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October 23, 2020

Attn: Ms. Melissa Weitz
U.S. Environmental Protection Agency
Climate Change Division
Office of Air and Radiation
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: AGA Comments on EPA September 2020 Memorandum on Updates Under Consideration for Natural Gas Industrial and Commercial Meters in the 2021 Greenhouse Gas Inventory

Dear Ms. Weitz:

The American Gas Association (AGA) appreciates the opportunity to comment on EPA's September 2020 Memorandum on "Updates Under Consideration for Natural Gas Customer Meter Emissions" for the upcoming EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks (1990-2019) (2021 GHGI) describing proposed updates for estimating methane emissions from industrial and commercial meters (Memorandum).

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 75 million residential, commercial and industrial natural gas customers in the U.S., of which 95 percent — more than 71 million customers — receive their gas from AGA members. Today, natural gas meets more than 30 percent of the United States' energy needs.

AGA appreciates EPA's efforts to evaluate the GHGI and to improve estimates of methane emissions from commercial and industrial meters. AGA supports the incorporation of new data into the Inventory, when that data will enhance the accuracy of the Inventory, and we understand that resource and data limitations limit the ability to complete comprehensive updates to the GHGI every year. As noted in the Memorandum, EPA is considering updates to natural gas commercial and industrial meter emission factors. We understand EPA is considering updates to reflect new data by incorporating emission factors from either or both the GTI 2009¹ and GTI 2019² studies.

As discussed below, AGA is very concerned that EPA's proposed averaging of emissions factors of GTI 2009 and GTI 2019 using the current EPA approach would likely overestimate emissions and undermine accuracy. AGA urges EPA to work with GTI and our members to develop a more complete and granular data set that will inform a more accurate approach for estimating emissions from industrial and commercial meters. AGA believes a deliberate approach to developing new estimates from these meter sets is the prudent and correct path, and that more data is necessary before changing the methodology for commercial and industrial EFs and emission calculations.

It is understood that industrial/commercial meter sets are likely emitting more methane overall than currently presented in the GHGI. This is due to significant emission rate differences between industrial and commercial meters, across regions, and among meter set types². The current methodology in the GHGI including GTI 2009 data applies the commercial meter EF to both commercial and industrial meters due to the limitations of available industrial meter data.³ The data in GTI 2019 provide a window on some of

¹ Gas Technology Institute and Innovative Environmental Solutions, Field Measurement Program to Improve Uncertainties for Key Greenhouse Gas Emission Factors for Distribution Sources, November 2009. GTI Project Number 20497. OTD Project Number 7.7.b. (GTI 2009)

² Gas Technology Institute and US Department of Energy, Classification of Methane Emissions from Industrial Meters, Vintage vs Modern Plastic Pipe, and Plastic-lined Steel and Cast-Iron Pipe. June 2019. GTI Project Number 22070. DOE project Number ED-FE0029061. (GTI 2019)

³ EPA Memorandum, "Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019: Updates Under Consideration for Natural Gas Customer Meter Emissions" (September 2020), p. 5.

the data required but as GTI itself recommended, more data is needed to develop separate emission factors for different categories of industrial/commercial meters since only 186 industrial meters and 337 commercial meters of approximately 5.7 million meters nationwide were visited in the GTI 2019 study.

As noted in the GTI 2019 study, leaker factors appear to be a more accurate means of determining emissions than population emission factors and a weighted average as proposed in the GHGI methodology.⁴ The GTI 2019 study report explains:

Despite the incorporation of total population EFs in the EPA GHGI, leaker-only rates or leaker-only EFs may be a more accurate way of representing emissions data from a category of NG components. Since instruments are not capable of measuring a true “0” emission rate, leaker factors use only the emissions that can be quantified. Use of these rates to calculate large scale emissions require a different type of activity factor. Instead of using the entire population of industrial/commercial meters, only the number of meters with a quantifiable leak can be applied to the leaker factors. These leaker-only rates and factors are higher than a factor that gets applied to an entire population.⁵

GTI 2019 recommended that regional EFs be separated by industrial and commercial category and then by region and main meter set types (turbine, diaphragm, rotary)². However, it is our understanding that EPA is currently considering the use of national EFs and not regional EFs³. This would not account for the significant variance in equipment type and location and ultimately be an inaccurate representation of commercial and industrial customer meter emissions nationwide.

Therefore, to further increase Inventory accuracy, AGA recommends that EPA use separate emission factors, delineated first by facility type and then by region. In GTI 2019 and in GTI’s presentation at the EPA GHGI Webinar in September 2020, GTI indicated the large regional differences could be linked to low sample numbers in some regions leading to overall uncertainty in the nationwide data. Based on these factors,

⁴ GTI 2019, pp. 38-39.

⁵ Id, p. 38 (emphasis added).

AGA believes it is necessary to collect more data to be able to use region-specific EFs rather than national EFs and provide the most accurate Inventory estimation.

Alternatively, AGA suggests EPA use the Canadian method of disaggregating meter set leaks into component emission calculations rather than meter set emission population or leaker-only emission factors. This has the added benefit of reducing uncertainty in EF calculations compared to using nationwide, aggregated meter set EFs². This would require close collaboration between EPA and industry to obtain current and historical records of component counts.

AGA's Responses to EPA's Requests for Stakeholder Feedback⁶

1. Venting Should not be Incorporated in Leaker Emission Factor for Industrial Meters

As discussed above, AGA agrees with GTI's recommendation to use a leaker factor with an activity factor for the proportion of meters found in the study to be leaking. It is not appropriate to conflate venting with leaking. We recommend seeking additional data to provide an adequate basis for estimating venting.

2. Industrial Meters - Weighted Average of GTI 2019 and GTI 2009 EFs Would Need to Address Regional Differences and Continuing Gaps in Data

We are not sure how a weighted average could overcome the small sample size and remaining data gaps or produce accurate regional leaker EFs. For the reasons discussed above, we instead urge EPA to work with GTI and our members to collect data on a more robust sample of meters to fill

⁶ See Memorandum, p. 7.

3. Commercial Meters - Venting Should not be Incorporated in a Leaker Emission Factor for Commercial Meters; Regional EFs Preferable – With Additional Data Collection

See our answer to question 1. Vented emissions should not be combined in a leaker EF for commercial meters. Further field work could also provide clarification of EPA's surmise that "vented emissions may not be a significant contributor to commercial meter emissions." AGA supports using regional leaker EFs as discussed above. Further data collection is needed to understand commercial meter emissions.

4. Regional EFs Should be Used, but More Data is Required

Again, AGA supports regional EFs, with additional data collection to provide a more robust and representative sample.

5. Time Series – Requires more Data Collection

Without additional data collection to provide a more robust data set, it is not possible at this point to determine how to structure estimates over the time series.

AGA commends EPA's efforts to improve the accuracy of the data in the GHGI and looks forward to continuing to work with you towards that objective. Because it is apparent that the proposed national EFs rely on skewed, limited, and uncertain data, AGA strongly recommends that the proposed updates to commercial and industrial meters be reassessed. AGA stands ready to collaborate with the EPA and other industry partners to obtain the necessary activity or component data to support more robust estimates of methane emissions. The better we understand these emissions, the better we will be able to address and reduce them. That would be an important benefit from conducting the additional data collection that is clearly needed.

AGA appreciates the opportunity to comment. If you have any questions, please do not hesitate to contact me or Tim Parr, AGA Deputy General Counsel, at tparr@aga.org.

Respectfully Submitted,

A handwritten signature in black ink that reads "Pamela A. Lacey". The signature is written in a cursive style with a large initial "P" and "L".

Pamela Lacey
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