2025 marks ODOE's 50th year serving Oregon!

In 1975, the Oregon Legislature created the Oregon Department of Energy following the oil crisis of the early 1970s.

The statute creating the agency noted that continued growth and demand for non-renewable energy poses a serious and immediate – and future – problem. It also declared a goal that ODOE promote the efficient use of energy resources and develop permanent energy resources – a goal that continues today as ODOE works to develop a new state energy strategy and Oregon prepares for new electricity needs and load growth.

https://www.oregon.gov/energy/About-Us/Pages/50-years.aspx

OREGON DEPARTMENT OF ENERGY

Leading Oregon to a safe, equitable, clean, and sustainable future.

Our Mission

The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

What We Do

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
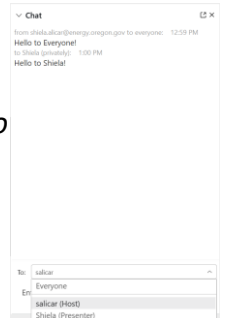- Energy Programs and Activities

3

USING WEBEX

Chat

You can chat to Everyone in the meeting.
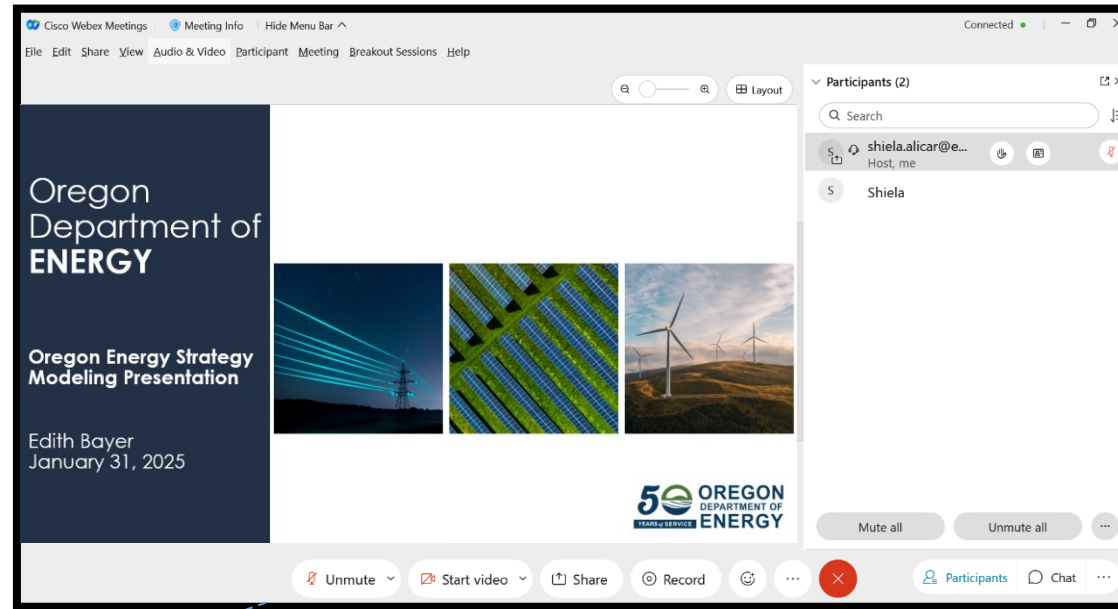
Audio Options

Speaker adjustment

You can send a private message to the Host or Presenter (or all Panelists when there is a Panel).

AGENDA

10:00 a.m.	Welcome, Agenda and Introductions	Ben Duncan, Kearns & West
10:15 a.m.	What is the Energy Strategy	Edith Bayer, ODOE
10:30 a.m.	Modeling Presentation	Jeremy Hargreaves, Evolved Energy
11:20 a.m.	Questions & Answers	Ben Duncan, Kearns & West
11:55 a.m.	Next Steps	Edith Bayer, ODOE
12:00 p.m.	Conclude Meeting	Ben Duncan, Kearns & West

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50 YEARS of SERVICE

EVENT EMERGENCY GUIDE

INFO   Fire Emergency

- If a fire alarm sounds or fire is visible, evacuate immediately using the nearest exit and avoid using elevators.
- Move to designated assembly points at least 300 feet away from the building.
- Only re-enter the building once cleared by emergency services.
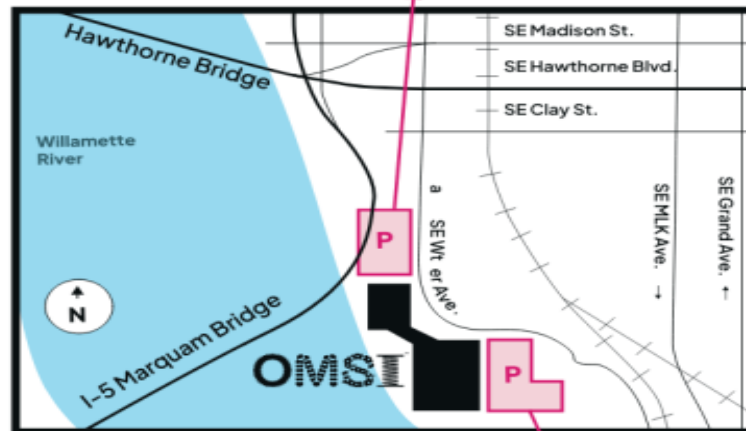
INFO   Earthquake

- If the ground begins to shake or structural damage is visible, drop, cover, and hold on under sturdy furniture or against an interior wall.
- Once the shaking stops, assess your surroundings and exit calmly if the building seems unsafe.

OMSI PARKING

Oregon Energy Strategy

ENERGY STRATEGY OBJECTIVE

Produce actionable recommendations on energy policies that will help the state build on the work happening today to achieve the state's energy and climate goals while maintaining affordable, reliable, and resilient energy systems.
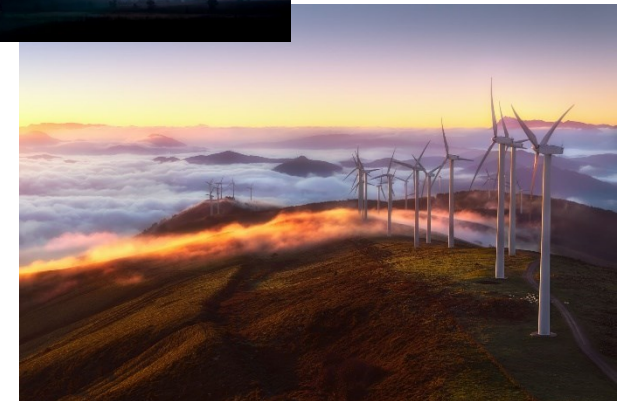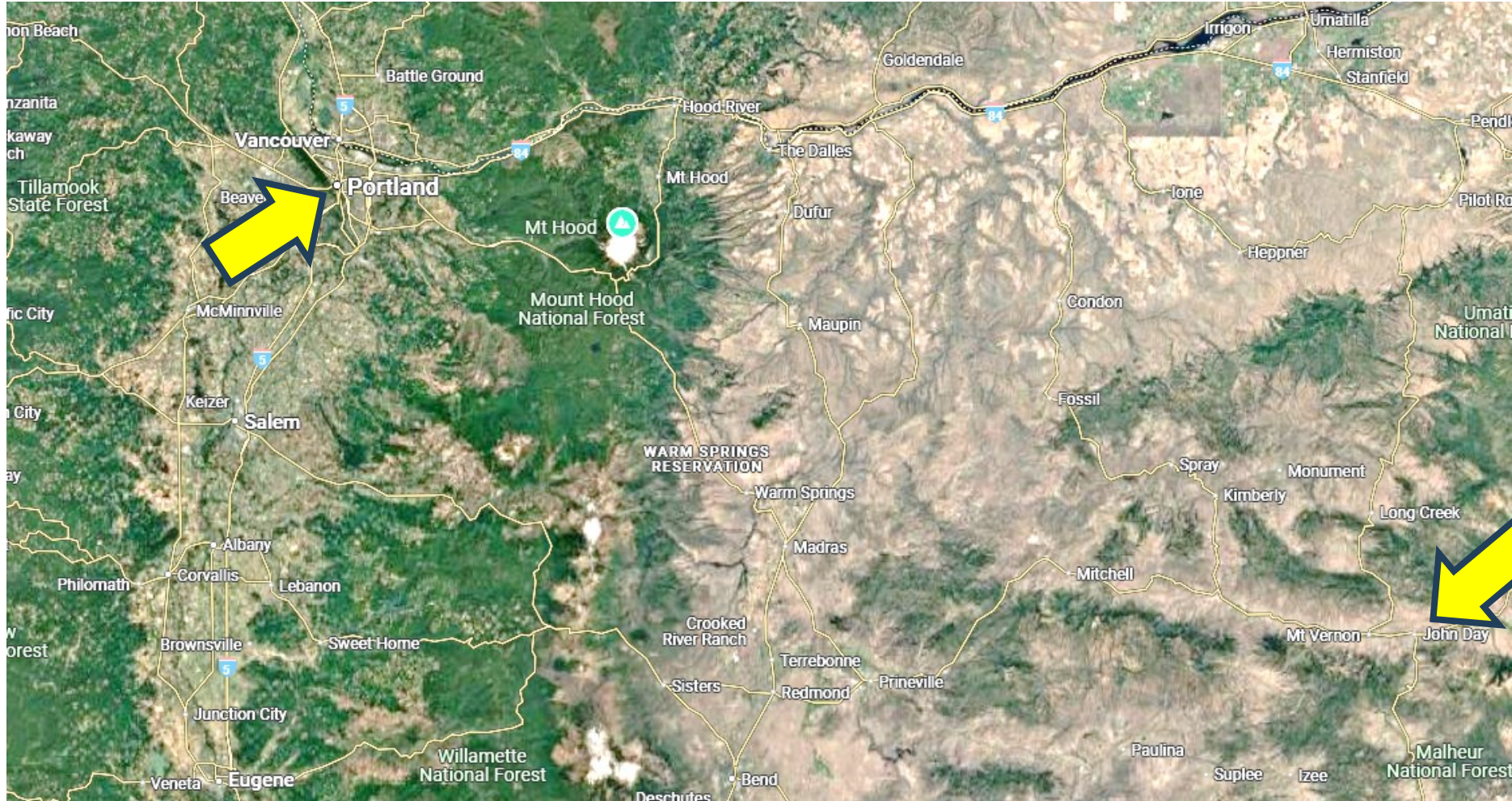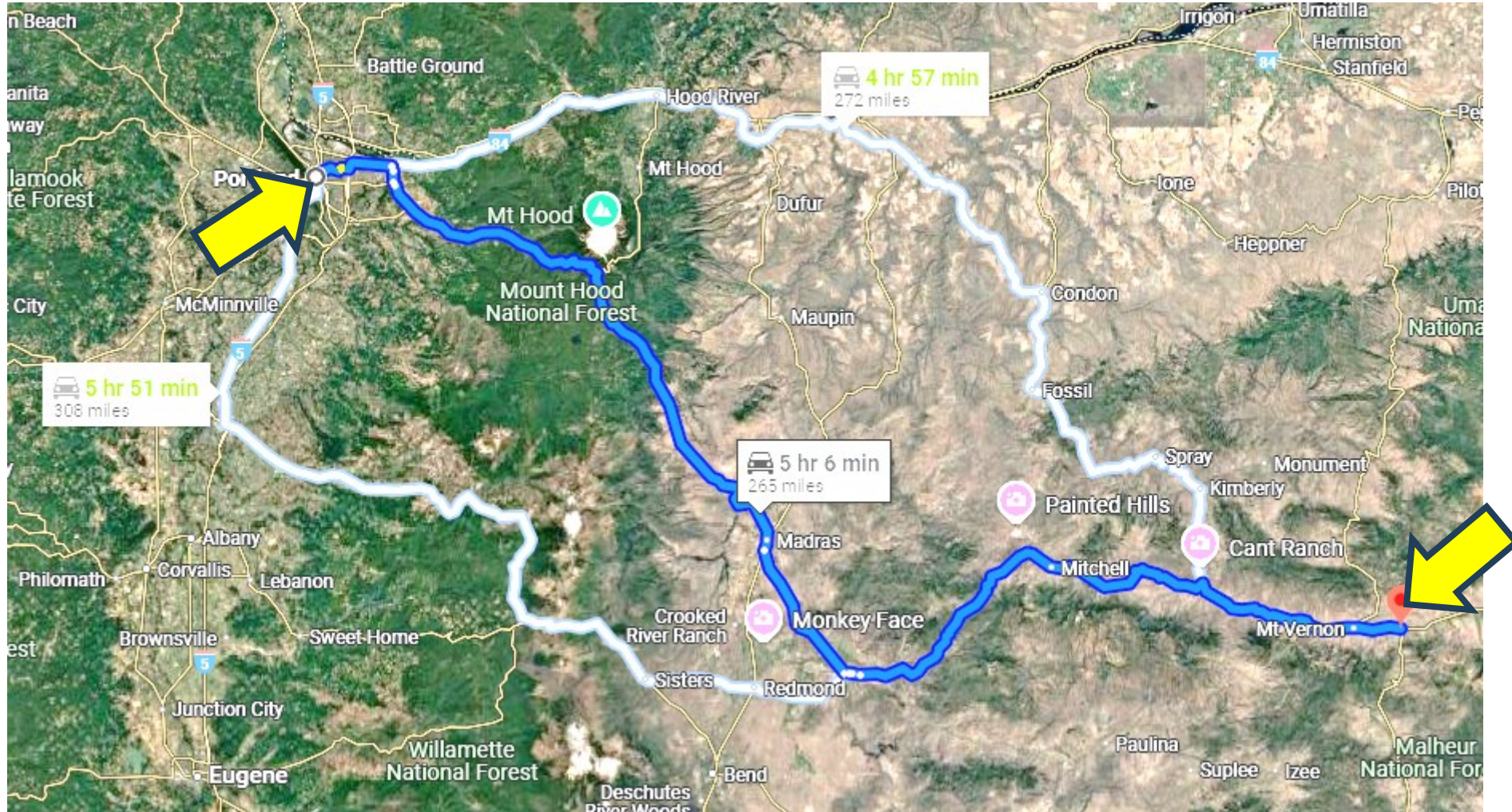
LEGISLATIVE GUIDANCE

Identify different pathways to achieve the state's energy policy objectives, and use this information to inform discussions on energy policies to achieve the goals.

PATHWAYS – AN ANALOGY

PATHWAYS – AN ANALOGY

PATHWAYS – AN ANALOGY
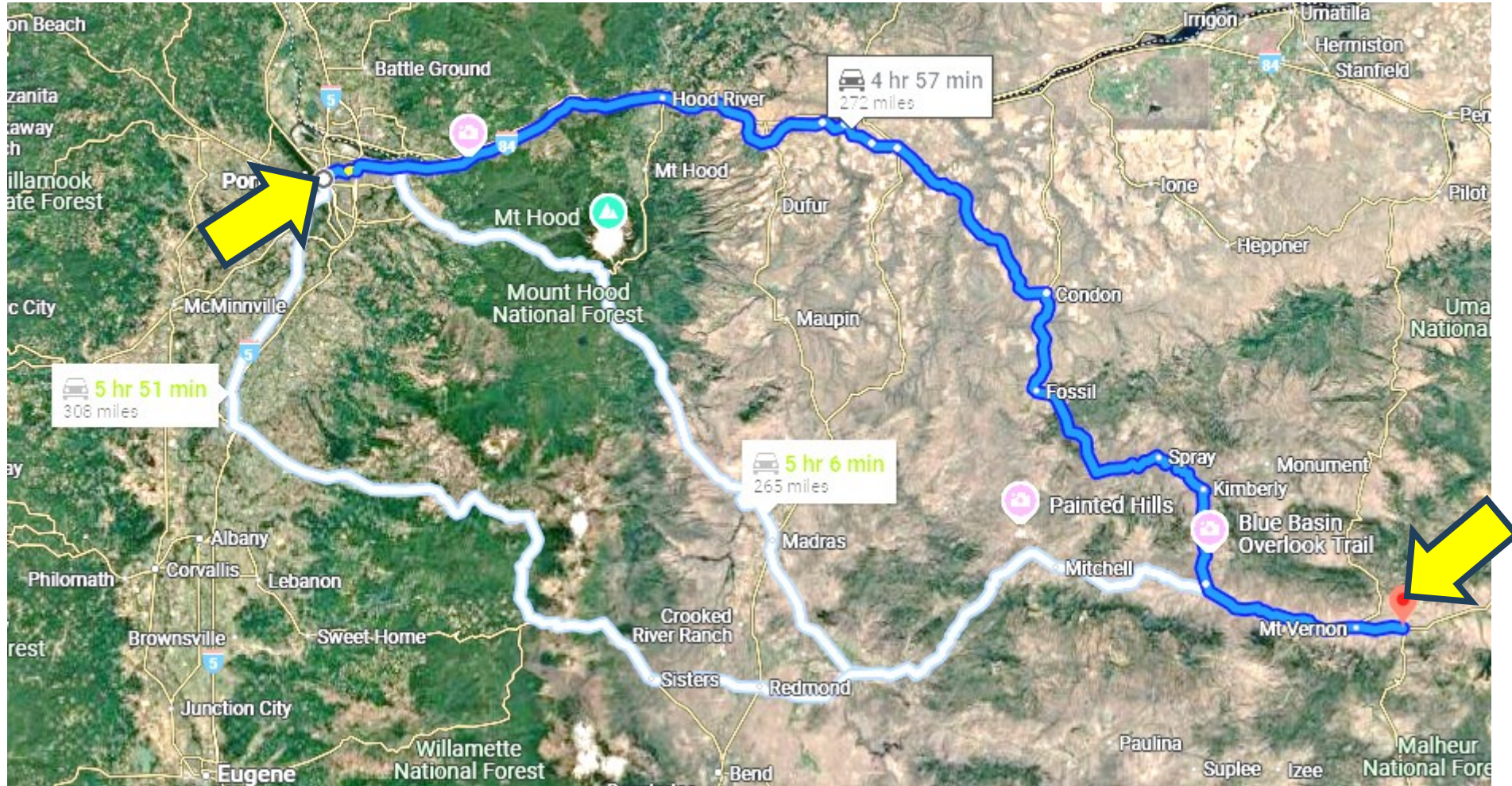
PATHWAYS – AN ANALOGY
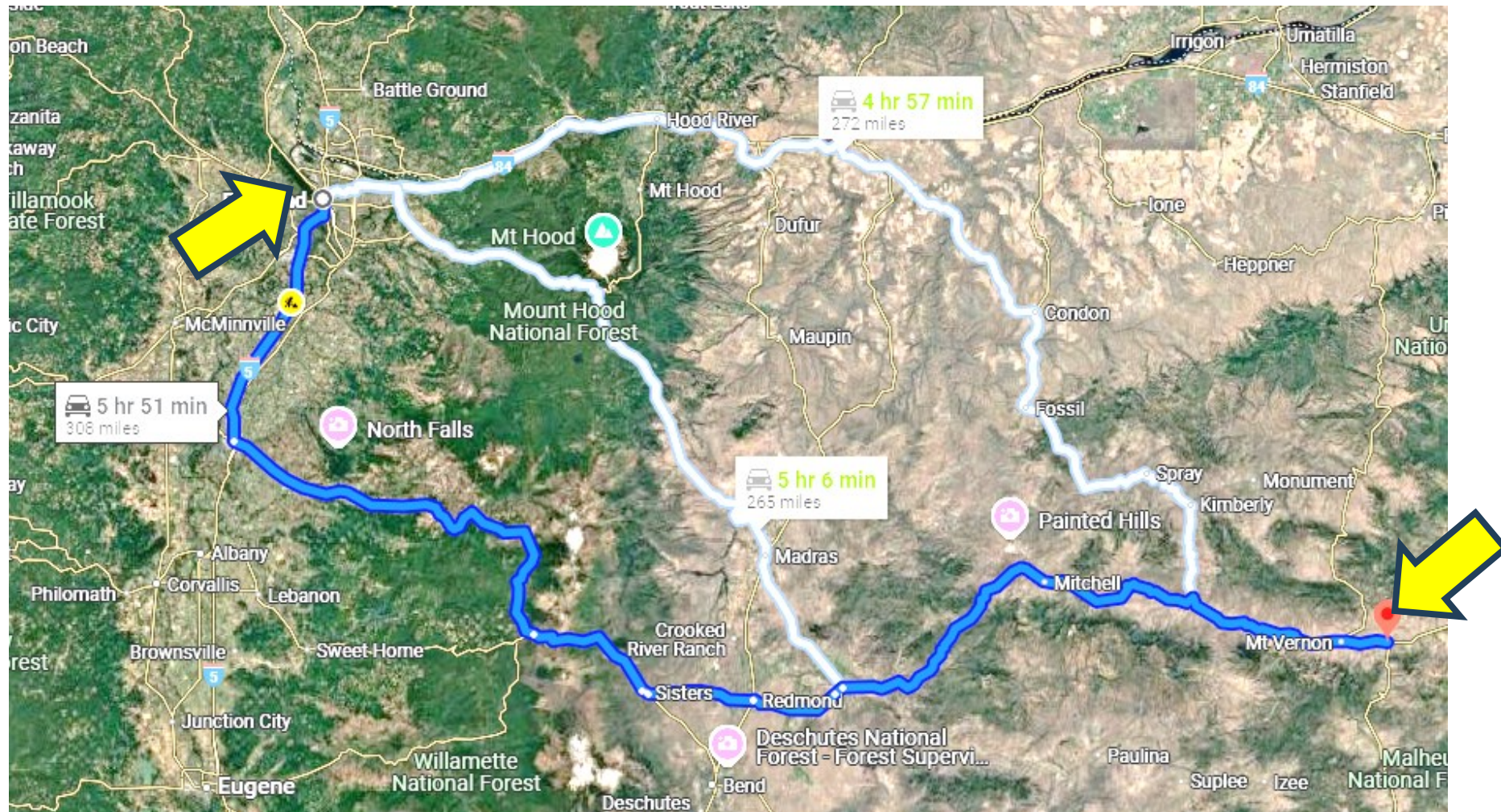
WHERE ARE WE STARTING FROM?

- How much energy do we consume?

- Who uses that energy and where?

- What are our existing systems for energy delivery?

- How much does it cost to produce and deliver that energy?

- How is energy bought and sold?

- What are our existing energy rules and regulations?

- What energy planning activities are happening?
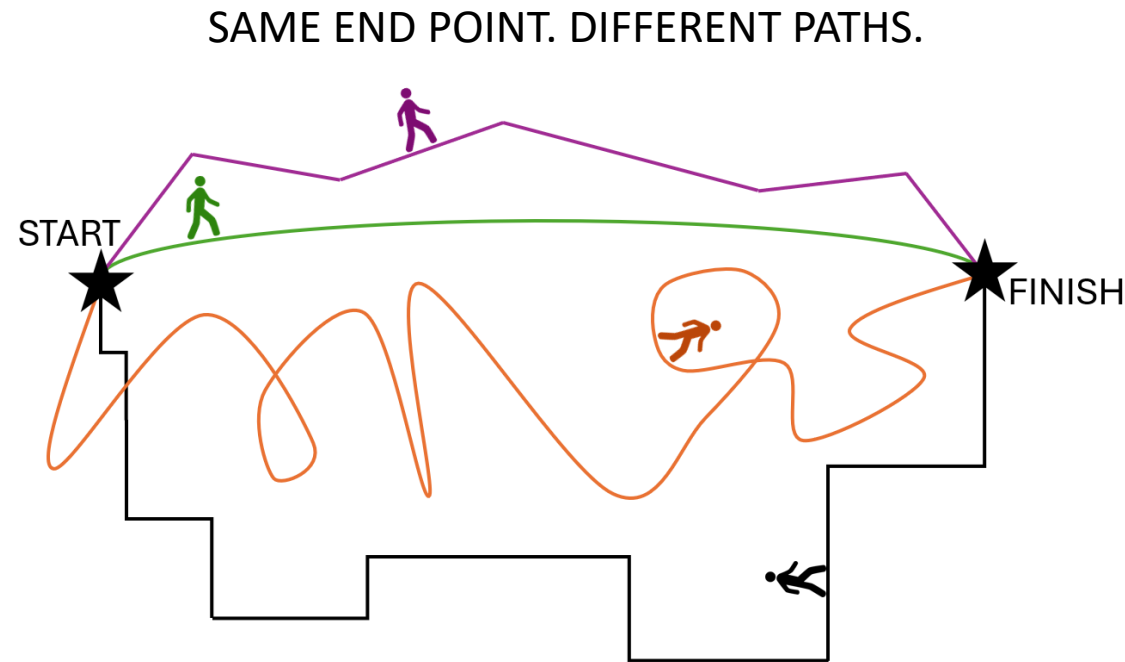
YOU ARE HERE

WHERE ARE WE GOING?

- Achieving Oregon's energy and climate goals
  - HB 2021 (clean electricity)
  - Climate Protection Program (cleaner fuels)
  - Executive Order 20-04 (greenhouse gas goals)
  - … and more
- Expected population and GDP growth
- Expected changes in technology

HOW DO WE GET THERE?

Starting Point

- How much energy do we consume?

- Who uses that energy and where?

- What are our existing systems for energy delivery?

- How much does it cost to produce and deliver energy?

- How is energy bought and sold?

- What are our existing energy rules and regulations?

- What's planned?

SAME END POINT. DIFFERENT PATHS.

START

FINISH

Destination

- HB 2021 Clean Electricity targets

- Climate Protection Program greenhouse gas emissions cap targets

- Executive Order 20-04 greenhouse gas goals

- Other policies and programs

- Population and GDP

- Changes in technology

MODELING THE ENERGY SYSTEM

- Economy-wide model: electricity, transportation fuels, direct use fuels

- View of interactions across these sectors

- Insights into tradeoffs between different pathways to inform recommendations

MODEL DESIGN

All scenarios start with existing energy-related policies.

All scenarios end with achieving Oregon's *energy* and *climate* goals.
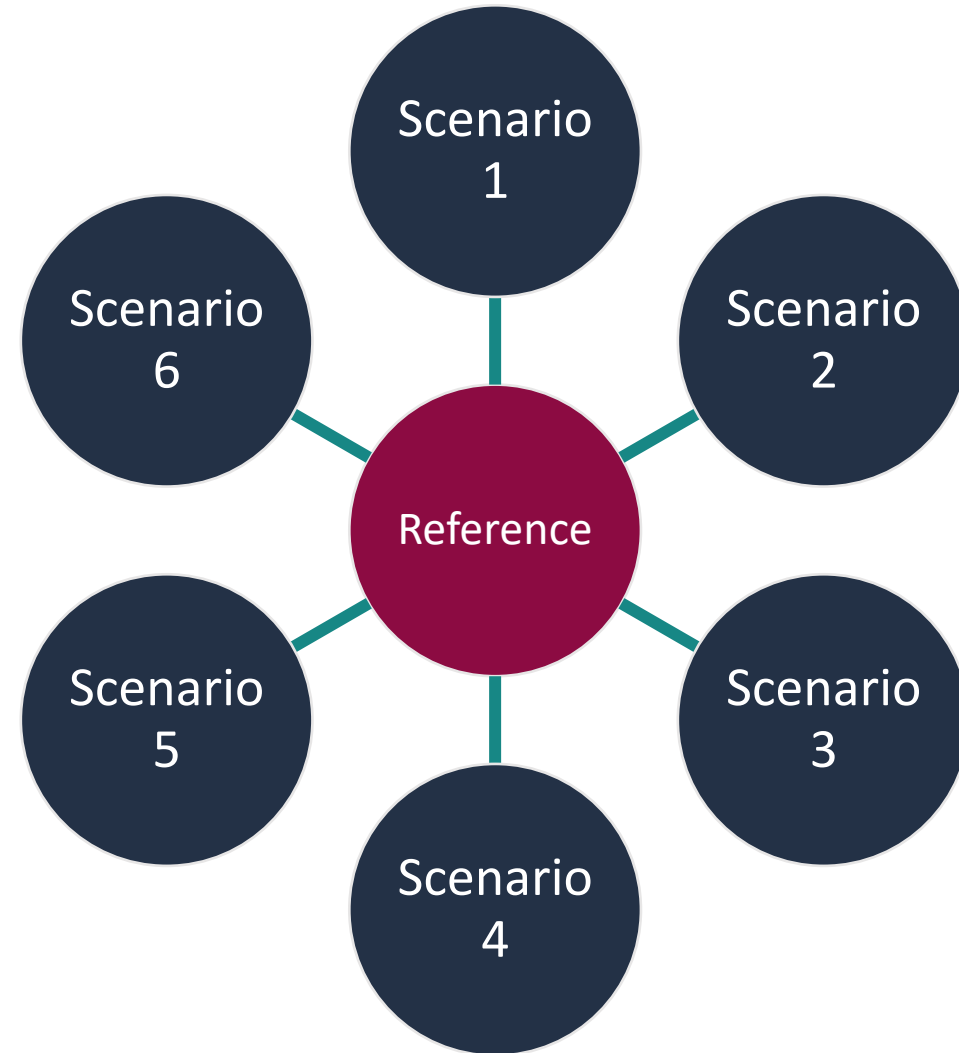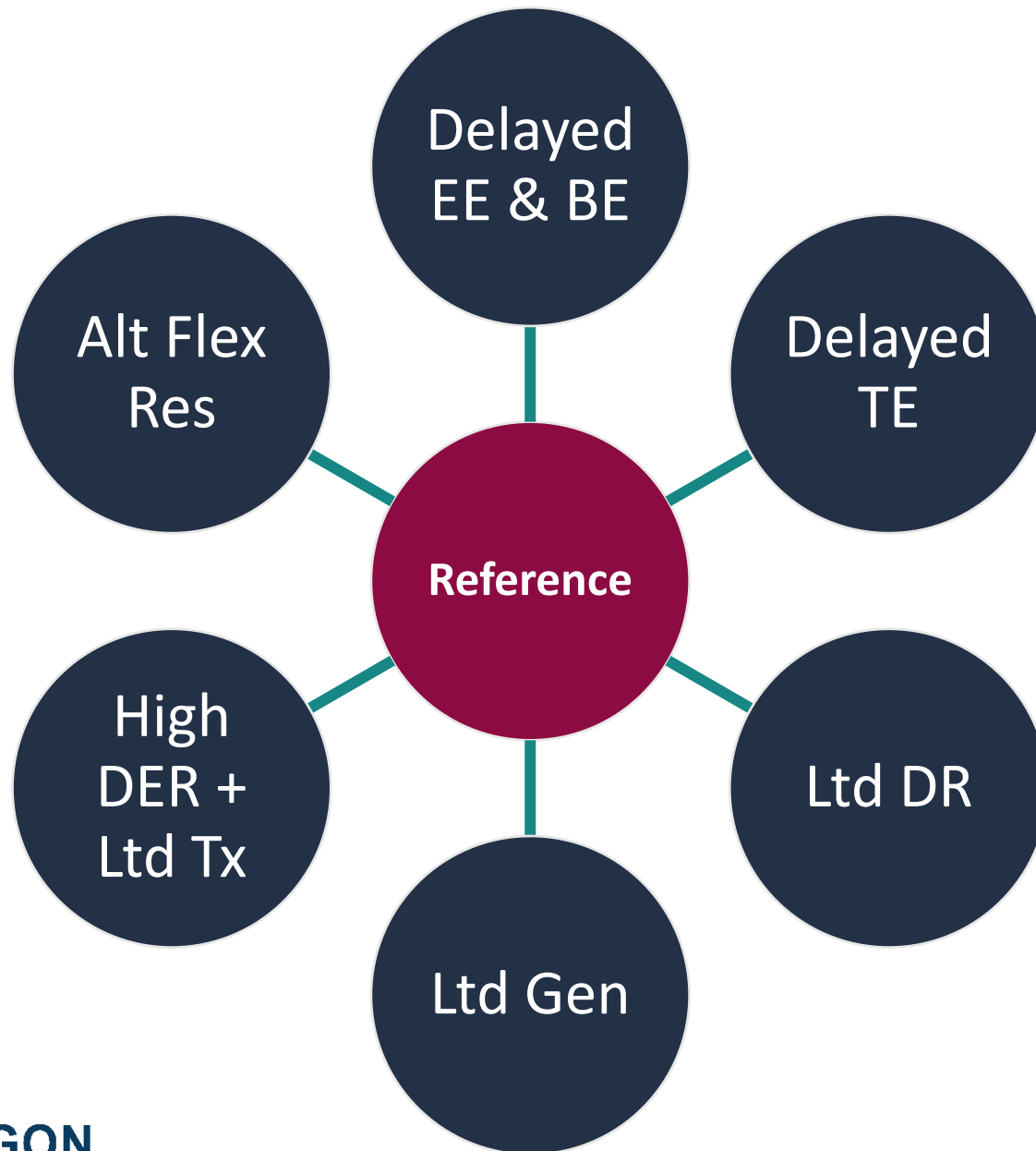
ALTERNATIVE SCENARIOS: KEY QUESTIONS

Reference. Least-cost way to achieve goals. All other scenarios build on the Reference by changing a key area:

1. What if energy efficiency and building electrification is delayed by 10 years?

2. What if full transportation electrification of medium- and heavy-duty vehicles is delayed 10 years, from 2040 to 2050?

3. What if there is limited demand response participation?

4. What if there is limited utility-scale electricity generation in Oregon?

5. What if there are higher levels of rooftop solar and behind-the-meter storage and transmission is limited to reconductoring only (no new build)?

6. What might an alternative portfolio of flexible resources for electricity reliability look like?

ADDITIONAL KEY QUESTIONS

- What if we do not meet our goal of a 20% reduction in Vehicles Miles Traveled by 2050?

- What if we had to decarbonize medium- and heavy- duty vehicles without the interim electrification targets established by the ACT?

- What if only half of the data center demand in the Reference scenario emerges?

Reference

Delayed EE & BE

Delayed TE

Ltd DR

Ltd Gen

High DER + Ltd Tx

Alt Flex Res

No change VMT

No ACT

50% Data Centers

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Reference
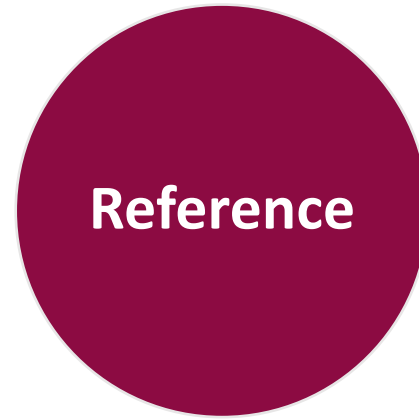
Least-cost pathway

Resource Mix

Land Use

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Reference — **Scenario**

System-wide Cost

Resource Mix

Land Use

COMPLEMENTARY ANALYSIS

Household "energy wallet"

Air quality and health

Jobs

Map overlays

WHAT THE ANALYSIS DOES AND DOESN'T DO

DOES

- Create an understanding of tradeoffs between different pathways to inform recommendations to meet Oregon's energy policy objectives

- Integrate detailed electricity sector modeling and fuels supply for an economy-wide perspective

- Foundation for complementary analysis: effect on household budgets, air quality and health, jobs, and priority areas relating to equity and environmental justice.

DOES NOT

- Forecast the future; it informs near-term decision-making in the face of uncertainty about meeting our energy policy objectives

- Serve the same purpose as utility modeling: NOT a transmission planning model or rate design exercise

- Focus on any single utility service territory

- Provide location-specific outputs for resources or transmission lines

THE MODELING IS A TOOL

Modeling results help us make informed choices

- Each scenario provides insights
- Foundation to engage in energy policy discussions
- Highlight relative pros and cons of different pathways

THE MODELING IS A TOOL

Insights are directional

- We are not forecasting the future
- Pathways to 2050 to inform near-term decisions
- Uncertainties: political, technological, economic

Next Steps

Energy Strategy Working Groups

Oregon Energy Strategy Working Groups

The Oregon Department of Energy is in the process of developing the Oregon Energy Strategy that identifies pathways to achieving the state's energy policy objectives, per HB 3630 (2023). The Oregon Energy Strategy will include policy recommendations that build on the pathways analysis, and support meeting our state's energy policy objectives, including reliability, affordability, and greenhouse gas emission reductions.

In addition to the Advisory Group, Policy Working Groups were created to help inform the development of the Oregon Energy Strategy. As part of this process, we are forming five Policy Working Groups to reflect on the results of the technical modeling currently underway by our consultant, the Clean Energy Transition Institute, and to help identify policy gaps and opportunities. The Policy Working Groups are organized as follows:

- **Environmental Justice and Equity**
  - EJ and equity focused discussions
  - Provide EJ and equity perspectives in the other working groups
- **Building Efficiency, Electronification, and Distributed Energy Resources**
  - Residential and commercial
  - Customer-side of the meter
- **Developing Clean Electricity Generation and Transmission**
  - Electricity generation and storage in front of the meter
  - Transmission
  - Development needs and barriers/competing priorities
- **Low-carbon Fuel**
  - Opportunities for low carbon fuels in buildings, industry, and transportation
  - Identification of barriers and potential solutions to production and distribution of fuels
- **Transportation Electrification**
  - Light-, medium-, and heavy-duty zero emission vehicles (battery electric and hydrogen fuel cell)
  - Charging and fueling infrastructure
  - Vehicle miles traveled reduction

If you have questions or are looking for more information, please email energy.strategy@energy.oregon.gov. Additionally, we encourage written comments to be submitted to the Oregon Energy Strategy Comment Portal.
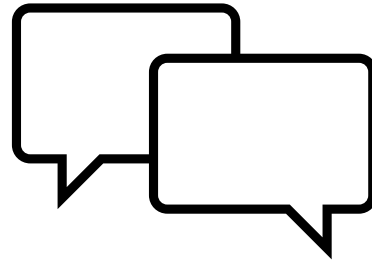
Submit a Comment

Sign Up For Email Updates

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OPPORTUNITIES FOR PUBLIC COMMENT

Provide written public comment

https://odoe.powerappsportals.us/en-US/energy-strategy/

KEY TAKEAWAYS

- Reference, and all the Scenarios, meet our goals; and the Reference is the least-cost option that we modeled

- Electrification and energy efficiency are key to reducing the size of the overall energy "pie" and to cost containment

- Fuels play a strategic role in the transition, with a shift towards clean fuel alternatives towards 2050

- All scenarios indicate a need to build infrastructure in Oregon

- Tech loads are the biggest driver of electricity demand growth but are also uncertain about when and where they could emerge

Thank You!

www.oregon.gov/energy/Data-and-Reports/Pages/Energy-Strategy.aspx