

Built Environment Efficiency Working Group State of Oregon

Implementing [Executive Order No. 17-20](#)*

EO Directive		Lead Agency	Due Date	Progress/Milestones Reached
3A	ODOE and DAS to establish energy use intensity (EUI) targets for all state owned existing buildings, and for remodels after the date of the executive order. State agencies not meeting targets will work with ODOE and DAS to undertake retrofits.	ODOE, DAS	Ongoing	<ul style="list-style-type: none"> Completed/Continuing: EUI targets have been established using ASHRAE Standard 100 where applicable, and are available in ODOE's SEED Biennial Report. Targets have also been established for DAS buildings that do not currently have an EUI target under ASHRAE Standard 100. ODOE continues to work with state agencies to benchmark energy consumption and is available for assistance on energy efficiency improvements.
	ODOE to report and track energy use in state owned buildings.	ODOE	Ongoing	<ul style="list-style-type: none"> Completed/Continuing: ODOE is currently tracking and reporting agency building level Energy Use Intensity (EUI, kBtu/square foot/yr) through the SEED Biennial Report and individual report cards to state agencies. ODOE is also exploring new methods for energy data analysis. Agencies participate by reporting energy consumption data to ODOE through Energy Star Portfolio Manager, with guidance from ODOE.
	ODOE and all agencies benchmark and identify buildings for retrofits.	ODOE	Ongoing	<ul style="list-style-type: none"> Completed/Continuing: ODOE and agencies have benchmarked buildings to national high performance targets, where applicable, and will continue to do so. As more data is gathered and performance trends are developed, ODOE and agencies will work to identify specific buildings for retrofit opportunities.
	ODOE to develop database of eligible state-owned buildings.	ODOE	6/1/2018	<ul style="list-style-type: none"> Completed: Energy Star Portfolio Manager database is used by agencies and ODOE to track energy consumption by eligible state-owned building (over 5,000 square feet and 10

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Updated: February 2020

				<p>kbtu/square foot/year).</p> <ul style="list-style-type: none"> • May 2018: Summary Report posted to BEEWG website
3B	ODOE and DAS work with agencies to make state-owned new office and commercial space buildings able to operate as carbon-neutral.	DAS, ODOE	Applies to buildings permitted after 1/1/2022	<ul style="list-style-type: none"> • This item does not have a near term deadline, but this will be incorporated into existing SEED program for new state construction. The DAS 2018 Sustainability Plan and new Energy Management Policy both identify the need to develop guidance for designing carbon neutral-ready buildings. • Staff research into existing frameworks such as Architecture 2030 for potential applicability to state construction, which will match well with state energy code developments.
	ODOE and DAS analyze feasible options with DEQ for embodied carbon consideration in building materials.	ODOE, DAS, DEQ	Ongoing	<ul style="list-style-type: none"> • DAS and the Oregon Sustainability Board have engaged DEQ to evaluate embodied carbon in concrete. Collaboration will continue.
3C	ODOE and DAS develop plug load strategy.	ODOE, DAS	1/1/2019	<ul style="list-style-type: none"> • Completed • December 2018: Statewide Plug Load Strategy document completed and posted to BEEWG website. • 2018 development work included: <ul style="list-style-type: none"> ○ Stakeholder involvement from CIO Council, DHS/OHA Joint Facilities Committee, ISCN and DAS OSCIO to mobilize input in strategy development. ○ Coordinated grant-funded research paper from ACEEE on plug load best practices. ○ Two state agency plug load strategy workshops • Recent activities include October 2019 plug load workshop for state agencies to implement strategy.
	Updated DAS policies for behavior-based efficiency.	DAS	1/1/2020	<ul style="list-style-type: none"> • Completed • DAS Energy and Resource Conservation Statewide Policy
3D	ODOE and DAS to develop procurement requirements for equipment, including water and energy efficiency.	ODOE, DAS	FY 2018-19	<ul style="list-style-type: none"> • Completed/Continuing • June 2019: Procurement requirements developed. Summary report for state energy efficient procurement uploaded to BEEWG website.

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Updated: February 2020

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3E	ODOE to analyze state building costs, including lifecycle energy or water use costs or savings, upon facility energy and water upgrades.	ODOE, state agencies	Ongoing	<ul style="list-style-type: none"> • Incorporated into existing SEED process for new state construction. • DAS, ODOE conducted research into existing water lifecycle cost tools that are available. • ODOE incorporating lifecycle cost analysis of water reduction measures into SEED lifecycle cost analysis calculator, which is already used to analyze state building lifecycle energy savings when considering energy upgrades for state buildings.
	ODOE and DAS develop a tool to inform high performance energy use targets and carbon neutral requirements for state buildings	ODOE, DAS	1/1/2019	<ul style="list-style-type: none"> • Completed • December 2018: Summary document on work, analysis tools, and directive completion uploaded to BEEWG website. • Agency benchmarking through ENERGY STAR Portfolio Manager.

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Updated: February 2020

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Increasing Energy and Water Efficiency in New Construction				
4A	BCD and Advisory Boards to amend code to require solar readiness requirements and exemptions for residential buildings.	BCD	10/1/2020	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx
	BCD and Advisory Boards to amend code to require solar readiness requirements and exemptions for commercial buildings.	BCD	10/1/2022	
4B	BCD and Advisory Boards to amend code to require Level 2 EV charger readiness requirements and exemptions.	BCD	10/1/2022	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx
4C	BCD and Advisory Boards to amend code to require USDOE Zero-Energy Ready Homes Standard.	BCD	10/1/2023	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx
4D	BCD and Advisory Boards to amend commercial code to exceed IECC and ASHRAE 90.1 and meet or exceed measurable prescriptive energy efficiency portions of ASHRAE 189.1.	BCD	10/1/2022	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx
4E	ODOE and BCD provide report to Governor on key, expanding industries with potential to realize significant cost savings and energy savings through building code amendments.	ODOE, BCD	1/1/2019	<ul style="list-style-type: none"> Completed December 2018: “Expanding Industries and Building Code Amendments” report completed, provided to Governor’s Office, and posted to BEEWG website.

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Updated: February 2020

4F	ODOE and stakeholders identify and adopt appliance standards, aligning with other leading states. Report and analysis to governor.	ODOE	11/1/2018	<ul style="list-style-type: none"> Completed November 2018: Improved State Standards for Appliances opportunities report complete, delivered to the Governor's Office, and posted to BEEWG website. 2018 work included ODOE research into available opportunities, data collection, and monthly collaborative discussions with other states. Two industry stakeholder meetings held in 2018 for an appliance standards legislative concept.
4G	BCD and Advisory Boards to amend code to require high-efficiency water fixtures in all new buildings.	BCD	1/1/2020	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx
4H	BCD and Advisory Boards to develop standards and amend code for water capture and safe reuse.	BCD	10/1/2025	<ul style="list-style-type: none"> Current Code: https://www.oregon.gov/bcd/codes-stand/Pages/index.aspx Code Change: https://www.oregon.gov/bcd/codes-stand/code-adoption/Pages/index.aspx

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Increasing Energy Efficiency Through Retrofits of Existing Buildings				
5A	PUC working with ETO on development of meter-based savings pilot programs.	PUC	1/1/2019	<ul style="list-style-type: none"> • Completed • December 2018: Report that documents the work associated with this directive and how the EO requirements have been met uploaded to BEEWG website. • In 2018, PUC worked with ETO to accomplish this directive.
5B	ODOE, PUC, OHCS assess energy use in all affordable housing building stock. Develop 10-year plan to achieve maximum efficiency. Include Best Practices from ETO and BPA. OHCS expansion of multi-family, green, manufactured replacement and value assessment (NEBs).	OHCS, ODOE, PUC	1/1/2019	<ul style="list-style-type: none"> • Completed • Significant stakeholder involvement and outreach throughout 2018. • December 2018: <ul style="list-style-type: none"> ○ “10 Year Plan on Reducing the Energy Burden in Oregon Affordable Housing” completed and uploaded to BEEWG website ○ Map-based GIS Assessment Tool completed and made available to the public: http://bit.ly/OHCS_AHA ○ “How-To Guide and Methodology” for the Oregon Affordable Housing Assessment tool completed and uploaded to the BEEWG website
5C	ODOE and PUC support and assist private sector partners for data share of projected energy use reduction in the region. Data made available to public to inform energy efficiency policies, as appropriate.	ODOE, PUC	1/1/2020	<ul style="list-style-type: none"> • Completed/Continuing • Report published on BEEWG site. • Interagency coordination will continue to build upon work to-date and refine this effort as needed. • 2019 work included PUC and ODOE scoping document completion, stakeholder survey distribution, and summary report. • This first phase of work included a high-level regional energy data flow with map/links to available data sources that can inform energy efficiency planning. PUC’s and ODOE’s work will not involve publication of any third-party data.

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5D	ODOE and PUC evaluate the state's distributed resources needed to improve Oregon's recovery from a disaster. Report to the Governor.	ODOE, PUC	1/1/2019	<ul style="list-style-type: none"> Completed December 2018: Report complete, delivered to the Governor's Office, and posted to BEEWG website.
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Increasing Energy Efficiency Through Retrofits of Existing Buildings				
6	EO implementation via least-cost approach. ODOE, BCD, in consultation with DAS, PUC, OHCS adopt a cost-analysis tool via public process. State agencies can use tool to defer cost-ineffective activities after public process.	ODOE, BCD	12/1/2019	<ul style="list-style-type: none"> Completed Agency meeting focused on cost analysis held 4/4/18. Public meeting for input on cost tool held 5/8/18. BCD requested advisory boards to provide input to the division. Focus item for April 16, 2019 BEEWG public meeting. BEEWG development of Cost Analysis Protocol and Cost Analysis Tool completed, posted to BEEWG website.

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