

# REBuilding Task Force

May 31, 2022

3:00-5:00pm

**nbi** new buildings  
institute



# Welcome, Roll Call, and Agenda Review

# AGENDA

- 3:00 - Welcome and Agenda Review
- 3:10 - Baseline: Where the Building Sector is Today
- 3:40 - National Landscape on Building Decarbonization Policies: Examples in other States
- 4:15 - Task Force Discussion: What are the possible policy areas for Oregon?
- 4:55- Next Steps and Adjourn

Actions: No Task Force Actions Today

Meeting Purpose: Understand the baseline and Oregon building sector today, decarbonization policies in other states, and begin to think about possible policy areas for Oregon

# PARTICIPATION TIPS

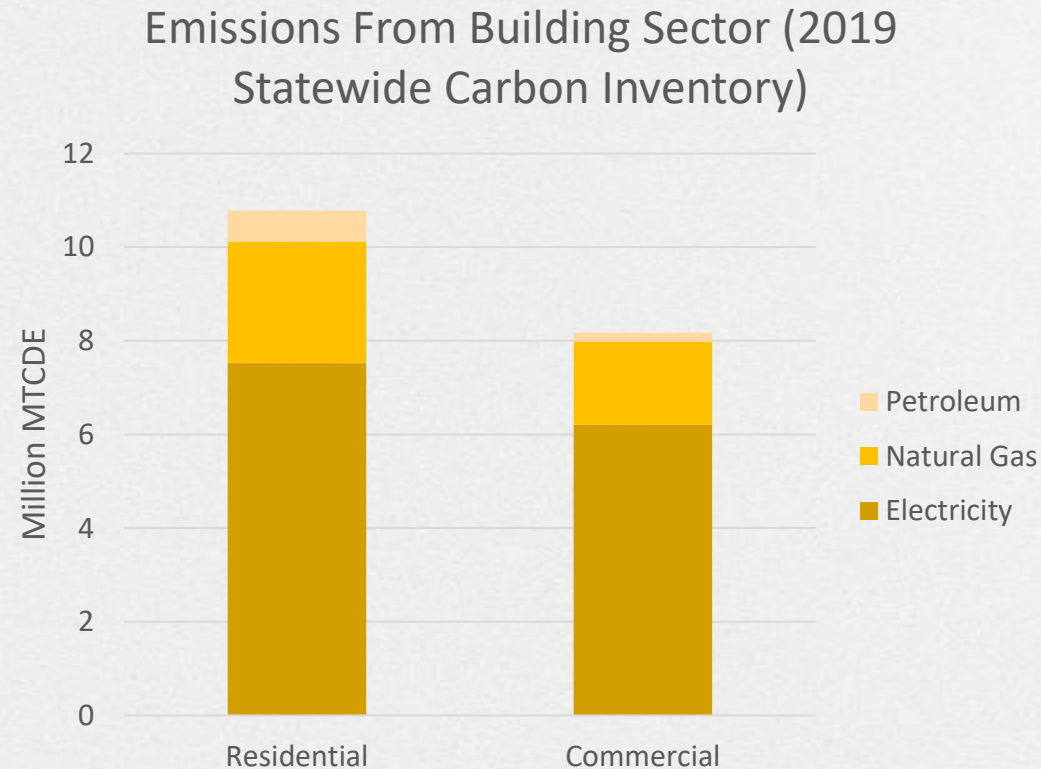
- Meeting is being livestreamed and will be posted on the Oregon State Legislature Website
- "Raise your hand" to get in the queue to speak or press \*5 on your phone
- Press \*6 to unmute on your phone.
- Take breaks as needed.
- Email host with technical issues ([Beth.Reiley@oregonlegislature.gov](mailto:Beth.Reiley@oregonlegislature.gov))
- Provide comments verbally rather than chat
- Meeting information: <https://olis.oregonlegislature.gov/liz/2021I1/Committees/JTFREB/Overview>

# DISCUSSION GUIDELINES

- Honor the agenda
- Seek to hear from everyone (share the air)
- Focus on interests and values, not positions
- Assume and practice good intent
- Listen to understand
- Be hard on the issues, soft on the people
- Sit in each other's shoes and practice acknowledgement

# Baseline: the Building Sector Today

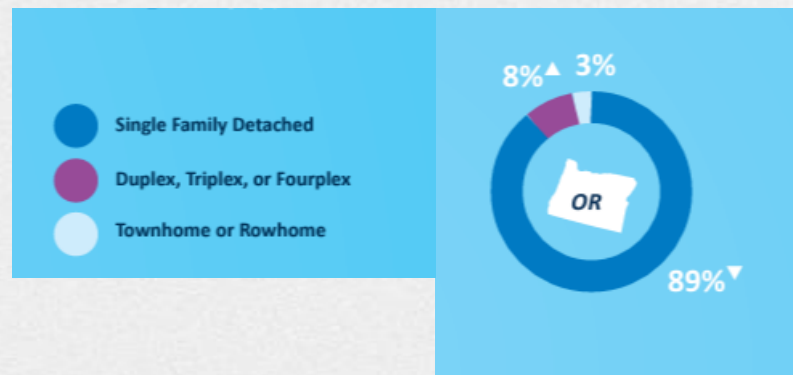
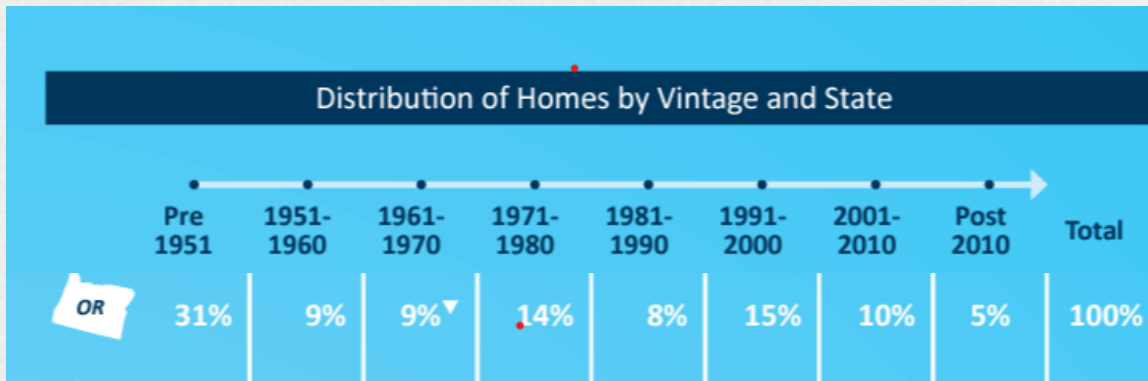
# Building Sector Carbon Emissions



- What does this tell us?  
Provides a relative comparison of both:
  1. emissions from residential and commercial buildings in Oregon
  2. emissions from end uses in buildings

Source: Oregon DEQ Carbon Inventory

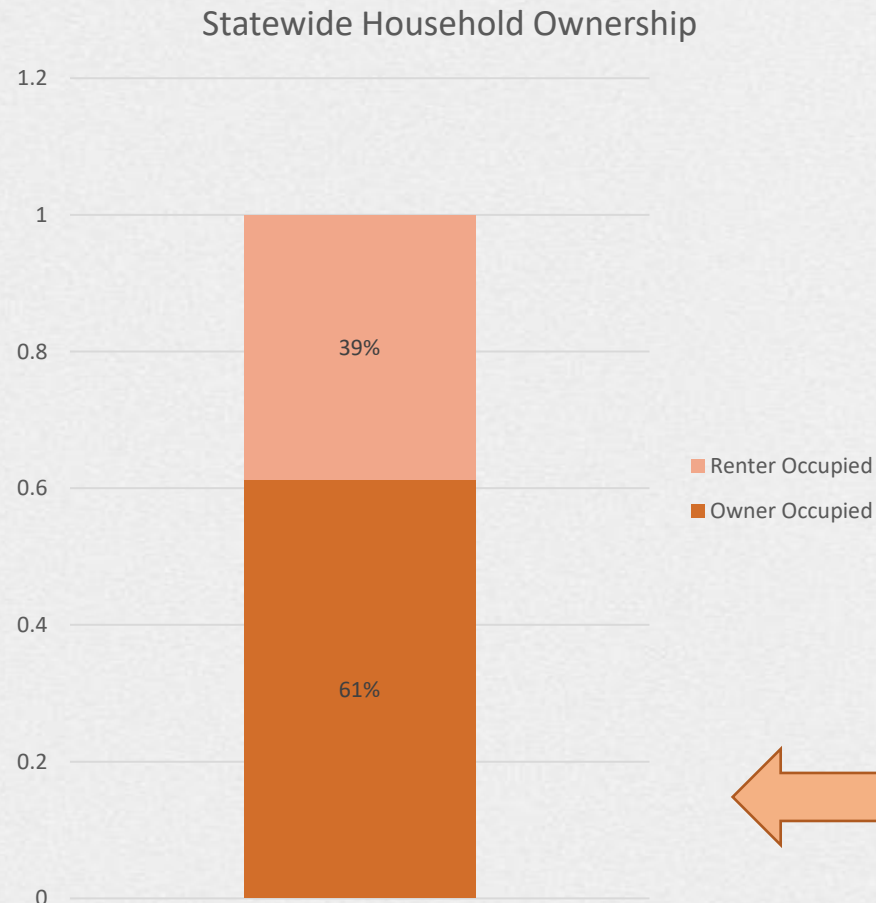
# Building Stock Characteristics



- What does this tell us?
  - Many non-multifamily residences are single family detached.
  - Over 85% of Oregon's single-family residences were built prior to 2000 (before the prevalence of energy codes)
- Why can this matter?
  - Older buildings typically consume more energy than newer ones and can have significant barriers to energy upgrades.



# Building Stock Characteristics (ctd.)

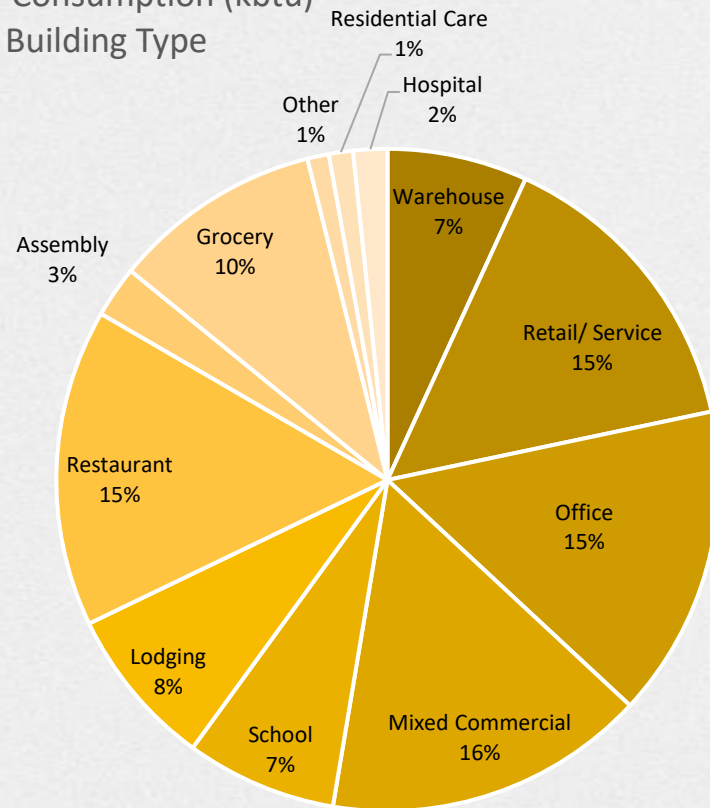


← This graph is available at the county level too

- What does this tell us?
  - Residential ownership status across the state (also available at the county level).
- Why can this matter?
  - Split incentives in renter occupied building make energy improvements more complicated. Jurisdictions with high proportion of rental units should consider strategies targeted at renters.

# Building Stock Characteristics (ctd.)

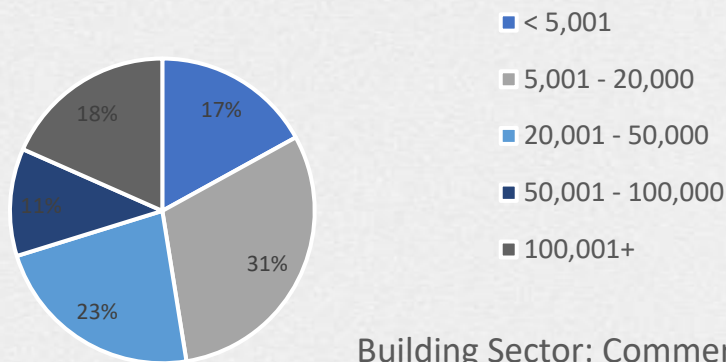
Building Sector: Commercial  
Metric: Energy Consumption (kbtu)  
Breakdown by Building Type



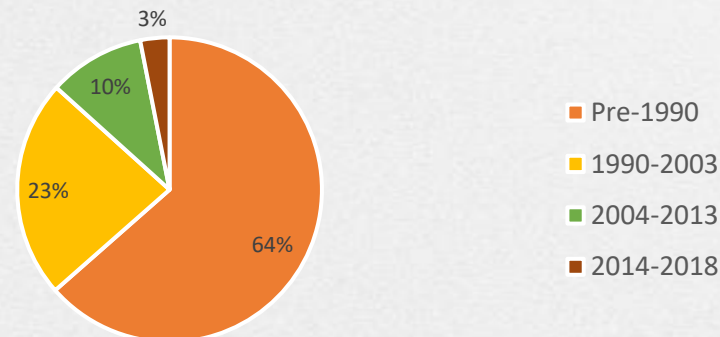
- What does this tell us?
  - Large energy consumers (both electric and natural gas) in the commercial sector are: office, retail, mixed comm, and restaurant
- Why does this matter?
  - Not all building types need to be treated the same in policies/legislation.

# Building Stock Characteristics (ctd.)

Building Sector: Commercial  
Metric: Square Footage  
Breakdown by Building Size



Building Sector: Commercial  
Metric: Square Footage  
Breakdown by Vintage (building age)



- What does this show us?
  - Additional ways to distribute the data
- Why does this matter?
  - Policies can be targeted towards high impact segments of the commercial sector.

# Additional Data Points

*This list provides additional thoughts on data that could provide valuable context but are either not readily available or need more analysis*

- Outputs from TIGHGER analysis will be available in July to the public. This includes:
  - Predictions of carbon emissions from the electric sector and gas infrastructure decarbonization
  - Predictions of new construction for commercial and residential starts
  - Cost of various decarbonization scenarios (electrification, renewable natural gas, etc.)
- County (or any jurisdiction more granular than state) level data for commercial buildings
- State-owned building portfolio energy data: available but not yet accessed by this team

# Task Force Q&A: Questions and Discussion on the Baseline

# National Landscape: Examples in Other States

# National Landscape

Brief summary of recent building decarbonization legislation in New York, Maryland and Colorado, with a deeper dive in Washington State afterward.

As we review, consider:

- What components of this might apply to Oregon's circumstances?
- What additional information about these policies and programs would be helpful to you as you consider recommendations for Oregon?
- What other cities, states, or countries' approaches would you like to discuss with your Task Force colleagues?

<div style="display: flex; justify-content: space-around; align-items: center;"> <span style="background-color: #fff9c4; padding: 2px 5px;">EB</span> <span style="background-color: #bbdefb; padding: 2px 5px;">NC</span> <span style="background-color: #e2efda; padding: 2px 5px;">ALL</span> </div>	New York	Maryland	Colorado
<b>State Government</b>	<a href="#">CLCPA</a> goals, New Efficiency: New York includes ZNE/Zero Carbon targets	<a href="#">HB 662</a> (2020) sets EE requirements and energy performance contracts, state buildings are annually benchmarked	Series of EOs (most recent is <a href="#">EO D 2019 016</a> ) with GHG and energy reduction targets, RE targets
<b>Financial Tools and Incentives</b>	New York Green Bank, Green Jobs New York, many incentive programs through NYSERDA; PACE, ESPCs (through NYPA) for state-owned buildings	Utility incentive and rebate programs; PACE, EPCs for state-owned buildings	State mortgage and loan programs, utility incentive and rebate programs; PACE, EPCs for public projects
<b>Building Energy Codes</b>	2018 IECC (residential), 2018 IECC or ASHRAE 90.1-2016 (commercial)	2018 IECC with amendments (residential), 2018 IECC and 90.1-2016 (commercial)	Homerule, adopted at local level (see changes in <a href="#">HB 22-1362</a> )
<b>Stretch Codes</b>	NYStretch	None adopted statewide	None adopted statewide
<b>Performance-Based Standards</b>	None	Certain buildings over 35K sf under <a href="#">SB 0528</a> (detail on further slides)	<a href="#">HB21-1286</a> directs Task Force to develop recommendations
<b>Benchmarking and Disclosure</b>	State-owned facilities over 25k sq ft (annual)	<a href="#">SB 0528</a> requires reporting of direct emissions (onsite combustion), beginning in 2025	Required by <a href="#">HB21-1286</a> for buildings over 50K sf (with some exemptions for manufacturing, industrial or agricultural)
<b>Equity/Workforce Development</b>	Under CLCPA 40% of benefits of investments go to disadvantaged communities	Several recent laws (such as <a href="#">SB 516</a> ) include provisions for workforce development and training	Colorado WAP is running direct install ASHP pilot, several agencies are working with utilities on workforce training
<b>Carbon Pricing</b>	RGGI	RGGI	None



# New York State – 2019 Legislation

## Climate Leadership and Community Protection Act ([S6599](#))

EB

- Commits to 100% zero-emissions electricity by 2040

ALL

- Sets statewide GHG reduction target of at least 85% below 1990 levels by 2050

ALL

- Requires that disadvantaged communities receive minimum 35% (goal of 40%) benefits from state's clean energy investments

ALL

- Creates [Climate Action Council](#) (22 member committee) to develop scoping plan to achieve targets
  - Seven sector-specific [advisory panels](#)
  - [Climate Justice working group](#)

# New York State – 2019 Legislation Continued

## Climate Leadership and Community Protection Act ([S6599](#))

- ALL • Requires Department of Environmental Conservation (DEC) to produce annual report on statewide GHG emissions
- ALL • Requires DEC to report progress toward GHG goals with recommended modifications every four years
- ALL • Requires state government climate and equity screen for all decisions

Note: Draft [Climate Action Council Scoping Plan](#) was released for public comment earlier this year and remains open through June 10.

# Maryland 2022 Legislation

Climate Solutions Now Act of 2022 ([SB 0528](#)):

ALL

- Revises statewide GHG emissions goals: 60% below 2006 levels by 2031, net-zero by 2045

EB

- Requires energy efficiency and emissions reductions for certain buildings
  - Building Performance Standards for buildings over 35,000 square feet
  - Reporting of direct emissions from heat beginning in 2025
  - Covered buildings are required to reduce direct emissions 20% below 2025 by 2030, achieve net zero direct emissions by 2040
  - Certain buildings are exempt

# Maryland 2022 Legislation - Continued

## Climate Solutions Now Act of 2022 ([SB 0528](#))

ALL

- Requires Public Service Commission and Building Codes Administration to study and make recommendations on the electrification of buildings in the state

NC

- Requires Maryland Green Building Council to examine and report on specific items relating to State procurement of concrete
- Non-buildings provisions of the bill include: energy reduction requirements for electric utilities, electric vehicles for state fleet, electric school bus pilot program, and environmental justice provisions

# Colorado 2022 Legislation

## Energy efficient building codes ([HB 22-1362](#))

NC

- Requires appointment of energy code board to develop two model codes:
  - Electric and solar ready
  - Low energy and carbon

NC

- Requires local governments and certain state agencies to adopt and enforce codes consistent with model codes

EB

- Creates Building Electrification for Public Buildings Grant Program: local governments, school districts, state agencies, special districts eligible to receive funding for high-efficiency electric heating (space, water), or cooking

EB

- Creates High Efficiency Electric Heating and Appliances Grant program: local governments, utilities, nonprofits, and housing developers eligible to install high efficiency electric heating equipment in multiple structures within a neighborhood

EB

- Establishes Clean Air Building Investments Fund – funding for above (\$10 million for Public Buildings Grant program, ~\$11 million for High-Efficiency Electric Heating and Appliances Grant)

# Colorado 2022 Legislation - Continued

NC **EV-Ready Building Codes ([HB22-1218](#))**

- Requires new and renovated commercial and multifamily buildings to be EV-ready

ALL **Heat Pumps and Building Materials ([SB22-051](#))**

- Creates 10% tax credit and state sales tax exemption for heat pump systems

ALL **Strong Communities and Affordable Housing ([HB22-1304](#))**

- Invests \$40M in “Strong Communities Grant Program”
- Invests \$178 million for affordable housing
- Includes land use and transportation-related provisions

ALL **Air Quality ([SB22-193](#))**

- Most provisions are transportation related
- Includes \$25M in incentives for industry to go beyond EE/clean tech requirements

# Data Sources

- Legislation referenced are linked throughout
- (All States) American Council for an Energy Efficient Economy (ACEEE)'s [State Policy Database](#)
- (All States) National Conference of State Legislatures' [Building Efficiency Database](#)
- (All States) [Database of State Incentives for Renewables and Efficiency \(DSIRE\)](#)
- (Colorado) Southwest Energy Efficiency Project [Colorado legislative tracking](#)

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# **Task Force Q&A: Questions and Discussion on the National Landscape and Policy Examples**



**Task Force Discussion:**  
What are the possible  
policy areas for Oregon?

# DISCUSSION QUESTIONS

Considering the baseline in Oregon and examples from other states...

What potential policy areas or solutions would you want to see explored in Oregon?

*Consider policy areas for:*

- 1. New Construction*
- 2. Existing Buildings*
- 3. All Buildings (this could include building-related utilities actions, appliance standards, etc.)*

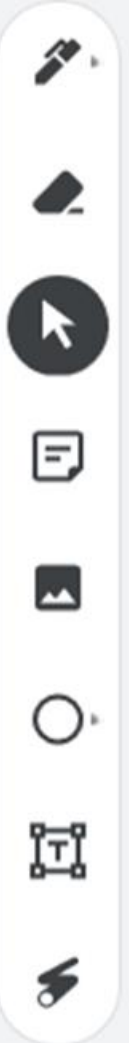


Provide additional ideas  
in the Jamboard:  
[tinyurl.com/2p9p96zb](https://tinyurl.com/2p9p96zb)

# JAMBOARD INSTRUCTIONS

Task Force members are invited to provide comment using interactive online tool

- Go to: [tinyurl.com/2p9p96zb](https://tinyurl.com/2p9p96zb)
- Use “sticky note” tool by clicking on icon on left-hand side toolbar
- Type your comment in the sticky note
- Do not select “clear frame” button. If you accidentally select it, select the “undo” arrow on the left side of the options bar and it will bring it back.
- Do not move sticky notes as they come onto the Jamboard. Staff will move the notes around.



**Thank You, Next Steps,  
and Adjourn**

# FUTURE MEETING DATES

- June 14, 3-5pm
- July 12, 3-5pm
- August 9, 3-5pm
- August 23, 3-5pm

Meeting information:

<https://olis.oregonlegislature.gov/liz/2021I1/Committees/JTFREB/Overview>

Look for the survey from Beth to provide additional Task Force comments.