



Climate Action Plan Community Advisory Task Force Meeting #3

1:00-3:30 p.m., Thursday, August 26, 2021: Zoom

Meeting Notes

[Presentations and video available at www.clackamas.us/sustainability/climateaction]

Attendance (check marks indicate those in attendance)

Task Force Members

- ✓ Ray Atkinson
- ✓ Bill Avison
- Sally DeSipio
- ✓ David Bugni
- Nina Carlson
- Katy Dunsmuir
- ✓ Laura Edmonds
- ✓ Zach Henkin
- ✓ Dan Houf
- ✓ Lisa Kilders
- ✓ Julia Person
- ✓ Richa Poudyal

- ✓ Valerie Pratt
- ✓ Adam Rack
- ✓ Jeff Rubin
- Jairaj Singh
- ✓ William Street
- Kim Swan
- ✓ Elysia Treanor
- ✓ Ed Wales
- ✓ Cassie Wilson
- Matt Zacher

County Staff

- ✓ Sarah Allison
- ✓ Eben Polk, facilitator
- ✓ Ellen Rogalin
- ✓ Katie Wilson
- ✓ Garrett Teague

Consultants

- ✓ Maurya Braun
- ✓ Chris Strashok

I. Welcome, Context, Introductions (Eben Polk, Sarah Allison)

Facilitator Eben Polk welcomed everyone to the meeting, acknowledged that the group is meeting on the un-ceded lands of many tribes, and reviewed the meeting purpose:

- Build understanding of greenhouse gas emissions in Clackamas County
- Begin to consider how to make the data actionable

The group split into breakout sessions for five minutes for introductions.

Eben responded to a few questions from the last meeting.

- How are we thinking about involving tribes into this discussion? [Representatives were interviewed but declined to serve on the task force and asked to be involved later, perhaps through a focus group.]
- Since Oregon City does not have a Climate Action Plan, how will the emissions model include Oregon City emissions data? [Our plan will cover the entire county.]
- What is the low hanging fruit that can impact both the climate, and our community's resiliency? [That's part of what we will ask you to identify.]

II. Business as Usual Path Overview (Maurya Braun and Chris Strashok)

Data gathered by the consultants shows that in 2018, there was a total of 7,217,727 metric tons of CO₂e emissions in Clackamas County. The modelling shows that, if no changes are made, those emissions would rise to 7,990,700 metric tons by 2050.

The different types of emissions measured are:

- *Stationary* (residential, commercial, municipal and industrial) – from heating and cooling buildings and using energy in buildings; electricity, appliances, etc.
- *Transportation* (2nd highest portion of county emissions) – vehicles, planes, trains, etc.
- *Agriculture* – energy-based sources (when you combust a fossil fuel), tractors and other machinery; non-energy-based when a chemical is released into the atmosphere and is a greenhouse gas, e.g., from a landfill, industry, manure, etc.
- *Waste and wastewater* (much lower in Clackamas County than in many other areas) – landfills, wastewater treatment creates bio-solids that release greenhouse gases, it takes energy to process wastewater and return it to the environment
- *Fugitive* – natural gas leaks out of the system and through the system
- *Consumption-based* (highest portion of county emissions) – includes emissions in the original location where the item was produced and transportation to the county.

Questions

- Due to the overlap between consumption and transportation, how do we separate them? [Transportation emissions are measured within the jurisdiction. If something is shipped in from outside the jurisdiction for consumption inside the jurisdiction, transportation from where the item was created to the boundary of the jurisdiction is counted with consumption rather than transportation.]
- What are fugitive emissions? [Leaks and other irregular releases of gases or vapors from pressurized containment such as appliances, storage tanks, pipelines, wells, or other pieces of equipment.]
- Have you reviewed the 2018 model in detail in terms of land use and building types? [Yes, and we are fairly confident that we're capturing the essence of the county.]
- The video talked about using the Metro model for certain elements, but a big portion of Clackamas County is outside of Metro. [This project's use of the Metro model focuses on the portion of Metro that is in the county, other than some accounting for incoming or outgoing trips that cross county boundaries.]
- Where did you include concrete production and transportation? It's transported wherever you do road construction. It does add up and there is concrete produced everywhere. [There is none (no factory production of concrete) in Clackamas County unless I missed it. Some would be part of construction. We're not capturing that perfectly for sure.]
- Since wastewater uses energy for processing, why is it not listed as an energy-based source? [It would be categorized as a building-type operation.]
- What percentage of CO₂ does Clackamas County emit compared to the state average? How big of an impact does Clackamas County have compared with some other counties in the state? [We will get back to you with that information.]

Moving Forward

We took the 2018 inventory and projected it to 2050 taking the following factors into consideration:

- Demographics
- Land development and new construction
- Federal and State regulations such as building and energy efficiency codes
- Fuel sources for electricity generation
- County Strategies and Policies
- Temperature
- Uptake of new, emissions-free technologies

Questions

- Why are MMBTU's labeled as thousands rather than millions? [It's thousands of millions of BTUs – it makes it easier to read with fewer number.]
- If a business has more than one location, did you combine all data into the main location of the business? [We have data by building type, not by business.]
- How are zones within the county map designated? [We used traffic zones from traffic modeling by Metro.]

2018 compared to 2050: Maurya mentioned areas worthy of note when comparing current to projected emissions:

- *Waste emissions* are very low in Clackamas County relative to many other jurisdictions, but is projected to rise significantly by 2050, mainly because of expected population increase. Plastic and metals can be recycled and move into circular economy; making better use of recycled materials. There are many opportunities to address this issue, including ways to turn waste into a money-maker.
- *Transportation emissions* are 24% of county emissions in 2018 and projected to be 20% in 2050 – but that is still a very large portion of total emissions and needs to be addressed. There are many opportunities to change vehicles and human behaviors.
 - Emissions from cars appear to be dropping partially because fuel efficiency standards continue to improve and electrification of cars is projected to increase to 100% of new vehicle sales in 2035. Car ownership and use is dropping, but is offset somewhat by rising ownership and use of light trucks. Some electrification of heavy trucks is projected to improve emissions in that area.
 - Aviation traffic is projected to rise significantly and jet fuel is a problem.
- *Consumption-based emissions* are not tracked by many jurisdictions, so that puts Clackamas County a step ahead in getting a handle on this. Oregon does have a state-level emissions inventory, overseen by DEQ.
- *Building emissions* are projected to decrease because:
 - There are retrofits every year in a certain portions of multi-residential housing;
 - New buildings are built more efficiently as the building code gets stricter, and
 - Heating degree days are going down, much more than cooling degree days are going up. The average temperature in Clackamas County is forecast to increase by 1.6 degrees forecast from 2020 to 2050.

Questions/Comments

- Does Clackamas County have an input/output economic model? OSU does an exhaustive study of counties for input and output every five years, but I'm not sure if they do it for urban counties. It could give us valuable information if it exists. [It's not included in this model, but staff will check on it.]
- Do your projections assume most people will return to the office after COVID? [Yes, people working from home was considered to be temporary.]
- Does this modelling reflect air conditioning being mandated in new construction of affordable housing? [We don't differentiate between types of housing, but will check on the modelling details.]

- Does the graph also represent electricity use by electric vehicles? [Electric vehicle use would come from the grid, so it would include electricity generation emissions.]
- How were forest fire emissions built into agriculture? [They were not, but it is an important consideration.]
- Does waste tonnage include batteries from electric vehicles that are not recyclable? [No, but it would need to be considered.]
- For non-metal recyclables, wouldn't projections be increasingly uncertain the further out you go. [They are based on industry forecasts as well as current data.]
- Have you modeled the existing carbon sequestration capacity of Clackamas County? Sequestration can be variable and emissions increase over time, but sequestration can go up or down, e.g., with forest fires. It seems there should be a gross number reported and then factor in how you deal with forest fires like a supply and demand equation. [No, but we can add more sequestration capacity as appropriate. We can incorporate this into inventories, but it doesn't make much difference at the stage we're at now. The county could add that data to inventories in the future to track that more carefully. Our base assumption is no real base increase in forest consumption.]
- I have data on forest sequestration nationally that includes Oregon that could be shared with the team. Keeping it separate would be a good tool to be able to use at the future – I think we should look at those numbers closely. [Modelling won't capture every detail. This task force can discuss if there's a need for better data and could include that in its recommendations.]

Chris showed maps of different areas they have done modelling for, including areas outside Toronto, Halifax, western Nova Scotia – areas with both urban and rural mix.

III. Prioritization Criteria

General

- Are the criteria listed in order?
- Will we list these (the entire list) in terms of importance?

Greenhouse Gas Mitigation

- Umbrella topic. Seems to be our entire goal to focus on this. Weight heavily.
- How will mitigation strategies for the I-205 toll project interact with the Climate Action Plan?
- Provide examples of mitigation capacities.

Resilience

- Losing power – micro-grids? What can we do about this? We hang our hat mostly on solar and wind, which doesn't always work for us in Clackamas County
- Do we have to consider trade-offs? Do we agree to get to zero, but need back-ups?
- Is there a trade-off to encouraging low emissions?
- Some states are doing interesting things with back-up green systems, e.g., fly wheels – used on trains a lot – short-term energy storage.
- Resilience – creative ways of storing energy and localizing energy, also making sure infrastructure can withstand flooding, weather events, etc.
- It's hard for us to project what technology will be in 20-30 years.
- Something that's resilient may not be carbon neutral.
- Refine it to the most likely impacts in the county rather than "a wide variety."
- "Capacity" makes more sense than "preparedness" in this context.

- It's prudent that we also understand the impact to our workforce, affordability and cost of living, as well as future costs of utilities; loss of services if exceeding capacity constraints.
- Role of cargo bikes to replace cars during disasters. What happens when gas stations can't be used but cargo bikes can?
- Coordinate with adjacent counties.
- This is an awkward definition of resilience. It's not necessarily part of preparedness; maybe better to clarify via focus on adaptation and vulnerability reduction. One can prepare without increasing resilience.
- There are several options to assess resilience in the built environment; how do we meaningfully assess non-built resilience?

Financial Impacts

- People need an incentive – accomplish more than regulation or a big stick
- Regulation as far as planning and building standards, people are used to that and know they will save money in the long-run.
- Concerned about how we mesh with three adjacent counties.
- Maybe need to recommend linking up with other counties or with the state.
- Will financial incentives be considered in financial impact to the county or is it just the cost of implementing without incentives?
- Should “net cost” be broken down into “in short-term” and “in long-term?” Magnitude is not reflected well – could this be expressed as an ROI (positive or negative) instead?
- Seems to be critical to compliance. Maybe a discussion of incentivizing vs. regulating? Both seem necessary.
- Travel time savings between travel modes.
- Financial impact of infill development vs. sprawling land use? Zoning policy?
- How to support higher up-front costs to balance long-term efficiency. Loans, grants, oversight of projects.
- How are we calculating this? Important to be transparent with methodology for everything here, but particularly this.

Available Technology

- If there's available tech, that may be low-hanging fruit.
- Sustainable fuels in Europe – could that apply here, too? [Shouldn't look at forest as something you can burn for fuel.]
- Large agricultural areas in Clackamas County
- Creating fuel from livestock waste
- We should consider looking to other countries that may have advanced technology that have not reached the NW.
- Work with community partners to develop NEW technology (i.e., CCC, PSU, PCC, etc.). Incentivize new inventions and technology?
- Tech conversion processes are of interest; how to retain; availability impacts this.
- Even though bike-share and scooter-share are available in the Portland region, my survey results of CCC students show resistance to these technologies. How is public support considered in the availability of technology?
- Would focus on the outcomes rather than any specific technologies to keep an open mind for what may be available and disruptive in the future.
- Use low-hanging fruit, but cannot rely on future tech access.
- Value/consider overall impact of technologies, i.e., burning forest for power/biowaste plants.
- Consider impact of leakage of old tech that will be phased out.

Equity Impacts

- Very challenging to measure.
- Need a process to review current standards; having the impact that is intended.
- How to recommend systems that will actually adjust in the future to the outcomes?
- We talked about leading with equity, but how do we do that?
- Think of it near the end when you implement things, add an equity component.
- Good to add equity after the models have been developed to be sure we can help people who need it.
- Now there are proposals to toll sections of I-205 – equity fits better at the end.
- We've seen negative impacts from actions with positive intent.
- Codify equitable access to housing, technology. Process to reflect and adjust code / recommendations on impact. Lead with equity.
- It seems these could be reasonable, but devil is in the details.
- Financial equity and impact both address distributional benefit/cost questions.
- Rural transit, which is needed for equity with urban transit, could hurt ability to achieve climate goals because rural transit could have one rider per hour.
- What is our "baseline equity" and how is that determined? Are we using ATSDR's SoVi or something with greater resolution? How are we assessing equity, benefit and harm given that access to different services and benefits varies?

Co-benefits

- Could also cover negative impacts, e.g., a solar array on productive farmland rather than on huge warehouse buildings.
- Look at building codes and incorporate other benefits into things being built now.
- Illustrate or present connections between actions or actions and co-benefits.
- It looks like each co-benefit will need to be measured separately, then could be helpful to have a summed score to allow for easy comparison.
- Create a spider of Venn diagram.
- Consider co-negatives as well?

County Influence Over Implementation

- Messaging is really important
- Prioritize what is important first (for emissions reductions) and this criteria could be secondary to that. County can help seek economies of scale and thereby help build influence and encourage more partners to sign on or align.
- Providing top-down county advocacy and connections to resources could to a lot to provide a foundation of support for local government.
- The county's ability to influence is larger than direct actions, i.e., altering public procurement policies would send significant signals to the market and could help drive early adopters.
- Advocacy in areas where we don't have a lot of control will be important actions.
- Seek to expand county influence with partnerships / regional / industry.

Compatibility with Other Initiatives

- Is this specific to climate-related initiatives only? If so, let's specify this.
- To some extent many, many policy areas relate to climate.
- Add existing county policies. For example, Get Moving 2020 for Clackamas County was focused on highway widening and extending. This goes against climate action.

Expected Timeline

- Some actions may require prior public policy action; critical path is useful here.

- With respect to engagement, let's be flexible about timeline.
- Distinguish between dependent and independent steps for starters?
- The scale for measurement is a bit confusing on this one.
- Expected "sequence" or "order of actions" are other words to consider. I find "timeline" a little confusing since it's referring to implementation vs. the climate action plan time scale.
- Should "significant impact" and "enables other actions" in provides key early action? I think they should be separated because "significant impact" may not be possible to do early. Enables other actions that need to be done early.

Breadth of Support

- How about an "extensive opposition" category so there is balance to the categories?
- Separate support groups into urban, suburban, rural. Rank support from rural people higher if rural transit is being reviewed and rank support lower from urban/ suburban people.
- What if there's resistance to things that otherwise tick off all the other boxes?
- Look at testimony on other climate legislation?
- Will we need to measure support separately for each of these groups?
- This could be unwieldy if done for each stakeholder group separately; implications for our resources.
- Be clear about our methods, definitions; transparency of process matters.
- Also keep in mind the long term – certain group's support (i.e., youth) may take on greater weight for longer term actions.
- Support isn't static; it can be increased or decreased by...
- Are we considering depth and duration of support? Is it dependent on elections at various levels? Annual/biennial budgets? Factors beyond our control? Do we assess ability to build/lose support?

IV. Public comments

There was no public comment.

V. Next steps, meeting evaluation

Staff will look into the relative contribution to carbon emissions from Clackamas County.

Task force members are asked to visit Basecamp and respond to prompts that you'll find there and let us know how we're doing.

Next meeting: Thursday, Sept. 9, 1 to 4 p.m.