

Built Environment Efficiency Working Group

EO 17-20 Update

April 16, 2019



AGENDA

1. Introductions & Welcome (5 minutes)
2. Cost Analysis (20 minutes) note: moved up on the agenda
3. Overview of EO 17-20 Progress to date (15 minutes).
4. What is left in the EO and how to get involved? (60 minutes)
5. Q&A and Next Steps



Introductions and Welcome

- Please share your name and your organizational affiliation
- Please remember to sign in



Directive 7: Implementation

“The Built Environment Efficiency Working Group will review directives in this Executive Order, seek input from interested stakeholders, and recommend opportunities to provide equitable access to clean energy by removing barriers to achieving energy efficiency in the built environment to the Governor and state agencies”

These factors overlay agency work on all elements of the EO:

- ***Equitable access to clean energy***
- ***Removing barriers to achieving energy efficiency in the built environment***



Directive 7: Implementation

“The Built Environment Efficiency Working Group will review directives in this Executive Order, seek input from interested stakeholders, and recommend opportunities to provide equitable access to clean energy by removing barriers to achieving energy efficiency in the built environment to the Governor and state agencies”

How can our work:

- *Contribute to reducing energy insecurity and energy burden?*
- *Increase access to benefits of energy efficiency, clean energy, and energy jobs?*
- *Increase economic and racial justice for energy affordability and access?*



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Directive 6: Cost Analysis Tool and Process for Deferralment

Work Summary To-Date

- May 8, 2018 public meeting
- ODOE research, cost tool evaluation
- BCD request to boards to provide input

Partners and Stakeholders

- BCD boards, BEEWG agencies, Earth Advantage, Energy Trust of Oregon, Northwest Energy Efficiency Alliance, others

How To Get Involved

- Participate today!
- Stay tuned for BCD board activity
- Contact agency staff – Blake Shelide (ODOE), Todd Smith (BCD)

Find Out More Information

- Follow BEEWG website



Due Date:12/1/2019

Directive 6: Cost Analysis Tool – General

Calculator
Variables - some fixed, some user defined
Defined format (spreadsheet)
Standardized reports

Protocol
Defined perspective(s)
List of items that must be included, but calculation framework is custom
ID custom variables used (forms still needed?)

Combination
Basic calculator, with accompanying description of parameters that need to be included and approaches that need to be standardized (such as building energy modeling approach).

Pros	Cons
Would be a ready-to-go tool for agencies and stakeholders to use	More development time
Standardized, consistent	Maintenance/updates

Pros	Cons
Don't need to develop and maintain a spreadsheet	Not-standardized calculator, could be difficult to review input and different products

Pros	Cons
standard format for a basic calculator	need for a more detailed protocol to address a variety of scenarios
protocol addresses how to use the calculator, what variables to input, where to source data, etc.	much of the analysis happens outside of the calculator
Protocol could be customized for various users (agencies, code stakeholders, other)	



Directive 6: Cost Analysis Tool

Demonstration



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Overview of Progress to date

- Directive 3A: Database of eligible state-owned buildings and their energy consumption
 - Energy Star Portfolio Manager for state buildings, ASHRAE Standard 100
 - [Summary Report](#)
- Directive 3C: Plug load strategy
 - Multiple stakeholder engagement activities throughout 2018
 - [Statewide Plug Load Strategy document](#)
- Directive 3E: State tool for high performance energy use target and carbon neutral requirements
 - SEED Process, Architecture 2030
 - [Summary document](#)



Overview of Progress to date

- Directive 4E: Report on key industries with potential for energy and cost savings through energy code
 - [“Expanding Industries and Building Code Amendments”](#) report completed, provided to Governor’s Office, and posted to BEEWG website.
 - Overview of indoor agriculture, data center sectors
 - Recognizes inability of code to regulate industrial process uses
- Directive 4F: Analysis and report on appliance standards
 - Oregon can set state efficiency standards for equipment that does not have a federal standard
 - ODOE analysis identified 14 potential equipment standards, plus others in development
 - [Improved State Standards for Appliances](#) report



Overview of Progress to date

- Directive 5A: Meter based savings pilot programs
 - In 2018, PUC worked with ETO to accomplish this directive
 - [Report](#)
- Directive 5B: Energy assessment in affordable housing and 10 year energy burden plan
 - OHCS, ODOE, PUC, in consultation with ETO and BPA
 - Energy burden of low-income Oregonians (<80%AMI) is \$345 million
 - Multiple recommendations for ongoing and future work identified in comprehensive report
 - <https://www.oregon.gov/energy/Get-Involved/Pages/BEEWG.aspx>
- Directive 5D: Evaluation of distributed resources and resilience
 - [Report](#)



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Directive 3B: Carbon-Neutral State Buildings

Work Summary To-Date

- Agency research
- Potential utilization of “Zero Energy” code framework
- Planning on how to incorporate into the SEED process

Partners and Stakeholders

- State agencies, energy analysts, engineering/architecture design community, contractors, trades, utilities, Architecture 2030, others

How To Get Involved

- Follow BEEWG website

Find Out More Information

- State agency SEED report for new construction (as they are published)
- Contact agency staff (Blake Shelide)



Due Date: buildings permitted after 1/1/2022

Directive 3C: Statewide Plug Load Strategy

Work Summary To-Date

- Conducted best practice research
- Engaged agency working groups, core advisory group
- Published strategy document

Partners and Stakeholders

- Multi-agency advisory group, Chief Information Officer Council, state agency facility managers, ODOE, DAS

How To Get Involved

- Strategy document available on BEEWG web site

Find Out More Information

- Strategy document available on BEEWG web site



Due Date: January 1, 2019

Directive 3D: Energy Efficient State Equipment Procurement

Work Summary To-Date

- Convened sub-group of BEEWG, identified equipment types and categories
- Researched certification criteria and screened equipment list
- Identified procurement process/pathways for implementation

Partners and Stakeholders

- DAS Procurement, ODOE, agency facility managers, Chief Information Officer Council, other agency procurement officers

How To Get Involved

- Follow BEEWG web site

Find Out More Information

- BEEWG web site



Due Date: June 30, 2019

Directives 4A,4B,4C,4D,4G,4H

Directive 4A:	Solar Ready Residential & Commercial Buildings
Directive 4B:	EV Ready Residential & Commercial Buildings
Directive 4C:	Zero Energy Ready homes for Residential code
Directive 4D:	Commercial code that exceeds IECC/ASHRAE 90.1 and meets/exceeds ASHRAE 189.1
Directive 4G:	High efficiency water fixtures
Directive 4H:	Standards for water capture and safe reuse



Due Date (if applicable):

Directive 4A: Solar Ready Residential & Commercial Buildings

Stakeholder Input and Discussion Session

What does “solar ready” mean?
What are its critical elements for Residential? Commercial?

Find Out More Information

- Follow BCD code update process and board activity



Due Date (if applicable):

Directive 4B: EV Ready Residential & Commercial Buildings

Stakeholder Input and Discussion Session

What does “electric vehicle ready” mean?
What are its critical elements for Residential? Commercial?

Find Out More Information

- Follow BCD code update process and board activity



Due Date (if applicable):

Directive 4C: Zero Energy Ready Homes for Residential code

Stakeholder Input and Discussion Session

Find Out More Information

- Follow BCD code update process



Due Date (if applicable):

Directive 4C: Zero Energy Ready homes for Residential code

Work Summary To-Date

- Evaluation of specific elements in US DOE ZERH that differ from Oregon Code
- Begin to look at how energy efficiency program data can support transition

Partners and Stakeholders

- OHBA, code boards, Energy Trust of Oregon, Northwest Energy Efficiency Alliance

How To Get Involved

- Participate in code development process

Find Out More Information

- Follow BCD code update process



Due Date (if applicable):

Directive 4D:

Commercial code that exceeds IECC/ASHRAE 90.1 and meets/exceeds ASHRAE 189.1

Work Summary To-Date

- BCD, board recommendation for adoption of ASHRAE 90.1-2016 + “Net Zero Estimate” as base code for Oregon
- Rulemaking hearing to accept comments on proposed process moving forward

Partners and Stakeholders

- Boards, engineers, architects, contractors, ASHRAE, Architecture 2030

How To Get Involved

- BCD board, rulemaking meetings

Find Out More Information

- Follow ASHRAE update process
- Follow BCD code development



Due Date (if applicable):

Directive 4G: High efficiency water fixtures

Find Out More Information

- Contact BCD



Due Date (if applicable):

Directive 4H: Standards for water capture and safe reuse

Find Out More Information

- Contact BCD



Due Date (if applicable):

Directive 5C:

Coordination of Data to inform energy use reduction

Work Summary To-Date

- ODOE and OPUC are in initial stages of defining scope and outreach strategy

Partners and Stakeholders

- Energy Trust, NEEA, BPA, NW Power Council (RTF)

How To Get Involved

- Contact agency staff

Find Out More Information

- As we scope this effort and begin to set milestones, look to the BEEWG website for schedule



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Thank you!

