

Regional Energy Resource Council Minutes November 29, 2017

Tennessee Valley Authority Regional Energy Resource Council November 29, 2017 Meeting Minutes

The Tennessee Valley Authority (TVA) Regional Energy Resource Council (RERC or Council) convened for the first meeting of its third term at 8:30 a.m. EDT on Wednesday, November 29, 2017, at the Knoxville Hilton, 501 West Church Avenue, Knoxville, Tennessee 37902.

Council members attending:

Wayne Davis, Chair	Michael Butler	Dan Ionel
Doug Lawyer	Robert Martineau, Jr.	Peter J. Mattheis
Jennifer Mundt	Jeremy Nails	Doug Peters
Stephen Smith	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 the meeting.

Appendix B is the agenda for the meeting.

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

1. Welcome

Dr. Joseph Hoagland, TVA Vice President (Enterprise Relations and Innovation) and Dr. Wayne Davis (Chair of the Council) opened the meeting by welcoming everyone. Dr. Davis introduced the four new Council members present at the meeting: Mr. Michael Butler (Tennessee Wildlife Federation); Dr. Dan Ionel (University of Kentucky); Ms. Jennifer Mundt (State of North Carolina); Mr. Doug Peters (Tennessee Valley Public Power Association); as well as two new Council members who were not able to attend the meeting: Mr. Derwin Sisnett (Gestalt Community Schools) and Mr. Charles Snavelly (Commonwealth of Kentucky).

2. Safety Moment, Overview of Agenda, Meeting Protocols

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Ms. Lavender, Facilitator, covered these items in her presentation (see Slides 6-8), noting that there is a quorum of members (eleven) currently present at the meeting.

3. FACA/RERC Orientation

Khurshid Mehta, Senior Attorney, TVA Office of the General Counsel, provided an overview of the Federal Advisory Committee Act, and the key provisions of the RERC Charter (Slides 10-15).

4. DFO Briefing and Introduction to TVA Purpose, Mission and Governance

Dr. Hoagland provided an update on the development of a new Integrated Resource Plan (IRP). He also covered TVA's purpose and mission in his presentation. (See Slides 16 to 28)

- TVA finalized its last Integrated Resource Plan (IRP) in 2015. TVA expects to begin scoping for the next IRP in Winter 2017/2018. Initial results will be presented to the Council in Fall 2018 and the final IRP published in Summer 2019.
- TVA's three-fold mission covers providing affordable electric power throughout the Tennessee Valley Region, acting as steward of the Valley's natural resources, and serving as a catalyst for sustainable economic development.
- TVA is unique in that it is owned by the people and governed by a presidentially appointed Board. It receives no taxpayer support and has repaid its original investment. TVA has no stockholders, its primary focus being on service and not profit.
- The economic impact of recreation on TVA reservoirs was estimated to be \$11.9 billion in 2016.
- While the TVA power supply is expected to be 55% carbon-free by 2020, the industrial rates continue to be in the top quartile.
- TVA's economic development efforts in FY 2017 contributed to 70,000 jobs and attracted capital investment of approximately \$8.3 billion to the Valley.
- The value of public power is underscored by the fact that more than 25% of our nation's electricity consumers receive their energy from public power.
- The Council provides advice to TVA's nine-member Board of Directors nominated by the President and confirmed by the Senate.

5. TVA Finances, Generation Portfolio and Transmission System

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Cass Larson, TVA's Vice President, Pricing and Contracts, made a presentation covering the transmission system, the changing generation portfolio, and the progress made towards meeting financial commitments. (Slides 29-41)

- Energy efficiency that occurs naturally has largely offset any growth in load, TVA does not expect any baseline generation projects in the foreseeable future.
- TVA's transmission system has maintained a 99.999% reliability for 18 years.
- TVA's generation portfolio has changed significantly from the 1960's (when generation was based on hydroelectric and fossil) to the current portfolio that relies additionally on purchased power, gas, nuclear, renewables, and energy efficiency.
- The obligation to serve the extremes remains important for TVA as reflected in the demand during the polar vortex that occurred January 5-8, 2014, when peak loads reached 32,490 MW. This peak would have been higher by around 1500 MW if not for the interruptible load.
- During the last few years, TVA completed several large construction projects, made asset investments to improve fuel costs, and lowered operation and maintenance expenses. The next priority is on reducing the debt and TVA is well-situated to achieve such reduction in Years FY21 to FY23.
- TVA has been able to maintain flat rates in the FY13 to FY18 period. These rates are 8% lower than what was projected by the Board in FY 14.
- Unfunded pension liability, loss of load or customers, aging infrastructure, large asset event, litigation and new regulations constitute some of the future financial risks.

6. Changing Utility Marketplace

Dr. Hoagland presented some of the dynamics of a changing utility market place (Slides 42-45).

- Customer behaviors and preferences are changing in a marketplace that sees continuing penetration of energy efficiency, decline in load despite a recovering economy, and greater attraction for renewables. The new installed capacity for renewables surpassed natural gas, nuclear power, coal and oil combined in 2016.
- Companies are committed to renewables as reflected in the establishment of entities such as RE 100 (companies committed to 100% renewables) and Business Renewables Center (companies committed to procuring wind and utility-scale solar energy).

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- The advent of distributed energy resources introduces a fundamental change in the supply side (capacity and energy) and demand side (load management) dynamics.

7. TVA Rates

Michael Hynes (Director, TVA Rate Design and Administration) provided background information on TVA's rate-setting process and principles. (Slides 46-70)

- TVA sells two rate products: "capacity" to meet instantaneous demand (fixed costs); and "energy" to meet hourly energy requirements (variable cost)
- TVA delivers power at the lowest feasible cost while fulfilling its mission of environmental stewardship and economic development
- TVA sells power at wholesale to the 154 local power companies and at retail to the 60 direct serve customers
- TVA meets its revenue requirements by setting rates that collect targeted revenue streams from customers within different rate classes
- A significant part (up to 70%) of TVA's costs are fixed costs
- Revenue allocations occur through rate adjustments and rate changes
- An "adjustment" constitutes an "across the board" adjustment in the rates being charged
- A rate change occurs when there is fundamental change to how the rates are structured
- TVA's current guiding principles for rate design (Slide 59) apply at wholesale and retail levels
- The utility industry is entering a phase of competition and choice, which presents unique challenges
- TVA seeks to make future changes in pricing that better reflect costs
- While TVA's grid is highly reliable and resilient (with 99.999% reliability), the cost of the grid is not appropriately represented in the fixed costs

8. TVA's Low Income Approach for Energy Efficiency

Frank Rapley (Senior Manager, EnergyRight® Solutions) gave a presentation to the Council on TVA's Community Weatherization Assistance program (Slides 71 to 84). The goal of the program is to create partnership with Lower Power Companies (LPCs), states, human resource agencies, and local non-profits to help bring more solutions for low income customers and promote energy equity in the Valley.

- Stephen Smith applauded TVA for its implementation of the Extreme Energy Makeover Project. He pointed out that funding for these projects came from the EPA Clean Air settlement funds, and encouraged TVA to continue funding this program in the future
- Doug Peters pointed out that we have so far seen the impacts of just the first round of the DOE efficiency standards and that more of these standards are expected to be implemented in the future
- Bob Martineau questioned whether it was proper to look at just the “incremental cost” in evaluating whether energy efficiency and energy conservation projects are cheaper than building traditional forms of generation

9. **RERC Discussion Questions**

Jo Anne Lavender (Facilitator) set out before the Council the guiding principles that TVA currently uses to design wholesale rates (Slide 87). She then provided the Council the following two questions that would be the focus of the Council’s discussion in formulating its advice on rates:

1. What other principles should TVA consider when designing wholesale rate changes?
2. What mechanisms are useful for TVA to engage Valley stakeholders in the discussion of wholesale rate changes over time?

10. **Public Listening Session**

Two members of the public provided comments at the Council meeting.

Jim Hackworth (Tennessee Solar Energy Association) inquired about the condition of the Raccoon Mountain facility, stating that pumped storage is cheaper than storage batteries. He also advocated for the protection of our electric system from an electromagnetic pulse in light of North Korea’s recent development of the ballistic missile.

Nathan Crockett compared Tennessee’s solar production with that of other states in the southeast, asserting that Georgia had 5 times and North Carolina 10 times the solar production of Tennessee. He indicated that TVA’s efforts to change the rate structure to incorporate fixed charges would impede the growth of solar and that TVA was penalizing initiatives related to energy efficiency and renewable generation.

11. RERC Discussion on Rates

A vigorous discussion was held among the Council members on the factors and principles TVA should consider in designing wholesale rate changes and the mechanisms to be used to engage Valley stakeholders. The salient features of this discussion are recounted below.

- Stephen Smith stated that while TVA is a self-regulating entity (for purposes of rate-setting), investor-owned utilities have a process that their public service commissions are required to follow. Therefore, TVA should be transparent in letting the public know of the assumptions used in setting rates, and rates should not be used to stifle innovation and technological progress. While the current emphasis is on competitiveness, the current principles are not clear as to the meaning of “affordable.” He reiterated that TVA must engage in a robust public conversation while establishing priorities for allocating funds.
- Wayne Davis pointed out that the current principles call for balancing precision with simplicity. However, simplicity in his view should also incorporate transparency and understandability. He indicated, citing a recent article in the Alcoa Times that TVA’s current process for making rate changes does not allow for rate issues to be communicated to the public in an understandable manner.
- Susan Williams emphasized the need for greater transparency in the rate-changing process. She suggested that the lack of transparency might otherwise send a message to the public that TVA is dis-incentivizing energy efficiency and renewable energy.
- Stephen Smith indicated that TVA has made good decisions in the last few years such as making the transition from coal to gas. However, as to its recent proposal to undertake wholesale rate changes to recover fixed costs, TVA should slow the process down as he did not see any compelling economic reason for fast-tracking this process. Joe Hoagland responded that this process is not “sudden” in that TVA has been working on this matter for the last three years. The unfolding of this process, in Joe Hoagland’s view, reflects an evolution over time as market forces and pricing plans have come together.
- Doug Peters emphasized the need for gradualism, echoing Pete Mattheis’ earlier comments on this matter. He indicated that allowing things to happen haphazardly could affect reliability and that TVA’s progress on these rate issues coincides with the actions of other utilities.
- Mike Hynes indicated that the proposed rate change would be revenue neutral and that TVA has analyzed the risks of implementing such a rate change.
- Dan Ionel pointed out that TVA’s current principles provide that rates must be “competitive” and “affordable.” He indicated that, at least in principle, these two attributes may not be consistent with each other.

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- Both Stephen Smith and Mike Butler indicated that the statement of the problem before the Council appeared to be incomplete.
- Joe Hoagland stated that the challenge before TVA in the current rate change proposal is to find an equitable way to recover fixed costs. Stephen Smith responded that the issue of recovery of fixed costs is unpopular with LPCs, and that any such recovery of fixed costs should not be undertaken in a way that discourages the development of distributed energy resources.
- Stephen Smith also suggested that the IRP process (*i.e.* TVA's development of its next IRP) should be ahead of the rate change proposal. Wayne Davis stated in response that TVA may not have the luxury of completing the IRP before the rate change as things are changing are very rapidly.
- Mike Butler suggested that some data be collected prior to the rate change proposal being sent to the Board. The collection of data will help drive the direction of the process.
- Stephen Smith indicated that only a few stakeholders have visibility to TVA's rate-changing process and emphasized the need for greater transparency.
- Jennifer Mundt asked about the extent of public participation offered in TVA's past actions relating to rate change. Joe Hoagland indicated that TVA had collected a lot of data through public surveys. This data was used by TVA in making rate-change decisions.
- In response to a question from Mike Butler about stakeholders involved in the rate-change process, Joe Hoagland stated that LPCs, NGOs and States are the entities most interested in TVA's rate-change decisions.
- TVA has generally worked closely with LPCs in making wholesale rate changes since LPCs (under TVA's contracts with those LPCs) are the entities most directly impacted by the wholesale rate change.
- Stephen Smith expressed concern that the 180-day letter sent by TVA to the LPCs (under TVA's contracts with the LPCs) could force a force decision on this matter.
- Susan Williams asked whether the fixed cost that would be imposed could be construed as a tax. Joe Hoagland indicated that such would not be the case since the proposal was revenue neutral. There was some concern expressed as to whether the proposal would be revenue-neutral to the ultimate customer.
- Wayne Davis suggested that any advice statement have a description of the future complexity of generating power that recognizes the general desire on the part of public persons and entities to generate their own solar power but nevertheless still stay connected to the grid.
- Bob Martineau indicated that if the rate-change proposal results in an increase in the payback period for behind-the-meter solar installations, the rate-change could be perceived by some to have a "bait-and-switch" effect.

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- Mike Butler stated that the revenue-neutral aspect of the proposal would make it easier to sell the proposal but suggested that the transmission grid aspect be kept separate. The transmission grid aspect can be persuasive in showing the behind-the-meter solar generators that it is the same grid that wheels their power back to TVA.
- Jeremy Nails suggested that any rate-change proposal should first be discussed with local newspapers and the media before putting it out for public review.
- Doug Lawyer suggested that the proposal must also be communicated and discussed with the respective Chambers of Commerce.
- Dan Ionel recommended that the LPCs be kept engaged and that the public be encouraged to participate in public forums arranged by the LPCs.


12. Formulation of Advice Statement

Based on discussions among the Council members, the Council prepared an advice statement for adoption by the Council through a formal vote. The advice statement is included in Appendix C.

Under the RERC Bylaws and Operating Procedures, eleven voting members constitute a quorum for the conduct of business. The Bylaws also provide that any recommendation by the Council to TVA requires an affirmative vote of at least a simple majority of the total membership present on that date. Most of the aforementioned discussion on rate issues occurred with a quorum of eleven members present. However, one of the Council members had to leave towards the end of that discussion with the result that a quorum was no longer present at the time the advice statement was ready for a vote. Accordingly, the Council decided to hold a meeting or Webinar in December 2017 to further discuss the advice statement and to bring it to a vote in the presence of a quorum.

Dr. Davis and Dr. Hoagland thanked members for their input and for a great discussion on rate change. The meeting adjourned at 4:00 p.m. EDT.

Minutes approved:



Dr. Wayne Davis, Council Chair

January 19, 2018

Date

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Appendix A Non-Council Meeting Attendees

TVA Staff			
Brenda Brickhouse	Hunter Hydass	Maria Gillen	Jessica Coleman
Joe Hoagland	Jo Anne Lavender	Kelly Love	Khurshid Mehta
Barbie Perdue	Michael Scalf	Liz Upchurch	Amy Henry
Frank Rapley	Tammy Bramlett	Stephen Noe	Scott Brooks
Katie Downs	Sidney Schaad	Jared Mitchem	Cass Larson
Michael Hynes			

Members of the Public In Attendance
Nathan Crockett – Citizen of Knoxville
Amanda Garcia – Southern Environmental Law Center
Megan Geer – Tennessee Solar Energy Association
Jim Hackworth – Tennessee Solar Energy Association
Stephen Levy – Tennessee Solar Energy Association

Other
Heather Coffman – TVA Police
Cody Hudson – TVA Police
Tony A. McGinnis – TVA Police
Nick Rollins – TVA Police

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Appendix B Meeting Agenda

**3rd Term Regional Energy Resource Council (RERC)
November 29, 2017
Knoxville Hilton, 501 W Church Avenue, Knoxville, TN**

Meeting Objectives:

1. Welcome new members to the 3rd term of the RERC
2. Provide an introduction to TVA and a preview of the 3rd Term
3. Information topic about TVA finances and rates, advice about rate change process
4. Information topic on the next generation IRP
5. Follow up topic: TVA's Energy Efficiency Programs
6. Host a public listening session

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8:30	Welcome - TVA Designated Federal Officer (DFO) / Joe Hoagland Welcome Term 3 and New RERC Members - RERC Chair / Wayne Davis
8:40	Introductions, Safety Moment, Agenda Review - Facilitator, Jo Anne Lavender
8:50	FACA Briefing - Office of the General Counsel, Khurshid Mehta
8:55	Today's Meeting Purpose - DFO/Joe Hoagland
9:00	<u>Introduction to TVA</u> <ul style="list-style-type: none"> • TVA Purpose and Mission, Governance (Joe Hoagland) • TVA Finances (Cass Larson) • TVA's Generation Portfolio and Transmission System (Cass Larson) • The Changing Utility Marketplace in the Valley - the Future is here (Joe Hoagland)
9:30	Information Topic: TVA Rates - Pricing & Contracts, Mike Hynes How TVA establishes wholesale rates
10:30	RERC Update: TVA's Energy Efficiency Programs - EnergyRight Solutions, Frank Rapley
10:50	15 minute Break
11:05	RERC Discussion --Rate Change Process
12:05	Lunch RERC Update: Where we are going: The next IRP. (Joe Hoagland)
1:00	15 -min break and Prepare for Public Listening Session
1:15	Public Listening Session (1 hour)
2:15	10 minute Break
2:25	RERC Discussion and Advice
3:30	Wrap Up and Adjourn - W. Davis & J. Hoagland

Appendix C

Advice Statement Developed on November 29, 2017 by the TVA Regional Energy Resource Council (Not presented for a vote for lack of quorum)

Rates and the cost of electricity are important to all types of electricity users in the Tennessee Valley region. The RERC recognizes that the use of electricity and consumer preferences are evolving into a new marketplace and that rate changes may need to be part of the evolution to fairly assign costs to those receiving the value of the grid and energy system. TVA strives to deliver power at the lowest feasible cost and develops rates that adhere to a set of guiding principles. The RERC encourages TVA and LPCs to work together to develop appropriate retail rate structures.

TVA's current guiding principles are:

- Rates must cover costs;
- Rates track cost of service;
- Rates must send pricing signals;
- Rates must balance precision with simplicity;
- Rates must be stable; and
- Rates must be competitive and affordable.

The above principles are intended to support fair allocation of costs.

The RERC further encourages TVA to modify the principles to: increase clarity; improve clear communication of the problem being addressed and better describe intended outcomes and the process by which rate changes are implemented; minimize unintended consequences; emphasize transparency and increase stakeholder engagement; consider impacts on innovation; and consider the relative sense of affordability.

Clear and simple communication will help Valley Stakeholders better understand what TVA is doing, and why they are doing it.

As TVA works on rate changes in the short and longer term, TVA has opportunity to improve stakeholder engagement through a variety of mechanisms:

- Clearly define the problem that you are addressing and your key audiences.

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- Develop simple, understandable materials that discuss what and why (not specific on rate change but educational).
- Separate the narrative of transmission from energy consumption and emphasize the revenue neutral aspect.
- Survey and gather data about consumer behavior.
- Utilize radio, television, and open meetings to reach people.
- Partner with LPCs and Chambers of Commerce to communicate to local stakeholders.
- Recognize there is a broader set of stakeholders who may have an interest in the process.
- Early on, educate media and editorial boards on the issues.