

Energy 101: Oregon State Climate Programs and Actions

In March 2020, Governor Kate Brown issued Executive Order 20-04 directing Oregon state agencies to take a series of significant actions to reduce emissions of greenhouse gases and help prepare for the effects of climate change in Oregon. EO 20-04 further advanced the State's GHG reduction goals by setting targets of at least 45 percent below 1990 levels by 2035, and at least 80 percent by 2050. While some of the directives in EO 20-04 were explicit, many were broadly defined.



To promote understanding of what work is underway and help identify gaps to advance climate policy, the Oregon Department of Energy and the Oregon Global Warming Commission took stock of major ongoing climate change-related programs and projects led by various state entities (agencies, boards, and commissions). The following tables summarize entities' major initiatives related to four main categories:

- Greenhouse Gas Emissions Reductions and Sequestration: Programs or policies directly resulting in GHG emissions reductions or carbon sequestration (the capturing and storage of carbon dioxide).
- Assessment of Climate Risks and Vulnerabilities: Assessment projects and ongoing monitoring of climate change-related risks and associated vulnerabilities emerging in a variety of contexts/sectors in Oregon.
- Preparing for Climate Change: Policies and programs facilitating measures to increase
 resilience to climate change related risks, as well as policies and programs to transition to a
 cleaner (low-carbon) economy. This can include *indirect* efforts to reduce GHG emissions
 and efforts to increase the sustainable use of resources.
- **Educating Oregonians About Climate Change**: Publications, resources, and outreach directed toward educating Oregonians about climate change (including schools and the general public).

Many initiatives are collaborative among several agencies; these initiatives are cross-referenced and are colored in **orange text** below. For mitigation programs/policies, where estimated, the expected GHG emissions reductions resulting from a project/program are noted. Emissions reduction estimates for many programs in this topic will be available in the Oregon Global Warming Commission's forthcoming Roadmap to 2035 report. Such information is helpful to monitor and advance progress toward reaching our state goals.



Business Oregon (Oregon Business Development Department)

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Rural Renewable Energy Development Zone Program • Provides businesses tax abatement from local property taxes (for 3-5 years) for generating renewable electricity or producing, distributing, or storing biofuels ² Solar Development Incentive Program • Provides businesses incentives for developing qualified solar projects (\$0.005/kWh for up to 150 MW of capacity; sunsets Jan 2023) ³	No activities in this category	Oregon Renewable Energy Siting Assessment (ORESA) – See ODOE Oregon's Climate Change Adaptation Framework – See DLCD Climate Equity Blueprint – See OHA	No activities in this category



Department of Administrative Services

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Sustainable Procurement Services Program Integrates consideration of sustainability and GHG reduction in procurement ⁴ Conversion of state fleet to zero-emission vehicles 100% of new light-duty vehicles by 2025 ⁵ Installation of new electric vehicle charging infrastructure Agency Climate Action Toolkit - Lead Provides tool and guidance for agencies to reduce GHGs in their operations Zero Emission Vehicle Interagency Working Group - See ODOT Built Environment Efficiency Working Group - See ODOE	Assessment of climate hazards to inform leases, construction, and land purchases • Inclusion of midand long-term climate risk (e.g., from floods and fires) and resilience benefits in decision-making processes ⁶	Building design/retrofit (in progress) Incorporates climate change projections and hazard analysis into building design and retrofit plans and statewide policy ⁷ Oregon's Climate Change Adaptation Framework – See DLCD Climate Equity Blueprint – See OHA	No activities in this category



Department of Consumer and Business Services (Building Codes Division, Division of Financial Regulation, and Oregon Occupational Safety and Health)

Regulation, and Oregon Occupational Safety and Health)				
Greenhouse Gas Emissions Reductions Climate Risks and Sequestration Vulnerabilities	d Preparing for Climate Change	Educating Oregonians About Climate Change		
Assessment of insurance & clir risk Improves Oregon's energy efficiency requirements for new buildings and renovations to achieve 60 percent decrease in energy use by 2030 (relative to 2006) ⁸ Oregon Reach Code Optional energy efficiency construction standard for builders, consumers, and contractors beyond the state building code ⁹ Built Environment Efficiency Working Group - See ODOE	• Grant for fire hardening in repair or replacement of structures damaged or destroyed in 2020 wildfires 11 New heat and smoke exposure rulemaking	Mandatory training for new heat and smoke exposure rules • Oregon OSHA implementation of risk-mitigation training requirements for exposed/vulnerable workers ¹⁴ • Audience: employers/ employees Public communication campaign about heat and smoke hazards • Ongoing education outreach on climate-related work hazards in English and Spanish ¹⁵ • Audience: general		



Department of Land Conservation and Development (DLCD)			
Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Climate-Friendly and Equitable Communities • Program to meet climate goals though improved transportation options, more walkable neighborhoods and services in urban areas (with pop. of 50k+) ¹⁶ • Requires Eugene-Springfield and Salem-Keizer to develop regional strategy to meet GHG targets Transportation and Growth Management Program • Coordinates land and transportation planning to improve transportation efficiency ¹⁷ • Supports development of walking/biking opportunities Every Mile Counts – See ODOT	Natural Hazards Mitigation Planning Supports state, local, and tribal governments in assessing how climate change will affect natural hazards; identifying vulnerable assets and populations; and assessing overall risk to natural hazard events ¹⁸ Develops Oregon's Natural Hazard Mitigation Plan Leads the Hazard Mitigation Team for the Office of Emergency Management Oregon Coastal Management Program Supports coastal communities in assessing natural hazards and vulnerabilities specific to the coast ¹⁹ Supports coastal communities in developing and implementing actions to reduce	Coordinates implementation of FEMA's National Flood Insurance Program in Oregon • Connects participants with federal program and resources ²¹ Interagency Working Group on Climate Impacts to Impacted Communities • Development of guidance for climate actions for impacted communities with equity focus ²² Oregon's Climate Change Adaptation Framework – Lead • Identification of adaptation needs and strategies across Oregon's economy ²³ Climate Equity Blueprint – See OHA Oregon Renewable Energy Siting Assessment (ORESA) – See ODOE	Insurance Program (NFIP) training DLCD-hosted training on a range of NFIP-related topics ²⁴ Audience: local gov/general Resources on DLCD website Information and links for program information, toolkits, local planning, reports, etc. ²⁵ Audience: general



vulnerability and risk from natural hazards	
Oregon's Climate Change Vulnerability Assessment – Lead • Assessment of how climate change is affecting the well- being, livelihoods, and cultural identify of Oregonians ²⁰	



Environmental Quality Commission and Department of Environmental Quality (DEQ)

Greenhouse Gas
Emissions Reductions
and Sequestration

Assessment of Climate Risks and Vulnerabilities

Educating Oregonians About Climate Change

Climate Protection Program

 January 2022 program that establishes GHG emission limits on fossil fuel providers/suppliers and large industrial sources (mitigating 25.1 MMTCO2e by 2050)²⁶

Clean Fuels Program

- Reduces lifecycle GHG emissions from fuels used in transportation sector by 10% by 2025, 20% by 2030, and 37% by 2035²⁷
- Resulted in 6.5
 MMTCO2e emissions savings through 2020²⁸

Oregon Clean Vehicle Rebate Project

- Rebate program to incentivize purchase/lease of new/used zero emission vehicles²⁹
- Charge Ahead Rebate incentive for low- and moderate-income households to acquire an EV

Assessment of environmental health cost of carbon-based fuel use

 Identified health outcomes and healthcare cost savings associated with pollution reduction³²

Ongoing environmental monitoring

 Continued investment in monitoring capabilities, including effect of wildfire smoke on air quality³³

Material Recovery Programs

See: Preparing for Climate Change category

Wildfire smoke hazard resilience

Preparing for

Climate Change

- Significant investment in air quality monitoring; facilitating wildfire smoke monitoring and reporting
- Support for community preparedness and response for associated public health risks³⁴

Food Waste Reduction Strategy

- Identifies and funds food waste reduction and outreach³⁵
- Targets social benefits and lifecycle GHG savings³⁶

Built Environment Strategic Plan

- Reduces lifecycle GHG impacts of built environment through voluntary programs, capacity building, grants and more
- Centers equity and environmental justice

Resources on DEQ website

- Information on climate change, DEQ programs, and other state programs and resources³⁷
- Audience: general

GreenState Podcast

- Explores
 environment and
 environmental
 quality in Oregon³⁸
- Audience: general

Air, Land & Water Blog

- Covers

 environmental
 quality and climate
 change topics³⁹
- Audience: general

Bad Apple Campaign

- Statewide marketing campaign educating consumers to reduce food waste and lifecycle emissions from food production
- Audience: general



Zero Emission Vehicle Standardsⁱⁱⁱ

- Advanced Clean Truck Regulations, which requires medium- and heavy-duty truck manufacturers to produce and deliver increasing percentages of zero-emission vehicles³⁰
- ZEV standards for lightduty vehicles, requires manufacturers to produce and deliver increasing percentages of zero-emission vehicles and reduce GHG emissions from conventional vehicles. DEQ is in rulemaking to adopt California's Advanced Clean Cars II rule requiring all new light-duty vehicle sales to be zero-emission by 2035^{31}

Zero Emission Vehicle Interagency Working Group - See ODOT

Every Mile Counts – See ODOT

Material Recovery Programs

- Plans, regulates, and provides assistance for local recovery programs statewide
- Incorporates lifecycle impacts of material recovery

Oregon's Climate Change Adaptation Framework – See DLCD

Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD

Climate Equity Blueprint – See OHA

Oregon Renewable Energy Siting Assessment (ORESA)
– See ODOE

Natural & Working Lands Proposal – See OGWC



Oregon Department of Agriculture (ODA)

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Research into carbon sequestration through changing land use practices • Identifying strategies to improve soil health and carbon sequestration potential ⁴⁰ • Integrating expertise on soil health throughout ODA programs with new Soil Health Position	No activities in this category	Advancing water management practices Improving the quality of groundwater management areas Improving agricultural water quality rules that increase watershed resilience Engaging in Place-Based Planning for water resources, focused on adapting to the impacts of changing water regimes across Oregon Advancing the resilience of native species Changing climate conditions can favor invasive species, helping them to outcompete native species and expand their populations rapidly Implementation of an Early Detection and Rapid Response (EDRR) strategy to protect native species habitat	No activities in this category



Interagency Working
Group on Climate
Impacts to Impacted
Communities – See
DLCD

Oregon's Climate
Change Adaptation
Framework – See
DLCD

Oregon Renewable
Energy Siting
Assessment (ORESA)
– See ODOE

Natural & Working

Lands Proposal – See

OGWC



Oregon Department of Energy (ODOE) and Energy Facility Siting Council

Greenhouse Gas
Emissions Reductions
and Sequestration

Assessment of Climate Risks and Vulnerabilities

Preparing for Climate Change Educating Oregonians About Climate Change

Solar + Storage Rebate Program

- Rebate program for installation of solar panels and storage capacity⁴¹
- 684 projects completed in 2021⁴²

Energy Efficient Schools Program

 Provide technical support and connect schools with resources for energy efficiency projects⁴³

Energy Efficiency Appliance Standards

- Advancement of standards from HB 2062⁴⁴
- Appliance efficiency improvements could achieve 2.5 MMTCO2e in emissions savings through 2035⁴⁵

Energy Facility Siting Council Carbon Standards

 Monetary Offset rate for excess facility emissions raised from \$2.85 to \$4.27 per ton of CO2 in 2022 (the maximum increase allowed by current statute), update emissions standards, and implement HB 2021

Energy Sector Climate Vulnerability Assessment

- Identifies and evaluates climate change related vulnerabilities and risks facing energy infrastructure and services⁴⁹
- Explores
 opportunities for risk
 mitigation and
 resilience, and
 provides a guide for
 others to conduct
 climate vulnerability
 studies⁵⁰

Biennial Energy Report

 Overview of climate change risks and impacts to energy use and infrastructure⁵¹

Community Renewable Energy Grant Program

- Grants for community renewable energy generation and storage projects⁵²
- Improves energy resilience⁵³
- 50% of funding dedicated to environmental justice communities⁵⁴

Energy Efficient Wildfire Rebuilding Incentive

 Provides grant incentives for energy efficient rebuilding of destroyed structures⁵⁵

Research into development of alternative energy resources

- Renewable
 Hydrogen Study (expected 2022)⁵⁶
- Floating Offshore
 Wind Energy Study⁵⁷
- Small-Scale and Community-Based Renewable Energy Projects Study⁵⁸

Biennial Energy Report

Reports in 2018, 2020, and 2022 include analysis and resources on climate change including:

- Statewide GHG emission data and statistics
- Goals and climate commitments
- Risks and impacts
- Deep decarbonization pathways
- Clean energy and renewable standards
- Energy efficiency and net-zero buildings
- Energy sector climate vulnerability assessment
- Electric vehicles and chargers
- Hydrogen fuel cell vehicles
- Renewable and zero-emission vehicle standards
- Truck fuel efficiency
- Alternative fuels assessments
- Transportation fuels assessments
- Carbon capture and storage



requirements.46 47

Heat Pump Program¹³⁹

• \$25M provided in SB 1536 (2022) for grants and rebates to replace mainly bulk fuel based and electric resistance heating systems with heat pumps to provide both cooling and more efficient heating to residents

Built Environment Efficiency Working Group - Lead

Tasked with reducing energy consumption and emissions related to the built environment⁴⁸

Renewable Portfolio Standards for Investor-Owned Utilities and Energy Service Suppliers – See PUC

Zero Emission Vehicle Interagency Working Group - See ODOT

Every Mile Counts – See ODOT

Roadmap to 2035 – See OGWC

Biennial Energy Report

- Evaluation of current GHG reduction targets and projected impacts⁵⁹
- Findings used to inform future GHG reduction strategies⁶⁰

Oregon's Climate Change Adaptation Framework – See DLCD

Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD

Oregon Renewable Energy Siting Assessment (ORESA)

- Co-Lead
- Developed a mapping tool to help inform the siting of new renewable energy resources⁶¹

Natural & Working Lands Proposal – See OGWC

- Wildfire mitigation planning
- Agriculture sector GHG emissions analysis
- Renewable energy resource and technology reviews
- Overview of effects of energy development and consumption on climate, opportunities to mitigate emissions through energy efficiency and clean energy development, and climate change risks and impacts to energy use and infrastructure⁶²
- Audience: general

Resources on ODOE website

- Electric Vehicle Dashboard⁶³
- Solar Dashboard⁶⁴
- Links to reports/publications
 65
- Program information⁶⁶
- Audience: energy industry/general

Educational outreach on energy efficiency and clean energy

- Direct school engagement⁶⁷
- Activities and



materials on ODOE website ⁶⁸ • Audience: children and students
 Grounded Podcast Exploration of energy landscape in Oregon⁶⁹ Audience: general
Roadmap to 2035 – See OGWC



Oregon Department of Fish & Wildlife

Greenhouse Gas
Emissions Reductions
and Sequestration

Assessment of Climate Risks and **Vulnerabilities**

Educating Oregonians About Climate Change Climate Change

ODFW wildlife area carbon sequestration

• The approximately 200.000 acres of wildlife and recreation lands managed by ODFW sequesters 61,000 MTCO2e per year⁷⁰

ODFW GHG Emissions Reduction Plan

- The ODFW GHG **Emissions Baseline** Assessment (2019-2020) estimated agency operations generate 9,280 MTCO2e per year⁷¹
- The ODFW GHG **Emissions Reduction** Plan will be released by the end of 2022, identifying goals and targets for reducing agency GHG emissions

Oregon Connectivity Assessment and **Mapping Project** $(OCAMP)^{140}$

- High resolution habitat connectivity mapping effort for 60 species⁷²
- Data used for species and ecosystem conservation and protection⁷³

Strategy Species List

• Identifies Oregon's species of greatest conservation need, highlighting species particularly vulnerable to climate change

Aquatic habitat prioritization

- Assessing climate resilience of aquatic habitat across the state
- Focuses on instream water conservation and fish passage efforts

Ongoing environmental monitoring

• Re-aligned monitoring of aquatic species and

Climate and Ocean Change Policy

Preparing for

• Incorporating a climate lens in programs, policies, and expenditures (as directed by OAR Chapter 635, Division 900)

Thermal Angling Sanctuaries

- Creation of protected cold-water refuges during warmest months to protect migrating species from high water temperatures⁷⁶
- Developing consistent guidelines for modifying angling regulations to protect fish during climatedriven downturns (such as warmer than average water temperatures)

Oregon Ocean Acidification and Hypoxia Report

 Identified opportunities for all state agencies to reduce ocean acidification and

Drought Outreach Campaign via **Oregon Conservation** and Recreation Fund

- Large investment in targeted marketing campaign highlighting the impacts of drought on fish and wildfire, ongoing drought being driven by climate change, and opportunities for the public to help fish and wildlife persist.
- Audience: General

Climate and Ocean Change **Communications** Plan

- Developing comprehensive communications to educate the public on the impacts of climate and ocean change on fish, wildlife, and their habitats
- Audience: General

Ocean Conservation Strategy

• Oregon's State Wildlife Action Plan identifies climate change as one of the seven Key



habitat conditions and change over time⁷⁴

Assessment of climate vulnerability for the hatchery system

 Identification of increased risks to hatchery infrastructure from wildfire, flooding, hypoxia, drought, etc.⁷⁵

hypoxia

Conservation Opportunity Areas

 Focusing investments and conservation efforts on locations across the state to support the highest number of species of greatest conservation need, providing intact habitats, act as climate refugia, and connect vital landscapes

Oregon's Climate Change Adaptation Framework – See DLCD

Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD

Oregon Renewable Energy Siting Assessment (ORESA) – See ODOE Conservation Issues in Oregon, providing background information and identifying priority goals and actions for Oregonians

• Audience: General



Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Adapting forest management to reduce wildfire risk • Reduces biogenic carbon emissions from fires ⁷⁷ Carbon sequestration in wildland forests • Works to avoid net reduction in sequestered carbon (relative to 1974) ⁷⁸	Assessment of forest health and composition in a changing climate • Collaborative effort with U.S. National Forest Inventory Program to inventory and measure changes in tree species distribution, range, etc. 79	ODF Climate Change and Carbon Plan (2021) • Identifies opportunities and goals for wildfire management, mitigation, and adaptation ⁸⁰ • Explores incentives and rulemaking for appropriate stewardship of private forestland ⁸¹ • Expands resources for urban and community forests ⁸² Oregon's Climate Change Adaptation Framework – See DLCD Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD Climate Equity Blueprint – See OHA Natural & Working Lands Proposal – See	Resources on ODF website • Climate Change and Carbon Plan information and webinar ⁸³ • Blogs on wildfire and carbon sequestration in harvested wood products ⁸⁴ • Audience: wood products industry/general

OGWC



Oregon Department of Transportation (ODOT) and Oregon Transportation Commission (OTC)

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
 West Coast Electric Highway West Coast regional corridor of charging stations for zero emission vehicles⁸⁵ 1.3 million kilowatthours of charging to date⁸⁶ Upgrades in 2022-2023 expanding access Piloting road user charges, tolls, and other pricing tools Market incentives to reduce driving⁸⁷ Potential for large-scale implementation later this decade⁸⁸ Intensification of investment in no-/low-emission transportation infrastructure \$55 million funding increase for walking and biking transportation infrastructure⁸⁹ EV charging infrastructure plans and investments National EV Infrastructure (NEVI) program provides \$52 million federal/\$13 million non-federal match funding over 5 years to build fast 	Transportation infrastructure climate vulnerability assessment • Evaluation of risks associated with sea level rise, coastal erosion, landslides, flooding, and wildfire hazards and impacts on transportation infrastructure, as well as condition assessment of current infrastructure assets 92	Active Transportation Needs Inventory Data collection on pedestrian/bike infrastructure deficiencies ⁹³ Will be used to target funding of future infrastructure development ⁹⁴ Statewide Climate Change Adaptation and Resilience Plan Identification of needs, goals, and strategies to contend with projected future climate conditions and hazards ⁹⁵ Net-Zero Transit Pilot Project Assessing options to reduce emissions from public transit through lower carbon fuel use and zero-emission vehicle adoption Oregon's Climate Change Adaptation Framework – See DLCD	Resources on ODOT Climate Office website • General information, reports, program information, climate hazard factsheets, etc. 96 • Audience: general



- charging stations on corridors
- Community EV Charging Rebate program (2022) for Level 2 charging investments, largely in disadvantaged communities
- Section 11401 of Bipartisan Infrastructure Law (2021) establishes
 \$2.5 billion competitive grants for fueling infrastructure in communities and corridors, over 5 years
- Transportation
 Electrification
 Infrastructure Needs
 Analysis (TEINA) (2021;
 2022 update) identifies
 charging gaps and
 needed investments in
 charging infrastructure
 in rural, underserved,
 and urban areas
 throughout Oregon,
 with goals and
 deployment strategies

Statewide Transportation Improvement Program

- Planning includes evaluating GHG emissions resulting from transportation projects
- \$55 million increase for walking and biking transportation infrastructure in 2024-27 cycle

Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD

Climate Equity Blueprint – See OHA



Operations and Maintenance GHG Inventory

 Assessment of GHG inventory for emissions associated with agency maintenance and construction operations for the development of reduction strategies

Zero Emission Vehicle Interagency Working Group - Lead convener

 Increases the rate of adoption of electric vehicle use through regulation, investment, and infrastructure development⁹⁰

Every Mile Counts - Lead convener

 Identification, prioritization, and implementation of opportunities to reduce GHG emissions from transportation⁹¹

Transportation and Growth Management Program – see DLCD



Oregon Health Authority

Greenhouse Gas
Emissions Reductions
and Sequestration

Healthy Homes Grant Program

 Grant supporting weatherization and retrofits for reduced energy consumption and climate resilience⁹⁷

Assessment of Climate Risks and Vulnerabilities

Climate and Health in Oregon - 2020 Report

- Assessment of current/projected health risks associated with climate hazards⁹⁸
- Exploration of crosscutting effects of climate change (e.g., on livelihoods, housing, mental health, etc.)⁹⁹

Climate Change and Social Resilience (2020)

 Analysis of impacts of climate change on social/community health¹⁰⁰

Research on effects of climate change on youth depression

 Participatory, community-based study, with emphasis on intersectionality, especially for youth of color and Indigenous youth¹⁰¹

2021 State
Modernization
Investment (\$37.9
million) to Local
Public Health
Agencies (LPHAs)
and Tribes

Preparing for Climate Change

Oregon Climate and Health Resilience Plan (2017)

 Identifies needs and makes recommendations to modernize and equip healthcare community to manage climate related health hazards¹⁰²

Oregon ESSENCE (Electronic Surveillance System for the Early Notification of Community-Based Epidemics)

 Statewide public health monitoring system of incidences of climate changerelated health hazards leading to visits to medical treatment centers¹⁰³

2021 State Modernization Investment (\$10 million) to Community-Based Organizations (CBOs)

 OHA awarded funds to 35-40 individual CBOs across the state to lead local climate resilience

Educating Oregonians About Climate Change

Climate Change Resilience Planning Toolkit

- Tools and resources to prepare for changing healthcare needs related to climate change¹⁰⁵
- Audience: healthcare community

Resources on OHA website

- Reports, presentations, handouts, videos, local adaptation plans, training materials, etc.¹⁰⁶
- Audience: healthcare community/general

Culturally Responsive Climate and Health Curricula

OHA is funding
 Oregon Community
 Health Workers
 Association
 (ORCHWA) to
 develop and deliver
 a culturally
 responsive climate
 and health curricula,
 for Community
 Health Workers
 across the state.
 ORCHWA will also
 be available to



- LPHAs are asked to protect communities from environmental health threats from climate change through public health interventions that support equitable climate adaptation. The LPHA will demonstrate strategies toward developing a local or regional climate adaptation plan or incorporate into community health assessment.
- Tribes are asked to perform Environmental Health, climate change and emergency preparedness activities, technical assistance, and training

projects.

Building Resilience Against Climate Effects (BRACE)

• This federal grant supports the Climate and Health program to advance equitable climate adaptation through collaboration across all levels of government and with community partners serving

priority populations

Climate Equity Blueprint - Lead

 Provides agencies with guidance on how to design and implement programs to advance equity¹⁰⁴

Oregon's Climate Change Adaptation Framework - See **DLCD**

Interagency Working Group on Climate Impacts to Impacted Communities - See DLCD

consult smaller organizations planning community education interventions through Public Health Modernization Audience: community health workers



Oregon Water Resources Department (OWRD)

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Water conservation programs • Reduction of energy use as a co-benefit of programs to increase water efficiency 107	Oregon's Integrated Water Resources Strategy (2017) • Analysis of water needs and pressures, including climate change-related impacts ¹⁰⁸ 2015 Statewide Long-Term Water Demand Forecast • Projection of the future water needs of the state with consideration of climate change scenarios ¹⁰⁹	Use of incentives and place-based water resource planning to reduce water use • Increased resilience to water scarcity 110 • Reduction of energy use related to efficiency improvements and the energy-water nexus 111 Oregon's Climate Change Adaptation Framework – See DLCD Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD Climate Equity Blueprint – See OHA	Resources on OWRD Website • Curated resources for "Drought" and "Wildfire Recovery" topics • Audience: general ¹¹² See also: publications in assessment category



Oregon Watershed Enhancement Board

Oregon Watersned Ennand			
Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Riparian reforestation and wetland restoration grant programs • Sequestering 5 to 10 MTCO2e per hectare per year 113 Grants that support prevention of land use change (preservation of forest, grassland, etc.) • Avoiding release of 16 to 300 MTCO2e per hectare per year 114	No activities in this category	• Directs the agency to integrate emissions reductions, carbon sequestration and storage, and adaptation and resilience in their budgeting, investing, and policy-making decisions Land management strategies eligible for OWEB grant funding: • Use of forest conservation and restoration practices designed to reduce/mitigate fire risk ¹¹⁵ • Riparian restoration efforts designed to mitigate effects of drought and heat on fish/wildlife ¹¹⁶ • Management of wetlands and floodplains for mitigation of improved filtration and storage of surface runoff ¹¹⁷ Oregon's Climate Change Adaptation Framework – See DLCD	Climate-Related Technical Resources for OWEB Grant Applicants (2021) • Projected climate impacts and hazards related to watersheds, water quality, native species, habitats 118 • Information on external tools/resources 119 • Audience: OWEB grant applicants/general



Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD
Natural & Working Lands Proposal – See OGWC



Oregon Public Utility Commission (PUC)			
Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
Energy efficiency investments through Energy Trust of Oregon Reduction of 4.3 MMTCO2e from 2016 to 2020 ¹²⁰ Regulate 100% clean electricity by utilities Requires 80% GHG emissions reductions (below baseline emissions) by 2030, 90% by 2035, and 100% by 2040 ¹²¹ Projected reduction of 12 MMTCO2e from 2021 to 2030 ¹²² Oversight of 90% GHG reduction from gas utilities by 2050 ^{iv} Ensure gas utilities meet targets set by DEQ in Climate Protection Program in least-cost, least-risk manner Enforce Renewable Portfolio Standards for Investor-Owned Utilities and Energy Service Suppliers Requires at least 20% of electricity sold by the electric utility or electricity service supplier in 2020 be 'qualified' renewable energy	Hosted Wildfire Dialogue of West Coast Utility Commissions Collaborative discussion/ assessment of wildfire hazards to utilities 123 Established requirement for utilities to assess climate risks Requires utilities to include assessment of climate risks posed to generation and distribution capacity in their integrated resource plans (IRPs) 124 Update approach to avoided costs across all technology planning and acquisition that prices in value of GHG reduction and reduces climate risk. Require best available climate science in IRPs including weather forecasting and hydroelectric availability All gas and electric IOUs employ the use	Wildfire rulemaking (AR 638) ¹⁴¹ • Per EO 20-04 and SB 762, rulemaking to reduce/mitigate hazard risk to utilities from wildfires and other extreme weather events (e.g., modification to vegetation management rules) ¹²⁵ Exploring resiliency to climate change events in utility planning and investing • As part of HB 2021, ¹⁴² explore utility planning and future investing in grid resiliency • Increased direction to gas and electric IOUs to produce climate vulnerability and/or adaptation sections in their long-term planning documents	Oregon Wildfire & Electric Collaborative - Wildfire Mitigation Workshop Series • Workshop series to develop and share best practices to reduce wildfire risk and damage 126 • Audience: energy utilities



 Requirement increases incrementally every five years to 50% by 2040

Enable procurement of Renewable Natural Gas by natural gas utilities

• Supports qualified renewable natural gas investments up to 5% in each calendar year 2020-2024, increasing every 5 years up to 30% for years 2045-2050

Implement utility Transportation Electrification investment framework and updated approach to TE planning

 Per HB 2165 and EO 20-04, developed with stakeholders an enhanced approach to utility investing and planning that supports more rapid electrification of transportation

Zero Emission Vehicle Interagency Working Group - See ODOT

Built Environment Efficiency Working Group - See ODOE

Roadmap to 2035 – See OGWC

- of the social cost of carbon when assessing portfolios of resources to meet energy needs
- Conducted Natural
 Gas Fact Finding to
 explore with
 stakeholders the
 regulatory tools that
 could be employed
 by the Commission
 to encourage/
 support gas utilities
 to meet GHG
 reduction targets
 and mitigate
 associated customer
 risks

Oregon's Climate Change Adaptation Framework – See DLCD

Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD

Oregon Renewable Energy Siting Assessment (ORESA) – See ODOE



Environmental Justice Councilⁱ

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
No activities in this category	Development of an Environmental Justice Mapping Tool as described HB 4077, passed by the Oregon Legislature in 2021 • The tool will include environmental, health, socioeconomic, and other factors and will help define EJ communities in Oregon • Uses for the tool can include informing benefits while diminishing burdens for EJ communities • Provide GIS map layers that will be compatible with other mapping tools at state agencies to enable more specific data analysis and	Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD Climate Equity Blueprint – See OHA	Environmental Justice Task Force Handbook Best practices guidebook for state natural resource agencies to integrate environmental justice concerns, including effects of climate change into agency programs, actions, and decisions Audience: State natural resource agencies, boards, and commissions

2022 Biennial Energy Report

ⁱ Formerly the Environmental Justice Task Force, which was renamed in the passage of <u>HB 4077</u> in 2022.



Oregon Climate Change Research Institute (OCCRI)

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
No activities in this category	Oregon Climate Assessments Biennial assessment of current and projected effects of climate change in Oregon ¹²⁷ Assessing Climate Risks for Oregon Counties Developing county- level natural hazard mitigation plans that include climate change-related hazards (in partnership with DLCD) Oregon's Climate Change Vulnerability Assessment – See DLCD Producing content and graphics for visuals that will be used in 12 regional workshops	Provision of technical support for the development of policies and programs responding to effects of climate change • Local, state, and regional levels, in partnerships with utilities and other groups 128 Oregon's Climate Change Adaptation Framework – See DLCD	Media contributions on climate change (local-national) • Local and national contributions to climate change-related journalism ¹²⁹ • Presentations on climate change and its effects at the invitation of diverse governmental, nongovernmental, educational, and civic groups. • Audience: sector-based, general. Publication of peer-reviewed papers • Contributions to scientific literature related to climate change in Oregon ¹³⁰ • Audience: academic See also: Oregon climate assessments in assessments category



Oregon Global Warming Commission

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
 Roadmap to 2035 Develop an economy-wide, Oregon-specific model that forecasts expected emission reductions from state programs and regulations¹³¹ Provide decision-makers with recommendations for future actions the state should take to reduce Oregon's greenhouse gas emissions¹³² 	No activities in this category	Report to the Legislature • Economy-wide and sector-based recommendations for government response to mitigate emissions and increase resilience in Oregon ¹³³ • Assessment of the efficacy and progress of current goals/ programs/policies ¹³⁴ Natural & Working Lands Proposal – Lead • Development of carbon sequestration and storage goals for Oregon's natural and working lands ¹³⁵ Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD	Resources on OGWC website • Publications, reports, links to state and local government climate change resources, links to non-government resources 136 • Audience: general



Oregon Sustainability Board

Greenhouse Gas Emissions Reductions and Sequestration	Assessment of Climate Risks and Vulnerabilities	Preparing for Climate Change	Educating Oregonians About Climate Change
No activities in this category	No activities in this category	Review and approval of agency sustainability plans Collaboration with state entities to develop plans that meet state and entity goals 137 Interagency Working Group on Climate Impacts to Impacted Communities – See DLCD	Sustainability support and outreach • Assistance for consumer/industrial product environmental impact assessment 138 • Audience: industry/general

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