

Washington Energy Decarbonization Examination

Introductory Meeting: Welcome to the
Process

Welcome + Introductions



SSC

The logo for SSC consists of the letters "SSC" in a bold, blue, sans-serif font. The letters are closely spaced and have a modern, slightly rounded appearance.

Agenda

1. Introductions + Meeting Operating Guidelines
2. Project Process Update
3. Who's in the Room? (Mentimeter)
4. Situational Analysis Update
5. Modelling + Scenarios Update
6. Engagement Update
7. Q+A and Next Steps

Session Objectives: What We Are Here to Accomplish

- *To inform* impacted communities, the utility sector, and participating groups about the creation of the Energy Decarbonization Pathways Examination project, how you can participate in the process, and review where we are in the project.
- *To inform* impacted communities, the utility sector, and participating groups, about energy sector decarbonization including: its potential impacts on the energy system, economy, and society, as well as the Energy Decarbonization Pathways Examination.

Meeting Operating Guidelines

1. Let's share airtime in order to listen to, and hear from, as many perspectives as possible.
2. Let's manage our participation together to start and end on time.
3. Let's use respectful and inclusive language.

Zoom Etiquette

1. Please stay on mute when not speaking, and use the chat to ask questions, while presentations are in-progress.
2. Please use the “raise hand” function to ask a question during Q+A periods, and let us know your name and affiliation (if you have one).
3. Please note that we are recording this session.

Project Update

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Why is the Commission undertaking this examination?

Senate Bill 5092, section 143 provided funding for the Commission to:

“examine feasible and practical pathways for investor-owned electric and natural gas utilities to contribute their share to greenhouse gas emissions reductions as described in RCW 70A.45.020, and the impacts of energy decarbonization on residential and commercial customers and the electrical and natural gas utilities that serve them.”

RCW 70A.45.020 states that Washington shall limit anthropogenic emissions of greenhouse gases (GHGs) as follows:

- (i) By 2020, reduce GHGs to 1990 levels, or 90.5 million metric tons;
- (ii) By 2030, reduce GHGs to 50 million metric tons, or 45% below 1990 levels;
- (iii) By 2040, reduce GHGs to 27 million metric tons, or 70% below 1990 levels;
- (iv) By 2050, reduce GHGs to 5 million metric tons, or 95% below 1990 levels.

Senate Bill 5092, section 143 requirements

The examination must identify and consider:

- “(i) How natural gas utilities can decarbonize;
- (ii) The impacts of increased electrification on the ability of electric utilities to deliver services to current natural gas customers reliably and affordably;
- (iii) The ability of electric utilities to procure and deliver electric power to reliably meet that load;
- (iv) The impact on regional electric system resource adequacy, and the transmission and distribution infrastructure requirements for such a transition;
- (v) The costs and benefits to residential and commercial customers, including environmental, health, and economic benefits;
- (vi) Equity considerations and impacts to low-income customers and highly impacted communities; and
- (vii) Potential regulatory policy changes to facilitate decarbonization of the services that gas companies provide while ensuring customer rates are fair, just, reasonable, and sufficient.”

What are we working on together?

By June 1, 2023, the Washington Utilities and Transportation Commission will use the Energy Decarbonization Pathways Examination to report to the legislature on “feasible and practical pathways for investor-owned electric and natural gas utilities to contribute their share to greenhouse gas emissions reductions as described in RCW 70A.45.020, and the impacts of energy decarbonization on residential and commercial customers and the electrical and natural gas utilities that serve them.”^[1]

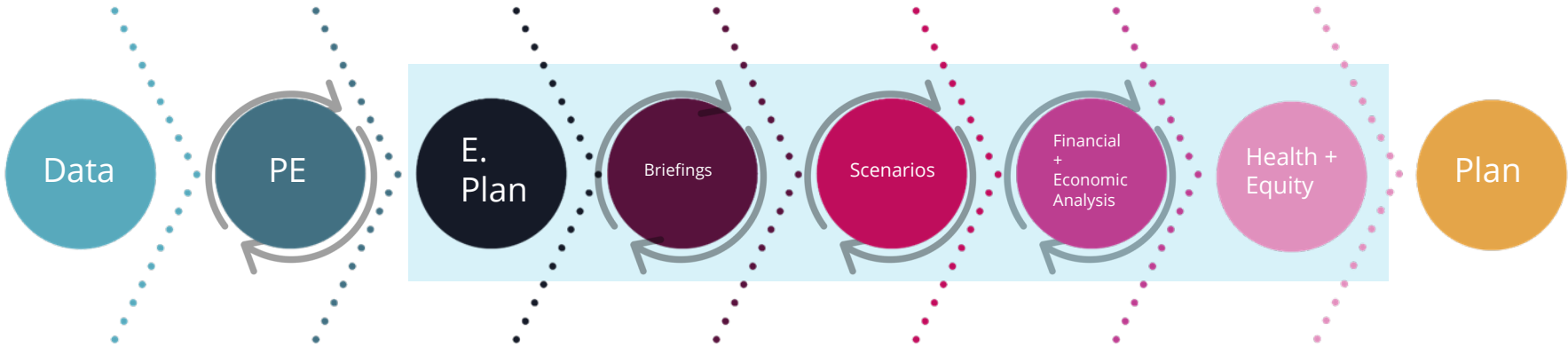
The legislature will use this information to inform discussions on decarbonization targets and policies for investor-owned natural gas utilities.


This project is about identifying and describing the various pathways to achieve a certain level of natural gas emissions reduction. This project is not about choosing one pathway.

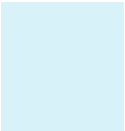
^[1] Senate Bill 5092 Section 143.4.

Engagement in Energy Decarbonization Pathways

How does climate action planning come together?



 Iteration + Adaptive Management

 Active Engagement Period

Go to www.menti.com and use the code **3814 1000**

Mentimeter

Instructions

Go to

www.menti.com

Enter the code

3814 1000



Or use QR code



Situational Analysis: Highlights

Washington's Changing Climate

- Extreme weather will test the resilience and reliability of existing energy infrastructure
- Governance challenge of balancing competing uses for water, forests, and other natural resources
- Nearly every sector of the economy will be affected by a changing climate
- Climate change could exacerbate energy poverty and public health challenges

State of the Energy System

- Hydroelectric power: predominant but expansion constrained
- Natural gas used primarily for electricity generation, followed by home heating, industrial, and commercial uses; minor transportation use
- All natural gas is imported; most passes through WA to other states
- Rapidly increasing demand for renewables

Legislation Driving Energy System Change

- **SB 5611 - Clean Energy Transformation Act**
- **HB 2311 - GHG Emissions Targets**
- SB 5223 - Concerning Net Metering
- HB 1428 - Electricity Product Attributes
- SB 5588 - Renewable hydrogen by PUDs
- SB 5125 - **Climate Commitment Act**
- SB 5295 - Multiyear rateplans
- **SB 5141 - HEAL Act**
- SB 5910 - Renewable Hydrogen
- SB 5689 and SB 5975 - Move Ahead Washington

Buildings and Energy Use

- Gas use is main source of building sector emissions (56%)
- Gas used to heat 34% of homes
- State Building Code now mandates energy use intensity targets for non-residential buildings (Clean Buildings for Washington Act)
- Legislation to reduce building energy use:
 - HB 2045 - CPACE Program
 - HB 1114 - Urban Heat Island Mitigation
 - HB 1126 - Distributed Energy Future

Transportation and Energy Use

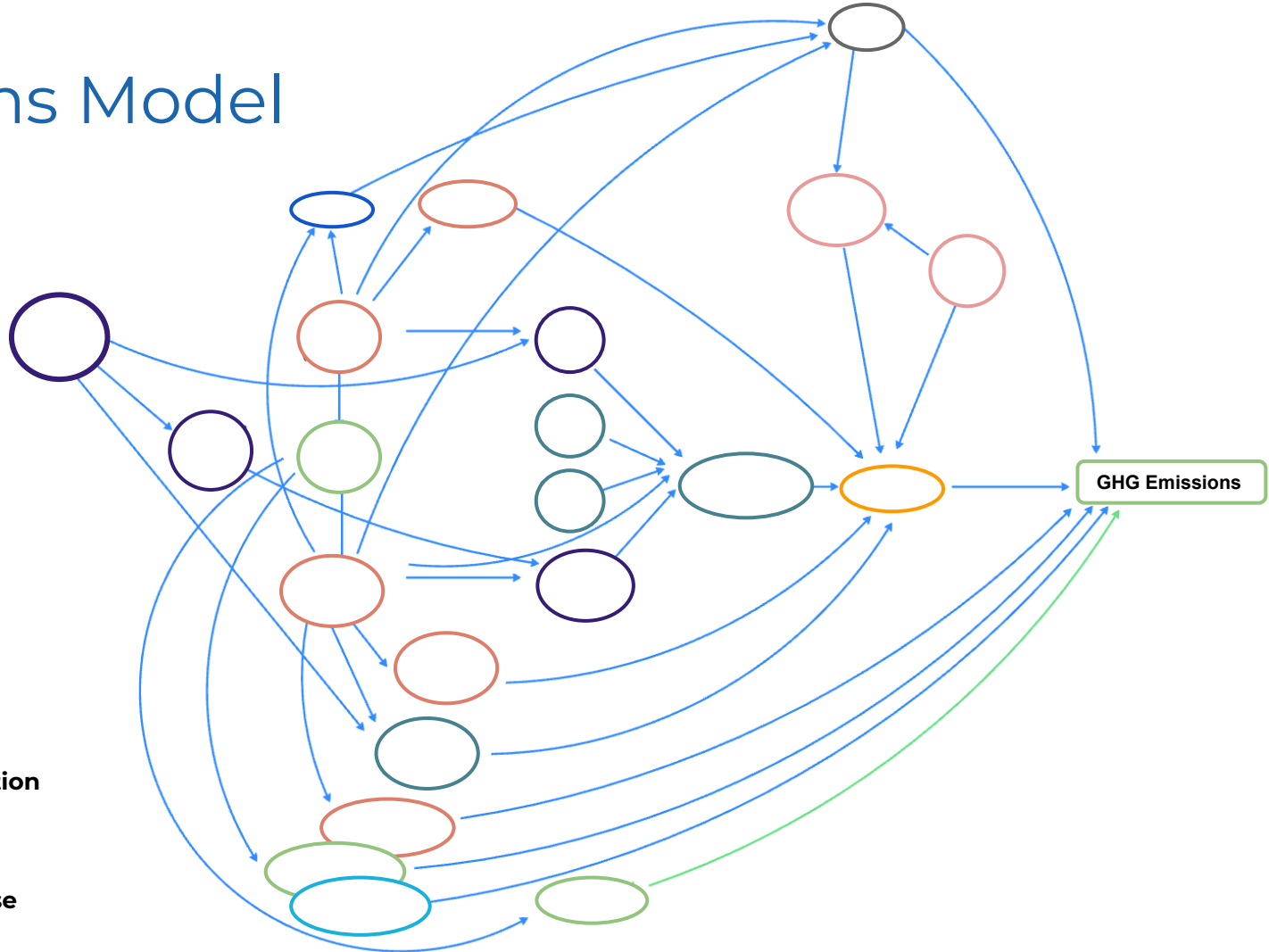
- Relatively low EV uptake so far; expected to accelerate
- Building Code changes require EV chargers and infrastructure
- State incentivizing electrified transportation:
 - HB 2042 - Advancing Green Transportation
 - HB 1512 - EV supporting infrastructure
 - HB 5811 - ZEV standards and product labels

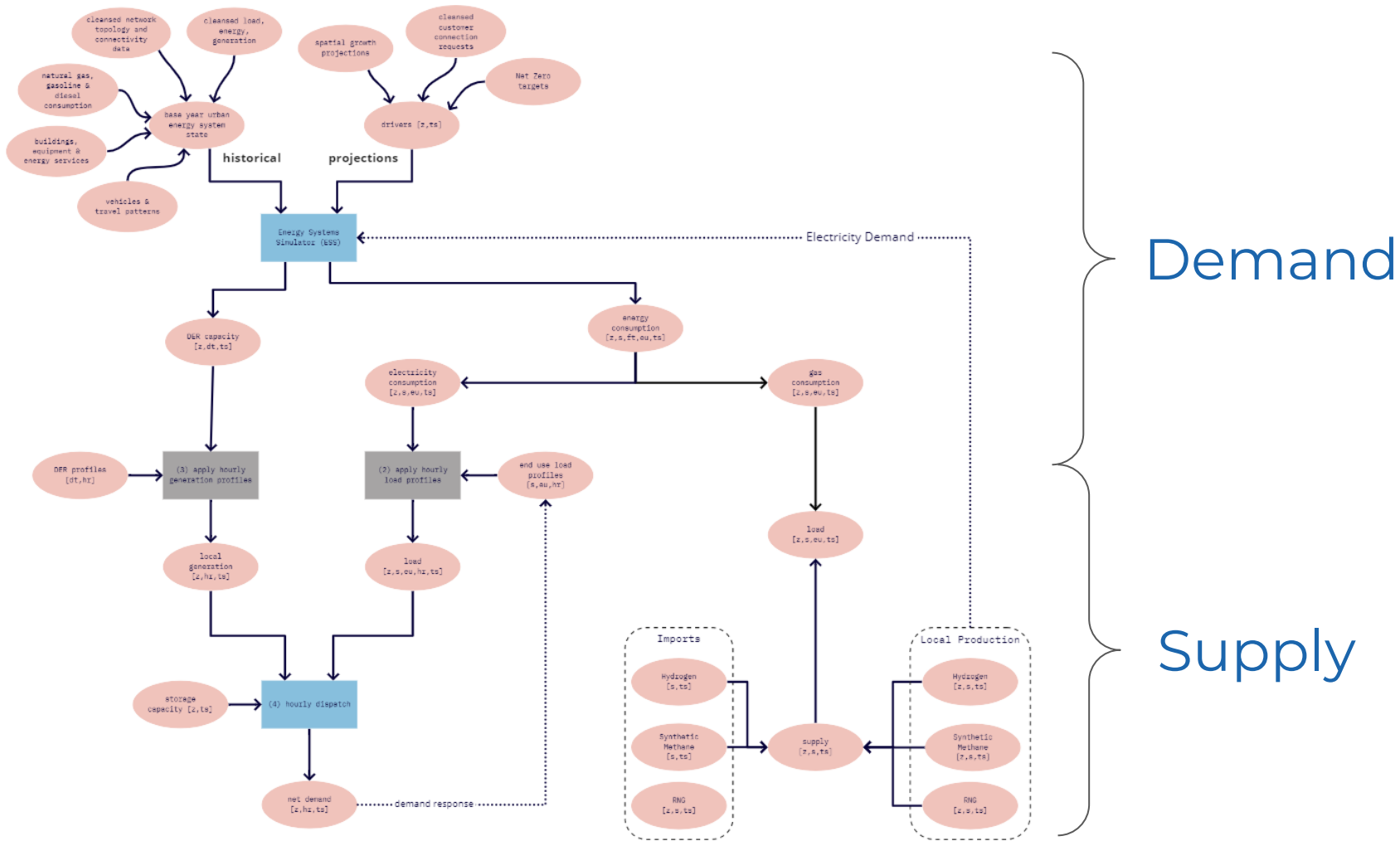
Modeling Process Overview

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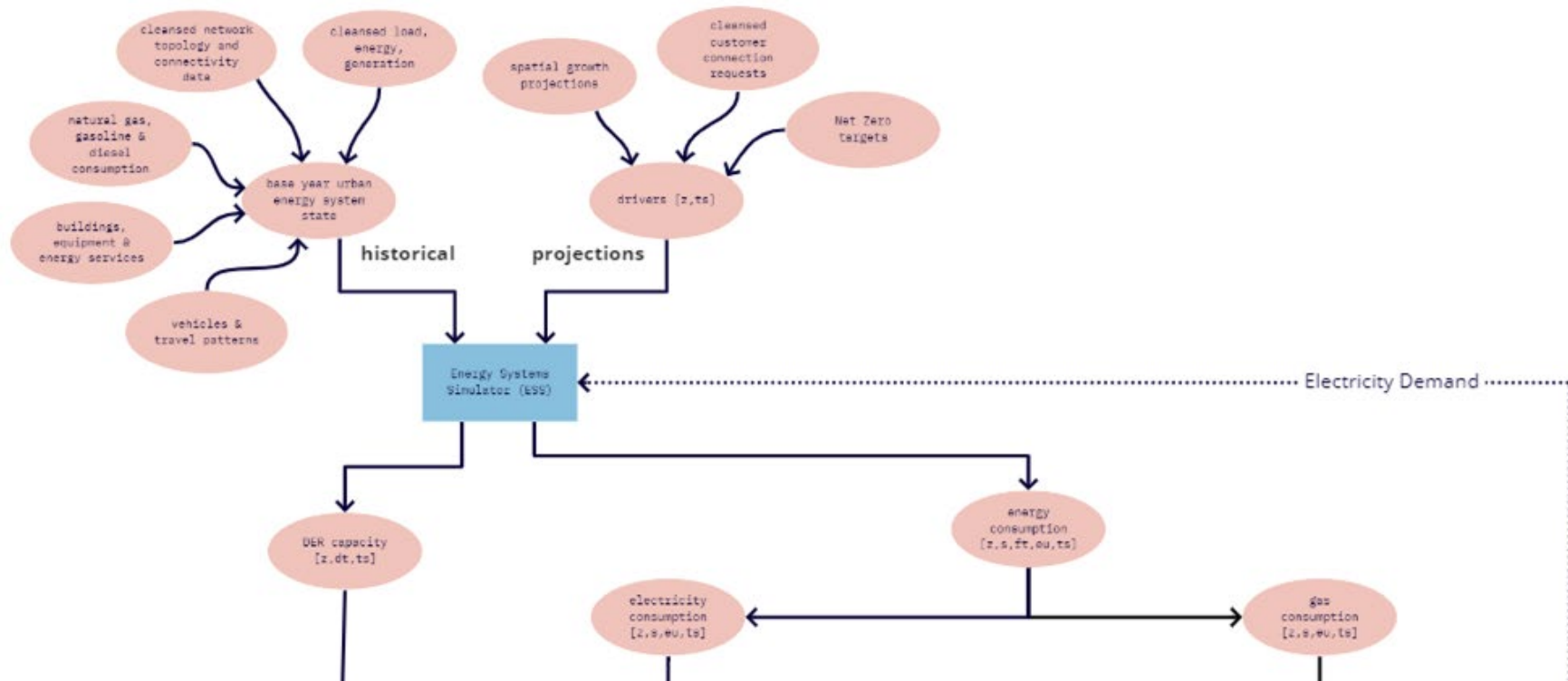
Systems Model

- Demographics
- Land Use
- Buildings
- Transportation
- Water
- Energy Generation
- Waste
- Total Energy Use





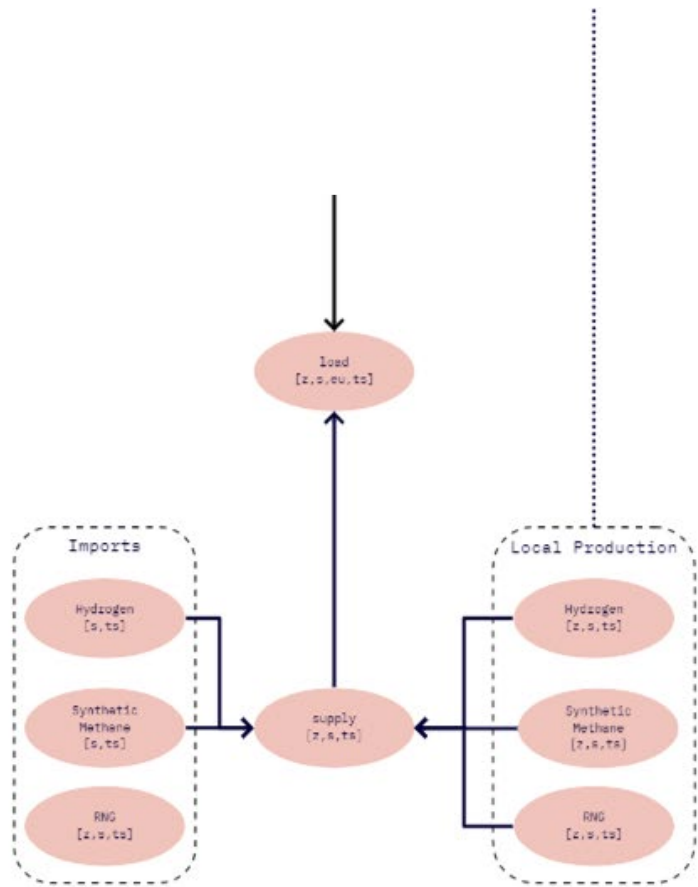
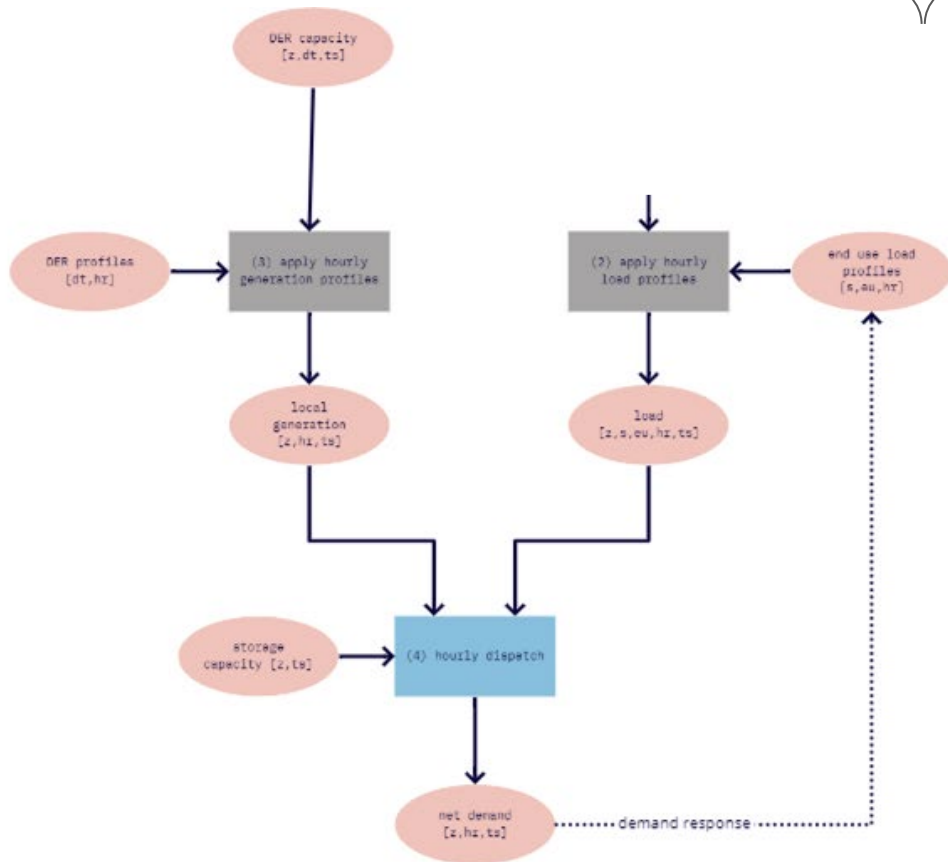
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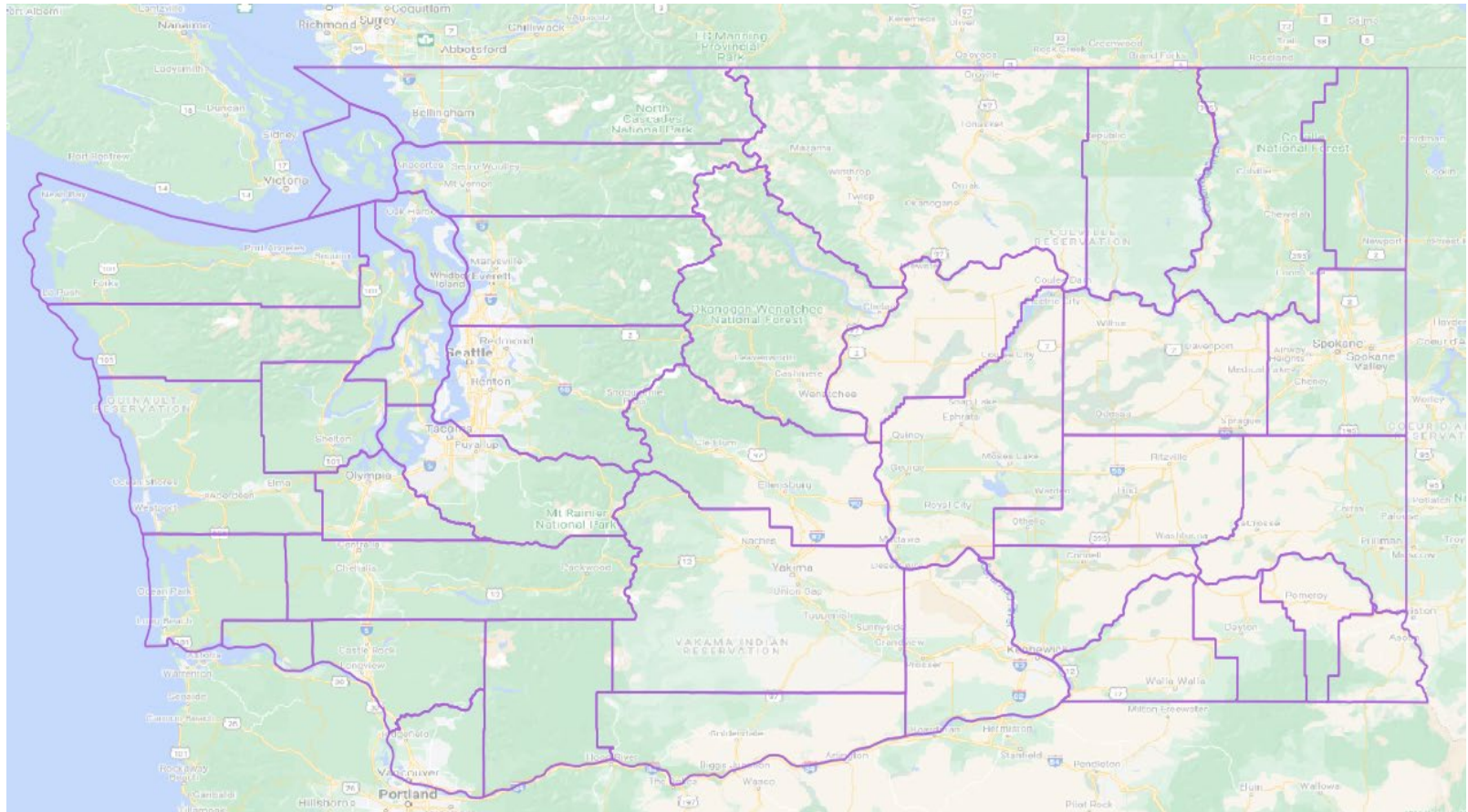
Supply

Electricity

Natural Gas



Space



Scenario development

1

Identification

2

Mapping to
sectors

3

The relative
impact

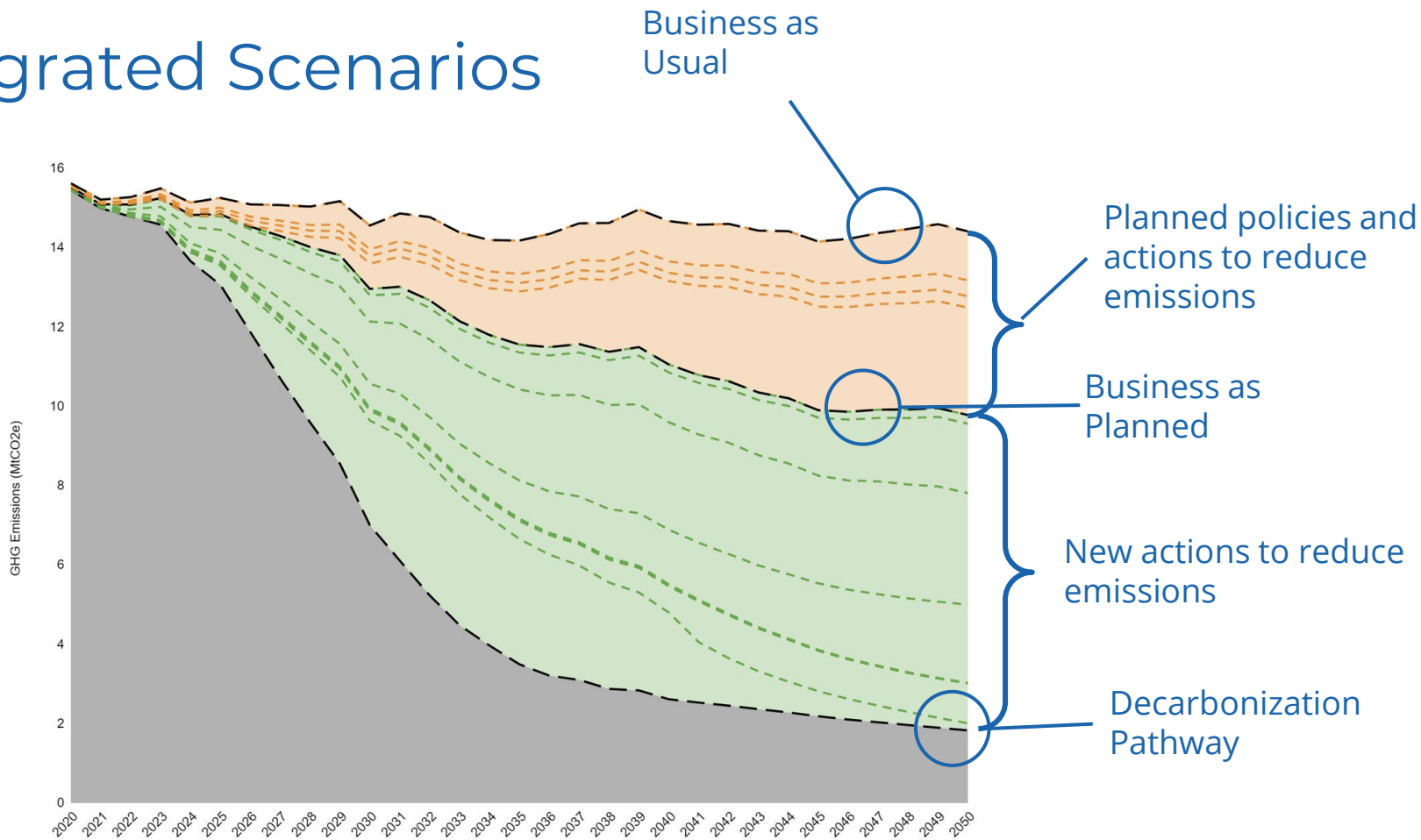
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Setting
parameters

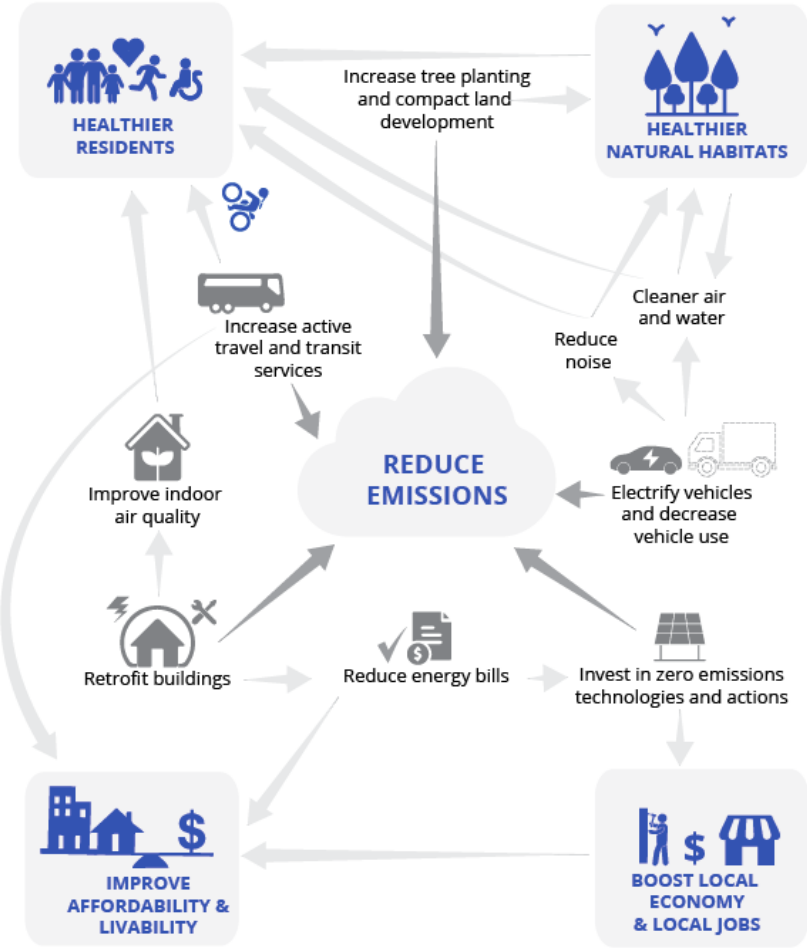
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Defining
scenarios

Integrated Scenarios



Co-benefits



Engagement Opportunities

- Here are the different ways to stay informed and participate:
 - How can I stay up to date on the project?
 - Project Website (we'll put a link in the chat)
 - Clean Energy Bulletin
- Engaging Virtually on:
 - Topic 1: Business as Usual and Business As planned Assumptions
 - Topic 2: BAP and Decarbonization Opportunities and Barriers
 - Topic 3: Decarbonization Actions
 - Topic 4: Exploring Decarbonization Pathways

Engagement Opportunities

- **Engaging Virtually on:**

- Topic 1: Business as Usual and Business As planned Assumptions
- Topic 2: BAP and Decarbonization Opportunities and Barriers
- Topic 3: Decarbonization Actions
- Topic 4: Exploring Decarbonization Pathways

- **How to Engage on these topics:**

- **Open Technical Meetings (Workshops).**

- Virtual
- 4 in total
- Come to which topic you are interested in
- Flexible participation

- **Decarbonization Advisory Group**

- Virtual
- 4 in total, required to attend all
- Membership based by sector (to allow for equal representation). 1 member per organization.
- ~25 members
- Can apply to: Nora Hawkins

Engagement Opportunities

- **Engaging Virtually on:**

- Topic 1: Business as Usual and Business As planned Assumptions
- Topic 2: BAP and Decarbonization Opportunities and Barriers
- Topic 3: Decarbonization Actions
- Topic 4: Exploring Decarbonization Pathways

- **How to Engage on these topics:**

- **2 Surveys**
- Public Online Survey 1 - Decarbonization Opportunities and Challenges
- Public Survey 2 - Decarbonization Actions
- Open to all

- **How to Engage on these topics:**

- **Focus group: Equity sector**
 - Representation based
 - 1-2 sessions

Q+A: Engagement + Modeling

Next Steps

1. Finalize engagement plan + post on project website
2. Finalize calibration
3. Define/model reference scenarios (BAU, BAP)
4. Set dates for engagement events
5. Define/model low carbon scenarios
6. Financial analysis
7. Co-benefits/equity analysis
8. Final project summary

Thank you!

SSG