

Oregon Department of **ENERGY**

EO 20-04
Implementation:
Energy Code
Stakeholders

Facilitator: Roger Kainu
November 19, 2020
1:30-3:00pm



Agenda

Topic	Lead	Action	Time
Intro and recap of panel origin and purpose.	ODOE staff	Share meeting description and review of completed work items.	5 min
September Governor's report.	BCD staff	Highlights of report and where to access.	5 min
Latest commercial code progress information.	BCD staff	Commercial code slope and NEEA commercial code report.	5 min
Commercial adoption of 90.1-2019 – coming soon.	BCD staff	Reduction of regulated energy use and average of additional 10% reduction per cycle.	10 min
Q/A	BCD/ODOE staff	Question and answer time.	5 min
2006 residential baseline recap.	BCD staff	Thanks to all involved in substantive discussions and target for 2030.	5 min
RMSB results for 2021 ORSC energy provisions.	BCD staff	Items removed by committee via stakeholder requests and additional measures added to table.	5 min
New Baseline for 2021 ORSC energy use.	BCD staff	Measure 7 is 2021 ORSC baseline. 2023 ORSC energy provisions and the ZERH equivalency in April, 2021	5 min
Q/A	BCD/ODOE staff	Question and answer time.	5 min
Reach Code proposal template.	BCD staff	Request for submissions – use baseline assumptions – see BCD spreadsheet.	10 min
Q/A	BCD/ODOE staff	Question and answer time.	5 min
Open Reach Code discussion time.	All	What do you want to see?	10 min
Wrap-up	ODOE staff	Determine action steps and announce next meeting.	5 min

Intro and recap of panel origin and purpose

- Thank you for participating!
- Executive orders (20-04 and 17-20) driving this work
- Some past discussion items:
 - Code adoption process
 - 2006 baseline assumptions and inputs
 - Described ZERH target and equivalency
 - Input from NEEA, BCD and ODOE
 - Discussed the 2030 target home
 - Discussed with stakeholders – weighting factors
 - Discussed commercial code – methodology and 2005 baseline study
 - Provided overview of Oregon Reach Code
 - Shared next steps for 2021 residential code development
 - Discussed cost effectiveness analysis
 - Provided update of recent RMSB meeting
 - Shared BCD work toward code training
 - Discussed commercial code, the zero code calculator and BCD outreach efforts

BCD September Governor's report

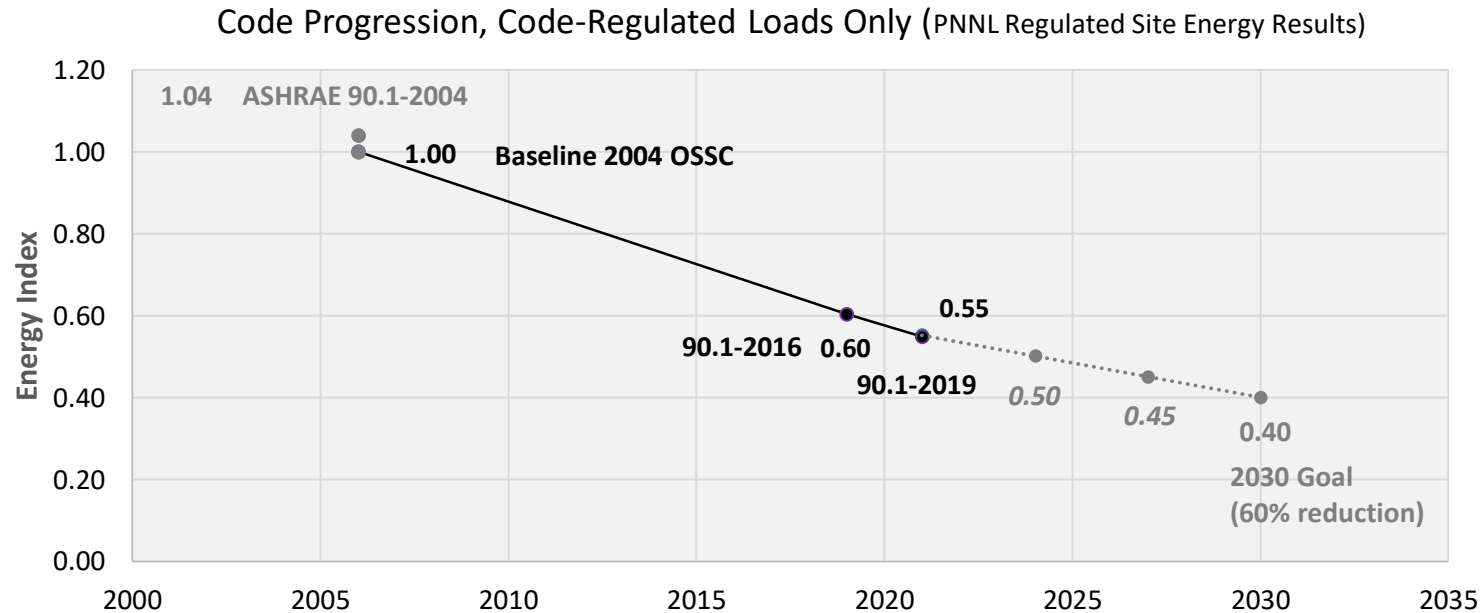
- Available at BCD website – Executive Order page
 - <https://www.oregon.gov/bcd/Pages/energy-eo.aspx>
 - From BCD Homepage, go to “Codes and Standards”
 - Bottom right of page
- Update issued prior to residential code final actions
 - Residential slope to be updated for next report
- Commercial discussion on next slides

Executive Orders

The division is working with the appropriate boards to meet the code related requirements of the Governor's Executive Orders 17-20 and 20-04.

[Read more about EO implementation](#) ↗

Latest commercial code progress information



- NEEA Commercial Code Report on 90.1-2016 adoption into 2019 OSSC:
 - 9% total site energy improvement from 2014 OEESC to 2019 Oregon Code
 - Did not count 5 code improvements that NEEA captures separately
 - Regulated load reduction well over 10%

Commercial adoption of 90.1-2019

- **Reduction of regulated energy use**
 - Confirmed in discussions with US DOE/PNNL
 - Federal Determination coming soon
- **Adoption process looking for effective date in April 2021**
 - 90-day grace period (as usual)
- **Average of 10% additional regulated load reduction per cycle**
 - ASHRAE 90.1-2022, -2025, and -2028
 - ASHRAE's current target: 90.1-2028 will be 68% reduction over 90.1-2004
 - Look for link to Nov. 11 presentation from 90.1 Committee Vice-Chairs
 - On a steady glide path to EO 20-04 goal in 2030

90.1-2019 adoption in Oregon

- **COMcheck beta testing completing; available for use this month**
 - FYI: Oregon COMcheck is “gone”; possible to get desktop version
- **Outreach to stakeholders beginning shortly:**
 - Minor adjustments & items necessary for statewide use
 - Integration of low rise residential (administrative)
- **Overview: coming for meeting January 12, 2021**
 - Pre-meeting outreach and follow-up likely
 - After January 12: Ideas to be composed and sent to board
 - Recap of BCD move to use 90.1
 - Will keep simple: NO Oregon specific COMcheck
 - BCD-developed COMcheck supplement form for Oregon
- **More training for building officials**
 - Outreach to builders and designers

2006 residential baseline recap

- Thanks to all for substantive discussions
- Less confusion moving forward
- Easier, consistent future comparison models
- 2006 Baseline (weighted) is the 100%
- Target for 2030 (EO 20-04): 60% reduction from weighted 2006 Baseline
 - Standard weighting of site energy use (Regional figures from NEEA)
 - Weighted energy use of each code compared to weighted 2006 baseline
 - All comparisons without “plug loads” (only regulated loads under the ORSC)

RMSB results for 2021 ORSC energy provisions

- Starting again in April after Reach Code and Commercial Energy Code
 - Clarifications from ZERH Program
 - Additional Stakeholder outreach for path to 2023 ORSC
- Update on significant revisions by Board via stakeholder requests
 - Heat Recovery Ventilation removed
 - Ventilation option removed
 - 4 ACH50 Codified as “minimum” threshold in Oregon
 - Two new additional measures added to Table N1101.1(2)
- Not fully analyzed yet; future work for review toward meeting EO 17-20 (ZERH-equivalent performance)
 - Also progress toward EO 20-04
- But need starting point for Reach Code proposal analysis now

Baseline 2021 ORSC for analysis

- Reduced window area Measure 7 is 2021 ORSC baseline Additional Measure
 - Prescriptive window cost increasing 20%
 - Easiest to achieve; many homes already achieving
 - Becomes minimum threshold level of performance
- **To be used for Reach Code analysis**
- Looking forward to restarting look at 2023 ORSC energy provisions and the ZERH equivalency in April, 2021 (after Reach Code and 2021 Commercial Code Adoption)
 - **Feedback directly from ZERH program** (will get in writing)
 - **Energy equivalent of ZERH home (2017 edition)**
 - Further outreach meetings seeking additional stakeholders feedback

Reach Code proposal template

- Request for submissions posted first week of November
 - 45 day submission period
 - Proposals will be posted (so anyone can comment/participate)
 - January 13 Meeting:
 - Review of submissions
 - Summarize for the boards
- Code Change Application (show)
- Recommend everyone should use same baseline assumptions
 - Starting point: 2021 ORSC baseline
 - BCD has created helpful tools

BCD proposal template

- Template review:
 - List of sources for 2021 baseline
 - 2021 ORSC Code document (Link soon)
 - US DOE (PNNL)
 - NREL residential modeling guide
 - NIST
 - 90.1 Appendix A for atypical thermal assemblies
 - NEEA sourced regional weighting data
- Proposal has the proponent's baseline AND modeled results
 - Interested in the improvement
 - Any public proposal should have ability for others to review and comment.

Open Reach Code discussion

What would you like to see?

- A Reach Code sub group?
 - Meeting date?
 - Optional December Reach code meeting (does this group wish to meet?)
- Measure impacts
- Reach and Stretch Codes in other states
- Other items?

Meeting Wrap-up



- Recording will be available
- Action items identified and distributed
- Next meeting date 12/2
- Any questions, please send to:
Roger.Kainu@Oregon.Gov

- Meeting materials:
<https://www.oregon.gov/energy/Get-Involved/Pages/Energy-Code-Stakeholder-Panel.aspx>

- BCD:
<https://www.oregon.gov/bcd/Pages/index.aspx>