# Regional Engagement Committee Meeting

December 12, 2024

# Agenda

» Updates and announcements

» Scenario Development sub-team update

» REC Engagement, Post Scenario Development

» Timeline review/recap

» Public comment

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# Updates Since 11/22 Public Webinar

» Webinar reported solid progress and engagement on scenario development.

» We continue to seek tribal engagement representatives, as well as utility interest from the desert and mountain regions.

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# Scenario Development: Sub-team Update

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# Focus of Scenario Planning Effort

» The scenario planning sub-team has been tasked with facilitating the development of **two planning scenarios** in the 20-year horizon

  » These futures represent alternatives to the "reference" scenario

  » Scenarios should consider variations in things like technology advancement, load growth, policy changes, market dynamics, etc.

  » Scenarios should reflect a comprehensive understanding of regional priorities, potential future developments, and capture various viewpoints

  » <u>Scenario results will be used to assess transmission needs across a range of plausible future outcomes</u>
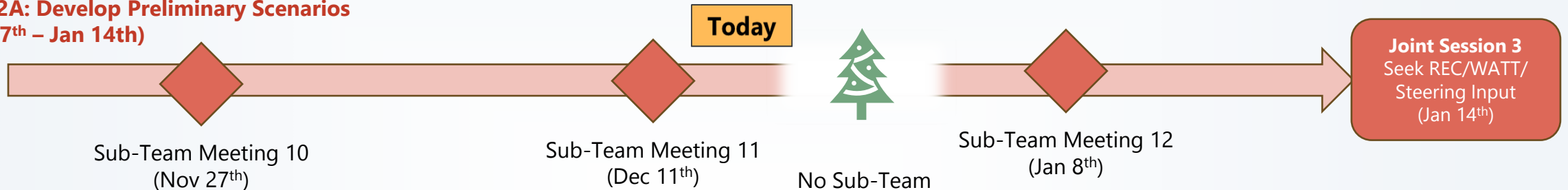
# Scenario Planning Update

» **Sub-team has completed development of drivers**

» **Sub-team is beginning the development of scenarios**

  » Sub-team members have each been asked to develop 2-3 scenario ideas over the holidays

    » Brainstorming templates/aids were provided to the sub-team

  » Sub-team will develop & refine scenarios through March 2025

  » There will be more opportunities for input and feedback

# Scenario Planning Roadmap

**Phase 2A: Develop Preliminary Scenarios
(Nov 27th – Jan 14th)**

Today

Sub-Team Meeting 10
(Nov 27th)

Sub-Team Meeting 11
(Dec 11th)

No Sub-Team
Meeting Dec 25th

Sub-Team Meeting 12
(Jan 8th)

**Joint Session 3**
Seek REC/WATT/
Steering Input
(Jan 14th)

**Phase 2B: Scenarios Feedback & Iteration
(Jan 22nd – Feb 14th)**

Sub-Team Meeting 13
(Jan 22nd)

Sub-Team Meeting 14
(Feb 5th)

**CREPC-TC Session**
to get Input on
Drivers
(Feb 14th)
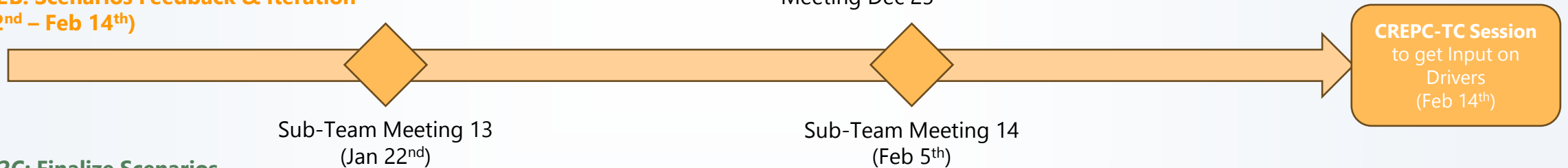
**Phase 2C: Finalize Scenarios
(Feb 19th– Mar 19th)**

Sub-Team Meeting 15
(Feb 19th)

Public Workshop on Scenarios
(Feb 28th)

Sub-Team Meeting 16
(Mar 5th)

**Steering Approves
Scenarios**
(TBD Mar 2025)

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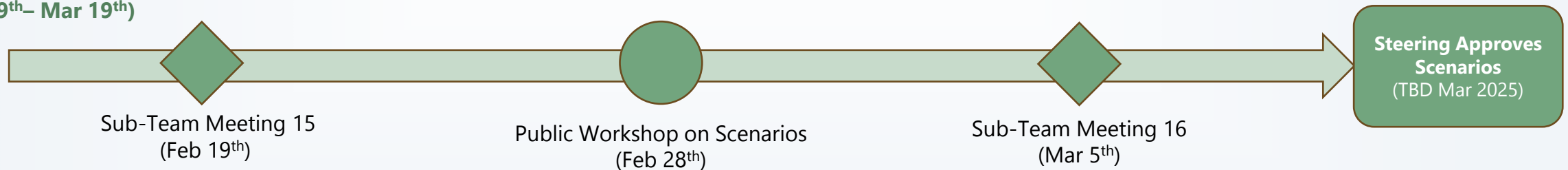
# Scenario Brainstorming

» **Scenario templates provided to sub-team on 12/9**

» **Sub-team ask:** Please develop scenario narratives for 2-3 scenarios and upload them to the WestTEC Sharepoint (Scenario Templates (Completed) folder **by Monday, January 6th**

» **Sources for scenario ideas:**

» Previous sub-team meeting materials

» Survey results

» CREPC-TC feedback questions

» Concerns/interests from REC/WATT/public

**Which factors do you believe are likely to have the most influence on load growth in the next 20 years?**

Which factors do you believe are likely to have the most influence on resources in the next 20 years?

Low cost renewables
The price for batteries and wind technologies
Local policies    climate policy    carbon
breakdown
Lack of transmission    Grid access
Storage capacity    technology    Politics/policy
Siting    makers    tipping    fuel costs
natural    Transmission
Storage    points
systems    Permitting    Federal policy
resource adequacy
Politics    busy state policy    Policy    climate Public policy
Supply chain
Technological change
levelized cost    Land use
Oil and Gas lobbyists    Climate Goals    advanced geothermal
Transmission access    Technology advancements
Markets

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# How would you rank the relative importance of each of these drivers?

1. Regulatory & Policy

   **3.66**

2. Economy, Industry, & Supply Chains

   **3.31**

3. Technology Costs & Advancements

   **3.03**

4. Climate & Environment

   **2.90**

5. Consumer Preferences

   **1.28**
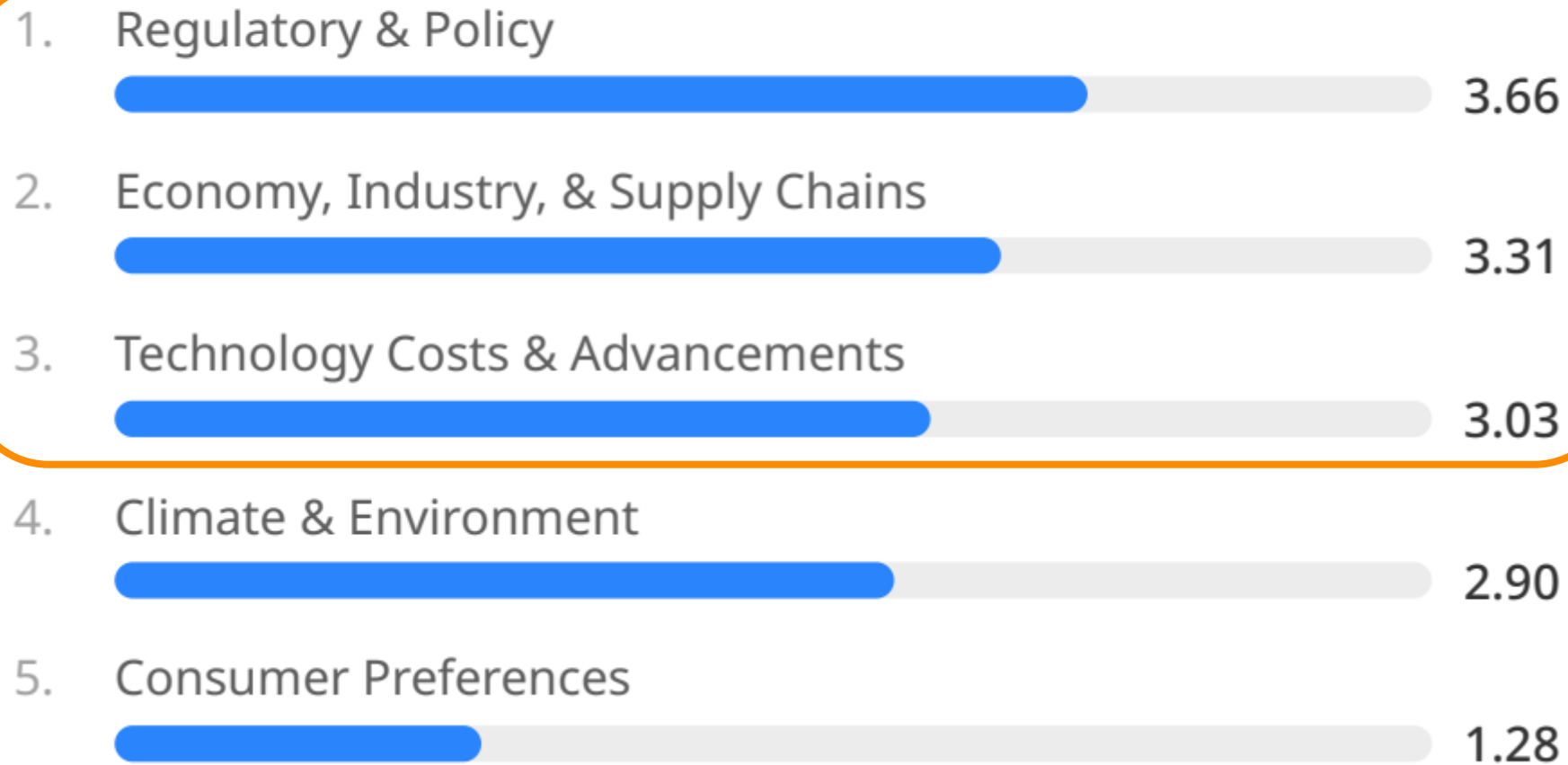
# Reference Case Scenario Narrative



**Drivers** (center)

**Economy, Industry, & Supply Chains**
- Load growth at ~2% CAGR 2024 – 2035 (possibly higher beyond 2035 due to data centers)
- Favorable financing conditions
- Minimal materials & supply chain disruptions

**Technology Costs & Advancements**
- Technology costs consistent with NREL ATB moderate (utility PV and natural gas lowest capex; cost decreases over time)
- No "black swan" technology advancements
- Assume no premature cancellation of IRA tax credits

**Policy & Regulatory**
- State RPS and CES goals met
- EV mandates met
- State electrification policies met
- Resource adequacy targets consistent with current IRPs

**Consumer Preferences**
- Data center developers meet clean energy preferences
- DG and demand response adoption consistent with NREL Standard Scenario moderate projections
- Moderate EV adoption above mandates

**Environment & Climate**
- Hydro availability consistent with historical
- Average weather year assumed for loads

# Alternative Scenario Plots



**Winners & Losers**
- Zero-sum-game
- Sides compromise in a balance of power



**Challenge & Response**
- New Problems Arise
- Learn to Adapt; Come Out Different



**Evolution**
- Slow Change in One Direction
- Competitive Dynamics

Source: Schwartz, P., 1997. *Art of the long view: planning for the future in an uncertain world*. John Wiley & Sons.

# Templates for Scenario Development

# Scenario Overview: <Scenario 1>

Use this template to think through the most important points of your scenario. Include a short scenario name and photo that represents the essence of your scenario.
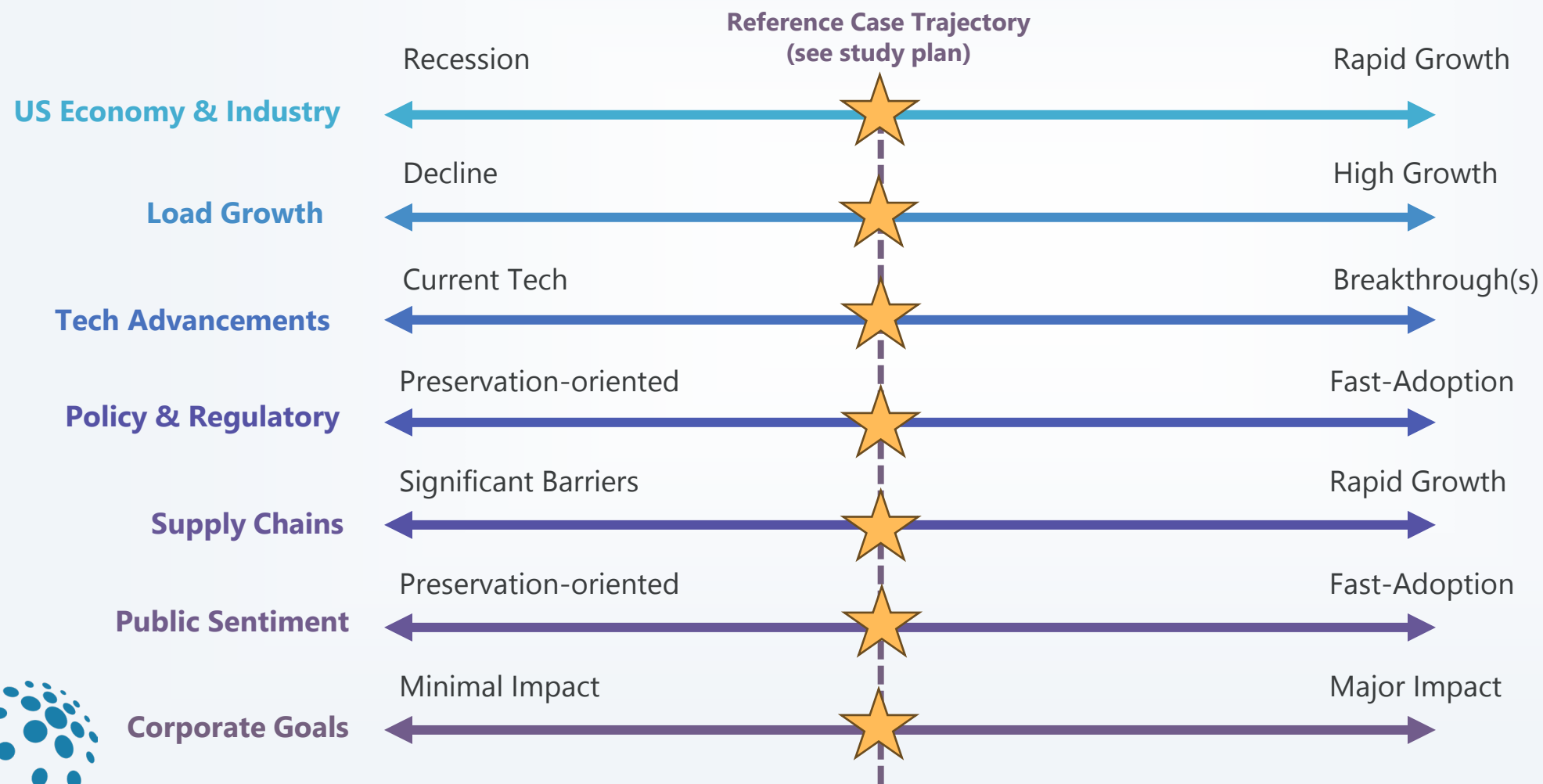
» Scenario Name: <Scenario Name>

  » Scenario Narrative Point 1

  » Scenario Narrative Point 2

  » Scenario Narrative Point 3

Insert an image that visually represents your scenario

# Range of Outcomes: <Scenario 1>

Use this template to show ranges of outcomes, relative to the reference case, for scenario drivers specific to your scenario. Please change axis names or high/low labels and drag/drop stars accordingly.
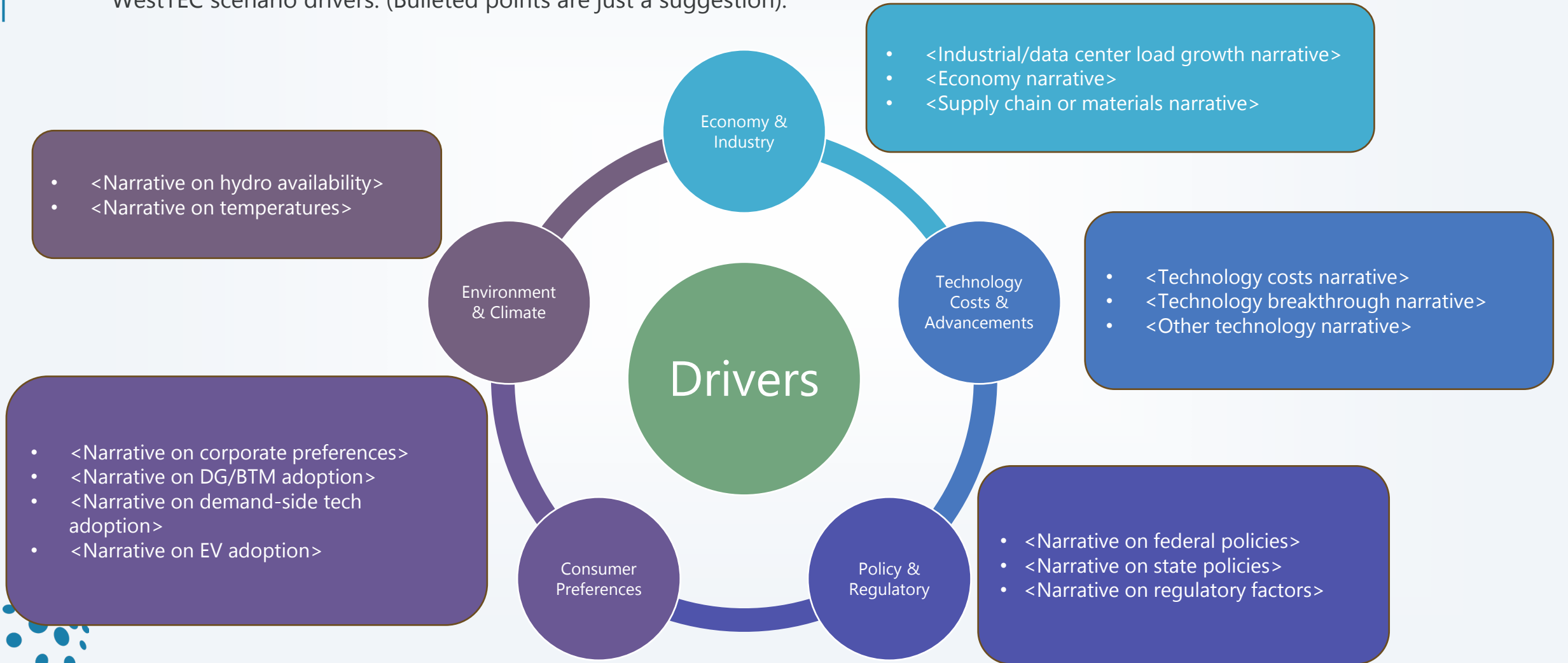
**Reference Case Trajectory**
**(see study plan)**

| | | |
|---|---|---|
| **US Economy & Industry** | Recession | Rapid Growth |
| **Load Growth** | Decline | High Growth |
| **Tech Advancements** | Current Tech | Breakthrough(s) |
| **Policy & Regulatory** | Preservation-oriented | Fast-Adoption |
| **Supply Chains** | Significant Barriers | Rapid Growth |
| **Public Sentiment** | Preservation-oriented | Fast-Adoption |
| **Corporate Goals** | Minimal Impact | Major Impact |

Notes:
- A
- B
- C

# Driver-Based Narrative: <Scenario 1>
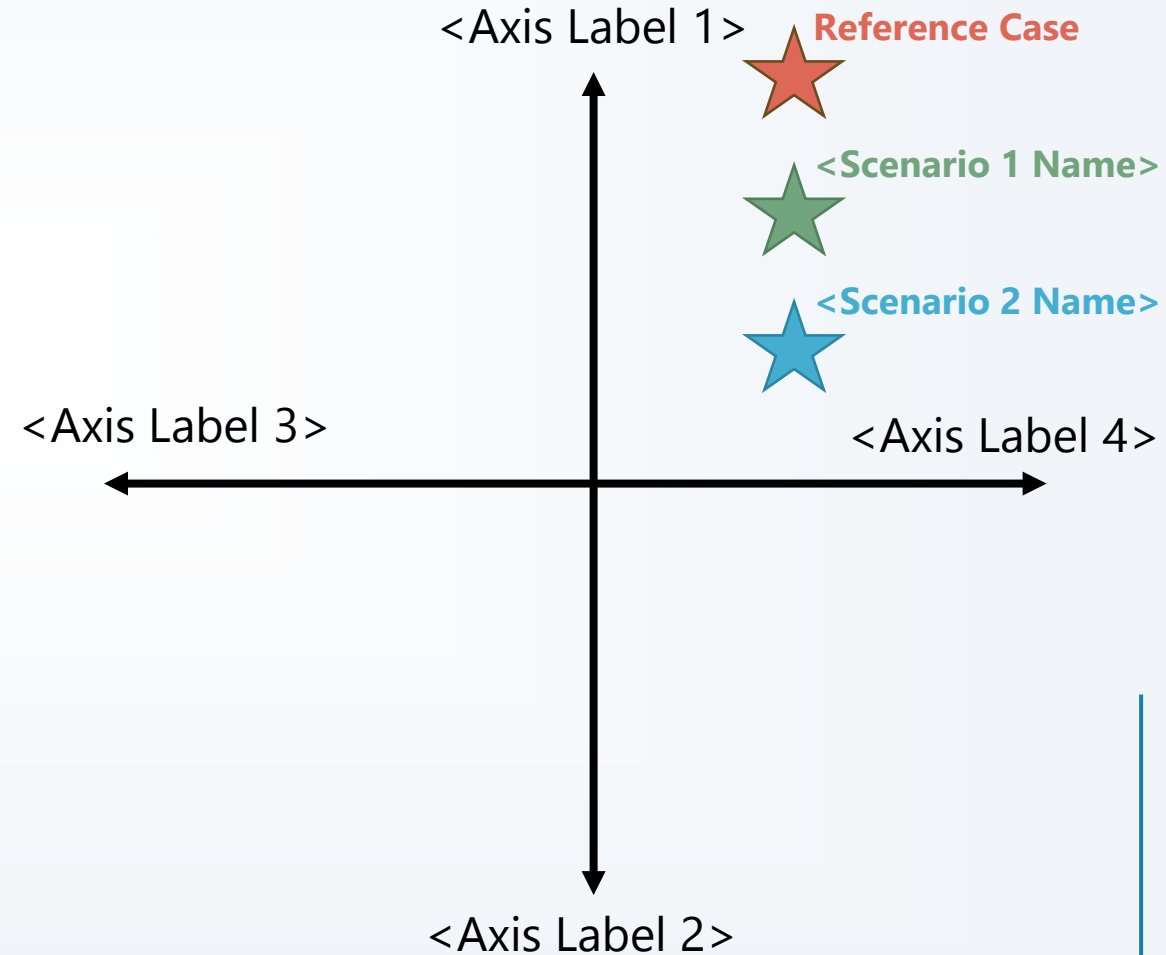
Use this template to think through key narrative points for each of the WestTEC scenario drivers. (Bulleted points are just a suggestion).

**Economy & Industry**
- <Industrial/data center load growth narrative>
- <Economy narrative>
- <Supply chain or materials narrative>

**Environment & Climate**
- <Narrative on hydro availability>
- <Narrative on temperatures>

**Technology Costs & Advancements**
- <Technology costs narrative>
- <Technology breakthrough narrative>
- <Other technology narrative>

**Drivers**

**Consumer Preferences**
- <Narrative on corporate preferences>
- <Narrative on DG/BTM adoption>
- <Narrative on demand-side tech adoption>
- <Narrative on EV adoption>

**Policy & Regulatory**
- <Narrative on federal policies>
- <Narrative on state policies>
- <Narrative on regulatory factors>

# Multi-Scenario Framework

Use this template to think through all 3 scenarios. Think of what two axes best represent the key differences between the scenarios and drag and drop the stars where appropriate.

» The two axes I chose to best represent my scenarios are…

 » Comparing scenarios along these two axes is important because…

» Together the three scenarios:

 » Show a wide range of outcomes in X and Y

 » Can be used to compare A and B

 » I expect Scenario X to have the more transmission than the reference case because …

 » I expect Scenario Y to have less transmission than the reference case because …

<Axis Label 1>

Reference Case

<Scenario 1 Name>

<Scenario 2 Name>

<Axis Label 3>

<Axis Label 4>

<Axis Label 2>

# REC Engagement, Post Scenario Development

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# Ongoing engagement

» What on-going engagement does the REC committee believe is beneficial?

# Initial 10-year Report Feedback

» What type of feedback is expected on the report?

» What is the mechanism for addressing feedback/coordinating between committees?

# Overall WestTEC Project Timeline

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# WestTEC Project Timeline

**NEAR-TERM PLANNING HORIZON EFFORTS**

**LONG-TERM PLANNING EFFORTS**

**PROJECT DISTRIBUTION & REGIONAL PARTNER ENGAGEMENT**

**QUARTERLY PUBLIC ENGAGEMENT**

| 2024 Q3 | 2024 Q4 | 2025 Q1 | 2025 Q2 | 2025 Q3 | 2025 Q4 | 2026 Q1 | 2026 Q2 | 2026 Q3 | 2026 Q4 | 2027 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|

**Oct 21:** CREPC-TC Meeting

**Nov 19:** All-Committee Meeting

**Nov 22:** Public Workshop

**Mar 2025:** Steering Approves Scenarios

**Feb:** Public Workshop

**Feb:** CREPC-TC Meeting

**Sept 2024:** Final Study Plan

**Aug 2025:** Initial 10-year Horizon Report Complete

**July 2026:** Planning Scenarios Complete

**Sept 2026:** Completion of 20-year Horizon Report and Final 10-year Horizon Report

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# Next Steps

» In March, we expect approval of the planning scenarios and completion of the 20-year resource plan. The 10-year horizon transmission assessment and report should be completed in August 2025.

» Please submit any comment on scenario feedback to GDS:

  » gillian.biedler@gdsassociates.com

  » rachel.risley@gdsassociates.com

  » kyra.green@gdsassociates.com

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# Public Comment

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