Tennessee Valley Authority Regional Energy Resource Council June 10, 2019 Webinar Meeting Minutes

The Tennessee Valley Authority (TVA) Regional Energy Resource Council (RERC or Council) convened for a Webinar meeting of its third term at 1:30 p.m. EDT on Monday, June 10, 2019.

Council members attending the webinar:

Wayne Davis, Chair	Wes Kelly	Doug Lawyer
Peter Mattheis	Jennifer Mundt	Lloyd Webb

Designated Federal Officer: Dr. Joseph Hoagland

Alternate Designated Officer: Amy Henry

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/rerc.

1. Welcome

Amy Henry (Enterprise Relations and Innovations) and Dr. Wayne Davis (Chair of the Council) opened the meeting by welcoming everyone. Amy confirmed that this was the 7th meeting of the third term of the Council. The focus of 5 of those 7 meetings has been on the IRP.

Amy indicated that the purpose of the webinar was to review public comments received on the Draft 2019 IRP and to discuss the additional sensitivities analyzed after the Draft IRP was published. She stated that this is an information session, but that TVA looks forward to getting RERC's advice on the IRP at its regular meeting on June 26-27, 2019. (Slides 3 to 5).

2. Safety Moment, Overview of Agenda, Meeting Protocols and Roll Call

Ms. Lavender, Facilitator, covered these items in her presentation (see Slides 6-11). The webinar was open to the members of the public in listen-only mode. The roll call confirmed that six Council members were present for the meeting.

3. 2019 IRP Recap

Hunter Hydas provided a recap of the 2019 IRP process (Slides 12-13). He stated that one of the themes that emerged from the Draft IRP was the need to analyze additional sensitivities.

4. Public Comment Period Summary

Amy Henry provided a summary of the public comments received on the Draft IRP, covering the key topics and TVA's proposed responses (Slides 14-21).

- The public comment period ran from February 15 to April 8, 2019.
- TVA hosted 7 meetings across the Valley (Slide 16).
- The public meetings were attended by 300 persons.
- Public comments were sent in by 1200 persons/entities; this included a petition received from Sierra Club signed by 900 persons.
- The RERC asked to see the Comments and TVA's responses at the last meeting. TVA provided a draft of the Comment Response document to prepare for this webinar. The final Comment Response document is available at www.tva.com/irp Comments were organized by topics. There are 300 comment topics (Slide18).
- Amy discussed the common comment topics (Slide 19).
- The public comments and the IRP Workgroup input have informed the additional sensitivity analyses done by TVA and those comments will be considered in developing the IRP recommendation. (Slide 20).
- The IRP/EIS will be revised in appropriate places in response to comments.
- Comments and responses will be appended to the Final IRP/EIS.

5. RERC Observations on TVA's Response

- Wes Kelly asked about the format of TVA's responses to public comments. Amy answered that TVA will not respond to individual comments. Rather, similar comments will be categorized into groups/themes and TVA will respond to all groups of comments in the appendix to the EIS.
- Lloyd Webb asked whether TVA will discuss the remaining sensitivities at the next meeting. Amy responded that these additional sensitivities as well as the summary of all sensitivities will be discussed at the regular RERC meeting on June 26-27, 2019.

6. IRP Sensitivity Analysis

Jane Elliott provided the results of the analyses of new sensitivities performed in response to IRP Workgroup feedback and the public comments received on the Draft IRP. (Slides 22-61).

• Sensitivities complement the Draft IRP results and are run off the updated Base

Regional Energy Resource Council Minutes June 10, 2019

- Case. The sensitivities discussed in the webinar are identified in Slide 26.
- Doubling the annual solar cap in the growth case to 1000 MW raises the cumulative cap on solar additions to 14,000 MW (Slides 25-30) and lowers carbon emissions as renewable generation displaces gas generation; generally, CTs replace CCs as a better fit to meet winter peak as more solar is added.
- In the sensitivity that adds 4200 MW of wind (by 2038) as a result of lower cost of wind or reduced wheeling costs, wind displaces early gas additions and competes with solar in the long term; this results in lower carbon emissions at a similar resource cost (Slides 31 to 35).
- The potential impact of increasing the operating cost of coal plants is additional and/or accelerated coal retirements, which lower carbon emissions as coal is replaced by natural gas (Slides 36-40). It is important to note that this is a planning effort only. Any specific plant decisions would include significantly more detailed analysis of a variety of factors.
- Double decarbonization (higher carbon penalty) accelerates coal retirements present in the original decarbonization case and adds some hydro expansion; consequently, CC expansion is accelerated and carbon emissions are lowered as CC/hydro replaces coal (Slides 41-45).
- Greater EE and DR market depth (2100 MW) has the potential to displacesome CT and solar additions (Slides 46-50).
- Under extreme weather sensitivity analysis, the system becomes summerpeaking; derated nuclear and coal capacity is initially replaced by CTs and later by additional solar capacity (Slides 51-60).
- Summary of all sensitivities is provided in Slide 61.

7. Overall RERC Observations

- Wayne Davis commended staff for adding six sensitivities to the earlier analysis in the Draft IRP. He indicated that with these additions, the IRP will provide TVA an approximate direction for future energy planning. He also indicated that a new IRP will likely need to be done in 3-5 years because of the fast-changing environment.
- Lloyd Webb stated that the relevant sensitivities had been considered in the IRP analysis and that no further adjustments to the scenarios and strategies were necessary.

8. Wrap-Up

There was no advice provided by the Council at this meeting. Wayne Davis thanked members for their input. He reminded members of the importance of next

Regional Energy Resource Council Minutes June 10, 2019

meeting of the Council (on June 26-27) where the Council would be providing its advice to the TVA Board on the IRP. The meeting was adjourned at 3:30 p.m.

Minutes Approved:

Wayne T. Davis, Council Chair

Wayne & Davis

Date: ____1/23/2020_____

Appendix A Non-Council Meeting Attendees

TVA Staff

Laura Campbell
Brian Child
Jessica Coleman
Cathy Coffey
Mathew Higdon
Hunter Hydas
Amy Henry
Jane Elliott
Jo Anne Lavender
Khurshid Mehta
Barbie Perdue
Amy Reagan
Michael Scalf
Tim Sorrell
Liz Upchurch

Members of the Public in Attendance by Webinar

Al Armendariz
Leslie Barbagallo
Stacy Cantrell
Erin Gill
Richard Holland
Dana Jeanes
Jonathan Levenshus
Charles Sims
Blair Wade

Appendix B Meeting Agenda

Regional Energy Resource Council

Webinar – June 10, 2019

Meeting Location: Webinar for RERC and Public

TVA Broadcast from Chattanooga – LPD1S435 and Knoxville WT 3 129

Registration Link: https://attendee.gotowebinar.com/register/2015138030888975619

June 10, 2019 Times are EDT		
1:15 – 1:25	RERC Members join ahead to ensure they have entered their audio pin	
1:30 – 1:35	Welcome	Amy Henry, Alternate DFO RERC Chair Wayne Davis
	Meeting Purpose	Henry
1:35 -1:40	Webinar Mechanics, Safety Moment, RERC Roll Call	Jo Anne Lavender, Facilitator
1:40 – 1:55	Recap 2019 IRP Process	Hunter Hydas
1:55– 2:30	Public Comments and TVA Responses	Henry
	Observations and Questions by the RERC	Lavender and RERC
2:30 - 3:15	Sensitivities – Final Set	Jane Elliott
	Observations and Questions by the RERC	Lavender and RERC
3:15 – 3:30	Wrap Up and Next Steps	Lavender