



# Governor Brown's EO 17-20

Accelerating Efficiency in Oregon's  
Built Environment to Reduce  
Greenhouse Gas Emissions and  
Address Climate Change

Housing Stability Council  
11/2/18



# EO 17-20 (Efficiency) & EO 17-21 (ZEVs)

## Oregon greens cheer Brown's orders on energy efficient buildings, electric vehicles

Nov 7, 2017, 6:30am PST

Gov. [Kate Brown](#) gave herself some news to talk about on her upcoming trip to an international climate conference, issuing [executive orders](#) Monday intended to encourage more energy efficient buildings and electric vehicle adoption.

Brown will join California's Jerry Brown and Washington's [Jay Inslee](#) as part of a West Coast gubernatorial contingent at the UN Climate Change Conference in Bonn, Germany, next week. That's tough company to keep when it comes to climate-change action, and Oregon hasn't always measured up.

On buildings, for instance [a bill failed in the Legislature](#) earlier this year that would have required new buildings to use nearly two-thirds less energy than today's buildings by 2032.



GOVERNOR'S OFFICE

Gov. Kate Brown at the signing of the two executive orders Monday in Portland.



# Why Efficiency & Zero Emission Vehicles?

- About 30% of Oregon's greenhouse emissions can be traced to how much and what type of energy we use in our buildings - Electricity and other energy consumption in residential and commercial buildings are a large greenhouse gas contributor. Reducing energy use and increasing efficiency will help lower emissions from the built environment.
- About 40% of Oregon's greenhouse gas emissions are from the transportation sector – emissions from our vehicles are the largest greenhouse gas contributor and a transition to zero emission vehicles – by focusing on infrastructure and reducing costs – will result in emissions reductions in the transportation sector.



# EO 17-20 (Energy Efficiency)

- Available here:  
[http://www.oregon.gov/gov/Documents/executive\\_orders/eo\\_17-20.pdf](http://www.oregon.gov/gov/Documents/executive_orders/eo_17-20.pdf)
- Three key sections:
  1. Energy efficiency leadership in state owned/leased buildings – GKB directives to DAS and ODOE
  2. Targets for state-wide building codes & appliance standards – GKB directives to DCBS-BCD and ODOE
  3. Retrofits and affordable housing – GKB directives to PUC, HCS, ODOE

Office of the Governor  
State of Oregon



## EXECUTIVE ORDER NO. 17-20

### ACCELERATING EFFICIENCY IN OREGON'S BUILT ENVIRONMENT TO REDUCE GREENHOUSE GAS EMISSIONS AND ADDRESS CLIMATE CHANGE

WHEREAS, climate change presents a significant threat to our livelihoods, economic security, environment, health, and well-being.

WHEREAS, there has been an increase in extreme weather events, including more frequent and intense heat waves and wildfires. According to the Oregon Climate Change Research Institute and other regional studies, the best available science indicates Oregon is at risk of serious impacts to its natural resources due to climate change.

- Water resources are being affected by decreased winter snowpack, changes to seasonal runoff patterns, decreased precipitation in Eastern Oregon, and increased intensity and occurrence of flooding.
- Agricultural resources are being affected by increases in temperatures.
- Ocean acidification is increasing and there are changes in ocean currents.
- Significant parts of the Oregon coastal region, stretching 363 miles, will be impacted by an expected rise in sea level up to 1 to 4 feet by 2100, incurring billions of dollars of damages and losses to roadways and structures.
- Climate change impacts threaten the State's agricultural, fishing, timber, recreation, and tourism industries, thereby threatening the livelihood of the State's residents and an important source of Gross State Product for the state.

WHEREAS, energy efficiency leads to significant greenhouse gas reductions that are essential to meeting our state greenhouse gas reduction goals and addressing climate change.

WHEREAS, Oregon is committed to meeting the international Paris Agreement targets to reduce greenhouse gas emissions by 26 to 28 percent below 2005 levels by 2025.

WHEREAS, Oregon has adopted goals to reduce greenhouse gas emissions to 10 percent below 1990 levels by 2020 and at least 75 percent below 1990 levels by 2050 as described in ORS 468A.20.



# “BEEWG”

The screenshot shows the BEEWG page on the Oregon Department of Energy website. At the top, there's a navigation bar with links for Home, Programs, Incentives, Save Energy, Data and Reports, Get Involved, About Us, and a search bar. Below the navigation is a breadcrumb trail: Oregon Department of Energy / Get Involved / Built Environment Efficiency Working Group. The main title is "Built Environment Efficiency Working Group". On the left, there's a sidebar with links for SUBSCRIBE TO NEWS & INFO, REQUEST A PUBLIC RECORD, COMMENT ON SITING PROJECTS, MEETINGS & EVENTS, ADVISORY & STAKEHOLDER GROUPS, and RULEMAKING. The main content area contains a text box about the group's purpose, a section on Executive Order 17-20, and a "Contact the BEEWG" button. On the right, there are sections for RESOURCES (BEEWG Meetings, Executive Order 17-20, BEEWG Action Items & Progress), BEEWG MEMBERS (Oregon Department of Energy, Department of Administrative Services, Building Codes Division, Public Utility Commission, Oregon Housing & Community Services), and a "Sign Up for Email Updates" link.

*The multi-agency Built Environment Efficiency Working Group is tasked with implementing Governor Kate Brown's Executive Order 17-20, a directive to improve the built environment in our state.*

**Executive Order 17-20**

In November 2017, Governor Kate Brown signed two Executive Orders with specific directives to state agencies to improve energy efficiency, boost electric vehicle adoption, and support actions to reduce greenhouse gas emissions in the state. The Governor's Executive Order No. 17-20 focuses on the built environment – specifically, residential, commercial, and public buildings across the state. Emissions data show that residential and commercial buildings – especially their electricity and other energy consumption – are a large greenhouse gas contributor. Reducing energy use and increasing efficiency will help lower emissions from the built environment.

Contact the BEEWG:

RESOURCES

- BEEWG Meetings
- Executive Order 17-20
- BEEWG Action Items & Progress

Sign Up for Email Updates

BEEWG MEMBERS

- Oregon Department of Energy
- Department of Administrative Services
- Building Codes Division
- Public Utility Commission
- Oregon Housing & Community Services

- BEEWG – Made up of staff from ODOE, BCD, PUC, DAS, HCS.
- Charged with working together to implement EO 17-20.

BEEWG website:

<http://www.oregon.gov/energy/Get-Involved/Pages/BEEWG.aspx>

- Updates on progress for each EO directive
- Information about where & when to engage on implementation



# EO 17-20 – Key Highlights for Today

1. **Directive 6. Cost Analysis** – State agencies are expected to implement this Executive Order using the least cost methods available. ODOE and BCD, in consultation with DAS, PUC, and OHCS, are directed to adopt a cost-analysis tool through a process that involves meaningful public input by December 1, 2019.
2. **Building Code related directives**
  - Directive 4A – Solar Ready building Construction
  - Directive 4B – Electric Vehicle Ready Building Construction
  - Directive 4C – Zero Energy Ready Homes
  - Directive 4D – Increased Efficiency in Commercial Construction
  - Directive 4E – Helping Key Expanding Industries Save Costs by Reducing their Energy Footprint
  - Directive 4F – Improved State Standards for Appliance (ODOE)
  - Directive 4G – High Efficiency Water Fixtures
  - Directive 4H – Increased Water Efficiency in Onsite reuse
3. **Directive 5B. Prioritizing Energy Efficiency in Affordable Housing to Reduce Utility Bills** – ODOE, PUC, and OHCS are directed to work together to assess energy use in all affordable housing stock and develop a ten-year plan by January 1, 2019.



# EO 17-20 Directive 6 – Analysis of Cost

- **EO 17-20 6. Analysis of Cost.** State agencies are expected to implement this Executive Order using the least cost methods available. ODOE and BCD, in consultation with DAS, PUC, and OHCS, are directed to adopt a cost-analysis tool through a process that involves meaningful public input by December 1, 2019. State agencies shall use this cost analysis tool to determine whether any directive in this Executive Order should be deferred for one year or, if specific to a building code related directive, to the next building code cycle, due to significant cost at the time of implementation of that directive. All state agency processes for determining deferment of a directive in this Executive Order must include at least one public meeting that allows interested stakeholders to provide input.



# EO 17-20 Directive 6 – Analysis of Cost

- May 8 – First public meeting to hear from interested members of public about considerations in developing the cost analysis tool.
- **Expected Timeline** (subject to change – check BEEWG website for more specific timing):
  - 1Q 2018: Agency coordination and Initial discussions with stakeholders
  - 2Q 2018: First public meeting and Agencies begin work on draft
  - 3Q 2018: Continue to develop cost tool and Potential for “advisory group” for follow-up meetings
  - 4Q 2018: Share draft tool with public, with opportunity for written comments
  - 1Q 2019: Revisions to draft, based on public comments and Share revised draft
  - Dec 1, 2019 – final cost-analysis tool must be complete
- Note – Several BCD-related boards have an independent workgroup-process to develop a cost-analysis tool for each board. Each workgroup will forward its proposed cost tool to its respective board for consideration at a future public meeting.



# Oregon's Building Codes Process

## Building Code Amendment Proposal Process

Board Initiation of Public Code Proposal Process	Code Committee Reviews of Code Proposals	Board Reviews Code Committee Product	Board Recommendation	Agency Approval	Rulemaking Process
<p><b>Timeline.</b> Board establishes code adoption timeline and ID's special issues/parameters for the code adoption process</p> <p><b>Code Proposals.</b> Board begins the code adoption cycle by opening a 45-day period to allow all stakeholders to recommend: -model codes (board may choose this in advance) -code amendments -code updates</p> <p><b>Code Committee.</b> Board creates a "code committee" made up of board members and stakeholders</p>	<p><b>Direction.</b> Code committee implements board direction and schedules meetings to review model code. All code proposals are subject to a procedural and substantive review</p> <p><b>Meetings.</b> Committee meetings are always open to the public. Code proponents are expected to attend and explain code proposal's purpose and impacts to the committee.</p> <p>After review of model code and all code proposals that met procedural requirements, committee makes recommendation to the board.</p>	<p><b>Board Review.</b> Board receives code committee recommendations on the code proposals.</p> <p><b>Cost Determination.</b> Board analyzes revised code and makes recommendation to the division on the potential cost impact:</p> <ol style="list-style-type: none"><li>1. Housing Cost Impact (residential code changes) – ORS 185.530-.540</li><li>2. Statement of fiscal impact – ORS 183-335 (all code changes)</li><li>3. Board finding on cost – ORS 455.030</li></ol>	<p><b>Board Review.</b> Board receives and reviews code package from code committee in a public meeting and considers recommendations</p> <p><b>Board recommendation.</b> Board hears public testimony then accepts or amends code committee recommendations</p>	<p><b>Division Review.</b> Code changes recommended by the board must be formally adopted/rejected by the division before proceeding to the rulemaking process</p> <p>Statute requires the division to estimate and describe any potential cost impact for the changes based upon the cost information adopted by the board</p>	<p>Building Codes Division:</p> <ol style="list-style-type: none"><li>1. Files notice of proposed rulemaking that includes approved model code with amendments</li><li>2. Holds public hearing to receive additional public comment on the proposed code</li><li>3. Reviews public comment on the proposed code before final adoption</li><li>4. Final rulemaking notice provides effective date of the new code</li></ol>



# Oregon's Building Codes Process

## **Building Code Amendment Proposal Application Criteria**

- Question 1 What does this code proposal do?
- Question 2 What problem in the code does this proposal intend to address?
- Question 3 Is the problem a fire or life safety matter? If so, explain.
- Question 4 Does the problem cause delays in the cost of construction or inconsistency in application of the code?
- Question 5 How does this proposal solve the problem?
- Question 6 Are there other alternatives to this proposal that solve the problem?
- Question 7 Does this proposal require a change in statute or administrative rule?
- Question 8 **What fiscal impact does this proposal have? Explain.\***
- Question 9 If there is a fiscal impact, who is affected?
- Question 10 Does this proposal enhance statewide consistency and predictability? If so, how?
- Question 11 Does this proposal reduce or streamline regulation under the code? If yes, explain how.
- Question 12 Has this been proposed at the national model code level? If not, why not? If so, what happened and why was it not adopted there?
- Question 13 Does this proposal add to the cost of construction? If so, explain how the added cost contributes to the health and safety of occupants, or is necessary to conserve scarce resources.
- Question 14 If this proposal will affect the cost of development of a detached single-family dwelling, please indicate the cost. For the purposes of illustrating the change on the cost, please use a 6,000-square-foot parcel and the construction of a 1,200-squarefoot detached single-family dwelling on that parcel. The information on the cost must be sufficient to assist the division in preparing a housing cost impact statement.
- Question 15 What assumptions affect the projected costs or savings associated with this proposal?
- Question 16 It is important that proposals be shared with people and organizations that will be impacted by them. Was this proposal developed with people or organizations likely to be affected by it? Has it been reviewed or shared with people or organizations likely to be affected by it? If so, who? If not, why not?

# Building Code related directives

- **Directive 4A** – Solar Ready building Construction
  - Residential by 01/01/2020
  - Commercial by 10/01/2022
- **Directive 4B** – Electric Vehicle Ready Building Construction by 10/01/2022
- **Directive 4C** – Zero Energy Ready Homes by 10/01/2023
- **Directive 4D** – Increased Efficiency in Commercial Construction by 10/01/2022
- **Directive 4E** – Report on Helping Key Expanding Industries Save Costs by Reducing their Energy Footprint by 01/01/2019
- **Directive 4F** – Report on Improved State Standards for Appliance (ODOE) by 11/1/2018
- **Directive 4G** – High Efficiency Water Fixtures
- **Directive 4H** – Increased Water Efficiency in Onsite reuse



# EO 17-20, Directive 5B

## Prioritizing Energy Efficiency in Affordable Housing to Reduce Utility Bills

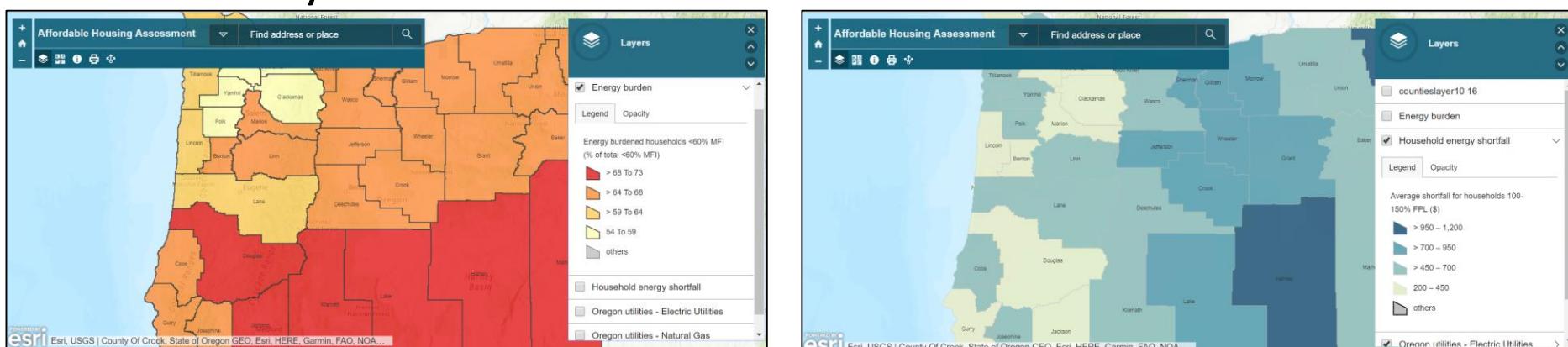
- ODOE, PUC, and OHCS are directed to work together to assess energy use in all affordable housing stock and develop a ten-year plan for achieving maximum efficiency, as well as a continuum of efficiency levels up to maximum efficiency in affordable housing across the state by January 1, 2019. As part of the assessment, the agencies shall consider new resources and best practices and shall seek assistance from Energy Trust of Oregon and Bonneville Power Administration. OHCS is directed to expand its existing multi-family energy program and green energy path requirements, including a manufactured home replacement program through pilot programs and initiatives, while considering multiple values from energy efficiency improvements, such as health and habitability.



# EO 17-20, Directive 5B

## Prioritizing Energy Efficiency in Affordable Housing to Reduce Utility Bills

- Goal of the assessment: help identify locations with the greatest energy need and potential (“hot spots”), particularly in the affordable housing stock, in order to better inform efforts to reduce energy burden and improve energy efficiency.



# EO 17-20, Directive 5B

## Prioritizing Energy Efficiency in Affordable Housing to Reduce Utility Bills

### Draft Outline of 10-Year Plan

- Background/Introduction
  - Note that this is a living document
  - Definitions
    - Maximum efficiency
    - Affordable housing
    - Energy burden
  - Descriptions and results of AHA and potential savings study



# EO 17-20, Directive 5B

## Prioritizing Energy Efficiency in Affordable Housing to Reduce Utility Bills

Goal: Reduce the energy burden of the low-income population in Oregon, while prioritizing energy efficiency to achieve that reduction.

- Objective 1: Create Stakeholder Working Group
- Objective 2: Upkeep of assessments
- Objective 3: Create tools for affordable housing stakeholders
- Objective 4: Expand OHCS's existing requirements
- Objective 5: Address program gaps (TBD)
- Objective 6: Address non-program gaps (TBD)

