

Executive Order 20-04

Integrating Climate Change

Operations, Planning, Budgeting, Investing, Fleet and Procurement

Report to Governor Kate Brown

September 15, 2020





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INTRODUCTION

On March 10, 2020, Governor Brown signed Executive Order (EO) 20-04, *Directing State Agencies to Take Actions to Reduce and Regulate GHG Emissions*. The Department of Administrative Services (DAS) is among the 16 agencies, boards and commissions specifically identified as subject to the directives set forth in the EO. The EO calls for Oregon to reduce its greenhouse gas (GHG) emissions at least 45 percent below 1990 levels by 2035, and at least 80 percent below 1990 levels by 2050.

Specifically, state agencies are directed to take the following actions:

- A. **GHG Reduction Goals.** Agencies shall exercise any and all authority and discretion vested in them by law to help facilitate Oregon's achievement of the GHG emissions reduction goals set forth in paragraph two of the EO.
- B. **Expedited Agency Processes.** To the full extent allowed by law, agencies shall prioritize and expedite any processes and procedures, including but not limited to rulemaking processes and agency dockets, that could accelerate reductions in GHG emissions.
- C. **Agency Decisions.** To the full extent allowed by law, agencies shall consider and integrate climate change, climate change impacts and the state's GHG emissions reduction goals into their planning, budgets, investments and policy making decisions. While carrying out that directive, agencies are directed to:
 - (1) Prioritize actions that reduce GHG emissions in a cost-effective manner;
 - (2) Prioritize actions that will help vulnerable populations and impacted communities adapt to climate change impacts; and
 - (3) Consult with the Environmental Justice Task Force when evaluating climate change mitigation and adaptation priorities and actions.

Furthermore, DAS is directed to take the following actions:

- (4) Procurement Model for Zero-Emission Vehicles. DAS is directed to develop a statewide policy and plan for state agencies to follow for procuring zero-emission vehicles (ZEVs), which local governments and special government bodies may use as a model program for furthering adoption of ZEVs for their fleets. The model program shall provide for a rate of procurement of ZEVs consistent with the findings and goals set forth in ORS 283.398 and the provisions of ORS 283.327. The model program may provide for DAS to participate in, sponsor, conduct or administer cooperative procurements in accordance with ORS 279A.200 to ORS 279A.225, under which DAS, local government and special government bodies may procure ZEVs.
- (5) **GHG Implications of Contracting.** DAS is directed to review existing state procurement laws and practices to identify potential improvements that can reduce GHG emissions, consistent with the GHG reduction goals set forth in paragraph two of the EO. DAS shall provide a report to the Governor no later than September 15, 2020, detailing options.
- (6) **GHG Reduction Goals and Electrification Goals.** DAS is directed to support the state in meeting the GHG reduction goals set forth in paragraph two of the EO, and the ZEV adoption goals set forth in Senate Bill (SB) 1044 (2019), through the rapid

conversion of state fleets to ZEVs and the expansion of electric vehicle (EV) charging infrastructure for public buildings. DAS shall provide a report to the Governor no later than September 15, 2020, detailing its plan.

The purpose of this report is to:

- Document how DAS is already integrating climate considerations (both mitigation and adaptation) into planning, budgets, investments and policy making decisions, and where there are opportunities to further implement actions to address climate mitigation and adaptation to comply with EO 20-04.
- Provide specific responses regarding a model for procuring ZEVs, the GHG implications of contracting and GHG reduction and electrification goals.

A. DAS AGENCY-WIDE PROGRESS AND OPPORTUNITIES

DAS has already taken a number of steps to integrate climate change into policy, planning and budgets. Many of these are outlined in more specifics under each division or section below. Agency-wide activities include the following:

- DAS Energy Policy. In 2018, DAS adopted an agency Energy Policy. This Policy directs the agency to consider energy efficiency in its projects, planning, staff education and operations, which also helps to reduce GHG emissions associated with building operations.
- Statewide Energy and Resource Conservation Policy. To comply with EO 17-20, in 2020 DAS adopted a revised statewide policy (<u>107-011-</u><u>010</u>) directing agencies to reduce and efficiently use energy, water and other resources in operation of owned and leased facilities. The Policy's purpose includes reducing GHGs. The Policy addresses energy planning, HVAC systems, lighting, other building operations, commissioning and user engagement, among other topics. The Policy also serves to implement the Statewide Plug Load Strategy

		NUMBER	SUPERSEDES		
DAS ADMINISTRATIVE					
		107-011-010	107-011-010		
			July 1, 2009		
		EFFECTIVE DATE	PAGE NUMBER		
		February 12, 2020			
STATEWIDE POL	ICY	REVIEWED DATE February 12, 2020	Pages 1 of 11		
Division		REFERENCE AUTHORITY			
			Executive Order 06-02; 17-20; and 15-09		
Enterprise Asset Manage Policy Owner	ement	ORS 276.900; and 45	59A.010		
Policy Owner					
Operations and Maintena	ince				
SUBJECT	inco	APPROVED SIGNATURE			
Energy and Resource Co	nservation		Chief Operating Officer		
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DAS Energy and Resource Conservation Policy

completed in 2019 by DAS and the Oregon Department of Energy (ODOE) to comply with EO 17-20.

• Oregon Sustainability Board (OSB). DAS supports the OSB, which in 2019 developed guidance in its revised <u>sustainability plan guidelines</u> for how agencies can address climate mitigation as well as equity in their sustainability plans. Over 20 agencies currently have sustainability plans. The OSB is also collaborating with DAS to develop further tools and guidance for how agencies can measure and manage GHG emissions in their operations, and to train agencies on use of these materials. The tools and guidance will help agencies track their GHG emissions over time, set goals and select the most impactful strategies to reduce emissions.

- **DAS Sustainability Plan.** The 2018 <u>DAS Sustainability Plan</u> contains a number of goals and strategies directly and indirectly related to reducing GHGs. It sets agency GHG reduction goals to align with those of the state of Oregon and identifies a number of actions to reduce GHGs in building operations, new construction, fleet, materials, staff engagement and more.
- Key Performance Measure (KPM). In 2020, DAS adopted a new KPM for GHGs. Goals in the KPM align with the state of Oregon goals and EO 20-04, and include GHGs in fleet and building energy use.
- DAS PS Sustainable Procurement Program. In 2019, DAS Procurement Services launched a pilot of a sustainable procurement program. This program will ensure that sustainability, including GHG reduction, is considered throughout the procurement process. The program will prioritize implementation of EO 20-04. The program also includes implementation of standards for the purchase of energy and water efficient equipment as directed by EO 17-20 and outlined in a 2019 report.

B. DIVISION AND SECTION-SPECIFIC OPPORTUNITIES

1. Budget and Management

Staff from the DAS Chief Financial Office review agency budgets and make recommendations to the Governor. Analysts also work with state agencies throughout the entire budget process by monitoring budget performance, approving or denying allotment of agency funds and analyzing agency program and staffing requests.

Budget and Management opportunities

 Help provide oversight of budgets and investments of agencies identified in EO 20-04 to ensure that climate change impacts are included and addressed.



North Mall Office Building

2. Capital Finance and Planning

The DAS Capital Finance and Facilities Planning section of the Chief Financial Office has direct responsibility for managing several independent financing programs, coordinating statewide budgeting for bonds and capital construction and coordinating statewide facilities planning. The Office is responsible for approval of state Article XI-Q bonds and other financing agreements. XI-Q bonds are the primary source for financing facilities and capital equipment. Capital equipment may include HVAC and lighting equipment, which can impact energy use and by association GHG emissions.

The Chief Financial Office is also responsible for establishing statewide financial policies and developing the Governor's Recommended Budget. They assist executive branch agencies with budget development, oversee statewide accounting and financial reporting, provide business services internally to DAS and manage capital financing and facilities planning.

Chief Financial Office opportunities

• Provide oversight and support to agencies that are directed to address climate change and climate change impacts in their budgeting and investments.

 Work with the Enterprise Asset Management Division to help ensure that capital construction, bonding and facilities planning address climate change mitigation and adaptation where feasible through high-performance, low carbon and carbon neutral-ready design for new projects and major renovations.

3. Chief Human Resources Office

The Chief Human Resources Office is responsible for establishing statewide human resource policy and enterprise-wide policy leadership necessary to maintain a reliable and qualified workforce for the state of Oregon. The Office's centralized policy functions enable executive branch agencies to share resources and expertise with which to manage their human resource capital in a cost-effective way.

Chief Human Resources Office opportunities

 The Office has realigned policies, developed tools and resources and will continue to encourage, to the greatest extent possible, employees to work remotely. The Office, in collaboration with Enterprise Information Services, has developed an online HUB (https://www.oregon.gov/das/HR/Pages/wORk.aspx) that provides information and resources for managers and employees around remote working. The HUB is one of the platforms to continue to promote remote work as one way to reduce GHG emissions by eliminating daily commutes.

4. DAS Information Technology

DAS Information Technology (IT) is the service delivery organization charged with providing application and desktop support to all DAS divisions and many client agencies of DAS, including the Governor's Office. DAS IT is responsible for providing appropriate technology service delivery to support DAS in the accomplishment of its mission. In 2019, DAS revised its power management policy to incorporate energy efficiency and conservation in computer and monitor settings.

DAS IT opportunities

- Continue to monitor and manage power consumption of computers and monitors through device settings, user engagement and other technologies.
- Ensure that energy efficiency standards for procurements that include IT equipment comply with DAS Procurement Services standards established by the directives of EO 17-20.

5. Enterprise Asset Management: Fleet and Parking Services

The Fleet and Parking Services program manages 4,300 DAS-owned vehicles; provides policy oversight to more than 3,000 vehicles owned by other agencies; and manages 4,500 parking spaces in Salem, Portland and Eugene. Fleet and Parking Services rents vehicles on a daily and long-term basis to about 100 state and local agencies, and promotes alternative modes of transportation for state employees. Fleet and Parking Services currently administers a <u>Statewide Fleet</u> <u>Management Policy</u> that directs agencies to utilize the most fuel efficient vehicle appropriate for planned travel. Fleet and Parking Services also manages a commuter



Nissan Leaf in DAS fleet

program that offers several incentives for employees to use transit and carpool.

Fleet and Parking Services opportunities

Mitigation

- Revise and strengthen statewide policy regarding use of EVs, hybrids and other fuel efficient vehicles as first priority for agency travel needs.
- Provide technical assistance to state agencies on installation of EV charging infrastructure and opportunities to adopt ZEV vehicle options. Collaborate with ODOE, the Oregon Department of Transportation (ODOT) and Department of Environmental Quality (DEQ) to develop a statewide EV guidebook as part of the Oregon Electric Vehicle Action Plan developed by the Zero Emission Vehicle Interagency Work Group established by EO 17-21.
- Continue to increase the average fuel efficiency of the state fleet through acquisition of additional hybrid vehicles and EVs.
- Coordinate with agency sustainability and IT programs to explore post-Covid opportunities to reduce overall vehicle miles traveled in the state fleet with meeting teleconferencing and remote work.
- Collaborate with Portland General Electric (PGE) and other partners to implement expanded EV charging infrastructure at DAS parking facilities to comply with EO 17-21.
- Investigate opportunities to reduce the use of high Global Warming Potential (GWP) refrigerants in vehicle cooling systems.

Additional mitigation opportunities associated with procurement of EVs and electrification are addressed in Sections D and F of this report.

Adaptation

 Collaborate with agencies on sharing of vehicles (fleet contingencies) in extended fire seasons and operational adjustments (resource sharing, may include ODOT during snowfall events) to assure the necessary amounts and types of vehicles are available during increasingly prolonged fire seasons.

6. Enterprise Asset Management: Operations & Maintenance

Building services for state agency tenants are provided by several groups within DAS that include repair, maintenance and tenant improvement services for facilities and grounds. The Operations and Maintenance (O&M) program provides electrical, carpentry, HVAC, paint, signage, plumbing, custodial, landscape maintenance and elevator services. The Building Access Program manages the keycard systems, locksmith and security surveillance systems. O&M also coordinates DAS energy management efforts, including participating in the Energy Trust of Oregon's Strategic Energy Management program.

Operations and Maintenance opportunities

Mitigation

- Continue to pursue high-performance energy targets for DAS buildings in compliance with EO 17-20, with a goal of achieving targets by 2022.
- Coordinate with Planning and Construction Management on capital projects entailing lighting and HVAC upgrades to pursue the highest efficiency equipment using a life-cycle costing approach.
- Ensure compliance with DAS Procurement energy efficiency standards for equipment that includes lighting and HVAC equipment, as directed by EO 17-20.

- When upgrading HVAC equipment, utilize refrigerants with a low GWP wherever feasible.
- Ensure proper installation and maintenance of HVAC to minimize refrigerant loss and optimize system efficiency.
- Perform regular commissioning and other building "tune-ups" in compliance with the Statewide Energy and Resource Conservation Policy to optimize efficient use of energy in buildings.
- Phase in use of electric landscape maintenance equipment to replace fossil fuel-powered equipment as new or replacement equipment needs arise.
- Transition to lower carbon fertilizers in landscaping practices.

Adaptation

- Use climate data to integrate adaptation measures when planning deferred and preventative maintenance projects.
- Work toward a goal of having all buildings ready for power loss events and have all buildings powered for 'life safety'.
- Coordinate with utilities to shed or share energy loads during peak power use.

7. Enterprise Asset Management: Planning and Construction Management

The DAS Planning and Construction Management Division provides construction project management for new construction and building remodels to state agencies throughout Oregon. Depending on the project type, some current projects on a case-by-case incorporate GHG reduction efforts through energy efficient design, selection of materials with lower embodied carbon, waste diversion, green building certifications or similar efforts. The DAS Construction Standards also incorporate elements such as efficient lighting design to help increase energy efficiency and lower GHG emissions associated with building operations.



Energy efficiency upgrades at the State Data Center.

When designing for new construction or building renovation projects, Planning and Construction Management will, as feasible, integrate climate mitigation and adaptation features into project design.

Planning and Construction Management opportunities

Mitigation

- Develop sustainable design guidelines for all new construction and major renovations that direct, where feasible, applicable projects to be designed as "carbon neutral ready" per EO 17-20.
- Develop standards and guidelines to address embodied carbon in the selection of building materials and specify lower-carbon materials where feasible.
- Revise construction standards to align with new sustainable design guidelines regarding construction materials; mechanical, electrical and plumbing; material diversion from landfills; and other topics as applicable.
- Conduct a renewable energy feasibility study for DAS assets (buildings and land) to identify technologies, locations and financing mechanisms to increase use of renewables.

• Continue to train staff on guidelines and standards, working with contractors to achieve results, and documenting outcomes.

Adaptation

- Partner with the Oregon Climate Change Research Institute (OCCRI) and other organizations to train employees on climate trends and adaptation responses in building design and construction. Detail future climate hazards for consideration during construction projects.
- Integrate climate change resilience data during the design stage when right sizing HVAC equipment in new construction.
- Identify and inform critical building retrofits during the design stage using climate data to identify buildings in areas of high risk.
- Design critical facilities (such as the State Data Center) to have uninterruptible power sources (UPS) to provide continuity of service in case of power loss. UPSs can also be used by local utility companies to share load during peak power use.
- During major renovations, retrofit building envelopes to handle increased exposure to weather events including insulation, window treatments and roof replacements; these improvements help reduce load on building energy systems.
- During renovations, retrofit roof gutters and storm water lines for episodic heavy rain events. Design stormwater retention basins or structures per applicable codes and regulations to help prevent flooding given future flooding trends, while also addressing erosion and maintaining water quality of adjacent streams.

8. Enterprise Asset Management: Real Estate Services

The Real Estate Services section provides professional services including real estate leasing, planning and relocation assistance. The section handles lease property transactions for state agencies by searching for space, and negotiating and preparing contracts. Real Estate Services also provides services for real property sales and acquisitions including transaction review, appraisal and title due diligence. The team's services also include interior space planning and design. The section's portfolio currently includes approximately 550 private sector leases and 100 public sector leases.

Real Estate Services opportunities

Mitigation

- Integrate "green leasing" provisions that prioritize energy efficiency and conservation into requests for information (RFIs) regarding property searches and new lease negotiations.
- Integrate EV charging infrastructure into RFIs and new lease negotiations to ensure EV charging is available for tenants and the visiting public.
- Incorporate GHG reduction preferences for new locations into RFIs to prioritize properties that are readily accessible by transit, biking or walking to reduce GHGs associated with commuting.
- Incorporate lower-carbon building materials where feasible into interior space planning and design.

Adaptation

• Conduct risk analyses that take into account mid- and long-term forecasts of climate-related risks from OCCRI before deciding on region or location (e.g., flooding, wildfire, landslides, and soil erosion). Integrate climate resiliency into requests for information (RFIs) for new purchases.

- Maintain strong partnerships with building staff and tenants in areas with increased climaterelated risk to public health.
- Include in tenant manuals and communications climate data informing tenants about disaster preparedness and long-term building improvements that protect tenants from climate risks.
- Identify structures with the capacity and capability to add other uses, opting for multi-use buildings when considering new purchase and construction.

9. Enterprise Goods and Services: Publishing and Distribution

Through its in-plant facility and satellite centers, Publishing and Distribution offers copying, digital and traditional printing and related services to state agencies and local governments. In an effort to provide the best value for customers, the section also contracts out printing to prequalified private vendors using a low bid approach. The section also offers a full suite of mail processing services and provides interagency and on-call delivery service.



Publishing and Distribution operations

Publishing & Distribution also administers the Managed Print Services program by analyzing agency Multi-Function Printers (MFP) use types and numbers to right size the MFP fleet.

Publishing and Distribution already considers energy efficiency in all equipment purchases, selecting the most efficient equipment feasible. The section also uses recycled content paper wherever possible in print jobs.

Publishing and distribution opportunities

- Continue to increase the average fuel efficiency of the state delivery fleet through acquisition of hybrid delivery vehicles and delivery EVs.
- Expand the Managed Print Services program to other state agencies to maximize energy efficiency and reduce GHGs.
- Review opportunities to include environmental impacts (i.e., GWP) of vendor business practices in vendor bids.

10. Enterprise Goods and Services: Procurement Services

The Procurement Services (PS) program partners with state and local agencies to create a thriving marketplace that is fair, open and flexible. They manage the Oregon Procurement Information Network (ORPIN), Oregon's primary resource for connecting suppliers of goods and services with state and local contracting opportunities. In addition, PS works to ensure that those connections are made according to state laws and rules.

The GHG implications of contracting for PS, including DAS opportunities, are addressed in Section E of this report. In addition, PS, EAM Fleet and Parking Services and members of the Fleet Management Advisory Council will collaborate in the establishment of a new statewide price agreement that includes EV charging equipment, services and installation of charging infrastructure. This agreement will also be

accessible to the more than 700 public entity members of the Oregon Cooperative Procurement Program (ORCPP). Work on this agreement has been delayed due to Covid-19 and is now expected to start sometime in early 2021.

Sustainable Procurement Program: current practices and objectives

In addition to the GHG reduction opportunities discussed in Section E of this report, DAS PS has developed a work plan and taken initial steps toward launching Sustainable Procurement Program (SPP). Assuming that adequate staff resources can be allocated, DAS PS intends to build the SPP internally, with the collaboration of other state agencies, to ensure that sustainability is integrated into all procurement processes and practices. The SPP work plan has 7 major objectives:

#1 – Conduct a substantive revision of DAS Statewide Policy 107-011-140

DAS PS does not currently have a comprehensive, updated statewide policy on sustainable procurement. Instead, along with statute, EOs and rules, there are piecemeal sections of policies addressing aspects of sustainable procurement (Appendix A). Under this objective, DAS PS would create a comprehensive policy by revising a 2009 procurement policy to include guiding principles, best practices for product categories and sustainable procurement procedures for all agencies to follow.

#2 – Assemble and facilitate Sustainable Procurement Program Advisory Committee

The intent of this deliverable is to foster collaboration with other state and local agencies, as well as other sustainable procurement programs in Oregon, to provide input and advice on development of the SPP.

#3 - Implement EO 20-04

The recommendations from this EO 20-04 report will move to implementation after this report is submitted to the Governor's Office and any feedback is received. The SPP has adopted this as a top priority moving forward.

#4 - Implement EO 17-20

The purpose of this objective to implement the recommendations in the DAS, DEQ and ODOE report to the Governor on creating procurement standards for energy and water efficient equipment used in agency buildings.

#5 - Establish data and metrics to track and report for the SPP

Any successful program should track and demonstrate its successes and opportunities through monitoring and metrics. The SPP will identify metrics and a system for tracking progress of the SPP. Metrics for GHGs as identified in Section E will be integrated into SPP reporting metrics.

#6 - Evaluate and identify a method to inject sustainability into statewide price agreements

DAS PS will develop a process to ensure that sustainability criteria are integrated into new and renewed price agreements and contracts with the highest sustainability impacts (environment, community, economy). This includes price agreements and contracts with the highest GHG impacts as identified in Section E.

#7 - Create, revise and expand sustainable procurement training class and materials

DAS PS will continue to develop, deliver and update Sustainable Procurement trainings for DAS and other agency staff, ORCPP members and others interested in sustainable procurement.

11. Risk Management

Risk Management insures and protects the people, property and activities of state government. This section insures the unique, diverse and often hazardous business of state government. The section's experts recommend mitigation strategies to minimize or prevent the cost of loss, both minor and catastrophic. When loss does occur, Risk Management manages the claim process that lets state agencies fiscally recover and carry on with their mission.

DAS Risk Management manages claims for 'direct damage property'. Many claims are directly linked to weather events or other environmental factors (fire/weather, smoke, and wind damage and snow roof collapse). Damages caused by severe weather events (both chronic and episodic) are projected to increase in frequency and severity as Oregon's climate continues to change. Increased claims will change the dynamic of insurance rates and payouts, and deductibles will increase. Every time a limit loss is reached, Risk Management receives feedback from the marketplace.

Risk Management opportunities

- Explore newer insurance policies and restructuring to better suit climate-related losses.
- Use existing risk claims data in conjunction with facility condition data and climate forecast models to identify vulnerable built assets and infrastructure.
- Incorporate climate data in yearly insurance analytics when reviewing the state portfolio.
- Using existing risk claims data, along with climate forecasting models and facility condition data, identify risks to staff relating to building vulnerabilities. Mitigate risk from extreme weather events.

12.Enterprise Information Systems

The Office of Enterprise Information Systems (EIS) enables state agencies and partner jurisdictions to better serve Oregonians through enterprise technology solutions. EIS provides enterprise technology governance, leverages investments in shared services, ensures transparency, provides oversight and delivers secure and innovative solutions.

State Chief Information Officer opportunities

- Examine enterprise IT purchasing and equipment replacement schedules for opportunities to extend the life of assets where feasible.
- Continue to guide agencies to migrate servers to the State Data Center to increase energy efficiency and conserve resources associated with server use.
- Explore cloud-based services and specify that cloud services measure and disclose the GHG footprint of their services.

13.Workforce Solutions

This team focuses on state government's values of accountability, equality, excellence, and integrity by partnering with state leadership, managers and employees as internal consultants that provide best-practice workforce strategies, solutions and resources to meet current and future workforce needs. Service areas include management education, leadership development, organizational development consulting, employee engagement and executive/management coaching.

Workforce Solutions opportunities

• Include climate change adaptation and mitigation competency in leadership training and development, coaching and organizational change.

C. PROCUREMENT MODEL FOR ZERO-EMISSION VEHICLES: FLEET AND PARKING SERVICES

The directives established in EO 20-04 and Senate Bill (SB) 1044 pertain to state agency operated light fleet vehicles, which include virtually all vehicle types with a Gross Vehicle Weight Rating of 8,000 pounds or less. Police and fire vehicles are exempted. The current Statewide Fleet Management Policy requires that, by 2025, agencies are to select new purchased or leased vehicles in the following priority:

- 1. Zero emission vehicles (ZEVs)
- 2. Alternative fuel or hybrid vehicles
- 3. Low emission standard fuel vehicles
- 4. Standard fuel vehicles

DAS actions and opportunities

- Update the Policy with stronger requirements to choose ZEV and high efficiency hybrid vehicles wherever feasible. This change will be effective upon adoption of the Policy revisions, as opposed to waiting until 2025.
- Tools to compare the return on investment (in terms of dollars and GHG) of the higher cost ZEV and hybrid options to standard fuel vehicles are already established and available for agencies to use. These are updated annually when new model year information is available. Agencies that own fleets will be directed to use these tools to examine feasibility for procurement of ZEVs when adding or replacing fleet vehicles.
- Use information and lessons learned from the large EV charging infrastructure project DAS has initiated in Salem to develop guidance to agencies on costs and quantities of chargers needed for supporting more rapid adoption of ZEVs.
- In collaboration with the Fleet Management Advisory Council, develop targets for the rate of adoption that fleet-owning agencies should set to meet the goals established in EO 20-04 and SB 1044. There are, however, large budgeting and charging infrastructure limitations that will impede agency progress. Further discussion of these limitations and recommended options are discussed in Section F.

D. GHG IMPLICATIONS OF CONTRACTING

In Oregon, government procurement comprises approximately 10 percent of all statewide consumption-based GHG emissions¹ (Figure 1). Consumptionbased GHG emissions are attributed to the consumption of energy, goods and services by the residents, organizations, and businesses in Oregon. Oregon's more traditional "sector-based" GHG inventory only tallies emissions physically generated within Oregon's borders (plus imported electricity). Both types of inventories are helpful in devising strategies for reducing GHG emissions. The consumption-based approach is primarily used in this report due to the ability to tally the emissions from state procurement, which draws

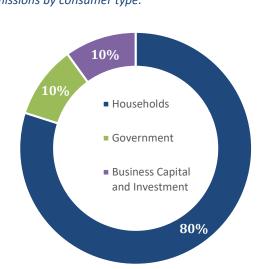


Figure 1. 2015 Oregon consumption-based GHG emissions by consumer type.

from a global supply chain with emissions occurring around the world, well outside Oregon's borders. Since climate change is a global issue, looking at the global consequences of Oregon and state procurement consumption patterns helps identify more opportunities for GHG reductions compared to solely a sector-based approach.

The most recent statewide analysis DEQ conducted for 2015 showed that federal, state and local government spending in Oregon resulted in the emissions of 8.9 million metric tons of carbon dioxide equivalent (MTC02e). About 90 percent of government GHG impacts in Oregon are attributed to state and local spending, with federal spending comprising the rest. Government's largest categories of consumption-based emissions in 2015 were construction (2.1 million MTCO2e), appliances (1.9 million MTCO2e), vehicles/parts (0.9 million MTCO2e) and food and beverages (0.8 million MTCO2e) (Table 1).

¹ <u>https://www.oregon.gov/deq/FilterDocs/OregonGHGreportAB.pdf</u>

Category	Households	Governments	Business Capital + Investments	TOTAL
Vehicles and parts	15.9	0.9	1.0	17.8
Food and beverages	10.9	0.8	0.1	11.8
Appliances	9.0	1.9	0.1	11.0
Services	8.6	0.8	1.0	10.4
Construction	2.8	2.1	1.9	6.7
Healthcare	6.0	0.1	0.0	6.1
Other manufactured goods	1.1	0.8	2.7	4.6
Transportation services	3.6	0.4	0.5	4.4
Electronics	2.1	0.5	0.8	3.4
Retailers	3.3	0.0	0.1	3.3
Furnishings and supplies	2.4	0.3	0.4	3.1
Lighting and fixtures	1.3	0.3	0.0	1.6
Clothing	1.1	0.0	0.0	1.1
Wholesale	0.8	0.1	0.2	1.1
Water and wastewater	0.4	0.0	0.0	0.5
Other	1.7	0.1	0.1	1.9
Total	70.9 (80%)	8.9 (10%)	8.8 (10%)	88.7

Table 1. Oregon 2015 consumption-based GHG emissions, by category and type of consumer (all units in million MTCO2e)

These GHG emissions occur over the life cycle of these purchases, but are most pronounced in the production of purchased goods and services (63 percent) (Figure 2). Of the production-related emissions, consumption of building materials, food and services represent the largest impacts. Use-phase emissions comprise 37 percent of total government emissions and are dominated by the use of appliances (building HVAC) and state vehicles (burning fuel).

There is a broad range of opportunities to reduce GHG emissions across the life cycle of the goods and services purchased by governments in Oregon. Strategies to reduce production-related emissions include buying fewer goods and services, purchasing products with lower embodied GHGs, reusing materials and extending the life of government assets already in use. There are also opportunities to reduce use-phase emissions of state buildings (appliances) and vehicles as other sections of this EO 20-04 response outline.



Figure 2. 2015 Oregon government-related GHG emissions by life cycle phase, kMTCO2e

1. GHGs and DAS procurement

Annual spend

DAS PS is the centralized procurement office that puts together statewide price agreements from which all state agencies can purchase. Some of these price agreements are mandatory for state agencies, while some are for convenience. There are a total of 462 active price agreements.

DAS PS manages the Oregon Cooperative Procurement Program (ORCPP), which allows members to purchase off many of these price agreements. The 760 ORCPP members range from school districts, tribal communities, municipalities, qualifying non-profits and special districts throughout Oregon. The ORCPP program not only allows for the purchasing from Oregon statewide price agreements, but also allows purchasing from some state of Washington price agreements, access to ORPIN for posting notices and access to DAS PS training classes.

From the most current available data, spend on all statewide price agreements totaled \$459.3 million in Calendar Year 2019 per volume sales reports (VSR) reported by contracted vendors. Over the past decade, purchasing by ORCPP members has surpassed that of state agencies. Currently, over half of the total spend annually is from ORCPP members.

Smaller purchases by state agencies (< \$10,000) are much more difficult to capture due the fact that the procurement code allows for agencies to award directly to any vendor as long as the purchase is under \$10,000 unless they have a more restrictive policy. Some of these purchases may be on price agreement or through different avenues. Each agency uses State P-card of Oregon Transaction System (SPOTS) cards, which are credit cards issued to specific individuals in each agency and used to make small procurements. In 2019, over \$95 million in purchases were charged on SPOTS cards through the supporting vendor, U.S. Bank. Identifying specific spend categories using the current system is currently challenging.

Overall, capturing a holistic picture of state of Oregon state spend is difficult and is one of the essential reasons that DAS PS is launching the new Oregon Buys e-procurement system. This new system will capture purchases (i.e., spend) from price agreements, SPOTS card purchases and other procurements,

providing DAS PS a more comprehensive picture of state spend and procurement categories. This will also allow for DAS PS track additional GHG-related metrics discussed in this report.

Environmental impacts of state spend

Supply chains are major contributors to GHG emissions. For public institutions, over 40 percent of total GHG emissions can be attributed to the supply chain. With thousands of products and services being procured, however, reducing GHG emissions through changes in procurement protocols can be challenging.

Prioritizing purchases by GHG impact is an efficient means of addressing this issue. Although not every product and service category has been assessed for GHG emissions, supply chain analyses have been performed that have grouped purchases into larger categories. Based on an evaluation of these supply chain

Oregon Statute, EOs, Rules, Policies and Procurement GHGs

There are a number of drivers for sustainable procurement in Oregon statute, EOs administrative rules and policy that influence environmental impacts and state spend. Some address climate change and/or GHG emissions, and many include directives that influence GHGs such as energy efficiency, electric vehicles, recycling and recycled content, green chemistry and life cycle analysis. Major relevant statute, EOs, rules and statewide policy are included in **Appendix A**.

analyses, certain procurement categories can be identified that contribute most significantly to the state's GHG emissions.

To support DAS PS in enhancing its capacity to evaluate impacts of state spend, DEQ developed a process to determine environmental impacts within the supply chain using state spend data on price agreements. This entailed using a mathematical model (Environmentally Extended Input Output - EEIO) created by the U.S. Environmental Protection Agency (EPA)² that calculates environmental impacts of purchased products and services. For products, the impacts are determined from cradle (i.e., raw materials) to gate (finished product). For services, the impacts are calculated from the products and activities required to perform the services. Using the EEIO model, DEQ was able to estimate different environmental impacts, including GHG emissions, from state spend.

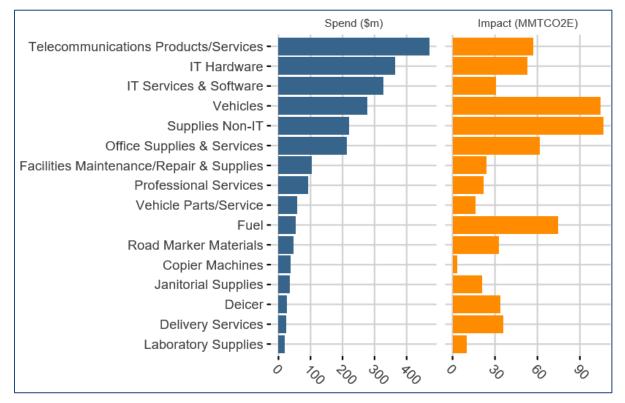
DEQ conducted a pilot analysis using VSR (statewide price agreement) data from 2011-2017. Figure 3 shows spend data and the estimated GHG emissions for each procurement category.

Although this analysis was for Oregon supply chain expenditures, not every procurement category was included in this pilot. The nature of this pilot analysis, unfortunately, resulted in the exclusion of three procurement categories: kitchen equipment, vehicle rentals and food. Of the 30 procurement categories that were created, the top 16 spend categories are shown in Figure 3. Additionally, state price agreements do not exist for all products and services. For example, since purchases for major construction materials, such as concrete and asphalt, are made outside of price agreements, environmental impacts could not be determined.

Figure 3 indicates the potential of using the EEIO model for analyses, as well as preliminary findings for the categories with the top associated GHG emissions. The six highest impact categories are: 1) non-IT supplies, 2) vehicles, 3) fuels, 4) office supplies, 5) telecommunications, and 6) IT hardware. The impact for non-IT supplies is more uncertain than all other categories included in the analysis because of the many assumptions made in determining the products comprising the category. Therefore, non-IT

² <u>https://cfpub.epa.gov/si/si_public_record_Report.cfm?Lab=NRMRL&dirEntryId=336332</u>

supplies should not be considered a high priority category until data can be better refined using the future Oregon Buys system.





Comparison to other supply chain analyses

A handful of other supply chain analyses provide a means for comparing DEQ's findings for state of Oregon spend. The Consumption Based Emission Inventory (CBEI), conducted periodically by DEQ, calculates the life cycle GHG emissions of purchases of products and services by households and governments, plus business capital investments throughout Oregon. The most recent CBEI data is from 2015. DEQ also reviewed studies from the City of Portland (204-2015); Alameda County, California (2015); and the West Coast Climate and Materials Management Forum (WCCF). The WCCF analyzed supply chains of public institutions and their impacts on global warming.

Disregarding non-IT supplies, there are some similarities between DEQ's preliminary results and the top GHG emitting categories from other supply chain analyses (Table 2). Specifically, six common categories emerged.

Category	DEQ Pilot Analysis	CBEI ³	City of Portland ⁴	Alameda County ⁵	
Construction		Х	Х	Х	Х
Food		Х		Х	
Fuels/Lubricants	Х		Х	Х	
Office Supplies	Х			Х	
Professional		Х		Х	Х
Services					
Vehicles	Х	Х	Х		Х

Table 2: Key procurement categories contributing to climate change

The findings of DEQ's analysis of state spend, coupled with findings from these other studies, provide helpful guidance for DAS PS to identify goals, metrics and specific actions that can reduce GHGs in purchased products and services.

2. Setting GHG reduction goals and metrics in procurement

EO 20-04 calls for Oregon to reduce its GHG emissions at least 45 percent below 1990 levels by 2035, and at least 80 percent below 1990 levels by 2050. These goals pertain to sector-based emissions, while procurement climate change initiatives largely address consumption-based emissions.

Due to the wide variety and large amounts of goods and services procured by the state of Oregon over its 462 price agreements, it is challenging to set specific GHG reduction goals for state procurement. Modeling of life cycle embodied GHG emissions in products is still an emerging field, and life cycle data is limited in some product categories. By setting specific GHG goals, however, Oregon can demonstrate leadership and focus continued research on evaluating life cycle embodied carbon in goods and services. In evaluating other public sector sustainable procurement programs, nearly all use annual spend data to establish goals, usually comprised of a minimum sustainable spending target (e.g., 25 percent) as a percentage of total procurements. Products or price agreements can then be designated as "sustainable" for tracking purposes. Setting sustainable spending goals as a percentage of state spending alone is not, however, sufficient to track reduction targets that align with EO 20-04.

For the purposes of this report, and to align with EO 20-04 goals to the extent feasible, DAS PS proposes to reduce the GHG impacts of procurement by 45 percent below 1990 levels by 2035, and at least 80 percent below 1990 levels by 2050 using a specific set of metrics as identified in Table 3.

Along with continued product research, monitoring and effective metrics will be integral to measuring progress toward these GHG reduction goals, and the overall success of sustainable procurement efforts.

³ <u>https://www.oregon.gov/deq/FilterDocs/OregonGHGreport.pdf</u>

⁴ <u>https://www.portlandoregon.gov/brfs/article/627973</u>

⁵ <u>https://www.acgov.org/sustain/documents/supplychainreport.pdf</u>

⁶ <u>https://westcoastclimateforum.com/sites/westcoastclimateforum/files/related_documents/TA%20Final.pdf</u>

Table 3. Proposed metrics for GHGs in procurement

Metric	Methodology and unit of measure
Percentage of dollars in spend on targeted low carbon products and services compared to their conventional counterparts.	Review annual state spend from the new Oregon Buys system and calculate the percentage (%) of spend on specified low carbon products.
GHG emissions from the government sector in Oregon, using DEQ's CBEI or EEIO models.	MMT CO2E from DEQ analysis.
For high impact products and services, GHG emissions associated with lower carbon products compared to a "baseline" conventional product: construction, IT hardware, food, fuels/lubricants, office supplies and professional services.	MMT CO2E using Environmental Product Declarations (EPDs), existing modeling from DEQ, and other calculators available from agencies and third-party certification bodies (e.g., EPEAT).
Number of options implemented in Table 5 of this report.	Using the procurement categories and options outlined in Table 5, track progress over time.
Number of solicitations for professional services including sustainability/GHG language. Number of state agency contracts that identify low carbon options, if available.	Annual count of requests for proposals, requests for bids or other solicitations containing language. Biennial accounting.

As DAS PS continues with implementation of the new Oregon Buys procurement system, metrics related to GHGs will be integrated into the system's tracking and reporting functions to the extent feasible.

3. Potential improvements in procurement statute, rules and policy

As previously referenced and as described in Appendix A, there are a number of laws already in place in Oregon to encourage more sustainable procurement. These laws are scattered among different statutes addressing recycling, recycled content materials, office supplies, fuels and other products and practices. They are complemented by EOs as well as administrative rules and statewide policy.

Statute and administrative rules

Many parts of Oregon's current statutes indirectly address GHGs and procurement and, if implemented, would have an impact on lowering GHGs. In many cases, however, it is not clear to what extent these directives have been implemented by state agencies, and to what degree of impact. DAS recommends a review of current statutes to include:

- Evaluating how well recycled content provisions are being implemented on select price agreements and/or agency contracts.
- Identifying which product categories have the largest carbon reductions associated with an increase in recycled content.
- Identifying opportunities to improve procurement of recycled content products that have high GHG reduction benefits.
- Identifying aspects of the 2002 Sustainability Act that relate to GHG reductions that could be leveraged for additional GHG reductions.

There are also opportunities for new legislation or administrative rules to support GHG reductions in procurement. DAS PS proposes to evaluate the following legislative concepts:

- EPDs there are multiple pathways to require and use EPDs to lower the GHG impacts of purchased building materials. Like the California Buy Clean Act (AB 262), Oregon could require EPDs for a selection of building materials (see Table 4) that apply to all state purchases, while setting and reducing a GHG threshold per material over time.
- Mirroring language giving preference for recycled content products, develop new statute language giving preference to lower carbon products.

Statewide policy

- Sustainable design of buildings: Other than the Oregon Department of Energy's SEED and 1.5% for Green Energy Technology programs, the state of Oregon currently does not have sustainable design guidelines for state buildings. Historically, DAS statewide policy set the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification as a standard for new buildings or major renovations, but this policy is no longer in effect. DAS proposes to develop a new statewide policy and guidance on sustainable design that integrates EO 17-20 directives that new buildings be built "carbon neutral ready" and address embodied carbon in building materials.
- As previously discussed, DAS PS is in the process of developing revised sustainable procurement policy that will specifically address reduction of consumption-based GHGs in goods and services.

Supporting procedures

With implementation of the new Oregon Buys procurement system, DAS PS has been directed to ensure that all procurements made on SPOTS cards and all procurements for construction materials be made through this system. This will allow DAS PS to track and monitor spend and guide users to the appropriate GHG and sustainability criteria for products and services.

While Oregon Buys is in the process of implementation, DAS PS proposes the following phased approach to amending procedures so that GHG considerations are incorporated into buy decisions. These procedures complement the other actions related to specific price agreements or products discussed elsewhere in this report.

Late 2020 - early 2022:

- Amend price agreements that are identified as high GHG impact and also show high levels of agency spend to incorporate changes recommended in this report.
- Monitor spend on price agreements identified as high GHG impact to track changes in purchasing activity.
- Work with the Oregon Buys team to integrate GHG metrics into system tracking and reporting.

Beyond 2022, after implementation in Oregon Buys:

• Itemize and categorize agency spend to continue to identify the highest impact categories with respect to GHG, and to refine data (such as non-IT spending) to further focus GHG reduction efforts.

- Identify large areas of spend from SPOTS cards that are made from vendors that are not on price agreements and integrate into spend analysis for GHG impacts.
- Refine trainings on how to identify lower GHG options on purchases made outside of statewide price agreements, or create a statewide resource for options that are not on price agreements that agencies must consider before going to open market.
- Utilize Oregon Buys reporting to track and measure the changes in spend that were implemented throughout 2020 and 2021 to ensure purchasing is lowering GHGs. Communicate results to agencies across the enterprise.

4. Integrating climate in products, services and statewide price agreements

Along with supporting statute, rules and policy, DEQ spend and environmental impact analyses indicate where the greatest opportunities in specific product categories and DAS price agreements lie with respect to reducing GHG emissions.

Specific product and service standards

Table 4 shows the purchasing categories that DAS and DEQ recommend for prioritizing GHG reductions for the near future. All categories in Table 2 are included in the recommendations, plus IT Hardware/Services/Software. DEQ's Pilot Analysis was the only study that created separate procurement categories for IT Hardware and IT Services/Software.

Table 4: Options to reduce GHG impacts of procurement

Category	Recommendations	Related information
Construction materials	Require EPDs be submitted for the purchase of specific building materials (e.g. concrete, steel, re-bar, wood, insulation) and establish upper thresholds for GHGs that can be decreased over time.	 DEQ runs a statewide incentive program in collaboration with concrete producers, which has successfully helped produce EPDs for concrete mixes across the state. EPDs for concrete are widely available. DEQ is collaborating with the City of Portland on Sustainable Procurement standards for concrete. As of January 1, 2020, an EPD is required for all City concrete purchases. California's "Buy Clean" law (AB 262, 2017) requires EPDs for rebar steel, mineral wool insulation, flat glass and structural steel for all state purchases.
	Collaborate with ODOT to develop and implement specifications for infrastructure procurement for specific materials (e.g. concrete, asphalt, steel, drainage pipe) and establish upper thresholds for GHGs that can be decreased over time.	 ODOT has included an option to evaluate the GHG intensity of products and materials in their 20-04 report that would help contribute to this option.
	Incorporate embodied carbon of building materials in sustainable design policy and guidelines for state building projects.	 To implement the directives of EO 17-20, DAS proposes to develop a new statewide policy and guidelines outlining sustainable design that address embodied carbon in building materials.
	Establish requirements for new and existing state buildings undergoing major renovations to measure and disclose GHG impacts using Whole Building Life Cycle Analysis (WBLCA). Develop state requirements for measurement, disclosure, and reporting of GHG reductions.	 EO 17-20 directs DAS and ODOE to analyze feasible options with the DEQ that would lower the embodied carbon of building materials in new construction in state buildings. DEQ is analyzing new, retrofit and tenant improvement projects using WBLCA to measure, disclose and reduce material and product impacts. This could be part of the new DAS statewide sustainable design policy and guidelines.
	Establish deconstruction requirements for select state buildings. Deconstruction salvages materials for reuse, which can offset the new material production and reduce embodied carbon.	 City of Portland Deconstruction Ordinance requires a house or duplex built in 1940 or earlier to deconstruct using a Certified Deconstruction Contractor. This could be part of the new DAS statewide sustainable design policy and guidelines.
Food and Beverages	 Reduce food waste in state agency cafeterias, which are operated by the Oregon Commission for the Blind in state buildings. Encourage schools, universities, state agencies and other large institutional food purchasers to evaluate, seek to reduce GHG intensity of major food purchases. DAS/DEQ could develop a procurement guidance tool. Encourage food prep in agencies and institutions to measure food waste generations. 	 DAS has already piloted food waste reduction in select state cafeterias through the Marion County Earthwise program. This effort could be expanded and formalized in statewide policy. Mandatory workshops for Food Directors could be an educational opportunity. Food directors make the food ordering decisions. The DAS Statewide Energy and Resource Conservation Policy directs cafeteria operators to reduce food-related packaging and non-recyclable packaging in operations.

Category	Recommendations	Related information
IT hardware and services	 Implement EO 17-20 Efficient Building Equipment Procurement Requirements. Evaluate standard depreciation time, identify opportunities to adjust replacement schedules and extend product lifespan. Develop a list of products that would be available for procurement staff. Identify additional IT purchasing opportunities to reduce the carbon impacts of hardware and services. Investigate opportunities to reduce GHG emissions (direct and indirect) at data centers. 	 DAS Office of the State Chief Information Officer is working with agencies to consolidate servers at the State Data Center to support energy efficiency. The State Data Center recently underwent a substantial renovation to increase energy efficiency with the addition of hot-cold aisles. DAS PS is updating its web pages and identifying price agreements to implement standards for energy efficient equipment as directed by EO 17-20.
Fuels and Lubricants	Use low carbon fuels. Require re-refined oil and lubricants when available.	 Work with DAS Fleet and Parking Services and other agency fleet managers. A new fuel price agreement that includes low-carbon fuels was awarded in early 2020.
Professional services	Include sustainability questions about business practices that affect GHG emissions in contract bids. These questions would be scored as part of the bid evaluation process.	• DEQ collaborated with DAS to conduct pilot on one price agreement, which focused exclusively on micro/small businesses.
Office supplies	 Implement EO 17-20 Efficient Building Equipment Procurement Requirements for office equipment. Track purchases of non-recycled paper and require per current statute that that no less than 35 percent of state agency procurements of paper products may be from recycled paper products. 	 In addition to current statute, there are opportunities to explore increasing the use of office paper with 100 percent recycled content.
Vehicles	Set goals to reduce state vehicles miles traveled. Electrify fleet.	• DAS Fleet and Parking Services is pursuing both of these initiatives as discussed in other sections of this report.

Other product and service GHG reduction opportunities

In addition to the specific product categories in Table 4, other product- and service-oriented recommendations to address GHGs include:

- Integrate EPDs into other select price agreements where feasible. Carpet price agreements are a good example of a discrete product category with readily available EPDs disclosing the GHG impact of each product.
- Specify refrigerants with lower GWP in sustainable design guidelines and construction specifications.
- Require packaging for all products to be designed, produced and distributed in a sustainable manner, including options for packaging take back.
- Contract with suppliers of products (e.g. electronics, furniture and lab consumables) that have established (preferably non-manufacturer specific) end-of-life reuse, recycling and/or take back programs at no extra cost to DAS PS, and in compliance with applicable federal and state regulations regarding waste disposal.
- Query all businesses about GHG reductions and their sustainability practices when soliciting bids. Although this recommendation was specified only for Professional Services (Table 4), it can be applicable to all procurement categories as a minimum percentage of points available in the evaluation of bids. A threshold could increase paralleling the GHG reduction goals for 2035 and 2050.

Along with consideration of specific price agreements, GHGs can be reduced through decisions on whether new goods or services are necessary at all to begin with. For example, OAR 125-247-0200 specifies that agencies must make buy decisions by procuring first from DAS Surplus before procuring a new product using a price agreement. DAS PS recommends:

- Reinforce and communicate "need to buy" decisions, as well as address in the proposed Sustainable Procurement Policy, so that the need for new procurements must be justified.
- Evaluate shared solutions in place of individual requests for devices such as printers. This is already included in the Statewide Energy and Resource Conservation Policy.
- Re-evaluate and, where appropriate, extend equipment depreciation times to delay the need for a new procurement.
- Identify high impact opportunities to reuse and repair purchased goods.

5. Supplier engagement

Due to its purchasing power in the state of Oregon, DAS PS has an opportunity to influence the supplier market through vendor specifications, collaboration, and education. This includes helping drive the market for lower-GHG products and services. DAS PS recommends:

- Regularly communicate GHG reduction expectations and priorities to suppliers through meetings, events and other communications. This includes communicating to suppliers that DAS intends to evaluate GHG reductions in solicitations where applicable.
- Engage and interview the supplier community to continue to collect industry knowledge of trends GHG reductions, supply chain analysis and reporting.
- Solicit requests for information (RFIs) for new product innovations that lower GHG emissions.

6. Training

Ongoing training of DAS PS management, staff, other agency staff with procurement responsibilities and ORCPP network members is recommended to reinforce policy, procedures and practices for reducing GHG emissions. This includes:

- Integrate climate mitigation and adaptation concepts into procurement trainings.
- Include specific procurement requirements and practices to reduce GHGs.

E. GHG REDUCTION GOALS AND ELECTRIFICATION GOALS

EO 20-04 and SB 1044 direct agencies to increase adoption of ZEVs. EO 20-04 further directs DAS to develop a plan to support the rapid conversion of state fleets to ZEVs, and the expansion of EV charging infrastructure for public buildings. Interagency coordination and adequate funding are key drivers to successfully meeting these goals.

DAS, as part of the Zero Emission Vehicle Interagency Workgroup established by EO 17-21, partners closely with ODOE, ODOT and DEQ to achieve electrification goals, and their input will be invaluable as further programs and plans are developed. With looming budget reductions, there will need to be discussion with the Governor's Office and Legislative leadership on what levels of support can be directed toward the rapid adoption of ZEVs over upcoming biennia. The following recommendations and actions presume that such support is available.

1. Program, planning and funding structure

 Charging infrastructure is the primary limiting factor. State ZEVs need to be able to recharge where they are stationed at numerous state-owned

and private leased facilities. Currently, agencies are struggling to determine short-term and long-term infrastructure needs, develop projects to get preliminary infrastructure installed and fund such efforts.

- Oregon would best be served by dedicating resources to developing and funding a coordinated, comprehensive plan for EV charging infrastructure that applies across state agencies and their owned and leased facilities. Whether or not this effort is housed at DAS, the recommendation is to follow California's lead with a centralized program to coordinate the planning, funding, project management and procurement activities needed to effectively install the EV charging infrastructure required to meet deployment goals for state fleets. A centralized approach may initially take longer to set up and establish, but it would yield a comprehensive, expandable and interoperable charging system for state vehicles now and for the next decade or more. This effort would also need to incorporate the infrastructure necessary for employee and public visitor charging.
- California has several efforts that Oregon should consider. This includes a dedicated program within their Office of Sustainability that helps agencies to plan, design and manage installation

EV charging at Salem Motor Pool



projects, coordinate with external entities for funding and resources and provide technical support for EV policy. For Oregon, this would include coordinating with utilities for grant and other funding opportunities to support electrification efforts. California fleet managers indicated that having centralized funding and deployment for infrastructure from the beginning would have created significant program efficiencies and benefits. They cited such coordination as vital to their continued success to meet deployment goals statewide.

- California has established a dedicated fund into which state agencies can tap for EV infrastructure costs. For their current annual budget cycle, this fund is \$23 million. This dedicated funding means agencies do not have to bear the all of the cost in their operating budgets to install EV chargers needed to meet state ZEV deployment mandates. Half of the \$23 million is from General Fund and the remainder is expenditure limitation available for agencies, with available Other Fund cash to use for projects. If Oregon set up a fund of at least \$10 million that was replenished to that amount each biennium, it would lead to significant increases in the amount of chargers installed and a subsequent increase in deployment of ZEVs.
- California also has much stronger centralized control over vehicle purchases. Each agency that owns a fleet must submit their purchase request through Department of General Services for review and approval. Part of this is to ensure the agencies are procuring enough ZEVs to meet their planned goals. This may not be necessary for Oregon as agencies must already report vehicle purchasing activities to DAS, but Oregon should keep this idea in mind and implement it if agencies do not adopt ZEVs at the desired levels.

2. Installation of charging at state-owned and leased facilities

For state owned facilities, funding and completion of charger installation projects will need to be prioritized. For example:

- Charging infrastructure at Portland State Office Building is not planned until later in the overall building renovation project (estimated 2023-25). There are approximately 40 vehicles at that location that could be transitioned to ZEV but to do so in 2021-23, it would require a significant change in the overall project timelines and scope. That may be cost prohibitive or cause project delays when taken into consideration of the other building improvements that must be made.
- In Salem, the DAS projects for chargers will potentially allow deployment of at least 32 ZEVs on the Capital Mall and about 40 at the State Motor Pool in 2021-23 or sooner.
- For the Eugene State Office building, there is no current plan for an EV charger project and only 17 vehicles total stationed there.

An initial function of a central state program for EV infrastructure would be to develop a five-year investment and deployment plan.

The bulk of state presence is in leased facilities. For leased facilities, it is a considerable effort to prioritize location for chargers, engage agencies and landlords to initiate tenant improvement (TI) EV projects and amend leases to accomplish those TIs. To do the work necessary, additional staffing at DAS Real Estate Services would be needed. Agencies would face higher lease charges to pay for the TIs and need funding for that in their budgets. California can use its Office of Sustainability funds to supplement EV infrastructure installation at leased offices. They have only done this at locations with the longest lease terms. Oregon could follow this approach if a central fund source were available.

3. Procurement statute and process

To streamline and speed up EV charger projects, there may be a need for legislation to exempt state EV charger projects from some procurement laws and rules. Depending on how project timing and scope change, EV projects can run afoul of regulations around fragmentation or the dollar limits for the types of procurements required, which can add considerable time to procurement timelines if the project goes from informal to formal procurement. Increasing the dollar limit for EV projects for legal sufficiency review at DOJ to \$500,000 or even to \$1 million could help expedite all but the largest of projects.

Completing the statewide price agreement for EV charging infrastructure and for accessing as many existing charger networks as possible will give state agencies and local government established vendors to engage for projects. DAS received a statutory exemption in the 2019 session to allow for a statewide price agreement that combines the design and engineering of EV charger projects, the EV chargers as a commodity and the installation as a construction service. The exemption was required because state law prohibits statewide price agreements for public improvement construction projects. The agreement will also include access to existing charging networks (such as ChargePoint, Greenlots, etc.) across the state, plus the ability to contract with vendors who provide charging at a site as a service. For example, it may be advantageous at some locations for a public entity to have a company install their chargers on public property, and have the vendor fully manage and maintain the chargers. This price agreement is complex and is not expected to be completed until late 2021 at the earliest due to workload issues created by the COVID response. These agreements will also be accessible to over 726 members of the Oregon Cooperative Procurement Program (ORCPP).

4. Legislative funding for vehicles

For vehicles, each fleet owning agency currently must have the funding in their individual budgets for end-of-life replacement and addition of any new vehicles needed for increased workloads. DAS and other state fleets need the funding increases to cover the incremental cost between standard internal combustion engine (ICE) vehicles and ZEV options. This will increase over the next several biennia as more and more viable and cost effective ZEV vehicle types become available on the market. For 2021-23, DAS submitted an increased vehicle funding POP for \$2.1 million to fund the incremental cost for hybrid (Low Emission Vehicles, LEV) and ZEV vehicles. Depending on the mix of LEVs versus ZEVs purchased, this amount could fund 200 to 250 LEV/ZEVs. Other fleet owning agencies will, however, need to add funding requests for their fleet efforts. This could be accomplished by adding a requirement to the biennial budget preparation instructions.

F. CONCLUSIONS, RESOURCE NEEDS AND NEXT STEPS

1. ZEV, EVs and charging infrastructure

Without the people and funding resources to implement widespread charging infrastructure projects and to pay the incremental costs for ZEVs, DAS and other agencies will continue to struggle to meet electrification goals and gain subsequent GHG reductions. Combining the strengthening of policy direction and establishment of a centralized program to fund and assist agencies with installation of chargers as outlined in Section F will best serve Oregon to be successful in its electrification efforts. There are some possibilities to supplement the agency funding sources to pay for charging infrastructure and ZEVs:

- Increase the number of allowable vehicle rebates an agency can receive from DEQ for ZEV purchases. Currently this is capped in rule at 10 vehicles per year. DEQ is exploring this option.
- Possibly divert a portion of the state vehicle privilege tax to the above mentioned infrastructure fund.
- For Clean Fuel Credits earned by utilities, require a portion of those funds to be directed at installing EV charging at state owned and leased buildings in their service areas. Currently, the larger utilities have grant type programs agencies can compete for to get some funding for projects, but the process is cumbersome and does not easily mesh with state budgeting, procurement and project management processes.

2. Procurement

Currently, DAS PS has an approximately 0.3 full time equivalent (FTE) dedicated to its SPP, including implementing the procurement-related recommendations in this report. This will likely result in a substantially extended time frame to implement these recommendations than what would be possible with 1.0 FTE. As DAS is directed in EO 20-04 to give priority to planning, budgets and investments that address climate mitigation and adaptation, DAS PS intends to explore avenues to increase the SPP program to 1.0 FTE capacity. Given constrained budgets for the current and upcoming biennium, this most likely will be accomplished through internal re-delegation or transfer of responsibilities, or other means that do not require an increase in budget. This also assumes that DEQ will continue to support the SPP and EO 20-04 with analysis of the environmental impacts of procurement, and that the Statewide Sustainability Officer will also continue to support the SPP.

DAS PS intends to publish a biennial report to the Governor and agencies on the progress of the SPP and, more specifically, progress toward meeting the GHG reduction goals set forth in this report.

3. Other resource needs

It is anticipated that, outside of EVs and Procurement, many of the initiatives for reducing GHGs identified in this report can be accomplished as part of current DAS efforts and work plans. DAS Sustainability and Planning and Construction Management will likely need consultant support to develop new sustainable design guidelines that address EO 17-20 directives for carbon neutral-ready buildings. This would include building design principles that will achieve carbon neutrality, as well as specifications for products that can be integrated into construction standards. DAS also anticipates collaborating with Energy Trust of Oregon as well as engaging consultant support to evaluate feasibility for renewable energy for its facilities and land.

APPENDIX A: OREGON STATUTE, EXECUTIVE ORDERS, RULES AND POLICY RELATED TO CLIMATE AND PROCUREMENT

Oregon Statute

Oregon Sustainability Act (ORS 184.421-425)

The Oregon Sustainability Act, codified in ORS 184.423, contains a number of goals for the State of Oregon regarding sustainability, wherein sustainability is defined as:

"...using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives."

The statute contains a number of goals relating to state procurement. Specifically, in conducting internal operations, state agencies shall, in cooperation with the Oregon Department of Administrative Services (DAS), seek to achieve the following objectives:

- State purchases should be made so as to serve the broad, long term financial interests of Oregonians, including ensuring that environmental, economic and societal improvements are made so as to enhance environmental, economic and societal well-being
- Investments in facilities, equipment and durable goods should reflect the highest feasible efficiency and lowest life cycle costs.
- Investments and expenditures should help promote improvements in the efficient use of energy, water and resources
- State operations and purchases should help maintain vital and active downtown and main street communities.
- State purchases should help support opportunities for economically distressed communities and historically underemployed people.
- State operations and purchases should reflect the efficient use and reuse of resources and reduction of contaminants released into the environment.

Greenhouse Gas Reduction Goals (ORS 468A.205)

The Legislative Assembly declared that it is the policy of the state of Oregon to reduce GHG emissions in Oregon pursuant to the following greenhouse gas emissions reduction goals:

- By 2010, arrest the growth of Oregon's GHG emissions and begin to reduce GHG emissions.
- By 2020, achieve GHG levels that are 10 percent below 1990 levels.
- By 2050, achieve GHG levels that are at least 75 percent below 1990 levels.

The Legislative Assembly declares that it is the policy of this state for state and local governments, businesses, nonprofit organizations and individual residents to prepare for the effects of global warming and by doing so, prevent and reduce the social, economic and environmental effects of global warming.

Coordination of state and local efforts to reduce greenhouse gas emissions (ORS 468A.235)

The Oregon Global Warming Commission shall recommend ways to coordinate state and local efforts to reduce GHG emissions in Oregon consistent with the GHG emissions reduction goals established by ORS 468A.205 (Policy) and shall recommend efforts to help Oregon prepare for the effects of global warming. The Office of the Governor and state agencies working on multistate and regional efforts to reduce GHG emissions shall inform the commission about these efforts and shall consider input from the commission for such efforts.

Procurement Practices Regarding Recyclable and Reusable Goods (ORS 279B.025)

All contracting agencies shall establish procurement practices that ensure, to the maximum extent economically feasible, the procurement of goods that may be recycled or reused when discarded. [2003 c.794 §49]

Procurement of goods containing recycled polyethylene material (ORS 279A.150)

DAS shall provide guidelines to state agencies and contractors on the availability of necessary goods that contain recycled polyethylene terephthalate (PETE), as well as other recycled plastic resin supplies and materials. The department shall identify suppliers able to provide necessary goods containing recycled PETE, as well as other recycled plastic resin supplies and materials.

State procurement of paper (ORS 279A.155)

No less than 35 percent of state agency procurements of paper products may be from recycled paper products.

State agency devices or facilities to charge electric motor vehicles (ORS 276.255)

A state agency may contract with a vendor that will distribute, dispense or otherwise make available electricity from devices or facilities for electric vehicle charging. DAS may contract or otherwise agree with another entity to acquire, install, maintain or operate devices or facilities devices or facilities for electric vehicle charging. A state agency may establish and adjust prices for using devices or facilities that are located on premises the state agency owns or controls. The state agency shall set the price for using the devices or facilities.

Preference for recycled materials (ORS 279A.125)

Notwithstanding provisions of law requiring a contracting agency to award a contract to the lowest responsible bidder or best proposer or provider of a quotation, a contracting agency charged with the procurement of goods for any public use shall give preference, where feasible, to the procurement of goods manufactured from recycled materials.

Exclusion of recycled oils prohibited (ORS 279B.240)

Every contracting agency shall revise its procedures and specifications for the procurement of lubricating oil and industrial oil to eliminate any exclusion of recycled oils and any requirement that oils be manufactured from virgin materials.

State contracting agencies to use recovered resources and recycled materials (ORS 279B.270)

A state contracting agency procuring goods or personal services shall review the contracting agency's current procurement specifications in order to:

- Eliminate, wherever economically feasible, discrimination against the procurement of recovered resources or recycled materials.
- Provide incentives, wherever economically feasible, in all procurement specifications issued by the contracting agency for the maximum possible use of recovered resources and recycled materials.
- Develop procurement practices that, to the maximum extent economically feasible, ensure the procurement of materials that are recycled or that may be recycled or reused when discarded.
- Establish management practices that minimize the volume of solid waste generated by reusing paper, envelopes, containers and all types of packaging and by limiting the amount of materials consumed and discarded.

• Use, or require persons with whom the contracting agency contracts to use in the performance of the contract work, to the maximum extent economically feasible, recycled paper and recycled PETE products as well as other recycled plastic resin products.

An invitation to bid or a request for proposals issued by a state contracting agency under this chapter shall include the following language: "Vendors shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document."

Each state contracting agency shall strive to meet a recycled product procurement level established by rule by the Oregon Department of Administrative Services.

Purchase of goods containing recycled polyethylene material (ORS 279B.275)

DAS, in consultation with the Department of Environmental Quality (DEQ), shall revise its procedures and specifications for state procurement of goods containing recycled PETE, as well as other recycled plastic resins, to encourage the procurement of such goods, provided similarities in quality and price exist between recycled PETE products and products not qualifying as recycled PETE products.

Use of recycled products when economically feasible (ORS 279B.280)

DAS shall review and work with state agencies to develop procurement specifications that encourage the use of recycled products whenever economically feasible, if the quality of a recycled product is functionally equal to the same product manufactured with virgin resources, including but not limited to recycled paper, recycled oil and recycled PETE products. Except for specifications that have been established to preserve the public health and safety, all procurement specifications shall be established in a manner that encourages the procurement of recycled products.

Findings and goals for zero-emission vehicles (ORS 283.398)

To promote acquisition and use of zero-emission vehicles, all entities of the executive department, as defined in ORS 174.112 ("Executive department" defined), shall lead by example by:

- Purchasing or leasing light-duty or medium-duty zero-emission vehicles when purchasing or leasing vehicles
- Adopting policies and rules that promote the goals set forth in this section
- Considering recommendations submitted in the report required by ORS 283.401 (Report concerning utilization of zero-emission vehicles within state) that relate to zero-emission vehicles and adopting the recommendations when feasible.

Low carbon fuel standards (ORS 468A.266)

The Environmental Quality Commission, by rule, shall adopt low carbon fuel standards for gasoline, diesel and fuels used as substitutes or alternatives for gasoline or diesel; and a clean fuels program for facilitating compliance with the low carbon fuel standards and for managing and containing the costs of compliance with the low carbon fuel standards. The commission may adopt rules related to the low carbon fuel standards, including but not limited to:

• A schedule to phase in implementation of the standards in a manner that reduces the average amount of greenhouse gas emissions per unit of fuel energy of the fuels by 10 percent below 2010 levels by the year 2025 or by a later date if the commission determines that an extension is appropriate to implement the low carbon fuel standards

- Standards for GHG emissions attributable to the fuels throughout the life cycles of the fuels, including but not limited to emissions from the production, storage, transportation and combustion of the fuels and from changes in land use associated with the fuels
- Provisions allowing the use of all types of low carbon fuels to meet the low carbon fuel standards, including but not limited to biofuels, biogas, natural gas, liquefied petroleum gas, gasoline, diesel, hydrogen and electricity
- Exemptions for fuels that are used in volumes below thresholds established by the commission
- Standards, specifications, testing requirements and other measures as needed to ensure the quality of fuels produced
- Adjustments to the amounts of GHG emissions per unit of fuel energy assigned to fuels for combustion and drive train efficiency

This statute and associated rules apply to fuels statewide, as well as to fuels procured by state agencies for their fleets.

Energy efficiency standards (ORS 469.233)

This statute sets minimum energy efficiency standards for new products including ice cube machines, washers, spray valves, refrigerators and freezers, exit signs, lamp fixtures, power supplies, heaters, water dispensers, hot food holding cabinets, televisions and other appliances.

Executive Orders

EO 12-05: Fostering Environmentally-Friendly Purchasing and Product Design

EO 12-05 directed DAS to provide information on best practices and appropriate training materials for environmentally preferable purchasing to state agencies. DAS and DEQ were directed to revise state purchasing and procurement practices to include specific guidelines to reduce toxic chemicals of concern in products used by state agencies, as well as by contract service providers.

EO 17-20: Accelerating efficiency in Oregon's built environment to reduce greenhouse gas emissions and address climate change

DAS and the Oregon Department of Energy (ODOE) were directed by EO 17-20 to ensure that all equipment purchased by the state meets high efficiency energy and water use specifications by incorporating efficiency standards into procurement requirements. The EO applies to all stationary equipment used by state agencies indoors.

Oregon Administrative Rules

General provisions for public contracting (OAR 125-246-0120)

The promotion of efficient use of resources pursuant to ORS 279A.015 (3) includes but is not limited to Sustainability. Pursuant to ORS 184.421, agencies must, in cooperation with DAS, seek to achieve the following objectives:

- State purchases should be made so as to serve the broad, long term financial interests of Oregonians, including ensuring that environmental, economic and societal improvements are made so as to enhance environmental, economic and societal well-being.
- Investments in facilities, equipment and durable goods should reflect the highest feasible efficiency and lowest life cycle costs.
- Investments and expenditures should help promote improvements in the efficient use of energy, water and resources.

- State operations and purchases should help maintain vital and active downtown and main street communities.
- State purchases should help support opportunities for economically distressed communities and historically underemployed people.
- State operations should be conducted in ways that significantly increase the efficient use of energy, water and resources.
- State operations and purchases should reflect the efficient use and reuse of resources and reduction of contaminants released into the environment.

Recycling Policy

DAS promotes the Procurement by all Authorized Agencies of products made from Recycled Materials in accordance with ORS 279A.125 and 279B.270. When purchasing goods or personal services that relate to the use of recovered resources and recycled materials, Authorized Agencies must:

- Review the procurement Specifications currently utilized to eliminate, wherever economically feasible, discrimination against the Procurement of recovered resources or Recycled Materials;
- Develop purchasing practices that, to the maximum extent economically feasible, assure purchase of materials which are recycled or which may be recycled or reused when discarded. The Department will make Recycled Products and materials available to Authorized Agencies whenever they can be obtained;
- Provide incentives for the maximum possible use of recovered resources and Recycled Materials, wherever economically feasible, in all procurement Specifications issued.
- Pursuant to ORS 279A.125, notwithstanding provisions of law requiring the Department to award a Contract to the lowest or best Offeror, the Department must give preference to the procurement of Goods manufactured from Recycled Materials, if the Recycled Product's costs do not exceed the costs of non-recycled products by more than 5%, or a higher percentage if a Written determination is made by the Department. The requirements of ORS 279A.125 may be applied to Authorized Agencies by agreement or policy of the Department.
- The Offeror must indicate in the Offer, the materials considered relevant to the 5% preference. The 5% preference will only apply to the value of that portion of the Offer that offers non-paper products containing verifiable recycled contents.
- All Contracts must require Contractors to use, in the performance of the Contract Work, to the maximum extent economically feasible, Recycled Paper;
- All Contracts must require Contractors to use, in the performance of the Contract Work, to the maximum extent economically feasible, recycled PETE products, as well as other recycled plastic resin products. The Department must provide guidelines to Authorized Agencies and Contractors on the availability of necessary Goods that contain recycled PETE, as well as other recycled plastic resin supplies and materials; the Department must also identify suppliers able to provide necessary Goods containing recycled PETE, as well as other recycled plastic resin supplies and materials, pursuant to ORS 279A.150.
- All Authorized Agencies must include the following language in any Invitation to Bid or Request for Proposal: "Vendors must use recyclable products to the maximum extent economically feasible in the performance of the contract Work set forth in this document," pursuant to ORS 279B.270(2); and
- The Department must include Recycled Product purchasing information within publications and training programs provided to local governments requesting state government purchasing assistance, pursuant to ORS 279A.145.

Practices Regarding Electronic Goods Procurement (OAR 125-247-0165)

DAS and Authorized Agencies must procure Electronic Goods in a manner that includes consideration of the impact of the electronic goods upon the environment and public health, in addition to consideration of economic and community interests, in accordance with goals of Sustainability pursuant to ORS 184.423.

Preference for Recycled Materials (OAR 125-246-0322)

Notwithstanding provisions of law requiring an Authorized Agency to award a Contract to the lowest or best Offer of a Provider, an Authorized Agency charged with the Procurement of Goods for any public use must give preference to the Procurement of Goods manufactured from Recycled Materials whenever the Authorized Agency uses Competitive Sealed Bidding or Competitive Sealed Proposals. In comparing Goods from two or more Offerors, if at least one Provider offers Goods manufactured from Recycled Materials and at least one Provider does not, an Authorized Agency must select the Provider offering Goods manufactured from Recycled Materials if the recycled product is available, meets applicable standards, can be substituted for a non-recycled product, and the recycled product does not exceed the costs of non-recycled products by more than 5%.

Life Cycle Costing (OAR 125-247-0170)

An agency must consider using Life Cycle Costing during planning for Competitive Sealed Bidding or Proposals. An agency may also consider the costs of Services related to a Product, including other Sustainability criteria. If Life Cycle Costing will be considered and applied, the Solicitation must describe to prospective Offerors how Life Cycle Costing will be considered and applied in the evaluation process and award decision.

Responsibility of Offerors (OAR 125-247-0500)

Before awarding a Contract, the Authorized Agency must determine that the Offeror submitting the lowest Bid or Proposal or most Advantageous Offer is Responsible. The Authorized Agency must use the standards set forth in ORS 279B.110 and OAR 125-247-0640 to determine if an Offeror is Responsible. This includes consideration of Life Cycle Costing.

Oregon Clean Fuels Program (CFP) (OAR 345-253)

The current CFP rules are designed to reduce the average carbon intensity of transportation fuels used in Oregon by at least 10% below 2015 levels by 2025. EO 20-04 directs DEQ and the Environmental Quality Commission to expand the CFP to achieve reductions in average carbon intensity of transportation fuels used in Oregon of at least 20% (relative to 2015) by 2030, and of at least 25% by 2035. EO 20-04 also directs DEQ and the EQC to "advance methods [for] accelerating the generation and aggregation of clean fuels credits by utilities that can advance the transportation electrification goals set forth in Senate Bill 1044 (2019).

Minimum energy efficiency standards for state-regulated appliances and equipment (OAR 330-092-0020) These rules implement the energy efficiency standards codified in applicable federal regulations and ORS 469.233.

Statewide Policy

DAS Statewide Policy 107-011-140

State government purchases items with the highest level of sustainable attributes possible. Procurement actively supports sustainability and incorporates all reasonable sustainability practices into contracts and price agreements.

DAS Statewide Policy 107-009-0080-PO

This DAS statewide policy pertains to the procurement of "safer" products and is the implementing policy for EO 12-05. Agencies can satisfy the EO and Policy by purchasing certified safer products, through price agreements that specify safer alternatives, or via expertise or chemical assessments. However, "agencies are encouraged to include other Sustainability criteria as options that are usually complementary with Safer Products", which can include GHG footprint.

An agency must consider Life Cycle Costing for a Competitive Sealed Bidding, but is optional for other sourcing methods, under OAR 125-247-0170. Contractors may be required to complete Life Cycle Assessments (LCAs) for their products, and to share the LCA results with the agency in the form of the LCA document or through ISO-compliant Environmental Product Declarations (EPDs).

Additionally, Oregon Department of Environmental Quality (DEQ) Business Oregon, and DAS were to develop specific guidance for metrics, data collection and reporting in consultation with interested agencies.