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Colin McConnaha
Manager, Office of Greenhouse Gas Programs
Oregon Department of Environmental Quality
Via email to CapandReduce@deq.state.or.us

Re: Comments on Climate Protection Program Rulemaking Advisory Committee Meeting No. 4 on Regulation of Stationary Sources

Dear Mr. McConnaha:

The Green Energy Institute at Lewis & Clark Law School is a nonprofit energy and climate law and policy institute within Lewis & Clark's top-ranked environmental, natural resources, and energy law program. We greatly appreciate the opportunity to participate in the Rulemaking Advisory Committee (RAC) for the Department of Environmental Quality's (DEQ) Climate Protection Program, and respectfully submit these comments on issues relating to the proposed approaches for regulating stationary source emissions under the program.

I. Regulating Stationary Source Emissions under the Climate Protection Program

> *DEQ Discussion Questions: What are your thoughts on regulating stationary source emissions with a site-specific best available emissions reduction approach instead of the use of compliance instruments? What do you see as the potential benefits and the challenges to using this approach for stationary sources?*

We have serious concerns about DEQ's proposal to regulate stationary source emissions through a best available emissions reduction (BAER) approach. While the Climate Protection Program (CPP) should aim to maximize on-site reductions of process-based emissions from industrial facilities, the proposed approach would replace binding emissions limits with site-specific technology and/or operational requirements that rely on subjective determinations of the "best available" strategies for reducing emissions from complex industrial processes. In addition to being inconsistent with the directives of Governor Brown's Executive Order 20-04 (EO 20-04), this approach would require an enormous amount of technical expertise to administer effectively, would require a high level of agency oversight to achieve modest emissions reductions, and would create opportunities for regulated industries to exert undue influence over their compliance obligations. Moreover, it is unclear how exempting industrial source emissions from the program's emissions cap will support Oregon's greenhouse gas (GHG) reduction goals or help improve air quality in impacted communities.

Any approach that excludes stationary source GHG emissions from regulation under the CPP's cap would be inconsistent with EO 20-04, which directs DEQ and the EQC to cap and reduce GHG emissions from large stationary sources in a manner consistent with the science-backed goal of reducing Oregon's GHG emissions at least 45% below 1990 levels by 2035 and at least 80% below 1990 levels by 2050. The total process-based GHG emissions DEQ is effectively proposing to exempt from regulation under the cap (1,143,089 metric tons CO_2e in 2019) would comprise more than 10% of Oregon's total allowable 2050 emissions under the targets established by EO 20-04.[1] Moreover, the preliminary CPP reference case modeling estimates that industrial emissions will increase by 28% between 2018 and 2050.[2] Given the urgency and severity of the climate crisis, there is no justifiable reason to exclude industrial GHG emissions from regulation under the CPP cap.

The proposed approach also lacks clarity on several key issues. First, if no technical or operational strategies are currently available to reduce GHG emissions from a specific industrial process, would industrial sources using that process be effectively exempt from compliance obligations under the program? Second, if a source applies BAER yet fails to achieve any meaningful reductions in emissions, would the source be penalized or subject to enforcement action? Third, after a source applies BAER, would the source be required or expected to increase its emissions reductions over time? Fourth, would emissions from new industrial sources also be exempt from regulation under the cap?

An optimal approach would be to regulate process-based GHG emissions under the program-wide emissions cap and require applicable stationary sources to apply BAER and maximize on-site emissions reductions before they are eligible to use any flexibility mechanisms available under the program. For example, if an industrial facility applies BAER but is still unable to meet its compliance obligations, DEQ could allow the facility to purchase community climate investment (CCI) credits for its excess emissions. To mitigate potential impacts from co-pollutant emissions, CCI revenues collected from stationary sources could be directed to projects that improve air quality in communities impacted by industrial air pollution. DEQ could also limit or prohibit industrial emitters from purchasing compliance instruments from other regulated entities.

We urge DEQ to develop an approach for regulating stationary source emissions that (1) includes process-based emissions within the CPP's program-wide emissions cap, (2) requires industrial and manufacturing sources to maximize on-site emissions reductions through the application of BAER, and (3) and allows regulated sources to purchase community climate investment credits to account for any excess emissions that are not adequately controlled by BAER. This approach would be consistent with the directives of EO 20-04 and Oregon's science-backed GHG reduction targets while also ensuring on-site reductions in emissions from industrial processes. Moreover, by requiring stationary sources to purchase CCI credits for any excess emissions that BAER fails to capture (in contrast to simply exempting these emissions from regulation, as DEQ

[1] OR. DEPT. OF ENVTL. QUALITY, REGULATING STATIONARY SOURCE EMISSIONS tbl. 1, p. 3 (April 20, 2021), https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcr2021ConsidStation.pdf. To achieve EO 20-04's emissions goals, Oregon's GHG emissions cannot exceed 11.2 million metric tons CO_2e in 2050.

[2] OR. DEPT. OF ENVTL. QUALITY & ICF, OREGON CLIMATE PROTECTION PROGRAM: MODELING STUDY ON PROGRAM OPTIONS 5 (2021), https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/ghgcrRefPolResults.pdf.

has proposed), this approach would help drive investments in projects that directly and meaningfully benefit environmental justice communities that are currently or historically burdened by industrial pollution.

II. Determining Best Available Emissions Reductions

> *DEQ Discussion Questions: What might DEQ need to consider when determining whether a source has met best available emissions reduction assessment? What factors should be considered and evaluated as part of the assessment (i.e. emission reductions, availability of emissions reduction processes and technology, cost of technologies, potential interactions with co-pollutants and local air quality)?*

First, to determine BAER for industrial and manufacturing process-based GHG emissions, DEQ should apply a similar analysis to EPA's top-down approach for identifying best available control technology (BACT) for GHG emissions.[3] This approach should require sources to use technologies, process changes, and any other available strategies that have the greatest potential to effectively reduce GHG emissions from industrial and manufacturing facilities in Oregon. In the context of the Clean Air Act's PSD program, EPA noted, "there are "compelling public health and welfare reasons for BACT to require all GHG reductions that are achievable."[4] This principle is equally applicable in the context of identifying BAER under the CPP program.

Second, DEQ should reevaluate BAER every five years to ensure that covered sources are continuing to use the best available technology on an ongoing basis.

While the top-down BACT approach should inform the BAER analysis, there are some fundamental differences between the Clean Air Act's PSD program and the CPP. DEQ should therefore adapt the existing BACT framework in a few key ways and tailor the BAER approach to meet the needs and objectives of the CPP. For instance, rather than rely on agency staff to determine BAER on a source-by-source basis, DEQ should consider directing regulated stationary sources to contract with eligible third-party consultants to conduct BAER analyses. Under this approach, consultants should be vetted and certified by DEQ to promote objectivity, accuracy, and impartiality of BAER determinations. BAER selections should also be subject to DEQ approval.

A. Top-Down Approach for Determining BAER

We encourage DEQ to establish a five-step, top-down approach for identifying, evaluating, and selecting BAER for industrial and manufacturing emissions:

Step 1: Identify all available control technologies. In the first step of the BAER analysis, DEQ (and/or any certified third party consultants) should identify available technologies, production processes, and other methods, systems, or techniques for controlling process-based GHG

[3] *See* U.S. ENVTL. PROTECTION AGENCY, PSD AND TITLE V PERMITTING GUIDANCE FOR GREENHOUSE GASES (2011), https://www.epa.gov/sites/production/files/2015-12/documents/ghgpermittingguidance.pdf [hereinafter EPA GHG PERMITTING GUIDANCE].
[4] *Id.* at 40.

emissions from industrial and manufacturing facilities. EPA's BACT/RACT/LAER Clearinghouse should serve as a starting point for identifying available technologies and process-based control strategies.[5] DEQ should consider controls available in other source categories or sectors to determine whether GHG reduction strategies or technologies implemented at other sources could be applied to reduce emissions from regulated industries in Oregon. This analysis should also explore the potential for technology transfer from sources or industrial processes in other countries, as well as innovative emerging technologies.[6] No available control strategies should be omitted during this phase of the analysis. For example, reductions in operations or output should be listed as available BAER candidates if they would reduce GHG emissions. However, under no circumstances should DEQ incorporate a "redefining the source" framework into the CPP's BAER analysis. Under the BACT framework, many polluting facilities have managed to avoid applying effective pollution controls by asserting that available controls would "fundamentally redesign" the nature of the facilities.[7] This loophole must not be available under the CPP.

Step 2: Eliminate technically infeasible options. Under this step, any strategies that cannot feasibly be implemented by the relevant source type for physical, chemical, or technical reasons should be removed from the analysis. Strategies that have been successfully implemented by similar sources or processes should only be eliminated if they are not commercially available (and are not projected to become commercially available within a timeframe necessary to meet compliance obligations) or cannot feasibly be installed or operated at the relevant stationary source. Cost should not influence technical feasibility determinations.

Step 3: Rank remaining control technologies. In step three, all available and technically feasible emissions control options should be ranked according to their effectiveness in reducing GHG emissions (converted to CO_2e). The combination of strategies with the greatest potential to effectively reduce emissions should be ranked first.

Step 4: Evaluate the most effective control strategies. At this stage in the analysis, DEQ should assess the environmental, economic, and energy impacts of the top-ranked strategies. The top-ranked control strategy should be selected as BAER unless it is eliminated due to justifiable environmental, economic, or energy impacts. If the top-ranked strategy is eliminated, DEQ should repeat this analysis for the second-ranked strategy. For each strategy evaluated, the agency should consider potential GHG reduction benefits relative to any potential adverse impacts. The agency should exercise a reasonable amount of discretion and objectivity when assessing the potential impacts and benefits from emissions control strategies.[8] Wherever feasible, DEQ and/or a certified consultant should independently verify information submitted by

[5] U.S. Envtl. Protection Agency, *RACT/BACT/LAER Clearinghouse (RBLC),* https://cfpub.epa.gov/RBLC/index.cfm?action=Home.Home&lang=en.
[6] *See* EPA GHG PERMITTING GUIDANCE, *supra* note 3, at 24.
[7] *See* Helping Hand Tools v. EPA, 848 F.3d 1185 (9th Cir. 2016); Sierra Club v. EPA, 499 F.3d 653 (7th Cir. 2007); *see also* Sage Ertman, *Climate Change and the PSD Program: Using BACT to Combat the Incumbency of Fossil Fuels*, 47 ENVTL. L. 995 (2017).
[8] "In conducting the energy, environmental and economic impacts analysis, permitting authorities have "a great deal of discretion" in deciding the specific form of the BACT analysis and the weight to be given to the particular impacts under consideration." EPA GHG PERMITTING GUIDANCE, *supra* note 3, at 41.

regulated industries and sectors. The agency's assessment should include three distinct impact analyses:

- The *environmental impacts analysis* should focus on impacts beyond those directly associated with the source's GHG emissions, such as projected reductions in co-pollutant emissions resulting from the control strategy. This analysis should consider potential environmental and public health impacts in the surrounding community, as well as over a broader geographic area. For example, if a top-ranked control strategy would reduce GHG emissions but increase emissions of harmful co-pollutants that would present a threat to local communities or ecosystems, the strategy should likely be eliminated due to its environmental impacts.[9]
- The *economic impacts analysis* should focus on the cost effectiveness of a control strategy's emissions reductions in terms of cost per unit of emissions reduction. The economic impacts analysis should not focus on how affordable a control option is for a specific source. A control option should only be removed due to its economic impacts if the cost per unit of emissions reduction is disproportionately high compared to slightly less effective control options.
- The *energy impacts analysis* should aim to determine whether the control strategy would significantly increase energy consumption at the source, particularly consumption of fossil fuels for energy production. This analysis should also assess any potential energy benefits associated with the control strategy, such as switching from fossil-based to renewable energy sources. Energy-related costs should be evaluated through the economic impacts analysis rather than the energy impacts analysis.

Step 5: Select the BAER. In the final step of the analysis, DEQ should select the highest-ranked control strategy that was not eliminated in step 4 as the BAER for the applicable source or sector. In contrast to the BACT analysis under the Clean Air Act, if stationary source emissions are covered under the CPP cap, the BAER selection does not necessarily need to be translated into specific permit-based emissions limits. If industrial emissions are covered under the cap, stationary source emissions would generally be limited by the number of compliance instruments distributed to each covered source or sector. If, however, DEQ decides to pursue its proposal to apply a BAER-based approach that exempts industrial emissions from regulation under the cap, the final stage of the BAER process must include a comprehensive review of the selected BAER's performance potential, which must then be translated into enforceable emissions limits for the applicable source.

B. Regularly Reevaluate and Update BAER

In addition to establishing a top-down approach for determining BAER, DEQ should review and update BAER determinations every five years to account for advances in technologies and industrial processes. The Clean Air Act requires such updating under Sections 111 (New Source Performance Standards) and 112 (National Emissions Standards for Hazardous Air Pollutants), and DEQ should integrate this into the CPP. As decarbonization efforts gain momentum across the country and the world, innovative technologies and practices will inevitably emerge to reduce

[9] However, EPA recommends that this analysis should consider the potential GHG reductions in relation to any increases in co-pollutant emissions. For example, significant reductions in GHG emissions may potentially outweigh a slight increase in co-pollutant emissions from a geographically isolated facility. *See id.* at 42.

emissions from manufacturing and industrial processes. The CPP should require stationary sources to update their BAERs over time as new control options become available.

Regular BAER updates will be particularly essential if industrial emissions are not covered under the CPP emissions cap, but the program should require BAER updates under either regulatory approach. If industrial source emissions *are* regulated under the program's emissions cap, the decline in compliance instrument allocations should in theory incentivize stationary sources to maximize cost-effective emissions reductions. However, there are a variety of economic and non-economic factors that could deter sources from installing new emissions control technologies, such as unfamiliarity with innovative equipment. Alternatively, if industrial emissions are not regulated under the cap, stationary sources that have applied BAER will have no incentive to install new technologies or alter their processes to maximize emissions reductions.

To ensure that BAER continues to maximize emissions reductions over time, DEQ should direct regulated entities to review step one of the BAER analysis at regular intervals (*e.g.,* every five years). If this review identifies new emissions control strategies that were not previously evaluated, the entity should be required to conduct a new BAER analysis to compare the effectiveness and environmental, economic, and energy impacts of new controls with the source's existing BAER. A directive to reevaluate and update BAER will help drive demand for—and development of—innovative new technologies that could create additional economic opportunities in Oregon while enabling greater emissions reductions from stationary sources.

In conclusion, we strongly encourage DEQ to develop an approach for regulating stationary source emissions under the CPP's program-wide emissions cap that requires industrial and manufacturing sources to maximize on-site emissions reductions through the application of BAER and allows regulated sources to purchase community climate investment credits to account for any excess emissions that are not adequately controlled by BAER. We encourage DEQ to establish a top-down approach for determining BAER for regulated stationary sources, and urge the agency to include requirements for reevaluating BAER on a regular basis to support deployment of emerging emissions reduction technologies and processes.

We appreciate your consideration of our comments.

Sincerely,

Amelia Schlusser
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The Green Energy Institute at Lewis & Clark Law School