



Memorandum

To: Representative Owens

From: Department of Environmental Quality

Date: May 5, 2022

Subject: Response to ReBuild Task Force Follow Up Questions Dated April 27, 2022

On April 27th, 2022, your office sent DEQ's Legislative Liaison questions regarding the Community Climate Investment (CCI) portion of the Climate Protection Program (CPP). Below are the Department's responses to those questions.

1) How are we ensuring that nonprofits who are holding the responsibility to deliver emissions reductions via CCIs have the support and capacity to do this new area of work?

Under rules approved by the Environmental Quality Commission, DEQ will review and approve applications from proposed CCI entities. As part of the application, proposed CCI entities must demonstrate that they have the capacity to administer and spend CCI funds to carry out eligible projects statewide, will have the staff capable of conducting work associated with being a CCI entity, and will have staff or subcontractors capable of implementing eligible projects throughout Oregon. Rules allow approved CCI entities to use a portion of CCI funds for costs associated with administering and implementing projects that reduce GHG emissions in Oregon. This could include reporting, capacity building, community outreach, and other expenses associated with delivering CCI projects. Following provisional approval, DEQ will enter into an agreement with the CCI entity prior to its receiving CCI funds. This agreement includes requirements for monitoring and reporting of project outcomes sufficient to document emissions reductions. While CCI entities must be non-profits, a CCI entity may subcontract with a for profit organization if needed to assist with these requirements or capacity. The CCI contribution amount is intended to reflect the full cost of delivering GHG reduction projects.

a) What happens to them and the proposed CCI project if it turns out they don't have adequate support needed to do this work?

Approved CCI entities will develop workplans which will describe emission reduction projects and estimated budgets, including methodology for calculating emission reductions. CCI entities are required to produce annual reports will also include details on CCI funds received and CCI funds spent annually. DEQ anticipates that workplan development will be an iterative process as plans are modified and approved based on the Equity Advisory Committee feedback, projected budgets, capacity building, and other factors, including the availability of CCI funds. The Equity Advisory Committee, a key component of the CCI program, will provide comments and recommendations to DEQ on potential CCI entity applications, work plans, and annual reports.

If DEQ ever finds that a CCI entity has been in violation of the provisions of its agreement or is not otherwise in compliance with the eligibility criteria for approval, DEQ may suspend or revoke approval of

a CCI entity. Should that occur, DEQ can require the transfer of any unspent CCI funds to another CCI entity.

The decision to contribute funds to a CCI entity is a voluntary compliance option for the program's regulated companies. If there are no contributions to the CCI entities, there are no funds to invest in projects.

- 2) How do you reconcile your response today about carbon sequestration possibly qualifying as a CCI project with DEQ's written response that states, "DEQ is not proposing changes in response to these comments. Carbon sequestration is an important tool to address climate change, but the Climate Protection Program is focused on reducing of anthropogenic greenhouse gas emissions, primarily those from fossil fuel combustion." ?**

As understood by DEQ staff at the time, the response was regarding a question about carbon capture from industrial sources of CO₂. Such sources of CO₂ are typically from industrial-scale combustion of fossil fuels. As such, DEQ believes the CPP rules could allow for CCI funds to be invested in capturing those emissions from fossil fuel combustion to avoid the pollution being emitted into the atmosphere. That type of activity is different from previous inquiries about whether carbon sequestration on natural and working lands (e.g. low- or no-till agricultural practices and/or longer tree rotations) are allowed as a CCI investment.

- 3) Can you please provide the rubric and criteria that DEQ will use to ensure that CCIs will actually get done and deliver the promised GHG reductions?**

Proposed CCI entities must complete an application, a contractual agreement with DEQ, develop workplans and produce annual reports. CCI entities may not invest any CCI funds until DEQ approves workplans that detail how CCI projects will achieve a reduction in GHG emissions. Workplans will include a description of the methodology that the CCI entity is using to estimate the GHG emission reductions that will result from projects in the work plan, along with an estimate of the anticipated reductions. They will also do the same for other air contaminant emissions reductions. Annual reports will track CCI funds received, held, or spent and project outcomes including GHG emissions reductions and other air contaminant emissions reductions that are anticipated to be achieved from projects completed during the year.

In addition to this annual tracking and monitoring, DEQ will report to the EQC every two years on the CCI program. The report will include a calculation to determine whether the average emissions reductions achieved per CCI credit distributed by DEQ is one metric ton or more of reductions, and if not will include recommendations to the EQC on program changes to address that shortfall.

- 4) What are the average emissions from an existing commercial and residential home in Oregon compared to a New Homes Program home from ETO or commercial codes?**
- a. Can you please provide emissions data on the emission profiles of different buildings and building dates? For instance, is there a difference in the average emissions profile of a building built in 1975 versus a building built in 1990?**

DEQ does not collect data on this topic. Another organization, such as the Energy Trust of Oregon, might be able to provide an answer.

**b. Can you please provide the emissions profiles for buildings located in EWEB's service territory?
And also buildings located in PGE and PacifiCorps service territories?**

While DEQ does not have the necessary data to adequately answer this question, we have paired data from the federal Energy Information Agency with emissions data reported to DEQ by electric utilities to provide estimates for residential homes. DEQ used the most recent three -year average (2018-2020) GHG reporting data to calculate an emissions factor for the power used to generate electricity by the three utilities: Pacific Power (PacifiCorp), Portland General Electric (PGE), Eugene Water & Electric Board (EWEB). DEQ also uses a standard emission factor for natural gas. Since DEQ doesn't have data on how much electricity or natural is gas is consumed by homes for space heating, we have used EIA's average annual household site space heating consumption by main heating fuel data. We used the reported amount for all homes nationwide. All homes include single family, apartments, and mobile homes. Data was collected in 2015 and is for both electricity (central warm-air furnace, heat pump, built-in electric units, portable electric heaters, etc.) and natural gas (central warm-air furnace, steam or hot water system, built-in room heater, etc.).

Estimate of average emissions to heat a home with natural gas vs. various electric utility energy sources ¹	EIA Fuel Use (mmBtu)	Fuel Use (MWh)	DEQ Emissions Factor (MT CO ₂ e /Fuel Unit)	Average Annual Emissions to heat a home (MT CO ₂ e)
Natural Gas	47.5		0.053	2.52
PacifiCorp	13.6	3.99	0.667	2.66
Portland General Electric (PGE)	13.6	3.99	0.383	1.53
Eugene Water & Electric Board (EWEB)	13.6	3.99	0.032	0.13

Note that the above emission factor for natural gas is not likely to change, as burning natural gas will result in the same GHG emissions (absent introduction of non-fossil fuels into the gas system). However, electricity can be generated from a wide range of emitting and non-emitting resources. With the passage of HB2021 (2021), both PGE and PacifiCorp are now required to reduce the generation emissions of electricity they serve their Oregon customers, ultimately achieving 0 emissions by 2040.

¹ These rough estimates rely on national average data on energy consumption to heat homes with natural gas and electricity. These are not data collected by DEQ, but are collected by the federal Energy Information Agency. DEQ has then applied that energy consumption information (mmBtu of natural gas, MWh of electricity) to the emission factors for natural gas, and the recent 3-yr average of reported emissions by the three electric utilities.

The energy consumption data from EIA can be found here:

<https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption>

The reported emissions by electric utilities to DEQ can be found here:

<https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx>

So, holding energy use constant, while using natural gas will continue to emit the value shown above, Oregon homes heated with electricity will have a 0 emissions footprint by 2040.

4) Please provide the criteria DEQ uses when evaluating the costs of a CCI project versus the GHG emission reduction a project purports to achieve?

A central criterion for CCI projects is that they reduce GHG emissions in Oregon, and that overall on average these investments achieve 1:1 reductions in GHG emissions with the number of CCI credits issued to regulated fuel suppliers.

Further, the purposes of the CCI program include promoting health, environmental, and economic benefits for environmental justice communities throughout Oregon, including BIPOC, rural, tribal, coastal, and low-income communities and accelerating the transition away from fossil fuels in or near these communities. Projects that reduce reliance on fossil fuels in these communities and are identified as most beneficial by the communities will be prioritized for CCI investments.

In order to gauge the success and effects of CCI investments, DEQ will need multiple criteria in addition to the previously noted one on direct GHG reductions. DEQ does not yet have specific criteria to evaluate costs and emission reductions of CCI projects, but will develop those with CCI third parties and with the advice of a DEQ-established Equity Advisory Committee. DEQ will report to the EQC every two years on CCI investments, including whether the program is achieving the 1:1 emission reduction, and recommendations if not.