

### WELCOME!

WE WILL BEGIN THE MEETING MOMENTARILY.



## PUBLIC PERFORMANCE REVIEW

Project 3.1: Combating Climate Change December 7, 2022



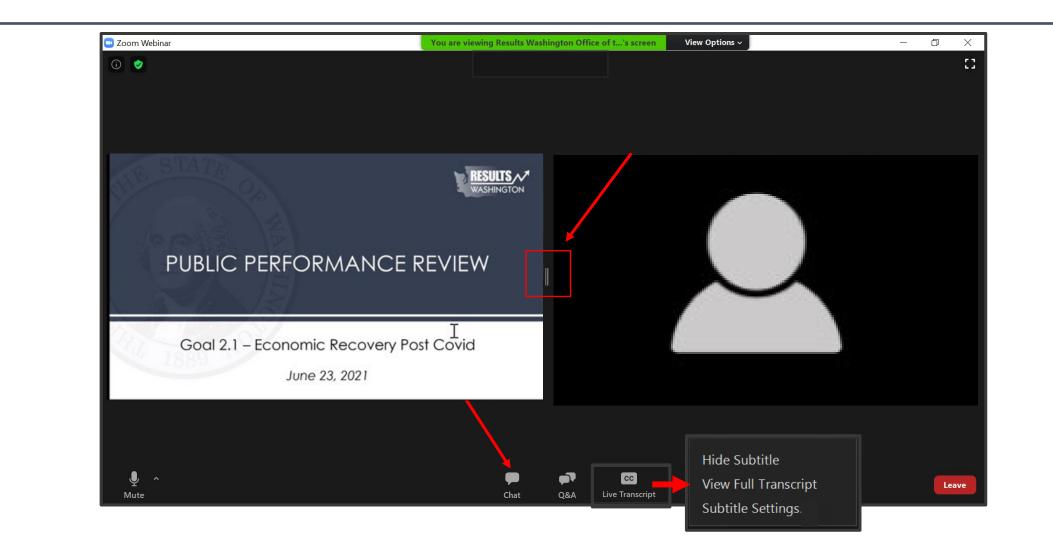
### Welcome

### Presented by:

• MANDEEP KAUNDAL, DIRECTOR, RESULTS WASHINGTON



### Zoom Overview





### Zoom Overview





## Project Selection

Criteria for Cross Agency Projects:

Within existing resources
Without Policy of legislative Action
Without IT being the only solution



### Project 3.1Combating Climate Change

- In partnership with the State Efficiency and Environmental Performance Office (SEEP), integrate enterprise-level and agency business processes and operations to align with emissions reduction goals (examples: facilities management, planning and oversight, budget, fleet management, leasing).
- This project is solely focused on reducing state agency GHG emissions.





# **Opening Remarks**



### 3.1 Project Introduction & Data Overview

PRESENTED BY:

- LAURA WATSON, DIRECTOR, DEPARTMENT OF ECOLOGY
- STACEY WATERMAN-HOEY, GHG EMISSIONS ANALYST





### **3.1 Project Introduction**

Laura Watson, Director

Dec. 7, 2022





### Results Washington State Agency Greenhouse Gas Emissions Reporting

Stacey Waterman-Hoey, GHG Emissions Analyst

Dec. 7, 2022

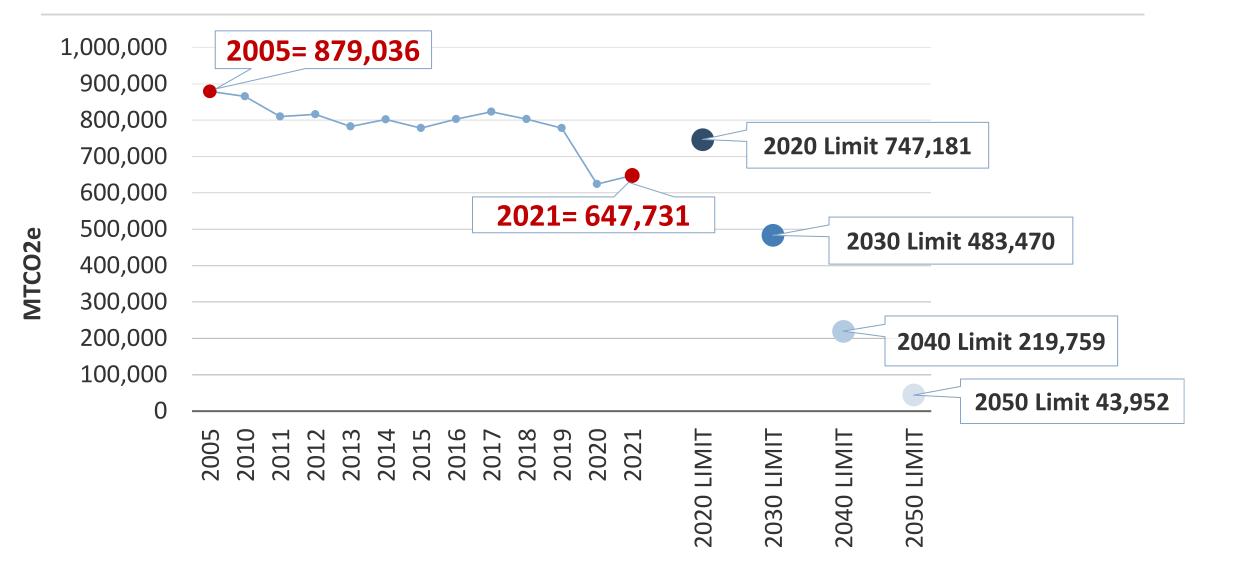


### Washington GHG Emission Limits

### Optional summary or explanation of table information

	Washington State	State Agencies Climate Leadership Act
2020	1990 level	15% below 2005 baseline
2030	45% below 1990	45% below 2005
2040	70% below 1990	70% below 2005
2050	95% below 1990, net zero	95% below 2005, net zero

### **State Agency Historic Emissions & Future Limits**



### State Agencies Progress Report

- In 2021, 15 of 21 agencies remained below their individual 2020 limits
- 12 had met their 2020 limit back in 2019



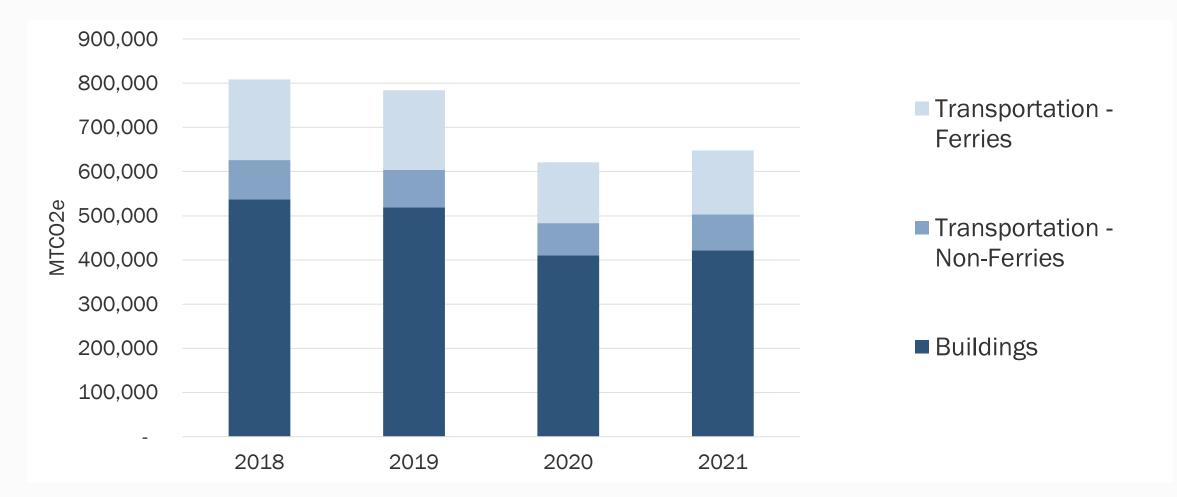


# Looking to 2030

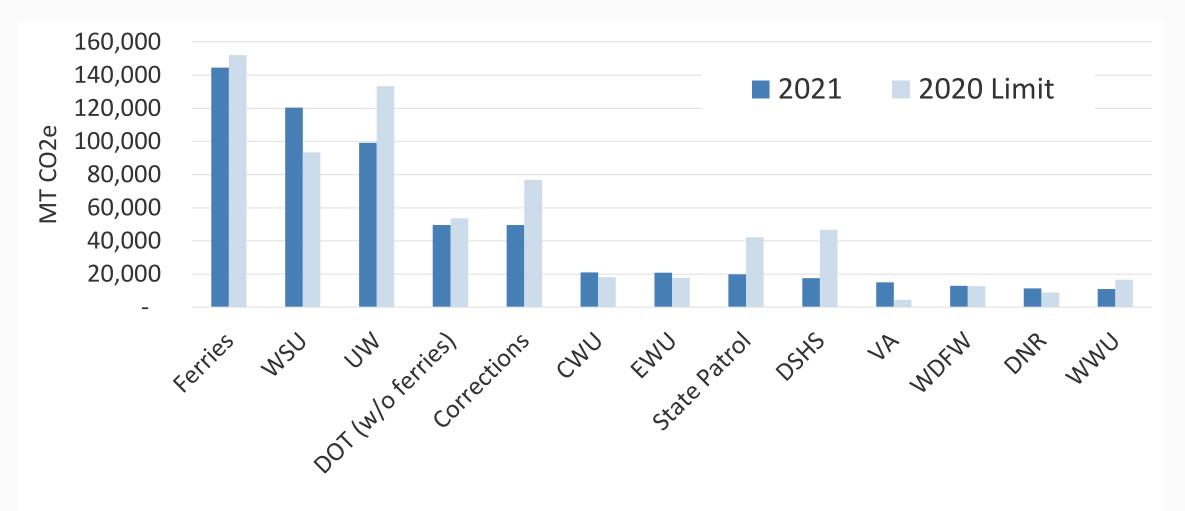
6 agencies have met their
 2030 limits

 All state agencies combined must reduce by additional 34% to meet the 2030 limit

### State Agency GHG Emissions by Sector



### **Largest State Agency Emitters**



# **Renewable Energy Systems**

- 9 agencies reported solar PV
- 335,000 kWh of electricity generation in 2021
- Two agencies reported ground-source heat pumps





### 3.1 Project Opportunity and Overview

PRESENTED BY:

 HANNA WATERSTRAT, SEEP ASSISTANT DIRECTOR, DEPARTMENT OF COMMERCE

### We strengthen communities



# State agency greenhouse gas reduction strategies

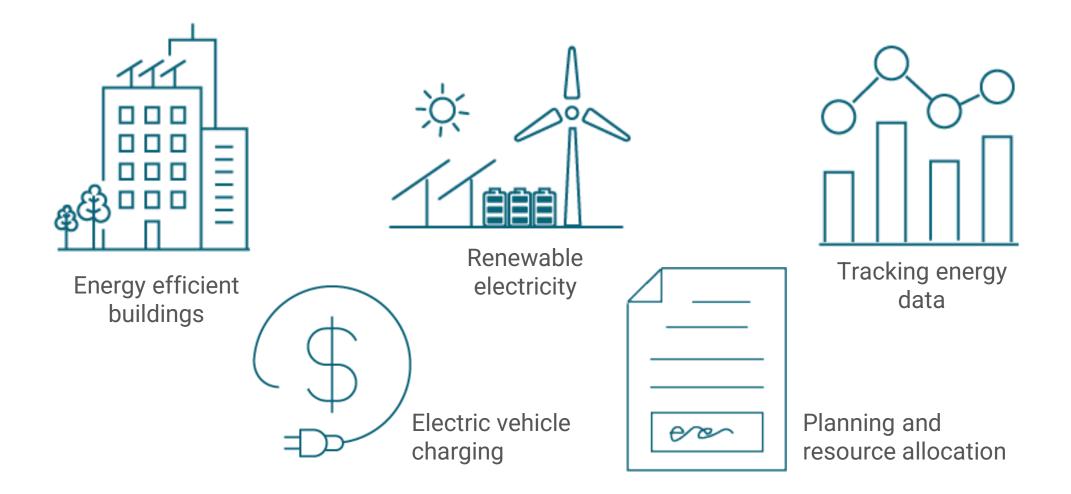
### New reporting requirements:

- Identify strategies to meet GHG emissions limits in RCW 70A.45.050
- Include recommendations on priority actions to reduce GHG emissions

# **Goal**: Link GHG emissions data to agency decision-making.



### GHG reduction strategy themes



## GHG reduction strategies: Transportation

- Fleet electrification
- Improved vehicle utilization
- EV charging
- Remote meetings



# GHG reduction strategies: Facilities

- LED lighting
- HVAC systems
- Clean Buildings Performance Standards (energy audits, sub-metering)
- DES Energy Program energy services performance contracts
- Downsize occupied square footage
- Incorporate energy efficiency with new leases and lease renewals
- New construction: Zero energy buildings
- Upgrade and electrify central plants and district heating systems

### GHG reduction strategies: Renewable energy

- Add on-site solar photovoltaic arrays
- Incorporate geothermal heating systems and ground-source heat pumps
- Sign power purchase agreements to maximize the use of renewable electricity from utility providers

## GHG reduction strategies: Other

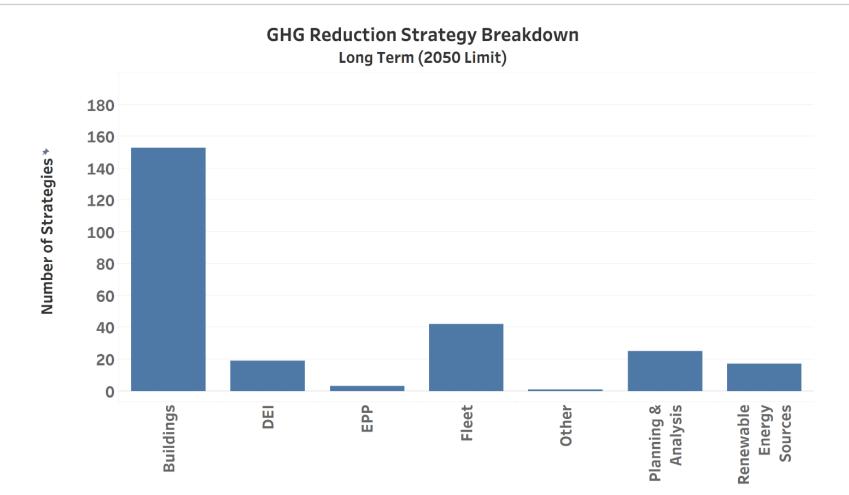
### • Planning and resource allocation:

- Dedicated staff resources for energy and sustainability work
- Track and analyze energy use
- Complete and implement campus master plans, energy management plans, climate action plans, and other strategic planning initiatives

### • Procurement:

• Energy efficient appliances and IT equipment

## Long-term strategy breakdown



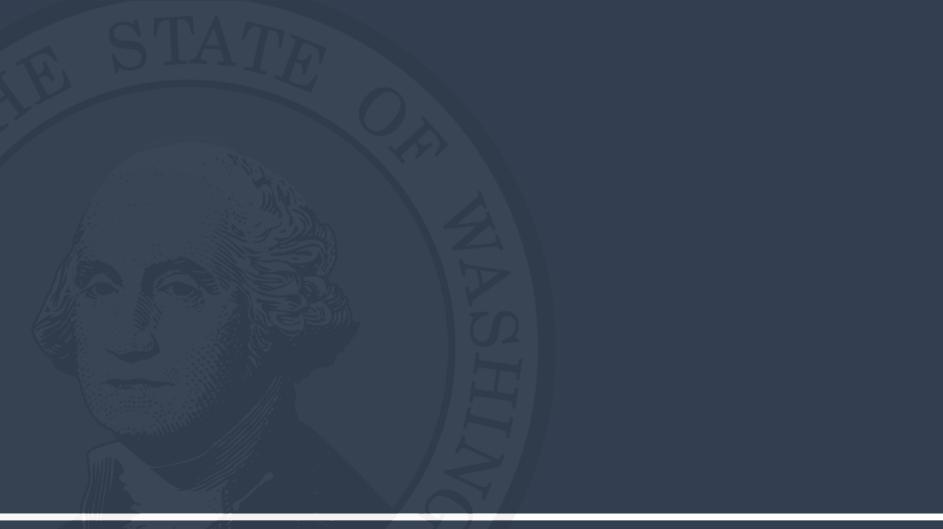
## Challenges

Many agencies reported challenges relating to funding or financing work needed to reduce GHG emissions and comply with related laws and executive orders.



### Recommendations

- 1. Support and incentivize state agency compliance with performance standards in the clean buildings law.
- 2. Install EV charging infrastructure at state facilities.
- 3. Upgrade and electrify district heating systems.
- 4. Maintain zero energy standards for new construction.
- 5. Explore innovative funding and financing mechanisms.





### Governor Q&A



### 3.1 VOICE OF THE CUSTOMER – CHARGING STATIONS

PRESENTED BY:

 KELLY LERNER, CHIEF, LEASED FACILITIES & MAINTENANCE OPERATIONS, DEPARTMENT OF SOCIAL AND HEALTH SERVICES

# Fleet Electrification Charging Forward

Vehicles, Infrastructure, and Operations Management Systems

December 7, 2022 Public Performance Review

### **Kelly Lerner**

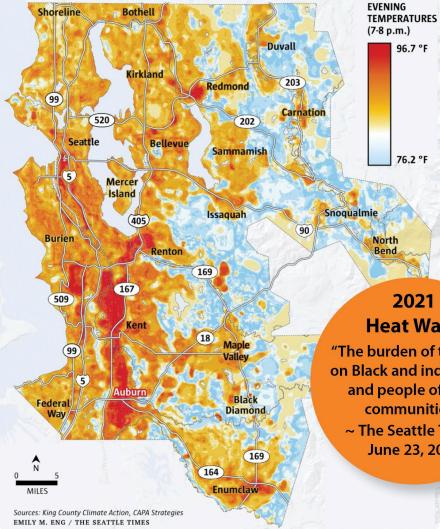
Chief of Leased Facilities and Maintenance Operations Facilities, Finance and Analytics Administration, DSHS



Transforming lives

### Map reveals King County's 'heat islands'

Volunteers collected temperature data across King County on an extremely hot day last July. The data show that impacts of high temperatures are not felt evenly. Some areas were more than 20 degrees hotter than others. Tree cover reduces heat, while roads, pavement and rooftops intensify heat.



"On the same day, two different neighborhoods can differ in temperature by as much as 13.9 degrees." ~ Gonzaga Climate Center, Sept 15, 2022

### 2021 **Heat Wave**

"The burden of that falls on Black and indigenous and people of color communities."

~ The Seattle Times, June 23, 2021

### **Spokane Beat the Heat Program**



Residential areas with sparse canopy cover seem to retain excess heat throughout the day.



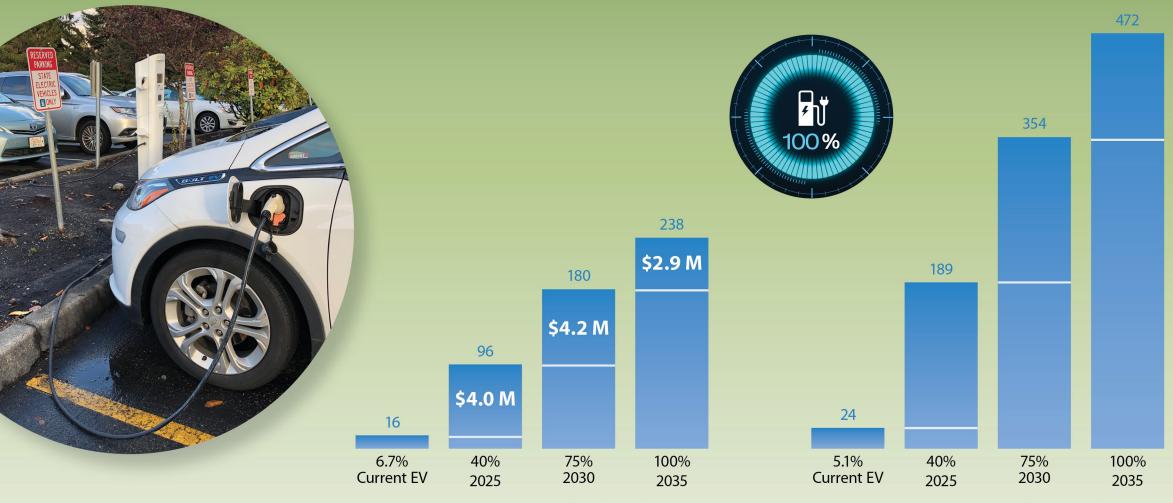
Large swaths of asphalt in commercial areas can spill concentrated heat into surrounding residential areas that lack protective vegetative buffers.



Residential areas that have a high percentage of canopy cover keep the neighborhood comparatively cooler than their counterparts.



### **Electric Vehicle Replacement Goals**



**DSHS Owned Light Duty** 

**DSHS Leased Light Duty** 



Owned Facilities EV Charging Ports

**By 2035:** 60 charging ports at 7 campuses

**By 2040:** 144 charging ports at 8+ campuses

**\$18 million** 23-25 and 25-27 biennia capital budget requests



Leased Facilities EV Charging Ports

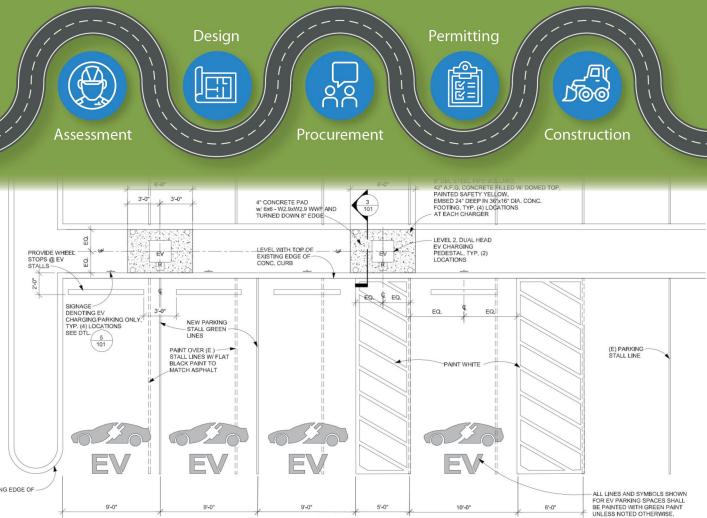
**By 2025:** 99 additional charging ports at 59 facilities

**By 2035:** 447 total charging ports at 99 facilities

**\$7 million** 23-25 and 25-27 biennia budget requests



#### Why is EV Charger Installation so Expensive and Why Does it Take so Long?



### Management and Operations *Guiding Questions*

- How do we make the transition to an EV fleet seamless and accessible?
- How do we manage and report on these new charging systems?
- How do state agencies collaborate and leverage their EV charging infrastructure?



#### The Road Forward Managing the Change

- Sharing the WHY and creating a desire for EVs
- Listening to objections and mitigating expressed barriers
- Increasing the knowledge and abilities of our staff

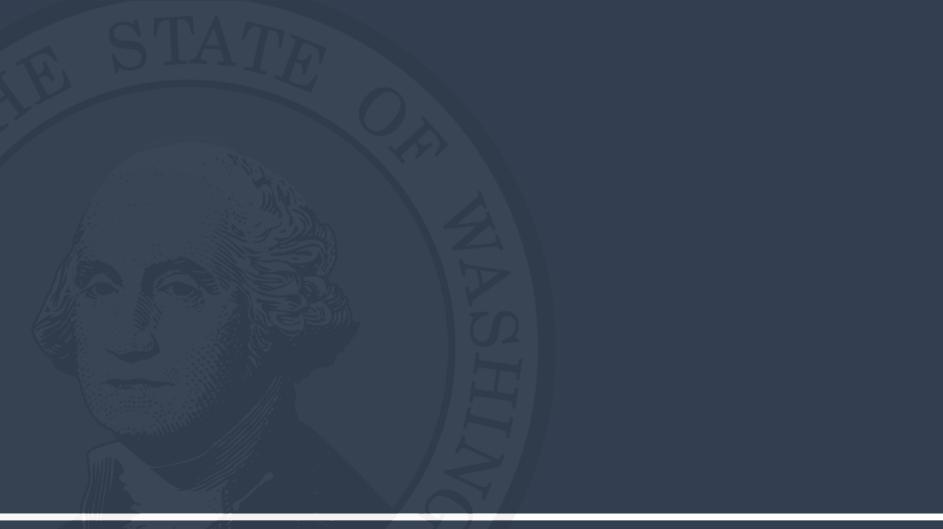




# We are driving hard towards our **Electrified Carbon-Free** and Equitable Future



Transforming lives





### Governor Q&A



3. I VOICE OF THE CUSTOMER – LABOR AND INDUSTRIES PUBLIC SAFETY LAB AND TRAINING FACILITY

PRESENTED BY:

• MAURICE PERIGO, ASSISTANT DIRECTOR, L&I

#### AGENDA

- Project Overview
- Energy Efficiency
- Sustainability
- Additional Highlights



Design Rendering – Main Entrance

#### **Project Overview**

#### Partnership Opportunity | Labor & Industries and Agriculture



Design Rendering – Street Entrance (View from L&I HQ)

#### **Operational Benefits**

- Facility Improvements
  - Functionality
  - Reliability
  - Safety & Security
- Consolidates WSDA Labs in one location
- Upgrades L&I Training for DOSH Inspectors
- Certification for Federal Funding

#### Energy Efficiency

The Road to Zero Net Energy

- Energy Use Index = 85 (kBtu/sf-yr)
  - State Ave for Laboratories = 240 EUI
- Enhanced Envelope / Wider Therm Range
- Optimized Natural Lighting Strategies
- Geothermal Wells w/Electric Heat Pump
- Active Chilled Beams & Radiant Slabs
- Dedicated Outdoor Air Sys. / Passive Vent.
- Heat Recovery Systems
- Occupancy Sensors / Controlled Outlets
- Infrastructure for future solar upgrade





#### Sustainability

High Performance & Minimum Impact

- 75% Waste Diversion & Recycling
- Minimize Forest Impact
- Level 2 EV Charging w/Preferred Parking
- 100% On-site Storm Water Management
- 100% Electric Energy Facility
- Passive Air Systems & Low Flow Fixtures
- LEED v4 Gold Certification





#### Additional Project Highlights

"Why would I want to work here as a state employee?"

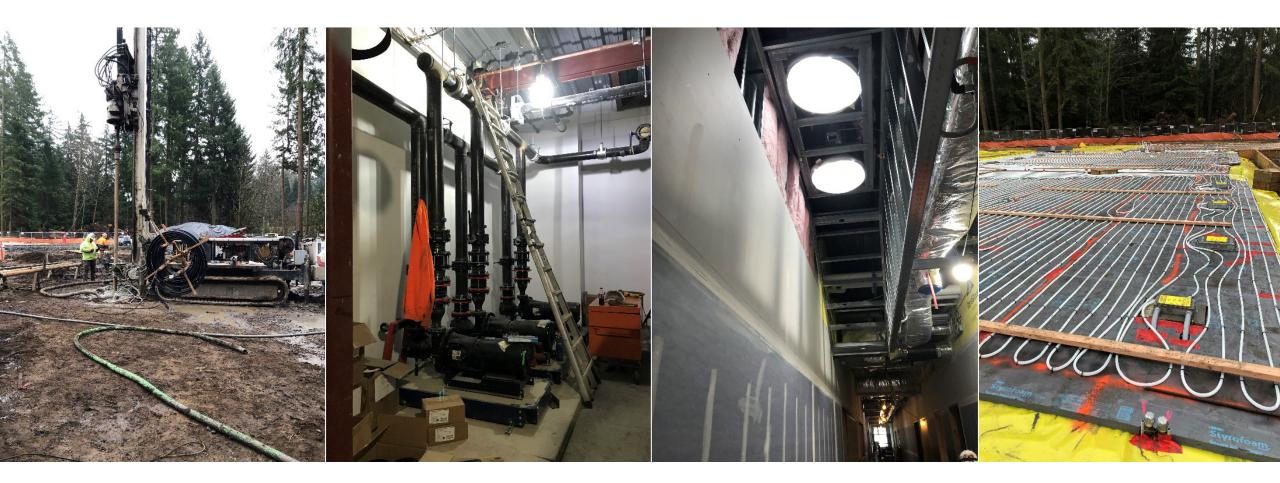
- Forest Trail System
  - Exterior Wi-Fi along trail w/seating
  - Connects to Tumwater Campus Trail System
- Natural Finishes in Main Corridors
- Gender Neutral Restrooms
- Great Location

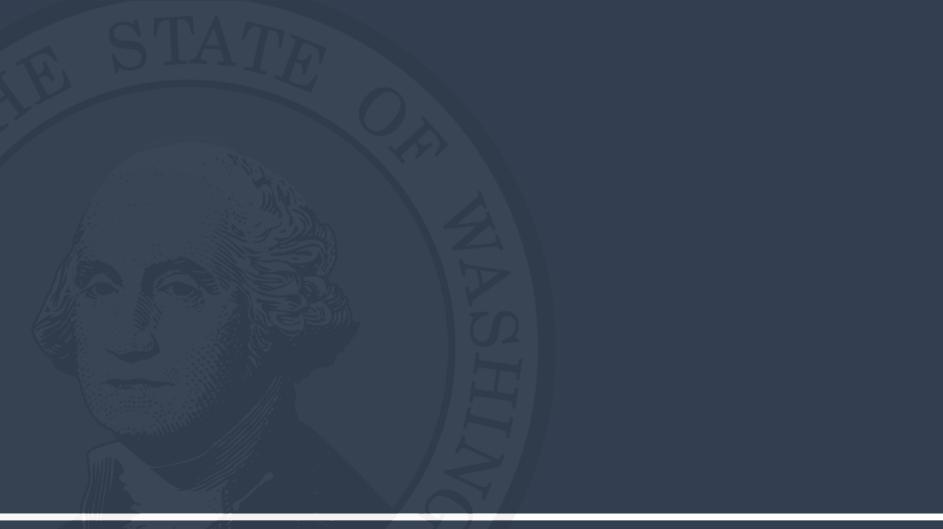




#### **Construction Pictures**

Moving in Spring/Summer 2023







### Governor Q&A



### 3.1 CURRENT WORK AND FUTURE COMMITMENTS

PRESENTED BY:

- TARA SMITH, DIRECTOR, DEPARTMENT OF ENTERPRISE SERVICES
- MICHAEL FURZE, ASSISTANT DIRECTOR, DEPARTMENT OF COMMERCE





## OUR COMMITMENT

#### **Prioritizing battery electric/zero-emission vehicles**



**Executive Order 20-01** 

Calls for prioritizing Battery Electric Vehicles (BEV) for vehicle leases or purchases and improving BEV infrastructure

**Executive Order 21-04** 

Implementation guidance, plans and support

## PROGRESS MADE 2021 - 20

Created an Electric Vehicle Supply Equipment
 (EVSE) Implementation Team

- Leveraged a cooperative purchasing agreement to give agencies more pathways to acquire BEVs
- ✓ Increased BEVs in DES fleet despite challenging market conditions
- ✓ Created Agency Transportation Officer dashboard to promote EV adoption
- ✓ Created a mandatory approval process for non-BEV purchases for cabinet agencies

DES FLEET OPERATIONS

## **Current projects**

- Begun investing \$2.6M in supplemental budget dollars on EV infrastructure installation at state office locations throughout Washington
- Selected 10 projects
  - 1 solar canopy
  - 73 chargers total (61 L2 chargers & 12 L3 DCFC chargers)
- Charging
  - Level 2: 240V AC (typical full charge in 4.5 hours)
  - Level 3 or DCFC: High Voltage DC (typical full charge in less than an hour)



## WHAT'S NEXT

- Monitoring vehicle availability
- Infrastructure
- Budgeting
- Producing a legislative report outlining a zero-emission vehicle implementation strategy for state fleets

## OUR COMMITMENT

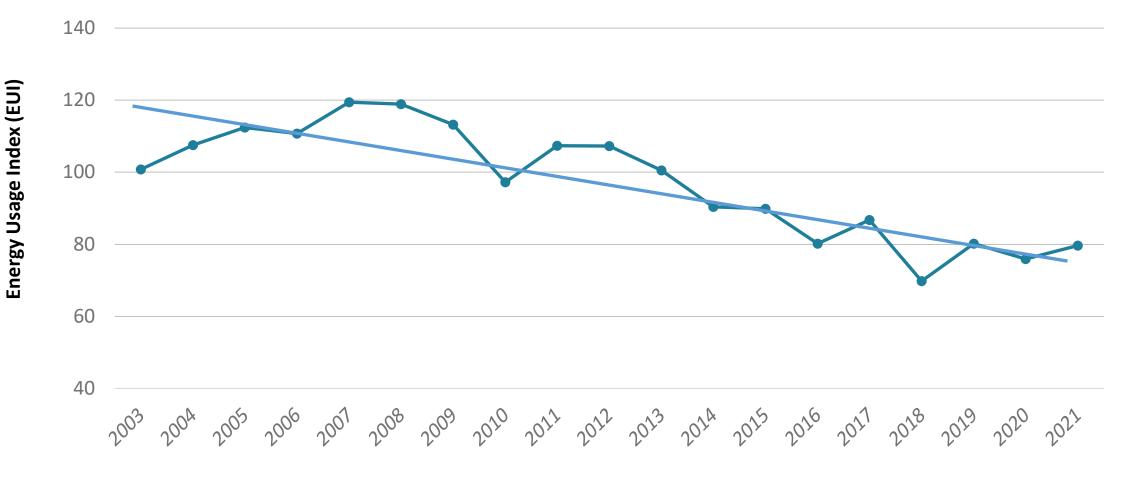
#### **Reducing building emissions**



**Executive Order 20-01** 

Actively promote energy efficiency in owned and leased facilities and support the development of new construction that meets the zero-energy building standard

#### CAPITOL CAMPUS ENERGY USE



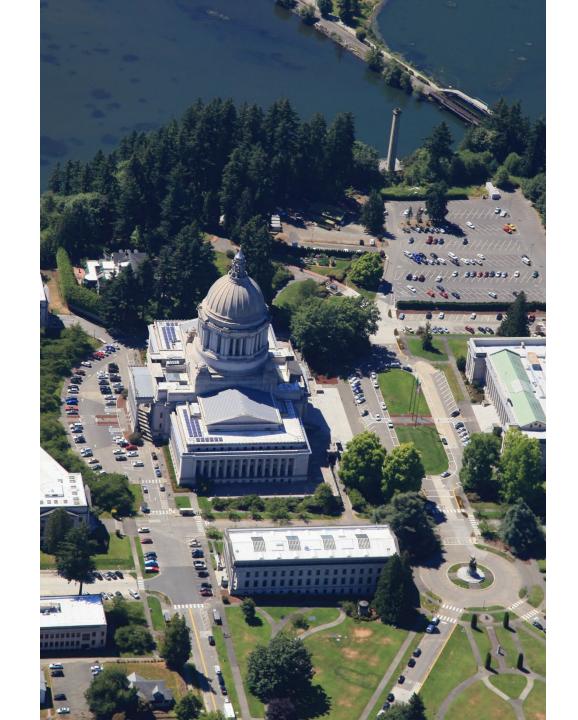
DES FACILITY PROFESSIONAL SERVICES

## Clean buildings

#### Benchmark campus energy use by updating energy monitoring systems

Work started in 2022

DES FACILITY PROFESSIONAL SERVICES

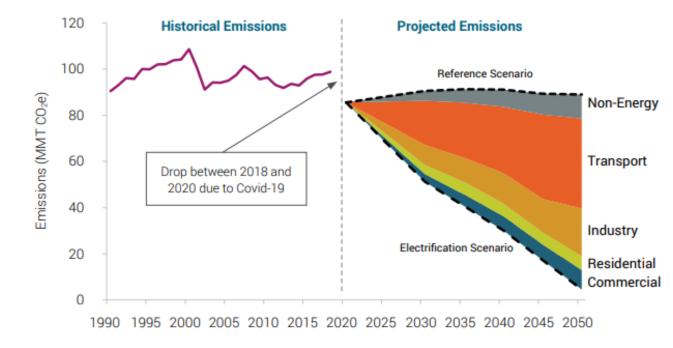


#### Achieving decarbonization in Washington: The road to 2050

## State Energy Strategy (2021)

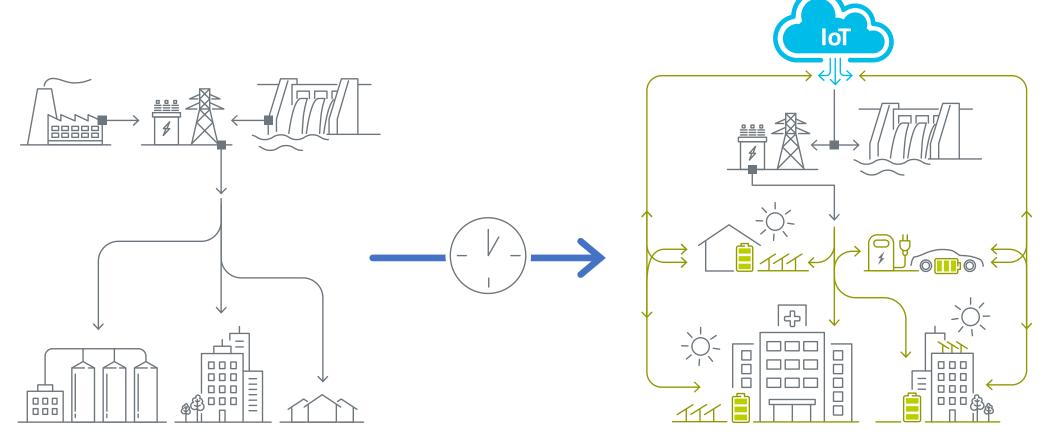
- An overarching energy vision for the state
- Public process
- Comprehensive decarbonization modeling spanning 30 years

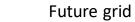
#### FIGURE 1. HISTORICAL AND PROJECTED GROSS GREENHOUSE GAS EMISSIONS IN WASHINGTON STATE



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).

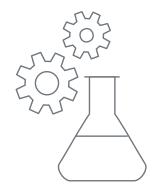
### The challenges





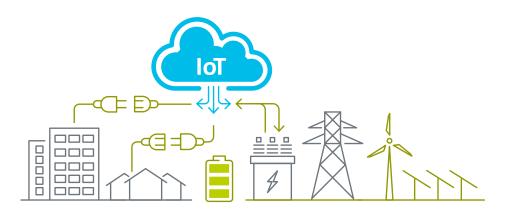
Legacy grid

### Our approach



Conduct research and development

Demonstrate feasibility



Implement at scale

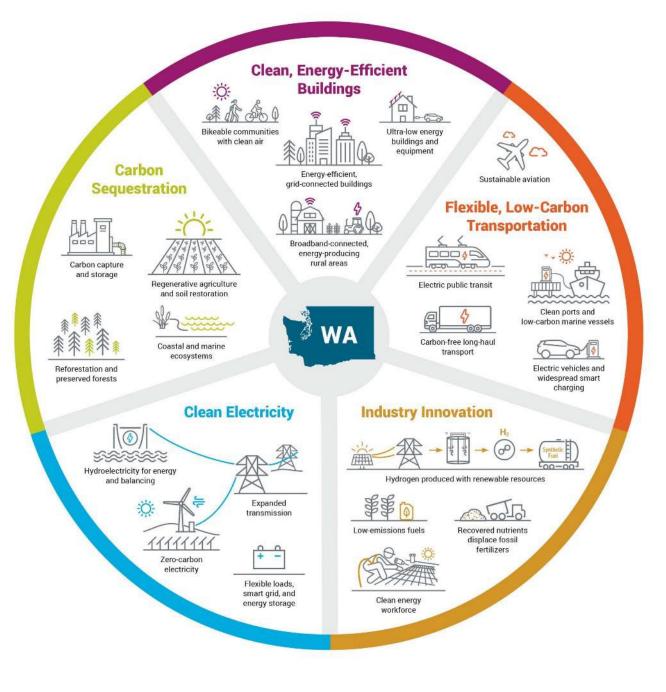
## Turning the strategy into policy

- Passage of significant legislation and reforms
  - Comprehensive environmental justice statute Healthy Environment for All (HEAL) Act (2021)
  - Economy wide cap-and-invest program The Climate Commitment Act (2021)
  - Clean fuel standard (2021)
  - Multi-Year Rate Reform and Energy Assistance Statute (2021)
  - Transportation planning laws (2021-22)
  - Extension of Clean Buildings Performance Standard (2022)
  - Rollback of natural gas line-extension subsidies (2022)
  - Hydrogen legislation (2022)

## Moving forward

### washington state 2050 Net-Zero Vision

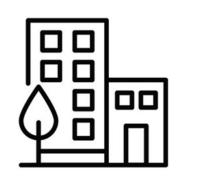
A blueprint for how we can meet our state's climate goals to nearly eliminate the use of climate-threatening fossil fuels by 2050, while growing a prosperous economy and maintaining affordable and reliable energy supplies.



## Where can state agencies contribute?

#### Buildings

- Establish a building decarbonization policy framework
- Maximize energy efficiency and electrification in buildings





#### Transportation

- Decarbonize transportation energy through electrification and renewable fuels
- Use energy efficiently and thoughtfully
- Make it easier to learn about, acquire and charge clean vehicles of all kinds

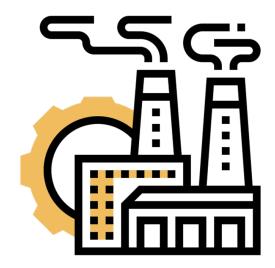
### Where can state agencies contribute?

#### Industry

- Develop and implement a coordinated clean energy industrial policy
- Buy Clean, Buy Fair and consumption-based emissions
- Leverage the economic transition to create and support inclusive, living-wage jobs

#### Electricity

 Accelerate investment in clean generating resources

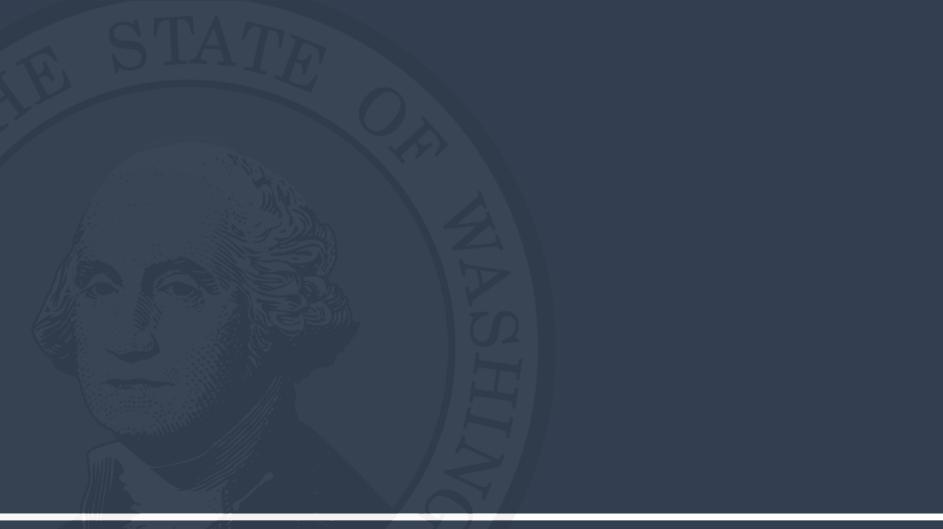


### Biennial Energy Report

The purpose of this update is to communicate prioritized actions to the Legislature, interested stakeholders and the public more broadly.

- Report to Legislature in December 2022
- Highlights ongoing state agency work across sector chapters
- Highlights opportunities for state agencies to be part of the broader state energy strategy







### Governor Q&A





## **Closing Remarks**



THANK YOU FOR ATTENDING TODAY!

PLEASE TAKE A MOMENT TO COMPLETE OUR BRIEF SURVEY

You can view the recording of today's meeting at:

HTTPS://RESULTS.WA.GOV/MEASURING-PROGRESS/PUBLIC-PERFORMANCE-REVIEWS