

1 **Testimony for Tri-State Generation and Transmission Association, Inc.**  
2 **Member-System's PURPA Title I Standards Consideration and Determination**  
3 **Filed by: James P. Spiers, Senior Manager Energy Strategies**  
4 **Dated: September 24, 2008**

5

6 **I. Introduction**

7 Q. What is your name?

8 A. James P. Spiers

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

10 A. I am employed by Tri-State Generation and Transmission Association, Inc. (Tri-  
11 State) located at 1100 West 116<sup>th</sup> Avenue, Westminister, CO 80233. I am the  
12 Senior Manager responsible for Energy Strategies.

13 Q. On whose behalf are you providing testimony?

14 A. I am providing testimony on behalf of Tri-State in support of Mountain View  
15 Electric Association, Inc. (Mountain View or the Association). The Association  
16 is one of the 44 Member-Systems of Tri-State.

17 Q. What is the purpose of your testimony?

18 A. The purpose of my testimony is to address three of the four new PURPA Title I  
19 Standards set forth in the Energy Independence and Security Act (EISA) of 2007.  
20 These are the Standards which the Association's Board has under consideration in  
21 this proceeding and for which the Board will make a determination whether to  
22 implement the Standard or some variation of the Standard, or whether to reject the  
23 Standard.

1 Q. What are the three Standards?

2 A. The three Standards that I am going to discuss in this testimony are integration of  
3 energy efficiency into integrated resource planning we conduct on the  
4 Association's behalf, PURPA Section 111(d)(16)<sup>1</sup>, the setting of electric rates to  
5 align utility incentives with the cost-effective delivery of energy efficiency as a  
6 "priority" resource, PURPA Section 111(d)(17)<sup>2</sup>, and the information electricity  
7 customers should be given regarding time-based electricity prices at wholesale  
8 and retail and that they should have access to data concerning the sources of  
9 power provided, including the greenhouse gas emissions associated with each  
10 type of generation, PURPA Section 111 (d)(17)<sup>3</sup>. If the Board has any questions  
11 regarding the wholesale role Tri-State fulfills may impact the fourth Standard<sup>4</sup>, I  
12 would be happy to attempt to address those questions.

13 Q. What is the relationship between the Association and Tri-State as it affects the  
14 PURPA Standards under consideration in this proceeding?

15 A. The relationship between the Association and Tri-State is established through the  
16 All-Requirements Contract (Contract) through which the Association contracts  
17 with Tri-State to meet its power requirements, subject to certain conditions that  
18 will be addressed in the affected Standards discussion below. A copy of that

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<sup>1</sup> In the EISA of 2007, the reference to subsection 16 as a new PURPA standard is used twice. The reference here is to its use as part of section 532 of the Act.

<sup>2</sup> In the EISA of 2007, the reference to subsection 17 as a new PURPA standard is used twice. The reference here is to its use as part of section 532 of the Act.

<sup>3</sup> In the EISA of 2007, the reference to subsection 17 as a new PURPA standard is used twice. The reference here is to its use as part of section 1307 of the Act.

<sup>4</sup> The other standard is also a duplicate use of subsection 16 as it is used in section 1307 of the Act, pertaining to state regulatory bodies and the rate recovery policies for so called "smart grid" investments by utilities. Although this Standard does not appear to apply to the Association, and if it did would not have a direct relationship to Tri-State as the wholesale provider, there are several steps Tri-State is taking that will benefit the Association in developing the grid. These include incentives for control of air conditioning and water heating load and developing pilot programs for smart grid deployment.

1 Contract was provided in the Association’s recent consideration of PURPA  
2 Standards required under the Energy Policy Act of 2005. To fulfill its obligations  
3 under the Contract, Tri-State has adopted the following Mission Statement:

4 “Tri-State’s mission is to provide our member owners a reliable, cost  
5 based supply of electricity while maintaining a sound financial position  
6 through effective utilization of human, capital and physical resources in  
7 accordance with cooperative principles.”

8 and resource development mission:

9 “To ensure that the lowest cost resources and/or purchase power options  
10 are available on-time to meet Tri-State member load requirements”

11 In addition, Tri-State, through its Board of Directors, has adopted policies that  
12 govern how Tri-State meets its obligations to the Member-Systems, fulfills the  
13 Contract and meets its Mission.

14 Q. How does Tri-State go about planning for and developing resources to fulfill the  
15 Contract, Mission and Policies?

16 A. Tri-State conducts continuous planning and resource assessment processes. The  
17 results of these processes are periodically reported to the Board and the Board  
18 ultimately takes action in directing certain resource acquisitions. In addition the  
19 results of these processes are periodically reported to outside constituencies  
20 through Electric Resource Planning (ERP) or Integrated Resource Planning (IRP)  
21 requirements of state or federal agencies. These ERP and IRP Reports represent a  
22 snapshot in time of our planning activities in which the issues associated with  
23 these Standards are addressed.

1 Q. How do these efforts relate to the Standards that the Association Board has under  
2 consideration before it in these proceedings?

3 A. The Board is considering integration of energy efficiency into its resource plans,  
4 electric rates to promote energy efficiency and electronic access to electric rates  
5 and load signals and power source data including greenhouse gases associated  
6 with each type of generation. For example, and as will be addressed in the  
7 detailed discussion for each of the three Standards below, energy efficiency is  
8 considered as a resource that minimizes the amount of supply resources needed,  
9 wholesale rate signals are designed to incentivize demand reduction, and fuel  
10 source with associated emissions is periodically reported to the Association; each  
11 of these and the role of resource planning and Reports are discussed in more detail  
12 in each Standard discussion below.

13 Q. What is your role at Tri-State in regard to the issues you are providing testimony  
14 on?

15 A. Among other things, I have had executive responsibility for preparation of certain  
16 Tri-State resource plans and reports that documented Tri-State's efforts to fulfill  
17 its obligations under the Contract, to fulfill the Mission and Policies to meet the  
18 needs of the Association and the other Member-Systems and its obligations. We  
19 have documented those efforts most recently through development of our  
20 Integrated Resource Plan that we filed with Western Area Power Administration  
21 (Western) on February 15, 2007 and in an Annual Progress Report filed with  
22 Western on February 15, 2008 and for an Electric Resource Plan filed with the  
23 Colorado Public Utilities Commission on October 31, 2007. In those documents

1 we specifically addressed energy efficiency, price signals and fuel mix among  
2 other things.

3 Q. Are you responsible for decisions about resource selection and generation  
4 efficiency improvements at Tri-State?

5 A. No, I am not. Those decisions are made by our Board of Directors, comprised of  
6 one Director from each of our 44 Member-Systems. The Board is advised on  
7 these matters by the Tri-State Senior Executive team. However, these studies and  
8 the information provided in the various reports were prepared under my direction  
9 and supervision; the Western IRP document was included as an Exhibit in the  
10 Board's recent PURPA Standards (EPAAct 2005) consideration. In addition, the  
11 Annual Progress Report filed with Western earlier this year addresses more  
12 detailed steps being taken relative to energy efficiency. A copy of that document  
13 is included as Exhibit A to this testimony (see also the discussion about these  
14 Standards in Exhibit A, page 26). In addition, our October 2007 Electric  
15 Resource Plan filed with the Colorado PUC is included as Exhibit B to this  
16 testimony.

17 Q. How do you propose to provide your testimony on the three Standards?

18 A. I have split my testimony into three sections, the first section dealing with energy  
19 efficiency, the second dealing with electric rates, and the third dealing with  
20 electronic access to time-based electric prices and power sources with greenhouse  
21 gas emissions. This way the Board can consider my testimony for each Standard  
22 with Association and other party testimony on each Standard in making its  
23 separate findings and conclusions for the Standards under consideration. I

1 propose that this introductory section of testimony and the respective sections of  
2 testimony for the three Standards I am addressing be included in the body of  
3 evidence the Board takes under consideration for each Standard.

4 Q. Will you please address the three Standards?

5 A. Yes, I will.

6

7 **II. PURPA Standard 111(d)(16)(Section 532 of the Act), Energy**  
8 **Efficiency in Integrated Resource Planning**

9 Q. Will you please address the Energy Efficiency Standard?

10 A. Yes, the Standard provides that: “each electric utility shall ... (A) integrate  
11 energy efficiency resources into utility, State and regional plans; and (B) adopt  
12 policies establishing cost-effective energy efficiency as a priority resource.” It is  
13 important to note, as with all of the Standards the Board has under consideration  
14 that, while the Standard language appears to direct certain action, the Board’s  
15 obligation is to “consider and determine” whether to implement the Standard and  
16 in so doing shall evaluate how such implementation will encourage: 1)  
17 conservation of energy supplied by electric utilities, 2) optimal efficiency of  
18 electric utility facilities and resources, and 3) equitable rates for electric  
19 consumers, and whether such has been preempted by State law or is otherwise  
20 “grandfathered” by past Board or state action.

21 Q. What actions does Tri-State take on behalf of the Association regarding energy  
22 efficiency in integrated resource planning?

1 A. Tri-State has a long history of providing energy efficiency credits (EEC)  
2 programs and measures to its Members, such as the Association, that the  
3 Members can then make available to the member-consumers (Exhibit A, pages 7-  
4 9). In addition in our IRP we filed with Western in 2007, we modeled certain  
5 levels of energy efficiency to determine the impact and value of different  
6 measures and programs to Tri-State. Based in part on this analysis, we have made  
7 further changes mid-year 2008 to the EEC program, are evaluating expansion and  
8 refinement of program elements in 2009 and have surveyed the Managers of the  
9 Member Systems to determine the programs they would be interested in for  
10 implementation with their membership. These details are included in the annual  
11 progress report to Western this year (Exhibit A, pages 27-28).

12 Q. What are the roles of Tri-State, the Member and the member-consumer in energy  
13 efficiency efforts?

14 A. First and foremost, the consumer must be willing to participate in energy  
15 efficiency. Is the consumer willing to change behavior; is the consumer willing to  
16 make investments; is the consumer willing to accept control by others over energy  
17 consumption; etc. Thus, at the end of the day, energy efficiency is up to the  
18 consumer. However, there are steps the utility can take to help the consumer in  
19 terms of education and training, program and measure offerings, financial  
20 contribution, etc. Both the Association and Tri-State have a role in supporting the  
21 Association's member-consumers in these regards. But it is important to note the  
22 significant difference in roles between the Association and Tri-State, in that, the  
23 Association has the relationship with the member-consumer and whatever Tri-

1 State does is done in conjunction with and at the invitation of the Association.

2 The different aspects of this are covered in substantial detail in Exhibit A (pages  
3 27-28).

4 Q. What are ways that this difference in roles between Tri-State and the Association  
5 will affect energy efficiency deployment?

6 A. There are energy efficiency programs and measures that will be valuable to Tri-  
7 State that may result in revenue erosion for the Association. Similarly, there are  
8 programs and measures that may be beneficial to the Association that result in  
9 revenue erosion for Tri-State. In addition, the Association is joined by 43 other  
10 Member Systems in the Tri-State family, each with unique economic,  
11 demographic, geographic and climatic characteristics that mean the same energy  
12 efficiency programs and measure that may have value to one Member are not of  
13 value to other Members. Further, the value of programs and measures to Tri-State  
14 will differ based on Tri-State's power needs by region. Thus, there are many  
15 factors to consider when integrating energy efficiency into the integrated resource  
16 plans of Tri-State. In the face of this, there are a number of steps we can and are  
17 taking with the Association and the other 43 Members to effectively integrate  
18 energy efficiency into resource planning, ranging from:

- 19 • providing education and training (Exhibit A, pages 15-18),
- 20 • load research (Exhibit A, pages 18-19),
- 21 • field services, such as energy audits and advisory services (Exhibit A, 19-20),
- 22 • pilot projects (Exhibit A, pages 20-21),
- 23 • research and development (Exhibit A, pages 22-24),

- 1 • utilizing sophisticated modeling of energy efficiency as a resource (Exhibit A,  
2 pages 24-226),
- 3 • providing financial support to buy down the first cost of programs and  
4 measures (Exhibit A, pages 7-8), to
- 5 • developing deployment options through third parties (Exhibit A, page 19).

6 Q. What action, if any beyond that taken by Tri-State, can the Association take  
7 relative to energy efficiency?

8 A. The Association, in conjunction with the other 43 Member-Systems of Tri-State,  
9 can continue to influence Tri-State’s actions on its behalf through its role in  
10 Mission and Policy formulation and implementation, approval of resource  
11 acquisition or investment decisions, and approval of budget investment decisions.

12 Q. Is it your position that Tri-State’s actions related to this Standard fulfill any  
13 obligation the Association has for considering and determining whether to  
14 implement the Standard?

15 A. Not entirely, although Tri-State has and continues to take aggressive energy  
16 efficiency, there are additional steps the Association can consider taking to  
17 promote energy efficiency that are not limited by Contract or Policies of Tri-State.

18

19 **III. PURPA Standard 111(d)(17)(Section 532 of the Act), Electric Rates to**  
20 **provide Incentives for Energy Efficiency Investment**

21 Q. Will you please address the Energy Efficiency Rate Incentive Standard?

22 A. Yes, the Standard provides that: “the rates allowed to be charged by any electric  
23 utility shall (i) align utility incentives with the delivery of cost-effective energy

1 efficiency; and (ii) promote energy efficiency investments.” It is important to  
2 note, as with all of the Standards the Board has under consideration that, while the  
3 Standard language appears to direct certain action, the Board’s obligation is to  
4 “consider and determine” whether to implement the Standard and in doing shall  
5 evaluate how such implementation will encourage: 1) conservation of energy  
6 supplied by electric utilities, 2) optimal efficiency of electric utility facilities and  
7 resources, and 3) equitable rates for electric consumers, and whether such has  
8 been preempted by State law or is otherwise “grandfathered” by past Board or  
9 state action.

10 Q. What actions does Tri-State take on behalf of the Association regarding rate  
11 incentives for energy efficiency investments?

12 A. Tri-State’s wholesale rate design sends a strong signal to the Association and the  
13 43 other Members to reduce their Member Coincident Demand during Tri-State’s  
14 Peak Periods. The demand/energy split of 58/42% in Tri-State’s wholesale rate  
15 structure rewards the Association and its member-consumers for actions that  
16 lessen Tri-State’s demand requirements. The current rate structure calls for  
17 demand pricing based on the Member’s highest thirty (30) minute integrated total  
18 demand measured in each monthly billing period during the Tri-State Summer  
19 Peak Periods or the Winter Peak Periods. This is what is referred to as TPP-MCP  
20 rate structure. This rate signal and its affects are discussed in detail the IRP filed  
21 with Western in 2007 and in the annual progress report at Exhibit A.

22 Q. How is Tri-State’s wholesale rate design established?

1 A. Tri-State's Board periodically establishes a Rate Committee comprised of Tri-  
2 State Directors, Member Managers/CEOs and Member Directors, supported by  
3 Tri-State staff and rate consultants, as necessary. The Committee will examine all  
4 aspects of wholesale rate design and will make a recommendation to the Tri-State  
5 Board for consideration. Ultimately, it is up to the Tri-State Board to adopt the  
6 rate design.

7 Q. When was this TPP-MCP 58/42% rate structure established?

8 A. The most recent Rate Committee completed its work in 2006, followed by Board  
9 approval of the TPP-MCP rate structure in 2006 for implementation commencing  
10 January 1, 2007.

11 Q. What have been the results of this change in rate signal?

12 A. We now have over one and one-half years of experience with the new rate signal.  
13 We are seeing a reduction in demand revenues, consistent with some Members  
14 effectively avoiding their coincident demand during Tri-State's Peak Period.  
15 Initial evidence indicates the signal is having the desired effect.

16 Q. What action, if any beyond that taken by Tri-State, can the Association take  
17 relative to energy efficiency?

18 A. The Association, in conjunction with the other 43 Member-Systems of Tri-State,  
19 can continue to influence Tri-State's actions on its behalf through its role in  
20 setting Tri-State's rate structure and in advising on energy efficiency program and  
21 measure design that enable the Association and other Members and their member-  
22 consumers to participate in such programs.

1 Q. Is it your position that Tri-State’s actions related to this Standard fulfill any  
2 obligation the Association has for considering and determining whether to  
3 implement the Standard?

4 A. Not entirely, although Tri-State has a rate signal that creates certain energy  
5 reduction incentives, there are additional steps the Association can consider  
6 taking to promote energy efficiency actions through its retail rate structure that are  
7 not limited by Contract or Policies of Tri-State.

8

9 **IV. PURPA Standard 111(d)(17) (Section 1307 of the Act), Access to**  
10 **information on Time-Based Electric Rates and Power Source,**  
11 **including Greenhouse Gas Emissions Associated with Each Type**

12 Q. Will you please address the Access to Information Standard?

13 A. Yes, the Standard provides that:

14 “all electricity purchasers shall be provided direct access, in written or  
15 electronic machine-readable format as appropriate, to information ... on  
16 time-based electricity prices in the wholesale electricity market; and time  
17 based electric retail prices or rates...[and] provided annually with written  
18 information on the sources of the power provided by the utility...,  
19 including greenhouse gas emissions associated with each type of  
20 generation... .”

21

22 It is important to note, as with all of the Standards the Board has under  
23 consideration that, while the Standard language appears to direct certain action,  
24 the Board’s obligation is to “consider and determine” whether to implement the  
25 Standard and in doing shall evaluate how such implementation will encourage: 1)  
26 conservation of energy supplied by electric utilities, 2) optimal efficiency of  
27 electric utility facilities and resources, and 3) equitable rates for electric

1 consumers, and whether such has been preempted by State law or is otherwise  
2 “grandfathered” by past Board or state action.

3 Q. What actions does Tri-State take on behalf of the Association to provide  
4 information access relative to wholesale electric prices?

5 A. As discussed in the Standard relative to energy efficiency incentives above, Tri-  
6 State’s wholesale rates to the Association are seasonally differentiated and  
7 provide the Association with a summer and winter peak periods. Tri-State’s price  
8 signal is not further differentiated. Tri-State does however send 30 minute, and in  
9 some cases, 3 minute load data to the Association and other Members that can be,  
10 and often is, shared with the member-consumers who are interested in changing  
11 their consumption patterns to shift load from Member Coincident Peaks during  
12 Tri-State’s Peak Periods.

13 Q. Can the Association take further actions to send retail rate signals to member-  
14 consumers?

15 A. Yes, the Association and other Members have developed time differentiated rates  
16 and provide those rate signals to their member-consumers.

17 Q. What actions does Tri-State take on behalf of the Association information to  
18 provide access relative to power sources, including greenhouse gas emissions  
19 associated with each type of generation?

20 A. Tri-State periodically provides to the Association its resource portfolio by type of  
21 fuel. The most recent is included in Exhibit B which is the Electric Resource Plan  
22 filed with the Colorado Public Utilities Commission in October 2007 (Exhibit B,  
23 page 15). In addition, Tri-State Staff has provided to the Membership an analysis

1 of the “carbon” footprint or greenhouse gas emissions, taking into account our  
2 entire generation fleet, our power purchases, our transmission resources and our  
3 fleet operations. Finally, Tri-State has information available on the greenhouse  
4 gas emissions of the different types of generation in Tri-State’s resource mix.  
5 Thus, the Association will have data necessary to make whatever disclosure it  
6 deems appropriate relative to this Standard.

7 Q. Is it your position that Tri-State’s actions related to this Standard fulfill any  
8 obligation the Association has for considering and determining whether to  
9 implement the Standard?

10 A. Not entirely, although Tri-State provides information to the Association as  
11 addressed in this Standard, it is up to the Association to determine whether and, if  
12 so, what information to provide to its member-consumers.

13

14 **V. Conclusion**

15 Q. Do you have any other comments?

16 A. No, I do not.

17 Q. Does that conclude your testimony?

18 A. Yes, it does.