

**INTERVENOR'S RESPONSES TO VERMONT GAS
SYSTEMS, INC.'S FIRST SET OF INTERROGATORIES,
REQUESTS TO PRODUCE, AND REQUESTS TO ADMIT
TO INTERVENOR**

Q.VGS.INTERVENORS.1-1: Please refer to Page 8, Lines 1-9 of Dr. Grubert's Direct Testimony.

- a. Produce all calculations, analysis, workpapers, and documents supporting your statement that "CO₂ emission have doubled since 2012 after a long period of being nearly flat."
- b. Admit that CO₂ emissions from natural gas in the residential sector have been flat since 2012.
- c. Identify and describe all analyses you performed in connection with customer growth in the residential natural gas sector and produce all related calculations, analysis, workpapers, and documents.
- d. Please explain how your analysis has accounted for residential customer growth and related conversions? Produce all related workpapers and documents.
- e. Identify and describe in all analyses you performed in connection with (1) the conversion of commercial customers from petroleum products to natural gas between 2012 and 2022, (2) the addition of new commercial natural gas customers between 2012 and 2022, and (3) the increase in use among commercial natural gas customers between 2012 and 2022.

A.VGS.INTERVENORS.1-1:

- a. Referring to page 7 line 21 and Page 8 Lines 1,2, the complete sentence reads:

'Vermont's natural gas-related CO₂ emissions have doubled since 2012 after a long period of being nearly flat (methane emissions are not readily available)¹

The citation provided for this statement in footnote 1 is the following: Energy Information Administration, Fuel specific emission tables by state, Vermont: <https://www.eia.gov/environment/emissions/state/excel/states/vermont.xlsx>. Date last checked: 9/2/22

- b. I object to this interrogatory on the basis of it being irrelevant to my point that absolute natural gas-related CO₂ emissions in Vermont have increased since 1990. I did not review sector-specific documentation.
- c. See A.VGS.INTERVENORS.1-1b.
- d. See A.VGS.INTERVENORS.1-1b. I note also that the Global Warming Solutions Act mandates emissions reductions on an absolute rather than intensity basis.
- e. This question refers to the statement (Page 8 Lines 1-5 of my Direct Testimony):

"Petroleum-related CO₂ emissions (the only other fossil-related CO₂ emissions reported by the Energy Information Administration for Vermont) remained essentially flat during the recent period where natural gas emissions have been

rising, suggesting that the natural gas is not displacing more emissions-intensive fuels on an absolute basis."

This statement is an inference based upon data in the Energy Information Administration, Fuel specific emission tables by state, Vermont (footnote 1 as above). These data cover the years from 1970 to 2019 only. See also A.VGS.INTERVENORS.1-1b.

Respondent: Dr. Emily Grubert
Title: Witness for Catherine Bock
Date: Sept. 13, 2022