

Regional Energy Resource Council Minutes

June 23, 2020

Tennessee Valley Authority

Meeting held by virtual means.

The Tennessee Valley Authority (TVA) Regional Energy Resource Council (RERC or Council) convened for the second meeting of its fourth term at 10:00 a.m. Eastern on June 23, 2020 in a virtual web-based format. The meeting recording is available at www.tva.gov/merc.

Council members attending:

| | | |
|-------------------|--------------------|------------------------|
| Michael Butler | Jonathan Levenshus | Dr. Kari Babski-Reeves |
| Dr. Bill Carswell | Pete Mattheis | Patrice Robinson |
| Erin Gill | Jennifer Mundt | David Salyers |
| Rodney Goodman | Alice Perry | Charles Snavelly |
| Dana Jeanes | Doug Peters | Clay Walker |
| | | Lloyd Webb |

Designated Federal Officer (DFO): Joe Hoagland

Facilitator: Jo Anne Lavender

- Appendix A - TVA staff and members of the public who attended the meeting
- Appendix B - Agenda
- Meeting presentations and recording can be found at www.tva.gov/merc

Welcome

Joe Hoagland, DFO, welcomed the group and introduced Jennifer Mundt, RERC Chair.

Jennifer Mundt, welcomed the group, offered a moment of silence in recognition of the current challenges being faced by our country, and drew the council's attention to the agenda and discussion questions that the RERC will consider during the webinar.

Safety Moment and Meeting Protocols

Meeting facilitator provided an overview of the virtual meeting protocols and a safety moment on summer heat.

The Council was introduced with a roll call to determine attendance.

DFO Update – Joe Hoagland

The DFO provided a recap of the prior meeting (December 11-12, 2019), as well as an overview of TVA's responses to the COVID-19 Pandemic. He discussed the agenda

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items for today's meeting, indicating that the agenda would focus on the TVA Valley Partner Program and the TVA outlook on energy usage and demand, and forecasts related to what might happen in the future.

This meeting will be an opportunity for members to learn about what TVA does and to ask questions. This meeting also includes an opportunity for the public to address this group. Later in the session, we will have time to hear your views and perspectives on today's subjects.

Joe provided an overview of a variety of support and response actions TVA has taken to support communities and local power companies through the pandemic.

<https://www.tva.com/coronavirus>

The May Board meeting was a virtual meeting and so would the next Board meeting in August 2020. The President nominated two members (Beth Hartwell and Brian Noland) for the TVA Board. TVA was still waiting for Senate confirmation.

TVA Valley Partners Program and Covid-19 Response Strategy

Dan Pratt, Vice President of Customer Delivery provided this update. The long term agreements (LTA) provide for better alignment of the interests of LPCs and TVA. They allow LPCs to be more engaged in TVA's financial decisions and supply generation. TVA commenced implementation of the LTA Program yesterday upon completion of the NEPA review.

The Valley Partners Program allows for a 10 year commitment to flat rates. The LPCs are provided a 3.1 percent credit from the cash not used by TVA for paydown of the debt. As of today, 140 LPCs have signed LTAs. TVA is working with the 14 that have not yet signed.

Implementation of the LTA would allow for 1200 MW of new solar.

Dan then provided an update on TVA's Covid-19 External Strategy (Slide 20) and the Covid-19 metrics (Slide 21).

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Member Questions/Comments:

Bill Carswell asked for a copy of yesterday's press release. (tva.com/newsroom/press-releases)

Jonathan asked what would be total system represented by the 140 LPCs who have signed. Response (Dan Pratt): 85% of revenue is generated from those who have signed.

Erin Gill asked to confirm that the Green Invest Program would not be counted towards the 3 to 5%. Response (Dan Pratt): yes.

Lloyd Webb asked about the differences between those LPCs and those that are not. Response (Dan Pratt): 3.1% bill credit; and only 20-year partners will have access to flexibility option.

John Levenshus asked whether other LPCs could use that portion of the 5% flexibility option not utilized by an LPC. Response (Dan Pratt): No, but there are certain exceptions for locational restrictions.

Bill Carswell asked what would prevent an LPC from signing the LTA. Response (Dan Pratt): No show-stoppers but each LPC must make its own long-term evaluation.

TVA Energy Outlook

Tim Sorrell, Senior Manager of Enterprise Forecasting and Jane Elliott, Senior Manager of Resource Strategy provided an update on the TVA Outlook for Energy.

Jane Elliott provided a recap of TVA's 2019 Integrated Resource Plan. She covered both the results of the 2019 IRP and the signposts to watch that will guide long term actions. (Slides 22 to 28)

Tim Sorrell provided an overview of key indicators under evaluation given the changes in energy use due to COVID-19. He covered unemployment, light vehicle sales, total system energy and impacts in specific sectors. Tim also discussed model projections around recovery and questions to consider / uncertainty in the short and longer term. (Slides 29 to 37)

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Jane continued to present an overlay of the 2019 IRP scenarios with the future COVID recovery projections to show that TVA is still anticipating that we will be within the ranges of the 2019 IRP in the future. Jane also discussed status of near term actions in the 2019 IRP, as well as solar expansion, flexibility, the coal fleet, energy efficiency programs, and distribution planning.

Member Questions and Comments

Charles Snavelly – Could you explain more about what you mean by DRP?

A. Jane Elliott: DRP stands for Distribution Resource Plan. This refers to plans for resources that would be located on the distribution system versus the bulk transmission system. They can include storage, solar, small gas generation, combined heat and power, etc. A DRP helps to better understand future load and system conditions and how distribution resources might provide more value to the system.

Bill Carswell: Is TVA considering retirements of additional coal plants?

A. Jane Elliott: TVA recently retired Paradise and has formal plans to retire Bull Run. Like all utilities, TVA is continually evaluating its generating fleet. This includes understanding the viable remaining life of the aging coal fleet, impacted by operating conditions and material condition of plants. TVA is currently undertaking a deep plant by plant analysis. Based on these end-of-life evaluations, there could be recommendations to retire at estimated future dates.

Tim discussed that auto production is 5% of TVA load. Does this include the Mazda Toyota plant?

A. Tim Sorrell: I believe that plant is not up and running yet, so no, it is not currently included.

You mentioned collaborative efforts to stimulate Electric Vehicles (EV). Does TVA have an EV strategy?

A. Jane Elliott: We are exploring this further as one of the IRP near term actions. There are opportunities to further partner and connect with stakeholders.

Joe Hoagland: TVA does have a strategy under evolution and is building in stakeholder engagement from the States. We should have more progress in about 6 months.

Jennifer Mundt: If the EV plan is available when we meet again, it would be great to get an update.

A: Great idea, yes we can do this. Also TVA is participating in the Drive Electric Tennessee group and is working on a Roadmap.

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Lloyd Webb: Regarding COVID ranges, hopes base case can recover as shown, but not confident about such a recovery. TVA should bring back IRP stakeholder group to review what has changed and revisit sensitivities. The COVID crisis could result in the need to reevaluate the need for new generation and retirements.

A: Joe Hoagland: Great point, we have discussed getting the group back together later this fall. But the path is still fairly uncertain, we hope that by fall we will have something to bring back to the Council.

Tim Sorrell and Jane Elliott: Added that they continue to monitor conditions, update forecasts, and run sensitivities on higher and lower cases.

Jonathan Levenshus: On the CT plants, when will the environmental assessments be conducted?

A: Jane Elliott: There will be 2 sets, one in 2021 and the other in late 2021 or 2022. On the coal plant possible closures, there would be an environmental review correct?

A: Jane Elliott: Yes, correct.

On your evaluation of your coal fleet, are you considering any of the changing regulatory framework?

A: Jane Elliott: The environmental assessment is more focused on potential impacts to air, water and waste, as well as on socio-economics, and less specific to changing or possibly changing legislation (this is considered in risk analysis).

A: Joe Hoagland: Added that TVA takes a long and conservative view beyond the cycle of politics.

Rodney Goodman: You mentioned the Home Uplift Program served 1,500 homes. Do you know what the TVA investment was in this program?

A: Jane Elliott: I don't know that figure off hand but can find out.

Bill Carswell: Tim mentioned usage changes in Commercial and Industrial, what happened to Residential usage?

A: Tim Sorrell: TVA doesn't directly serve residential customers, so we rely on our Local Power Companies to help us to understand that sector. They are reporting an average of 2-4% increase in Residential usage.

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RERC Listening Session- Public Comments

One member of the public signed up to address the RERC during the virtual meeting.

Ken Minault – He is the Policy Chair of the Sierra Club’s Harvey Broome Chapter (Knoxville). Kent discussed the importance of trust in TVA and expressed that there is mistrust. He recommended that TVA could restore trust by committing to 100 percent removal of coal ash, end the use of coal by 2035 and honor city greenhouse gas and renewables commitments. He suggested a formal policy would be helpful.

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RERC Perspectives

The RERC Members were asked to respond to two questions related to the topic of COVID 19 impacts and next steps:

1. What are the top challenges faced by your sector due to COVID-19?
2. How should TVA best prepare for the potential changes in energy usage in a post COVID-19 world?

Bill Carswell: Academia re-opening is challenging. In a post COVID-19 world, while we are not completely sure of the future, we probably will go back to how we were, with less travel and more virtual meetings.

Erin Gill: Our top challenges are in areas including local government budget. With sales tax lower, we are taking a hit and looking to see what the economic recovery looks like. Our ability to invest in projects is strained. There could be long term impacts on economic health, including increased foreclosures and other long term impacts. For TVA, the opportunity to electrify transportation is challenged by low gas prices.

Rodney Goodman: I am in the non-profit sector, we are seeing impacts for our homeless community members, where public facilities, such as restrooms, are closed and this is creating issues for personal health for this group of people. For our immigrants and refugees, many work in manufacturing and are seeing temporary job loss and are catching COVID 19. For our Affordable Housing work, the need is still there, but funding is being diverted to other critical COVID needs. Further, our volunteers who help to build affordable housing are retired / at risk, so we are seeing fewer volunteers helping now. On a positive note, we have started a collaborative community process to address poverty and are working together to receive grants. For the future, we hope to get to a post-COVID world and it will probably have reduced energy usage.

Dana Jeanes: Our utility has had impacts from COVID with several cases and one fatality among our workforce. We are continuing to prioritize safety and have taken steps including maintaining social distancing in facilities; installing barriers in vehicles to separate compartments; enhanced cleaning; hosting Board Meetings virtually. We have also seen impacts in our electricity sales, where we are down 5% in residential, and 14% in commercial. We suspended disconnections early on, and have waived late fees to help our community members. We are also currently talking about our long term partnership options. In the future, there could be a new model in how directly served

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customers work with TVA to maintain competitiveness. Also recognize that the 2019 IRP best practice of focusing on flexibility has served us well in the unanticipated pandemic.

Pete Mattheis: The challenges faced vary greatly by sector and plant. Employee safety is a challenge at big plants with lots of employees; also predicting the market where there is volatility and managing supply chains are challenges. In a post-COVID world, we see the benefit of TVA fleet resiliency and ability to swing with load.

Lloyd Webb: We must have energy competitiveness. We have seen load reduction. We are talking to TVA about long term partnership possibilities for industrial customers similar to what local power companies are doing. In a post-COVID world, we look to see a new model where directly served customers work with TVA to maintain competitive energy. Other changes may affect the industry such as post baby boom, and increased renewables. Look to keep the collaboration going.

Jennifer Mundt: For state government operations, we are challenged to keep our staff and public safe while seeking public input and conducting permitting actions. We are seeking alternative ways to engage the public such as virtual meetings, written comments by email. As TVA prepares for a post COVID world, from an IOU perspective, they (Progress/Duke/Dominion) are facing about a 5% reduction in demand and are seeking recovery of lost revenue by going to the PUC. From our PUC there are about 880,000 accounts that qualify for disconnection but are not being disconnected. It is about \$250 Million in arrears.

Doug Peters: In our association of local power companies, members took action to protect employees and customers. Many organized them into teams to maintain ability to serve. Financially, the condition of the group of LPCs is like a bell curve, some are distressed, most are in the middle in status. As long as the trend goes as TVA is anticipating, most will do as well as possible. Looking forward, we anticipate more work from home, telemedicine will be big, and in general, COVID highlights the need for deeper broadband. Recommend reconvening the IRP Working Group to check sensitivities and have more dialogue.

Kari Reeves: From an academic perspective, we are very concerned with how to re-open safely. Universities are brick and mortar entities, where students gain the best educational experience in person. If we operate at half capacity, can we deliver in person education to develop a strong workforce? Our students are also impacted –they are losing jobs and our enrollment levels are a concern. Graduate student international

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travel bans have affected graduate enrollments, resulting in fewer teaching assistants. Some programs do not lend themselves well to online learning, such as music, agriculture, etc. Broadband really is an issue too. For TVA in the future, broadband connectivity is a key issue.

Patrice Robinson: This was an excellent session. I serve on the City of Memphis COVID Task Force and we are currently in Phase 2. We are concerned with the high numbers of people living in poverty in Memphis, and now we are considering cutoffs again. There are funds available for people who cannot afford their bills; however, the funds are not sufficient. There will be impacts to the City budget this year and likely impacts to property, state and sales taxes. For the future, I encourage TVA to consider energy efficiency loans targeting lower middle class families. Our PSAT (Power Supply Advisory Team) is having a conversation on our IRP results and considering other vendors. Low cost and effective energy is the goal. We are also facing daily demonstrations on racial considerations; we are being sensitive to equity. Our COVID numbers are on the rise, so we will be in Phase 2 for a while. TVA could join our 'Mask-Up Memphis to Live' program which provides masks and supplies to lower income communities.

David Salyers: TDEC has two primary roles: as a regulator and as the manager of parks and conservation. In terms of COVID impacts, we are seeing budget cuts due to reduction in tax revenues. For the future, we are reimagining how we pursue our programs. We appreciate the partnership with TVA on Electric Vehicles, and also the collaboration to keep recreational areas available. We are seeing the importance of outdoor recreation, where our natural areas and parks are over run with people this year. For TVA, in the post-COVID world, electrification of the transportation sector and maintenance of natural resources would be important goals.

Charles Snavelly: The Commonwealth of Kentucky is in a less strong financial position. Budget impacts are severe. There could be fewer meetings, but government is a people business. Public engagement is difficult now. Kentucky is undertaking a Kentucky Wired Project that will hopefully be positive for rural areas. The impacts from COVID are similar to the great depression, so TVA probably already knows how to deal with the changes in energy usage. The competitiveness of business and industry in the valley is extremely important. It may impact the capital and infrastructure investment. We support the distribution cooperatives and the IRP plan that is doing a very good job.

Clay Walker: Economic Development is a people business, too. So not being able to travel and host site visits has really changed our business. We are now playing defense

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Clay Walker: Economic Development is a people business, too. So not being able to travel and host site visits has really changed our business. We are now playing defense by working to keep businesses open, hosting small business grants and connection with Federal programs. We have COVID resources on our website and we think we are far from out of this crisis. For the future, we would like to work with TVA to get in front of the technology and target sectors such as the re-shoring of automotives. It's a tough time and we are sticking together as 'Team Tennessee'. TVA is a big part of this.

RERC Chair Jennifer Mundt thanked the members and staff for the meeting and good discussion. The next meeting is tentatively scheduled for Oct 14 and/or 15, 2020 and more information will be forthcoming on whether this will be virtual or in person.

No formal advice was provided at this virtual meeting. The meeting was adjourned at 2:15 PM.

Minutes approved:

Approval by Email *Jennifer Mundt*
Jennifer Mundt, Council Chair *JEM*

Date: *Aug 27, 2020*

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**Appendix A
Non-Council Meeting Attendees**

| TVA Staff | | | |
|-----------------------------|----------------|------------------|--------------------|
| Joe Hoagland | Tim Daughtery | McKenzie Whitten | Sarah Eason |
| Liz Upchurch | Khurshid Mehta | Barbie Perdue | Cathy Coffey |
| Jane Elliott | Debbie Murray | Eric Grau | Laura Duncan |
| Tim Sorrell | Bevin Taylor | Abby Glass | Kiki Thompson |
| Jessica Coleman | Kelley Murray | Leslie Golden | Logan Stephens |
| Dan Pratt | Tiffany Smith | Khurshid Mehta | Jennifer Brundidge |
| Preeth Srinivasaraghavan | | | |

| Members of the Public In Attendance |
|---|
| Jo Anne Lavender (Meeting Facilitator) Kent Minault Brady Watson Miriam Makhyoun Brianna Knisley Bonnie Swinford Gil Hough Scott Banbury Leslie Barbagallo Forest Forrester Al Berrong Amanda Garcia William Moll Mary Beth Brown Paul Gussack Zach Fabish Sandra Kurtz Molly Cripps |

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Appendix B
Meeting Agenda
Regional Energy Resource Council

June 23, 2020 – Virtual Meeting

WebEx Event Registration: <https://bit.ly/2ZwIVoK>

| June 23, 2020 | |
|-------------------|---|
| all times are EDT | |
| 10:30 | Welcome and TVA Update RERC Chair Jennifer Mundt and Designated Federal Officer Joe Hoagland (DFO) Safety Moment, Meeting Protocols , Jo Anne Lavender, Facilitator |
| 10:52 | TVA Valley Partner Update Dan Pratt, Vice President, Customer Delivery |
| 11:00 | Energy System Update Tim Sorrell, Senior Manager, Enterprise Forecasting Jane Elliott, Senior Manager, Resource Strategy RERC Q&A |
| 12:00 | Break (60 minutes) |
| 1:00 | Public Listening Session |
| 1:30 | RERC Perspectives |
| 2:00 | Recap and Next Steps, Chair, DFO and Facilitator |
| 2:15 | Adjourn |