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Arizona Corporation Commission

AZ CORP COMM
DOCKET

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OCT 27 2015

October 14, 2015

Chairman Thomas Chenal
Arizona Power Plant and Transmission Line Siting Committee
Attorney General's Office
1275 West Washington Street
Phoenix, Arizona 85007

DOCKETED BY

Re: Limited Appearance Request; Docket No. L-OOOOOYY-15-0318-00171, Case No. 171

Dear Chairman Chenal:

Pursuant to A.R.S. § 40-360.05(B), and the Notice of Hearing issued on September 4, 2015, I respectfully request the opportunity to enter a limited appearance in the Matter of the Application of SunZia Transmission LLC for a Certificate of Environmental Compatibility before the Arizona Power Plant and Transmission Line Siting Committee.

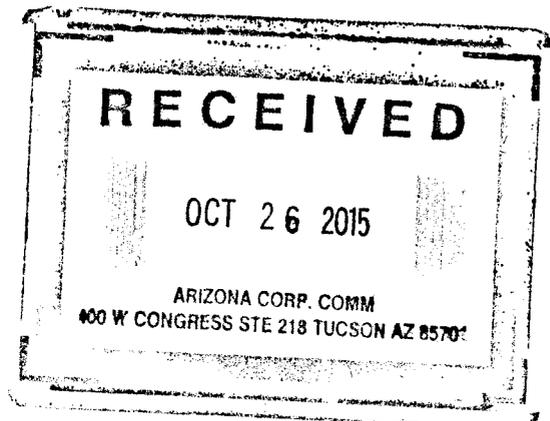
As a resource economist, ratepayer and taxpayer, I have an interest in these proceedings. I ask that my attached comments, addressing the suggested needs and benefits of the proposed transmission line as highlighted in the September 2, 2015 application, be made a formal part of the hearing record now convened in this case.

Thank you for your time and consideration.

Sincerely yours,

John A. "Skip" Laitner
5751 North Kolb Road, Unit 40108
Tucson, Arizona 85750
cell: (571) 332-9434
email: EconSkip@gmail.com

Attachment: Comments of John A. Laitner



1 **BEFORE THE**
2 **ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE**

3 IN THE MATTER OF THE APPLICATION)
4 OF SUNZIA TRANSMISSION LLC, IN)
5 CONFORMANCE WITH THE)
6 REQUIREMENTS OF ARIZONA REVISED)
7 STATUTES 40-360, ET SEQ., FOR A)
8 *CERTIFICATE* OF ENVIRONMENTAL) DOCKET NO. L-00000YY-15-0318-00171
9 COMPATIBILITY AUTHORIZING THE) Case No. 171
10 SUNZIA SOUTHWEST TRANSMISSION)
11 PROJECT, WHICH INCLUDES THE)
12 CONSTRUCTION OF TWO NEW 500 KV)
13 TRANSMISSION LINES AND)
14 ASSOCIATED FACILITIES ORIGINATING)
15 AT A NEW SUBSTATION (SUNZIA EAST))
16 IN LINCOLN COUNTY, NEW MEXICO,)
17 AND TERMINATING AT THE PINAL)
18 CENTRAL SUBSTATION IN PINAL)
19 COUNTY, ARIZONA. THE ARIZONA)
20 PORTION OF THE PROJECT IS LOCATED)
21 WITHIN GRAHAM, GREENLEE,)
22 COCHISE, PINAL, AND PIMA COUNTIES.)
23)
24)

COMMENTS OF
JOHN A. LAITNER

14 **PROFESSIONAL BACKGROUND**

15 I am an international energy and resource economist employed by my own firm,
16 Economic and Human Dimensions Research Associates. In a career that spans 45 years, I have
17 authored more than 320 reports, journal articles, and book chapters. My expertise includes
18 benefit-cost assessments, resource costs and constraints, and the net employment and
19 macroeconomic impacts of energy and climate policy scenarios. I previously served as the
20 Director of Economic and Social Analysis for the American Council for an Energy-Efficient
21 Economy (ACEEE) as in the years 2006 through 2012. Before that, I served 10 years as a Senior
22 Economist for Technology Policy with the US Environmental Protection Agency (EPA). In 1998
23 I was awarded EPA's Gold Medal for my work with a team of economists to evaluate the
24

1 economic impact of strategies that might assist in the implementation of smart climate policies. I
2 also work and lecture extensively in international policy arena with clients and colleagues in
3 France, Luxembourg, New Zealand and elsewhere; and I hold the position as senior research
4 associate of the Russian Presidential Academy of National Economic and Public Administration
5 (RANEPA). I have a 1988 master's degree in resource economics from Antioch University.

6 OVERALL CONCLUSION

7 The available evidence suggests: (a) there is every reason to believe the SunZia project
8 may neither be useful nor cost-effective, (b) that awarding a certificate will redirect resources
9 away from a more prudent and less costly development of energy efficiency and renewable
10 energy resources; and (c) while it may provide a few short term jobs in constructing and
11 operating the transmission line, it will likely result if a net loss of jobs overall.

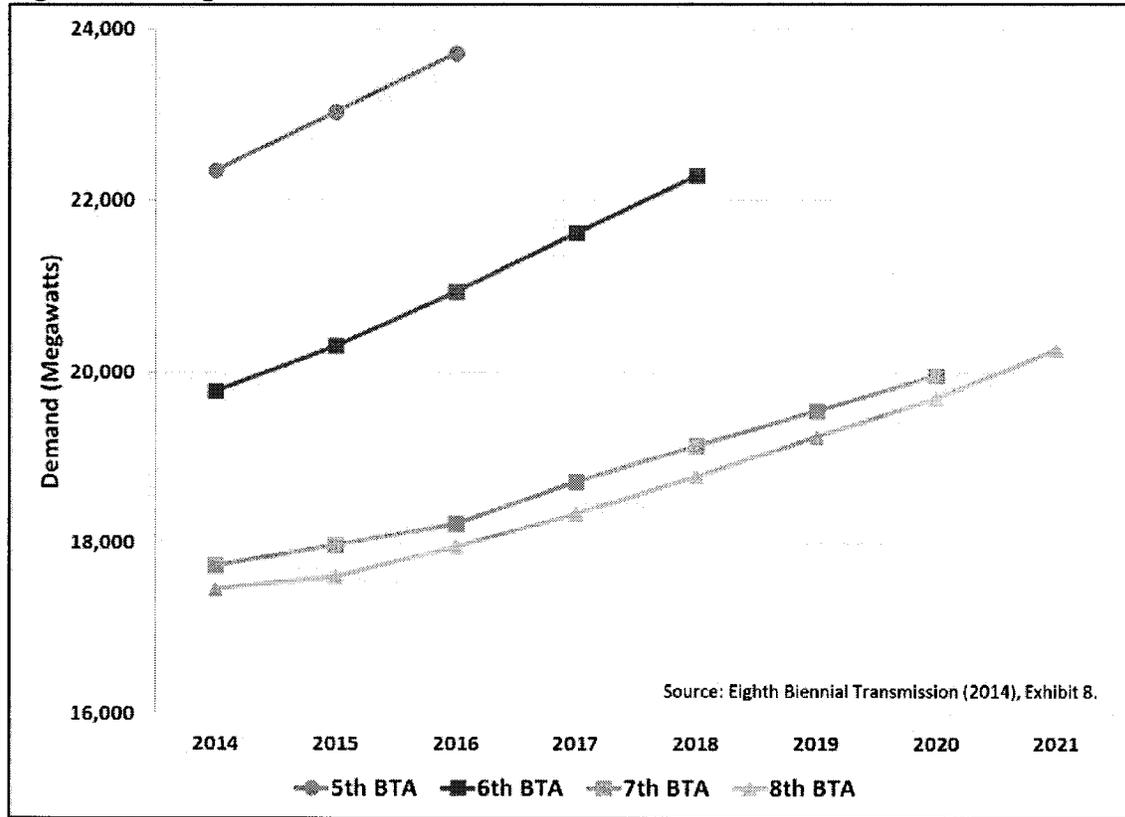
12 EVIDENCE ON COST-EFFECTIVENESS

13 The applicant notes that in 2006, the Southwest Area Transmission Subregional Planning Group
14 (SWAT) "identified the need for significant transmission expansion between southern New
15 Mexico and southern Arizona to serve growing electrical loads." In fact, the applicant notes that
16 the "Project was conceptualized as a result of SWAT's findings." (Application for Certificate of
17 Environmental Compatibility, SunZia Transmission LLC, September 2, 2015. Page ES-3). The
18 project could provide up to 4,500 megawatts (MW) of additional transfer capability. (SunZia
19 Southwest Transmission Project Final Environmental Impact Statement and Appendices, Bureau
20 of Land Management, June 2013, Page E-2). Yet, as Figure 1 shows on the following page, there
21 have been huge changes in the forecasts of load demand in the Arizona market (Eighth Biennial
22 Transmission Assessment 2014-2023, Staff Report, Docket No. E-00000D-13-0002, Decision
23 No. 74785, October 29, 2014). The 5th Biennial Transmission Assessment (BTA 2008) suggested

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1 an anticipated 2016 capacity demand of 23,716 Megawatts (MW). By the 8th BTA (2014) the
2 2016 forecasted demand was down to 17,962 MW (See Exhibit 8). This is a 5,724 MW (24%)
3 drop in forecasted demand over a very short 6-year period. And it is significantly larger than the
4 maximum capacity that might be provided by SunZia.

5 **Figure 1. Changes in Arizona Demand Forecast**



18 At the same time the market continues to shift. Tucson Electric Power Company, for
19 example, has filed a notice for a proposed rate increase citing “a reduction in usage per customer
20 and retail sales volumes due to various factors, such as the increasing deployment of net metered
21 solar photovoltaic rooftop distributed generation (“rooftop PV”) and the adoption of energy
22 efficiency measures.” (Notice of Intent to File a Rate Case Application, Tucson Electric Power,
23 September 4, 2015). Moreover, an intended California market for power is moving aggressively
24 on its own to provide greater energy efficiency and renewable energy resources. On Wednesday,

1 October 7th, California Governor Jerry Brown signed into law SB 350 which, among other
 2 things, sets 2030 targets of 50% utility power provided by renewable energy sources and a 50%
 3 increase in energy efficiency in existing buildings by 2030. ("California makes history with new
 4 package of climate-change laws." Local Government Commissions. Sacramento, CA 95814). In
 5 effect, California does not need resources that might be provided by either Arizona or New
 6 Mexico. This and many other trends only weaken the need for new transmission line capacity
 7 and cast significant doubt about the ability of such projects to pay for themselves.

8 As a further indication of the trend we can compare the 2006 and the 2015 Annual
 9 Energy Outlook (AEO) electricity demand forecasts published by the Energy Information
 10 Administration (EIA). Table 1 below shows a trend that is comparable to the market shift
 11 highlighted in Figure 1.

12 **Table 1. Electricity Sales in the EIA Annual Energy Outlook 2006 and 2015**

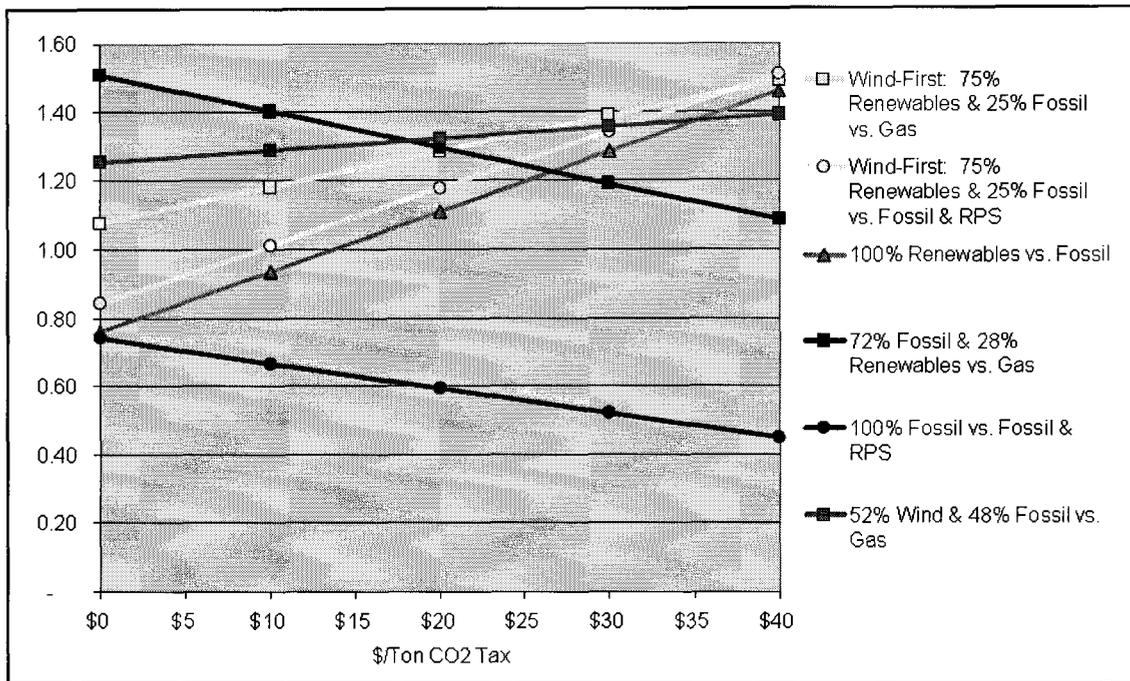
Billion Kilowatt-hours	2012	2030	Index
AEO 2006	4,114	5,338	1.30
AEO 2015	3,695	4,205	1.14
Delta	-10.2%	-21.2%	

13 Source: Energy Information Administration, Washington, DC: U.S. Department of Energy.
 14

15
 16
 17 The AEO 2006 projected electricity sales of about 4,114 billion kilowatt-hours (KWh) in
 18 2012, rising 30% to 5,338 billion KWh by 2030. The actual 2012 sales documented in AEO
 19 2015 was about 10.2% less than projected in 2006 with the new 2030 projection about 21.2%
 20 smaller. Again, the market is shifting away, with a growing emphasis on local resources
 21 including energy efficiency and distributed energy resources.

22 We can take another look at the economic feasibility by looking at a benefit/cost
 23 assessment, the High Plains Express Transmission Project Feasibility Study Report (June 2008).
 24 Figure 2 below provides the summary of that analysis as pulled from page 37 of 42 of the report.

1 **Figure 2. HPX Benefit/Cost Analyses Results.**



12 The Y axis shows the benefit-cost ratios of a variety of scenarios that are consistent with

13 the proposed SunZia project. A value of less than 1.0 suggests a project that is not at all cost-

14 effective. Generally one would expect investments to emerge for projects which have a benefit-

15 cost ratio that is larger than 1.2. The two scenarios reasonably comparable to SunZia are shown

16 in yellow and those values are either less than 1.0, or don't reach the critical threshold of 1.2

17 unless there is a carbon tax close to \$25 per ton of carbon dioxide – a highly unlikely outcome in

18 the near term. And since this study was done, costs have increased even as market demand is

19 shifting away from these large transmission projects.

20 **ECONOMIC IMPACTS**

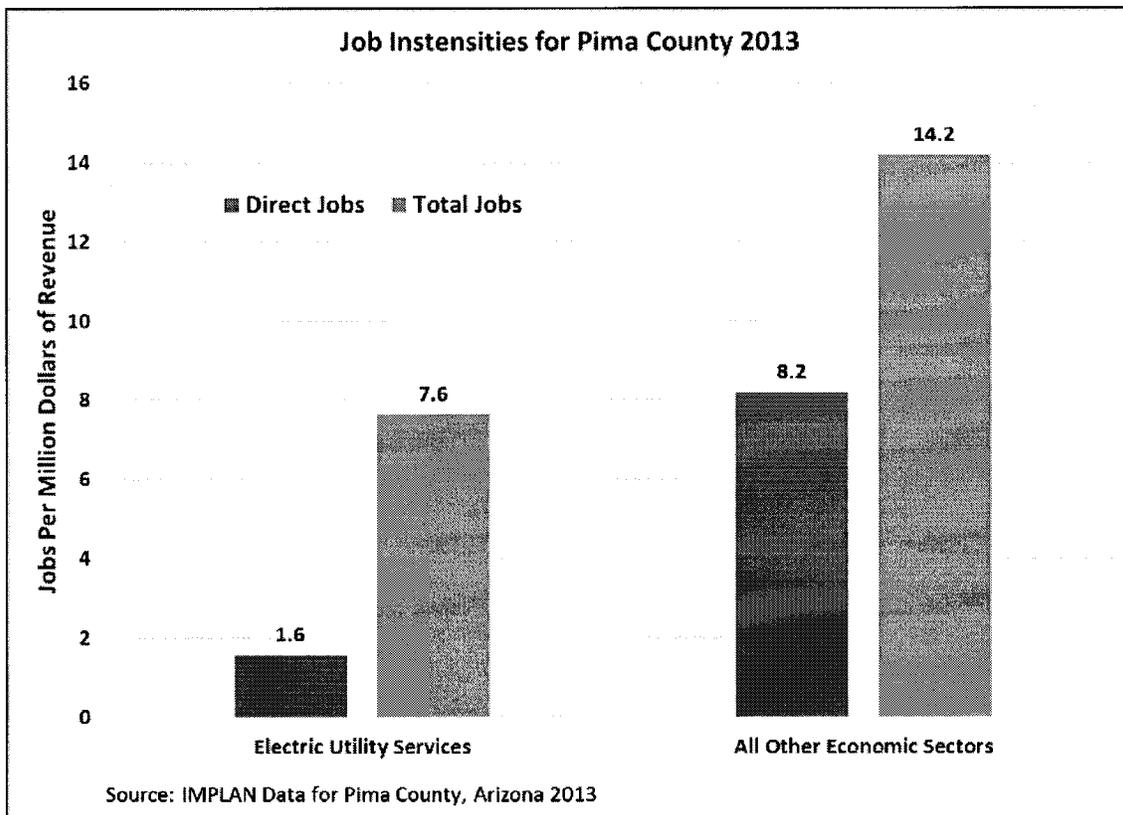
21 The applicant cites an analysis suggesting significant macroeconomic gains for Arizona,

22 in terms of increased jobs and governmental revenues. Yes, any expenditure will creates jobs,

23 whether for upgrades for industrial energy efficiency, improved commercial lighting, or

1 transmission lines. The question is which set of expenditures might create the larger number of
2 jobs. Figure 3, using actual 2013 data for Pima County data, shows that there are many more jobs
3 created for almost all other expenditures in the economy compared to jobs associated with
4 revenues associated with electricity generation. While the Pima County numbers will differ from
5 state or national level data, the relationship continues to hold. This is also true at the international
6 level.

7 **Figure 3. Job Intensities for Pima County 2013**



20 Electric utilities, on average, supported about 1.6 direct jobs in 2013 for every million dollars of
21 revenue. When we include supply-chain jobs as well as jobs induced by the spending of local
22 wages, the total rises to 7.6 total jobs per million dollars. On the other hand, all other
23 expenditures in Pima County tend to support an average total of 14.2 jobs. In effect, if electricity
24

1 costs increase by one million dollars, yes, there will be a total of 7.6 total jobs. But if those rising
2 costs pull money away from all other sectors, 14.2 jobs will be lost. In short, rising electricity
3 costs will actually lose a total of 6.6 jobs (14.2 less 7.6) for every million dollars in higher
4 expenditures for electricity in Pima County. This parallel also holds for governmental revenues
5 and local incomes.

6 Edith Stokey and Richard Zeckhauser noted in 1978 that economic and environmental
7 evaluations require “systematic enumeration of all benefits and all costs, tangible and intangible,
8 whether readily quantifiable or difficult to measure, that will accrues to all members of society if
9 a particular project is adopted” (See, A Primer for Policy Analysis. New York, NY: W.W.
10 Norton & Company, Page 134). In addition, they note the *Fundamental Rule* of benefit-cost
11 assessments and project evaluation is to select the alternative that produces the greatest net
12 benefit(s) (page 137). In other words, merely because a project produces some benefit is not the
13 same as suggesting it is the best alternative for society. As we have already demonstrated, yes,
14 there will be some jobs from an investment, but paying for it over time and comparing it to other
15 alternatives – in this case, a greater reliance on energy efficiency and local renewable energy
16 resources – is likely to lose a total number of jobs. I have seen no information to date which
17 suggests that SunZia is the best option to promote both the economic and the environmental
18 well-being of Arizonans.

19 IMPLICATIONS FOR CERTIFICATION OF ENVIRONMENTAL COMPATIBILITY

20 As I have suggested in the opening of my remarks there is every reason to believe the
21 SunZia project may be neither useful nor cost-effective. This conclusion is only strengthened
22 when we consider the dramatic changes in the electricity market since the project was first
23 proposed in 2006. In short there does not appear to be any real benefit to this project compared
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1 to other available alternatives and emerging market trends. Hence, the Committee must conclude
2 that any project that cannot clearly show net economic benefits cannot be deemed
3 environmentally compatible.

4 A FINAL THOUGHT

5 There is an unfortunate lack of time to develop a more robust analysis than is now before
6 the Committee. At the same time, a deeper and more complete assessment would only strengthen
7 the conclusion that the project – without any redeeming economic benefit – cannot be deemed
8 environmentally compatible.

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