TENNESSEE VALLEY AUTHORITY

Integrated Resource Plan and Environmental Impact Statement

AGENCY: Tennessee Valley Authority.

ACTION: Notice of intent.

SUMMARY: The Tennessee Valley Authority (TVA) is conducting a study of its energy resources. The Integrated Resource Plan (IRP) is a comprehensive study of how TVA will meet the demand for electricity in its service territory. TVA's most recent IRP was adopted by the TVA Board in 2019. As part of this new study, TVA will prepare a programmatic Environmental Impact Statement (EIS) to assess the impacts associated with the implementation of the next IRP. The EIS analyzes significant environmental impacts to the combined TVA power service area and the Tennessee River watershed (TVA region) that could result from the targeted power supply mix studied in the IRP. TVA will use the EIS process to elicit and prioritize the values and concerns of stakeholders; identify issues, trends, events, and tradeoffs affecting TVA's policies; formulate, evaluate, and compare alternative portfolios of energy resource options; provide opportunities for public review and comment; and ensure that TVA's evaluation of alternative energy resource strategies reflects a full range of stakeholder input. Public comment is invited concerning both the scope of the EIS and environmental issues that should be addressed as a part of this EIS.

DATES: Comments must be postmarked, emailed, or submitted online no later than July 3, 2023. To facilitate the scoping process, TVA will hold public scoping meetings; see https://www.tva.gov/IRP for more information on the meetings.

ADDRESSES: Written comments should be sent to Kelly Baxter, NEPA Specialist, 400 West Summit Hill Drive, WT 11B, Knoxville, TN 37902-1499. Comments may also be submitted online at https://www.tva.gov/IRP or by email at IRP@tva.gov.

FOR FURTHER INFORMATION CONTACT: Kelly Baxter, 865-632-2444, IRP@tva.gov.

SUPPLEMENTARY INFORMATION: This notice is provided in accordance with the Council on Environmental Quality's Regulations (40 CFR parts 1500 to 1508) and TVA's procedures for implementing National Environmental Policy Act (NEPA). TVA is an agency and instrumentality of the United States, established by an act of Congress in 1933, to foster the social and economic welfare of the people of the TVA region and to promote the proper use and conservation of the region's natural resources. One component of this mission is the generation, transmission, and sale of reliable and affordable electric energy.

TVA Power System

TVA operates the nation's largest public power system, providing electricity to about 10 million people in an 80,000-square mile area comprised of most of Tennessee and parts of Virginia, North Carolina, Georgia, Alabama, Mississippi, and Kentucky. It provides wholesale power to 153 independent local power companies and 58 directly served large industries and federal facilities. The TVA Act requires the TVA power system to be self-supporting and operated on a nonprofit basis and directs TVA to sell power at rates as low as are feasible.

Dependable generating capability on the TVA power system is approximately 38,000 megawatts. TVA generates most of the power it distributes with three nuclear plants, five coal-fired plants, nine simple-cycle combustion turbine plants, eight combined-cycle combustion turbine plants, 29 hydroelectric dams, a pumped-storage facility, a diesel-fired facility, and 13 solar photovoltaic facilities. A portion of delivered power is provided through power purchase agreements, including 15 renewable energy agreements. In 2022, 39 percent of TVA's power supply was from nuclear; 22 percent from natural gas; 13 percent from coal; eight percent from hydroelectric; 13 percent from

non-renewable purchases; and five percent from renewable power purchase agreements. TVA transmits electricity from these facilities over 16,000 circuit miles of transmission lines. Like other utility systems, TVA has power interchange agreements with utilities surrounding its region and purchases and sells power on an economic basis almost daily.

Resource Planning

TVA develops an Integrated Resource Plan to identify the most effective energy resource strategies that will meet TVA's mission and serve the people of the region. In this IRP, TVA intends to address strategies through 2050. Consistent with Section 113 of the Energy Policy Act of 1992, TVA employs a least-cost system planning process in developing its IRPs. This process takes into account multiple factors, including: the demand for electricity, energy resource diversity, energy conservation and efficiency, renewable energy resources, flexibility, dispatchability, reliability, resiliency, costs, risks, environmental impacts, and the unique attributes of different energy resources.

Proposed Issues To Be Addressed

Based on discussions with both internal and external stakeholders, TVA anticipates that the scope of the IRP EIS will include the cost and reliability of power, carbon reduction efforts, the availability and use of renewable and distributed energy resources, the effectiveness and implementation of demand side management options, the effect of energy efficiency programs, and the relationship of the economy to all of these options. The IRP EIS will address the effects of power production on the environment, including climate change, the effects of climate change on the TVA region, and the waste and byproducts of TVA's power operations.

Because of its nature as a planning document, the IRP will not identify specific locations for new resource options. Site-specific environmental effects of new resource options will be addressed in later site-specific assessments tiered off this programmatic EIS. Therefore, in this programmatic environmental impact statement, TVA anticipates that

the environmental effects examined will primarily be those at a regional level with some extending to a national or global level. Preliminary issues identified by TVA that will be reviewed in this analysis include:

- emissions of greenhouse gases,
- fuel consumption,
- air quality,
- water quality and quantity,
- waste generation and disposal,
- land use,
- ecological,
- cultural resources, and
- socioeconomic impacts and environmental justice.

TVA invites suggestions or comments concerning the list of issues which should be addressed, including suggestions for how TVA can effectively reach and receive comments from environmental justice communities during the NEPA process. TVA also invites specific comments on the questions that will begin to be answered by this IRP:

- How do you think the demand for energy will change between now and 2050 in the TVA region?
- Should the diversity of the current power generation mix (e.g., nuclear, coal, natural gas, hydroelectric, renewable resources) change? If so, how?
- How should distributed energy resources be considered in TVA planning?
- How should energy efficiency and demand response be considered in planning for future energy needs and how can TVA directly affect electricity usage by consumers?

- And how will the resource decisions discussed above affect the reliability, dispatchability (ability to turn on or off energy resources), and cost of electricity? Are there other factors of risk to be considered?

Analytical Approach

TVA employs a scenario planning approach when developing an IRP. Scenario planning provides an understanding of how the results of near-term and future decisions would change under different conditions over the planning horizon. The major steps in this approach include identifying the future need for power, developing scenarios (i.e., alternate plausible futures outside of TVA's control with different economic and regulatory conditions) and strategies (i.e., alternate business approaches within TVA's control), determining potential supply-side and demand-side energy resource options, developing portfolios associated with the strategies, and ranking strategies and portfolios. The 2019 IRP, developed with extensive public involvement, evaluated five alternative energy resource strategies that differed in the amount of purchased power, energy efficiency and demand response efforts, renewable energy resources, natural gas, and nuclear generating capacity additions, and coal-fired generation. The alternative strategies were analyzed in the context of six different scenarios that described plausible future economic, financial, regulatory, and legislated conditions, as well as social trends and adoption of technological innovations. TVA then developed a preferred alternative, the Target Power Supply Mix, based on guideline ranges for key energy resources. In developing the Target Power Supply Mix, TVA conducted least-cost planning taking into account customer priorities of power cost and reliability, as well as other comments it received during the public comment periods regarding demand for electricity, energy resource diversity, energy conservation and efficiency, renewable energy resources, flexibility, dispatchability, reliability, environmental impacts, and risks. The Target Power Supply Mix established ranges, in MW, for coal plant retirements and additions of

nuclear, hydroelectric, demand response, energy efficiency, solar, wind, and natural gas capacity. TVA anticipates using an analytical approach similar to that of the 2019 IRP/EIS described above. The number of alternative energy resource strategies and scenarios to be evaluated may differ from the 2019 IRP/EIS and will be determined after the completion of scoping.

Scoping Process

Scoping, which is integral to the process for implementing NEPA, provides an early and open process to ensure that (1) issues are identified early and properly studied; (2) issues of little significance do not consume substantial time and effort; (3) the draft EIS is thorough and balanced; and (4) delays caused by an inadequate EIS are avoided.

With the help of the public, TVA will identify the most effective energy resource strategy that will meet TVA's mission and serve the people of the region between now and 2050. To ensure that the full range of issues and a comprehensive portfolio of energy resources are addressed, TVA invites members of the public as well as Federal, state, and local agencies and Indian tribes to comment on the scope of the IRP EIS, including potential alternative energy resource strategies. In addition, TVA invites the public to identify information and analyses relevant to the IRP EIS. As part of the IRP process and in addition to other public engagement opportunities, TVA is assembling representatives from key stakeholders to participate in an IRP Working Group that will discuss tradeoffs associated with different resource options and assist TVA in developing an optimal energy resource strategy.

Comments on the scope of this IRP EIS should be submitted no later than the date given under the DATES section of this notice. Written requests by agencies or Indian tribes to participate as a cooperating agency or consulting party must also be received by this date. Any comments received, including names and addresses, will become part of the administrative record and will be available for public inspection.

After consideration of the comments received during this scoping period, TVA will summarize public and agency comments, identify the issues and alternatives to be addressed in the EIS, and identify the schedule for completing the EIS process. Following analysis of the issues, TVA will prepare a draft EIS for public review and comment. Notice of availability of the draft EIS will be published by the U.S. Environmental Protection Agency in the *Federal Register*. TVA will solicit written comments on the draft IRP and EIS and also hold public meetings for this purpose. TVA expects to release the draft IRP and EIS in early 2024. TVA anticipates issuing the final IRP and EIS in 2024.

Authority: 40 CFR 1501.9.

Susan Jacks,

General Manager,

Environmental Resource Compliance.

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