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# 2025 IRP Working Group

Virtual Meeting 8: September 12, 2024

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# Agenda – September 12, 2024

Draft IRP Release Schedule

Draft IRP Document Structure

Draft IRP Results Summary

Public Engagement and Next Steps

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# Draft IRP Release Schedule

Hunter Reed; IRP Project Manager

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# Key Integrated Resource Plan (IRP) Milestones

The IRP study approach is intended to enable stakeholder involvement and ensure transparency



Spring 2023 – Published Notice of Intent (NOI) and initiated public scoping

Summer 2023 – IRP Working Group commenced

Fall 2023 – Public scoping report published

2023/2024 – Modeling and environmental study

Fall 2024 – Publish Draft IRP and EIS, public comment period begins

Respond to Draft comments and develop Final documents

Publication and TVA Board adoption of Final IRP and EIS

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# Draft IRP Document Structure

Hunter Reed; IRP Project Manager

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# 2025 Draft IRP and EIS

## Volume I – Draft 2025 IRP

- Executive Summary
- Five Chapters
- 11 Appendices

## Volume II – Draft 2025 IRP Environmental Impact Statement

- Six Chapters
- Seven Appendices

TVA plans to publish the 2025 Draft IRP and EIS on the TVA website Monday, September 23, 2024, with a public comment period running through November 26, 2024.

# Main Objectives for Telling the 2025 IRP Story



# Draft 2025 IRP Outline

## 2019 IRP Outline

Executive Summary

Chapter 1 – Introduction  
Chapter 2 – IRP Process  
Chapter 3 – Public Participation  
Chapter 4 – Need for Power Analysis  
Chapter 5 – Energy Resource Options  
Chapter 6 – Resource Plan Development and Analysis

Chapter 7 – Study Results  
Chapter 8 – Strategy Assessments and Next Steps

Chapter 9 – Recommendations  
Chapter 10 – Implementation

Appendices

## Draft 2025 IRP Outline

Executive Summary

Chapter 1 – Planning the Energy System of the Future (NEW)

Chapter 2 – Stakeholder Engagement

Chapter 3 – Process and Methodology

Chapter 4 – Portfolio Results and Assessments

Chapter 5 – Next Steps (Recommendations and Implementation for Final IRP)

Appendices



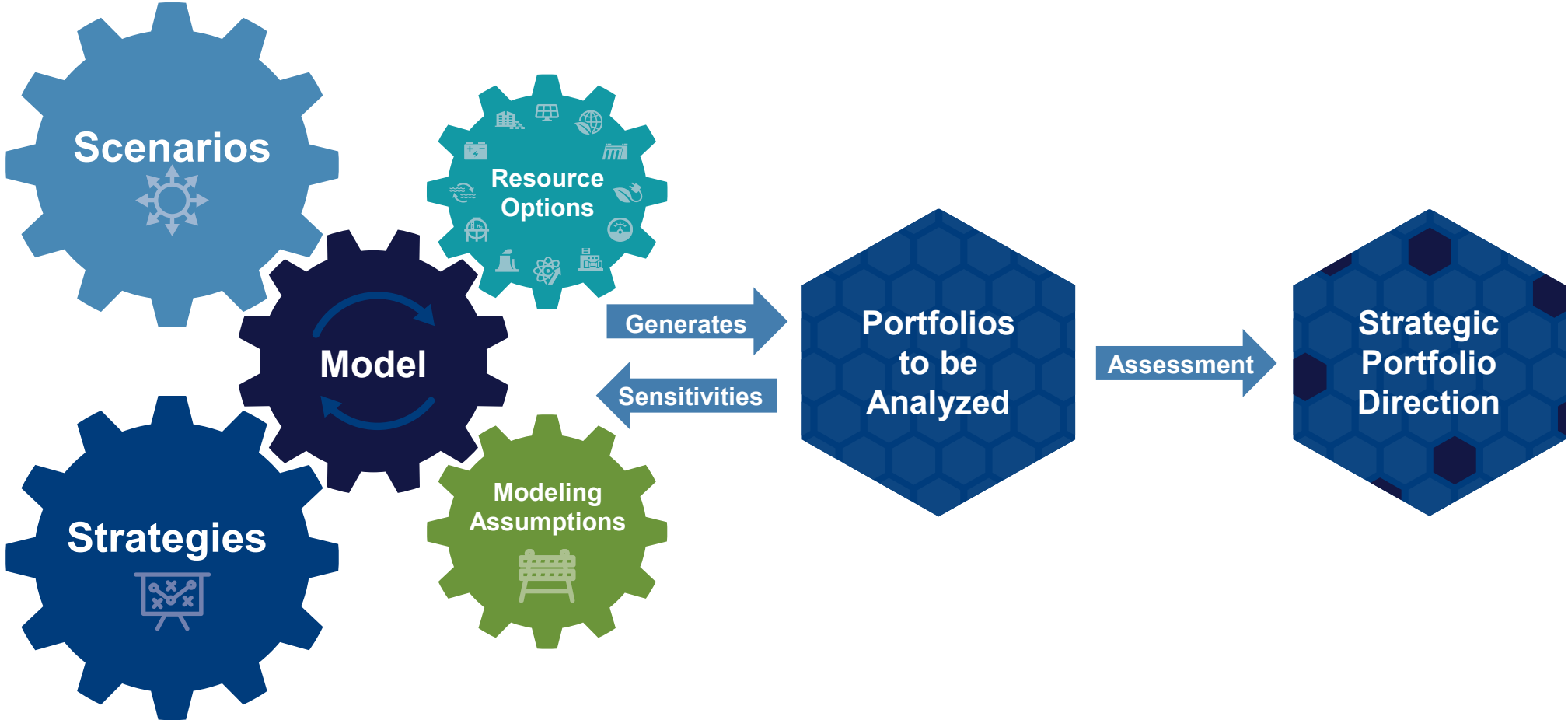


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# Draft IRP Results Summary

Hunter Reed; IRP Project Manager

# How the Integrated Resource Planning Process Works



Stakeholder feedback is a key component in the development of all model inputs.

# IRP Scenarios and Strategies

## SCENARIOS



### Reference (without Greenhouse Gas Rule)

Represents TVA's current forecast that reflects moderate population, employment, and industrial growth, weather-normal trends, growing electric vehicle use, and increasing efficiencies



### Higher Growth Economy

Reflects a technology-driven increase in U.S. productivity growth that stimulates the national and regional economies, resulting in substantially higher demand for electricity



### Stagnant Economy

Reflects rising debt and inflation that stifle consumer demand and business investment, resulting in weaker than expected economic growth and essentially flat electricity demand



### Net-zero Regulation

Reflects the impact of the May 2023 draft Greenhouse Gas Rule that targets significant reductions in electric utility CO2 emissions beginning in 2030 and potential future utility regulations striving for net-zero by 2050



### Net-zero Regulation Plus Growth

Reflects the impact of the May 2023 draft Greenhouse Gas Rule and potential future utility regulations, along with substantial advancements in clean energy technologies, that spur economic growth and extensive electrification



### Reference (with Greenhouse Gas Rule)

Reflects TVA's current forecast and incorporates the impact of the Greenhouse Gas Rule finalized in May 2024 that targets significant reductions in electric utility CO2 emissions beginning in 2030

## STRATEGIES



### Baseline Utility Planning

Represents TVA's current outlook based on least-cost planning, incorporating existing programs and a planning reserve margin target. This reserve margin target applies in all strategies



### Carbon-free Innovation Focus

Emphasizes and promotes emerging, firm and dispatchable carbon-free technologies through innovation, continued research and development, and strategic partnerships



### Carbon-free Commercial Ready Focus

Emphasizes proven carbon-free technologies like wind, solar, and storage, at both utility-scale and through customer partnerships, along with strategic transmission investment



### Distributed and Demand-side Focus

Emphasizes existing and potentially expanded customer partnerships and programmatic solutions to reduce reliance on central station generation and promote virtual power plants



### Resiliency Focus

Emphasizes smaller units and the promotion of storage, along with strategic transmission investment, to drive wider geographic resource distribution and additional resiliency across the system

# IRP Resource Options



- Advanced pressurized water reactor
- Light water small modular reactor
- Gen IV small modular reactor



- Hydro uprates



- Supercritical pulverized coal
- Supercritical pulverized coal with carbon capture



- Combined cycle
- Combined cycle with carbon capture
- Combustion turbine
- Aeroderivative
- Reciprocating engine
- Hydrogen blending
- Combined heat and power



- Utility scale solar
- Distributed solar
- Midwest wind
- Southeast high-hub wind
- High Voltage Direct Current wind



- Pumped storage
- Lithium-ion battery
- Advanced chemistry battery
- Distributed storage



- Energy efficiency
- Demand response

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# Public Engagement and Next Steps

Amy Edge; Director, Customer & Community Engagement

# 2025 IRP Public Open Houses



## Virtual Meetings

Oct  
30

After Business Hours  
6:00pmCST

Nov  
22

During Lunch Hour  
11:00amCST

Unable to make it to a virtual or in-person meeting?

- Visit TVA's IRP website at: [www.tva.com/irp](http://www.tva.com/irp) for registration information.
- Taped webinars will be available as well.



## In-Person Meetings at 6 PM Local Time

Oct  
21

Murphy, NC  
*Tri-State Community College*

Oct  
22

Bristol, VA  
*Virginia High School*

Oct  
28

Antioch, TN  
*Southeast Community Center*

Nov  
4

Oak Ridge, TN  
*East Tennessee Economic Council*

Nov  
7

Hopkinsville, KY  
*The Bruce Center*

Nov  
12

Huntsville, AL  
*Calhoun Community College*

Nov  
13

Starkville, MS  
*The Gathering Starkville*

Nov  
14

Memphis, TN  
*Museum of Science & History*

Nov  
20

Rossville, GA  
*Rossville High School*

Nov  
21

Chattanooga, TN  
*Kingdom Center*

Public comment period runs from September 23 through November 26, 2024