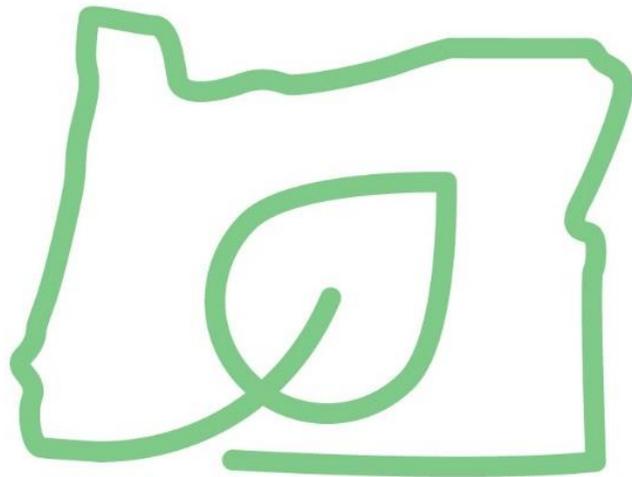




Climate Action Plan 2021-2026



ODOT Climate Office
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Executive Summary

The Oregon Department of Transportation (ODOT) recognizes the importance of reducing carbon emissions from transportation and the impacts climate is having on moving people and goods in the state. Climate change poses a significant threat to Oregon’s economy, environment, and way of life.

Flooding, landslides, and wildfires are only a few signs that Oregon’s climate is changing. These events are becoming more frequent and have resulted in road closures, infrastructure damage, and hundreds of staff hours in clean-up. Impacts to the transportation system cost the state hundreds of millions each year and are far reaching to the traveling public and state economy. Transportation accounts for the largest share of greenhouse gas (GHG) emissions in the state and increasing GHG emissions will only exacerbate the impacts of climate change on the transportation system.

The Climate Action Plan is ODOT’s 5-year plan for work to address the impacts of climate change and extreme weather on the transportation system. The plan includes actions ODOT is taking between 2021-2026 to reduce greenhouse gas emissions from transportation, address climate justice and make the transportation system more resilient to extreme weather events.

The Climate Action Plan contains actions that address:

- Policy & Investment**
Incorporate climate change and emissions reductions considerations in ODOT’s policy and investment framework
- Managing Demand**
Provide alternative transportation options to manage demand and reduce vehicle congestion
- Electrification**
Support EV adoption and expand charging infrastructure to meet Oregon’s EV goals
- Clean Vehicles & Fuels**
Transition to more efficient vehicles and support the adoption of alternative fuels
- Pricing**
Sustainable funding sources to maintain and operate the system, and to recover from the climate impacts
- System Efficiency**
Increase efficiency through infrastructure investment, safety improvements and operations practices
- Adaptation**
Increase resiliency to climate impacts and extreme weather events, such as flooding, landslides, and wildfires
- Sustainability**
Utilize sustainable products and fuels, reduce energy consumption, and reduce the agency’s carbon footprint
- Agency Partnerships**
Engage in partnerships and provide support to other state agencies and local jurisdictions
- Monitoring & Data**
Monitor the progress towards achieving emissions reduction and climate change goals

The Climate Action Plan consolidates existing and planned efforts across the agency into a strategic approach to help Oregon achieve a cleaner transportation future and provides a framework for the agency to continue the work moving forward. The actions included in the Climate Action Plan were

identified based on agency goals and priorities, as well as stakeholder feedback on important emissions reduction actions for the agency.



Substantial efforts are needed to reduce the amount of carbon that comes from the transportation sector in order to achieve a cleaner and more sustainable future. ODOT is committed to reducing transportation emissions and addressing the impacts of climate change. The agency’s work to address the impacts of climate change is continually evolving, and the Climate Action Plan will be updated as needed to reflect advancements and changes. Moving forward ODOT will continue to identify additional efforts and opportunities to help achieve Oregon’s climate goals. In five years’ time ODOT will revisit the Climate Action Plan to identify the next suite of challenges and actions needed to continue reducing transportation emissions and support Oregon’s climate goals.



Introduction

Climate is a critical lens by which ODOT will make decisions and investments, balanced alongside other important considerations like equity, safety, and the economy. ODOT recognizes the importance of reducing carbon emissions from transportation and the impacts climate is having on moving people and goods in the state. Climate change poses one of the most significant threats to Oregon's economy, environment, and way of life. Flooding, landslides, and wildfires are only a few signs that Oregon's climate is changing.

These events are becoming more frequent and have resulted in road closures, infrastructure damage, and hundreds of staff hours in clean-up. Impacts to the transportation system cost the state hundreds of millions each year and are far reaching to the traveling public and state economy.

Transportation accounts for the largest share of greenhouse gas (GHG) emissions in the state, constituting around 40% of GHG emissions. Increased GHG emissions will only exacerbate the impacts of climate change and efforts are needed to reduce the amount of carbon that comes from the transportation sector. We must take substantial and swift action to reduce carbon in order to achieve a cleaner and more sustainable future.

Climate Action Plan Overview

The Climate Action Plan is ODOT's 5-year plan for work to address the impacts of climate change and extreme weather on the transportation system. The plan includes actions ODOT is taking between 2021-2026 to reduce greenhouse gas emissions from transportation, address climate justice and make the

transportation system more resilient to extreme weather events. The Climate Action Plan is unique to ODOT's work, and only contains actions under the agency's authority and the partnerships the agency is engaged in. The actions included in the plan were identified based on agency goals and priorities, as well as stakeholder feedback on important emissions reduction actions for the agency. The plan contains a number of actions related to transportation electrification and electric vehicles, walking and bicycling, public transit, system efficiency, pricing and tolling, low carbon construction, addressing climate justice, measuring progress and making the transportation system more resilient.

Actions in the Climate Action Plan are organized into ten categories:

- 🌿 Policy & Investment
- 🌿 Managing Demand
- 🌿 Electrification
- 🌿 Pricing
- 🌿 System Efficiency
- 🌿 Clean Vehicles and Fuels
- 🌿 Adaptation
- 🌿 Sustainability
- 🌿 Agency Partnerships
- 🌿 Monitoring and Data

The Climate Action Plan consolidates efforts across the agency into a strategic approach to help Oregon achieve a cleaner transportation future and provides a framework for the agency to continue the work moving forward. ODOT is committed to address the impacts of climate change, reduce transportation emissions and help achieve Oregon's climate goals. The agency's work to address the impacts of climate change is continually evolving, and the Climate Action Plan will be updated as needed to reflect advancements and changes. Moving forward ODOT will continue to identify additional efforts and opportunities to help achieve Oregon's climate goals. In five years' time ODOT will revisit the Climate Action Plan to identify the next suite of challenges and actions needed to continue reducing transportation emissions and support Oregon's climate goals.

ODOT's Commitment to Climate Action

ODOT's efforts to address the impacts of climate change and extreme weather events are guided by a number of commitments and directives. These directives and commitments contain a variety of specific goals, priorities and requirements that inform the investments and work of the agency.

Statewide Transportation Strategy

The Oregon Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction, also known as the STS, was initiated out of legislative direction to examine ways that the transportation sector can reduce greenhouse gas (GHG) emissions and help achieve Oregon's GHG reduction goals. The STS was completed in 2013 in collaborative partnership with local governments, industry representatives, metropolitan planning organizations, state agencies and other stakeholders.

In 2018, the Oregon Transportation Commission adopted an amendment to incorporate the STS as part of the Oregon Transportation Plan.

The STS is a state-level scenario planning effort that examines all aspects of the transportation system, including the movement of people and goods, and identifies a combination of strategies to reduce greenhouse gas, or GHG, emissions. The STS contains six categories and 133 individual strategies and elements that support reduced transportation emissions in Oregon. The categories include:

- Vehicle and Engine Technology Advancements
- Fuel Technology Advancements
- Systems and Operations Performance
- Transportation Options
- Efficient Land Use
- Pricing, Funding and Markets

The STS identifies a variety of effective GHG emissions reduction strategies in transportation systems, vehicle and fuel technologies, and urban land use patterns. Key actions include cleaner vehicles and fuels (e.g. electric vehicles), low carbon modes (transit, bike, walk, etc.), close proximity of housing to jobs (land use), pricing (e.g. vehicle miles traveled charges), and demand management strategies.

Climate Office

The ODOT Climate Office was formed in recognition of the importance of reducing carbon emissions from transportation and the impacts climate is having on Oregon's transportation system, and therefore the ability to move people and goods in the state. By forming a Climate Office, ODOT is consolidating efforts into a strategic approach to help Oregon achieve a cleaner transportation future. The mission of the ODOT Climate Office is to identify and pursue actions that reduce transportation GHG emissions and the agency's carbon footprint. The Office is also charged with helping the agency understand, and begin to prepare for and respond to the impacts of climate and extreme weather.

To accomplish this, the Climate Office will work across ODOT Divisions to educate, develop and institutionalize a climate lens and strategies into the ways the agency plans for, invests in, builds, manages, maintains, and supports the multi-modal transportation system of Oregon. Staff will also work with other state agencies and local agency partners to find collaborative approaches and solutions, connect with stakeholders, and learn best practices from other states.

Oregon Executive Order 20-04

In March 2020, Governor Brown issued Executive Order 20-04 which boosted Oregon's goals to reduce GHG emissions to at least 45 percent below 1990 emissions levels by 2035 and to at least 80 percent



below 1990 emissions by 2050. The Executive Order directs several state agencies, including ODOT, to take immediate actions to address climate change. The Executive Order directs ODOT to add a GHG reduction lens to project investment decisions in the Statewide Transportation Improvement Program planning process, conduct a statewide needs analysis for transportation electrification charging infrastructure, and provide reporting on progress.

Every Mile Counts

The Every Mile Counts effort is a long-term commitment to collaborative climate action by Oregon Department of Transportation (ODOT), Department of Land Conservation and Development (DLCD), Department of Environmental Quality (DEQ), and Department of Energy (DOE). The partnership focuses on reducing transportation greenhouse gas (GHG) emissions and implementing the Statewide Transportation Strategy through reducing vehicle miles traveled, increasing use of cleaner vehicles and fuels, and integrating consideration of GHG emissions into decision making. This level of coordination ensures that the agencies are moving in the same direction to reduce GHG emissions and there is no duplication of efforts, allowing agencies to jointly leverage resources to more effectively implement the STS and work to achieve the emission reduction goals.



Strategic Action Plan

The 2021-2023 Strategic Action Plan, describes ODOT's priorities, goals and outcomes for the next three years, and prepares the agency to meet the transportation demands of the future. ODOT is committed to developing a modern, reliable transportation system that serves all Oregonians. Oregon's future transportation system will be efficient, innovative and technologically advanced. It will offer a wide range of choices to promote a healthy environment and serve users with diverse needs, including those the system has not served well in the past.

The Strategic Action Plan identifies three main priorities:

- Equity– Prioritize diversity, equity and inclusion by identifying and addressing systemic barriers to ensure all Oregonians benefit from transportation services and investments.
- Modern Transportation System – Build, maintain and operate a modern, multimodal transportation system to serve all Oregonians, address climate change, and help Oregon communities and economies thrive.
- Sufficient and Reliable Funding – Seek sufficient and reliable funding to support a modern transportation system and a fiscally sound ODOT.

Nested within each priority are goals that provide a framework to deliver on the priorities simultaneously. At the heart of the Strategic Action Plan are near-term strategic outcomes designed to advance multiple goals concurrently. While the Modern Transportation System priority and goals directly addresses the impacts climate change, a number of the goals and strategic outcomes support emissions reduction, addressing climate justice and improving resilience of the transportation system. Following the completion of the Strategic Action Plan in 2023, ODOT will continue to advance the goals, priorities and outcomes in the plan across the work of the agency.



Climate Action Plan Process and Development

To identify actions for the Climate Action Plan, ODOT investigated the work across the agency to identify short term opportunities for work to support the agency’s commitment to climate action and reduce transportation emissions. ODOT staff identified a number of potential actions and opportunities across the business lines of the agency to support this work. In order to ensure ODOT conducts the correct mix of actions over the next five years, staff also engaged with external stakeholders to prioritize the potential actions and opportunities for inclusion in the plan.

Stakeholder Engagement

ODOT distributed a survey to over 800 members and representatives of Local Governments, Transportation Industry, Construction Industry, Trucking Industry, Climate Justice, and Social Equity Groups in Oregon, and hosted two webinars open to interested individuals. The survey and webinars asked stakeholders to rank categories of emissions reductions actions by importance, and identify the type of projects, programs, and actions for ODOT to conduct in the next five years.

Feedback on Types of Climate Actions

Survey and webinar feedback indicated that engaging in actions to directly reduce emissions, and incorporating emissions reduction and climate change into agency policy and investment frameworks are the most important steps for ODOT to take in the next five years.

Actions such as expanding electric vehicle charging, supporting walking and bicycling, expanding public transit service, and reducing ODOT's carbon footprint were identified by stakeholders as key actions to reduce transportation emissions. Incorporating emissions reduction and climate change into agency policy and decision making processes are critical to ensure ODOT continues its commitment to climate action by dedicating funds and resources for emissions reduction actions. Feedback from the survey and webinars also indicated that ODOT should make the existing transportation system more efficient and invest in walking, bicycling and public transit access before building new roadways.

The survey and webinar participants also identified and provided comments on a number of specific projects, programs, and actions for ODOT to conduct to reduce transportation emissions and address the impacts of climate change.

Incorporating the Feedback

ODOT utilized the feedback provided by stakeholders, alongside with agency goals and responsibilities to identify the final actions contained in the Climate Action Plan. Much of the feedback received was in line with current agency efforts to reduce transportation emissions and address the impacts of climate change. The final mix of actions contained in the Climate Action Plan reflects the feedback provided by stakeholders balanced with ODOT's ongoing commitments to multimodal transportation, equity, safety, and the economy.



ODOT 5-Year Climate Actions

The following list of actions represents the work ODOT is committed to conduct between 2021 and 2026 to reduce emissions from transportation, address equity and climate justice, and make the transportation system more resilient to extreme weather events. The agency's work to address the impacts of climate change is continually evolving, moving forward ODOT will continue to identify efforts and opportunities to help achieve Oregon's climate goals. Additional information on the details for each of the actions is contained in *Appendix A. ODOT Climate Action Plan; 5-Year Actions*.

Policy and Investments

Incorporating climate change and emissions reductions considerations into ODOT's policy and investment framework is critical to ensure ODOT establishes a long term vision and foundation to guide transportation system development and investment. Agency policy guides the development of the transportation system, which is represented through investments at the state and local level.

Oregon Transportation Plan Update

ODOT is preparing a statewide update to the Oregon Transportation Plan, the long-range transportation system plan for the state, which will include considerations to address climate change impacts and transportation emissions reduction. The Oregon Transportation Plan establishes a vision and policy foundation for transportation system development and investment that guides decisions by ODOT and local transportation agencies statewide. The plan update provides a critical opportunity to guide the agency's strategic decision-making and shape a statewide transportation system that is climate resilient and that accommodates multiple users with different needs.

Statewide Transportation Improvement Program (STIP) Greenhouse Gas Emissions Evaluation

In compliance with Executive Order 20-04, ODOT will apply a GHG emissions evaluation to the Statewide Transportation Improvement Program (STIP) decision-making process. Various methods will be used to estimate the potential GHG emissions of programmatic decisions and different types of projects as funding is allocated between programs, as project lists are developed, and when the STIP is finalized. ODOT will also collect a baseline of climate data from the past STIP, and will use this to inform programs and projects being scoped. Projects will move forward for a variety of reasons but with a clear understanding of climate impacts.

STIP Funding for Public Transit & Active Transportation

In support of the agency's commitment to multimodal transportation, Oregon Transportation Commission has approved funding to support a number of public and active transportation improvements in the 2024-2027 STIP. The ODOT Public and Active Transportation Program includes a variety of sub-programs that provide funding for public transportation services and capital projects, pedestrian and bicycle projects, Safe Routes to School (SRTS) education and infrastructure, and Transportation Options programs. The funds will be used for a variety of projects around the state to expand and improve walking and bicycling infrastructure, improve

public transit service and support transit providers, and increase transportation demand management programs.

[Integrating Climate Goals with Federal and State funding opportunities](#)

ODOT's Climate Office will dedicate staff resources to identify and prepare for upcoming federal and state funding opportunities, and ways to integrate climate considerations into agency funding approvals, awards, and implementation. This includes the FAST Act Reauthorization, pass through funding programs, and other potential Federal infrastructure legislation. Another area of focus will be on opportunities for the state grant programs that ODOT administers. These opportunities will include potential changes to eligible activities and projects, and criteria or guidelines for program allocations to local jurisdictions.

[Embedding Equity into Our Work at ODOT](#)

With the support of the Oregon Transportation Commission the Office of Social Equity is working to make it clear that ODOT prioritizes diversity, equity, and inclusion by identifying and addressing systemic barriers so that by 2030, all Oregonians benefit from transportation services and investments. Using the state of Oregon's definitions of diversity, equity and inclusion we are shifting mental models, assessing and altering our partnerships, and ensuring that our processes, policies, projects, and programs are of more benefit than burden to all impacted by our work. In addition to the work outlined by the 21-23 Strategic Action Plan the Office of Social Equity is putting in place the things necessary to optimize and ensure that every ODOT employee understands why and how their role influences our long term strategy, this includes; a Social Equity Blueprint, training resources and tools, and strategic recommendations.

[Climate Justice Approach](#)

Climate Justice requires acknowledgment that past and current policies, practices, and investments may exacerbate differing social, economic, public health and other adverse effects on communities throughout the state and seeks to eradicate or mitigate these adverse effects on marginalized and underserved communities as much as possible. Modernizing the transportation system in Oregon offers important opportunities to address climate justice while improving outcomes for all Oregonians. ODOT Climate Office will lead development of a data-driven approach to integrate climate justice into agency policies, decision-making processes, and investments to ensure ODOT's work extends beyond improving the transportation system, and results in an environmentally friendly transportation system that advances the protection of marginalized and underserved communities from climate hazards. The climate justice approach will be developed in conjunction with ODOT's existing work to prioritize equity with an emphasis on designing fair, transparent, and inclusive decision-making processes, accessible to all Oregonians.

[Equitable Engagement Compensation Policy](#)

ODOT is in the process of developing an Equitable Engagement Compensation Policy that seeks to reduce barriers to community engagement in order to support diverse and representative community participation in agency decision-making processes regarding climate change and

emissions reduction. The Equitable Engagement Compensation Policy will provide a consistent framework and tools to consider and utilize compensation mechanisms for committees, focus groups, or other engagement efforts. The policy will ensure consistency, legitimacy, and accountability, and increase equitable outcomes across all ODOT outreach efforts.

Managing Demand

Managing demand on the transportation system by providing alternative transportation options is a key component of reducing emissions from vehicles. Travel options such as walking, biking, using public transportation and carpooling can reduce congestion and vehicle emissions, increase safety, lower transportation costs of individuals, and decrease wear and tear on other parts of the transportation system.

Net-Zero Consultation Pilot

Starting in 2022 the ODOT Public Transportation Division (PTD) will develop a pilot program with a selection of small to medium transit agencies to reduce their organizational carbon footprint to support the ultimate goal of accomplishing net-zero emissions. The project will conduct carbon emissions inventories for each agency and help them develop emission reductions plans that can inform short and long-term agency purchasing and planning. PTD expects this project to result in significant long-term cost savings for participating agencies and give them the tools to set reasonable reduction targets and track progress on those targets. The project will create a framework that other public transportation agencies can reference for transit-specific methods for emissions reduction.

Oregon Passenger Rail Program

ODOT PTD is working to implement a Corridor Investment Plan for the Amtrak Cascades passenger rail service which proposes a significant increase in passenger rail service, with up to six daily round-trip trains serving communities Portland to Eugene. The Amtrak Cascades passenger rail service is one of the nation's rail corridors with the highest ridership, connecting Eugene, Portland, Seattle, and Vancouver, British Columbia (with numerous stops along the way), serving a market of over 10 million people.

Intercity Public Transit Service

The POINT bus service is a safe, affordable, and environmentally-friendly alternative to long-distance driving within Oregon and connecting to Northern California. ODOT PTD funds and manages multiple intercity bus routes as part of its POINT service. PTD functions as the transit provider of last resort to meet intercity transit needs by contracting with private transit companies to provide essential intercity bus service in diverse regions throughout Oregon.

The Columbia Gorge Express (CGE) and the Multnomah Falls Shuttle provide public transportation service connecting Portland, Multnomah Falls, Cascade Locks, Hood River, and The Dalles. To support increased public transit in the region ODOT is involved in several initiatives including: a Gorge Access Strategy that envisions access to the gorge beyond the restrictions associated with current land ownership and agency regulations; a Gorge Transit Strategy, to establish a

comprehensive transit strategy for the region; and Vision Around the Mountain, which will establish a long-term, regional transit vision guiding network coordination and integration for transit service providers in the Mt. Hood and Columbia River Gorge region

Transportation Options Outreach

The public outreach component of ODOT's Transportation Options program, branded under the name "Get There" provides transportation demand management education and encouragement to support the adoption of alternative modes. Outreach is accomplished through an online website that includes trip planning, carpool matching, and trip logging; the Get There Business Forum, encouraging employers to take a role in reducing drive alone commute trips; and challenges and encouragement, where regional grant recipients run local programs to encourage people to walk, bike or take transit for all trips.

Micro Mobility and MaaS Opportunities

ODOT's Transportation Options Program is working to identify opportunities for the integration of bikeshare with public transit service to expand access to transportation solutions. The program is supporting small and medium sized cities to explore how bikeshare could complement their local transit systems, and to make the fare payment systems interoperable so a bus pass could also be used to rent a bike. This work is an innovative step towards Mobility as a Service, known as MaaS.

Oregon Transit and Housing Study

The Oregon State Legislature has asked ODOT to study policies and actions that could improve households' quality of life through increasing housing opportunities with easy and viable connections to transit. Better linking transit and housing enables reduced driving, saving money, improving congestion, and reducing emissions. This study will primarily benefit local government housing and planning, tribal governments and transit partners and will help address the growing challenges related to housing, including affordable housing, and public transportation facing many Oregon communities.

Pedestrian and Bicycle Performance Measures and Data Implementation Framework

The ODOT Pedestrian and Bicycle program is currently engaged in the Pedestrian and Bicycle Performance Measures and Data Implementation Framework project to develop new performance measures for ODOT to track progress in achieving the goals and desired outcomes related to walking and biking in Oregon. The measures will include proposed agency Key Performance Measures and proposed programmatic performance measures related to the outcome areas of Access, Safety and Utilization. This process will provide information about the performance measures that can be implemented in the near term with existing data and resources, as well as performance measures that can be implemented in the longer term as data and resources are developed.

Active Transportation Needs Inventory Implementation

The Active Transportation Needs Inventory (ATNI) was initiated to support the creation of a seamless network of Bicycle and Pedestrian needs for all ODOT highways. The inventory data was

used to identify gaps and deficiencies in the network, and to develop a framework to evaluate and prioritize needs to fill the gaps on the system. ODOT has completed the first statewide ATNI and over the coming years will use this data to drive investment decisions to support bicycle and pedestrian infrastructure, including the Safe Routes to School program and the Sidewalk Improvement Program.

Agency Telecommuting Goals and Targets

ODOT has established a goal to retain at least 1,500 employees in the remote work environment because of the cost savings and climate benefits of a smaller workforce commuting to the office. To obtain the agency's telecommuting targets, ODOT will work to educate employees on commute options, incentivize best practices, and report on data as available. As one of the largest state agencies, ODOT staff will also investigate opportunities to engage the Department of Administrative Services and other state agencies to initiate an enterprise-wide telecommute program.

Pricing

The current costs of the transportation system are not fully recovered by the fees and costs paid by users of the system. Transitioning to more sustainable funding sources to maintain and operate the transportation system, and to recover from the environmental impacts of climate change is necessary for ODOT to provide an efficient and reliable transportation system for Oregon.

Oregon Toll Program

The ODOT Toll Program is working to implement variable rate tolling to reduce congestion and increase efficiency on I-5 and I-205 in the Portland metro region. Variable rate tolls can manage traffic on the highway resulting in faster, more reliable and predictable trips. Successful variable rate tolls or pricing programs make limited highway space more efficient by encouraging the use of alternative modes of travel or travel during different times. The tolls can also provide a revenue source for maintenance and improvements to facilities. Through reducing the vehicle emissions associated with congestion, and encouraging the use of alternative modes of travel the Oregon Toll Program helps ODOT work towards achieving the state emissions reduction goals. Reducing emissions along highway corridors also decreases air pollution related health impacts in adjacent neighborhoods.

OReGO Implementation

ODOT continues to successfully operate the first fully functional road usage charge program in the country while continuing to conduct research to prepare for the future of transportation funding needs. As more cars run on electricity or use less gas, Oregon gets less funding to maintain roads and bridges. The OReGO Program preserves our roads by creating a fair and sustainable funding model that is based on actual use – miles driven – instead of gallons consumed. Over the next few years ODOT will continue to evolve the program under the direction of the Road User Fee Task Force and to prepare for compliance with any future legislative direction. Future advancements could include additional reporting options that do not require vehicle location, collaboration on connected vehicle ecosystems, equity

assessments, evaluating pilot programs to support other pricing methods, dealership education and outreach, requirements for used vehicles, and interoperability with other states.

True Cost Pricing

The traditional structure of transportation fees and charges does not recover the full costs of the transportation system when external impacts such as congestion, climate change, health and social impacts are considered. True cost pricing strategies seek to recover the full costs of operating, maintaining and constructing the transportation system, and to mitigate the negative environmental impacts associated with these actions. ODOT will establish a policy foundation to start to implement true cost pricing, exploring opportunities to do so within existing agency work on pricing. Moving towards true cost pricing will assist ODOT to develop pricing solutions that balance the agency's mobility and environmental goals with equity concerns, and to identify connections and opportunities for the agency's existing work on revenue and finance. ODOT will work with local jurisdictions and other partners to remain consistent and develop a shared understanding to create a modern and reliable system that achieves Oregon's climate goals.

Electrification

Electrifying Oregon's transportation system supports one of the most effective ways to reduce vehicle emissions, which is transitioning to more zero emission vehicles for every mile driven. ODOT is a leader in facilitating the electrification of our transportation system. ODOT's goal is to triple the number of electric vehicles on Oregon roads by 2023, and to expand statewide electric vehicle charging infrastructure by 10-percent by the end of 2025. Opportunities for hydrogen fuel cell electric vehicles are included in this category because hydrogen fuel cells can be used to power electric motors for various types of vehicles.

Transportation Electrification Infrastructure Needs Analysis Study and Implementation

Executive Order 20-04 directed ODOT to conduct a statewide transportation electrification infrastructure needs analysis to facilitate the transition to Zero Emission Vehicles (ZEVs) in support of the Oregon's 2035 ZEV goals. The Transportation Electrification Infrastructure Needs Analysis (TEINA) study and implementation focuses on the infrastructure needs for the sizable and critically important Light Duty Vehicle (LDV) sector, but also includes a high level overview of the charging landscape for medium- and heavy-duty trucks, transit and school buses and micro-mobility vehicles such as e-bikes and e-scooters. The study identifies policy recommendations and implementation priorities that can be undertaken by state agencies, utilities, Electric Vehicle charging service providers, the private sector, non-profit organizations, local jurisdictions and the legislature.

Based on the policy recommendations and priorities identified by the TEINA study, the ODOT Climate Office plans to:

- Develop a Statewide ZEV Charging Infrastructure Deployment Strategy. The strategy will prioritize actions that should be undertaken in the next 2-5 years based on their ability

to enable increased ZEV adoption, address geographic balance and equity concerns, identify leads (e.g., state agencies, utilities, local jurisdictions, etc.) to undertake each action and develop recommended processes for implementing these actions.

- Convene workgroups of relevant stakeholders, leveraging existing workgroups where possible, to develop next steps for carrying out the policy recommendations and implementation priorities identified by the TEINA study.
- Enable access to the TEINA modeling results to local governments, Metropolitan Planning Organizations (MPOs), Community Based Organizations (CBOs), non-profits and other interested parties in a format that facilitates EV charging infrastructure planning efforts.

Charging Grant Opportunities

The TEINA study highlighted an extraordinary need for EV charging infrastructure growth in both the near and long term in order for Oregon to meet its transportation electrification and GHG emissions reduction goals. To accelerate EV charging infrastructure deployment, significant state and federal investment will be needed, particularly in areas where the business case is not well established such as rural, BIPOC and historically marginalized communities. As such, the ODOT Climate Office is in the process of developing an equity-focused grant program that will provide funding to public and private entities for the purchase and installation of charging infrastructure in these communities.

Electric Micro-mobility Strategy

Electric Micro-mobility, comprised of a suite of electrified personal mobility devices – including electric bicycles, scooters, skateboards, one-wheels, unicycles and more represents a rapidly growing sector. More information regarding the infrastructure needs and challenges to adoption is required before Oregon can suggest ways to facilitate greater adoption of micro mobility modes. As a follow-up to the TEINA study, the ODOT Climate Office is undertaking a micro-mobility study to better understand the barriers to electric micro mobility adoption in Oregon, and recommend ways to address these barriers.

Hydrogen Pathway Overview

ODOT is undertaking a study to better inform decision makers as Oregon prepares for the arrival of hydrogen Fuel Cell Electric Vehicles (FCEVs). The study will include an overview of major ongoing and planned hydrogen-related activities in California, Washington and the Northeast States that are likely to be of interest to Oregon moving forward, as well as a market analysis summarizing the current and upcoming FCEV product offerings across the light-, medium- and heavy-duty vehicle sectors.

Oregon Transportation Electrification Activity Maps (OR TEAMS)

The ODOT Climate Office has developed a comprehensive map of Oregon’s transportation electrification initiatives to assist ODOT, other state agencies, utilities, and the private sector to clearly see where opportunities and gaps are in the transportation electrification realm. The

map known as Oregon Transportation Electrification Activity Maps (OR TEAMS) will be utilized to focus investments, plan efficiently, and act as a conduit for future partnerships.

[Oregon West Cost Electric Highway Update](#)

The Oregon West Cost Electric Highway (WCEH) is an Innovative Partnership Project between the Oregon Department of Transportation and the private sector, currently offering 44 publicly available electric vehicle charging station locations that are privately owned and operated along I-5, parts of I-84, US Highway 101, and routes into Central Oregon. To better serve Oregon drivers of electric vehicles, the Oregon Legislature and the Oregon Transportation Commission have identified approximately \$4 million in funding to update and enhance Oregon's public WCEH network. ODOT is committed to maintaining service to active EV drivers who have come to rely upon the WCEH throughout Oregon, while expanding the WCEH's utility and capability.

[Clean Vehicles and Fuels](#)

Increasing the operating efficiency of multiple transportation modes through transitions to more fuel-efficient vehicles, adoption of alternative fuels, and other vehicle technological advancements are also key for reducing vehicle emissions. ODOT is working to identify opportunities to transition to alternative fuel vehicles and other vehicles that are not dependent on higher emission fuels. ODOT also works to identify opportunities to enhance and expand the infrastructure to support the use of alternative fuels.

[ODOT Light Vehicle Fleet Transition](#)

To help achieve the statewide zero emission vehicle (ZEV) adoption goals in Senate Bill 1044 and the requirements in House Bill 2027 for state agencies to purchase light-duty vehicles that are zero-emission vehicles whenever possible, ODOT will continue to transition the agency's light vehicle fleet to ZEV's and electric vehicles. This includes working to identify opportunities to procure more all-electric plug-in, plug-in hybrid, and alternative fuel models where appropriate, and to install electric vehicle charging and alternative fuel infrastructure at ODOT facilities to support these vehicles.

[FHWA Alternative Fuel Corridor Designations](#)

The Federal Highway Administration (FHWA) designates national highways and interstates as Alternative Fuel Corridors to improve the mobility of alternative fuel vehicles (electric, hydrogen, propane, natural gas). ODOT has nominated and received approval for: I-5 (hydrogen, electric, propane), I-84 (electric), US 101 (electric), US 97 (electric), US 20 (electric), and US 26 (electric). While no funding is currently attached to designation, the effect of labeling these important highways as Alternative Fuel Corridors positions Oregon to leverage future federal funding opportunities, supports partnerships with the private sector on alternative fuel opportunities, and encourages neighboring states to participate in planning for interstate transportation.

[Support for Alternative Fuel Transit Vehicles](#)

ODOT Public Transit Division (PTD) continues to seek ways to enrich and diversify its portfolio of resources and tools to help transit providers make informed choices about alternative fuel

adoption and use. The division is in the process of updating its vehicle asset webpage to provide transit agencies with current information and opportunities to procure cleaner, more fuel-efficient transit vehicles. This includes The Oregon Transit Vehicle Lifecycle Cost Analysis Tool to calculate the fleet lifecycle costs and potential cost savings of transitioning to electric vehicles and other alternative fuel buses, and a guide that describes the key considerations and barriers involved in fleet electrification in Oregon.

System Efficiency

Enhancing the efficiency of the of the transportation system through technology, infrastructure investment, safety improvements and operations management keeps the existing system fully optimized for all modes of travel. Improved system efficiency results in reduced congestion and emissions from vehicle idling, improves vehicle throughput and fuel consumption, and provides the needed safety measures to support walking and bicycling. Solutions to improve operations and safety provide a cost effective approach to meet the challenges presented by increased demands on the system coupled with increasing constraints on available funding.

All Roads Transportation Safety (ARTS) Program

The ODOT All Roads Transportation Safety (ARTS) program works to reduce the frequency of fatal and serious injuries on all public roads through a data-driven process that is blind to jurisdictional ownership. Improving safety and reducing the number of fatal and serious injury crashes also provides benefits to support system efficiency, encourage multimodal transportation and reduce transportation emissions. To support ODOT's commitment to climate action, the ARTS program will continue to research and support program improvements that not only meet federal safety requirements but also support and help the agency meet GHG emissions goals.

RealTime System Management

ODOT has implemented numerous Intelligent Transportation System (ITS) applications to improve both the safety and efficiency of the transportation system. Active Traffic Management solutions monitor real time congestion and weather conditions and inform drivers of hazards through automated variable speeds, dynamic warning signs, and real-time travel time messaging. Ramp metering smooths traffic flow at freeway merge points to maximize throughput, reduce congestion, and improve safety. Hazard Warning Systems detect unsafe conditions and provide warnings to travelers to take action and avoid crashes, applications include dangerous curves, high winds, high water, icy roads, and cross-traffic at intersections.

Supporting Broadband Development

Advances in technology continue to change the way people work and the options available to manage and operate the transportation system. As many of these solutions require appropriate communication solutions to be effective, broadband communication is becoming increasingly important for ODOT to manage and operate the transportation system. These needs range from improved bandwidth for ODOT offices statewide to improved connections for current and future

intelligent transportation system applications along the highway network. As part of the Strategic Action Plan, ODOT is working to develop an agency broadband strategy and implementation plan. It will help ODOT identify strategies to meet transportation needs dependent on broadband services as well as to consider the role ODOT can play in meeting the broader State goals for improving broadband access.

Enhanced Traffic Incident Management Strategies

Traffic incidents are a significant source of congestion and delay on the transportation system. Traffic Incident Management (TIM) consists of a planned and coordinated, multi-disciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible. TIM partners include transportation departments, fire and rescue, law enforcement, emergency medical services, towing, and hazardous material clean-up crews. ODOT actions to implement safe, quick clearance of traffic incidents include:

- ODOT's dedicated incident responder program includes 28 ODOT responders deployed in areas of the state that have the highest frequency of incidents. Data shows that dedicated incident responders produce a significant decrease in incident duration compared to redeploying maintenance workers to respond to incidents when they occur. As population and vehicle miles traveled increases around the state, incident count and frequency also continues to grow. Further investment in incident responders is needed to meet ODOT's goals for clearing traffic incidents and reducing incident related delay.
- Computer aided dispatch integration provides for the electronic exchange of information among response agencies. The benefits of this system include improved coordination among response agencies, improved situational awareness, quicker communication, and reductions in incident response and duration. ODOT currently participates in this type of integration with Oregon State Police and 911 centers in Central Oregon. A project is currently underway to expand this capability to 911 centers in the Portland Metro area.
- Implementation of the national incident responder training program for Oregon first responders. As of the end of 2020, 7,225 first responders have been trained in safe, quick clearance strategies.

Traveler Information

ODOT has developed a suite of systems providing real time information about the transportation system status that offers the traveling public many options when planning their trips allowing them to avoid delays associated with incidents, construction, and other hazards on the system. ODOT's TripCheck traveler information web site received over 17 million visits in 2020. In a 2019 survey of TripCheck users, 79% of survey respondents reported making some type of trip modification (e.g. different route, different time, different mode, or cancel trip) in the past 12 months in response to information obtained from TripCheck. An additional feature of ODOT's traveler information system is a data portal that makes this same system status

information available to third parties for integration into navigation systems, smart phone applications, and other methods for distributing traveler information about ODOT highways.

Connected Vehicle Applications

Connected vehicle applications represent the future of transportation system operations and involve communication among vehicles as well as communication between vehicles and infrastructure. Connected vehicle technology will potentially provide a significant amount of data from vehicles that will be useful to ODOT in implementing improved system operations strategies, as well as new opportunities to provide data to vehicles about hazards. The US DOT has defined a number of connected vehicle applications with the specific objective of environmental benefits and emission reduction. ODOT is preparing for this future by beginning work on a Connected Vehicle Ecosystem (CVE) project, a project that is also a Strategic Action Plan Implementation item.

Traffic Signals Management Enhancements

Advanced traffic signal operations are key components to reduce vehicle idling and emissions along a signalized corridor. Multimodal traffic signal operations help to provide safe and efficient bicycle and pedestrian facilities (i.e. crossings), and help ODOT to support requests from transit agencies to prioritize transit vehicles at signals where feasible. Detection for vehicles, bikes and pedestrians—as well as reliable communications—are critical components for signal optimization. To support these needs, ODOT is working to upgrade ODOT traffic signal controllers to new Advanced Transportation Controllers (ATCs). The new data provided by ATCs can be used to objectively measure signal operations performance and aid in signal timing optimization. ODOT also plans to use the new data to systematically track detection health as well as communications reliability.

Truck Parking Info Management System

Currently, commercial vehicle parking often overflows onto rest area ramps, freeway ramps and shoulders, and adjacent roads. This creates an unsafe situation for commercial vehicle operators as well as other motorists, and results in congestion and increased emissions from trucks. To address these issues ODOT will evaluate the TPIMS (Truck Parking Information Management System) concept to provide parking availability and information to commercial vehicle operators in real-time for preliminary feasibility, rough costs, capital improvements involved, and long term maintenance responsibility. The findings of the evaluation will be used to inform opportunities for a test pilot and to design a system that is compatible with other information systems and TPIMS information in other states.

Connect Oregon Freight Efficiency Enhancements

Investments in rail and marine freight modes to make freight transport more efficient support Oregon's economy and can help reduce emissions from the transport of goods relative to shipping by truck. Additionally, shifting more goods to off-highway freight modes can help to reduce congestion in urban areas and reduce freight vehicle idling. Dedicated Connect Oregon funds are currently being used to construct the Mid-Willamette Valley Intermodal Center and

Treasure Valley Reload Center to help agricultural producers in the regions ship their goods more efficiently, both facilities are expected to be online in 2022. Future rounds of the program will fund projects that support improved efficiency for aviation, rail, and marine freight projects. ODOT anticipates that there will be funding available for a competitive round of the Connect Oregon program in the 2021-23 biennium.

Adaptation

The impacts from climate change on our transportation system are projected to increase and ODOT needs to be ready to respond. Climate impacts to transportation can include: extreme storm events and flooding, rising sea levels and storm surge, coastal erosion and landslides, and higher temperatures and wildfire risks. Through adaptation planning and research ODOT is taking the steps necessary to be prepared and make the transportation system more resilient to these hazards.

Statewide Adaptation Risk and Vulnerability Assessment, and Operational Roadmap

To help ODOT prepare and respond to the impacts of climate change and extreme weather events, the Statewide Climate Change Risk Assessment will examine anticipated exposure, impacts and consequences of extreme weather and climate hazards on the transportation system. Projected climate hazards will be mapped against ODOT's transportation infrastructure to help identify risk areas at a corridor-level. The operational plan will prioritize region-specific resilience strategies to address the climate risks identified and potential solutions.

Applying Climate Change Information to Hydrological and Coastal Design

Climate change effects including sea level rise and more frequent extreme precipitation events may have significant implications for the safety of ODOT infrastructure. A preliminary AASHTO Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure has been released (NCHRP 15-61), but has not yet been implemented by state DOTs. ODOT will conduct a research pilot on the effectiveness and ease of implementation of the of the design guide, and to provide feedback for the agency on using climate change information in design.

Coastal Resilience Policy and Adaptation Strategies

Climate driven hazards such as landslides, erosion, and sea level rise pose significant risks to state highways along the Oregon Coast. ODOT is conducting research to identify priority locations for adapting to these hazards, implement strategies for shoreline protection, and pursue regulatory exceptions for improvements where needed and required. ODOT will provide results from the coastal erosion prioritization research to inform and support DLCD's Goal 18 rulemaking effort to guide state and local land use exceptions for maintaining and securing coastal public infrastructure.

Coastal Landslide and Bluff Retreat Monitoring

This research project is monitoring coastal landslides and bluff retreat to inform coastal adaptation and risk assessments. Monitoring is being conducted at five high-risk landslide sites on the Oregon coast. The project is using Light Detecting and Ranging (LiDAR) and other cutting-

edge technologies to monitor landform changes over time. ODOT will use the results to inform hazard risks to the highway and adaptation priorities for protecting roadways threatened by landslides.

Sustainability

Sustainability is a key ODOT priority to address the impacts of climate change. The agency is working to identify opportunities to utilize sustainable products and fuels, reduce energy and water consumption, recycle materials and equipment, and reduce the agency's carbon footprint. Sustainable practices are also incorporated into how ODOT plans, designs and builds transportation programs and projects.

Agency GHG Inventory

The Climate Office is conducting a greenhouse gas emissions inventory of ODOT's construction and maintenance operations. The inventory will provide ODOT with an important understanding of the emissions associated with work performed and services purchased by the agency. The results of the inventory will provide a breakdown of current practices compared against potential recommended actions and changes, including cost differences (with considerations for data and commodity pricing challenges), lifespan differences, reduction potential, and other co-benefits such as opportunities for equity, additional resiliency or local economic development.

LED Lighting for Street Lights

The Climate Office aims to expand upon the success of ODOT's recent work to convert 8,500 streetlights to light-emitting diodes (LEDs) in the Portland metro region. The project will assist other regions to implement LED lighting conversions. The first step is data gathering to understand how many streetlights need to be converted. From there, the Climate Office and the Office of Innovative Funding will request proposals for an energy savings performance contract to manage and help fund the conversion project.

Solar Opportunities

There are many options for ODOT to utilize solar energy but no formal policies or guidance for agency staff to consider. Building off past success, the Climate Office will lead the development of an agency policy to guide solar opportunities such as installation on agency buildings, expansion of the solar highway program, and subscriptions to community solar projects. Furthermore, the Climate Office will collaborate with the Office of Innovative Funding to identify and/or respond to public-private partnerships that further the agencies solar opportunities.

Agency Sustainability Plan & Annual Reports

In response to the 2001 Oregon Sustainability Act, ODOT maintains a Sustainability Plan and reports annually on performance measures. The sustainability plan helps the agency to meet its greenhouse gas reduction and other climate goals through internal operations strategies, goals and actions. Actions such as vehicle and fuel use, building energy conservation (the Strategic Energy Management program), water conservation, and others have their nexus and priority set within this plan. The Sustainability Plan is scheduled to be updated in 2022.

Climate Opportunities from Surplus Properties

As the steward of thousands of miles of public right-of-way, ODOT is inherently a significant landowner. House Bill 2017 required the agency to inventory property ownership and determine the best use of each parcel of land. ODOT aims to engage in the process to evaluate surplus agency-owned parcels for climate-benefiting opportunities. Areas for solar array installation, carbon sequestration, bicycle and pedestrian paths or EV charging may be identified through such an effort which can help meet the agency's climate goals.

Agency Partnerships

Reducing transportation emissions and achieving Oregon's climate goals requires collaboration across all sectors and levels of government. Many of the actions needed to reduce transportation emissions are outside the authority of the agency. To address these barriers ODOT is committed to engage in partnerships and provide support to other state agencies and local jurisdictions to reduce emissions from transportation.

Transportation Growth Management Program

The Transportation and Growth Management (TGM) Program is jointly managed by ODOT and the Department of Land Conservation and Development (DLCD). TGM serves local governments to expand transportation choices through a competitive grant program and other non-competitively awarded community assistance programs. In the 2021, TGM announced that although always a consideration of the program, equity and GHG reduction will be a focus and expectation for the program going forward. Fire Recovery is also an emphasis for 2021.

Every Mile Counts

Every Mile Counts is a multi-agency partnership between the Oregon Department of Transportation (ODOT), Department of Land Conservation and Development (DLCD), Department of Environmental Quality (DEQ), and Department of Energy (DOE) to reduce emissions from transportation. The STS Multi-Agency Implementation Work Plan (2020-2022) represents the first two years of activities for the partnership. Progress has been made on each of the Every Mile Counts actions in the 2020-2022 work plan since it was initiated.

Local GHG Reduction Planning Support

In response to Executive Order 20-04 directing agencies to reduce climate pollution, the Department of Land Conservation and Development (DLCD) is working to update Oregon's Transportation Planning Rules and related administrative rules. ODOT is committed to supporting local jurisdictions work to reduce transportation emissions and achieve the state's GHG emission reduction goals, and is a key partner in DLCD's rulemaking efforts. ODOT has provided funding for stakeholder engagement, staff resources to support rule development, and will partner with DLCD to support local jurisdictions to meet new requirements.

ODOT ZEV Interagency Action Plan Responsibilities

In 2020, member agencies in the Zero Emission Vehicle Interagency Working Group (ZEWIWG) developed a ZEV Interagency Action Plan (ZAP) that highlights a list of priority actions for state-

led activities in 2021 - 2022 to encourage ZEV adoption and utilization in Oregon. As part of this plan, ODOT will take the lead on a number of important initiatives, including but not limited to: assessing EV signage needs in Oregon, exploring opportunities to increase EV charging infrastructure at state parks, and developing guidance on EV charging infrastructure for local jurisdictions, and for Multi-unit Dwelling (MUD) owners and residents.

Employee Commute Options Rulemaking

The ODOT Transportation Options program is providing technical support and funding for implementation components of the Oregon Department of Environmental Quality (DEQ) rulemaking effort to update the Employee Commute Options rule, or ECO Rule, to provide alternative commute options. The update will strengthen the rule in the Portland Metro area and create a new rule to apply to other MPOs in the state.

Transit Partnerships with State Agencies and Organizations

ODOT Public Transit Division (PTD) regularly communicates and collaborates with other state agencies and other external organizations to construct informational resources and enhance emissions reduction initiatives. PTD has been working with DEQ to assist with communication to public transportation agencies in support of DEQ's Alternative Fuels Study and Clean Fuels Program. The Clean Fuel Program provides financial incentives for public transportation agencies that electrify part or all of their fleet and encourages the growth of other alternative fuel industries in Oregon.

Monitoring and Data

Monitoring progress is necessary to ensure that ODOT is on track to meet Oregon's GHG reduction goals and to effectively steer resources towards this effort. To effectively monitor this progress requires continued advancements in the data sources and analysis tools used to measure reductions in transportation emissions and increased resiliency of the transportation system.

Climate & Emission Reduction Performance Metrics

Understanding and tracking the progress of ODOT's work to reduce emissions is key to meeting the agency's climate goals and addressing the impacts of climate change on the transportation system. ODOT will identify a number of performance metrics to track progress towards reducing transportation emissions and providing a multimodal transportation system. These metrics will include relevant existing agency performance measures, as well as new measures to track transportation emissions reduction. To communicate progress on these metrics, ODOT will develop a transportation emissions dashboard that will provide a transparent look at transportation emissions in Oregon. The dashboard will help to inform climate change and emissions reduction decision making at both the state and local level.

GHG Reduction Guidance for Small Urban and Rural Communities

To date long range strategic planning for greenhouse gas (GHG) reduction has focused on larger urban areas. Very different actions may be required in small urban and rural areas, given their different demographics, economies, travel needs and modal choices. To support these

communities ODOT will develop a Non-Metropolitan Transportation GHG Reduction Strategy to provide guidance on GHG mitigation actions for small urban and rural outside of metropolitan areas. ODOT will also identify opportunities to assist these communities to inventory transportation GHG emissions and customize a GHG reduction strategy for these communities.

[VisionEval Implementation & Enhancements](#)

The success of Oregon's climate mitigation program efforts, both at the state and local levels, rely on analytic capabilities that frame important strategic discussions that lead to changes in decision-making and track progress toward GHG reduction goals. ODOT will conduct work to develop upgrades and improve maintenance of the VisionEval strategic planning tool used to track statewide and local progress towards the state's GHG reduction goals.

[GHG Tools, Analysis & Data](#)

With the direction of Executive Order 20-04, ODOT will begin to include GHG mitigation reporting at all stages for the planning process. The effort will enhance the ability for ODOT and local jurisdiction to monitor, progress towards both state and local GHG reduction goals and targets. This project will continue the efforts begun with the Oregon Modeling Steering Committee GHG Subcommittee in 2019-2021 to enhance GHG analysis and reporting.

[Medium and Heavy Freight Vehicle Data for Alternative Fuels Planning](#)

The Climate Office has formed an internal ODOT work group to assess data needs and gaps relating to ODOT's medium and heavy-duty vehicle data. This research pilot aims to improve understanding of the medium/heavy vehicle data collection, current and potential new uses of the data, and identify actions that can be taken to improve availability, quality and usability of this data.

[Adaptation Performance Measures](#)

ODOT will conduct a national peer review and incorporate findings in development of adaptation best practices and performance metrics. Performance metrics will focus on system resilience and response to floods, wildfires, landslides, and sea level rise. Best practices will also address climate equity in this context, including geographic equity and social equity considerations.

[Transit Key Performance Measures](#)

To measure progress towards achieving Oregon's public transit goals, ODOT PTD tracks two Key Performance Measures for the agency, Transit Ridership and Public Transit Vehicle Condition. To monitor ridership, PTD tracks the average number of transit rides each year per Oregonian. The target for ridership is 32 transit rides per Oregonian. With the infusion of STIF funding, PTD expects increased transit ridership across the state. However, service costs, COVID-19 impacts, and low fuel prices can contribute to reduced demand for public transportation. To monitor progress on vehicle condition, PTD tracks the percent of public transit buses that meet replacement standards, having reached the end of their calculated useful life. The target is 40% of vehicles meeting replacement standards. Oregon transit providers rely on state funds to

provide local match funding for federal GHG grants used to maintain an optimum replacement schedule. PTD is also developing additional performance measures for program outcomes within the division, these will allow PTD to track and report on the efficacy and success of PTD programs.

Appendix A. ODOT Climate Action Plan; 5-Year Actions.

The information contained in this appendix provides additional information and details on the work ODOT is committed to conduct as part of the Climate Action Plan 2021-2026 to reduce emissions from transportation, address equity and climate justice, and make the transportation system more resilient to extreme weather events. The agency's work to address the impacts of climate change is continually evolving, moving forward ODOT will continue to identify efforts and opportunities to help achieve Oregon's climate goals.

Appendix A. ODOT Climate Action Plan; 5-Year Actions:

[https://www.oregon.gov/odot/Programs/Documents/Appendix A Climate Action Plan 2021-2026.pdf](https://www.oregon.gov/odot/Programs/Documents/Appendix_A_Climate_Action_Plan_2021-2026.pdf)