

# Planning for Clean Energy

American Planning Association Conference

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ELECTRIC AND NATURAL GAS UTILITIES AND ENERGY MARKETS SENIOR POLICY  
SPECIALIST

2023/8/23



Washington State  
Department of  
**Commerce**

# We strengthen communities



HOUSING AND HOMELESSNESS



INFRASTRUCTURE AND BROADBAND



SMALL BUSINESS ASSISTANCE



ENERGY



PLANNING AND TECH ASSISTANCE



COMMUNITY SERVICES AND FACILITIES



CRIME VICTIMS AND PUBLIC SAFETY



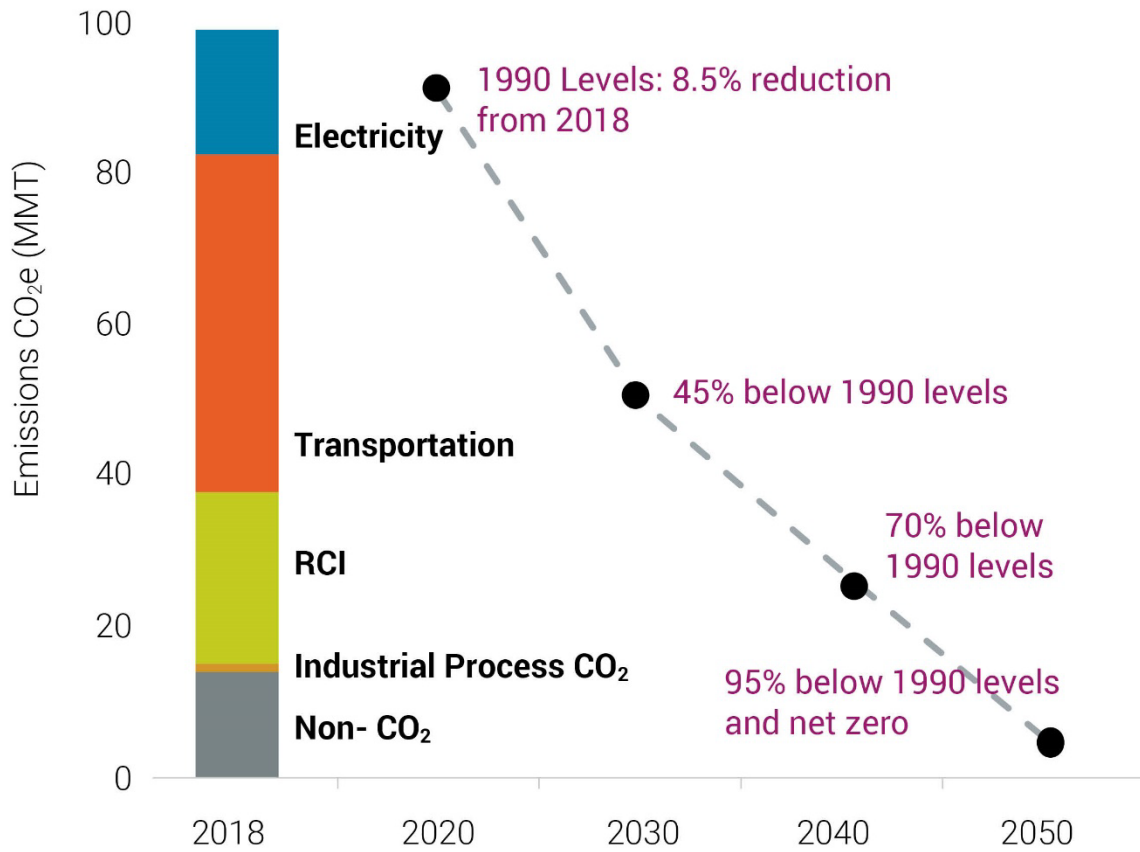
ECONOMIC DEVELOPMENT

Backgr ound





# Meeting State Emissions Reduction Limits



Source: Washington State Department of Ecology and Washington State.  
Appendix A –Deep Decarbonization Pathways Modeling Technical Report, December 11, 2020 (p. 15).



# Overarching Requirements

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- Planning, data analysis and outreach
- Research, development, early deployment of clean technologies
- Investment to ensure equitable and inclusive transition
- Transition the fossil natural gas industry
- Develop clean fuels industry
- Comprehensive pricing mechanisms

# 100% Clean Electricity, Smart Grid Power Transition



- Enhance reliability and resource adequacy of the electricity grid
- Accelerate new renewables and transmission expansion
- Deploy flexible solutions and smart grid technology to manage load
- Develop market mechanisms for clean power
- Ensure effective implementation of the Clean Energy Transformation Act

# Clean Electricity

97%

growth in electricity end use demand over 2020 levels by 2050



43%

of electricity imported by 2050



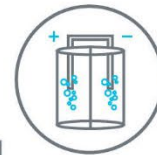
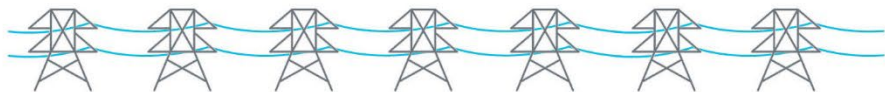
36%

from WY & MT wind



100%

renewable/non-emitting electricity by 2045



19%

of total electricity demand from electric boilers and electrolysis by 2050

# Decarbonizing the Electricity Sector

97%   
growth in electricity end use demand by **2050**

21%  by **2030** | 83%  by **2045**

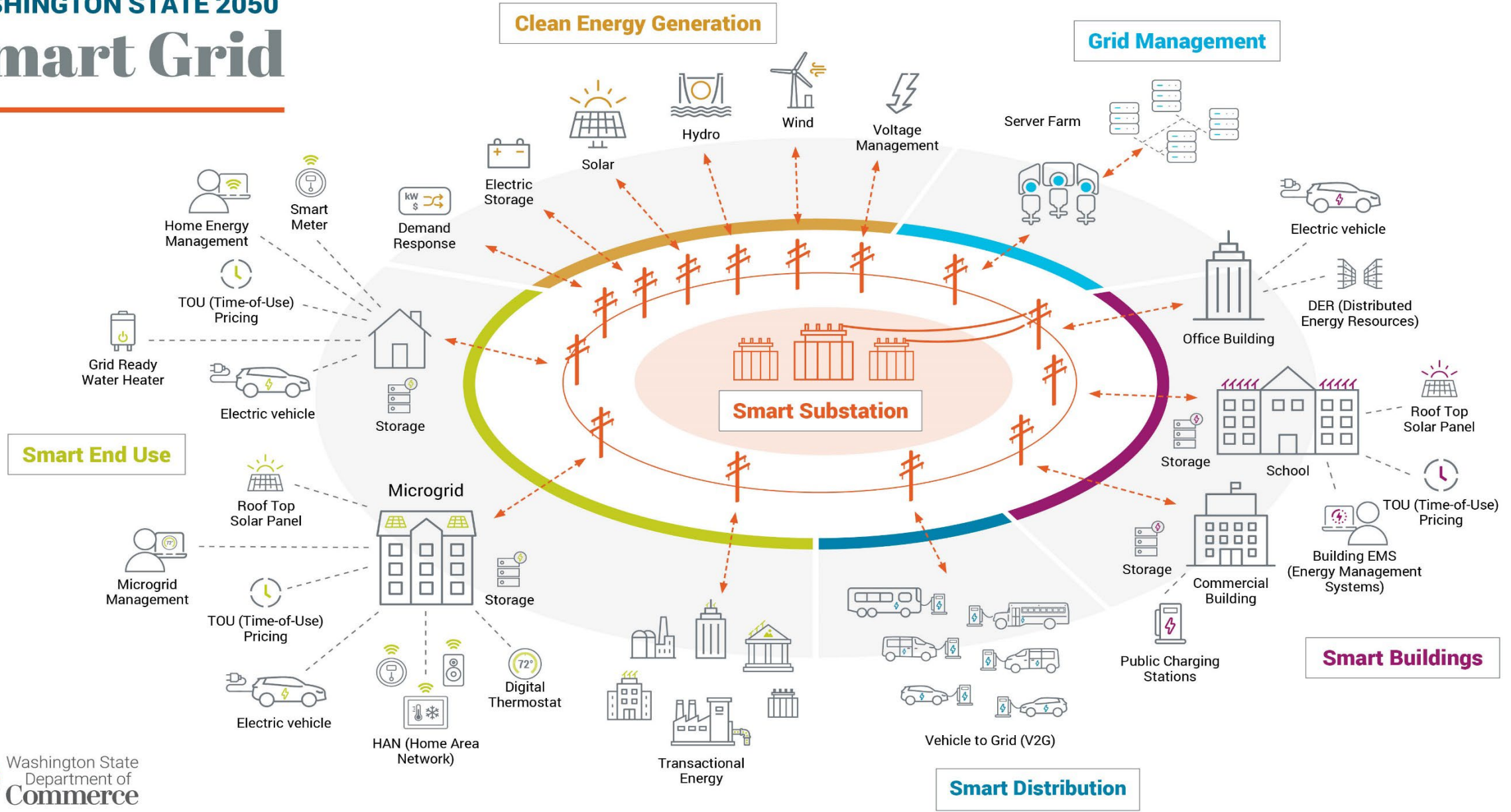
ELECTRICITY EMISSIONS INTENSITY 

Year	Emissions Intensity (grams/kWh)
2020	85
2030	6.5
2050	0

- Doubling of 2020 end use electricity load by 2050, plus additional flexible load from electrolysis and boilers
  - ✓ Growth in electricity sector displaces fuels by 2050
- Larger integrated electricity system in West
  - ✓ Regional coordination key to decarbonization
- All coal-fired electricity from state portfolios eliminated by 2025
  - ✓ Carbon-neutral electricity by 2030
- Gas capacity added for reliability
  - ✓ Used only for rate reliability events



# WASHINGTON STATE 2050 Smart Grid



# Approach to Equity

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## PROCEDURAL

- Create processes that are transparent, fair and inclusive in developing and implementing any program, plan or policy
- Ensure that all people are treated openly and fairly
- Increase the civic engagement opportunities of communities that are disproportionately impacted by climate change

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## DISTRIBUTIONAL

- Fairly distribute resources, benefits and burdens
- Prioritize resources for communities that experience the greatest inequities, disproportionate impacts and have the greatest unmet needs

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## STRUCTURAL

- Make a commitment to correct past harms and prevent future unintended consequences
  - Address the underlying structural and institutional systems that are the root causes of social and racial inequities
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# 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

# The Clean Energy Transformation Act (CETA)

Washington's 100% clean electricity law (2019)





# Clean Energy Transformation Act (CETA)

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- Clean
- Affordable
- Reliable
- Equitable



# CETA's three clean energy standards

Applies to all electric utilities serving retail customers in the state

- 2025: Eliminate coal from retail portfolios
- 2030: Greenhouse gas neutral standard
  - Use electricity from renewable or non-emitting sources in an amount equal to 80% of retail WA load
  - Alternative compliance options for up to 20%
- 2045: 100% renewable or non-emitting



# Natural gas under CETA

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- **There is no prohibition on building natural gas facilities**
  - Natural gas can continue to be used at current levels until 2045
  - Post-2045 utilities may use renewable fuels, hydrogen, or synthetic fuels made from hydrogen

# Enhanced emphasis on resource adequacy

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- Utilities must adopt an explicit resource adequacy standard and apply it in resource planning
- Allows temporary suspension to protect reliability
- Regular assessment by Commerce of reliability and resource adequacy
  - Includes consultation with experts and stakeholders





# An equitable and affordable transformation

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- **Legislative finding that “public interest” includes equitable distribution of benefits**
- **Among other things, utilities must**
  - Consider non-energy impacts in resource decisions
  - Assess impacts on vulnerable populations and highly impacted communities
- **Standards incorporate equitable distribution goals**

# Implementation updates

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- **Utilities submitted first 4-year planning documents on Jan. 1, 2022**
  - Avista Corp. and PSE have finalized their plans
  - PacifiCorp's planning document continues to be litigated
  - COUs are having their planning documents reviewed by State Auditor

Other relevant statutes



# The Climate Commitment Act (2021)

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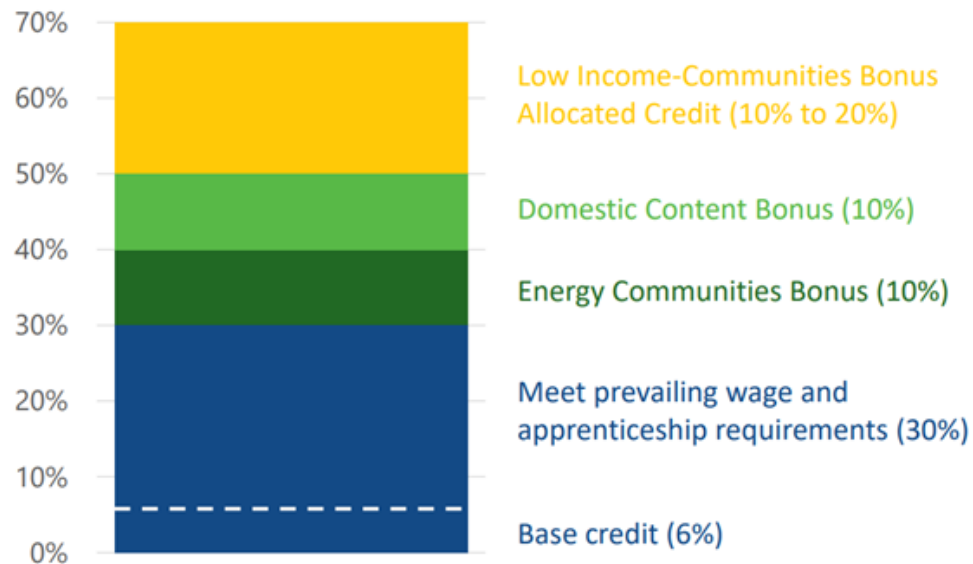
- **Washington state's comprehensive cap-and-invest program**
  - Sets a declining cap on carbon
  - Carbon producers bid on allowances to emit carbon under the cap
  - Revenues go into accounts within the state general fund



# Federal Inflation Reduction Act (IRA)

## Clean Energy Layer Cake

### Total Investment Tax Credit



A hypothetical 1 MW community solar facility costing \$1 million could earn a **70% tax credit** worth \$700,000

If it is owned by a tax-exempt entity, this could be a **direct cash payment** from the IRS

Applies to clean electricity investment and production tax credits, available till at least 2032

Idea credit Paul Horn, Inside Climate News

Upcoming opportunities



# Rural clean energy and resilience report

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## House Bill 1216, Section 307

### Gain better understanding of the benefits and impacts of anticipated changes in the state's energy system

- Consultation with diverse group of stakeholders, including low-income households, elected leaders, businesses, with input from Environmental Justice Council
- Economic analysis of rural energy economic impacts, including jobs, landowner revenue, local taxes, and more
- Provide a review and forecast of siting clean energy projects in rural Washington

Report due December 1, 2024, to JCESECER



# Part A: Rural community engagement

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Consult with stakeholders from rural communities, agriculture, natural resource management and conservation, forestry

- Collect best available information and learn from the lived experiences of people in rural communities

Include at least one stakeholder meeting in western WA and one in eastern WA

Opportunity to discuss multiple clean energy business activities

- Renewable generation, hydrogen and biofuels, electric vehicles and equipment, dual use solar, carbon capture, energy conservation, wood products, clean manufacturing





# Part B: Economic impact analysis

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## Analyze economic and financial impact of renewable energy projects developed and operated in rural communities

- Direct, indirect, and induced jobs in construction and operations
- Financial returns to property owners, effects on local tax revenue, potential impact mitigation payments
- Effects on other rural land uses, such as agriculture, natural resource management, tourism

## Review geographic distribution of existing and planned energy projects and results of least-conflict priority solar siting pilot

## Include forecast of resource requirements for clean energy transition



# RFP identifies existing policies and studies

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## Washington 2021 State Energy Strategy

### Recent policies and studies to understand and address potential impacts on rural communities

- Least-conflict solar siting analysis for Columbia Basin
- Solar grant provision establishing preference for projects that avoid traditional agricultural lands
- Wind turbine lighting requirements to reduce visual impacts to communities
- Wind and solar tax provision that increases and stabilizes receipts for communities and tribes that host renewable facilities
- Grant program to demonstrate dual-use solar projects – traditional agriculture combined with solar electric generation



# Request for proposals

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Single RFP covering rural community engagement and economic impact analysis

## RFP schedule

- Issued August 21
  - [RFP - Rural Clean Energy Economics and Community Engagement Study and Report - Washington State Department of Commerce](#)
- Preproposal conference September 8
- Proposals due September 28
- Earliest start date for contract October 27

Questions: [Aaron.Peterson@commerce.wa.gov](mailto:Aaron.Peterson@commerce.wa.gov)

# Funding Opportunity

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- \$10 million to assist in siting clean energy facilities and processing permits
- Questions: [Larry.Mattson@commerce.wa.gov](mailto:Larry.Mattson@commerce.wa.gov)

# Thank you!



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