



Oregon

Tina Kotek, Governor

Department of Environmental Quality

Agency Headquarters

700 NE Multnomah Street, Suite 600

Portland, OR 97232

(503) 229-5696

FAX (503) 229-6124

TTY 711

July 11, 2023

ATTN: Jason Bowker

Amazon Data Services, Inc.

PO Box 80711

Seattle, WA 98108-0711

Sent by email to jbowlker@amazon.com

RE: Request for additional information for BAER Assessment for Amazon PDX 109

Greetings, Jason,

DEQ received an updated Best Available Emissions Reduction (BAER) Assessment (here called the “updated assessment”) from Amazon Web Services for the PDX 109 data center (Air Contaminant Discharge Permit [ACDP] # 25-0062-ST-01) dated June 5, 2023.

This letter constitutes a request for additional information under OAR 340-271-0310(3). This information was either previously requested in a letter from DEQ to Amazon dated April 13, 2023, or represents a request for the calculations supporting data that was included in the updated assessment.

For all information provided as part of the BAER assessment, Amazon needs to provide sufficient supporting information including data sources, assumptions and calculations to allow DEQ to evaluate the information provided.

DEQ is requesting that Amazon provide the following additional information:

1. A detailed analysis of the potential for solar photovoltaic (PV) module installation at the PDX 109 site. Solar PV could presumably be installed on roofs, walls, above parking lots, and in other areas of the site. The updated assessment included some conclusions but did not provide supporting information such as the underlying assumptions and calculations that lead to those conclusions.
2. Expand on section 3.2.4 of the updated assessment that discusses wind energy to include:

- a. A detailed analysis of the wind resource (wind speeds and resultant energy generation potential) in the PDX 109 area.
 - b. Documentation that Amazon has consulted two or more wind developers about the feasibility and cost of erecting one or more wind turbines at the PDX 109 site. Include information about technical feasibility, cost, and energy generation potential.
3. Assess the technical feasibility and cost of options for integrating solar and/or wind with the fuel cells proposed in the assessment. Options that should be considered include but are not limited to:
 - a. Integration of solar or wind with the fuel cells so that the output and covered emissions from the fuel cells are reduced at times when the solar or wind are generating electricity.
 - b. Options for matching the output of the combined system to the facility's load profile, including:
 - i. Batteries.
 - ii. Thermal energy storage to offset later cooling needs.
4. In Section 3.2.5 the updated assessment concludes that installation of fuel cells fueled with natural gas from the GTN pipeline is technically feasible. Provide an estimate of the time, cost and non-DEQ permitting process for this option, including connecting PDX 109 to the GTN pipeline. This is needed to allow comparison with any other technically feasible options.
5. Section 3.2.8 of the updated assessment eliminates purchase of biomethane attributes from the analysis, based on Amazon's interpretation of the Climate Protection Program rules. However, DEQ's interpretation of the current rules is that sources subject to CPP, including BAER sources, may procure biomethane using a book-and-claim approach in order to reduce covered emissions. DEQ is conducting a rulemaking which currently proposes to clarify the requirements for reporting supply or use of biomethane under our Greenhouse Gas Reporting Program, which dictates DEQ's assessment of covered emissions under the CPP. Please include an analysis of the feasibility and cost of purchasing biomethane attributes in the assessment.

Amazon has indicated that Cascade Natural Gas, the natural gas utility in the PDX 109 area, has declined to provide natural gas to the project and also declined to provide additional written confirmation of that decision. DEQ continues to be interested in this potential option to reduce BAER covered emissions and is considering next steps.

If you have questions about the request above, please contact me for clarification.

Thank you,

Joe Westersund

Joe Westersund

Environmental Engineer, Office of GHG Programs