Attachment 3: CCAP GHG reduction measures – initial screening results

This memorandum was developed for the Climate Partners' Forum meeting held on April 15, 2025, when Forum members met to discuss which greenhouse gas (GHG) reduction measures should be further developed for potential inclusion in the Comprehensive Climate Action Plan (CCAP) for the Portland-Vancouver metropolitan statistical area. Metro's CCAP team has continued to develop these measures as it works to release the draft CCAP in summer 2025. Some of these measures have undergone further changes since this memo was developed, and the CCAP team continues to consider additional measures as new information becomes available, but it still serves to illustrate the type and breadth of the measures that are being considered for inclusion in the CCAP, as well as some of the factors that the team is evaluating as it reviews different measures.

The following sections include tables summarizing different potential GHG reduction measures by the three main sectors covered by the CCAP: building energy; transportation; and food, goods, and services. Each row contains a potential measure being considered for the CCAP as well as results for four different criteria that were used to select and evaluate measures: GHG reduction potential, alignment with community feedback, scalability, and implementation readiness. These tables color-code measures by their GHG reduction potential, which is measured in terms of the total percentage of the metropolitan area's GHG emissions, using the scale shown in the table below. (For reference, the metro area emits roughly 26 million metric tons of GHGs per year, so even a 0.5% reduction represents significant progress toward meeting climate goals.)

Color	GHG reduction potential
Dark green	Very High: over 2%
Light green	High: 0.5 – 2%
Yellow	Med: 0.2% - 0.5%
Orange	Low: less than 0.2%

The final section of the memo contains definitions and evaluation rubrics for the screening criteria summarized in the following sections.

Building energy measures

Measure #	Draft Measures	MSA-wide GHG Reduction Potential	Community Feedback Alignment	Scalability	Implementation Readiness
*BE-1	Maximize the implementation of rooftop solar (residential, commercial, and industrial)	Very High	Med	High	Med
*BE-2	Upgrade older home heating, cooling, and hot water heating systems with newer, more energy-efficient / low carbon models (residential)	Very High	High	High	Med
*BE-3	Build all-electric new residential, commercial and industrial buildings that do not use natural gas (all)	Very High	Low	High	Med
BE-4	Provide information on how much energy buildings consume so that businesses can consider this information when purchasing or leasing property (commercial / industrial)	High	Low	High	Med
*BE-5	Reduce energy use and/or generate clean energy in buildings owned by public agencies (commercial / industrial)	High	Low	High	High
*BE-6	Upgrade the windows, walls, and envelopes of older homes so that they stay cooler in the summer and warmer in the winter (residential)	High	High	High	Med
BE-7	Provide information on how much energy homes consume so that people can consider this information when buying a home (residential)	High	Low	High	High
BE-8	Support new, local renewable energy development projects (commercial / industrial)	TBD**	High	High	Low
*BE-9	Increase energy efficiency of commercial and industrial buildings (commercial / industrial)	Med	Med	High	Med

*BE-10	Require new homes to have energy-efficient appliances and/or meet energy efficiency standards (residential)	Low	Med	High	Low
*BE-11	Plant street trees to reduce building heating/cooling loads	Low	High	High	High
BE-12	Educate people on steps that they can take to conserve energy and reduce emissions at home (residential)	N/A	Low	High	High
BE-13	Educate businesses on steps that they can take to conserve energy and reduce emissions in commercial and industrial buildings (commercial / industrial)	N/A	Low	High	Med

* Measures with an * in the "Measure #" column were screened using quantitative data; GHG reduction potential results for these measures are sometimes more modest than for others, because assumptions regarding their implementation are better aligned with available resources.

Relevant state-level actions in this sector

Metro's CCAP seeks to identify locally- or regionally-led measures that complement, but do not duplicate, major state-led climate policies and programs in Oregon and Washington. Major state-led GHG reduction measures in this sector include:

- WA State Energy Code Roadmap to 2031: Requires that new construction will consume 70% less energy than the 2006 baseline by 2031.
- OR/WA Clean Electricity Legislation: Utilities must provide zero emissions electricity by 2040, with interim targets in 2030 and 2035 (in OR) and by 2045 (in WA).
- OR Climate Protection Program: Oregon law reduces Natural gas, diesel and gasoline emissions 50% by 2035 and 90% by 2050. Technical achievable fuel intensity reductions assumed to be 10%. All other emissions reductions come from fuel switching, modeled separately.
- WA Climate Commitment Act: Cap and trade system to decrease overall emissions. Assumed to decrease natural gas emissions by 10%. Also applies to other fuels, but does not act as quickly as the Clean Fuels Act.

Transportation measures

Measure #	Draft Measures	MSA-wide GHG Reduction Potential	Community Feedback Alignment	Scalability	Implementation Readiness
T-1	Implement a regional Renewable Fuels Standard modeled on Portland's Renewable Fuels Standard	Very High	Med	Med	Med
T-2	Implement congestion pricing	Very High	Low	Low	Low
*T-3	*Implement new high-capacity transit corridors	High	High	Med	Med
*T-4	*Implement planned transit service	High	High	High	High
*T-7	Implement transit priority via street or signal redesign	High	High	Med	Med
T-8	*Price and manage parking	Med	Low	Med	High
*T-9	*Implement local and regional land use plans	Med	Med	High	High
T-10	Expand the use of electric buses in the region's transit fleets	Med	Low	Low	Med
T-11	Install more electric vehicle chargers in publicly accessible locations and at multifamily housing	Med	Low	Med	Low
T-12	Implement a regional Clean Air Construction Program that requires the use of clean fuels in construction projects	Med	Med	Med	High
T-6	Use technology to manage the transportation system	Med	Low	Med	Med
T-13	Provide outreach and education to help people make use of transportation options	Low	Med	High	High
*T-14	Implement transit-oriented development programs	Low	High	Med	High
*T-15	Build new bicycle and pedestrian facilities	Low	Med	High	High
T-5	Offer incentives for e-bike and e-scooter use	Low	Med	Low	Low

* Measures with an * in the "Measure #" column were screened using quantitative data; GHG reduction potential results for these measures are sometimes more modest than for others, because assumptions regarding their implementation are better aligned with available resources.

Relevant state-level actions in this sector

Metro's CCAP seeks to identify locally- or regionally-led measures that complement, but do not duplicate, major state-led climate policies and programs in Oregon and Washington. Major state-led GHG reduction measures in this sector include:

- Clean Fuel Standards in Oregon and Washington: Requires the reduction in emissions from fuels, can be met by fuel switching. Fuel importers are required to reduce GHG content of their fuels by 37% below 2016 levels by 2035 (in Oregon) or 20% below 2017 levels by 2034 (in Washington). Assumes the technically feasible fuel emissions intensity reductions to be 10% with the remainder of the reductions attributed to fuel switching to electric vehicles (attributed to ZEV Standards).
- Zero emissions vehicle standards in Oregon and Washington: In Oregon (Advanced Clean Cars II) and Washington (Clean Vehicle Program Rule) new light and medium duty (Washington only) vehicles sold must be zero emissions by 2035. Forum feedback and potential next steps
- Zero Emissions standards for Heavy Duty Vehicles are in development in both states, but they are not yet implemented and not yet included in the projections

Food, goods, and services measures

Measure #	Draft Measures	MSA-wide GHG Reduction Potential	Community Feedback Alignment	Scalability	Implementation Readiness
FGS-5	Implement sustainable procurement policies at public agencies	Med	Med	High	High
*FGS-2	Increase reuse of products and materials	Med	High	High	High
FGS-3	Make climate-friendly, plant-forward diets well understood and accessible to everyone	Low	Low	Med	High
*FGS-1	Prevent and recover business food waste, with a focus on prevention	Low	Med	High	High
FGS-6	Expand the availability of residential composting programs	Low	High	Med	Med
FGS-4	Design and build more homes and businesses with low-carbon concrete and other climate-friendly building materials	Low	Low	Med	Med
FGS-8	Help local businesses implement innovative strategies to reduce non-food waste	Low	Low	Low	Med
FGS-7	Help residents prevent food waste by changing their purchasing practices	Low	Low	Low	High

* Measures with an * in the "Measure #" column were screened using quantitative data; GHG reduction potential results for these measures are sometimes more modest than for others, because assumptions regarding their implementation are better aligned with available resources.

Relevant state-level actions in this sector

Metro's CCAP seeks to identify locally- or regionally-led measures that complement, but do not duplicate, major state-led climate policies and programs in Oregon and Washington. There are few if any state level actions that directly affect this sector, although broadly applicable measures such as the Climate Protection Program and the Climate Commitment Act will drive down the emissions required to produce foods, goods, and services, and therefore likely reduce the emissions embodied in consumer products, at least those produced locally.

Washington law requires the phase out hydrofluorocarbons (HFCs), potent greenhouses gases often used as refrigerants. The state estimates that this phase out will decrease HFC emissions by 70%.

Screening criteria and definitions

Each measure was evaluated across a variety of criteria. The screening relies on input from community feedback, discussions at the Climate Partner Forum meetings, Metro staff review, and technical analysis. The screening captures the following factors:

- **Technical GHG Emissions Reduction Potential:** estimated technical emissions reduction potential if the measure were fully implemented and estimated potential of the measure to impact total metropolitan statistical area (MSA)-wide sector-based (for building energy and transportation measures) or consumption-based (for food, goods, and services measures) emissions. Though emissions from food, goods, and services fall outside of the sector-based inventory, their reduction potential is also shown relative to sector-based emissions for comparison.
 - Very High: Reduction potential of this measure for total MSA-wide emissions is >2%
 - High: Reduction potential of this measure for total MSA-wide emissions is 0.5-2%
 - Med: Reduction potential of this measure for total MSA-wide emissions is 0.2-0.5%
 - Low: Reduction potential of this measure for total MSA-wide emissions is <0.2%
 - N/A (little to none): Reduction potential not estimated to be quantifiable/have measurable impact on its own (0%)
- Alignment with Community Feedback: rated based on equity priorities in existing climate action plans (CAPs) and on online open house results.
 - **High:** the measure aligns with priorities expressed by community members through prior plans (i.e., multiple community-led climate justice plans and/or regional outreach and planning efforts focused have identified the action as a priority) AND the measure was one of the top 3 x sector from the winter online open house.
 - **Med:** the measure aligns with priorities expressed by community members through prior plans (i.e., multiple community-led climate justice plans and/or regional outreach and planning efforts focused have identified the action as a priority) OR the measure was one of the top 3 x sector from the winter online open house.
 - **Low:** neither of the above.
- Scalability: rated based on source CAPs (the team has reviewed roughly 20 CAPs developed by partner agencies and community-based organizations in the Metro area):
 - **High:** this measure appears as a priority in 3+ source CAPs and the project team believes there is potential to scale it up across the MSA based on the background resources reviewed.
 - **Med:** action appears as a priority in 1-2 source CAPs or forum survey responses and the project team believes there is potential to scale it up across the MSA based on the background resources reviewed.
 - Low: this action does not appear to be a priority for multiple agency partners, nor does it appear scalable to the MSA.
- Implementation Readiness: rated based on team review of partner authority and resources:

- **High:** The organizations who would lead implementation of this measure have the resources AND the authority they need to begin implementing this action.
- **Med:** The organizations who would lead implementation of this measure have either the resources OR the authority they need to begin implementing this action, but not both.
- **Low:** The organizations who would lead implementation of this measure have neither the resources NOR the authority they need to begin implementing this action, but not both.