

**Tennessee Valley Authority
Regional Energy Resource Council
February 2-3, 2015
Meeting Minutes**

The Tennessee Valley Authority (TVA) Regional Energy Resource Council (RERC or Council) convened for the sixth meeting of its first term at 10:33 a.m. EST on Monday, February 2, 2015, in the Rose Room at The Chattanooga, 1201 Broad St., Chattanooga, Tennessee 37402.

Council members attending:

Dus Rogers, Chair	Anne Davis	Wayne Davis
Catherine Glover	Rodney Goodman	Wes Kelley
Bob Martineau	Pete Mattheis	Len Peters
Jack Simmons	Stephen Smith	Clifford Stockton
Lloyd Webb	Susan Williams	

Designated Federal Officer: Dr. Joseph Hoagland
Facilitator: Jo Anne Lavender

Appendix A identifies the TVA staff, members of the public, and others who attended.
Appendix B is the agenda for the meeting.
Appendix C contains the consensus advice provided by the Council.

Copies of the presentations given at the meeting can be found at <http://www.tva.gov/merc>.

The majority of the meeting was devoted to presentations by TVA staff about the current status of the Integrated Resource Plan (IRP). TVA staff also provided an introduction to the changing utility marketplace.

1. Environmental Policy Update

Brenda Brickhouse, Vice President, Energy & Environmental Policy, updated the Council on TVA's Environmental Policy. Ms. Brickhouse highlighted the key portions of the policy that relate to energy, summarized TVA's key assumptions in terms of environmental regulation and the impact of those assumptions on TVA's business planning, and gave an overview of the metrics TVA uses to determine its environmental performance. (Slides 13-15)

Ms. Brickhouse then provided updates in three key areas: the new coal combustion residuals rule and TVA's ongoing work toward dry storage (Slide 16); the challenges associated with the forthcoming revised National Ambient Air Quality Standards for ozone (Slides 17-18); and TVA's reductions in carbon dioxide emissions and the uncertainty surrounding the 111(d) emissions guidelines (Slides 19-20). Stephen Smith pointed out that the 111(d) guidelines are state-wide emissions requirements, not TVA-specific requirements. Ms. Brickhouse agreed that TVA is one of several participants whose efforts will be necessary to meet the guidelines but noted that TVA's efforts are expected to be proportional to our emissions. Len Peters noted that a fundamental flaw of the 111(d) guidelines is that they focus regulation where emissions are generated, not where the electricity is consumed. Ms.

Brickhouse described three different perspectives on TVA's carbon footprint and noted that the rate in the proposed 111(d) regulations is not the same as the emission rate of the electricity coming out of the wall. (Slide 21) Dr. Smith asked whether TVA has an opinion on consolidating regulation under 111(b) and 111(d) for streamlining purposes. Ms. Brickhouse responded that such consolidation could be problematic because the constructs are different.

Finally, Ms. Brickhouse described the trade-off between carbon and rates; TVA is competitive among utilities in the southeast. (Slide 22) Wayne Davis asked about the one utility on the chart whose carbon and rates are better than TVA, and Ms. Brickhouse explained that the utility reflected is heavy on nuclear and gas generation. Dr. Peters made the point, in reference to TVA's Paradise and Shawnee plants, that the Valley-wide numbers for 111(d) guidelines can be misleading because TVA is not getting credit for generation sources that drive down TVA's costs. Ms. Brickhouse noted that technology and cost drive TVA's dispatch decisions. For example, Shawnee is a smaller unit, more flexible than most coal units, and lower cost. Dr. Hoagland added that TVA operates its generation assets as an overall system, sharing costs and benefits. TVA would have to take a different approach if it were forced to view generation assets on a state-by-state basis under 111(d). Lloyd Webb requested an update on EPA's Cross-State Air Pollution Rule (CSAPR). Ms. Brickhouse responded by giving an overview of CSAPR and the Mercury and Air Toxics Standards (MATS) and stated that complying with MATS puts TVA in a good position to comply with CSAPR.

2. **Recap of October 2014 Meeting**

Gary Brinkworth, Senior Program Manager, IRP, summarized the material presented at the Council's last meeting: the status of the IRP process and TVA's inclusion of renewables and energy efficiency as selectable resources in the IRP model. (Slides 24-25)

3. **IRP Status**

Mr. Brinkworth provided an update on the current status of the IRP process. The draft IRP and Supplemental Environmental Impact Statement (SEIS) are expected to be posted for public review and comment by late February/early March and should be ready for Board action this summer. (Slide 28) Mr. Brinkworth shared the scenarios and strategies that have been discussed previously with this group, highlighting two changes: (1) the level of projected TVA sales has been added to each scenario and (2) strategies C, D, and E have been given more descriptive names. (Slide 29) Mr. Brinkworth also reviewed the power resource options from which the IRP model may choose. (Slide 30) In terms of process, TVA has finished the scenario and uncertainty analyses and is now determining how best to interpret and communicate the results. (Slide 31)

Mr. Brinkworth reviewed the major assumptions in the 2015 IRP and explained the enhancements made in response to lessons learned and stakeholder feedback on the 2011 IRP, particularly in the areas of modeling energy efficiency (EE) and renewables. (Slides 32-33) Clifford Stockton expressed concern about apartment communities not fitting within the classic residential-commercial-industrial discussion and urged TVA to reach out to those communities. In response to questions from Pete Mattheis and Wes Kelley, Mr. Brinkworth and Tom Rice explained that demand response is treated separately from EE in the IRP and

that the demand response options are structured based on TVA's existing pilot program but do not specify the final delivery mechanism. Wayne Davis asked where the price of a barrel of oil fits into the analysis, and Mr. Brinkworth responded that the stochastic analysis factors in uncertainties around fuel prices. Mr. Brinkworth also detailed the analytical rigor of the IRP process, explaining the three phases of evaluation. (Slide 34)

Finally, Mr. Brinkworth discussed the stakeholder engagement schedule for the IRP, including participation by the RERC, the IRP Working Group, the Tennessee Renewable Information Exchange (TVRIX), and the Energy Efficiency Information Exchange (EEIX). (Slide 35) He further explained that TVA will hold a series of public meetings during the comment period on the draft IRP and SEIS. (Slide 36)

Dus Rogers asked what TVA's current projections are for load growth, and Mr. Brinkworth responded that the current outlook is 0.7% load growth. Stephen Smith praised TVA for working with the TVRIX group but noted a few areas of disagreement between TVA and TVRIX. He encouraged TVA to continue to collaborate with the group to resolve the differences and asked whether TVA planned to include a robust set of sensitivity analyses to test the materiality of the differences. Mr. Brinkworth said that TVA also wants to understand the effects of these differences and, to that end, TVA is in the early stages of developing appropriate sensitivity analyses. Dus Rogers asked whether the IRP takes into account the end of the useful life of Browns Ferry Nuclear Plant. Tom Rice responded that the plant's useful life extends nearly to the end of the planning period. Dr. Hoagland added that the status of Brown Ferry will be key in the next iteration of the IRP. Clifford Stockton asked how TVA was considering CleanLine in the IRP, and Mr. Brinkworth responded that the IRP model contains an option that is roughly representative of CleanLine and high-voltage direct current wind. Dus Rogers asked whether the IRP considered other wind projects within the TVA territory, and Mr. Brinkworth responded that the IRP provides an overall direction but does not analyze or represent specific projects. Len Peters asked how TVA had factored 111(d) building block 3 into possible futures and whether state plans would impact TVA. Mr. Brinkworth said that TVA's analysis tries to represent renewables similar to other resource options (i.e., cost, energy profile) and that TVA would determine whether its modeling results line up with EPA's proposal once final. The 111(d) issues will have much more impact in the next iteration of the IRP.

4. **Preliminary IRP Results**

Tom Rice, Senior Manager, Capacity Planning & Fleet Strategy, presented the preliminary IRP results. First, Mr. Rice reviewed TVA's key assumptions regarding load growth and natural gas prices. (Slides 38-39) Susan Williams asked whether TVA considers long-term gas contracts. Mr. Rice responded that, while the IRP does not consider natural gas hedging, TVA does consider this when negotiating fuel contracts. Len Peters noted that natural gas prices are a significant input into the IRP but one of the most uncertain and asked how TVA factors the volatility of gas prices into the IRP. Mr. Rice responded that the IRP considers a wide distribution of natural gas prices and that sensitivity analysis should capture this volatility.

Mr. Rice then presented the resource selection results for Scenario 1, the current outlook. (Slides 41-42) Most of the scenarios vary around the amounts of gas, renewables, and EE.

Wes Kelley asked why the EE and renewables percentages were tightly coupled except in Strategy D. Mr. Rice responded that Strategy D contains a preference for EE and reflects the expiration of current renewables power purchase agreements. Dus Rogers asked why the nuclear percentages were initially going up, and Mr. Rice responded that they reflect Watts Bar Unit 2 coming online and the possibility for certain upgrades to Browns Ferry. Len Peters noted that the percentages across the scenarios do not seem to have significant differences. Mr. Rice agreed, explaining that the IRP modeling was showing that TVA is not being driven toward decisions worth billions but instead a series of smaller decisions. Dr. Hoagland further explained that the decisions TVA has already made under the TVA-EPA agreement coupled with small projected load growth means that TVA is “chewing around the edges” for a while; EE, solar, and gas are the best ways to do that. Stephen Smith noted that, across the strategies, there should not be large swings in rate impacts; as a result, TVA would be free to explore policy options without worrying about higher rates, even in the strategy focusing on renewables. Lloyd Webb noted that the debt cap constraint might mean that some investment must be funded through rates. Len Peters asked about the anticipated rate impact of the IRP. Mr. Rice responded that the IRP does not consider rates directly; the proxy is system average costs, which are 5-10% higher under Strategies D and E. Susan Williams asked whether recent Board asset decisions were reflected in the analysis; Mr. Rice responded that they are. Dus Rogers asked about the current thinking on Bellefonte Nuclear Plant. Dr. Hoagland responded that the Board has not decided to finish the plant; the IRP model considered Bellefonte but did not select it.

Mr. Rice went on to summarize the remaining scenarios and resource selection results. (Slides 43-50) Clifford Stockton asked what drives the lower EE percentages in Scenario 5. Mr. Rice responded that the needs are lower because sales are nearly flat. Wes Kelley asked how TVA’s existing demand response program is reflected, and Mr. Rice said that the demand response numbers used in the IRP analysis reflect efforts beyond what is being done today (an additional 500-600 MW over today’s 2,000 MW). Len Peters asked about capacity factors of the generating options. Mr. Rice said that the capacity factors for combustion turbines are based on the manufacturer’s specifications and unit dispatch in each scenario; EE and renewables have a fixed capacity factor profile.

Mr. Rice summarized new gas plant construction, EE capacity, renewable capacity, and coal selections under the various portfolios. (Slides 51-54) Mr. Rice also shared the IRP Working Group’s key observations regarding resource selection. (Slide 55) Len Peters asked whether TVA had looked at technologies for energy storage. Mr. Rice responded that TVA only models technologies now in existence, but we understand that new storage technology could be a game-changer.

5. IRP Report and Next Steps

Mr. Brinkworth described the next steps in the IRP Process. Specifically, he detailed TVA’s strategies assessment process leading toward release of the draft document. (Slide 57) One key assessment area is plan cost and risk, and Mr. Brinkworth detailed the metrics associated with that area and the relative costs and financial risks of the strategies long-term. (Slides 58-61) Bob Martineau questioned why the financial risk exposure is greatest under the strategies emphasizing EE and renewables. Mr. Brinkworth explained that, since those two strategies force emphasis on specific types of resources, the resulting plans cannot take full

economic advantage of other options that might result in lower overall costs.

Mr. Brinkworth explained TVA's approach to assessing flexibility using a new metric called system regulating capacity (SRC). (Slide 62) Mr. Brinkworth explained that we're not yet sure what number represents good performance, but we can use the metric for relative comparison purposes. Lloyd Webb asked whether SRC is based on North American Electric Reliability Corporation (NERC) requirements, and Mr. Brinkworth responded that it is not; NERC requirements are taken into account in the IRP analysis, but they are not enforced directly in the model. Pete Mattheis noted that additional gas capacity could be one explanation for increasing SRC.

Mr. Brinkworth next explained TVA's approach to assessing Valley economics using per capita income as a metric. (Slide 63) Len Peters asked whether TVA has a job-related metric, and Mr. Brinkworth responded that TVA does, but that metric does not appear on the scorecard. Dr. Hoagland noted that TVA's historical ability to influence the Valley economy has decreased, but also noted that TVA's economic development efforts are not reflected in the IRP numbers. Dus Rogers noted that TVA's economic impact is more localized. Dr. Peters further noted that an average of per capita income can be misleading if the differences are not uniformly distributed across the range of incomes. Dr. Hoagland responded that we need a larger-scale conversation about how to help lower income people because the current system isn't effective. Rodney Goodman said that there is a shortage of housing for lower income people and that finding incentives for landlords will be key. Clifford Stockton and Wes Kelley mentioned that incentives for retail customers will be a challenging area.

Mr. Brinkworth gave one example of TVA's approach to assessing environmental stewardship; TVA is also looking at waste and water metrics. (Slide 64) In response to comments from Anne Davis and Stephen Smith, Mr. Brinkworth said that TVA is still reviewing the selection of units for its charts to ensure fair communication of results.

Finally, Mr. Brinkworth summarized the contents of the draft IRP and SEIS documents and the plans for engaging the RERC in providing feedback before the plan is finalized. (Slides 66-67)

6. IRP SEIS

Chuck Nicholson, NEPA Compliance Specialist, described the purpose of the SEIS and gave a broad overview of its contents and the resources to be addressed. (Slides 70-72) By way of example, Mr. Nicholson previewed the impact analyses associated with water consumption and land requirements. (Slides 73-74) With respect to land requirements, Wayne Davis asked whether the analysis considers roof-top solar, and Mr. Nicholson responded that it does not; the IRP options are utility-scale solar projects that are land-based. Stephen Smith asked about TVA's consideration of intensity of land impact of, for example, a coal plant versus a wind farm. Mr. Nicholson clarified that the land impact assessment for wind farms considers the areas actually occupied by facilities (e.g., substation, service roads, etc.) and does not include areas that can be used for agricultural purposes.

7. Council Discussion

Jo Anne Lavender introduced the advice question on the IRP process (slide 76):

What is your view of TVA's IRP Process to date in terms of:

- *Including a broad range of resources that TVA could use to meet its future energy needs;*
- *Depth of analysis;*
- *Stakeholder involvement; and*
- *Continuing to provide low-cost, reliable power?*

Council comments were as follows:

- Lloyd Webb said this IRP process has been better than the 2011 process in terms of engaging the expert community and collecting inputs for modeling.
- Wes Kelley cautioned that the complexities and risks may not be fully reflected in Strategy C and that TVA should assure that Strategy C does not merely represent an outsourcing of issues.
- Anne Davis said that TVA has done a great job pulling together stakeholders and taking feedback on modeling EE. She said that TVA has been a leader in modeling EE and that she hopes for continued leadership in that regard.
- Stephen Smith said that TVA has been responsive to concerns raised in the IRP process and that the TVRIX engagement has been particularly valuable. Some areas are a work in progress, especially the sensitivities to see whether certain differences are material; collaborative construction of the sensitivity analyses will be important. TVA's work to enable the model to select EE as a resource is groundbreaking. Nevertheless, there are some significant differences of opinion regarding constraints loaded into the EE analysis. Dr. Smith said that he gives TVA significant credit for hearing stakeholder concerns, particularly regarding renewables.
- Len Peters said that TVA has been very transparent. He said that at least two areas need additional discussion. First, Dr. Peters emphasized the importance of discussing natural gas prices as the single most important factor and one over which TVA has no control. Second, he said TVA should improve its economic impact analysis. This region's economy is heavily manufacturing-based, and consideration must be given to whether these energy intensive industries will remain here in the U.S. As a result, it will be important to discuss the impact and uncertainty of TVA's decisions on rates and reliability.
- Wayne Davis said that, while TVA has been thorough in its analysis overall, he thinks that additional consideration should be given to the need for redundancy to back up consumers' use of distributed renewables.
- Catherine Glover said she would like to see more work done to incorporate changes coming in the regulatory environment even though it is still fluid.
- Wes Kelley said he would like to understand the overall economic impact of dollars spent on different types of generation sources. TVA should be maximizing economic benefit and needs to flesh out the economic impact metrics.
- Jack Simmons said TVA's work on modeling EE is groundbreaking and innovative. However, he is concerned whether EE and distributed generation (DG) resources will materialize and become as reliable as other supply-side resources. Local power

companies will have an important role in helping those resources become reliable and supporting customers' choices of those types of resources through cost structures.

- Dus Rogers said that the IRP process has been thorough and well-thought-out and appropriately incorporated lessons learned from the 2011 IRP.
- Len Peters expressed concern about whether to partner with other states on 111(d) and said that being on the edge of the Valley magnifies the issue.
- Clifford Stockton distributed materials on multi-family housing developments and spoke to the need for EE improvements for the low-income residents of the Valley.

The Council adjourned for the evening at approximately 4:40 p.m. and reconvened on Tuesday, February 3, 2015, at 8:37 a.m.

8. TVA Update

Dr. Hoagland provided the following updates:

- The recently-released President's budget ended the strategic review of TVA. There are no immediate plans to sell TVA, but TVA must remain fiscally sound.
- In December 2014, the TVA Board of Directors approved the installation of air pollution controls at two Shawnee units. Ms. Brickhouse emphasized the distinction between the relatively small project involved to add controls to these Shawnee units and the large-scale construction project involved at Gallatin. In response to a question from Stephen Smith, Ms. Brickhouse said that the decision regarding Shawnee was based on cost and flexibility of the units.
- Watts Bar Unit 2 construction is on schedule and on budget. TVA anticipates commercial operation in 2016. Anne Davis asked whether TVA needs the additional capacity, and Ms. Brickhouse noted that TVA would be retiring several more coal units over the next few years.

9. Public Comment Period: No members of the public provided comments.

10. Changing Utility Marketplace and Its Implications

Dr. Hoagland gave an introductory presentation to the changing utility marketplace. He explained the nature of the current grid and summarized the benefits it provides. (Slides 90-91) He then summarized several key changes that will impact the grid: technology, extreme weather events, and consumer interests. (Slides 92-94) Despite these changes, customer expectations for reliability, resiliency, clean power, and low price remain unchanged. Dr. Hoagland noted the challenges ahead for TVA as a result. (Slide 95-96)

Wes Kelley noted that distributors are supportive of the possibility of DG but want to make sure that solar units are appropriately installed to safely interact with the system. Jack Simmons echoed the concern for safety. Stephen Smith noted that trend lines/on-the-ground results weren't necessarily bearing out distributor support, pointing in part to additional charges placed on distributed solar. Mr. Kelley responded that distributors often have engineering-based debates about how to manage this issue; distributor staff may need educational outreach.

Dr. Hoagland gave a brief overview of "distributed generation – integrated value." (Slide 98) Len Peters noted that the focus of DG-IV appears to be on residential customers rather than

industrial customers. Dr. Hoagland acknowledged that some companies want to be “green” and care where their power comes from, and TVA can’t ignore that population.

11. Council Discussion

Jo Anne Lavender introduced two discussion questions on the changing utility marketplace (slide 99):

- *What strategic implications do you think of relative to the emerging utility marketplace and TVA’s preparation for it?*
- *How can we better brief or engage you in the changing utility marketplace to build your understanding?*

Council comments were as follows:

- Lloyd Webb said that he had heard conversation around the expectation that low gas prices and the availability of DG would drive industries to install their own DG, but he said that he thinks that expectation needs to be validated. He does not anticipate that industry will move to self-generation unless there are grid reliability issues.
- Len Peters said there is an opportunity for EE in some sectors of the manufacturing industry, especially small to medium companies, but those companies need assistance because of their small engineering staffs.
- Stephen Smith said that the electric utility industry is typically slow to adapt and that he will be interested to see whether TVA proactively engages DG. He said that TVA’s particular challenge is that it is not vertically integrated; there could be tension between TVA and local power companies, who have a large role in DG.
- Jack Simmons acknowledged that there is some dysfunction between local power companies and TVA but said that vertical integration is not necessarily better. That dysfunction can create a longer decision-making process but hopefully leads to a better decision. Local power companies are concerned with recovering costs, but they want to provide choices for customers within that framework. Mr. Simmons further expressed that revenue erosion and rate design are not the customer’s fault. The pricing structure should allow the customers to make their own choices.
- Wes Kelley said that educational opportunities should be expanded for all local power company employees.
- Wayne Davis said that he does not see utilities encouraging DG but merely being willing to work with individuals who want to pursue it.

Following up on the previous day’s discussion, Council members offered the following additional comments on the advice question concerning the IRP process (Slide 105):

- Rodney Goodman appreciated the vigorous discussion expressing a variety of opinions. He shares Mr. Stockton’s concern about low income energy use. Although the problem is not TVA’s alone to solve, TVA can be a leader in discussing the issue and finding solutions.
- Dus Rogers said that the issue of low income energy use should be kept in front of the Council as the IRP is completed.
- Susan Williams likes that the IRP does not indicate any new nuclear generation but instead emphasizes EE, renewables, and natural gas. She said that encouraging solar power in the Valley is an economic development issue, and she would like to see TVA

pursue it more vigorously. TVA is unique in that it does not have shareholders and is not regulated by a public service commission; as a result, TVA can make the best decision considering a variety of factors, including the environment, even if it is not the lowest cost.

- Dus Rogers expressed his disappointment in the lack of new nuclear and said he wished TVA would give more consideration to stranded assets such as Widows Creek, Colbert, and Bellefonte.
- Even though the rule has not been finalized, Bob Martineau recommended more work be done in the IRP framework on implementation of 111(d) and how it would change the TVA fleet, rates, etc.

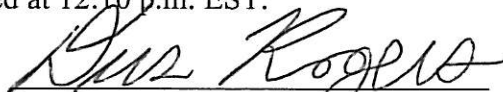
TVA staff created a draft advice statement as a starting point based on Council discussion, and the Council edited that draft advice statement to formulate its final advice. Two key areas of discussion included (1) whether certain issues were resolvable by TVA within the IRP process or whether they were areas of uncertainty that TVA should acknowledge but over which TVA has no control and (2) whether concerns about EE modeling related to the methodology and/or the inputs used.

Susan Williams moved to approve the Council's observations and advice statement; Jack Simmons seconded the motion. Chair Dus Rogers called for a vote, and the Council unanimously approved the observations and advice statement reflected in Appendix C.

12. The next meeting of the Council will be held April 20-21, 2015, in Nashville, Tennessee.

The meeting adjourned at 12:10 p.m. EST.

Minutes Approved:


Dus Rogers, RERC Chair

Date: 3-23-15

Appendix A
Non-Council Meeting Attendees

TVA Staff			
Brenda Brickhouse	Gary Brinkworth	Scott Brooks	Cathy Coffey
Hunter Hydas	Beth Keel	Kelly Love	John Myers
Chuck Nicholson	Tom Rice	Liz Upchurch	

Members of the Public		
Dave Flessner	Betsy Golden	Shari Meghreblian

Other
Jessica Monroe – TVA Office of the Inspector General
Todd Large, Paul Tanis – TVA Security

**Appendix B
Meeting Agenda**

**Regional Energy Resource Council
Feb 2 and 3, 2015**

Rose Room, Chattanooga Hotel

1201 Broad Street, Chattanooga, TN 37402

Monday, February 2, 2015	
10:30	Welcome - <i>Dus Rogers, Chair; Joe Hoagland DFO; Jo Anne Lavender, Facilitator</i> Introductions of Council Members - <i>Rogers</i> Safety Moment - <i>Beth Keel</i>
10:45	Meeting Purpose - <i>Hoagland</i>
10:55	RERC Overview and Meeting Protocols - <i>Lavender</i> Overview of Agenda
11:05	Environmental Policy Update - <i>Brenda Brickhouse, VP, Environment and Energy Policy</i>
11:25	Recap October 2014 Meeting - <i>Gary Brinkworth SR Program Manager, IRP</i>
11:30	IRP Status - <i>Brinkworth</i>
noon	<i>Lunch</i>
1:00	Preliminary IRP Results - <i>Tom Rice, SR Manager, Capacity Planning & Fleet Strategy</i>
1:45	IRP Report and Next Steps - <i>Brinkworth</i>
2:30	<i>Break</i>
2:45	IRP SEIS - <i>Chuck Nicholson, NEPA Compliance Specialist</i>
3:05	IRP Discussion - <i>Lavender</i>

4:00	Day 1 Closing Comments - Hoagland, VP, Stakeholder Relations
4:15	Meeting Adjourn
Tuesday, February 3, 2015	
7:30- 8:30	Accept Public Requests to Comment
8:30	Welcome - Lavender
8:40	TVA Update - Hoagland
9:00	Public Comment Period
10:00	<i>Break</i>
10:15	Changing Utility Market Place and its Implications - Hoagland
10:45	Market Place Discussion - Lavender
11:15	Council Advice - Lavender
12:00	<i>Lunch</i>
1:00	Closing Comments, Next Steps - Hoagland Next Steps
1:30	Adjourn

Appendix C Council Advice

RERC Observations and Advice February 3, 2015 Approved unanimously by the Council

Integrated Resource Plan (IRP)

- TVA has analyzed a wide range of potential future scenarios and included a broad range of conventional energy sources, renewables, and energy efficiency in its 2015 IRP. TVA has involved a broad cross-section of stakeholders in the IRP Working Group.
- TVA has improved upon its 2011 IRP with greater engagement of subject matter experts and extensive stakeholder involvement to form the inputs and support the process to develop the 2015 IRP. TVA has had good transparency and has been responsive to stakeholder issues during this process.
- TVA has performed significant analyses of future scenarios and potential energy sources in the 2015 IRP. Some areas of analysis, including modeling energy efficiency and renewables as selectable resources, have been innovative and TVA has been a leader in these areas. There are some areas that we would like TVA to consider for additional analysis, before the IRP is finalized, e.g., further refinements to methodologies around certain energy efficiency model inputs, solar modeling inputs, gas price forecasts, economic impacts including jobs, potential impacts of regulation, and the availability/reliability of customer owned energy resources. These areas should be considered with the IRP Working Group at the next session.

Changing Utility Marketplace

- As the marketplace shifts to increasing load side resources and end use customer interactions, collaboration between TVA, Local Power Companies, and other stakeholders will become increasingly important. Efforts should focus on continued education and engagement.
- TVA should consider the impact its decisions have on lower income residents. Economic development is important to employ lower income residents.