

# 2021 Washington State Energy Strategy

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GLENN BLACKMON, PH.D.

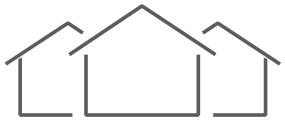
JUNE 28, 2021



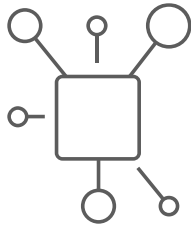
Washington State  
Department of  
**Commerce**

# We strengthen communities

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**HOUSING  
HOMELESSNESS**



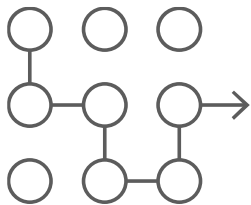
**INFRASTRUCTURE**



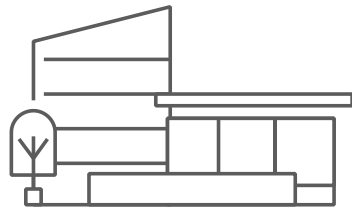
**BUSINESS  
ASSISTANCE**



**ENERGY**



**PLANNING**



**COMMUNITY FACILITIES**



**CRIME VICTIMS &  
PUBLIC SAFETY**



**COMMUNITY  
SERVICES**

# Legislative Direction – WA Strategy

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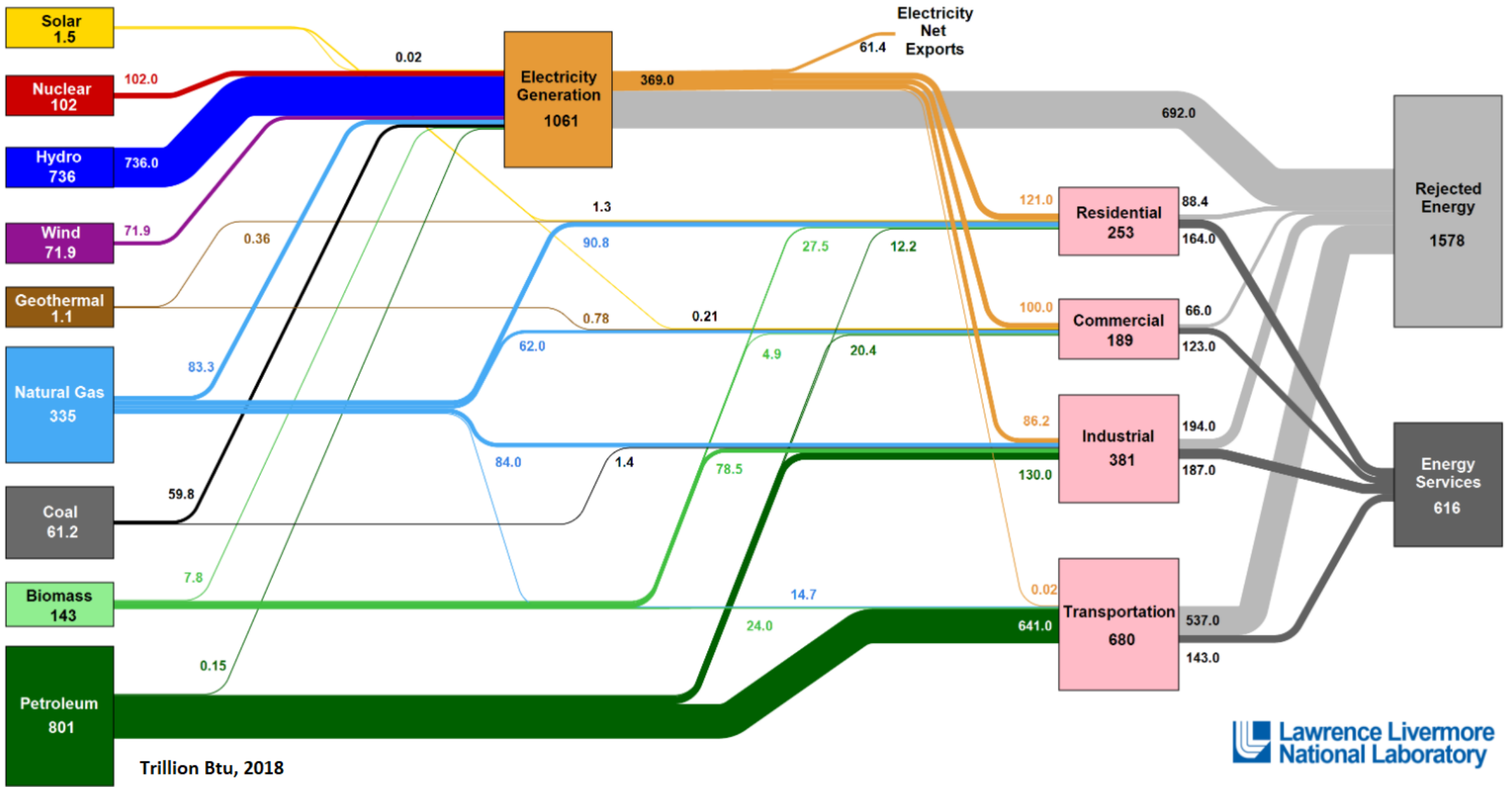
- **RCW 43.21F.010**
  - Goals and structure
- **RCW 43.21F.088**
  - Principles
- **RCW 43.21F.090 (2019)**
  - 8-year cycle
  - Advisory committee



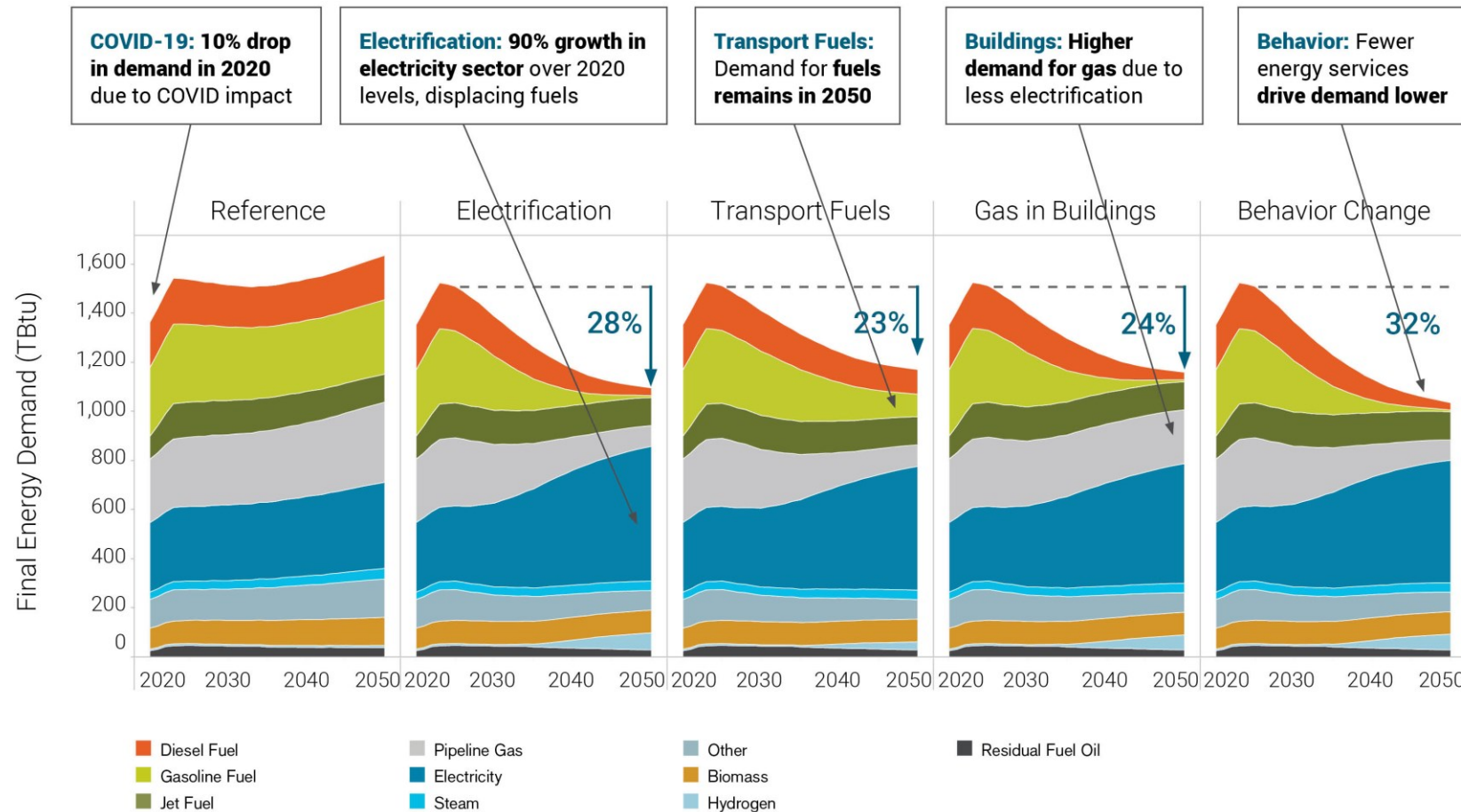
# Specific Directives in 2019 Legislation

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- Align strategy with clean electricity laws
  - Energy Independence Act (I-937, 2006)
  - Clean Energy Transformation Act (SB 5611, 2019)
    - After 2025, no coal in resource mix
    - By 2030, greenhouse neutral electricity supply
    - By 2045, 100% renewable or non-emitting sources
- Align strategy with greenhouse gas emissions limits (HB 2311, 2020)
  - By 2030, 45% below 1990 levels
  - By 2040, 75% below 1990 levels
  - By 2050, 95% below 1990 levels and achieve net-zero emissions.



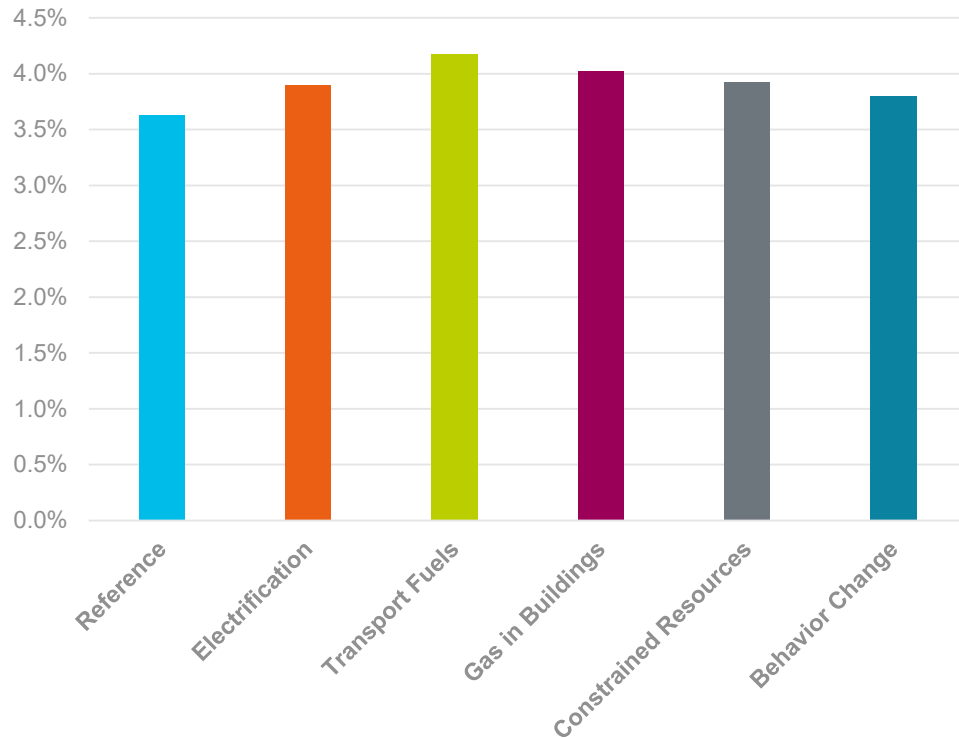
# Final Energy Demand 2020-2050



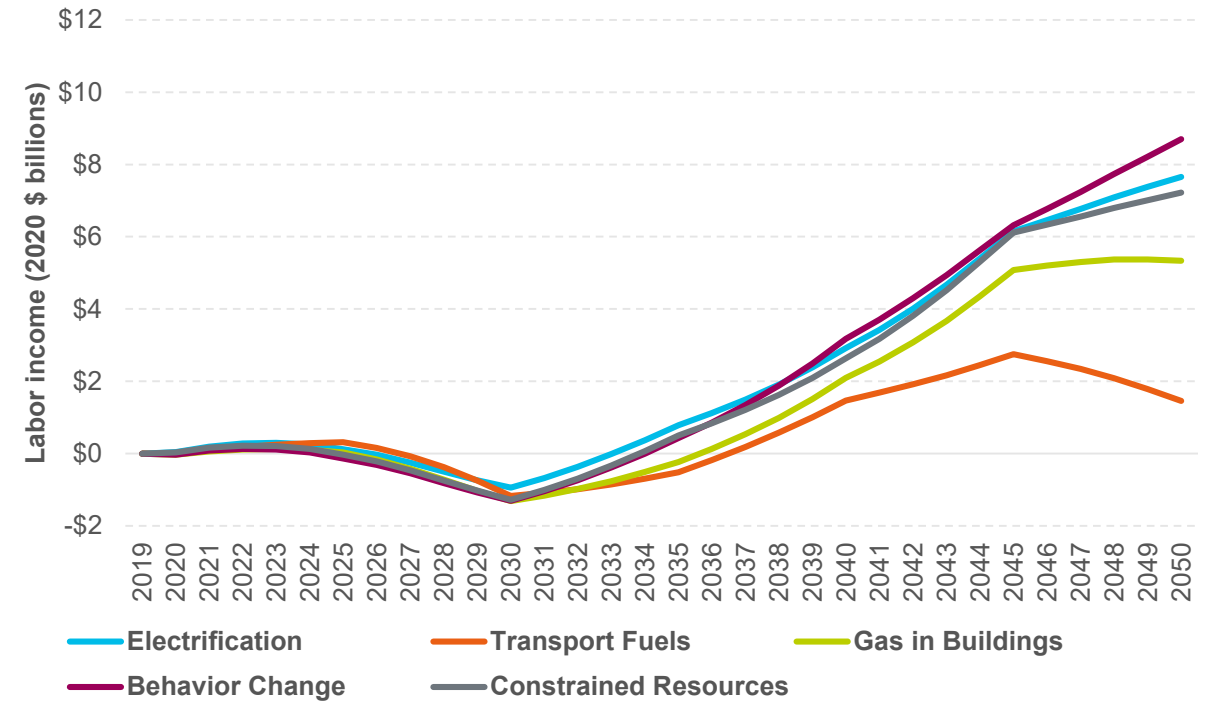
Source: Appendix A – Deep Decarbonization Pathways Modeling Report, December 11, 2020 (p. 28).

# Cost Impacts and Economic Effects

Average Annual Energy Expenditure (%GDP/yr)

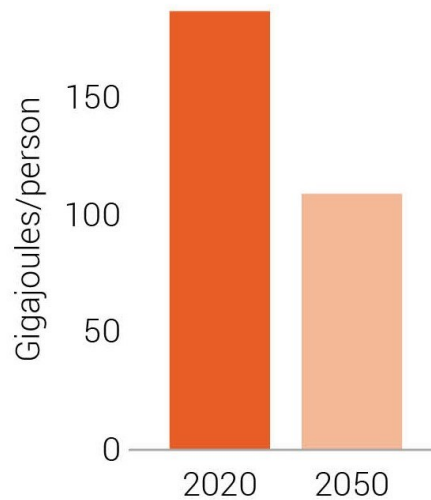


Change in Labor Income, Compared to Reference Case

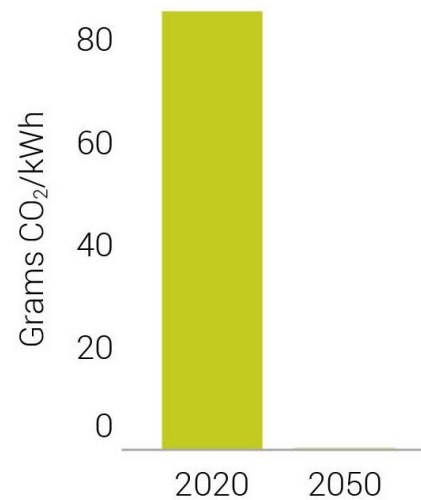


# Five Decarbonization Strategies

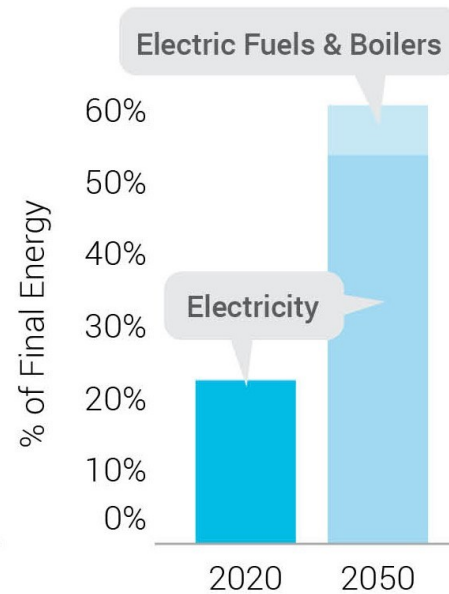
**Energy Efficiency**  
Energy Consumption  
(Gigajoules/person)



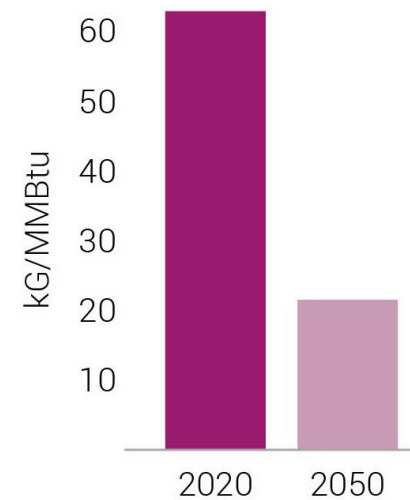
**Clean Electricity**  
Electricity Carbon Intensity  
(Grams CO<sub>2</sub> per kWh)



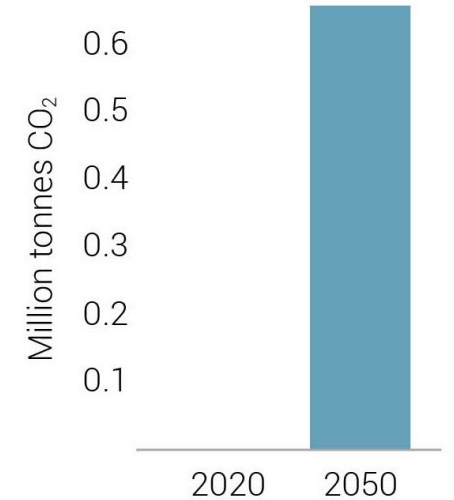
**Electrification**  
Electricity Share of Total Energy  
(% of Final Energy)



**Clean Fuels**  
Fuels Carbon Intensity  
(kG/MMBtu)



**Carbon Sequestration**  
(Million tonnes CO<sub>2</sub>)



# Ensure Equitable Transition for Communities



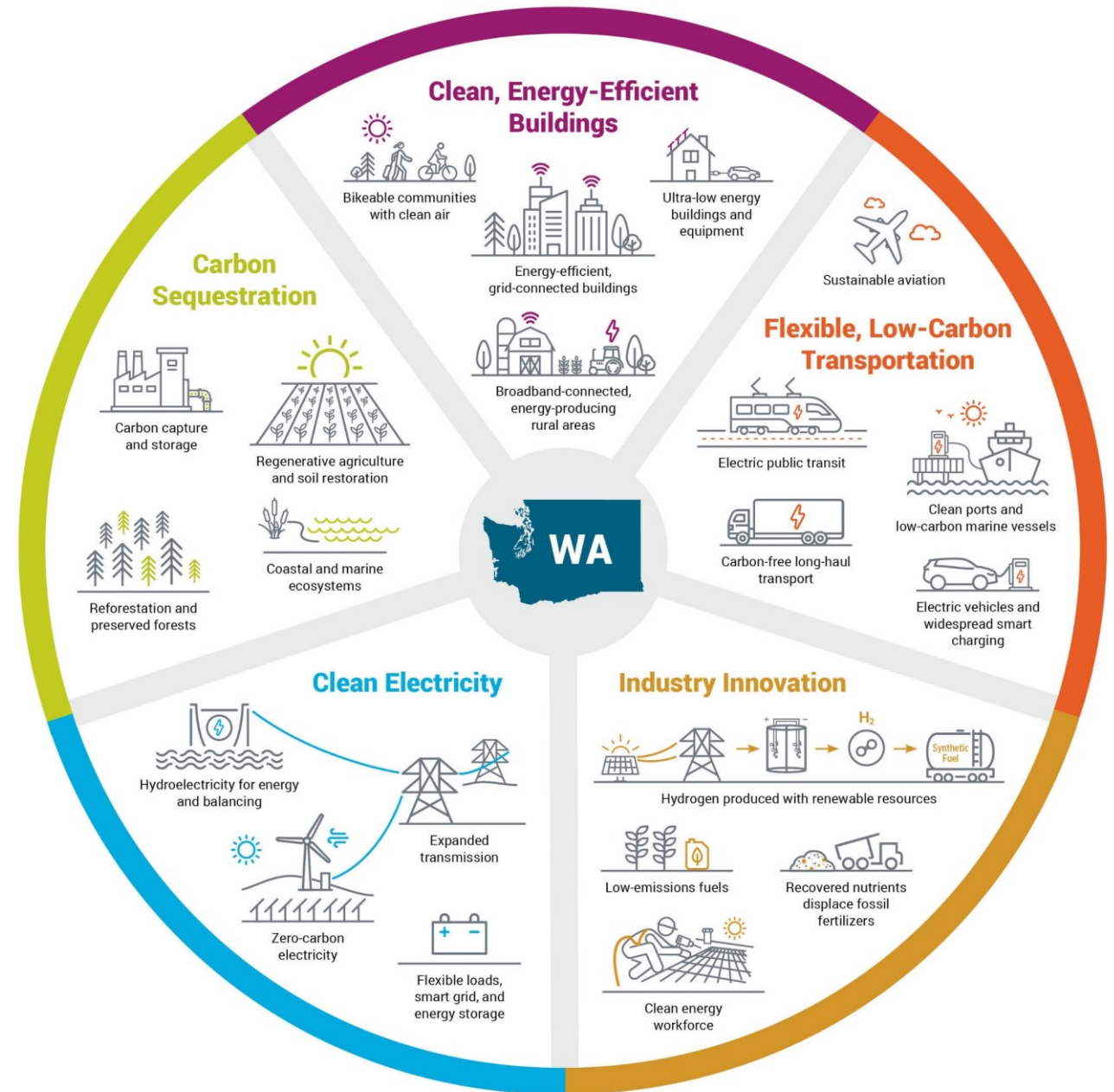
- Apply explicit equity principles
- Ensure impacted communities design solutions
- Invest in equitable and inclusive transition
- Support workers in transition
- Universal broadband access as foundation for transition

Source: Washington State Department of Commerce

# WASHINGTON STATE 2050

# Net-Zero Vision

A blueprint for how we can meet our state's climate goals to nearly eliminate the use of climate-threatening fossil fuels by 2050, while growing a prosperous economy and maintaining affordable and reliable energy supplies.



# 2021 Strategy – Big Themes

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- Need for planning, data analysis and outreach
- Role of investment in equitable and inclusive transition
- Universal broadband access as a foundation for energy transition
- Transition of the fossil natural gas industry
- Value of comprehensive pricing mechanisms
- Role of research, development and early deployment
- Development of green hydrogen and clean fuels

# Resources

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- **Website:** [commerce.wa.gov/energystrategy](https://commerce.wa.gov/energystrategy)
- **Project lead:** [Kate Kelly](#)
- **Subject matter leads**
  - [Michael Breish](#) – transportation
  - [Emily Salzberg](#) – buildings
  - [Sarah Vorpahl](#) – equity, electricity
  - [Glenn Blackmon](#) – modeling, industry, natural gas
  - [Austin Scharff](#) – workforce
  - [Peter Moulton](#) - fuels

# Thank you!



Washington State  
Department of  
**Commerce**

[www.commerce.wa.gov](http://www.commerce.wa.gov)



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