



AGENDA

- Introductions
- Steering Committee Business
Charter and Governance
- Sustainability and Energy Plan Vision and Goals
- Project Status and Timeline
- Greenhouse Gas Introduction
- Ellensburg GHG Inventory
Baseline and Forecast
- CETA Legislation Requirements Overview
Impacts to Vulnerable Populations
- Next Meeting Date and Agenda

Thank you for your participation!











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Steering Committee Business

All information presented, distributed, or discussed is to be considered a draft and ***For Discussion Only***. None of the targets, strategies, notes, or actions are final until formally adopted by the City Council.

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Sustainability & Energy Plan Steering Committee Charter

Background

The city has engaged a consulting team to develop and write a Sustainability and Energy Plan to complete the following objectives:

1. Establish a baseline greenhouse gas (GHG) inventory, recommend emission reduction goals, and develop a high-level emission reduction scenario based on identified mitigation measures.
2. Plan for compliance with WA State legislation: the Clean Energy Transformation Act (CETA), Clean Buildings Performance Standard (CBPS) and the Climate Commitment Act (CCA).

Steering Committee Purpose

The purpose and role of the Steering Committee is to provide support, guidance and oversight to the project team, throughout the project, to ensure the milestones and objectives are met.

Team Members

1. Energy/HVAC Representative
2. Industrial Representative
3. EDA Representative
4. UAC Representative
5. COE Operations/Fleet
6. COE Building/Planning Department
7. CWU Sustainability Officer
8. CWU Planning & Projects
9. Environmental Committee Representative
10. Our Environment Representative
11. Central Washington Disability Resources

Project Milestones

Data Collection and analysis	December
Current state assessment and assumptions	February
Preliminary CETA and CBPA assessment	February
GHG emissions workbooks and baseline inventory	April
Public outreach content and chat survey set-up	May
CCA Analysis and Utility Resiliency	May
Final public outreach, tabulating and reporting	June
Sustainability goals, targets and mitigation strategies	July
Draft report delivered	August
Final report written, delivered and presented	September

Steering Committee Responsibilities

- Understand the aim, strategy and intended outcomes of the project; appreciate the significance of the project
- Be genuinely interested in the project and the outcomes that are intended; be an advocate for the project
- Consider ideas and issues raised and provide guidance to the project team for resolution
- Help balance conflicting priorities and resources
- Foster positive communication outside of the Committee regarding the project's progress and outcomes
- Contribute to the evaluation of the project, both the process of developing and implementing the project, and its actual impact on the City.

Tasks

1. Review draft goals, assessments, plans and other project documents to provide feedback and recommendations.
2. Identify and help introduce community stakeholders to be included in executive interviews.
3. Provide input into the development of public outreach content.
4. Meet with project lead and/or team, as necessary, for report-outs or to provide advice, make decisions or changes to the project as it develops.

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Sustainability and Energy Plan Vision and Goals

Sustainable: mindful action and investment today that minimizes and mitigates negative impacts on future resources – *both natural and fiscal*

Sustainability and Energy Plan Objectives:





1. Establish a baseline greenhouse gas (GHG) inventory, recommend emission reduction goals, and develop a high-level emission reduction scenario based on identified mitigation measures.
2. Plan for compliance with WA State legislation: the Clean Energy Transformation Act (CETA), Clean Buildings Performance Standard (CBPS) and the Climate Commitment Act (CCA).

DID YOU KNOW?

The 2021 Climate Commitment Act requires that Washington reduce its carbon emissions by 95% by 2050.

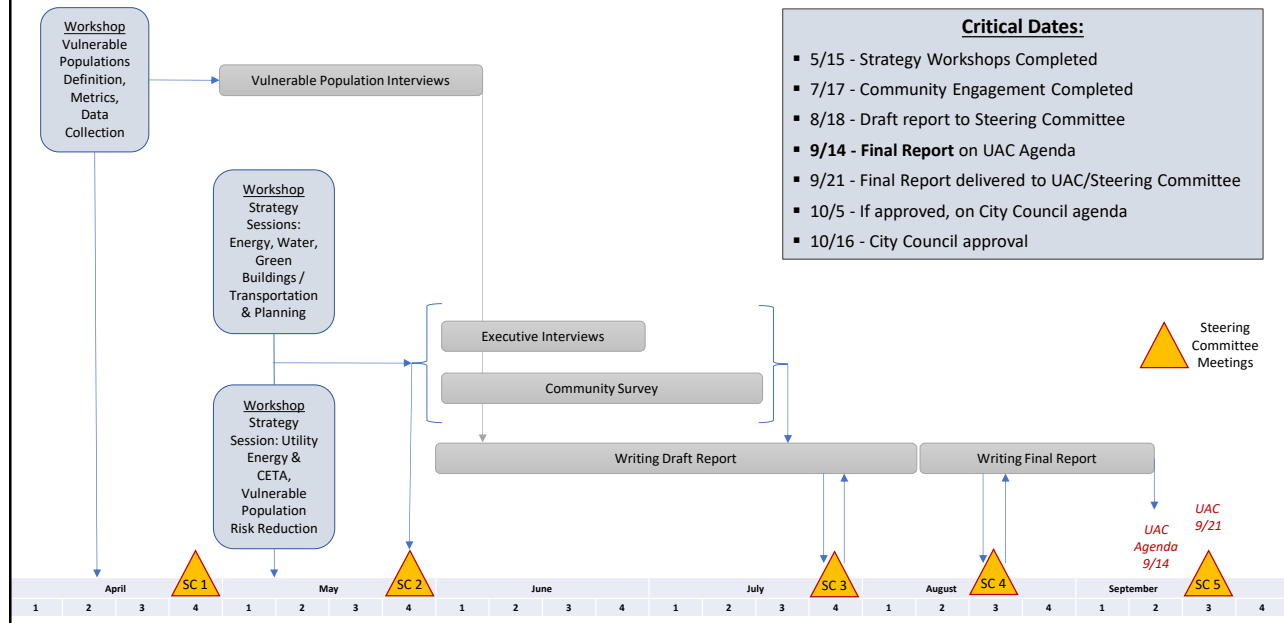
That's not lip service - it's law.

Source: Washington State Department of Ecology GHG Inventory webpage

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Project Timeline



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GHG Introduction & Ellensburg Inventory

Emma Sorrell

Sarah McDowell

Tim Zhang

CUMMING
Building Value Through Expertise

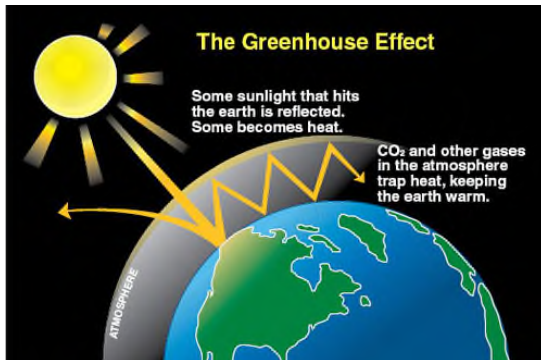
CUMMING-GROUP.COM



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WHY FOCUS ON GREENHOUSE GASES?

Greenhouse Gas Emissions (GHG) – A gas that traps heat in the atmosphere, causing the greenhouse effect.

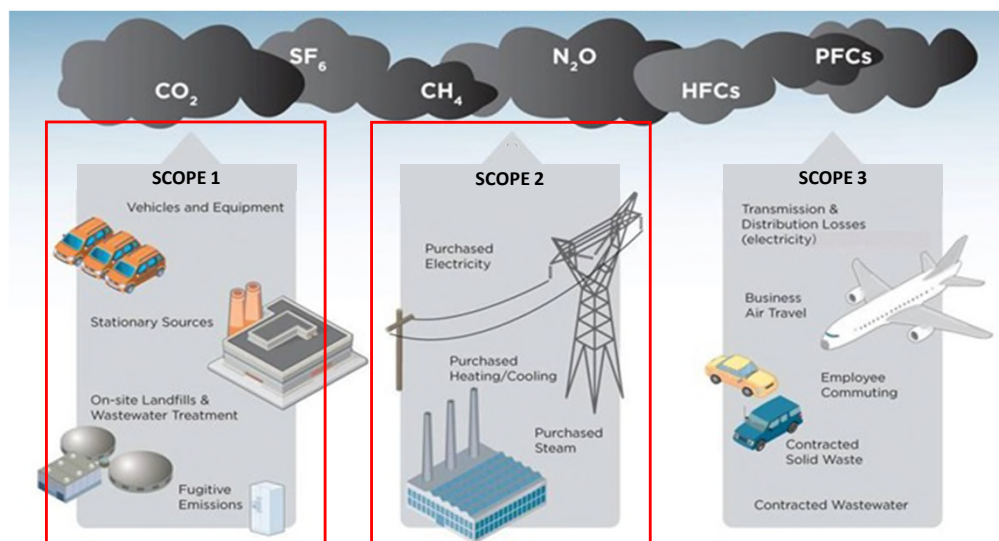


The Greenhouse Gases:

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)
- Others

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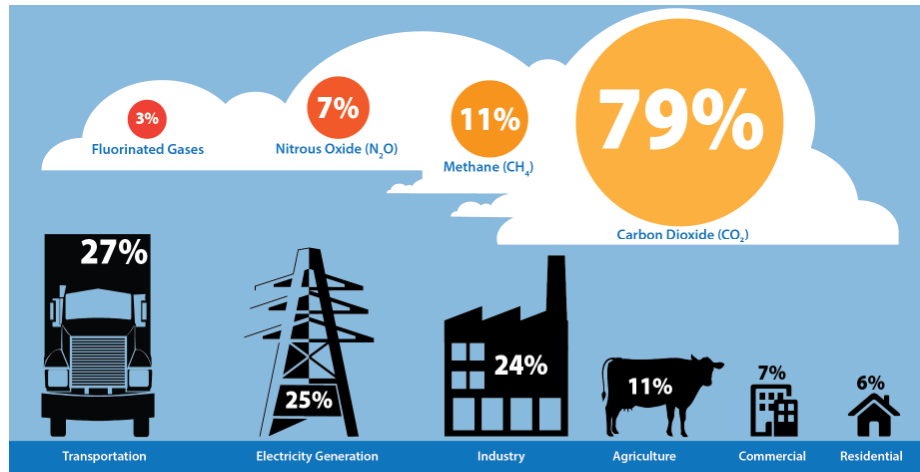
SOURCES OF GHG EMISSIONS (SCOPES)



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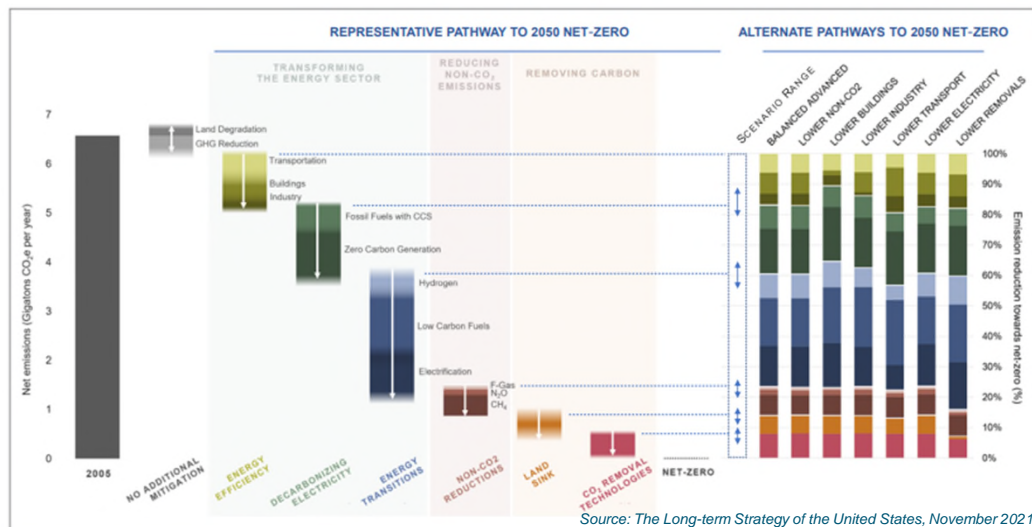
U.S. GREENHOUSE GAS EMISSIONS BY SECTOR

U.S. GHG Emissions – 2020



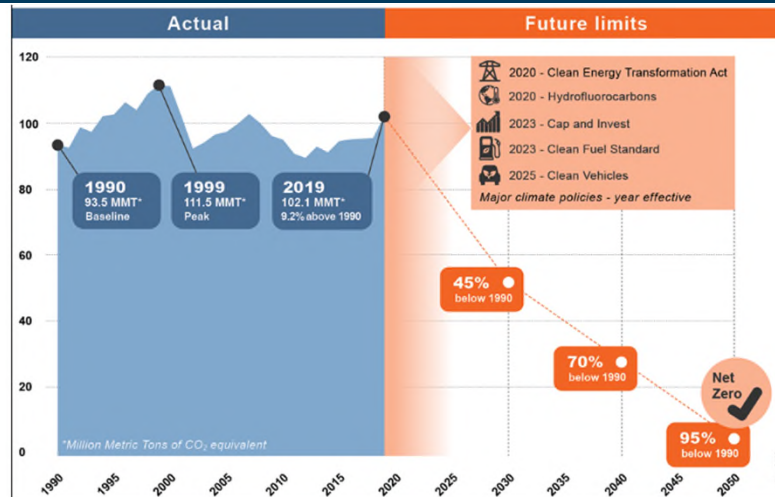
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United States GHG Emission Reduction Strategies



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Washington State GHG Emissions & Reduction Targets



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Ellensburg GHG Inventory

• EPA GHG Inventory Tools

- Broken out by Sectors for Municipal and Community

• Baseline Period: December 2021 – November 2022

• Includes selected Scope 1 & 2 emissions

• Data includes:

- Utility Consumption: Electricity and Natural Gas
- Municipal Fleet Transportation
- Community Vehicle Miles Traveled in Ellensburg
- Wastewater /Stormwater Treatment



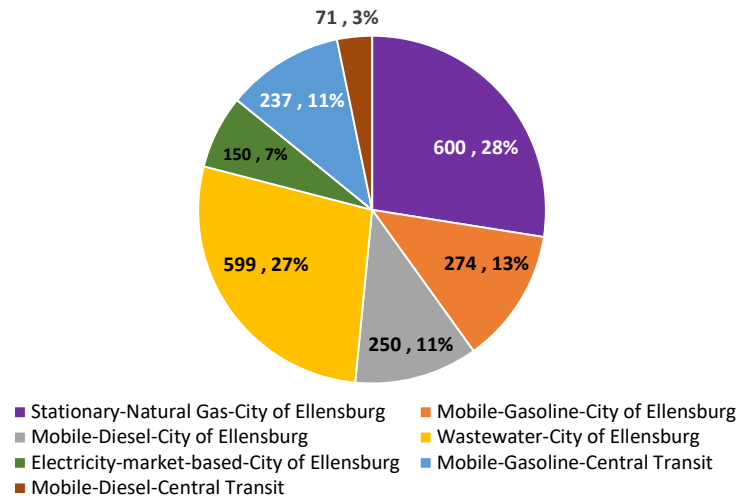
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Baseline Municipal GHG Emissions

2021 Baseline Emissions

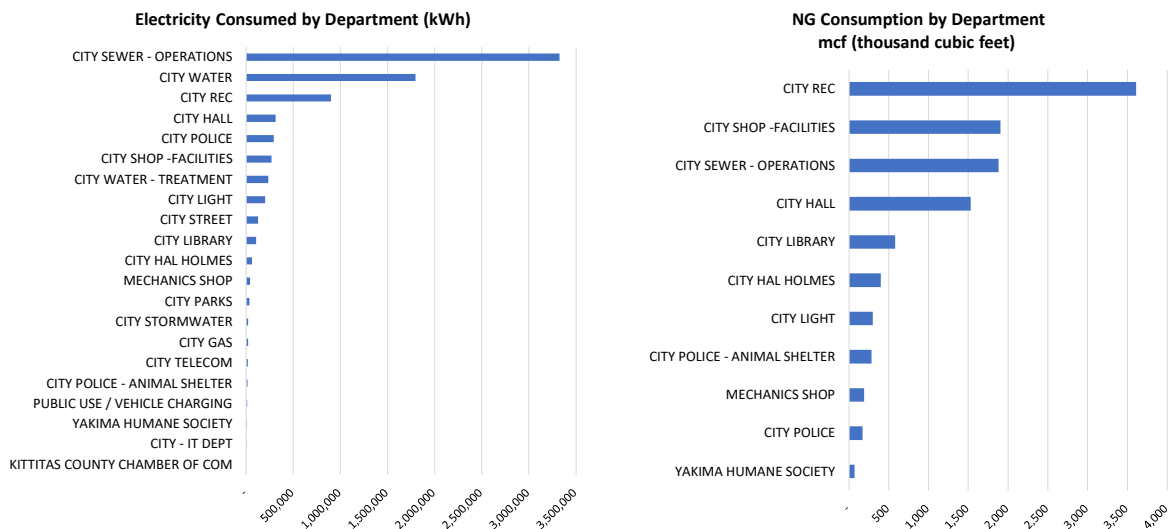
Municipal Operations
2,181 MTCO₂e

Municipal GHG Emissions by Department and Source (MT CO₂e)
(Market-based Scope 2)



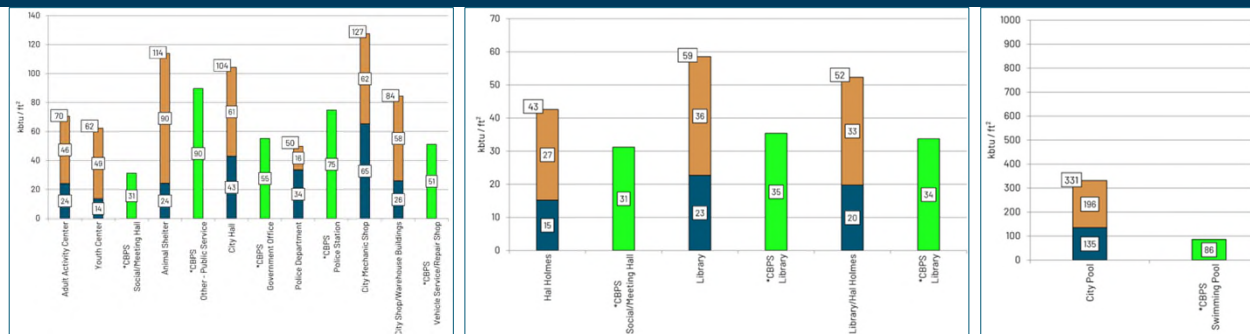
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Municipal Department Energy Comparison



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Municipal Building EUI Against CBPS



- All buildings, except the police station, are over the state's targets (*only the library falls under CBPS legislation*)
- Energy Cost Avoidance if all buildings were brought into compliance: **\$106,087 annually**
 - Assumes that natural gas cost per btu is the same as electric cost per btu and most of the savings is likely due to converting natural gas heat to electric heat pump. This type of conversion has significant EUI impact but little dollar savings.
- The city pool has the highest EUI and is the furthest from the state's target. Energy savings potential for the pool alone is **\$55,761 annually**.



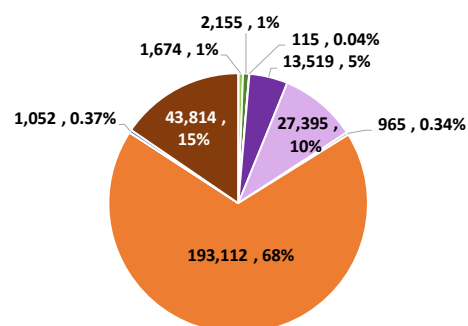
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Baseline Community GHG Emissions

2021 Baseline Emissions

Community Emissions
283,800 MTCO₂e

Community GHG Emissions by Source and Sector (MT CO₂e)
(Market-based Scope 2)



- Electricity-market-based-Residential
- Electricity-market-based-Commercial/Institutional
- Stationary-Natural Gas-Residential
- Stationary-Natural Gas-Commercial/Institutional
- Mobile-Gasoline-Residential
- Mobile-Diesel-Residential
- Mobile-Gasoline-Commercial/Institutional
- Mobile-Diesel-Commercial/Institutional

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GHG Emissions Comparison

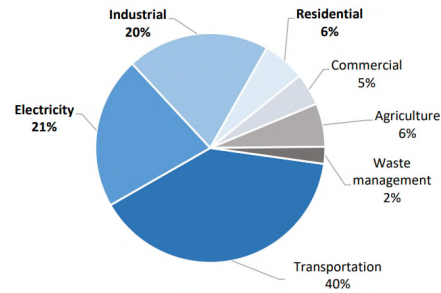
Ellensburg Total Emissions:

- Scope 1&2: 285,983 MTCO₂e
- 14.6 MTCO₂e per capita

WA State:

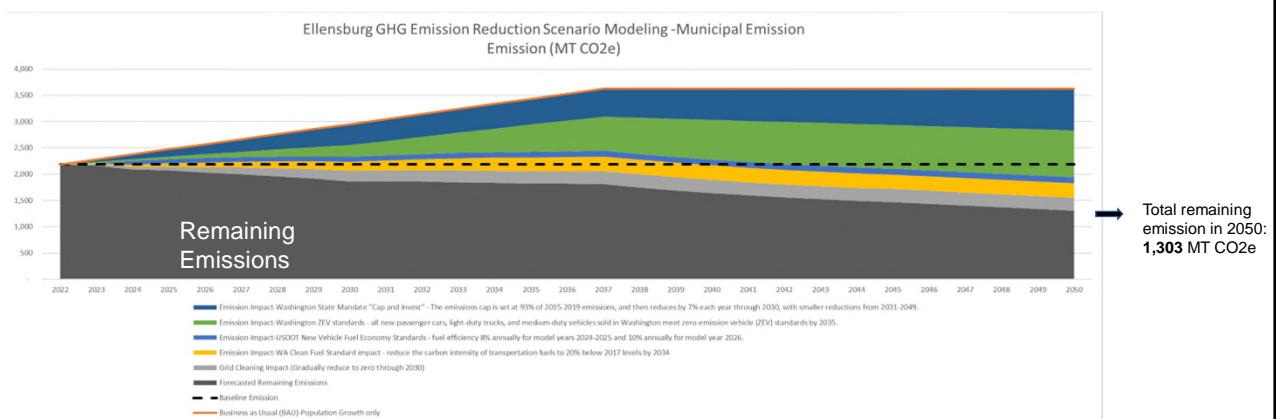
- Scope 1&2: 102,100,000 MTCO₂e
- 13.5 MTCO₂e per capita

Washington State GHG Emissions by Sector



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Municipal Emissions Forecast: 2023 - 2050

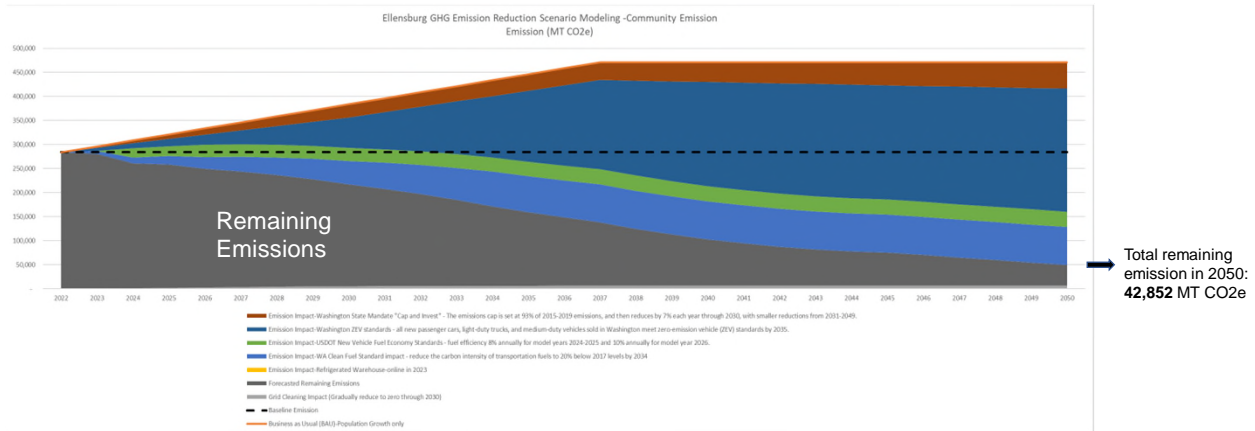


Assumptions:

- Total emission has direct linear relationship with total emission under BAU scenario with grid cleaning impact
- EV penetration forecast data provided by Ted (2021-2045)
- Population becomes stable after 2037
- Assume EV use phase emission would become zero starting from 2030 due to the zero-emission intensity from the grid.
- Assume 10% Gas Cars/Internal combustion engines (ICE) remaining in 2050; Ignore the potential surge of electricity emissions between 2022 and 2030 due to EV transition and non-zero grid emission intensity due to the extreme low grid electricity emission factor in Ellensburg and relatively low EV penetration rate during this period.

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Community-wide Emission Forecast: 2023 - 2050



Assumptions:

- Total emission has direct linear relationship with total emission under BAU scenario with grid cleaning impact
- EV penetration forecast data provided by Ted (2021-2045)
- Population becomes stable after 2037
- Assume EV use phase emission would become zero starting from 2030 due to the zero-emission intensity from the grid.
- Assume 10% Gas Cars/Internal combustion engines (ICE) remaining in 2050; Ignore the potential surge of electricity emissions between 2022 and 2030 due to EV transition and non-zero grid emission intensity due to the extreme low grid electricity emission factor in Ellensburg and relatively low EV penetration rate during this period.

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City Interview Takeaways

- Tight budgets
- Aging buildings
- Opportunity to collaborate with university and county
- Growing population
- Impact of no new natural gas
- Financial impact on community members
- Going to update water treatment aeration basin
- Lots of sidewalks and bike lanes but could add more

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Horizon Year?

In what year should the plan conclude? 2037, 2045, or 2050?

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Next Step: Strategy Workshops

Plan Categories

- Energy
- Green Buildings
- Transportation
- Water
- Land Use

Workshops

Working sessions to establish the preliminary strategies and actions the city could adopt to hit mandated and internal GHG Emission reduction goals for each category.

The outcome of the workshops will be reviewed by the Steering Committee and will become the basis for the community outreach Executive Surveys and On-Line Chat Survey.

PLAN VISION & GOAL

STRATEGIES

TARGETS

ACTION

ACTION

ACTION

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CLEAN ENERGY TRANSFORMATION ACT (CETA) OVERVIEW



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CLEAN ENERGY TRANSFORMATION ACT (CETA)

- Sets Washington on a path towards clean energy
 - Coal-free by end of 2025
 - Greenhouse gas neutral by Jan 1, 2030
 - Up to 20% from alternative compliance mechanisms
 - 100% Non-emitting / Renewable by Jan 1, 2045
- Includes provisions to ensure transition happen equitably, track & reduce energy burdens

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CLEAN ENERGY IMPLEMENTATION PLAN (CEIP)

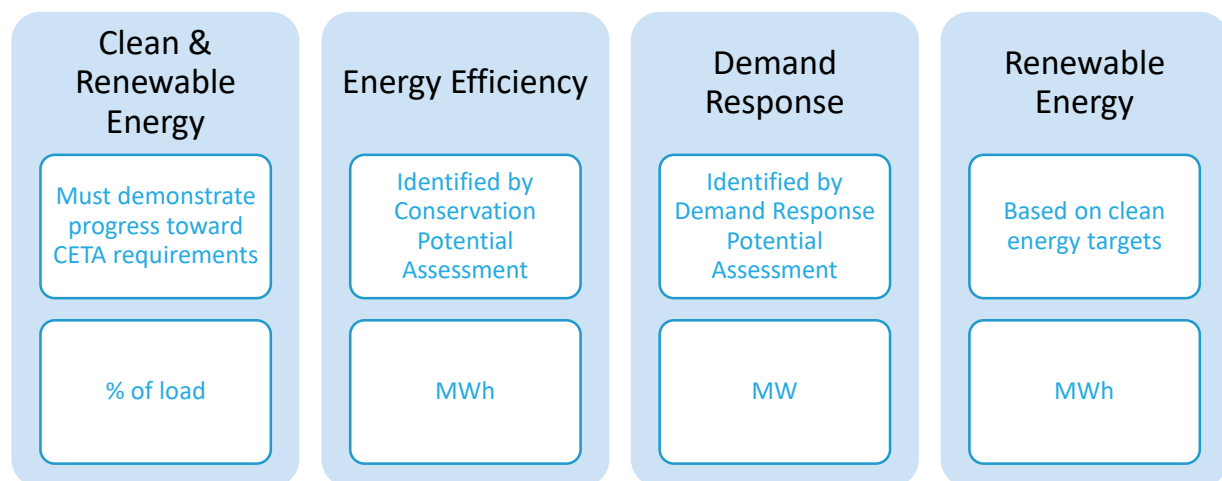
- Required every four years beginning Jan 1, 2022
- Must be approved by utility governing body
- Four-year plan for meeting CETA requirements for energy, equity
- Public input is required *during* the development

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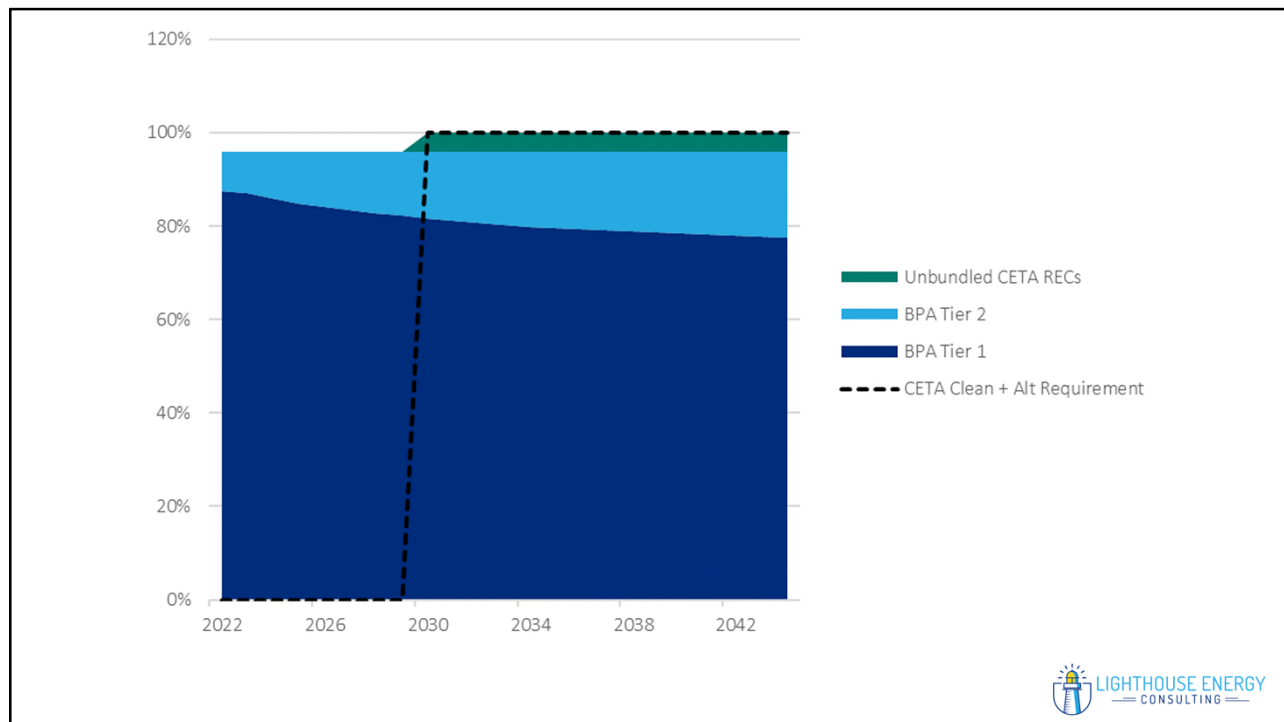
CEIP CONTENTS: ENERGY TARGETS & ACTIONS



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CONSERVATION & DEMAND RESPONSE

- Completed assessments of conservation and demand response potential
- Included measures in residential, commercial, industrial, and utility sectors

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CEIP CONTENTS: EQUITY

- Intended to ensure transition to clean energy is equitable
- Identify
 - Highly impacted communities and vulnerable populations
 - What actions City will do meet identified targets for clean energy, energy efficiency, and demand response
 - What indicators the City will use to ensure all benefit equitably from any actions
 - What the City will do to reduce the risks faced by the highly impacted communities and vulnerable populations

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ELLENSBURG'S ENGAGEMENT STRATEGY

- Organizing discussions with community organizations that serve vulnerable populations
- Topics are complex, this approach allows for a deep discussion
- This approach is commonly used in other similar contexts

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Wrap-Up and Future Meeting Planning

Next Meeting:

- Date/Time: *Propose after Memorial Day*

Tentative Agenda:

- Report status of CETA required Executive Interviews
- Review Output from Strategy Workshops
- Feedback on Initial Strategy and Targets
- Review & Approve On-Line Chat Survey content

May 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
		----- Workshops -----				
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

www.a-printable-calendar.com

Any Last Questions

