

**Tennessee Valley Authority (TVA)
Regional Energy Resource Council (RERC)
October 23, 2013
Meeting Minutes**

The Tennessee Valley Authority Regional Energy Resource Council was convened for its first meeting at 8:30 a.m. CDT on October 23, 2013, at the TVA Central In-Processing and Training Center, Hollywood, Alabama.

Meeting Attendees:

RERC Members

- Tony Almeida
- Jillian Boxler
- Chris Champion
- Anne Davis
- Catherine Glover
- Rodney Goodman
- Dave Hrabosky
- Jason Keith
- Wes Kelley
- Len Peters
- Dus Rogers (Chair)
- Joe Satterfield
- Jack Simmons
- Stephen Smith
- Clifford Stockton
- Lloyd Webb
- Susan Williams

TVA Staff

- Mike Bradley
- Gary Brinkworth
- Cathy Coffey
- Jason Harper
- Hunter Hydus
- Joe Hoagland (DFO)
- John Myers
- Beth Keel
- Kelly Love
- Khurshid Mehta
- Mark McNeely
- Damien Power
- Elizabeth Upchurch
- Van Wardlaw

Facilitator

- Randy McAdams

TVA Office of Inspector General

- John Jacosalem
- Jessica Monroe
- Amy Rush

Security

- Florence Buckner
- Ross Cook
- Robert Douthit

Members of the Public

- Dave Flessner
- Paul Gattis
- David Gentile
- Martha Gibbs
- Jimmy Glotfelty
- Margo Gray
- Richard Holland
- Gretel Johnston
- Garry Morgan
- David Owenby
- Kim Randle
- Glyn Rich
- Deborah Stowe
- Seth Sullivan
- Lauren Thibodeaux

Welcoming Comments - *Dus Rogers, RERC Chair; Joe Hoagland, RERC Designated Federal Officer*

RERC Chair Dus Rogers called the meeting to order and welcomed the group. DFO Joe Hoagland expressed appreciation to the group for their willingness to serve on this council and introduced facilitator Randy McAdams, a partner with Scott Madden consulting firm.

Hoagland provided a set of objectives for the meeting: get to know each other; “level set” everyone on TVA, our mission, and the generation system; and gain RERC members’ perspectives on concerns and issues.

Safety Moment - *John Klein, Manager of Nuclear In-Process Center*

Klein provided building emergency instructions in the event of a fire, tornado or other emergency event.

Brief Introductions - *Randy McAdams, Facilitator*

Randy McAdams welcomed the group and introduced himself as the moderator. McAdams asked each of the members of the RERC and several TVA employees to introduce themselves. RERC members Dus Rogers (Jackson County Economic Authority), Susan Williams (former TVA Board member), Lloyd Webb (Olin Chemical), Clifford Stockton (Greater Memphis Chamber), Stephen Smith (Southern Alliance for Clean Energy), Jack Simmons (Tennessee Valley Public Power Association), Joe Satterfield (State of Georgia; retired from distributor of TVA power), Len Peters (State of Kentucky), Wes Kelley (Director of a distributor of TVA power), Jason Keith (Mississippi State University), Dave Hrabosky (Severstal, a direct-served customer of TVA), Rod Goodman (Director of Habitat for Humanity in Bowling Green, KY), Catherine Glover (Tennessee Chamber of Commerce), Chris Champion (State of Mississippi), and Jill Boxler (State of Alabama) briefly introduced themselves. TVA employees Joe Hoagland (DFO), Gary Brinkworth (Integrated Resource Plan project manager), and John Myers (Alternate DFO) also introduced themselves.

Tony Almeida (State of North Carolina) and Anne Davis (Southern Environmental Law Center) joined the meeting while it was in progress and introduced themselves at that time.

FACA Training - *Kelly Love, Office of General Counsel*

Love is the primary legal advisor for RERC and FACA. Love provided background on FACA’s main requirements of structured management, public access, and balanced membership. Love explained that TVA created RERC earlier in 2013 to provide advice on TVA’s energy resource activities and the priorities among competing objectives and values. Love summarized key provisions of RERC charter, including council’s role of giving advice, the term of the council, frequency of meetings, the representative make-up of the group for balanced membership, and the representative nature of the members’ interests. Love also described some mechanics of group, including quorum requirements and voting requirements for advice.

RERC Overview - *Randy McAdams*

McAdams discussed the public comment session to come later in the day. Members of the public must sign up to speak by 12:30 p.m. CDT and will have 3 minutes to address the Council.

Stephen Smith asked about the process of capturing the views of the RERC. Joe Hoagland responded that the committee will be able to review consensus comments and minority views before the documented comments are provided to the TVA Board.

McAdams reiterated that the RERC was created in April 2013, is a federal advisory committee under FACA, must have a balanced membership of up to 20 members, and provides advice to TVA on its energy resource activities and the priorities among competing objectives and values to the TVA Board (external relations committee) and TVA Staff (in the room). Scope of advice coming out of Council is to be related to energy resource activities and the priorities among competing objectives and values.

Lloyd Webb asked about the objectives of the RERC and specifically where demand side and distributed generation fit in. Hoagland responded that it is under the category of “the development and management of demand-side resources, including energy efficiency” in the charter.

McAdams explained that the RERC provides advice on competing priorities directly to the TVA Board in a consensus way via voting process. RERC is different from the other TVA stakeholder groups. Working stakeholder groups provide input and council into the TVA groups with which they are aligned. They can speak in many voices. RERC speaks in a consensus manner.

Dave Hrabosky asked if the communication to the Board is one way or two way. Hoagland responded that when subsequent meeting agendas are set, the agenda will be in alignment with the priorities of the TVA Board. On some occasions the TVA Board may reach out through the meeting agendas to solicit input from the Council.

McAdams stated that meetings will be set up with specific topics and in each meeting there may be opportunity to vote on and approve consensus advice.

Chris Champion asked about sending alternates and whether alternates would have voting privileges. Love responded that there is no provision for alternates to vote.

Stephen Smith asked how future agendas will be shaped and if external sources of information could be brought in to present to the council. Hoagland responded that the council can agree to do outside preparatory work. Smith further asked about the formation of subcommittees. Kelly responded that subcommittee work can be conducted without the necessity for public notice of and access to their meetings as long as the subcommittees provide their output back to the Council for a consensus vote.

Introduction to TVA - Joe Hoagland, DFO

Hoagland gave an introduction to TVA discussing TVA’s history, mission, governance, and power and transmission system. Hoagland provided an overview of TVA’s generating fleet by resource and discussed the difference between capacity and energy. Hoagland also summarized the current resource plan direction resulting from the 2011 Integrated Resource Plan (IRP).

Jack Simmons commented that stewardship functions were funded by appropriations until the 1990s.

Lloyd Webb asked about how renewables fit into the dispatch stack. Hoagland discussed how renewables such as wind and solar are fuel-limited. There is a lot of research being done on how to take variable energy resources and turn them into more reliable resources.

Clifford Stockton asked about how Allen fossil plant fits into TVA's future plans. Hoagland responded that Allen was originally designed as a gas plant but has been burning coal for many years. TVA is studying what to do at Allen: either install additional controls or convert the plant to natural gas.

Wes Kelley asked about the sources of power purchases and if TVA is concerned about the nature of those sources. Hoagland answered that TVA's purchases are driven by economics and lowest cost power to meet load. Van Wardlaw added that TVA does know about the source of long-term power purchase agreements. Wes Kelley responded that TVA should acknowledge the source of its purchases since TVA is essentially adding that source of generation to delivered energy whether TVA owns the source or not.

Dus Rogers asked about a schedule for the decreasing coal capacity. Hoagland said this would be available at the next meeting.

Jack Simmons asked for an organizational overview.

Dave Hrabosky asked about wind contracts and percent utilization, particularly whether TVA ever has to turn any power from those sources away. Hoagland said we have wind contracts with sites that are geographically diverse so the wind is generally blowing at some of our sites. TVA works hard to try to accommodate that wind on the system and doesn't generally turn the wind power away. Joe also emphasized the importance of Raccoon Mountain to prevent TVA from turning away wind.

Len Peters asked about new EPA regulations under Section 111(d) of the Clean Air Act from a Kentucky perspective and how TVA allocates generating resources across the fleet. Hoagland answered that TVA averages out the cost to everyone who is using the electricity. John Myers answered that EPA is asking if it is appropriate for states to work together and there is some precedent for TVA acting as a system instead of its individual states. Stephen Smith stated that 111(d) is a critical issue on how the country is going to respond to climate change and that how TVA positions itself with regard to this regulation will have impacts on the IRP, TVA's customers, and its stakeholders.

Wes Kelley asked about capacity factors that TVA is seeing on its solar installations. Hoagland took an action item to get the information to the council.

Orientation of Upcoming TVA IRP Process - Gary Brinkworth, Project Manager, System Planning

Brinkworth introduced the concept of resource planning and presented the six-step process of the TVA Resource Planning Process. The overall objective is to match supply and demand over a 20-year time horizon at the lowest cost while meeting all of TVA's other objectives.

An IRP is a special form of resource planning. The National Environmental Policy Act (NEPA) requires that TVA present findings and get public feedback in the IRP process, then reworking the process before making recommendations. In many instances, resource planning searches for the least cost solution under the most probable future. However, the TVA IRP study will use a least regrets planning approach under which TVA will consider plausible futures and choose a plan that will perform the best across all of those plausible futures. The IRP provides relatively broad direction.

Susan Williams asked about the public scoping meetings. Brinkworth clarified that there are two meetings where the public is given an opportunity to weigh in early in the IRP process.

Stephen Smith noted that this upcoming IRP process is being conducted in a very different environment with lower demand and more renewables. Brinkworth responded that there are tools to do detailed analysis to better consider zero fuel cost options. Transmission capacity and investments are to be better considered this time around in the new IRP process.

McAdams added that TVA's IRP has been held out as a best practice regarding stakeholder engagement and quality of analysis.

Challenges and Opportunities - *Randy McAdams, Facilitator*

McAdams highlighted several challenges and opportunities for TVA and facilitated comments from the council.

McAdams stated that multidirectional flow may be the biggest challenge facing the industry. The model had been the same for over 100 years but has changed significantly in the last 10 years. McAdams pointed out that the reliance of TVA on separate and independent distributors make addressing multidirectional flow more challenging for TVA. McAdams noted that EPRI thinks that multidirectional flow is one of the most disruptive developments in the energy industry.

- Wes Kelley asked how you drive energy efficiency and demand response (EEDR) on the customer side. He noted that incentivizing participants could disadvantage non-participants.
- Stephen Smith noted that investor owned utilities are revenue driven. In a non-profit model, he asked whether there should be resistance to this trend. He thinks that TVA should not be as opposed as an investor-owned utility. In a non-profit situation, TVA should not view EEDR as you would in a "for profit" model.
- Len Peters offered that the response to multidirectional flow is based upon the condition of each particular state. Kentucky has twice the national average for energy utilization per dollar of state gross domestic product. This is because KY is a manufacturing economy which is more energy intensive than service economies such as CA and NY. Stephen Smith asked Len Peters to share the study to which he was referring.
- Wes Kelley pointed out that the Southeast over-indexes regarding electric heat and electric water.
- Catherine Glover wants the group to consider further net metering and distributed (self) generation.
- Stephen Smith is asking for more detail on TVA's assumptions related to uptake and price points associated with DG, smart meters, storage, electric vehicles and how TVA staff is advising the Board on these issues.
- Jack Simmons responded to the conversation about incentivizing renewables adoption. He further stated that care should be taken so that incentives not be above the wholesale and retail base. People who take the incentives may sometimes end up benefiting from other rate payers who can't pay for the investment of distributed generation and therefore pay for the incentives with higher rates.

Public Comment

Jimmy Glotfelty – Mr. Glotfelty spoke on behalf of Clean Line Energy Partners who is trying to build a high voltage clean line energy system from a wind farm in the Oklahoma panhandle

(where there is highest capacity factor wind) to Memphis using high voltage DC. He left group with question of whether TVA is getting the best wind for the lowest cost.

Gary Morgan – Blue Ridge Environmental Defense League (BREDL) – Mr. Morgan expressed concern with some directions of TVA including its high debt, which is \$43B (including interest on debt). He stated that a lot of the debt is due to nuclear power. Morgan does not like nuclear power and quoted over 98,000 deaths related to nuclear power. He said that nuclear power is not clean and that a better way is through renewable and hydro power.

Gretel Johnson – BREDL – Ms. Johnson brought a letter and thinks that the key to energy issues is through energy efficiency. Johnson indicated savings of \$41B and creation of 380,000 new jobs through energy efficiency. She stated that TVA has only 1% of its portfolio in energy efficiency. Johnson further listed seven reasons against nuclear power.

Debra Stowe – No Wind Alabama ‘www.nowindal.com’ – Ms. Stowe indicated that she was representing concerned citizens of Cherokee County related to the impacts of wind power farms. She is concerned with deforestation and disruption of underground streams and wants to understand the possibility of an environmental impact study for the wind farm.

Challenges and Opportunities (con’t) - *Randy McAdams, Facilitator*

McAdams discussed the concept of declining demand and stated that it will take over 10 years to get back to 2008 demand levels. This is a problem as TVA capital and much of its operating expenses are fixed and, therefore, spread over fewer electrons flowing.

- Lloyd Webb thinks future demand forecasts should relate to the amount of coal capacity being considered for retirement.
- Stephen Smith questioned whether all growth is good or whether a focus should be on optimizing the system rather than growing it during this period of reduced demand. He thinks the fundamental question is how to manage cash flow and how to make it as efficient as possible. Thinks that this path forward is more sustainable.
- Susan Williams mentioned falling demand in consideration of TVA’s role for economic development.

McAdams discussed national rate competitiveness and noted that TVA’s rates have become less competitive recently.

- Lloyd Webb noted that this graph doesn’t actually show the true rates for industrial customers. For industrial customers, it is actually worse (less competitive) than what was shown.
- Wes Kelley pointed out that economic growth helps keep rates low. The lowest rates are where there is high density and growth.
- Dus Rogers said that when he does a sample bill related to his Jackson County Economic Development Authority efforts, he finds that it is not competitive.
- Chris Champion says Mississippi sees the same thing. TVA has been a great partner in the past. However, industries are now saying that their rates are going up.
- Len Peters says that this is one of the most important challenges. In Kentucky, a major issue that they have to face is electricity price growth. He also asked the group to consider the tradeoffs between rates, economic development and the environment without polarizing the discussion.

- Stephen Smith said that it is easy to focus on the economic impacts and ignore the impacts (including economic) of climate change. He stated that a number of people think that this is one of the most important issues facing humanity.
- Lloyd Webb shared a concern that environmentally driven changes are being pushed so quickly without regard to voltage support and system reliability. This is leading in some parts of the country to power interruptions due to voltage dips.

McAdams concluded with a question for any other comments.

- Wes Kelley said that EEDR is like a "fruitcake," Not sure if TVA can do so many EE and DR programs well.
- Joe Satterfield says that all of the issues raised today impacting TVA also affect the power distributors. Eighty percent of power distributor expense is their TVA bill.
- Jill Boxler asked for further focused discussion on TVA's debt.

Closing Comments & Overall Meeting Plan for First Term

Hoagland thanked the participants for their attendance and active involvement today and said that the areas that were discussed today align with TVA's thinking on the issues.

Hoagland indicated that upcoming meetings are needed to keep the RERC involvement in the IRP and the IRP process on track. Joe proposed the next meeting for January 22 and 23 in either Knoxville or Chattanooga. These dates were agreed upon by the group.

Hoagland will send out a letter with the minutes.

Meeting Adjourned by RERC Chair Dus Rogers at 2:38 p.m. CDT

Minutes Approved:


Dus Rogers, RERC Chair

Date:

