Oregon's Climate Equity and Resilience Through Action Grant

Workplan Narrative

Submitted to: Environmental Protection Agency

March 29, 2024

State of Oregon
DEQ Department of Environmental Quality

This document was prepared by
Oregon Department of Environmental Quality
Office of Greenhouse Gas Programs
700 NE Multnomah Street, Suite 600
Portland Oregon, 97232

Contact: Morgan Schafer
CPRG@deq.oregon.gov
www.oregon.gov/deq

The following narrative was submitted directly to EPA through a grant application portal, along with other application materials and for this reason does not adhere to typical DEQ formatting and accessibility requirements.

State of Oregon
DEQ Department of Environmental Quality

Table of contents

Section 1: Overall project summary and approach

Climate change is impacting Oregon communities with increasingly common and severe weather events, chronic heat and drought, flooding, and intense wildfires. Mitigating climate change by reducing greenhouse gas emissions requires enormous effort and investment. Oregon has a strong track record of implementing measures to reduce emissions, and therefore our state is well positioned to quickly and effectively invest CPRG implementation funds to create sustainable and transformative approaches to tackling the climate crisis. This application requests funding to implement the measures **identified in Oregon's Priority Climate Action Plan**. The prioritized measures fall into three categories that are among the largest contributors to Oregon's GHG emissions.

Transportation is the single largest source of GHGs, both in Oregon and across the United States. In Oregon, transportation accounts for at least 35% of state emissions. Incentivizing zero-emission vehicles in all classes will achieve significant reductions in GHGs. Co-benefits include improved public health in communities that are nearest to transportation corridors by lowering tailpipe emissions of criteria and toxic air pollutants such as diesel particulate matter.

Residential and commercial buildings account for about a third of the state's GHG emissions. Incentives are needed to improve the efficiency of existing and new buildings, promote the transition to clean equipment and appliances, and increase building weatherization. Co-benefits include improved indoor air quality, including protection from wildfire smoke, and reduced energy cost burdens due to more efficient homes and buildings.

The handling of **Waste and Materials** is another major contributor of GHGs in Oregon. Oregon's consumption-based emissions inventory identifies 51 MMT CO2e of additional emissions that are not a part of Oregon's sector-based inventory. Incentives addressing waste and materials focus on some of the largest emissions categories in the CBEI, including embodied carbon in the built environment and emissions associated with food. Reducing these emissions, along with significant sources of landfill methane, offers multiple co-benefits and will demonstrate for the nation opportunities to address sources that are more difficult, but still necessary, to abate in ways that are responsive to community needs.

This application lays out **12 critical measures** that will accelerate Oregon's emission reduction efforts—for a vibrant environment, for the health of our communities, and for a more sustainable future. Oregon has made great strides towards addressing climate across the economy, however CPRG funding would be the catalyst needed to create an exponential impact in the Pacific Northwest. The **measures** in this application support the goals that EPA prioritized for CPRG funds - maximize GHG reductions, prioritize benefits to environmental justice communities, and transform through durability and innovation. In addition, these measures are **ready to implement** with authority in place, are all

scalable and provide the opportunity for transformative change through new and existing partnerships and job creation.

If state and MSA measures are both fortunate enough to be awarded implementation funds, the projects at the MSA level will not be eligible for state CPRG funds and DEQ will continue our close communication to ensure there is no CPRG funding duplication. To ensure immediate implementation and timely grant completion, DEQ has thoroughly vetted needs, risks, and mitigation strategies for each measure internally, with contract and administrative support agencies, and implementation partner organizations such as Oregon Housing and Community Services and the Energy Trust of Oregon. Overall risk mitigation for this grant includes obligating funds within the first 12-18 months of award; hiring key staff in procurement and budget offices, and quarterly reporting to track and report all performance measures including LIDAC impact, GHG reductions, and co-benefits.

Transportation: Measures 1, 2, 3, 4, and 5

Measure 1: Expand Oregon Clean Vehicle Rebate Program

To accelerate the transition from gasoline cars to electric vehicles, the Oregon Legislature created the Oregon Clean Vehicle Rebate Program. This program provides “cash on the hood” rebates to maximize incentives for Oregonians to purchase or lease battery electric or plug-in hybrid electric vehicles. The rebate program was designed to encourage higher adoption of EVs, reduce air pollution and advance progress toward the state's GHG reduction goals. The OCVRP offers two different types of rebates: a *Standard Rebate* available to all Oregon residents that purchase or lease a new eligible vehicle and an enhanced *Charge Ahead Rebate* to make ZEVs more accessible for those with low or moderate incomes. To qualify for the Charge Ahead Rebate, applicants need to be an Oregon resident and have a total household income below 400% of the federal poverty guideline.

This measure directs funds to the Charge Ahead Rebate programs, increasing the number of rebates, and therefore access to ZEVs for lower-income households so they are not left behind in the transition. Ensuring the inclusion of lower-income households further reduces GHG emissions as it enables them to adopt zero emission technology and helps retire older, higher emitting vehicles. DEQ has been building out the education and outreach efforts for this program with a specific focus on meaningful engagement with low to moderate income households and rural communities. This outreach focuses on collaborating with community-based organizations, building capacity for communities that have not participated in the program, and developing innovative and culturally appropriate approaches to encourage program participation. Engagement has improved all aspects of program implementation. To include CPRG funding in the program, DEQ would amend contracts in late 2024, conduct focused engagement in Summer 2024 – Fall 2025 and begin issuing rebates in early 2025. Since this program is well established, there is little risk involved in funding this measure. While there is potential for supply chain shortages to impact vehicle inventory that could extend the length of time of the additional rebate funding availability from one year to multiple years, there is little risk it would not be used within the timeframe of the grant due to increasing demand.

Transformative impact: CPRG funding will enable Oregon to offer incentives to low- and moderate-income households to purchase or lease new or used electric vehicles, ensuring

LIDAC communities are not left behind in the transition to cleaner transportation choices. This program expansion will continue to center feedback from communities on how to reduce barriers to engage with the program and benefit from these rebates. Electric vehicles emit no emissions throughout the lifetime of the vehicle and these reductions will result in avoided GHG emissions that would otherwise come from conventional gasoline cars.

Demonstrated funding need: The popularity of this program has greatly outpaced the $12 million annual funding, leading to the program being open for only 5 months in 2023 and just 2 months are projected for 2024. Future suspensions are anticipated with even shorter program availability. This results in fewer low-income households being able to afford cleaner transportation choices.

Measure 2: Light duty electric vehicle charging - Community Charging Rebates

In 2023, Oregon Department of Transportation launched its Community Charging Rebates Program to increase access to Level 2 charging stations in Oregon communities, particularly disadvantaged and rural communities. CCR offers rebates to public and private entities to reduce the cost of purchasing, installing, and maintaining qualified charging equipment at publicly accessible parking locations, workplaces, and multi-family housing throughout the state. 70% of CCR funds are reserved for projects in rural and disadvantaged communities. Since June 2023, ODOT has awarded $1.75 million to more than 90 projects, funding the installation of 375 new Level 2 charging ports. This measure will direct CPRG funds to install more electric vehicle charging ports in low-income and disadvantaged communities to address significant gaps in charging infrastructure. A recent ODOT study showed a five-fold increase in public charging is needed in Oregon by 2025 and more than a 40-fold increase by 2035. If awarded, CPRG funding will support a position dedicated to conducting engagement with communities and distribute funds in three rounds – Spring 2025, Spring 2026, and Spring 2027. Recipients will be chosen based on a rubric scored by DEQ and ODOT with prioritization for accessibility and impact on rural and low-income locations. Applicants have between 270 and 550 days to install funded infrastructure. All infrastructure funded through this program will be installed before 2030. Because this is an existing program, implementation risks are low. Two risks include insufficient staffing to support administration and insufficient program demand from applicants. ODOT is mitigating these risks by budgeting for additional dedicated staff to provide program support and providing additional funds for a complementary outreach, education, and technical assistance position.

Transformative Impact: CPRG funding will enable Oregon to install additional electric vehicle charging infrastructure in low income and disadvantaged communities throughout Oregon. It would provide assurance to these communities they can access charging and enable them to make the transition to electric vehicle adoption, while incorporating feedback to further improve implementation.

Demonstrated Funding Need: CCR is currently funded through a one-time, $7 million allocation of state Transportation Operating Fund dollars. Interest and demand for existing funds are already high, with demand expected to outstrip funding supply. This funding is not sufficient to meet the charging infrastructure needs in Oregon for in low-income and disadvantaged communities where private sector investment is less likely. Existing funding will be distributed by ODOT through four CCR program rounds over 18 months. Once this one-time state funding is spent, there is no identified funding source to continue the program. While the private sector will invest in some of this needed infrastructure, continued public sector investment is necessary,

particularly in low-income and disadvantaged communities, to ensure every community has access to the benefits of a zero-emission transportation system. In addition, the CCR program complements but does not duplicate other charging infrastructure investment programs, including the $52 million National Electric Vehicle Infrastructure program which is focused on fast charging along primary corridors, and the $10 million Electric Vehicle Reliability and Accessibility Accelerator which is focused on increasing the reliability of the existing charging network.

Measure 3: Medium- and Heavy-Duty Vehicle Rebate Program

The 2023 Oregon Legislature created the Medium- and Heavy- Duty Rebate Program with an allocation of $3 million, and direction to DEQ to develop rules to administer the program. The goal of the program is to lower the price of new medium- and heavy- duty vehicles ZEVs by providing a rebate directly to the purchaser. Program funding prioritizes at least 40% of rebates towards ZEVs located in communities disproportionately burdened by diesel pollution. In allocating rebates, DEQ will analyze air quality, population density, and demographics to ensure it community health benefits to areas of Oregon most impacted by tailpipe pollution.

This measure directs CPRG funds to support more medium and heavy-duty ZEV purchases particularly in environmental justice communities of Oregon. To include CPRG funding in the program, DEQ would amend contracts and begin issuing rebates in mid-2025. This program is in the process of launching at the end of 2024, and projected demand is expected to quickly outstrip the existing $3M for the program thus providing little risk that federal funds would not be used within the timeframe of the grant.

Transformative Impact: CPRG funding will enable Oregon to offer incentives to businesses and fleets for the purchase or lease of medium and heavy-duty ZEVs. With the program's focus on engaging and directing funds to environmental justice communities, it provides health benefits to areas that often experience public health issues from proximity to roadways. The reduced emissions as a result of having more electric vehicles on the roads will result in avoided GHG and air quality emissions that would otherwise come from diesel trucks.

Demonstrated Funding Need: The initial $3M funding provides a framework to incent further investment in ZEV technology but is woefully inadequate to meet the rising needs of smaller fleets, independent owner/operators and minority owned fleets in low- and middle-income communities that may not have sufficient capital or access to affordable financing sources to front load the cost of higher priced ZEVs. Once this initial funding is spent, there is no identified funding source to continue the program. This measure will provide rebates for up to 164 medium and heavy-duty ZEVs, focused on replacing diesel vehicles in environmental justice communities.

Measure 4: Medium and Heavy-Duty Diesel Emissions Mitigation Grant Program

The Medium and Heavy-Duty Diesel Emission Mitigation Grant Program was initially established by the Oregon Legislature in HB 2007 (2019) to receive Oregon's share of the VW settlement fund and has now evolved to accept other funds. Among other priorities, these statutes and rules prioritize funding for projects seeking to comply with HB 2007's diesel vehicle phase out deadlines in the Portland Metro area. The program provides most of DEQ's incentives to reduce

harmful diesel particulate matter, a critical environmental justice issue for communities that live closest to the state's freight corridors, by requiring the scrapping and replacement of the state's dirtiest diesel trucks. Oregon DEQ provides additional technical assistance funding directly to certified minority, women, disabled veteran, and emerging small businesses applicants, ensuring they have the capacity to participate. This program also prioritizes funding for projects that benefit air quality among vulnerable populations statewide.

This measure directs CPRG funds to support the deployment of additional new medium and heavy-duty ZEVs to replace older diesel trucks. To include CPRG funding in the program, DEQ would open the grant application process in February of 2025, announce grant awards in August of 2025, and deploy approximately 37 new MHD ZEVs by December of 2027. Risk is low due to the program successfully awarding grants and replacing diesel trucks since 2018.

Demonstrated Funding Need: Over the last three years, grant proposals have outpaced funding by $106.3 million and current funds will be exhausted by 2025. Eligible applicants include private fleets, Tribes, local government, transit providers, and school districts that often serve some of the state's most vulnerable populations.

Measure 5: Medium-and Heavy-Duty Charging Infrastructure Grant

This measure uses CPRG funds to expand Oregon DEQ's grant program for supporting medium-and heavy-duty zero-emission vehicle charging and fueling infrastructure projects, which was established by the Oregon Legislature in HB 5202 and HB 4139 (2022). The Legislature provided a one-time allocation of $13.3 million to expand Oregon's network of EV charging infrastructure. Certification Office for Business Inclusion and Diversity-certified applicants are eligible to receive a higher level of funding for their projects.

This measure directs CPRG funds to projects critical to increasing Oregon's EV charging network for medium- and heavy-duty vehicles, which often operate in or close to environmental justice communities adversely affected by diesel pollution. To include CPRG funding in the program, DEQ would engage potential applicants, conduct outreach for the program, open the grant application process in February of 2025, announce grant awards in August of 2025, and complete installation of approximately 20 new MHD ZEV chargers by December of 2027. Risk is low due to program record of performance since 2023.

Demonstrated Funding Need: DEQ received over $34 million in requests for this one-time opportunity, which clearly shows the need for additional funding. Eligible applicants include private fleets, Tribes, local government, transit providers, and school districts. The previously funded projects are demonstrating market demand, showing availability of technology, and helping Oregon fleets, utilities, and regulators learn how to collaborate and deploy MHD ZEV charging infrastructure. This measure is different from CCR, as it provides comprehensive funds of up to $137,500 per charger which includes installation and infrastructure costs to support ZEV fleet adoption. While this measure is less cost effective in the near term it is necessary to facilitate the transition to MHD ZEVs by funding a robust charging network to support battery electric transportation and encourages more fleets to invest in ZEVs and driving further GHG reductions.

CPRG's transformative impact on transportation: The transportation sector is the leading source of GHG emissions in Oregon. Combined Light-duty and MHD vehicles are responsible for 56% of transportation GHGs, over 19 MMT of annually. These vehicles contribute to high

levels of localized criteria pollutants such as fine particulate matter, nitrogen oxides and toxic air pollutants such as diesel particulate matter that represent an on-going public health challenge for communities across Oregon.

CPRG funding for measures 1-5 allows Oregon to accelerate the adoption of zero emission vehicles in the light, medium, and heavy-duty vehicle classes and ensure low-income and disproportionately affected communities are not left behind in the transition to cleaner vehicles. Demand for these programs has greatly outpaced available funding. CPRG funding further encourages ZEV adoption, especially for individuals and businesses where cost is a barrier. The pollution from these vehicles often most impacts frontline and overburdened communities located near roadways, freight hubs, bus depots, and trucking corridors. The state has already made significant investments to develop programs and regulations for cleaner vehicles and charging infrastructure, and received extensive feedback from communities which positions Oregon well to put CPRG funds to use quickly and efficiently.

Buildings: Measures 6, 7, 8, and 9

Measure 6: Incentives for building more energy efficient housing

This measure uses CPRG funds to expand existing programs to incentivize construction of new housing units that are at least 10% more energy efficient than homes built under Oregon's base building code, helping support Governor Kotek's housing initiative that has an ambitious housing production goal of 36,000 homes per year. This measure will expand the geographic scope of the Oregon Multi-Family Energy Program to incentivize affordable, energy efficient multifamily housing in consumer-owned utility service territories and expand the reach of Energy Trust of Oregon incentives for new, energy efficient housing in investor-owned utility territories. Through OR-MEP, Oregon Housing and Community Services issues financial incentives to build energy efficient, affordable multifamily rental housing that reduces energy costs for low-income residents. ETO also offers financial incentives for qualifying energy efficiency measures installed in new housing units. ETO is a nonprofit organization authorized to administer ratepayer funds to support energy efficiency and clean energy solutions in Oregon. OR-MEP and ETO incentives are ratepayer-funded, and current funding levels cannot satisfy demand for energy efficiency incentives.

CPRG funding for OR-MEP and ETO incentive programs will enable the state to support construction of more affordable energy efficient housing in communities across the state. Using CPRG funding, OHCS and ETO would start issuing incentives on a rolling basis starting in 2025 and would issue incentives for a total of 9,420 housing units by Dec. 2028. Supply change disruptions or shortages of qualified contractors could potentially impede the programs' ability to meet annual incentive targets, but these organizations' existing implementation experience, along with the five-year funding period, should mitigate that risk. New and growing education and training programs are also helping bolster the contractor workforce, which will support successful implementation of this and other building measures.

Transformative Impact: CPRG funding will enable Oregon to accelerate construction of affordable, energy efficient multifamily housing in rural communities and energy efficient

housing in the state's most densely populated areas. Housing units supported by CPRG funds will consume at least 10% less energy over the buildings' lifetimes. This increased efficiency will reduce GHG emissions from energy that would otherwise be used to heat and power the housing units.

Demonstrated Funding Need: CPRG funding will fill an important funding gap for new, energy efficient residential construction, will build on existing state and ratepayer-funded programs, and will supplement other federal funding for existing buildings, such as the Home Electrification Appliance Rebate program. Multiple state and federal programs provide funding assistance for affordable housing construction, but these programs do not sufficiently incentivize energy efficiency. OR-MEP and ETO incentives provide essential gap financing for the construction of energy efficient housing, but these programs lack sufficient funding to meet demand and are only available in certain areas of the state. OHCS has identified at least 124 housing projects comprising more than 3,000 total units in COU territories that are currently ineligible for OR-MEP incentives. In IOU territories, demand for ETO incentives *far* exceeds available funds. CPRG funding will help Oregon meet these needs.

Measure 7: Commercial building performance standards incentives

In 2023, the Oregon Legislature directed ODOE to develop a Building Energy Performance Standard to regulate the energy consumption of select commercial buildings. The BPS for Tier 1 commercial buildings (35,000 sq. ft. and larger) will phase in through 2030. Tier 2 buildings (20,000-35,000 sq. ft.) are not subject to a BPS but must provide benchmarking reports. CPRG funding will incentivize early adoption of the Tier 1 BPS and incentivize Tier 2 buildings to voluntarily comply with the BPS, thereby accelerating and increasing GHG emissions reductions from commercial buildings. To incorporate CPRG funds into the program, ODOE would launch annual incentive periods starting in 2025 and would issue incentives to 321 commercial buildings by December 2028. Supply chain disruptions, contractor shortages, and lack of awareness of available incentives could potentially impede the rate of incentives issued annually. ODOE is and will continue to actively engage with building owners and contractors to ensure measure milestones are met.

Transformative Impact: Early and voluntary adoption of the commercial BPS will reduce annual energy consumption by recipient buildings. CPRG funds will enable Oregon to accelerate the deployment of energy efficiency technologies in commercial buildings and achieve near-term and long-term GHG reductions. Tier 1 buildings will reduce energy consumption in the near-term, resulting in avoided GHG emissions through 2030. Tier 2 buildings will voluntarily achieve the BPS, resulting in avoided GHG emissions over the remaining lifetimes of the buildings and building systems.

Demonstrated Funding Need: Most state and federal funding available for building energy efficiency is focused on residential buildings rather than commercial buildings. The Oregon legislature provided only $2 million for ODOE to establish and administer an incentive program for early and voluntary adopters of the BPS. This funding is expected to affect only a small portion of the more than 6,000 qualifying buildings across the state. CPRG funding will fill an important funding gap for existing commercial building energy efficiency retrofits.

Measure 8: Heat pump incentives

ODOE currently operates two heat pump incentive programs. The Oregon Rental Home Heat Pump Program provides rebates and grants for the installation of heat pumps and related upgrades in rental housing and manufactured dwellings. At least 50 percent of rebate funds are reserved for low- and moderate-income households and affordable housing providers. The Community Heat Pump Deployment Program provides competitive grants to eligible entities to provide financial assistance for the purchase and installation of heat pumps in existing buildings across the state. The program is open to Oregon Tribes, local governments, housing authorities, coordinated care organizations, community action agencies, and electric utilities. Recipients are required to prioritize assistance for at-risk groups, including environmental justice communities, households relying on wood, heating oil, or electric resistance heating, and households lacking functioning heating or cooling systems.

Both programs have experienced very high demand for heat pump incentives and will have allocated all or most of the existing $25 million program funds by July 2025. Feedback on implementation has already improved access to the program and will continue to be incorporated. Additional CPRG funding will enable the installation of a significant number of additional heat pumps. If CPRG funding is received for these programs, ODOE would open a first round of funding in April 2025 and a second round of funding in February 2027, and would issue 12,000 heat pump incentives by Dec. 2027. Supply chain disruptions could potentially impede the rate incentives awarded under the programs, and a shortage of experienced heat pump installers could result in installation delays or errors that could impact measure outcomes. The multi-year funding period will provide consistency and reduce uncertainty on the availability of incentives, which will mitigate risks of supply and/or installer shortages. ODOE will conduct periodic inspections of heat pumps installed under the programs to provide quality control and ensure systems are properly installed.

Transformative Impact: Energy Star heat pumps use substantially less energy and have typically lower GHG emissions rates than other home heating sources. Heat pumps also offer increasingly important co-benefits by affording vital cooling options to Oregonians during extreme heat events. CPRG funds will enable Oregon to accelerate the deployment of heat pumps across the state and hasten the development of a mature market for heat pump technologies in Oregon.

Demonstrated Funding Need: The Oregon Legislature appropriated $25 million for heat pump incentives in 2022; these funds have largely been exhausted, and the amount of total incentive funding that remains available is insufficient to meet heat pump demand within the state. Federal incentives available through the Home Efficiency Rebate program and Home Electrification Appliance Rebate program will provide some financial assistance for heat pump installations in Oregon. However, the state estimates that the $113.7 million available through these programs will be able to serve less than one percent of Oregon households, and only a portion of this funding will support heat pumps. CPRG funds will enable the Community Heat Pump and Rental Heat Pump programs to provide rebates and incentives to support heat pump installations in homes and buildings that do not receive assistance through other federal programs. Some heat pump incentive recipients may also qualify for a federal tax credit of up to $2,000 and/or limited ratepayer-funded rebates. These additional subsidies may help offset a portion of heat pump costs for some homeowners, but they are not sufficient to incentivize heat pump installations on their own. CPRG funds will enable the state to offer incentives that will drive high rates of heat pump deployment across the state.

Measure 9: Residential weatherization

Most of Oregon's existing homes were built to meet much less stringent energy codes than those in effect today. Weatherization improvements, such as adding insulation or air sealing, can significantly reduce energy use in older homes. Oregon has several home weatherization programs that help existing homes achieve these energy savings. These include state-run programs such as Oregon Health Authority's Healthy Homes Grant Program, which offers weatherization assistance for low-income households and communities impacted by environmental justice factors. OHA administers these funds through grants issued to eligible entities that serve or represent low-income and/or environmental justice communities, including tribes, local governments, housing authorities, community action agencies, nonprofits, and utilities. The Energy Trust of Oregon also administers ratepayer-funded weatherization assistance for residential IOU customers. ODOE is developing a program to distribute federal funds from the Home Efficiency Rebate and Home Electrification Appliance Rebate programs.

Statewide, the demand for weatherization assistance *far* exceeds the funds currently available through these existing programs. CPRG funding will enable Oregon to expand the reach and impact of these programs and accelerate GHG emissions reductions through weatherization retrofits in existing housing stock. CPRG funds will: 1) enable ODOE to expand access to weatherization incentives for existing homes served by COUs, 2) enable ETO to expand access to weatherization incentives for existing homes served by IOUs, and 3) expand the capacity of the Healthy Homes Grant Program to increase access to weatherization assistance in environmental justice communities. To integrate CPRG funding into these programs, OHA, ODOE, and ETO will open incentive periods by April 2025 and will issue weatherization assistance to 2,690 existing housing units by Dec. 2028. Supply chain disruptions and shortages of qualified weatherization contractors could impact the rate of weatherization assistance, but the measure's five-year funding period should enable the programs to respond to short-term disruptions prior to close of the grant period. New and growing education and training programs are also helping bolster the contractor workforce in the state, which will support successful implementation of this and other building measures.

Transformative Impact: Weatherization is a powerful tool to reduce GHG emissions from existing buildings by reducing energy usage. Weatherization also helps Oregon residents during extreme weather events, which are increasingly common due to climate change. CPRG funds will enable Oregon to accelerate residential weatherization upgrades in communities across the state.

Demonstrated Funding Need: Oregon already receives federal funding for weatherization assistance, but the demand and need for weatherization retrofits *far* exceeds available and anticipated funding. For example, the federal Home Efficiency Rebate and Home Electrification Appliance Rebate programs will provide some funding for weatherization, but these funds will only reach about one percent of Oregon's households, and only a portion will be available for weatherization retrofits. Beyond federal funding, demand for state and ratepayer-funded weatherization assistance also *far* exceeds available funds. Additional funding is needed to expand access to weatherization incentives, and CPRG funding will fill an important gap in existing state and federal incentive programs.

CPRG's transformative impact on building-sector emissions: The building sector is one of the state's leading sources of GHG emissions. Reducing building energy use and increasing the energy efficiency of building systems offer significant near-term reductions in GHG emissions in Oregon. CPRG funding for measures 6-9 would enable Oregon to expand the scope and impact of priority actions identified in the state's PCAP to reduce energy use by new and existing buildings and increase access to affordable, energy efficient housing. Demand for financial assistance *far* exceeds the current funding capacity of these programs. CPRG funding will

enable the state to expand access to financial incentives to improve the efficiency of buildings. CPRG funding will also give Oregon the opportunity to offer building incentives in areas of the state that lack access to ratepayer-funded incentive programs. Improving the energy efficiency of buildings also provides substantial community co-benefits, including reducing air pollution and improving public health, lowering energy costs, improving indoor air quality improvements, increasing comfort in cold and warm seasons, and creating jobs. Because low-income households in Oregon experience greater energy burden and are disproportionately impacted by air pollution and associated public health risks, investments in energy efficiency and weatherization in low-income housing will provide meaningful benefits for disadvantaged communities.

Materials and waste: Measures 10, 11, and 12

Measure 10: Building reuse and space-efficient housing

In response to Oregon's housing crisis, Governor Kotek set an ambitious statewide housing production goal of 36,000 new housing units for each of the next 10 years – roughly two times historical production. The other housing-related measures described above focus on "use phase" emissions of dwellings, especially the emissions associated with heating and cooling operations. However, buildings are also associated two other sources of emissions – embodied carbon and consumption-based emissions of households. DEQ will use two strategies to support essential near-term housing production, while also reducing these GHG emissions compared to the status quo and accommodating unique community needs across the state.

Reuse underutilized existing buildings and convert to housing. Reuse of existing buildings is one of the most effective strategies to reduce embodied carbon as it significantly reduces the need for new materials. Case studies of building reuse cite embodied GHG emissions reductions of 40 to 75 percent compared to new construction. Cities across Oregon have underutilized buildings of different kinds—Portland has a reported 23 percent vacancy rate in office spaces, and Oregon's small towns have a 47 percent vacancy rate in upper stories above downtown retail spaces. CPRG funds will incentivize whole or partial reuse of buildings most appropriate for conversion to affordable and workforce housing. Incentives of up to $45,000 per unit will be offered for a total of 210 new units in five different Oregon communities.

Develop new space-efficient housing. Dwelling unit size is among the most important determinants of the environmental impact of housing. A DEQ study found the operational and embodied carbon impacts of extra-small homes (defined as 1149 SF in the study) are reduced by 20 to 40 percent compared to medium-sized homes. In 2019, legislation passed requiring Oregon's largest cities to allow "missing middle" housing (duplexes, triplexes, fourplexes, cottage clusters) in single-family zones. However, there has been limited uptake by developers to provide denser, less carbon intensive housing. CPRG funds will incentivize space-efficient affordable and workforce housing, offering up to $20,000 per unit for a total of 730 new units in four different Oregon communities.

Demonstration of Funding Need: Housing projects in Oregon typically stack several federal, state, and local public and private funding sources. While there has been a recent infusion of funding in response to Oregon's housing crisis, many affordable and workforce housing projects

still fail to pencil financially. To close this funding gap and promote innovation, DEQ will pass-through CPRG funds to nine local government partners across the state, including: Tillamook County and the cities of Portland, Hood River, Pendleton, Ontario, Bend, Medford, Reedsport, and Eugene. Each partner has confirmed a forecasted quantity of "shovel-ready" housing projects to be completed within the implementation period and confirmed their capacity to administer a local competitive grant process to distribute the funds according to their community's individual needs, such as which type of existing buildings they have that are appropriate for conversion. A risk to the success of this measure is the complexity and schedules of building projects. DEQ will manage these risks through quarterly reports and regular communications with all partners. If any partner will fall short of producing its forecasted units within the implementation period, DEQ will consult with EPA to redistribute funds to other local partners with demonstrated need and capacity to deliver.

Transformative Impact: This pioneering measure focuses on reducing the embodied carbon and consumption-based emissions of households, which have significant impacts and have historically been overlooked. The innovative projects funded through this measure will serve as scalable and replicable demonstration projects to inform and support future building reuse and space-efficient, low-carbon housing projects that meet the individual housing needs of different communities. Also, this measure will be amplified and accelerated by Oregon's active participation in the Pacific Coast Collaborative's Low Carbon Construction Task Force.

Measure 11: Food waste infrastructure

Food waste is the single largest source of methane generation in landfills, accounting for 58% methane generation (EPA). Methane is an extremely powerful greenhouse gas – 28 times as potent as carbon dioxide in trapping heat in the atmosphere. Because of its impact when disposed in landfills, the Oregon legislature in 2015 established the goal of recovering 25% of food waste by 2020 for useful purposes such as composting or anaerobic digestion. However, DEQ estimated that only 10% of food waste was recovered in 2020. In a 2022 report to the legislature, DEQ identified inadequate processing capacity statewide as a significant challenge to increasing food waste recovery rates. This measure will significantly improve Oregon's ability to recover a larger percentage of wasted food.

This measure is focused on improving and expanding food waste recovery infrastructure such as anaerobic digestion and composting. Each of these end-of-life treatments reduces net emissions from the decomposition of wasted food, by preventing the emissions of methane while producing useful co-products like soil amendments, renewably sourced electricity, or animal feed. Through interagency collaborations or a competitive RFP process, DEQ will identify an external party to oversee a grants program making awards for the following:

Build new or expand existing food waste recovery infrastructure by funding improvements and equipment purchases.

Fund smaller-scale infrastructure projects, prioritizing underserved communities, to encourage localized collection of food waste for composting that supports local food production**.**

Based on information about local conditions gathered from partners – local governments, community-based groups, and statewide non-profits and associations –DEQ estimates that CPRG funds will allow Oregon to increase food waste processing capacity through 18-20 pre-processing or facility upgrade equipment purchases, establish 1-2 new processing facilities, and fund 3-4 new community composting programs. The ultimate number of awards and funding amount will be determined by competitive grant processes, administered by a third-party entity,

that will solicit detailed project plans, timelines and budgets from applicants. DEQ will minimize risk through rigorous vetting of applicants and ongoing oversight of project implementation. As is common with any project involving distribution of funds to third parties, there is a risk that work will not be completed in a timely manner and funds will not be distributed. DEQ has minimized this risk by focusing a majority of spending on equipment purchases completed through reimbursements. If sub-awardees fail to make approved purchases, DEQ will work with EPA to reallocate funds to other recipients with demonstrated need and capacity to complete the work. In the case of more complex projects, like development of new processing capacity or implementation of community compost projects, risk will be minimized pre-award via rigorous vetting of applications to ensure projects are well planned and post-award, via ongoing engagement with awardees to track progress, ensure work is completed as planned and identify remedial actions if needed to ensure project completion.

Demonstration of funding need: The need for increased food waste processing capacity in Oregon is great. While there is other national funding available for organics management projects, Oregon's need exceeds funding that might come to the state from these other sources, most of which involve national competition. DEQ plans to target funding to projects where existing resources are insufficient and where projects are expected to have the greatest impact in increasing processing capacity and in benefiting a range of communities across Oregon according to demonstrated need.

Transformative impact: One of the most effective ways to expand capacity for food waste recovery is to improve existing infrastructure through the installation of pre-processing equipment or composting facility upgrades into efficient and effective aerated static pile system technologies. Expansion of existing operations will reduce GHG emissions by maximizing existing food waste processing capacity to facilitate additional food waste recovery and adding additional systems to handle larger volume. These improvements also have the potential to improve the quality of final products, making it more suitable for use in supporting food production and increasing the GHG benefits associated with carbon sequestration. Grant funding for localized composting operations that support regenerative agriculture will similarly contribute to more effective soil sequestration of carbon and likely improve local food waste recovery rates. Strengthening local food systems and regenerative agriculture supports food system resiliency and makes food systems better able to adapt to climate change, which will have the greatest benefits for LIDAC communities. Through the competitive grant processes, Oregon communities will identify the greatest opportunities that are most suitable and adapted to local conditions and community needs. Cost estimates are more variable for this measure to be responsive to specific needs of project implementation.

Measure 12: Landfill methane controls

Landfills are a large source of methane emissions, and in the absence of any new efforts, those emissions are projected to grow. While Oregon has recently adopted regulations that exceed federal requirements, there are additional opportunities to reduce emissions, for example through installing gas collection (with a flare) at medium-sized landfills where collection is not yet required. Additional opportunities include: early installation of horizontal wells, extracting additional gas from closed cells, installing or expanding energy recovery infrastructure, enhanced oxidation layers, enhanced automation of gas control systems, fine-tuning of engineering controls, and other approaches. This measure will reduce methane emissions from landfills through opportunities described above. The measure focuses on projects that go above and beyond existing requirements and excludes those that are otherwise required by federal or

state regulations.[1] DEQ will undertake a competitive solicitation for landfill owners or operators to identify projects that are aligned with the scope of CPRG and the goals of this measure. Proposals must include analysis of engineering needs, costs, and methane capture potential. Applicants may apply for more than one project at a single site; this modular approach will allow DEQ to optimize cost effectiveness across the entire portfolio of selected awards. DEQ will review applications and give preference to projects that maximize emissions reductions, all other considerations being equal. Depending on the specific needs and opportunities demonstrated by local applicants, DEQ anticipates that approximately 3-6 projects will be funded. Costs associated with final engineering at selected projects will be eligible for funding, thereby reducing risk by lowering application barriers and improving outcomes. Implementation risk is further reduced by devoting program and procurement staff to this measure.

Demonstrated Funding Need: There is no other dedicated funding available for this work. Falling costs for wind and solar projects have recently limited electric utility investment in landfill gas projects.

Transformative Impact: Emissions from Oregon landfills are projected to grow significantly, despite newly adopted regulations. Landfills are a "difficult to abate" sector and yet analysis performed by DEQ and local partners for this application reveal significant potential to reduce emissions efficiently and effectively. Specific projects requested and funded through sub-awards will evaluate the outstanding potential for cost-effective mitigation that are also responsive to local conditions. Results may inform future policies and programs related to landfill emissions in Oregon and other states. Costs are more variable for this measure to be responsive to specific needs of project implementation.

CPRG's transformative impact on materials and waste: Oregon's request for CPRG funding for the built environment, food waste recovery and landfill methane controls is informed by the state's consumption-based emissions inventory and Oregon's *2050 Vision for Materials Management.* Inspired by and aligned with *EPA's Sustainable Materials Management: The Road Ahead,* Oregon's *2050 Vision* is the state's formally adopted plan for sustainable materials management. Both EPA and Oregon DEQ are recognized leaders in addressing the large and often overlooked impacts of materials on the environment and our climate. For the state and the nation to achieve a sustainable level of GHG emissions, a holistic approach with additional types of solutions that are responsive to diverse community needs is required. Oregon's CPRG application reflects this broader approach. Oregon's first-in-the-nation consumption-based emissions inventory, which has informed EPA's recent work on the US-environmentally extended input-output model, demonstrates that consumption-based solutions, such as those addressing embodied carbon, open up new and important opportunities for climate mitigation. Demand-side solutions can also reduce the cost of achieving point-source reductions. Additionally, the ways in which materials and products are used, consumed and disposed across the state varies widely, depending on local policies, existing infrastructure, and more. These three measures reflect the many detailed conversations DEQ had with local partners to identify cost effective initiatives within the scope of CPRG that will be responsive different needs of each community where work will be implemented.

---

[1]In the case that an applicant is seeks to accelerate implementation of a practice that will eventually be required, the applicant will be directed to only "count" the marginal (accelerated) increase in emissions reductions.

The transformative impact of Measures 10, 11 and 12 also lies in their potential to demonstrate new and cost-effective solutions for reducing GHG emissions. Food and beverages (11.8 MMT CO2e/year) and construction activities and materials (6.7 MMT CO2e/year) are among the largest categories of emissions in Oregon's consumption-based inventory. Current efforts to reduce these emissions – both in Oregon and elsewhere – are well below the relative magnitude of these emissions. Underinvestment in reducing these emissions both in Oregon and elsewhere leaves lower hanging fruit for investments in these areas. Oregon DEQ is ready to invest CPRG funds in highly efficient measures our agency is well equipped to implement. Oregon DEQ is a leader in technology and information transfer involving materials and climate (having co-founded with EPA the West Coast Climate and Materials Management Forum, for example) and funding of Measures 10, 11 and 12 will demonstrate pioneering and scalable programs to reduce these emissions that have potential to be promoted and replicated nationwide.

Section 2: Impact of greenhouse gas reduction measures

The following table provides estimates of the cumulative emission reductions in metric tons of carbon dioxide equivalent ($MTCO_2e$) anticipated from CPRG funds for each measure. Measures were analyzed for near (2025-2030) and long term (2025-2050) GHG emission reductions. Each analysis accounted for all GHG pollutants relevant to the measure including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride using the global warming potentials in the IPCC's Fifth Assessment Report. We also compared program cost to anticipated reductions to assess each measure's cost per metric ton reduction. For more information regarding the calculation of these reductions and assumptions, please see the Technical Appendix and GHG calculations spreadsheets.

Reasonableness of reductions: DEQ, ODOE and ODOT undertook, and in some cases commissioned, extensive detailed modeling to ascertain estimates of potential emissions reductions. Details are provided in the Technical Appendix. Data sources used to estimate emissions reduction potential were drawn from dozens of well-respected and published sources, including AIL's AFLEET, EPA's Portfolio Manager Technical Reference, and the EPA's Landfill Methane Outreach Program. Emissions estimates were then cross-checked by other agency staff. The GHG reduction benefit of all measures increases over time. Some measures have particularly profound, non-linear and long-term impacts, such as vehicle charging stations, which enable increased utilization of ZEVs.

Table 1: Cumulative GHG reductions and costs that will directly result from CPRG funding.

Measure	Cumulative GHG emissions reduction 2025-2030 (MTCO2E)	Cumulative GHG emissions reduction 2025-2050 (MTCO2E)	5-year implementation cost ($)	Cost per ton GHG reduced 2025-2030 ($)	Cost per ton GHG reduced 2025-2050 ($)
Transportation					
1. Charge ahead rebates	190,000	1,030,000	$ 30,996,336	$163	$30
2. Light duty chargers	36,958	824,627	$10,900,601	$295	$13

Measure	Cumulative GHG emissions reduction 2025-2030 (MTCO2E)	Cumulative GHG emissions reduction 2025-2050 (MTCO2E)	5-year implementation cost ($)	Cost per ton GHG reduced 2025-2030 ($)	Cost per ton GHG reduced 2025-2050 ($)
3. MHD rebates	71,484	363,828	$14,843,772	$208	$41
4. MHD grant	19,106	81,092	$5,989,342	$313	$74
5. MHD chargers	3,813	113,405	$3,020,390	$792	$27
Sector total	321,361	2,412,952	$65,750,441	$205	$27
Residential and Commercial Buildings					
6. New Residential Construction	116,774	556,340	$21,290,504	$203	$43
7. Building Performance Standard	100,322	221,126	$12,092,375	$121	$55
8. Heat Pump Program	83,225	368,655	$25,256,830	$303	$69
9. Residential Weatherization	32,515	132,850	$8,055,589	$288	$71
Sector Total	332,836	1,278,971	$66,695,298	$200	$52
Materials and Waste					
10. Building reuse and space-efficient housing	70,862	343,487	$25,585,015	$360	$74
11. Food waste infrastructure	241,500	1,419,561	$28,867,937	$119	$20
12. Landfill gas controls	275,222	1,100,693	$6,611,235	$24	$6
Sector total	587,584	2,863,741	$61,064,187	$104	$21
DEQ CPRG Admin	-	-	$3,671,870.00	-	-
Total	1,241,781	6,555,664	$197,181,796	$159	$30

Numbers are rounded*

Magnitude of GHG Reductions from 2025 through 2030: Combined, these measures are projected to reduce 1,241,781 metric tons of CO2e over the next five years and in most cases establishing long-term investments that will yield far greater reductions with relatively little additional costs.

Short-term durability: All measure outcomes result in lasting and stable reductions in emissions. The infrastructure, vehicles and equipment proposed contribute to permanent emission reductions and are all estimated to continue operation for a minimum of 10 years, some longer (Technical Appendix).

Magnitude of GHG Reductions from 2025 through 2050: Combined, these measures are estimated to reduce 6.5 million metric tons of CO2e over the next 25 years. These measures mitigate emissions in the three areas contributing the most GHG emissions from the state of Oregon and support workforce development, aid in reaching legislative goals, and will focus

significant benefits on residents of lower income and disadvantaged communities. Funding these measures will allow Oregon to focus additional efforts on longer-term reduction strategies.

Long-term durability: The equipment funded by this grant is effectively displacing the use of emissions-intensive alternatives and concurrently facilitating investments in Oregon's infrastructure. This infrastructure expansion is crucial as it enables growth of lower-emitting options. While the lifetime of the equipment funded by this grant may be 25 years or less, we anticipate that future investments to replace this equipment will perpetuate the original benefits of the initial investment. The vehicles and equipment supported with this grant may need upkeep beyond 10 years but will still have overall reductions. Long-term reductions increase beyond 2050 from continued displacement of fossil fuel use and prevention of GHG emissions. In addition, the purchase of equipment and vehicles reduces the entry barrier by creating infrastructure and workforce to support exponential future investment. Measures associated with building and infrastructure are anticipated to last beyond 25 years. Outreach and implementation of measures are anticipated to improve quality of life and support climate friendly lifestyle choices that normalize climate reduction strategies.

Cost-Effectiveness of GHG Reductions: The program costs used to calculate cost per ton reductions include employee time and administrative costs to support successful implementation and where applicable, costs to ensure compliance with BABA and Davis-Bacon and Related Acts. All measures combined, if funded, will have a five-year cost-effectiveness of just under $159 per metric ton CO2e reduced and a 25-year cost-effectiveness of less than $30 per metric ton CO2e reduced. DEQ verified cost-effectiveness for reducing GHGs by examining other states' PCAP reductions and assumptions, Oregon's proposed measures were more cost-effective for GHG reductions than many other states.

Section 3: Environmental results-outputs, outcomes, and performance measures

Authority: As stated in Oregon's PCAP, every implementing agency and measure has authority to implement through statutes, rules, and legislative bills. DEQ was given legislative approval to pursue CPRG implementation funds.

Assessing progress: Overall risk mitigation for this grant includes obligating majority of funds within the first 12-18 months of award; increasing staff capacity through hiring and workload; and enhanced community engagement. Implementing agencies will submit quarterly reports that include costs, measure specific performance measures, communities served, and lessons learned. DEQ will hire dedicated staff to serve as coordinators and provide analysis for GHG and co-benefits. GHG and co-pollutant reductions will be calculated using the models developed for analysis of Oregon's PCAP (Technical Appendix). Models will be reviewed and updated as needed to accurately reflect reductions. DEQ's lead implementation staff will review quarterly reports and track GHG, CAP, and HAP reductions and qualitatively assess LIDAC impacts. If reductions do not match grant goals, agency leads will determine options to adjust processes to meet goals and inform the EPA grant coordinator. In addition, all implementing agency staff leads will participate in quarterly meetings to review and mitigate issues as they arise to keep grant *performance* on track. As always DEQ will keep in frequent and regular contact with our EPA grant administrator and submit timely semi-annual progress reports, one-year report addressing LIDAC impacts, and a final report as outlined in Section VI.B. of the NOFO. All measures support **EPA's Strategic Plan** to tackle the climate crisis by reducing GHG emissions

as well as improving air quality by reducing co-pollutants. The measures were also chosen to address environmental justice through program design, direct benefits, and energy efficiency.

Figure 1: Near and long term GHG reductions for each measure (Note: MTCO2e = Metric Tons of Carbon Dioxide Equivalent)

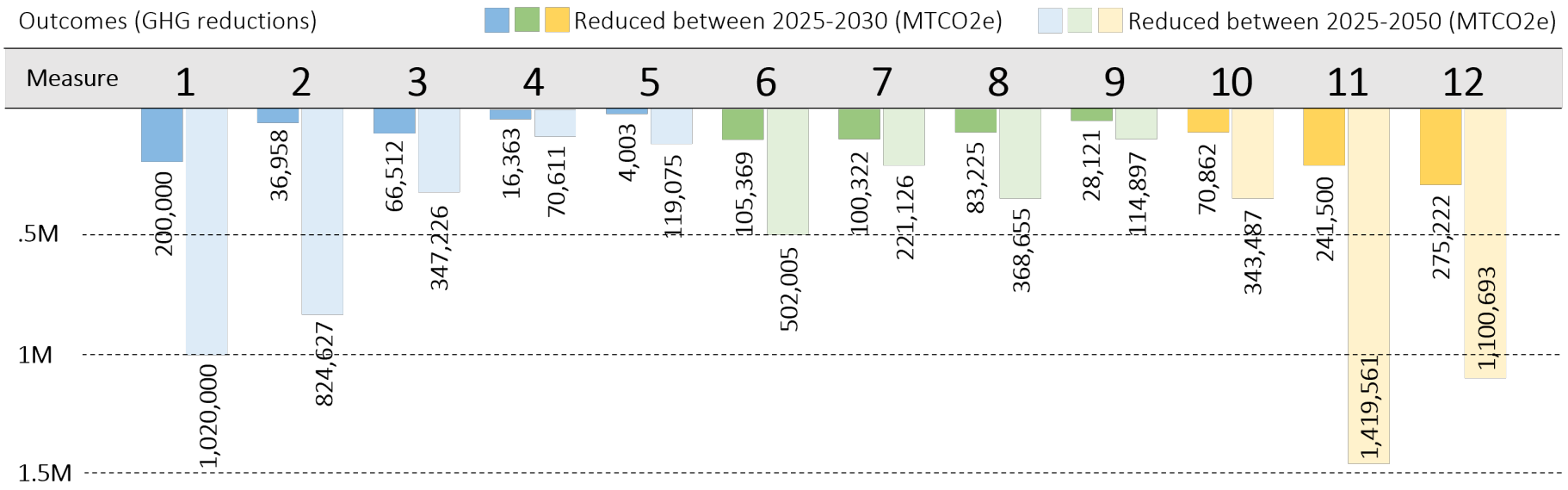


Table 2: Environmental Results

Measure (Lead Agency)	Outputs	Outcomes (in addition to GHG reductions)	Performance Measures (reported quarterly)
1 **Light duty electric vehicle rebates: Charge Ahead** (DEQ)	3421 new EV rebates 982 used EV rebates 4403 rebates to LIDAC	Increased EV adoption and program awareness with LIDAC through community engagement Increased access to charging for LIDAC Reduced exposure to tail pipe emissions and hazardous air pollution Improved public health, particularly near roadways	Number and location of EV rebates Number and location of outreach and engagement activities with LIDAC
2 **Light duty electric vehicle charging: Community Charging Rebates** (ODOT)	625 new Level 2 charger rebates 63 new Direct Current Fast Charger rebates 688 new chargers in LIDAC		Number and location of new charging stations Number and location of outreach and engagement activities with LIDAC
3 **Medium and Heavy-Duty electric vehicle rebates** (DEQ)	164 rebates issued/new MHD ZEVs		Number and location of new MHD ZEVs Number and location of outreach and engagement activities with LIDAC
4 **Medium and Heavy-Duty electric vehicle grants** (DEQ)	Use existing programs to issue: 37 grants issued/new MHD ZEVs		
5 **Medium and Heavy-Duty vehicle charging infrastructure grants** (DEQ)	Use existing programs to issue: 20 grants issued/new MHD ZEV charging stations		Number of grants issued Number and location of charging stations
6 **Incentives for building more energy efficient housing** (ETO and OHCS)	Use existing programs to issue: 4,500 multifamily unit incentives 4,920 single-family unit incentives 9,420 housing unit incentives	Expanded access to incentives to construct new, affordable, energy-efficient housing	Number of incentives issued Number, type, and location of housing units served Estimated energy savings (percent better than base code)

7 **Commercial building performance standards incentives** (ODOE)	Use a program (under development) to issue: 321 incentives issued to commercial buildings for early adoption of Building Performance Standards	Increased energy efficiency and reduced consumption Increased demand for energy efficient products, technologies, and jobs	Number of incentives issued Number, tier, size, and location of buildings served Estimated energy savings
8 **Heat pump incentives** (ODOE)	Use existing and scalable programs to issue: 12,000 heat pump incentives to communities and rental homes	Reduced energy use and energy bills for space conditioning	Number of incentives issued Number and location of heat pumps installed Types of equipment replaced Estimated energy savings Number of LIDAC households served
9 **Residential weatherization** (OHA, ETA, and ODOE)	Use existing and scalable programs to issue: Weatherization assistance, and 2,690 incentives for existing units	Reduced energy use and energy bills in weatherized housing units	Number of incentives issued Number, type, and location of housing units served Estimated energy savings Number of LIDAC households served
10 **Building reuse and space-efficient housing** (DEQ)	Provide pass through funding to 9 local government partners to use existing programs to issue incentives for: 210 building reuse housing units 730 space-efficient housing units 940 new building reuse or space-efficient housing units	Demonstrated feasibility and benefits of low-carbon, affordable and workforce housing	Number of incentives issued Number and location of housing units served (candidates, under construction, and completed) Carbon reductions Project costs, lessons learned and recommended program improvements Number of LIDAC households served

11 **Food waste infrastructure** (DEQ)	Use existing authority to issue: 18-20 equipment purchases 1-2 new commercial facilities 3-4 new community composting programs 22-26 project funded	Increased food waste processing capacity New facilities in LIDAC Increased community-based composting for support of local food production	Number and location of awards Number and location of outreach and engagement activities with LIDAC Costs, emission reductions, lessons learned, and recommended program improvements
12 **Landfill methane controls** (DEQ)	Use existing authority to establish a new, competitive grants program to issue grants to: 3-6 projects with best cost-effectiveness	Associated reduction in CAP/HAP emissions Displacement of fossil fuels (energy recovery) Enhanced staff capacity, knowledge to further reduce emissions from landfills	Number and location of grants Costs, emission reductions, lessons learned, and recommended program improvements

Section 4: Low-income and disadvantaged communities

LIDAC Communities: DEQ used the Council on Environmental Quality's Climate and Economic Justice Screening Tool to identify Low-income and disadvantaged communities throughout Oregon. Please see attached "Areas" file for a map of Oregon showing LIDAC tracts and a complete list of LIDAC census tracts. **Over 28% of Oregon's census tracts, 233 out of 834, are considered disadvantaged.** These communities are particularly vulnerable to the climate impacts and risks that Oregon is facing including drought, wildfire, extreme weather events, flooding, and extreme heat and urban heat island effect. The measures in this grant aim to deliver equitable GHG reductions in and for low-income and disadvantaged communities while also improving public health, promoting economic development, creating jobs, building resiliency, building energy efficient and low-carbon housing, and creating sustainable food systems.

Co-pollutants: Not every measure in this application was able to calculate co-pollutant (CAPs and HAPs) reductions. Cumulative co-pollutant reductions for the measures that did calculate reductions include 3124 tons NO_x, 288 short tons $PM_{2.5}$, 14,437 short tons of SO_2 and 1.9 million short tons for VOCs between 2025-2050. These reductions are considered conservative, and greater reductions are anticipated once the measures are implemented. The measures addressing residential and commercial buildings used EPA's COBRA to calculate health benefits. Short term health benefits savings after implementation for these measures is over $72 million, with the 25-year health benefits over $275 million - less than the cost of implementation for all measures. Methodology on co-pollutant data can be found in the GHG calculation spreadsheets where applicable.

All 12 measures have positive community impacts by reducing GHG emissions and co-pollutants directly or indirectly. Measures positively impact some areas more than others as outlined in the "Areas" Attachment.

Community benefits

Overall community benefit assessment: Staff leads for each measure will submit quarterly reports to DEQ implementation staff for evaluation of the LIDAC population impact to ensure benefits to these communities meet Justice40 goals. This evaluation will use mapping tools, surveys, statistics, tracking distribution, and when possible, direct communication with community members. As stated in Section 3, GHG reduction, CAPs and HAPs information will be reviewed quarterly as applicable, specifically when impacting LIDAC areas, using already developed models. Community Benefits will be based on implementation directly occurring in priority areas determined in the LIDAC analysis. It may be that DEQ will have less detailed information and can only track reductions to zip codes. In that case, DEQ will work with EPA to develop methodology to show distribution of benefits. If any measure is not providing benefits to LIDAC communities at 40% or higher on an annual basis, staff leads will examine ways to adjust implementation or funding.

DEQ also will maintain strong communication with agencies and community groups who work with vulnerable populations to ensure that measure implementation is not causing harm or not leaving out populations that could benefit from this grant. These groups include Oregon Climate

Action Commission, Oregon's Governor's Office, Oregon's Environmental Justice Council, and community-based organizations throughout Oregon.

All measures have direct and indirect positive impacts on climate and vulnerable communities. For more measures specific benefits, please refer to the attached PCAP. Benefits include but are not limited to:

Environmental

- Reduced **criteria air pollutants** from tail pipe emissions such as nitrogen oxides (NOx) and particulate matter ($PM_{2.5}$) resulting in improved air quality and **lower harmful pollutants such as toxic diesel PM.**
- Reduced emissions of co-pollutants from on-site electricity generation and other energy-intensive processes through building efficiency.
- GHG emissions reductions and encourages shifts to lower-carbon production in other parts of the U.S. and internationally through using lower embodied carbon materials.
- Increased supply of cleaner renewable energy to local utilities via landfill gas capture at landfills with energy recovery systems and generation of energy from anaerobic digestion of organic waste, providing additional revenue while displacing the combustion of fossil fuels.

Public health

- Reduced asthma rates, heart attacks and strokes, lung cancer and premature deaths, as the result of improvements in air quality, especially in those living nearest to transportation corridors.
- Reduced noise pollution from increased ZEV adoption.
- Reduced public health risks in local communities Including ability to cool homes during extreme heat events and indoor air filtration from wildfire smoke.
- Improved housing access for low-income and disadvantaged people, a critical need in Oregon.
- Time-efficient delivery of housing through reuse of existing buildings.
- Increased local availability of fresh food from community composting.
- Vehicle-independent living for residents of new housing units located within redeveloped existing downtown buildings and new space-efficient housing located within already developed areas.

Low-income and disadvantaged communities

- Increased access to ZEVs for lower-income consumers will decrease lifetime costs associated with reduced maintenance and fuel costs for ZEVs as they are simpler to maintain and cheaper to operate.
- Prioritized LIDAC communities as recipients of heat pumps lowering barriers to adoption, contributing to reduced long term electricity bills.
- Increased equitable access to housing and housing with lower operating costs (energy burden) in LIDAC, helping address Oregon's critical shortage of affordable housing.
- Greater access to energy efficient multifamily housing for renters.
- Reduced health risks for communities of color and lower income communities, who face increased exposure to transportation pollution from internal combustion vehicles and diesel exhaust.

Other benefits

- Increased EV adoption through creation of a robust public charging network, instilling confidence in consumers that ZEVs can be reliably and conveniently refueled.
- Lowered energy consumption in commercial and residential buildings, generating electric cost savings for building occupants.
- Increased energy efficient multifamily housing in rural areas ineligible for ratepayer incentives.
- Incentive prioritization to women, veteran, and minority-owned businesses for electric vehicle chargers.
- Improved progress towards the state's climate goals through reduction of methane, with associated benefits to communities on the front line of climate change.
- Economic and social reactivation of downtowns by providing new housing in downtown areas through the conversion of underutilized commercial buildings.

Community engagement (10 pts)

DEQ will engage the Environmental Justice Working Group to support meaningful engagement with low-income and disadvantaged communities and collaborate across measures. ODOE will engage with environmental justice leaders and community groups to support program implementation, outreach, and engagement. Measure-specific engagement is highlighted in the following descriptions and will be assessed by number of ongoing actions to engage with organizations and residents of disadvantaged communities, and other interested parties, and quarterly reporting on lessons learned or barriers for engagement. Feedback from engagement activities will be considered throughout the grant and assessed quarterly to ensure community feedback is incorporated into implementation process where possible and to inform future work.

Table 3: Measure specific community engagement activities

Measure	Community Engagement Activities
1: Light duty electric vehicle rebates: Charge Ahead	**Oregon's EV rebate and Community Charging Rebate (CCR) program are currently working with contractors to engage with LIDAC communities as indicated by EJ Screen and EPA's Climate and Economic Justice Screening Tool to promote their programs. The contractors will continue to coordinate with community-based organizations to better understand the barriers to EV adoption and to share information about the Charge Ahead Rebate and the CCR. Other efforts include building capacity for communities that have not participated in the program and developing innovative and culturally appropriate approaches to encourage program participation. Additionally, the engagement efforts in LIDAC communities support increased access to ZEVs, which often have a higher purchase price, but a lower lifetime cost, therefore providing more purchase power upfront so longer term cost savings will be realized.**
2: Light duty electric vehicle charging: Community Charging Rebates	
3: Medium and heavy-duty electric vehicle rebates	**The Medium- and Heavy-Duty ZEV Rebate program is designed to ensure equitable access to rebates by requiring that at least 40% of the funds be allocated to vehicles located in communities disproportionately burdened by diesel pollution. DEQ will conduct increased engagement to BIPOC fleets and owners of fleets operating in disadvantaged communities to ensure these goals are**
4: Medium and heavy-duty electric vehicle grants	

Measure	Community Engagement Activities
5: Medium and heavy-duty vehicle charging infrastructure grants	**met. Additionally, both the Diesel Emissions Mitigation and Oregon Zero Emissions Fuels grant programs prioritize projects located in LIDAC communities based on individual project's ability to reduce diesel emissions in areas with the highest diesel emissions, vulnerable populations, and population density. DEQ has begun development of program materials and applications in alternative languages, including Spanish, to enhance program accessibility. The Medium- and Heavy-duty electric vehicle grant program provides technical assistance for entities to apply for the grant, especially those vehicle owners in disadvantaged communities.**
6: Incentives for building more energy efficient housing	**OHCS regularly hosts public meetings, trainings, and advisory calls to gather input and inform on program design and participation. The OR-MEP program also convenes a DEI coalition advisory committee to advance racial justice outcomes by prioritizing investments in communities of color. ETO convenes diversity and conservation advisory councils that provide community perspectives and advise on programs, policies, and budgets.**
7: Commercial building performance standards incentives	**For Measure 7, ODOE is engaging with a rules advisory committee with broad and diverse representation and is hosting a series of public meetings to inform the design of program rules. For Measure 8, ODOE convened several public hearings to gather public input on the community and rental home heat pump programs. ODOE's community engagement work for both measures is supported by a dedicated team that includes a community equity and inclusion analyst and community navigator to exchange information and match needs with program opportunities in service to community goals.**
8: Heat pump incentives	
9: Residential weatherization	**OHA convened a Healthy Homes Rules Advisory Committee reflecting diverse community perspectives, income and employment demographics, and housing experiences. ETO convenes diversity and conservation advisory committees that provide community perspectives and advise on program implementation, including weatherization assistance.**
10: Building reuse and space-efficient housing	**In 2023, DEQ conducted listening sessions in urban, rural, and remote communities across Oregon and heard that the need for affordable housing that meets community needs is a top priority. While defining this measure, DEQ conducted extensive outreach and coordination with local governments to confirm specifics on housing needs and gather advice on how to structure the program for success locally. Nine local governments are committed partners (see Letters of Commitment). All the forecasted 940 new housing units will remain affordable, as defined by state programs, for at least five years, and an estimated 50% of new housing units will be in LIDAC communities. DEQ will maintain communications with local partners during implementation to inform future low-carbon, affordable housing programs and policies.**
11: Food waste infrastructure	**To inform this measure, DEQ incorporated feedback obtained from local governments, community-based groups, and statewide non-profits as part of a statewide study of food systems in 2022-2023. DEQ has also applied feedback from local communities interested in the benefits of localized composting and associated food production**

Measure	Community Engagement Activities
	(see letters of commitment) and from communities and waste processors on the challenges associated with increased organics processing capacity. DEQ maintains contact with these groups as part of regular program outreach and will explicitly include LIDAC communities in specific planning for community composting grants.
12: Landfill methane controls	**To inform this measure, DEQ solicited feedback from several of the state's landfill operators and local governments in several Oregon counties serving LIDAC populations. In addition, DEQ has decades-long partnerships with local governments across the state that operate and/or regulate Oregon landfills and will continue to work closely with them to implement this measure and meet community environmental and health priorities.**

Section 5: Job quality

Oregon is known for high quality labor standards, including worker protections and the new Paid Leave Oregon program, so jobs created through the implementation of these measures will be living-wage and high-quality ones. These measures will support equitable workforce development by funding projects in LIDAC communities throughout Oregon, where job training and employment opportunities tend to be limited. Examples of jobs created include: electrical engineering, electricians, and EV mechanics to support EV charging infrastructure and EV maintenance; architects, mechanical-electrical-plumbing engineers, and construction trades to design and build housing; and home energy performance specialists, HVAC engineers and technicians to design and install heat pumps and weatherization improvements. Jobs created directly at the Department of Environmental Quality will be union represented and will receive comprehensive benefits including employer-paid healthcare, retirement contributions, and time off, as well as opportunities for professional training and advancement. Diversity and equity criteria are considered in all state agency hiring processes. All subawards will include Davis-Bacon and Related Acts and Certification Office for Business Inclusion and Diversity requirements for women-, minority- and veteran-owned businesses. Anticipated workforce impacts related to each sector are summarized below:

Transportation: All measures contribute to an increased need for a skilled workforce, including engineers specializing in battery technology, software developers, and technicians to service the diagnostics of the vehicles. **Measures supporting light-duty EVs** and charging stations also increase the need for Electric Vehicle Infrastructure Training Program certified journeymen electricians, particularly in rural areas of the state, and EV charging technicians to maintain and repair the charging network. **Medium and heavy-duty vehicles measures** will create new jobs for planning services and technical assistance to fleets; maintain and repair electric trucks and buses at dealerships and after-market repair shops; and operate end-of-life battery recycling and reuse services. Workers will also be needed for installation, commissioning, and maintenance of new electric distribution and charging infrastructure.

Building: All measures contribute to an increased need for skilled family-wage construction contractors, energy auditors, HVAC engineers and technicians, installers of energy efficient and energy saving building materials and equipment, and others to support accelerated build-out of new energy efficient housing and accelerated energy efficiency retrofits of existing buildings.

The state is pursuing federal funding through the IRA and IIJA to support workforce development in this area.

Materials and waste: Building reuse and space-efficient housing measures increase number of jobs in the building design, engineering and construction. **Food waste infrastructure** measures increase the number of jobs in the composting industry for operations of different sizes. Increased compost use in agricultural production may reduce use of chemical fertilizers and pesticides, resulting in reduced toxics exposures among agricultural workers. **Landfill methane controls** measures generate employment in landfill gas engineering, monitoring, reporting, and maintenance. The work activity associated with monitoring and maintenance will occur in more rural areas.

Section 6: Programmatic capability and past performance

DEQ has a long relationship with EPA and has been managing federal assistance agreements for decades. Annually, DEQ manages approximately 44 EPA grants, and maintains over 50 inter-agency and inter-governmental agreements. DEQ has extensive grant experience across the agency in air, land, and water and has leaned on this expertise in the creation of this application. DEQ has a comprehensive training for all staff who manage contracts or agreements and will ensure that any staff working on CPRG efforts will receive this training. In addition, DEQ has budget and procurement offices that provide support, financial reporting, and assist with monitoring transactions, contracts, subawards, and programmatic systems to ensure compliance with federal and state laws, states policies and procedures, and the unique terms and conditions of the federal award agreement. Examples of DEQ grants:

Assistance agreement number: 5D-02J38701

Project title: Climate Pollution Reduction Planning Grant

This award agreement supports the creation of the Priority Climate Action Plan (PCAP) and the Comprehensive Climate Action Plan (CCAP) which is to be delivered to the Environmental Protection Agency (EPA) and will cover the entire State of Oregon, including the 9 federally recognized Tribal nations. The development of the PCAP and CCAP, and a Status Report will be guided by extensive previous and current efforts to both reduce climate pollution in Oregon and engage partners and community members in these critical climate conversations. Grant performance and reporting: This grant was awarded on June 1, 2023, and it is anticipated that DEQ will be able to meet all reporting requirements of the agreement. DEQ has submitted two quarterly reports prior to their due dates with the most recent being submitted January 2024. DEQ also submitted the first grant deliverable, the Priority Climate Action Plan, early to EPA on February 28, 2024. To date DEQ has expended approximately $104,000 of the $3,000,000 award and is working with local jurisdictions, tribal nations, and environmental justice communities throughout Oregon to establish sub award agreements. DEQ anticipates fully spending the appropriated funding of $3 million by the grant completion date of May 2027.

Contact: Morgan Schafer, Climate Pollution Investments Coordinator, morgan.schafer@deq.oregon.gov, 503-229-6251

Assistance agreement number: OX-02J29301

Project title: Data to Action: Building a Collaborative Community Framework for Cleaner Air

This competitive award agreement supports community and local efforts to monitor their own air quality and to promote air quality monitoring partnerships between communities and tribal, state, and local governments that: leverage existing air quality expertise, expand use of community monitoring groups and other approaches that give the community a voice in the monitoring of the air quality, and build a foundation of trusting relationships and enhanced understanding from which sustainable solutions to community air pollution problems can be found. Specifically, ODEQ will work with communities, universities, and local and state agencies to co-design an equitable and sustainable community monitoring framework for collaborative action. This framework will be used to empower communities - prioritizing underserved, disadvantaged and overburdened communities – to monitor and leverage the data to inform action that will improve their local air quality.

Grant performance and reporting: This grant was awarded on April 1, 2023, and it is anticipated that DEQ will meet all reporting requirements of the agreement. Adhering to reporting requirements, DEQ has provided quarterly reports to EPA in June, September, and December 2023. This grant provided approximately $500,000 in grant funding and DEQ anticipates it will expend the entire amount before the grant completion date of March 2026. The grant also includes $900,000 of in-kind funding from state funds for personnel costs and related expenses and to date DEQ has spent $61,000 of those funds on grant activities.

Contact: Lindsey Meyer, Project Manager, lindsey.meyer@deq.oregon.gov, 503-803-5076

Assistance agreement number: TA-02J48801

Project title: Klamath Falls Targeted Airshed Program 2022

This competitive award agreement provides funding to continue to support Klamath County Public Health and South-Central Oregon Economic Development District to reduce PM2.5 from wood smoke through a range of programs, including woodstove change-out and home weatherization that improve heating efficiency and reduce heating costs for residents. The grant strengthens existing Oregon DEQ, Klamath County Public Health and the South-Central Oregon Economic Development District's efforts to deliver a comprehensive program that reduces emissions from residential woodstoves in the Klamath Falls area.

Grant performance and reporting: This grant was awarded to DEQ in late October 2023, and it is anticipated that DEQ will be able to meet all reporting requirements of the agreement. DEQ is currently working with Klamath County Public Health and South-Central Oregon Economic Development District to establish sub award agreements. DEQ anticipates fully spending the appropriated funding of $4.6 million by the grant completion date of September 2028.

Contact: Russell Graham, Natural Resource Specialist, russell.graham@deq.oregon.gov, 503-933-7515

Assistance agreement number: TA-01J88601

Project title: Klamath Falls Targeted Airshed Program

This competitive award agreement enables Klamath County Public Health and South Central Oregon Economic Development District to reduce PM2.5 from wood smoke through a range of programs, including woodstove change-out and home weatherization that improve heating efficiency and reduce heating costs for residents. The grant strengthens existing Oregon DEQ, Klamath County Public Health and the South Central Oregon Economic Development District's efforts to deliver a comprehensive program that reduces emissions from residential woodstoves in the Klamath Falls area.

Grant performance and reporting: DEQ has complied with all reporting requirements and has submitted quarterly reports to date to EPA. It is anticipated that all funding will be expended, and all objectives of the agreement will be met prior to the grant expiration in November 2025.

Contact: Emil Hnidey, Agency Rules Coordinator, emil.hnidey@deq.oregon.gov, 503-229-5946

Non-EPA project

Project Title: VW Mitigation Funds

Oregon DEQ was allocated almost $73 million in funding from the Environmental Mitigation Trust Fund, which is subject to the agreement between the Unites States and Volkswagen Group of America, Inc. With the allocated funding, the Oregon Legislature in 2019 authorized the creation of a grant program supporting businesses, governments, and equipment owners in replacing older and more polluting diesel engines with new, cleaner technologies, zero emissions equipment, and exhaust control retrofits. DEQ established the grant program, rules for awarding funding to eligible projects in Oregon, and disburses grants to awardees as a reimbursement of eligible project costs while managing all program compliance requirements. Among other priorities, the program supports projects seeking to comply with vehicle phase out deadlines in Multnomah, Washington, and Clackamas counties. Many of the grant awards are concentrated in those areas of the state, where diesel pollution is the most severe and environmental justice communities are negatively impacted.

Grant performance and reporting: DEQ has submitted regular semi-annual reports to the Trustee and will continue to do so through the expenditures of all allocated funding. To date, DEQ has received $52 million of the allocated $73 million and issued those funds to grantees. We expect to fully obligate all funds in 2025 and expend all funds prior to the anticipated end of the program in 2027.

Contact: Gerik Kransky, Operation and Policy Analyst, gerik.kransky@deq.oregon.gov, 503-229-5177

DEQ has a strong history of meeting reporting requirements under federal award agreements including satisfactory and prompt reporting on progress towards the expected outcomes and deliverables. In addition to DEQ's grant administration experience, our partner agencies (ODOE, ETO, ODOT, OHA, and OHCS) are highly qualified and experienced to support federal grants and are committed to support implementation of CPRG funding through established protocols and systems. Partner agencies will leverage internal structures to manage, oversee, and report on these funds.

Reporting requirements: For each measure, a staff lead will be assigned to track and report on all performance measures on a quarterly basis. These performance measures will be reviewed with the DEQ's primary point of contact for the CPRG program. A quarterly meeting of all leads will be held to report out on successes and challenges, collaboratively address any

issues that arise, and adjust implementation plans as necessary to stay on track to meet the performance measures. If any measure is determined to be off track for meeting performance measures, an additional working group will be formed to address specific challenges and inform EPA.

Staff expertise: Oregon has developed this application through extensive collaboration with technical staff and partner agencies. The expertise in developing this application spans climate, energy, land, public health, housing, criteria pollution, engagement, outreach, and environmental justice. In addition, DEQ has extensive expertise in grant administration and contracting. As the agency with the longest and most comprehensive partnership with the EPA, DEQ was chosen to lead the State of Oregon's CPRG efforts, both planning and implementation applications. DEQ is committed to ensuring that this grant is prioritized and provided the necessary resources for success.

DEQ is responsible for protecting and enhancing Oregon's water, air, and land quality; managing the proper disposal of solid and hazardous wastes; providing assistance in cleaning up contaminated properties; and enforcing Oregon's environmental laws. Facing increasingly complex environmental problems, DEQ's role has expanded to fight climate change with policies to reduce greenhouse gas emissions, prevent toxic chemical releases and reduce risks from toxins already in the environment. DEQ also provides communities with technical assistance. DEQ employs approximately 800 scientists, engineers, geologists, toxicologists, inspectors, legal and policy staff, technicians, community liaisons, communications professionals, managers, and support staff across the state. This grant allows for professional growth and development of existing and new employees ensuring Pacific Northwest as a national leader in addressing the climate crisis.

DEQ's Office of Greenhouse Gas Programs will lead the collaborative CPRG efforts and be responsible for managing the grant and being in close communication with EPA throughout the process. DEQ's Transportation Strategies Section will lead implementation of Measures 1, 3, 4, and 5. The Oregon Department of Transportation will lead Measure 2. DEQ's Materials Management Program will lead implementation of Measures 10, 11, and 12. Partners at Oregon Department of Energy, Oregon Health Authority, Oregon Housing and Community Services, and Energy Trust of Oregon will lead the building related implementation measures 6, 7, 8, and 9. Resumes from all key staff in these teams are included in the attachment and represent the expertise and readiness for Oregon to successfully implement this grant, as well as leverage this opportunity and collaborations toward future work.

Section 7: Budget

DEQ has designed this grant to obligate the majority of funds within the first 12-18 months of award. Implementing agencies will submit quarterly reports that include costs (obligated and expended), incentives/rebates issued and reimbursement requests. All budget information will be associated with GHG and co-pollutant benefits as well as positive impacts to LIDAC communities via quarterly reports.

If reductions do not match grant goals, agency leads will determine options to adjust processes to meet goals and inform the EPA grant coordinator. In addition, all implementing agency staff leads will participate in quarterly meetings to review and mitigate issues as they arise to keep grant *performance* on track. DEQ has budget, accounting and procurement offices that provide support, financial reporting, and assist with monitoring transactions, contracts, subawards, and programmatic systems to ensure compliance with federal and state laws, states policies and

procedures, and the unique terms and conditions of the federal award agreement. DEQ will establish a dedicated team from the budget, procurement and accounting offices to support all grant activities throughout the lifecycle of the grant.

In the attached budget narrative, we have included a break-down per measure as well as for DEQ's grant administration. **DEQ will ensure proper management and controls of grant funds through the following proactive practices:**

- Required staff training and resources for any staff managing a contract over $150,000.
- Multi-step processes for signature on expense justifications.
- Internal resources such as the Chief Audit Executive.
- Quarterly reporting required from all Measure leads.
- Annual audit of reporting by CPRG program lead.
- Organized and shared system for collecting and tracking grant expenditures.
- Shared calendar for meeting all reporting requirements.

Reasonableness of costs: To assess reasonableness of costs, DEQ staff compared the cost effectiveness of the measures in this application to 10 PCAPs published by other states. Overall, DEQ has a higher cost effectiveness, more reduction per dollar, than many other states as we will utilize expertise and program scaffolding to aid in quick and accurate implementation. Oregon has developed this budget through extensive collaboration with implementation partner agencies, local partners, and the Governor's Office. Detailed budgets were developed with lead staff on each proposed measure as well as the budget office. As Oregon has already seen great success with implementation on many measures, the budget details come from experience including grants, incentives, staff time, and partnerships. The attached budget spreadsheet and budget narrative appendix go into detail on costs related to each measure and category. For measures that are impacted by the Buy America Building America and Davis Bacon and Related Acts, costs to ensure compliance have been included.

Table 4: Summary for the application budget categories by year

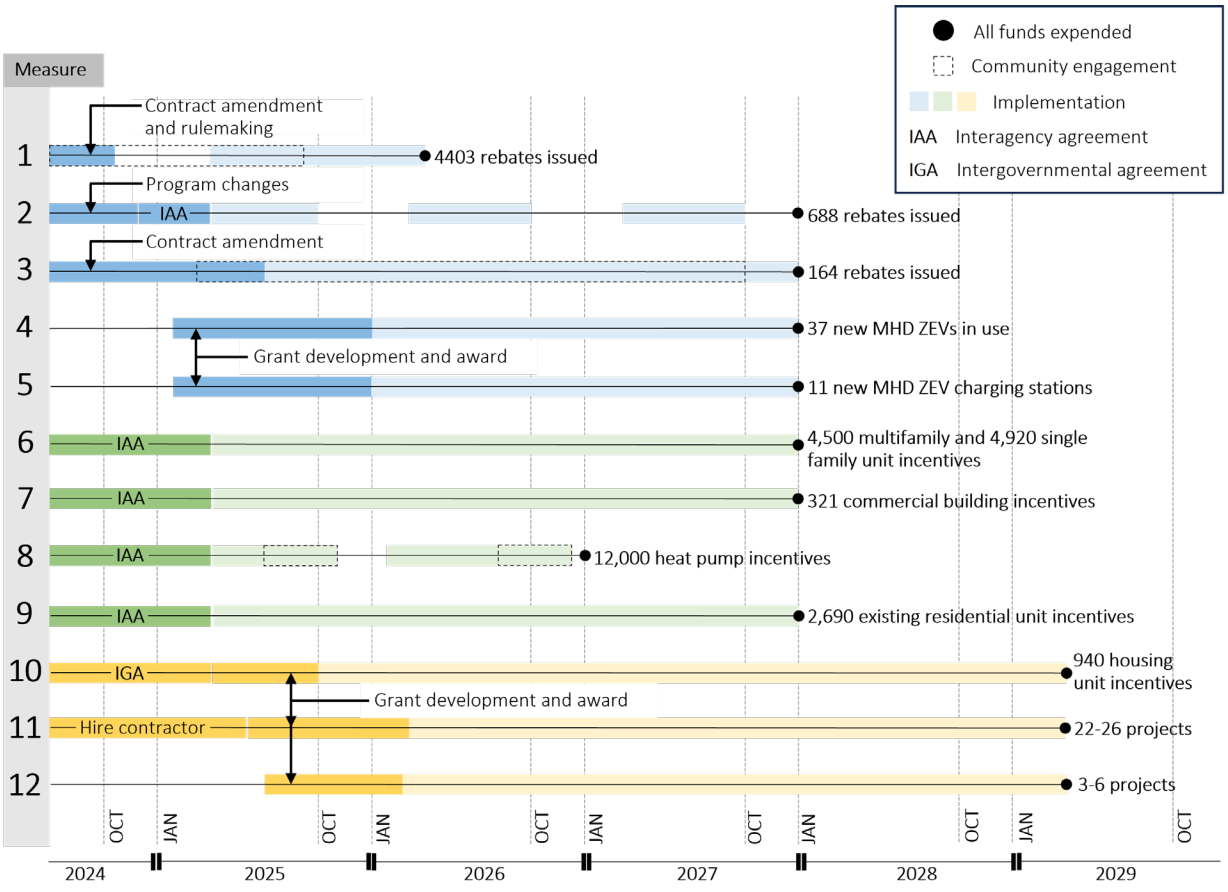
BUDGET BY MEASURE				
Measure Number	**Measure Name**	**Total Cost**	**% of Total**	**Implementor**
0	DEQ Climate Equity and Resilience Through Action Admin	$3,671,870	*2%*	DEQ
1	*Light Duty Rebates (Transportation)*	*$30,996,336*	*16%*	DEQ
2	*Light Duty Chargers (Transportation)*	*$10,900,601*	*6%*	ODOT
3	*Medium Heavy Duty Rebates (Transportation)*	*$14,843,772*	*8%*	DEQ
4	*Medium Heavy Duty Grants (Transportation)*	*$5,989,342*	*3%*	DEQ
5	*Medium Heavy Duty Chargers (Transportation)*	*$3,020,390*	*2%*	DEQ
6	*Incentives for Building Energy Efficient Housing (Buildings)*	*$21,290,504*	*11%*	ODOE/OHCS/ETO
7	*Building Performance Standard (Buildings)*	*$12,092,375*	*6%*	ODOE
8	*Heat Pump Program (Buildings)*	*$25,256,830*	*13%*	ODOE
9	*Residential Weatherization (Buildings)*	*$8,055,589*	*4%*	OHA/ETO/ODOE
10	*Building Reuse and Space Efficient Housing (Materials and Waste)*	*$25,585,015*	*13%*	DEQ
11	*Food Waste Infrastructure (Materials and Waste)*	*$28,867,937*	*15%*	DEQ
12	*Landfill Gas Controls (Materials and Waste)*	*$6,611,235*	*3%*	DEQ
Total		***$197,181,796***	***100%***	

Timely expenditure of funds: Figure 2 highlights major milestones showing timely fund obligations and expedient grant implementation. Oregon's approach includes an emphasis on spending in the first three years to ensure that funds are expended and reported well within the 5-year grant period. DEQ and our partners are confident in being able to expend the full amount of the requested funds within this time-period. This budget includes both existing staff as well as adding numerous additional positions throughout the implementation timeframe to support timely expenditure and comprehensive grant management. Added staff will be within the Office of Greenhouse Gas Programs, the Materials Management Program, the Budget Office, and Procurement.

The measures selected to maximize GHG reductions in this application, predominantly entail further funding of existing programs, many of which have well established implementation systems, **less than 2% of the entire budget is allocated towards personnel and indirect services**.

Quarterly reporting will allow for regular opportunities for cost analysis on expenditures and course correction if budget categories are being under or over met. This budget leverages millions of other committed state funds.

Figure 2: Milestones and Timeline



The measures in this application are those that best support the goals stated in EPA NOFO- they are ambitious and we have certainty they will achieve substantial GHG reductions by 2030; they achieve community benefits by prioritizing low income and disadvantaged communities, reducing energy bills, and improving air quality; complement other funding sources and use existing program structures to reduce implementation costs and maximize reductions; are innovative and support programs that can continue in communities and across the state after the completion of this grant.