

Oregon Global Warming Commission Meeting

November 17, 2022



Meeting Overview

- Commissioner Updates *(12:00-12:15)*
- Co-Benefits & Other Evaluation Criteria Updated Proposal *(12:15-12:45)*
- Public Comment on Co-Benefits & Other Evaluation Criteria *(12:45-1:00)*
- Finalize Evaluation Criteria Selection and Weighting *(1:00-1:30)*
- Break *(1:30-1:45)*
- Overview of Upcoming Reports *(1:45-2:00)*
- Commission Discussion of Draft Recommendations *(2:00-3:30)*
- Public Comment *(3:30-3:50)*
- Next Steps *(3:50-4:00)*

Roadmap to 2035 Where are we now?



Where Are We Headed...

- Compare order of actions based on co-benefits and other evaluation criteria scoring and MAC Curves
- Develop recommendations on goals, scenarios, and actions

Today's Outcomes

- Agree on:
 - The Co-Benefits and Other Evaluation Criteria to use
 - Definitions and sub-criteria
 - Weighting
- Initial input and direction on recommendations for the Roadmap

Process Overview for Incorporation of Co-Benefits

- 1) Initial ideas on co-benefits and other evaluation criteria offered throughout the process
- 2) Straw Proposal provided for comment
- 3) Commission discussion and finalization of the co-benefits and other evaluation criteria including:
 - the selection and definition of, and
 - weight to assign (using a 100-point scale)

October 7 meeting, subcommittee discussions, and today's meeting
- 4) ODOE staff score the actions based on the weighted evaluation criteria, and rank the actions based on their scores

Straw Proposal from October

| Evaluation Criteria | Definition | Weight |
|---|--|------------|
| Cost-Effectiveness | <ul style="list-style-type: none"> Relative net cost/benefit compared to the other actions, “bang for your buck” (\$/MTCO2 from the MAC Curve analysis) | 25 |
| GHG Emission Reduction Amount | <ul style="list-style-type: none"> Relative amount of GHG emission reduced compared to the other actions (cumulative MTCO2 reduced) | 20 |
| Risk & Uncertainty | <ul style="list-style-type: none"> How likely is the cost-effectiveness and GHG emission reductions from the action likely to actually materialize (confidence in the probability: low/medium/high) | 10 |
| Health Co-Benefit | <ul style="list-style-type: none"> Health benefits that result from reduction in air pollutants; specific health savings accrue from reduced: mortality, heart attacks, hospital admissions, emergency room visits, and work loss (cumulative estimated dollar amount from the EPA-COBRA analysis) Quality of Life increases (physical activity, comfort, noise reduction) | 15 |
| Jobs and Economic Prosperity Co-Benefit | <ul style="list-style-type: none"> Number of cumulative person job years estimated to be created over time as a result of implementing the action Decrease in household or business building energy cost (from the reduction in energy use) Decrease in household or business transportation costs | 15 |
| Equity Co-Benefit | <ul style="list-style-type: none"> Relative level at which the action can serve historically and currently underserved populations and communities Relative level at which the action will help alleviate energy burden (reducing the number of Oregonians paying more than 6% of their income on energy) | 15 |
| TOTAL = | | 100 |

Issues from the October Meeting

- Overall Approach
- Specific Criteria
 - Additions
 - Refinements to straw proposal criteria
- Weighting

Overall Approach: *Proposed Resolution*

Stay on track to develop a co-benefits analysis in time to finalize and deliver the report to the Legislature by early next year, but:

- a) Look to incorporate other existing, relevant state agency work/learnings
- b) Include a section in the report teeing up equitable implementation questions/ideas
- c) Provide the Commission with more than just the overall scoring for each action
 - i. Provide the scoring results for each of the co-benefit criteria individually
 - ii. Provide the scoring for all of the co-benefit criteria combined
- d) Assess the value of the scoring results and make a final determination of whether or how to include and use it in development of the Roadmap
- e) Acknowledge the limitations of the co-benefits analysis in the Roadmap

Additionally, pursue resources for a next phase of work focused on community engagement and defining how the state should approach equitable implementation of the actions identified in the Roadmap.

Additional Criteria: *Proposed Resolution*

- Additional criteria previously proposed included:
 - Resilience (community and political)
 - Avoided risks and associated costs
 - Avoided costs from climate impacts and
 - Timing of reductions (e.g., early action)
- Did not include any as separate new evaluation criteria
- Political feasibility and implementation timing are included under the risk and uncertainty criteria in the updated proposal

Changes to Straw Proposal Criteria

- Overall presentation changes
 - Grouped the criteria into three groupings:
 - MAC Curve Analysis (GHG Reduction Amount and Cost-Effectiveness criteria)
 - Co-Benefits (Equity, Health, and Jobs and Economic Prosperity Criteria)
 - Other (Risk and Uncertainty)
 - Added further detail on sub-criteria and how score would be assessed
 - Added data source that would be relied on for scoring
- **Substantive changes to specific criteria**
 - **Health**
 - **Equity**
 - **Risk and Uncertainty**
- Minor change to the Jobs and Economic Prosperity Co-Benefit

Health Co-Benefit

| | | | |
|-------------------|------------------------------------|--|--|
| Health Co-Benefit | | <p>50% - <i>Avoided health impacts and associated cost savings from reduction in air pollution/co-pollutants</i></p> <p>Health cost savings specifically from reduced mortality, heart attacks, hospital admissions, emergency room visits, asthma exacerbations, acute bronchitis, respiratory symptoms, restricted activity days, and work loss as a result of reducing air pollution. Reductions in air pollution include pollution from primary fine particulate matter (PM2.5) and precursors of secondary PM2.5, including nitrogen oxides (NOx), sulfur dioxide (SO2), ammonia (NH3), and volatile organic compounds (VOCs).</p> <p>The higher the health cost savings, the higher the score.</p> | SSG TIGHGER Data: cumulative estimated dollar amount from the EPA-COBRA analysis |
| | Potential to improve public health | <p>50% - <i>Reduction of other health risk factors/burdens</i></p> <p>Actions proven to reduce other health risk factors/burdens include:</p> <ul style="list-style-type: none"> - increasing physical activity through land use improvements and active transportation, - improving home indoor air quality and comfort, or - improving nutrition through sustainable food systems <p>If action is one of these types, it receives full points. Otherwise, it receives no points.</p> | TIGHGER action descriptions. Informed by high value climate and health actions in OHA 2018 Climate and Health Report and consideration of indoor air quality risks from natural gas stoves. Only one action specifically relates to the latter. |

- Detailed out EPA-COBRA information including list of illnesses it considers
- Removed quality of life sub-criteria and replaced with “reduction of other health risk factors/burdens” sub-criteria
- Split the scoring equally between the two sub-criteria

Equity Co-Benefit

| | | | |
|-------------------|---|--|--|
| Equity Co-Benefit | <p>Relative level at which the action can serve environmental justice communities. Environmental justice communities include communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities (low population density and high geographic remoteness), coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities.</p> | <p>Assessed by looking at:</p> <p>33% - <i>Reduction in air pollution</i> . Many environmental justice communities are typically exposed to more air pollution.</p> <p>33% - <i>Potential to address other health inequities</i>. Many environmental justice communities experience more health inequities.</p> <p>33% - <i>Relative level at which the action will help alleviate energy burden</i> (reducing the number of Oregonians paying more than 6% of their income on energy). Many environmental justice communities are particularly impacted by energy burden.</p> | <p>SSG TIGHGER Data: EPA-COBRA data</p> <p>See "Reduction of other health risk factors/burdens" in the health co-benefit.</p> <p>SSG TIGHGER Data: Energy burden reduction</p> |
|-------------------|---|--|--|

- Focused the equity co-benefit on serving environmental justice communities as defined in HB 4077 (2022)
- Kept reduction in energy burden as a sub-criteria and added two more sub-criteria
- Split the scoring equally between the three sub-criteria

Risk and Uncertainty

| | | | |
|-----------------------------|---|--|---|
| <p>Risk and Uncertainty</p> | <p>Likelihood the cost-effectiveness, GHG emission reductions, and co-benefits from the action will actually materialize given risks and uncertainties (confidence in the probability: low/medium/high)</p> | <p>The higher the likelihood (i.e. the less risk and uncertainty), the higher the score. Assessed by looking at:</p> <p><i>40% - Technical feasibility</i></p> <ul style="list-style-type: none"> - Technology proven and available at scale (yes/no); if yes, more likely to happen - Reliance on maximum technical potential (yes/no); if yes, possible won't be able to fully achieve <p><i>40% - Political feasibility</i></p> <ul style="list-style-type: none"> - Behavior change needed (high/medium/low); the more behavior change needed, the more potential to be less politically acceptable/adhered to - Amount of direct costs/savings (high/medium/low); if more direct costs, potentially less politically feasible (even if reduce a lot of emissions or significant co-benefits) <p><i>20% - Implementation timing</i></p> <ul style="list-style-type: none"> - Timing of action/benefits (near-term, mid-term, long-term). The longer the lead time, the higher potential to not happen or go off course. | <ul style="list-style-type: none"> - Professional discretion - SSG Modeling assumptions for each action - Professional discretion - SSG TIGHGER data: Net Cost/Benefit data - Professional discretion based on action descriptions |
|-----------------------------|---|--|---|

- Now applies to the co-benefits as well as the other evaluation criteria
- Detailed out the sub-criteria for assessing risk and uncertainty: technical feasibility, political feasibility, and implementation timing
- Split the scoring 40/40/20 between the three sub-criteria

Weighting

| Criteria | Weighting |
|---|------------------|
| GHG Reduction Amount | 24 |
| Cost-Effectiveness | 20 |
| Equity Co-Benefit | 16 |
| Health Co-Benefit | 15 |
| Jobs and Economic Prosperity Co-Benefit | 14 |
| Risk and Uncertainty | 11 |

- Overweighted equity
- Reduced the weighting of Cost-Effectiveness and increase the weighting of GHG Emission Reduction Amount

Updated Co-Benefits and Other Evaluation Criteria Proposal

| | Criteria | Definition | How Scored? | Data Source | Weighting |
|--------------------|---|--|---|---|--|
| MAC Curve Analysis | GHG Emission Reduction Amount | Relative amount of GHG emissions reduced | The higher the cumulative MTCO2 reduced, the higher the score | SSG TIGHGER Data: cumulative MTCO2 reduced | 24 |
| | Cost-Effectiveness | Relative net cost/benefit of emissions reductions, "bang for your buck" | The lower the \$/MTCO2, the higher the score | SSG TIGHGER Data: \$/MTCO2 | 20 |
| Co-Benefits | Equity Co-Benefit | Relative level at which the action can serve environmental justice communities. Environmental justice communities include communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities (low population density and high geographic remoteness), coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities. | Assessed by looking at: 33% - <i>Reduction in air pollution</i> . Many environmental justice communities are typically exposed to more air pollution. 33% - <i>Potential to address other health inequities</i> . Many environmental justice communities experience more health inequities. 33% - <i>Relative level at which the action will help alleviate energy burden</i> (reducing the number of Oregonians paying more than 6% of their income on energy). Many environmental justice communities are particularly impacted by energy burden. | SSG TIGHGER Data: EPA-COBRA data See "Reduction of other health risk factors/burdens" in the health co-benefit. SSG TIGHGER Data: Energy burden reduction | 16 |
| | Health Co-Benefit | | 50% - <i>Avoided health impacts and associated cost savings from reduction in air pollution/co-pollutants</i> Health cost savings specifically from reduced mortality, heart attacks, hospital admissions, emergency room visits, asthma exacerbations, acute bronchitis, respiratory symptoms, restricted activity days, and work loss as a result of reducing air pollution. Reductions in air pollution include pollution from primary fine particulate matter (PM2.5) and precursors of secondary PM2.5, including nitrogen oxides (NOx), sulfur dioxide (SO2), ammonia (NH3), and volatile organic compounds (VOCs). The higher the health cost savings, the higher the score. 50% - <i>Reduction of other health risk factors/burdens</i> Actions proven to reduce other health risk factors/burdens include: - increasing physical activity through land use improvements and active transportation, - improving home indoor air quality and comfort, or - improving nutrition through sustainable food systems | SSG TIGHGER Data: cumulative estimated dollar amount from the EPA-COBRA analysis TIGHGER action descriptions. Informed by high value climate and health actions in OHA 2018 Climate and Health Report and consideration of indoor air quality risks from natural gas stoves. Only one action specifically relates to the latter. | 15 |
| | Jobs and Economic Prosperity Co-Benefit | Potential to improve public health | If action is one of these types, it receives full points. Otherwise, it receives no points. | 50% - <i>Number of cumulative person job years estimated to be created over time as a result of implementing the action</i> The higher the number of cumulative job years, the higher the score. 50% - <i>Decrease in household or business building energy cost (from the reduction in energy use) and transportation costs</i> The higher the decrease in costs, the higher the score. | SSG TIGHGER Data: Cumulative person job years SSG TIGHGER Data: Household or business building energy and transportation costs. |
| Other | Risk and Uncertainty | Likelihood the cost-effectiveness, GHG emission reductions, and co-benefits from the action will actually materialize given risks and uncertainties (confidence in the probability: low/medium/high) | The higher the likelihood (i.e. the less risk and uncertainty), the higher the score. Assessed by looking at: 40% - <i>Technical feasibility</i> - Technology proven and available at scale (yes/no); if yes, more likely to happen - Reliance on maximum technical potential (yes/no); if yes, possible won't be able to fully achieve 40% - <i>Political feasibility</i> - Behavior change needed (high/medium/low); the more behavior change needed, the more potential to be less politically acceptable/adhered to - Amount of direct costs/savings (high/medium/low); if more direct costs, potentially less politically feasible (even if reduce a lot of emissions or significant co-benefits) 20% - <i>Implementation timing</i> - Timing of action/benefits (near-term, mid-term, long-term). The longer the lead time, the higher potential to not happen or go off course. | - Professional discretion - SSG Modeling assumptions for each action - Professional discretion - SSG TIGHGER data: Net Cost/Benefit data - Professional discretion based on action descriptions | 11 |



BREAK

Meeting Overview Reminder

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Biennial Report and Roadmap to 2035

- Deliver *Biennial Report and Roadmap to 2035* reports by mid-February to inform upcoming legislative session
 - ***Biennial Report*** – Status report on emission reduction data, overview of policy advances since last report, and overview of recent Commission work on NWL and TIGHGER
 - ***Roadmap to 2035*** – Detailed explanation of the TIGHGER modeling and results with recommendations
 - Recommendations for the *Roadmap to 2035* will be developed and finalized over the next two Commission meetings

Roadmap to 2035 Next Steps (UPDATED 11/23)

| Next Steps | Date |
|--|--------------------------------|
| Written comments due on Draft Recommendations | December 2 |
| Post action scoring results and related recommendations for Commission and public review and comment | December 5 |
| Written comments due on action scoring related recommendations | December 13 |
| Commission Meeting to discuss scoring results and related recommendations | December 16 |
| Post full set of updated recommendations and report outline | December 20 |
| Written comments due on recommendations | January 5 |
| Commission Meeting to finalize recommendations | January 12-13 (Exact date TBD) |
| Final modeling on recommendations by SSG <i>(if needed)</i> | By January 20 |
| Commission Subcommittee final review of report | January 25 – February 1 |
| <i>Roadmap to 2035</i> published and delivered to Legislature | By February 15 |

Framework for Draft Recommendations

1. Support continued implementation of climate programs and regulations adopted and under development.
2. Adopt updated state greenhouse gas reduction goals.
3. Recommend a set of actions for legislative or executive branch action (e.g., authorization and funding) that helps the State meet the accelerated greenhouse gas reduction goal.
4. Fund future studies to continue to guide climate action over time.
5. Strengthen governance and accountability for Oregon climate action.
6. Position the state to take full advantage of federal investments in climate action.

Outline of Draft Recommendations

1. Support implementation of existing policies and programs

2. Update State GHG emission reduction goals

- a) 2035 goal
- b) 2050 goal

3. New climate actions *(to be discussed at next meeting)*

4. Fund future studies

- a) TIGHGER updates and enhancements
- b) Public engagement on equitable implementation
- c) County level data
- d) Consumption-based emissions

5. Strengthen governance and accountability

- a) OGWC resources
- b) Additions to OGWC agency nonvoting members
- c) Agency reporting to OGWC
- d) Dashboard
- e) EO 20-04 general agency directive to prioritize climate actions
- f) EO 20-04 general agency directive prioritize equity

6. Maximize Federal funding

Questions for Discussion

- **Whether the framing of the recommendations included are on target?**
- **Whether the additional considerations identified are useful to address?**
 - *Should we confine the Roadmap to the TIGHGER analyzed policies and programs or include other important policies and programs described in the 2022 ODOE Biennial Energy Report, the Commission's 2020 Biennial Report to the Legislature, and Executive Order 20-04?*
 - *Specific identified additional considerations in need of discussion?*
- **Whether any additional recommendations should be advanced?**