PUBM 5910 Environmental Policy in WA

Climate & Carbon Policies

Eileen V. Quigley, Clean Energy Transition Institute

March 4, 2026

Agenda

- What is the Clean Energy Transition Institute?
- What is deep decarbonization?
- What is the climate and clean energy policy landscape in Washington?
- Q & A

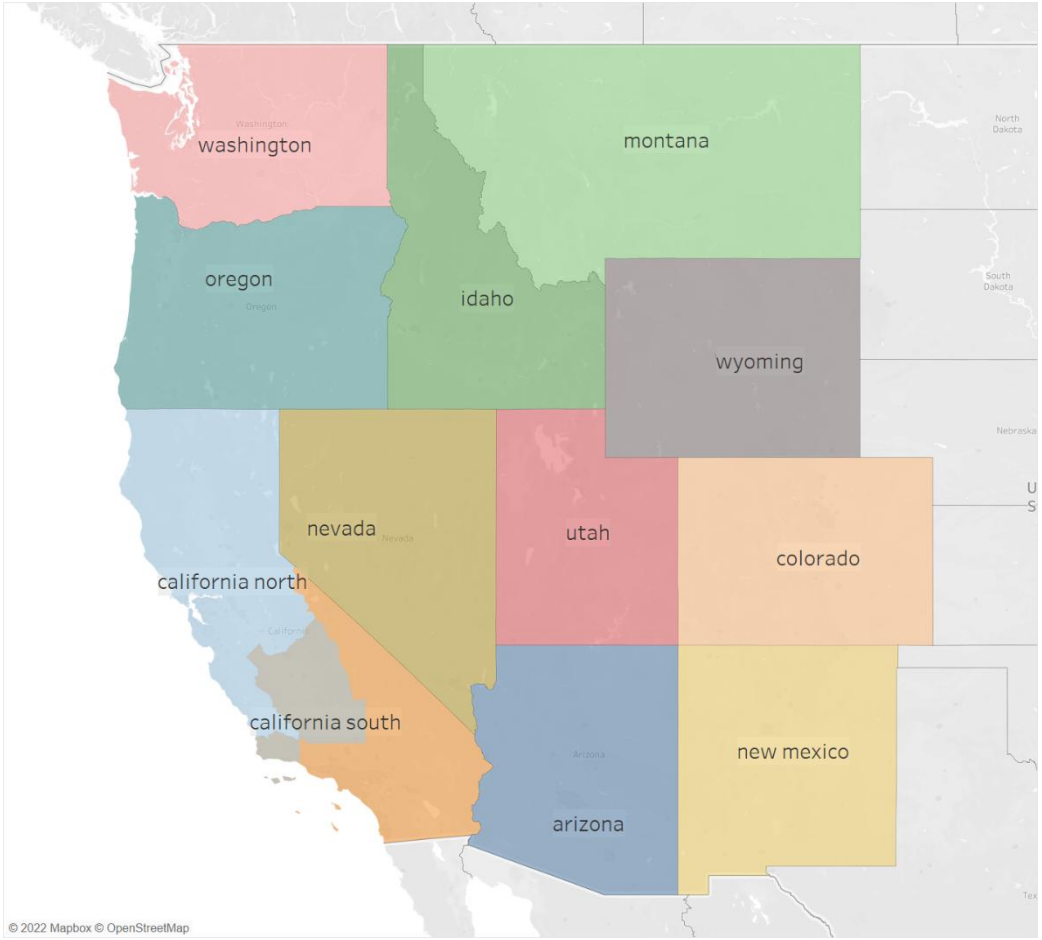
What is the Clean Energy Transition Institute?

- **What We Are:** Independent, nonpartisan Northwest research and analysis nonprofit organization
- **Our Mission:** Accelerate an equitable clean energy transition in the Northwest
- **Our Role**: Frame, translate, demystify decarbonization and the clean energy transition in the Northwest
  - Unbiased analysis to encourage fact-based conversations

What is deep decarbonization?

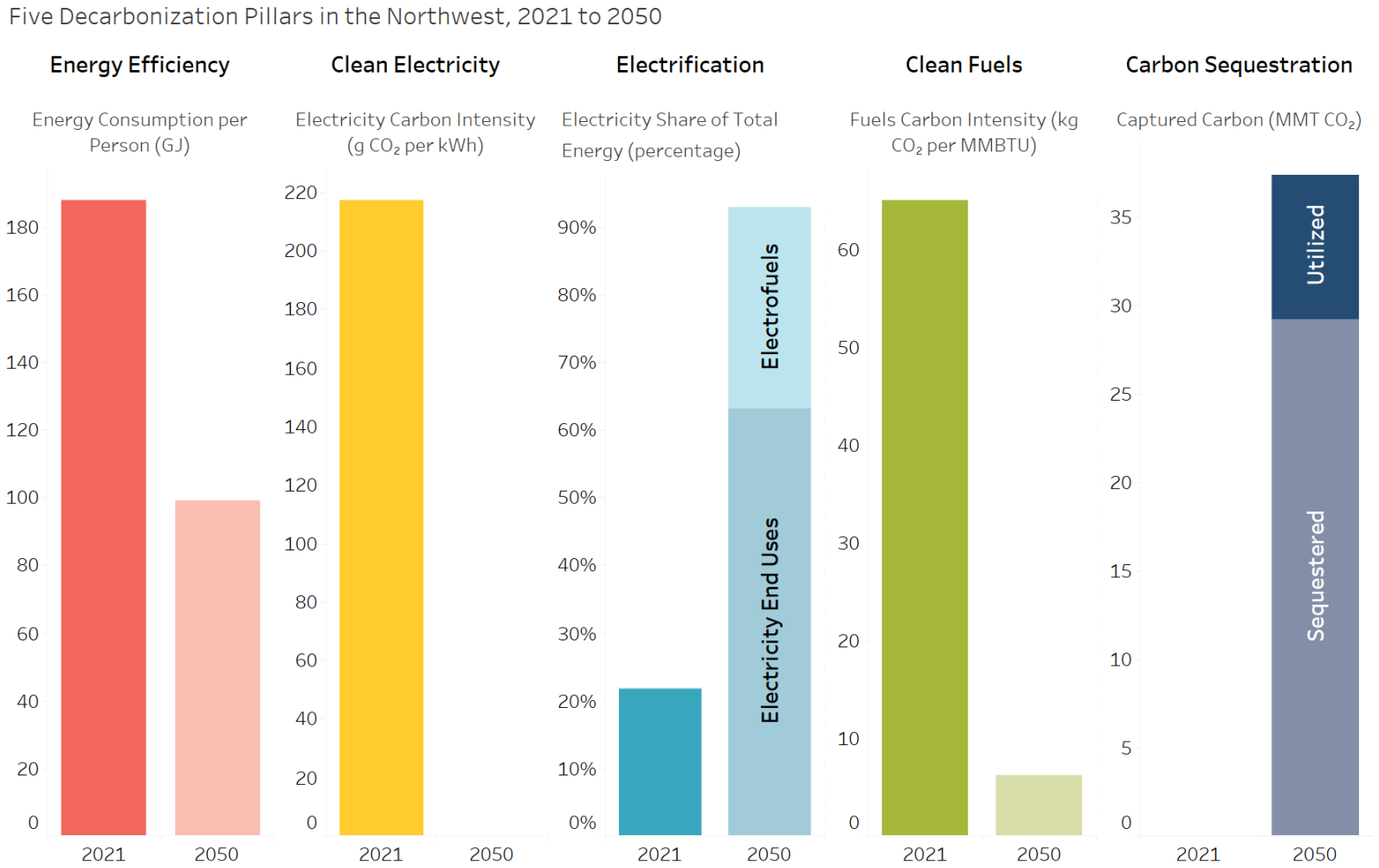
Decarbonizing the 11 Western States

- We model the states in the Western United States with California represented as two zones and the rest of the US as a single zone
- Contextualizes the decisions made in Northwest operating as part of a larger energy system
  - Competition for fuels including biomass, renewables, and hydrogen derived from renewables
  - Balances the electricity system over a large and diverse region – assumes single balancing authority
  - Captures transmission line and pipeline flow and build constraints
  - Resource, load, and temporal diversity contribute to economy and region-wide least cost strategy to reach net-zero



Five Pillars of Decarbonization

- Decarbonization in the region hinges on energy efficiency, clean electricity, electrification, clean fuels, and carbon capture

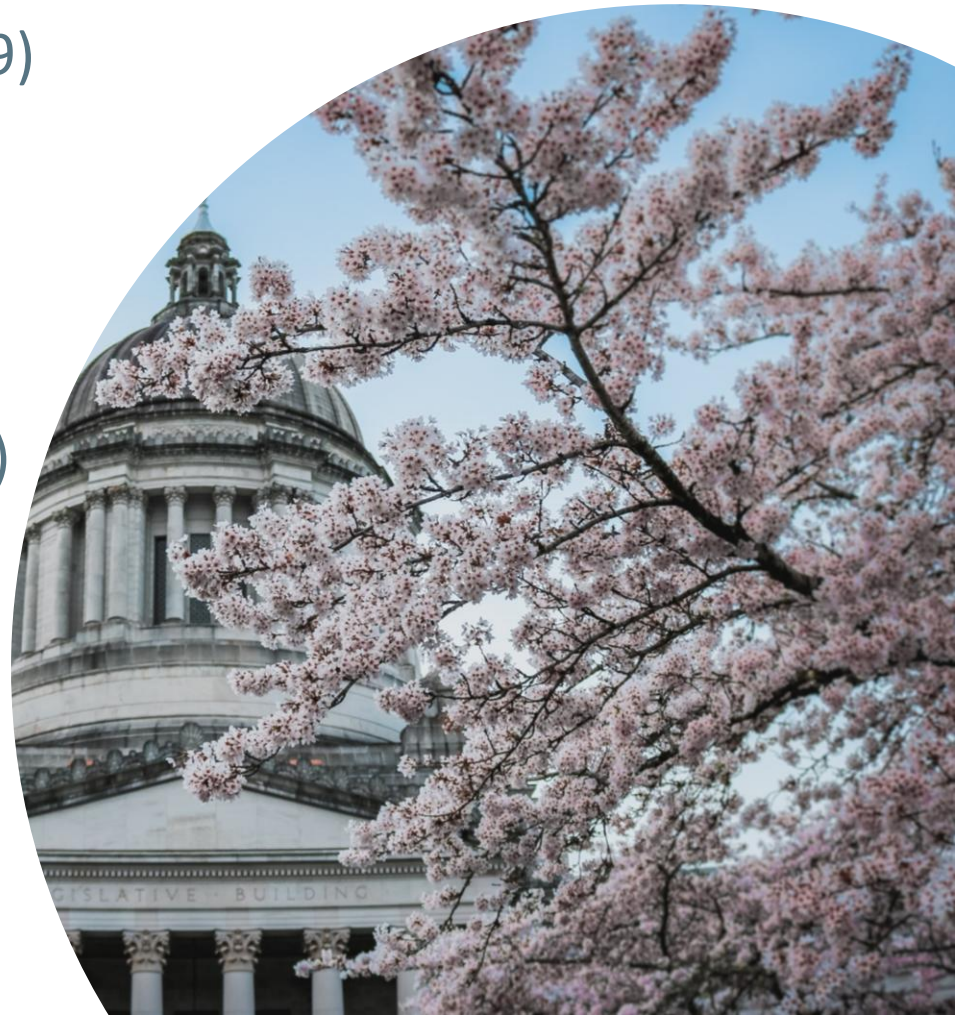


Source: Evolved Energy Research. *Net-Zero Northwest Energy Pathways Analysis Technical Report*, June 2023, p. 5.

Climate and Clean Energy Policy Landscape

Washington Clean Energy Policy Framework

- Healthy Homes and Clean Buildings Act (May 2019)
- Clean Energy Transformation Act (May 2019)
- State Emissions Targets (June 2020)
- Washington 2021 State Energy Strategy (Jan 2021)
- Clean Fuels Standard (May 2021)
- Climate Commitment Act (July 2021)
- Healthy Environment for All (July 2021)
- Zero-Emission Vehicles (Dec 2022)



Overview of Key Washington Policies

- **Overarching**: Greenhouse Gas Emission Limits (GHG emission limits with statutory target of net zero by 2050)
- **Overarching**: Climate Commitment Act (Cap and invest program covering 75% of emissions)
- **Overarching**: HEAL Act (Requirements for state agencies to advance environmental justice)
- **Clean Electricity**: Clean Energy Transformation Act (100% clean electricity standard by 2045)
- **Efficiency**: Healthy Homes and Clean Buildings (Building Performance Standard)
- **Clean Fuels**: Clean Fuels Standard (Fuel suppliers gradually reduce carbon intensity of transport fuels to 20% below 2017 levels by 2038)
- **Overarching:** Washington 2021 State Energy Strategy

Washington Policy Details

Clean Buildings Performance Standard (May 7, 2019)

- Focuses on **energy efficiency in buildings** to reduce greenhouse gas emissions
- Requires WA Department of Commerce to:
  - Develop and implement an energy performance standard for commercial buildings
  - Provide incentives to encourage energy efficiency improvements
  - Applies to commercial buildings larger than 50,000 square feet
    - Updated in 2022 by SB 5722 to expand requirements to include smaller buildings as well (20,000 – 50,000 square feet)

Clean Energy Transformation Act (CETA) May 7, 2019

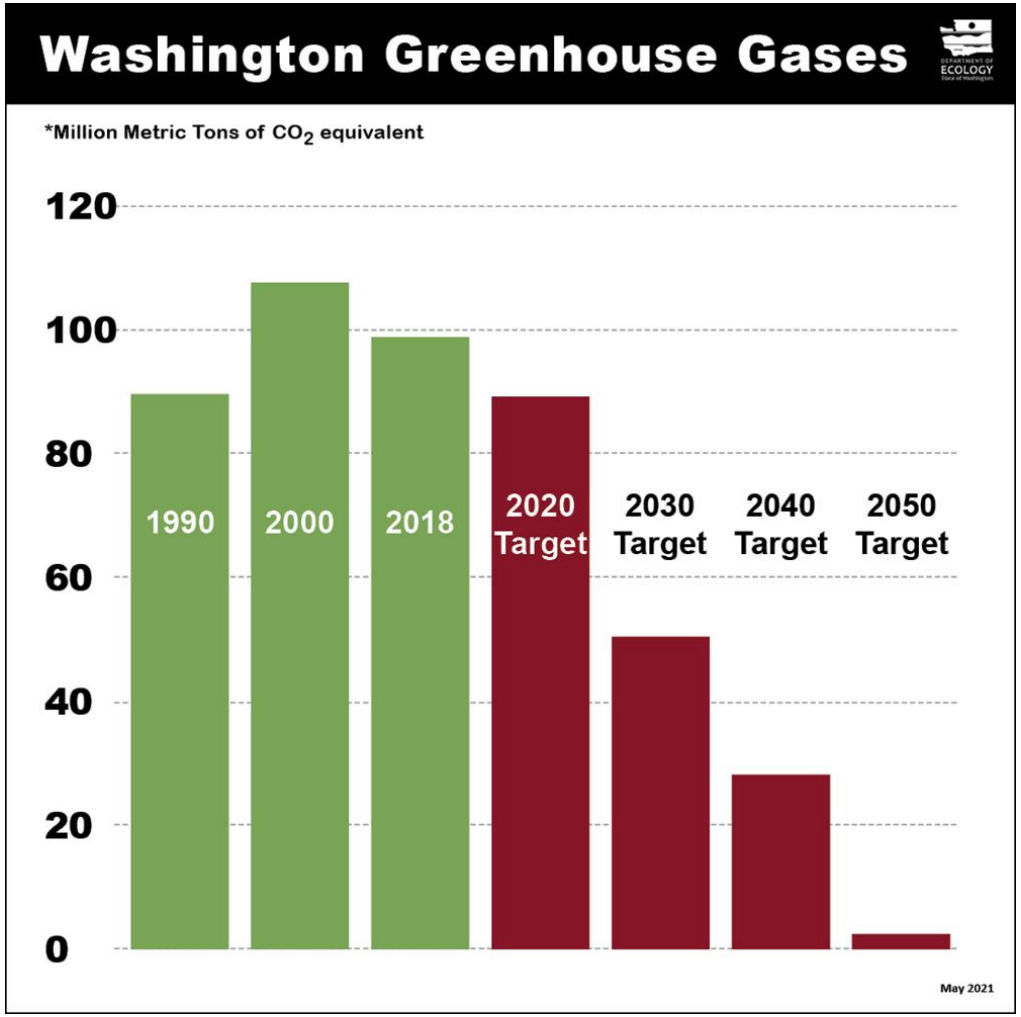
- Commits to 100% **clean electricity supply** by **2045**
  - "Clean electricity" = 100% renewable or non-emitting (no provision for offsets)
  - Applies to all electric utilities serving retail customers in Washington
- Requires equity considerations as utilities assess impacts of their decisions:
  - **Vulnerable populations:** Disproportionate risk from environmental burdens due to socioeconomic and biological factors)
  - **Highly impacted communities**: Communities impacted by fossil fuels and climate change and identified by WA Department of Health's Environmental Health Disparities Map

Clean Energy Transformation Act (CETA)-2

- Sets milestones to reaching the 2045 goal

Greenhouse Gas Emission Targets (June 11, 2020)

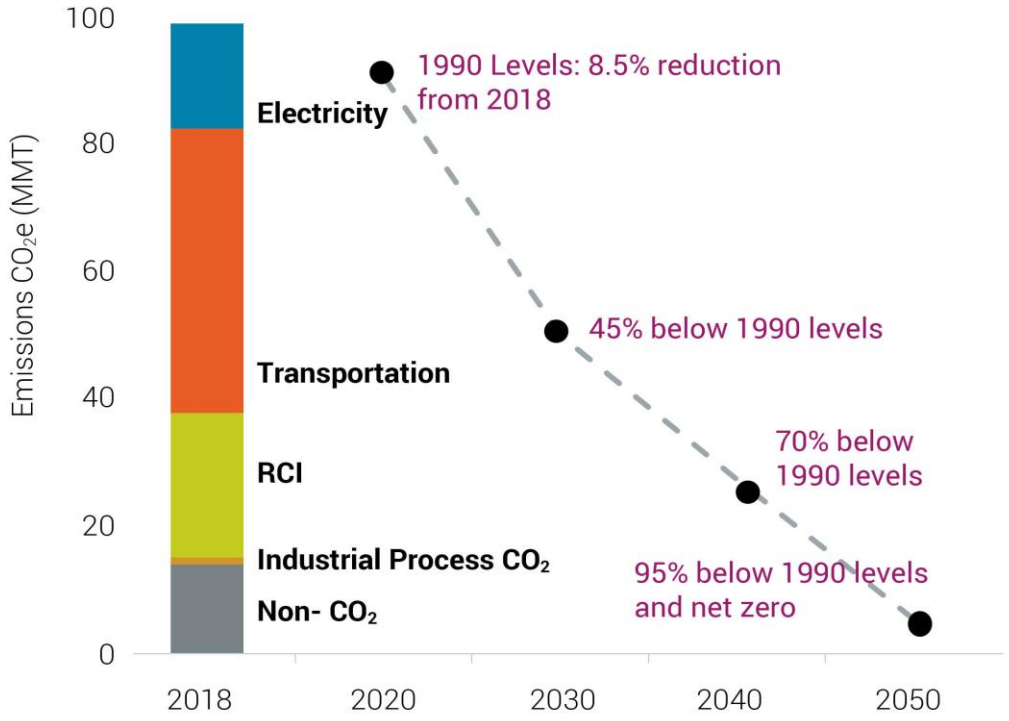
- Net-zero GHG emission limits with statutory target of net-zero by 2050
  - **2020** - reduce to 1990 levels
  - **2030** - 45% below 1990 levels
  - **2040** - 70% below 1990 levels
  - **2050** - 95% below 1990 levels and achieve net zero emissions



Washington State's Emissions Targets

WASHINGTON STATE 2030-2050 GREENHOUSE GAS EMISSION LIMITS

(Assumes residual 5% of 1990 emissions remaining in 2050 will be offset by biological or geological sequestration)



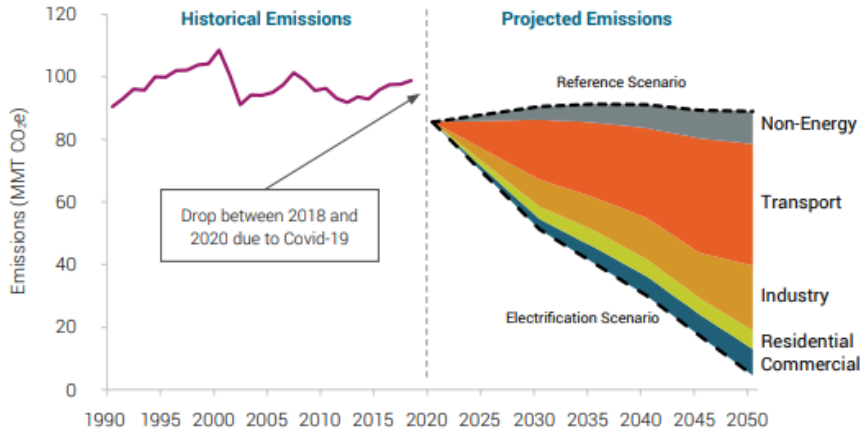
Source: Washington State Department of Ecology and Washington State.[29]

Appendix A –Deep Decarbonization Pathways Modeling Technical Report, December 11, 2020 (p. 15).

Transforming Washington's Energy System

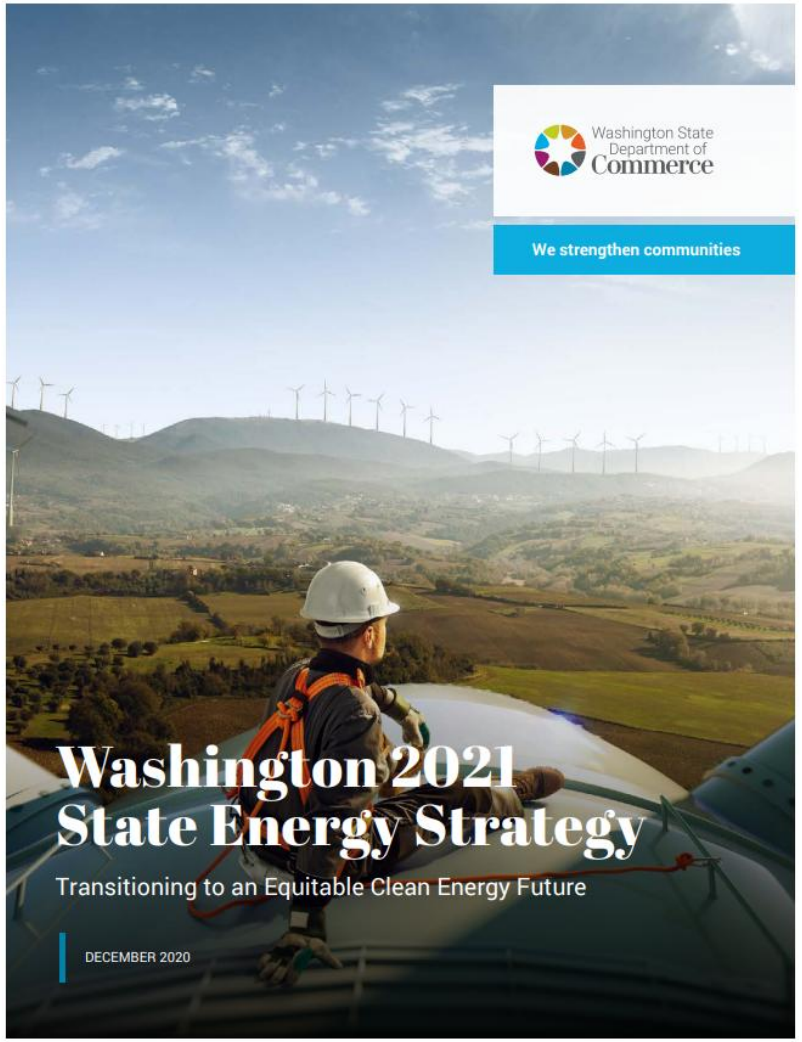
- 2021 State Energy Strategy
- Roadmap for meeting the state's greenhouse gas emission limits

FIGURE 1. HISTORICAL AND PROJECTED GROSS GREENHOUSE GAS EMISSIONS IN WASHINGTON STATE



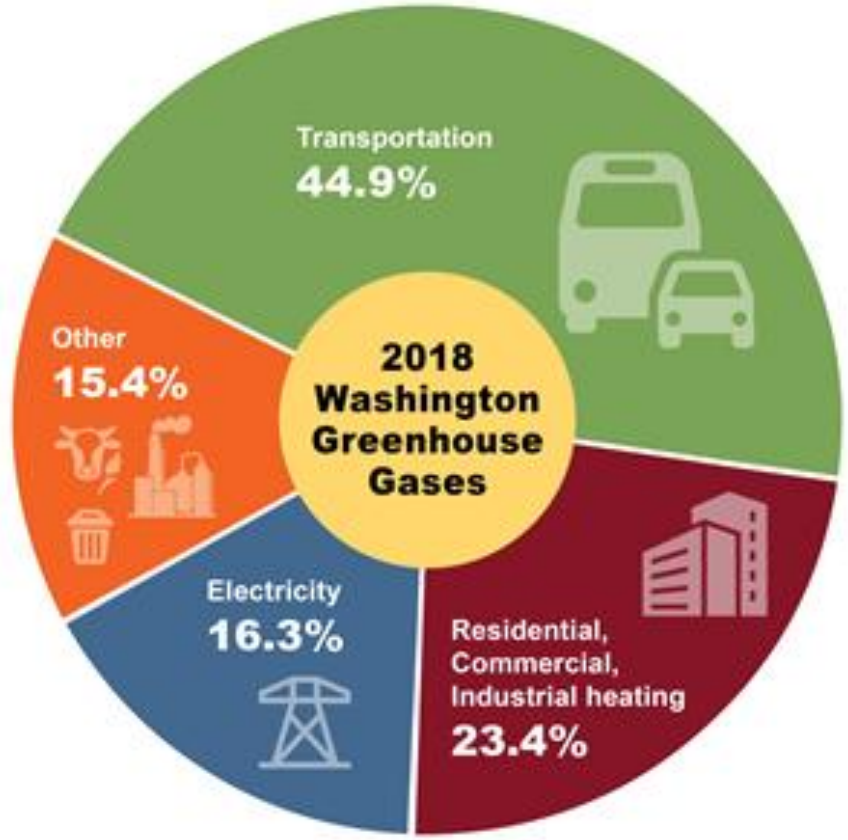
Source: Washington State Department of Ecology for historical emissions (2018 value is preliminary).
Appendix A – Deep Decarbonization Pathways Modeling Technical Report, December 11, 2020 (p. 26).

Learn more: https://www.cleanenergytransition.org/projects/deep-decarbonization-pathways/washington-state-energy-technical-advisory-process



Clean Fuels Standard (May 17, 2021)

- Requires fuel suppliers to gradually reduce carbon intensity of transport fuels to 20% below 2017 levels by 2038
- Reductions can be achieved by:
  - Improving efficiency of fuel production process
  - Producing or blending low-carbon biofuels
  - Purchasing credits generated by low-carbon fuel providers or EV charging providers
- Program starts in January 2023
  - Works alongside the CCA to target largest sources of Washington's emissions (Transportation and Industrial sectors)



Climate Commitment Act (July 21, 2021)

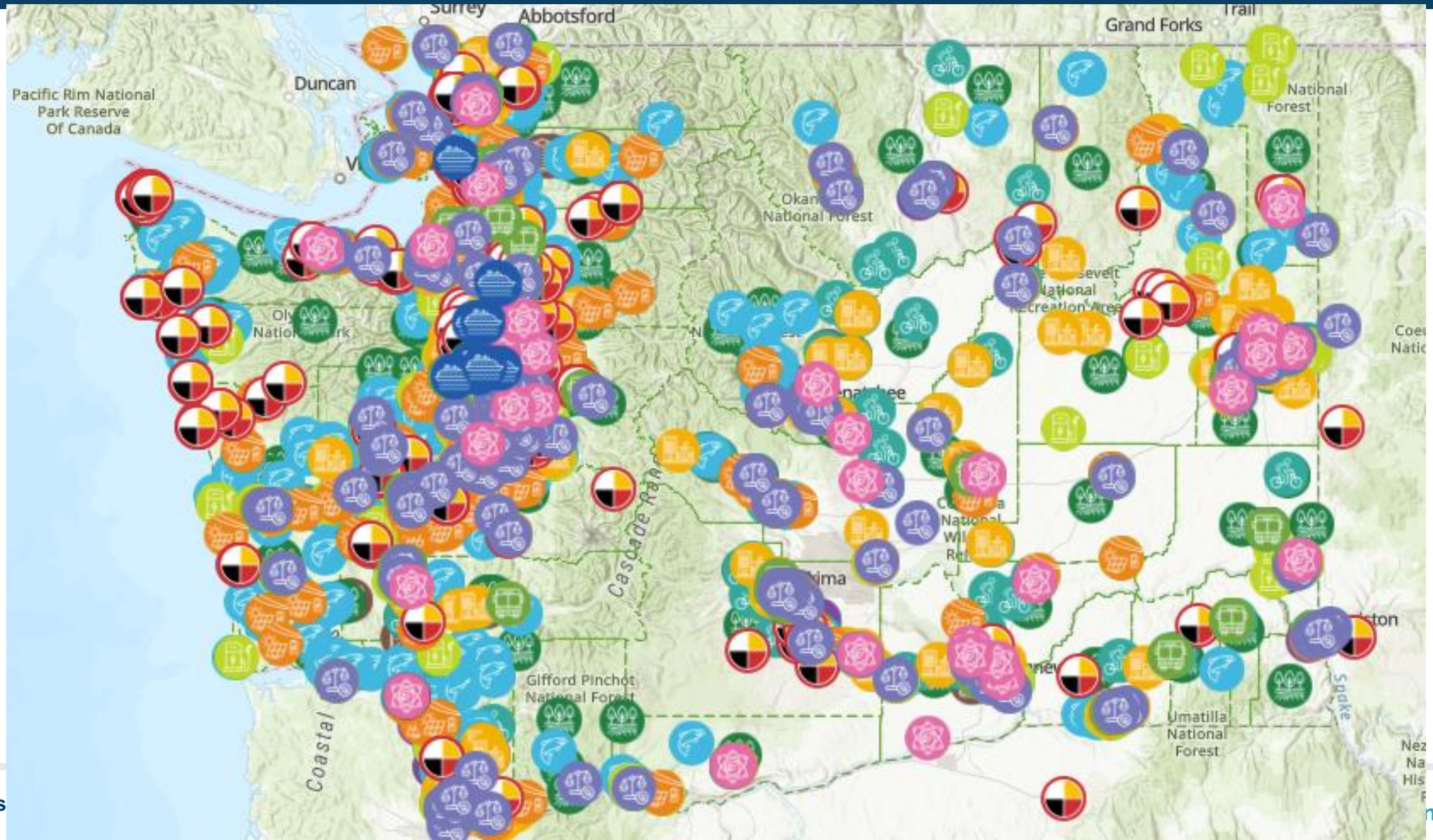
- Establishes a **cap-and-invest program** to reduce greenhouse gas emissions from large emitting sources and industries
  - Jan. 1, 2023: Covers industrial facilities, certain fuel suppliers, in-state electricity generators, electricity importers, and natural gas distributors with annual greenhouse gas emissions above **25,000 MT of carbon dioxide equivalent**
  - Jan. 1, 2027: Adds waste-to-energy facilities
  - Jan. 1, 2031: Adds certain landfills and railroad companies
- Aligns with requirements in HEAL Act to promote environmental justice and equity

Climate Commitment Act (CCA)-2

- **"Cap"** = Emissions cap to meet greenhouse gas limits set in 2008 by RCW 70A.45.020:
  - **2020:** Reduce to 1990 levels
  - **2030**: 45% below 1990 levels
  - **2040:** 70% below 1990 levels
  - **2050:** 95% below 1990 levels and achieve net zero emissions
- **"Invest"** = Revenue from auctioning allowances will be used for projects on clean energy transition and assistance, clean transportation, and climate resiliency
  - Allowances: Entities either reduce emissions or obtain allowances to cover remaining emissions (some allowances issued freely, and others will be auctioned; number of allowances decrease over time)
  - Minimum 35% funds toward overburdened communities; 10% toward Tribal projects

Mapping of Climate Commitment Act Projects

Map of CCA Investments



Healthy Environment for All (HEAL) Act (July 25, 2021)

- Requirements for seven state agencies to advance environmental justice:

  Washington State Departments of Health, Agriculture, Commerce, Ecology, Natural Resources, Transportation; and Puget Sound Partnership

  - Incorporate environmental justice into agency strategic plans
  - Invest in communities with greatest environmental and health burdens

- Creates an environmental justice council to advise the state

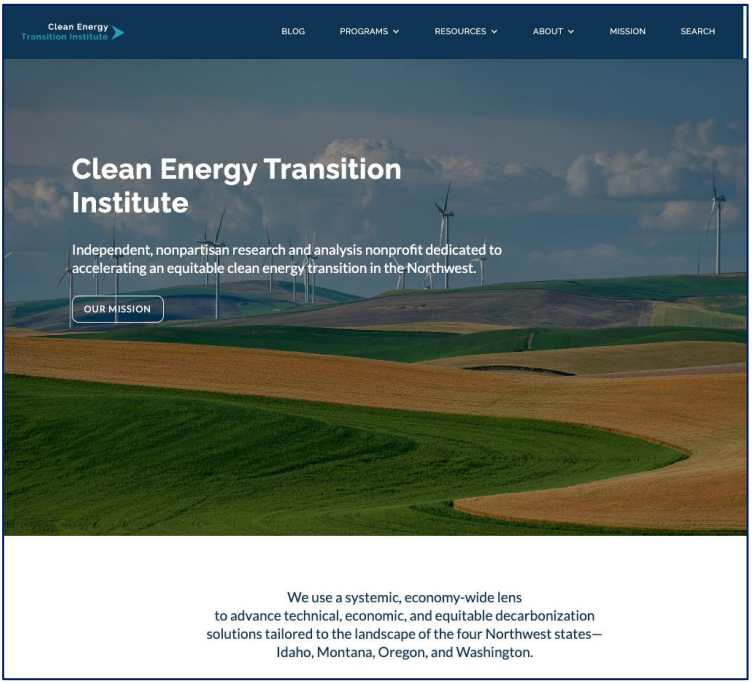
- Requires DOH to maintain and update the Environmental Health Disparities map

Questions & Answers

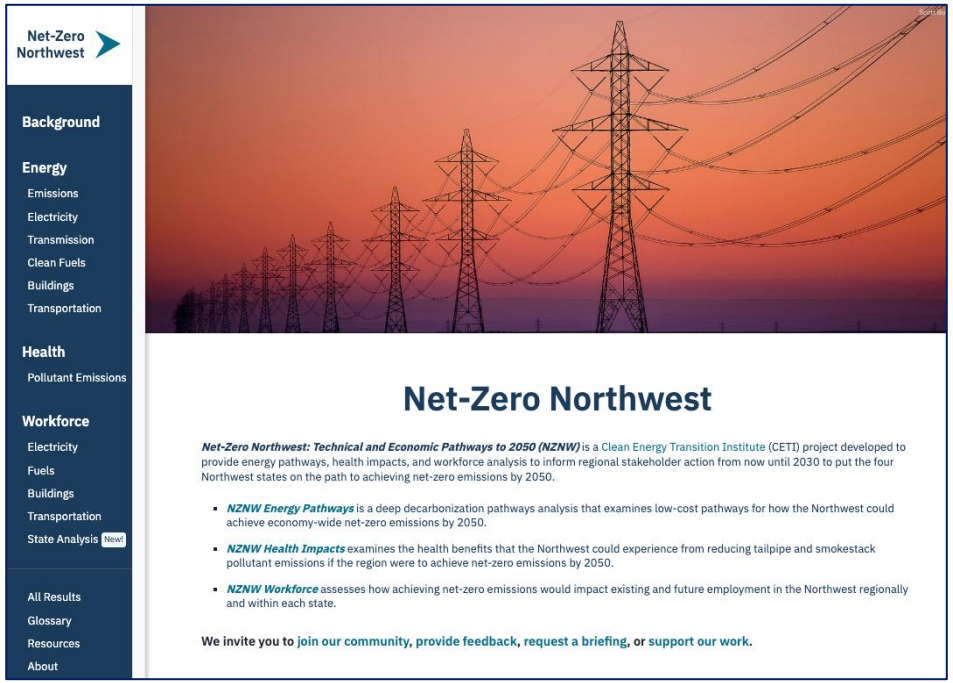
Thank you very much

Eileen V. Quigley eileen@cleanenergytransition.org

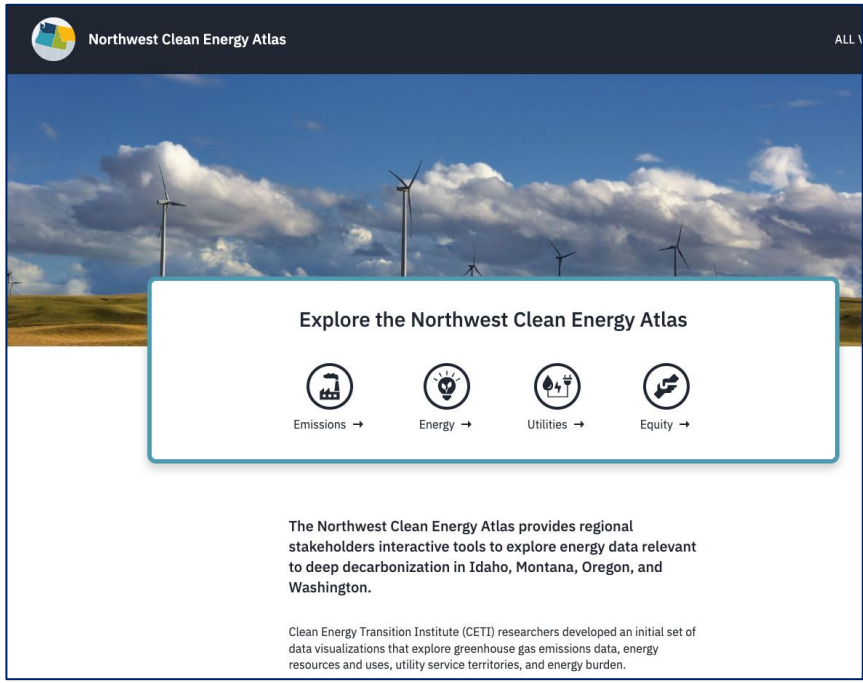
CETI's Websites



https://www.cleanenergytransition.org/



https://www.nznw.org/



https://www.nwceatlas.org/

CETI's Communications

Clean Energy Transition Institute

VIEW THIS EMAIL IN BROWSER

January 2024 Newsletter

New year, new look, same fast-paced focus

Description: Montana farm below massive snow-covered mountains. Photo Credit: Matt

Dear Friend,

The CETI team has been extremely busy since the start of 2024 honing the focus of our SCALE 2030 project to accelerate equitable building decarbonization; working on our contract with Ross Strategic for Washington's Department of Commerce exploring rural clean energy opportunities; and thinking through next steps for our clean energy workforce program.

As you can see, our wonderful new Communications Manager, Jamie Ptacek, has redesigned our newsletter. Please let us know what you think.

Finally, last week we packed up our offices to move to a new building in downtown Seattle. We're excited about the year ahead and grateful to the very engaged CETI community that animates our work.

Eileen V. Quigley
Executive Director

Featured Report

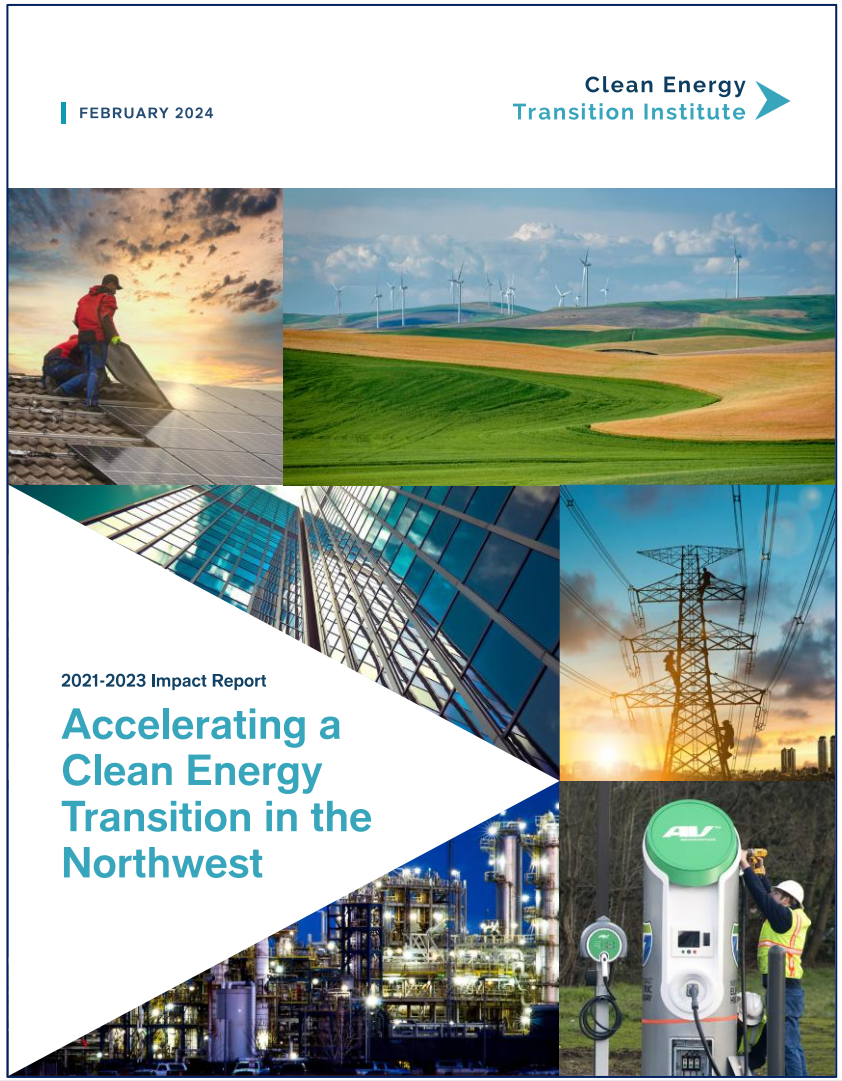
Green Electrolytic Hydrogen

In 2023, we partnered with Evolved Energy Research to assess opportunities for and barriers to deploying green electrolytic hydrogen and renewable fuels in Washington for a contract with the State Department of Commerce.

Read the full report and check out highlights, like the Phases for Advancing Hydrogen, by clicking the button below.

Learn more

Description: A hydrogen pipeline with wind turbines and in the background. Photo Credit: Vika Jin



FEBRUARY 2024

Clean Energy Transition Institute

2021-2023 Impact Report

Accelerating a Clean Energy Transition in the Northwest

Clean Energy Transition Institute

March 08, 2024

March Deep Dive

Addressing Green Hydrogen's Environmental and Energy Justice Considerations

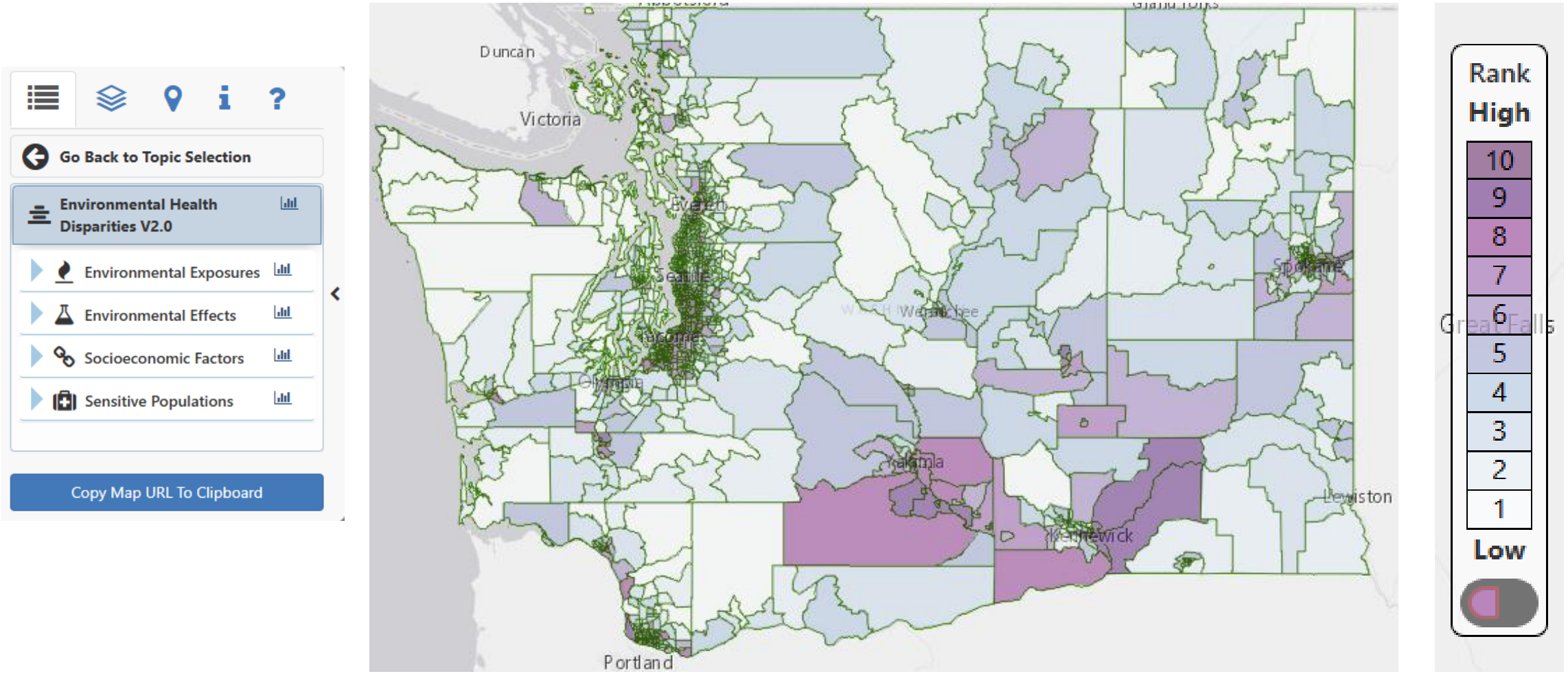
Demystifying Building Decarbonization

Description: Professional HVAC technician performing air duct filter installation. Attribution: Tomasz Zajda

This month, Eileen explains why decarbonizing buildings is so important to hit Washington's emissions reduction goals and how SCALE 2030 aims to produce an analytical roadmap to drive the systemic changes needed for the state's building sector ecosystem to deliver a rapid ramp-up of electrification by 2030.

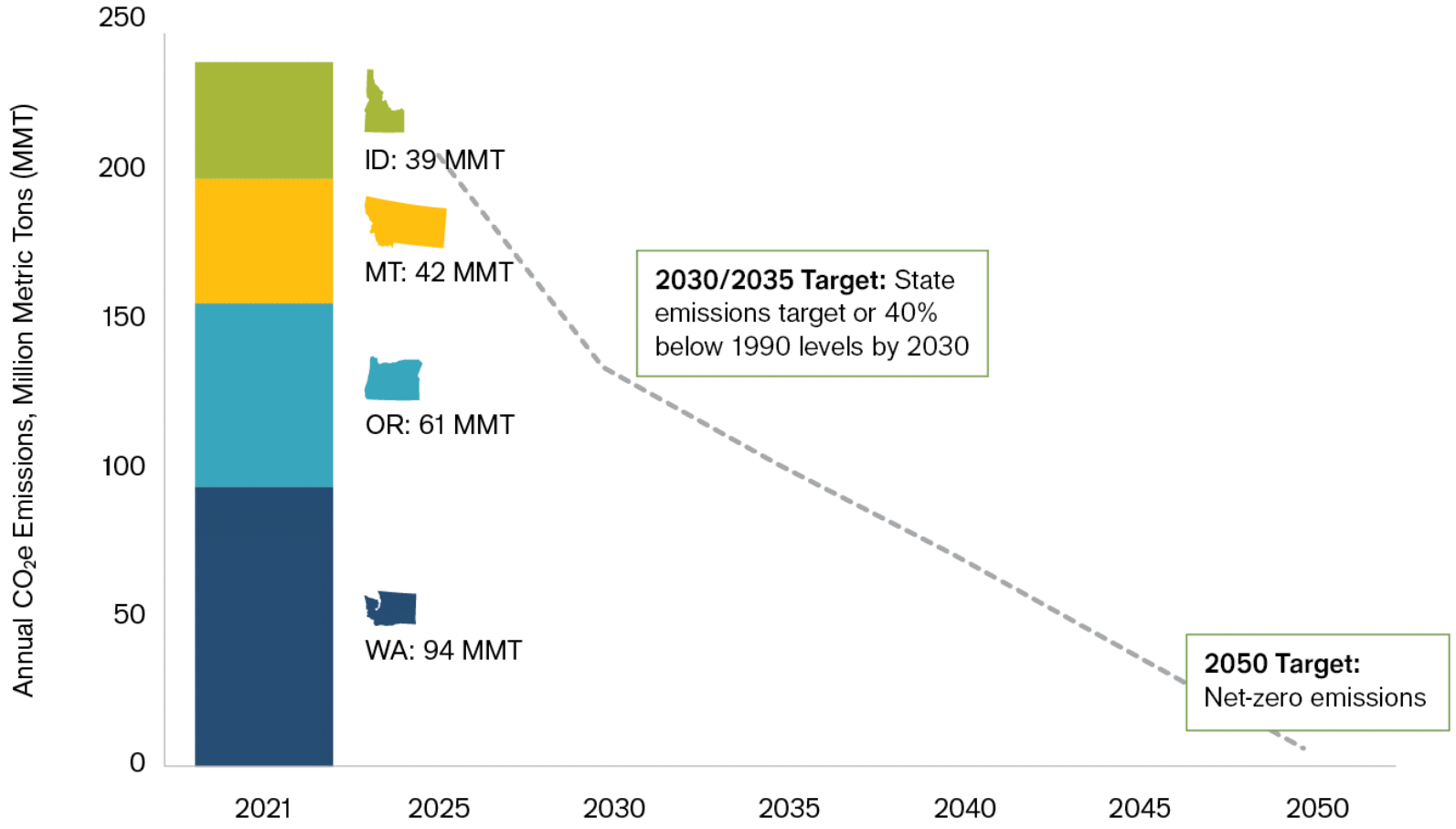
Read the Full Story

Environmental Health Disparities Map



Net-Zero Northwest Emissions Target

Where Do We Start From in the Northwest?



Source: Evolved Energy Research. *Net-Zero Northwest Energy Pathways Analysis Technical Report*, June 2023.

Appendix

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- What is the climate and clean energy policy landscape in Washington?
- What is the role of funding/financing in accelerating an equitable clean energy transition?
- Q & A

Federal Funding

Inflation Reduction Act (IRA) Jobs

- The IRA will create **more than 9 million good jobs over the next decade***
  - Includes **900,000 new jobs** from the provisions on **efficient buildings**:
    - Nearly 720,000 jobs from tax credits to support residential and commercial building retrofits and new home construction that boosts energy efficiency
    - More than 170,000 jobs from rebates that will make energy efficiency upgrades more affordable for households
    - Nearly 10,000 jobs from investments to retrofit affordable housing units to be more water and energy efficient and climate resilient

*According to analysis commissioned by the BlueGreen Alliance from the Political Economy Research Institute (PERI)

Federal Funding Overview

- **Bipartisan Infrastructure Law (BIL),** or the Infrastructure Investment and Jobs Act (IIJA)
  - November 2021
  - $1.2 trillion in infrastructure spending across more than 380 federal programs
    - Approx. $650 billion reauthorizing existing funding and $550 billion adding new funding
- **Inflation Reduction Act (IRA)**
  - August 2022
  - $369 billion in clean energy and climate investments

IRA Labor Standards

- The IRA pairs climate investment with good-paying jobs
- To maximize many of the available tax incentives, firms need to:
  - Pay workers a **prevailing wage,** and
  - Employ a certain number of apprentices from **registered apprenticeship programs**