Mauldin, and Douglas Miller, "An Econometric Analysis of the Costs of Sequestering Carbon in Forests," *American Journal of Agricultural Economics*, November 1999: 812-824. Richard Newell and Robert Stavins, "Climate Change and Forest Sinks: Factors Affecting the Costs of Carbon Sequestration," *Journal of Environmental Economics and Management*, 2000: 211-235. Energy Information Administration, *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide*, 2000. Charles Kolstad and Michael Toman, "The Economics of Climate Policy," Resources for the Future Discussion Paper 00-40REV, 2001. Natsource, *Assessment of Private Sector Anticipatory Response to Greenhouse Gas Market Development*, prepared for Environment Canada, 2002. World Resources Institute, Forest and Land-Use Change Carbon Sequestration Projects," www.wri.org/climate/sequester.html.

⁵ The assumptions are as follows for a coal plant: a 400 MW coal plant, 190 pounds of carbon dioxide per MMBtu of fuel, a heat rate of 9,253 Btu per kWh, a 90 percent capacity factor, 3.67 pounds of carbon dioxide per pound of carbon, 2240 pounds per metric ton. The assumptions for a gas-fired combined cycle plant are as follows: a 400 MW plant, 117 pounds of carbon dioxide per MMBtu of fuel, a heat rate of 6,639 Btu per kWh, a 70 percent capacity factor, 3.67 pounds of carbon dioxide per pound of carbon, 2240 pounds per metric ton.

Costs are sometimes expressed in dollars per ton of carbon dioxide. As noted above, there are 3.67 pounds of carbon dioxide per pound of carbon.

1

2 Q. Which environmental issues does the LAW Fund believe merit the greatest attention
3 in making resource decisions?

4 A. There are numerous environmental impacts of generating and transmitting electricity.
5 The process I propose (described below) should include as one of its topics the
6 determination of which environmental issues to address. The LAW Fund believes
7 that the following are important: a) air emissions of carbon dioxide, carbon
8 monoxide, sulfur oxides, nitrogen oxides, mercury, and particulates; and b) water
9 usage. The analysis should look at the resources acquired through the competitive
10 solicitation and the utility's entire portfolio. An additional topic to be considered is
11 the extent to which some of these issues are already adequately addressed in existing
12 regulations and in the power plant and line siting review process where the
13 Commission has put more stringent requirements on some new power plants. I also
14 recommend that the Commission order that climate change be included in the final
15 list of environmental impacts to be considered because it is an important issue that
16 has not received the attention it deserves.

17

18 Q. How can the Commission's Track B competitive solicitation process take into
19 account environmental issues?

20 A. The competitive solicitation process adopted by the Commission should explicitly
21 require APS and TEP to take into account the environmental implications of their
22 resource choices, to prudently manage these risks, and to explicitly consider the
23 allocation of risks among ratepayers, power suppliers, and the utility. The solicitation
24 process should also take into account actions by utilities (and their power suppliers)
25 to reduce or offset adverse environmental impacts and it should avoid penalizing
26 utilities and their power suppliers for taking such actions.

27

28 Q. How can environmental risk management be considered without delaying the
29 Commission's schedule for starting competitive solicitations in Track B?

1 A. Recognizing that the Commission desires to implement competitive solicitations for
2 wholesale power acquisitions quickly, and that setting up a workable environmental
3 risk management policy will take time, the LAW Fund does not wish to slow down
4 the initial competitive solicitations undertaken by utilities as a result of Track B.
5 Therefore, the LAW Fund proposes that the Commission set up a process now for
6 developing its environmental risk management policy which would then be applied to
7 the second and subsequent rounds of competitive solicitations.

8
9 Q. Why should the Commission address environmental risk management policy now if
10 that policy would not become effective until after the first round of competitive
11 solicitations?

12 A. As with DSM, developing an environmental risk management policy will take time.
13 Staff, utilities, and others should review environmental issues and invent options for
14 managing environmental risks. The parties might need about a year to analyze the
15 issues and present recommendations to the Commission, resulting in a Commission
16 Order several weeks later. Specific utility programs will then have to be developed
17 and reviewed by the Commission. By then, it will be time to address the second cycle
18 of competitive solicitations. That second cycle will require considerable attention
19 from utilities, Staff, and other parties to deal with conventional solicitation issues. It
20 would be too burdensome to develop an environmental risk management policy and
21 new competitive solicitation guidelines at the same time. Further, requirements for
22 environmental risk management are inputs into competitive solicitations and should
23 be known before conventional resources are acquired. Therefore, I recommend that
24 the Commission use the current proceeding to formally start the process of workshops
25 and hearings necessary to implement an environmental risk management policy.

26
27 Q. Do you have any suggestions on how the Commission should direct Staff to proceed
28 so that environmental risk management proposals can be developed and brought to
29 the Commission for its consideration?

30 A. Yes. Exhibit DB-3 sets forth a process.

- 1 • On page 17, Staff states that “It will be the responsibility of the utility to
2 prepare draft solicitation materials and to discuss these drafts with the Staff
3 and the Independent Monitor prior to distributing them in draft form to
4 potential bidders.” Consistent with the above recommendation, I recommend
5 that the term “potential bidders” be replaced with “potential bidders and other
6 interested parties.”
- 7 • On pages 20 and 21, Staff states that “Each utility shall schedule one or more
8 bidders’ conferences to answer questions posed by potential bidders and to
9 take comments regarding the adequacy and quality of the information
10 provided to bidders. All bidders’ conferences must be completed at least 10
11 days before the release of the final bid package.” I recommend that all
12 interested parties be allowed to attend the bidders’ conferences and be allowed
13 to ask questions.

14
15 **Comments on Staff’s Report: Environmental Information**
16

- 17 Q. In light of Commissioners’ concerns about environmental aspects of resource
18 decisions, are there ways in which the competitive solicitation process can provide
19 useful information on environmental impacts, beyond the environmental risk
20 management process proposed above?
- 21 A. Yes. As proposed by Staff, the monitor is to provide a report to the Commission on
22 the solicitation process (pp. 11 and 26) and Staff is to review the utilities’ power
23 supply portfolios (p. 27). The LAW Fund believes that these reports and reviews
24 would benefit from inclusion of the air emissions (carbon dioxide, carbon monoxide,
25 sulfur oxides, nitrogen oxides, mercury, particulates, and perhaps other emissions)
26 and the water usage of the resources acquired and of the utilities’ entire portfolios.
27 Such information would be instructive for the Commission to evaluate whether the
28 competitive solicitation process is resulting in improved environmental performance.
29 This information should be provided for the Spring 2003 competitive solicitation and
30 subsequent solicitations.

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Comments on Staff's Report: Price Risk

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4 Q. Does Staff's proposed review process (pages 22 and 23) adequately address price
5 volatility and price risk?

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Response to Staff's Position on DSM and Environmental Risk Management

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Q. Staff states (page 39) that DSM and environmental risk mitigation should not be
addressed by the Commission in this proceeding and that the Commission need not
decide at this time whether a separate proceeding is necessary to examine these
issues. Do you agree?

25

26

27

28

29

A. No. It is in the public interest to reduce the costs of meeting the demand for electric
energy services through DSM and it is in the public interest to address environmental
aspects of resource acquisitions. As explained above, DSM requirements and
environmental risk management should be inputs into the next round of competitive
solicitations. Staff's proposal does not allow for adequate time to develop the DSM

1 and environmental risk management policies so that APS and TEP can incorporate
2 them into their next round of solicitations.

3

4 Q. Does this conclude your direct testimony?

5 A. Yes.

Qualifications of David Berry

Education:

- B.A. Syracuse University (Geography)
- M.A. University of Pennsylvania (Regional Science)
- Ph.D. University of Pennsylvania (Regional Science)

Employment History:

- Land and Water Fund of the Rockies, Senior Policy Advisor (2001 - present)
- Navigant Consulting, Inc., Senior Engagement Manager (1997-2001)
- Arizona Corporation Commission, Chief Economist and Chief, Economics and Research (1985 - 1996)
- Boston University, Department of Urban Affairs and Planning, Lecturer (1981-1985)
- Abt Associates, Inc., Senior Analyst (1979-1985)
- University of Illinois, Department of Urban and Regional Planning, Visiting Assistant Professor (1977-1979)
- University of Pennsylvania, Regional Science Department, Lecturer (1974 -1977)
- Regional Science Research Institute, Research Associate (1972-1977)
- U.S. Army (1969-1971)

Testimony and Public Comment:

- Before the Maine Land Use Regulation Commission
- Before the Arizona Corporation Commission
- Before the New Mexico Public Regulation Commission

Publications in:

- *Ecological Economics*
- *Public Management*
- *Journal of the American Planning Association*
- *Business Economics*
- *Solar Today*
- *NRRI Quarterly Bulletin*
- *The Electricity Journal*
- *Journal of Economic Issues*
- *Public Utilities Fortnightly*
- *Journal of Environmental Management*
- *Professional Geographer*
- *Energy Policy*
- *Water Spectrum*
- *Geographical Perspectives*
- *Strategic Planning for Energy and the Environment*
- *National Tax Journal*
- *Policy Sciences*
- *Natural Resources Journal*
- *Water International*
- *Growth and Change*
- *Home Energy*
- *American Journal of Economics and Sociology*
- Chapters in books and proceedings

Proposed Steps to Commission Adoption of a DSM Policy

1. **Educational Workshop on DSM:** Staff invites outside experts on DSM measures and programs to make presentations and answer questions about DSM. Staff should solicit names of possible speakers from interested parties. Arizona utilities should be invited to make presentations on their DSM programs. It may also be desirable to also invite a speaker from an organization that provides DSM services. This may be a two day workshop.
2. **Workshop on Determining the Amount of DSM to Pursue:** Utilities, Staff, and other interested parties present and discuss their analyses on the amount of feasible, cost effective DSM, costs of DSM measures, suggested target levels of DSM and associated resource acquisition schedules, and programs to implement the suggested target levels of DSM. Implementation issues should include how DSM program are to be carried out – e.g., by the utility, by program administrators selected by the utility, by a third party selected by the Commission, etc. This workshop could run for two or three days.
3. **Workshop to Reach Agreement on DSM Program Features, Where Possible:** The parties to the second workshop may be able to reach agreement on some important DSM program features while disagreeing on other features. To assist the Commission, the parties should identify areas of agreement.
4. **Workshop to Develop DSM Acquisition Process:** Similar to the Track B workshops on competitive solicitation, utilities, Staff, and interested parties should discuss the parameters of a separate solicitation process for acquiring DSM resources and seek to reach consensus, to the extent possible, on that process.
5. **Hearing on DSM Policy:** Utilities, Staff, and interested parties would present testimony on DSM proposals for Commission consideration. Topics addressed in the hearing would include the amount and types of DSM to be pursued in the service areas of APS and TEP, and mechanisms for implementing DSM programs.

**Proposed Steps to Commission Adoption
of an Environmental Risk Management Policy**

1. **Educational Workshop:** Staff invites outside experts on environmental aspects of power generation, including climate change, to make presentations and answer questions. Staff should solicit names of possible speakers from interested parties.
2. **Brainstorming Workshop on Policies to Manage Environmental Risks:** Staff or a facilitator working for Staff would coordinate a discussion among utilities, independent power producers, other interested parties, and one or more experts from the first workshop to determine which environmental issues should be addressed (e.g., sulfur oxide emissions, nitrous oxide emissions, mercury emissions, water consumption) in addition to climate change/carbon dioxide emissions, and to invent and critique options for managing the risks of environmental impacts of power generation. Examples of options include: a) applying adders reflecting the cost of complying with future regulations to the cost of each resource to identify resources with the lowest total (conventional plus environmental) cost (adders are not actually paid to the supplier); b) reducing emissions through DSM, fuel substitution, and improved heat rates at power plants, for example; c) offsetting emissions; and d) explicit allocation of environmental risks among utilities, power suppliers, and ratepayers. The workshop is, of course, expected to expand and modify this illustrative list.
3. **Workshop to Reach Agreement, Where Possible, on Environmental Risk Management:** As a result of the second workshop, parties may be able to agree on some aspects of an environmental risk management policy. Staff would facilitate consensus building.
4. **Hearing on Environmental Risk Management:** Utilities, Staff, and interested parties would present testimony on environmental risk management proposals for Commission consideration. Hearing topics could include environmental performance targets for utility resource portfolios, costs of emission reductions and offsets, mechanisms to meet performance standards, and specific programs for achieving target emission reductions or offsets and for meeting water consumption goals.

Original and 19 copies of the foregoing filed with Docket Control, Arizona Corporation Commission, 1200 W. Washington Street, Phoenix, AZ 85007, on the 11th day of November 2002, and copies mailed to:

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