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BEFORE THE ARIZONA CORPORATION COMMISSION

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COMMISSIONERS

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

AZ CORP COMMISSION
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION
 OF ARIZONA PUBLIC SERVICE COMPANY
 FOR A HEARING TO DETERMINE THE
 FAIR VALUE OF THE UTILITY PROPERTY
 OF THE COMPANY FOR RATEMAKING
 PURPOSES, TO FIX A JUST AND
 REASONABLE RATE OF RETURN
 THEREON, TO APPROVE RATE
 SCHEDULES DESIGNED TO DEVELOP
 SUCH RETURN.

DOCKET NO. E-01345A-08-0172

Arizona Corporation Commission
DOCKETED

JUL -1 2009

DOCKETED BY	
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Direct Testimony of

Amanda Ormond

on behalf of Interwest Energy Alliance

Docket No. E-01345A-08-0172

July 1, 2009

**Direct Testimony of Amanda Ormond
Docket No. E-01345A-08-0172**

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**Direct Testimony of Amanda Ormond
on behalf of Interwest Energy Alliance
Docket No. E-01345A-050816**

INTRODUCTION

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6
7 Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS?

8
9 A. My name is Amanda Ormond. My business address is 7650 S. McClintock Drive, Suite 103-
10 282, Tempe, Arizona 85284.

11
12 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

13
14 A. I am a consultant to Interwest Energy Alliance (Interwest) and serve as their Southwest
15 Representative. I assist Interwest on issues related to electrical utilities and utility regulation.

16
17 Q. PLEASE DESCRIBE INTERWEST ENERGY ALLIANCE.

18
19 Interwest Energy Alliance (Interwest) is a 510(c)(6) trade association representing the interests of
20 non-governmental organizations and renewable energy developers and product manufacturers;
21 primarily wind and solar. Interwest works through education and advocacy to create state-level
22 policies supporting renewable energy development. The organization concentrates its work in the
23 states of Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming.

24
25 A. WHAT IS YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE RELATED TO YOUR
26 TESTIMONY.

27
28 I have worked in the energy and environmental field for 20 years in Arizona. In the mid '80s I was a
29 quality control specialist for an environmental consulting firm and focused on groundwater
30 contamination evaluation and remediation projects. From 1987 to 2001 I was employed by the
31 State Energy Office, a division of the Arizona Department of Commerce. I was appointed director in
32 1994 where I served for seven years. In 2001 I started the Ormond Group, LLC a consulting firm
33 specializing in energy and environmental policy development, strategy and education. I hold a BS
34 degree in Environmental Earth Science. I have participated extensively in regional and local
35 stakeholder processes and policy forums as an expert in renewable and energy efficiency and have
36 spent 10 years writing and lobbying for energy legislation. I have also represented the wind industry
37 for four years.

38
39 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

40
41 A. My testimony provides an overview of the reasons that Interwest signed on to and supports the
42 Arizona Public Service Company Proposed Settlement Agreement dated June 12, 2009. My
43 testimony provides comments on the renewable energy portions of the settlement, various other
44 sections of the settlement, and some of the issues raised in Chairman Mayes' June 9 letter to Parties
45 to the Docket.

1

2 Q. WHEN DID INTERWEST BECOME AN INTERVENOR IN THE CASE?

3 A. Interwest applied to intervene on January 30, 2009. The Arizona Corporation Commission (ACC)
4 granted Interwest permission to intervene on February 10, 2009. Interwest participated actively
5 from the start of settlement negotiations. Interwest decided to participate in this case because
6 renewable energy and energy efficiency issues were added into the negotiations mix.

7 Q. DID INTERWEST CONSIDER THE SETTLEMENT PROCESS FAIR?

8 Interwest was able to participate fully in settlement negotiations. We believe that the settlement
9 process was fair and that Interwest was allowed the opportunity to present and have considered our
10 view and priorities related to clean energy and energy efficiency. Interwest supports the proposed
11 settlement and believes that the settlement represents a reasonable compromise among divergent
12 parties and interests. We believe it will also provide long-term benefits for Arizona Public Service
13 Company ("the Company") and its customers.

14

Renewable Energy Provisions

15 Q. IN THE SETTLEMENT THE COMPANY WILL BE REQUIRED TO OBTAIN RENEWABLE ENERGY BEYOND
16 THE REQUIREMENTS OF THE RENEWABLE ENERGY STANDARD AND TARIFF (REST). WHY DO YOU
17 SUPPORT THIS PROVISION?

18 A. First, the REST rule (Decision No. 69127) establishes a standard for regulated utilities to obtain
19 renewable energy for a minimum of 15% of retail energy sales. The standard was designed as a
20 minimum in the recognition that if, renewable energy resources were of benefit to customers, the
21 utility should not be precluded from obtaining more than the set 15% of retail energy sales. The
22 Company is exercising the option, granted by the ACC in the REST rules, to exceed the standard.

23 Second, the amount of renewable energy, to be obtained by the Company, (1.7 million megawatt
24 hours by December 31, 2015) was chosen as a result of an extensive internal evaluation process and
25 subsequent vetting with interested parties. The amount proposed is consistent with the voluntary
26 Resource Plan Report filed by APS with the ACC on January 29, 2009¹. To develop this plan the
27 company hosted six months of workshops for stakeholders to understand the energy landscape and
28 resources choices, and be able to provide input to the company on a wide-range of energy issues.
29 The workshops included topics such as load growth and resource needs, policies and trends,
30 resource availability and costs, and risks factors and risk mitigation strategies.

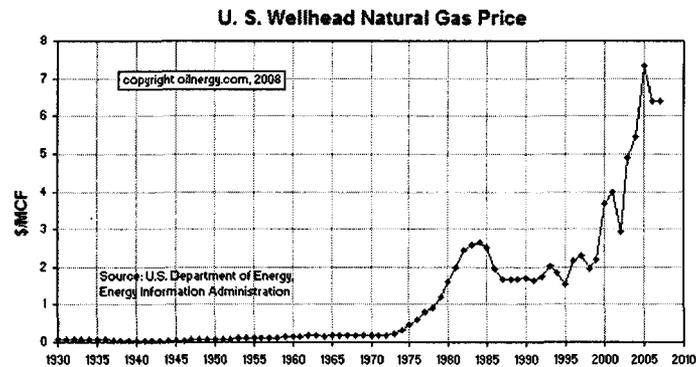
31 The Resource Plan states the following factors, among others, are to be considered in choosing the
32 type and amount of resources to meet load growth that is outlined in the Plan: cost, diversity of
33 resources, financial stability, resource self-sufficiency, and positioning for climate change policy.²

¹ APS Resource Plan Report, January 29, 2009, Appendix 1, Table 1 – Loads and Resources Table – Docket No. E-01345A-09-0037

² APS Resource Plan Report, January 29, 2009, page 5

1 Third, wind and solar resources are carbon-free resources. Pending congressional legislation will
 2 require carbon dioxide to be a heavily regulated pollutant. As such APS, and other utilities, will be
 3 subject to new rules, regulations and costs to mitigate CO2 and related emissions. Arizona routinely
 4 experiences one of the highest growth rates of electricity in the county. If APS chooses to add new
 5 carbon-based resources to meet load growth it will increase the amount of carbon that will need to
 6 be mitigated. By adding 1.7 million MWhs of carbon-free renewable energy, the Company is
 7 reducing its future carbon risk and cost of carbon mitigation; a cost that consumers will have to
 8 bear.

9 Fourth, the renewable energy resources which would be obtained under this Settlement, if
 10 approved, will increase the amount of price-stable resources in the Company's resource mix. The
 11 cost of energy from natural gas, coal and nuclear power plants is subject to change based, in large
 12 measure, to the cost of fuel to run the power plant. As fuel prices fluctuate and increase over time
 13 the price of electricity changes. In the past decade the price of natural gas has risen substantially
 14 which has had a dramatic effect on the cost of electricity generated from natural gas facilities.



16 <http://www.oilenergy.com/1gnymex.htm>

17 OILENERGY.COM, Post Office 80456 Austin, Texas 78708

18 Because renewable energy facilities (with the exception of biomass plants) do not require a long-
 19 term purchased fuel source, the price of energy from a solar, wind or geothermal power plant
 20 remains stable for the life of the facility or energy purchase contract.³ In 2015, with 1.7 million
 21 MWh of renewable energy generation, the Company will have approximately 1/10 of the utility's
 22 energy generated by energy sources that are not subject to variable or increasing fuel costs.
 23

24
 25 Q. THE SETTLEMENT OUTLINES A NUMBER OF SPECIFIC RENEWABLE ENERGY PROJECTS. DOES
 26 INTERWEST SUPPORT THESE PROJECTS?

³ Twenty to thirty years is typical for a Purchase Power Agreement (PPA). A PPA may include a price escalator for inflation but this rate is known at the time the contract is signed.

1

2 Yes. We support the projects because they represent a diversity of technologies and applications,
3 and will demonstrate proven technology. The proposed projects include a possible in-state utility-
4 scale wind project (Section 15.2), a utility-scale photovoltaic project (Section 15.3), distributed solar
5 generation projects at K-12 schools (Section 15.5), and distributed solar generation projects for
6 government institutions (Section 15.6). The technology types could include flat plate or silicon
7 based photovoltaics, commercial-scale hot water systems, utility-scale wind turbines and tracking or
8 fixed commercial day lighting systems. These systems will be deployed in large increments
9 (considered utility-scale) and as distributed systems. The technologies will be applied in K-12
10 schools and commercial government facilities.

11 Wind and photovoltaic technology, the youngest technologies, are proven and widely deployed.
12 According to the Arizona Economic Resource Organization (AERO), Solar Task Force Report,
13 "Photovoltaic industry revenues will exceed \$20 billion in 2008, and have grown at a compound
14 annual rate in excess of 45% over the past five years. Nearly 5GW of photovoltaic solar power will be
15 produced in 2008."⁴

16

17 The American Wind Energy Association reports that the U.S. wind energy industry broke records in
18 "2008 by installing over 8,500 megawatts (MW) of new generating capacity (enough to serve over
19 two million homes), increasing the nation's total wind power generating capacity by 50% to over
20 25,300 MW and channeling an investment of some \$17 billion into the economy. For the fourth
21 year, wind power was second only to natural gas in terms in new capacity added."⁵

22

23 Q. ARE THERE OTHER BENEFITS OF THESE PROJECTS?

24 A. Yes. The projects outlined in the settlement will have educational benefits for customers. As
25 designed, projects will be installed at public schools and government facilities. Students, parents
26 and teachers at the schools and employees and visitors to government institutions, can be educated
27 about photovoltaic, solar hot water and solar day lighting applications. It is anticipated that these
28 demonstrations will lead to increased interest in distributed energy systems by APS customers and
29 help the utility meet its distributed energy requirement under the REST.

30 Q. ARE THERE OTHER ELEMENTS OF THE SETTLEMENT THAT WILL FACILITATE DEVELOPMENT OF
31 RENEWABLE ENERGY RESOURCES?

32 A. Yes, the immediate planning of transmission for renewable energy resources is critical to help the
33 Company meet the established goals. Section 15.4 specifies that the Company will "commence
34 permitting, design, engineering, right of way acquisition, regulation authorization (which may
35 include a request to FERC for applicable transmission incentives and other cost recovery provisions),
36 and line siting for one or more new transmission lines or upgrades designed to facilitate delivery of
37 solar and other renewable resources to the APS system"

⁴ Arizona Economic Resource Organization (AERO), Solar Task Force Report, November 12, 2008, Page 4

⁵ American Wind Energy Association, Market Update Fact Sheet, 2008, Page 1,
http://www.awea.org/pubs/factsheets/Market_Update_Factsheet.pdf

1 Historically, the lead time for developing new fossil power plants is similar to, and can be
 2 coordinated with, the construction of new transmission lines. However, renewable energy
 3 generation resources can be sited, developed and constructed in much less time than is needed to
 4 build new transmission lines (Appendix 1). Thus, a timing mismatch is created (often referred to as a
 5 chicken and egg problem). If transmission service is going to be available for renewable energy
 6 generators at the time the plants come on line, then transmission planning must precede renewable
 7 energy project development.

8 As directed by the ACC in the 2009 Biennial Transmission Assessment (Decision No. 70635), the
 9 Company has been working to identify transmission that is needed to transmit renewable energy
 10 resources to the load center. The transmission commitment in the settlement will help ensure that
 11 transmission capacity is available when needed.

12 Other Settlement Provisions

13 Q. HOW ARE CUSTOMERS TO BE ENSURED THAT THE RENEWABLE ENERGY STANDARD AND ENERGY
 14 EFFICIENCY STANDARDS ARE BEING MET?

15 A. The settlement includes performance measures for the company to meet. These include, but are
 16 not limited to, meeting the current Renewable Energy Standard and Tariff and the energy efficiency
 17 goals set forth in the settlement. Progress toward the performance measures will be submitted by
 18 the company annually and the report will allow for the periodic review of program activity and
 19 progress. In addition entities such as Interwest will also monitor the Company's compliance.

20 Q. DO YOU HAVE AN OPINION ON THE RETENTION OF \$10 MILLION IN BASE RATES FOR DEMAND SIDE
 21 MANAGEMENT (DSM) AS STIPULATED IN SECTION 3.11 OF THE SETTLEMENT AGREEMENT?

22 A. Yes, we believe it is appropriate that \$10 million is retained in based rates and not shifted to the
 23 DSM Adjuster Mechanism (DSMAC).

24 The capital cost for traditional, mainstream resources, such a natural gas or coal, is funded in base
 25 rates. As DSM, energy efficiency and renewable energy resources continue to become more
 26 mainstream it is appropriate they these resources receive similar rate treatment. Since the total
 27 costs for the DSM or renewable resources may not be known at the time of a rate case, it is
 28 reasonable that a portion of the costs be placed in base rates and the remainder be allowed to flow
 29 though a more flexible funding mechanism, such as an adjuster.

30 A primary reason to support clean energy resources in base rates is to provide stability for the
 31 Company and certainty for regulators. Inserting the costs of DSM and renewable energy in base
 32 rates ensures a fixed amount of funds for the Company for projects. For the regulator, having a set
 33 amount in base rates provides transparency for the costs of clean energy resources. In the future,
 34 Interwest recommends that, to the extent possible, capital for clean energy projects be recovered in
 35 base rates and minimized in adjuster mechanisms.

36 Q. CAN YOU COMMENT ON THE PURPOSE OF SECTION 15.8 RELATED TO SUPPORT FOR THE REST
 37 RULES?

- 1 A. Section 15.8 is intended to create stability in policy for the Company to pursue renewable energy
2 resources. Sections 15.1 – 15.7 require actions that are spurred, in part, by the REST. The Company
3 will be making substantial, long-term investments in energy from renewable energy resources to
4 meet the REST and the commitments of Sections 15.1-15.7. Section 15.8 provides the Company
5 with assurance that the projects in this settlement are appropriate to pursue even if the REST is
6 challenged.

7 **Chairman Mayes' June 9 letter to Parties to the Docket**

8

- 9 Q. CAN YOU PLEASE ADDRESS BULLET EIGHT OF CHAIRMAN MAYES' LETTER RELATED TO THE
10 ADOPTION OF THE REST RULES IN THIS SETTLEMENT?

- 11 A. Interwest supports the adoption of the REST rules in this settlement. The majority of Interwest
12 members are businesses that develop renewable energy projects and/or manufacture renewable
13 energy equipment. Our businesses find that market stability is a critical factor driving investment
14 decisions. Our member companies prefer to work and invest in markets that have stable business
15 climates, clear and certain market rules, and long term commitments in renewable energy. Arizona
16 is an attractive market to developers and manufactures because of the high historic growth rate in
17 energy demand. However, current legal challenges to the REST rules create a level of uncertainty in
18 the market place. Interwest believes that it is beneficial for our members, APS and its consumers to
19 create market stability, by ensuring that the goals made in the REST are supported in this
20 Settlement, so as to survive any legal challenge.

- 21 Q. CHAIRMAN MAYES ASKS IF PARTIES (INTERWEST) "WOULD OBJECT TO THE COMMISSION
22 REQUIRING THAT APS EXCEED THE RES, SUCH THAT THE COMPANY WOULD SECURE 8.813 MILLION
23 MWH OF RENEWABLE ENERGY BY THE YEAR 2025."

24 Interwest supports the Settlement as written. Interwest would not object if the Commission chose
25 to impose a higher renewable energy standard in this, or another forum or process.

- 26 Q. DOES INTERWEST BELIEVE IT IS IN THE PUBLIC INTEREST TO ADOPT A FEED-IN TARIFF PILOT
27 PROGRAM FOR BUSINESSES OR IN AREAS OF THE STATE THAT WILL SEE SIGNIFICANT GROWTH?

- 28 A. Feed-in Tariffs (FIT) are in use in the counties of Spain and German and in several states; California
29 and Florida. Each program is targeted for a specific outcome. Interwest believes that to develop an
30 effective FIT an evaluation process should take place to analyze the pros and cons of various systems
31 and determine if a FIT would be more effective than the current incentives offered by Arizona's
32 electric utilities.

33

- 34 Q. Does this conclude your testimony?

- 35 A. Yes, and I thank the ACC for authorizing Interwest's intervention and participation in the proceeding.

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Appendix I.

Project Development
One Year **Ten Years**

Scenario One

Solar Generation Planning & Development



Solar generation must wait for transmission

Transmission Planning & Development

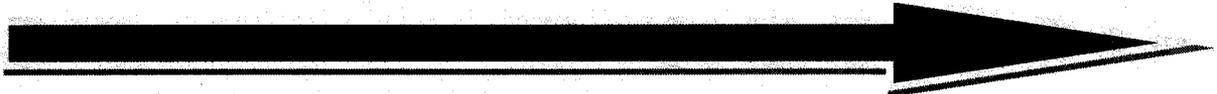


Scenario Two

Transmission development must begin before solar projects are planned and developed.



Transmission Planning & Development



Solar energy generation can be built much faster than transmission, thus transmission planning and development needs to start well before the planning and development for solar energy projects.