

May 19, 2023

Via email to:

Karen Sabasteanski
Virginia Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218
karen.sabasteanski@deq.virginia.gov

Re: Statewide Methane Reduction Goal; SB565 Work Group

Dear Ms. Sabasteanski:

The Southern Environmental Law Center submits these comments as part of the SB565 (2022) Work Group convened by the Virginia DEQ to “determine the feasibility of setting a statewide methane reduction goal and a plan to achieve the same.”¹ Methane is a threat to the climate and to human health in the Commonwealth, and communities of color and low-wealth communities are especially at risk from methane and methane-related pollutants. We strongly urge Virginia to set a statewide methane-reduction goal to fight climate change, protect human health, and promote environmental justice.

Methane is the primary component of natural gas, a fossil fuel extracted, transported, and burned in Virginia. Methane is also emitted by Virginia coal mines, landfills, wastewater treatment plants, and agricultural operations. Preliminary data compiled by DEQ (which does not include agricultural sources) show massive direct methane emissions from the state’s municipal solid-waste landfills and coal mines and smaller—but still significant—contributions from other sources including the gas infrastructure system. Reducing methane emissions from these sources is an urgent priority.

The Commonwealth’s methane reduction goal should be at least as stringent as the goal set by the federal government to reduce “anthropogenic methane emissions across all sectors by at least 30 percent below 2020 levels by 2030.” This goal is feasible, and federal funding is available right now for Virginia to create and implement a plan to achieve it. The Commonwealth must seize this unique and important opportunity.

A statewide methane reduction goal is feasible.

A statewide methane reduction goal for the Commonwealth is feasible. The federal

¹ 2022 Va. Acts Ch. 728. We request that these comments be included with DEQ’s report and recommendations to the General Assembly concerning the feasibility of a statewide methane reduction goal.

government,² states,³ and gas companies⁴ have set target reductions for methane. Likewise, plans developed in connection with those goals—for example, the “U.S. Methane Reduction Action Plan”⁵—demonstrate the feasibility of developing a similar plan for Virginia. And the state need not pay for it exclusively with its own funds.

The Climate Pollution Reduction Grant program administered by EPA makes almost \$5 billion available to states, local governments, and tribes “to develop and implement plans for reducing greenhouse gas emissions and other harmful air pollution.”⁶ The Virginia DEQ applied for an initial planning grant in this program—a laudable first step—noting that it anticipates taking prompt action for “reducing high potency GHGs” like methane.⁷

Other federal funds are also available. EPA is developing another \$1.5 billion grant structure, the Methane Emissions Reduction Program, to provide financial and technical assistance “to reduce methane emissions from the petroleum and natural gas sector[.]”⁸ And the Department of Energy has \$550 million available to states, local governments, and tribes through the Energy Efficiency and Conservation Block Grant Program for a wide variety of emissions-reduction projects, including implementation of technology to reduce and capture methane emissions from landfills.⁹

² *Global Methane Pledge*, CLIMATE & U.S. ENVTL. PROT. AGENCY CLEAN AIR COALITION, <https://www.ccacoalition.org/en/resources/global-methane-pledge> (last visited May 19, 2023) (An international commitment joined by 150 countries and led by the U.S. and the European Union to collectively reduce global anthropogenic methane emissions across all sectors by at least 30 percent below 2020 levels by 2030.).

³ *See, e.g.*, Cal. Health & Saf. Code § 39730.5 (West 2023) (setting California’s statewide goal of 40 percent reduction of methane emissions below 2013 levels by 2030); Md. Code Ann., Env’t §§ 2-1202, 2-1204.1 (defining the term “greenhouse gas” to include methane and setting Maryland’s statewide goal of 60 percent reduction of greenhouse gas emissions below 2006 level by 2031).

⁴ *See, e.g., Methane Emissions*, PIEDMONT NATURAL GAS, <https://www.piedmontng.com/our-company/methane-emissions> (last visited May 19, 2023) (“committing to reduce methane emissions to net-zero by 2030”).

⁵ THE WHITE HOUSE OFFICE OF DOMESTIC CLIMATE POLICY, U.S. METHANE EMISSIONS REDUCTION ACTION PLAN (2021), <https://www.whitehouse.gov/wp-content/uploads/2021/11/US-Methane-Emissions-Reduction-Action-Plan-1.pdf> (last visited May 19, 2023).

⁶ *Climate Pollution Reduction Grants*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/inflation-reduction-act/climate-pollution-reduction-grants> (last visited May 19, 2023).

⁷ COMMONWEALTH OF VA., DEP’T OF ENVTL. QUALITY, WORKPLAN AND BUDGET FOR EPA CLIMATE POLLUTION REDUCTION PLANNING GRANT 3 (2023).

⁸ *Methane Emissions Reduction Program*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/inflation-reduction-act/methane-emissions-reduction-program> (last visited May 19, 2023).

⁹ *Energy Efficiency and Conservation Block Grant Program*, U.S. DEP’T OF ENERGY, <https://www.energy.gov/scep/energy-efficiency-and-conservation-block-grant-program> (last visited May 19, 2023).

Existing methane reduction goals and action plans, combined with significant available funding, make a statewide methane reduction goal and a plan to achieve that goal not just feasible, but plain common sense for Virginia.

A statewide methane reduction goal is necessary.

Methane is a potent greenhouse gas—it has approximately eighty times the warming power of carbon dioxide over a twenty-year period.¹⁰ But unlike carbon dioxide, methane also has a relatively short lifespan in the atmosphere. This combination of potent but short-lived effects means that actions to cut methane emissions now could limit warming to 1.5 degrees Celsius, a threshold scientists believe will forestall the worst climate harm. But decision makers across the globe, including those here in the Commonwealth, must act immediately. The planet is likely to reach 1.5-degree-Celsius threshold during the 2030s,¹¹ and climate change effects are already felt acutely in Virginia. Indeed, Norfolk has the highest sea-level rise on the East Coast.¹²

In addition to climate harm, leaks of methane and combustion of methane inside buildings is a threat to human health in the Commonwealth. Gas appliances create indoor air pollution, increasing the risk of respiratory problems in children.¹³ A recent study attributed 12.7 percent of childhood asthma in the United States to gas stove use.¹⁴ Indoor methane leaks and combustion may also increase the concentration of cancer-causing pollutants like benzene inside homes.¹⁵ Reducing methane emissions includes reducing our reliance on the gas distribution system that puts methane in homes and is the source of these risks.

Finally, indoor air quality risks from methane use are often greatest for households of color and low-wealth households. Smaller room sizes, more people inside the home, and inadequate ventilation all contribute to higher concentrations of pollutants in multi-family buildings, and those concentrations increase when households use gas ovens or space heaters for warmth because of

¹⁰ *Control methane to slow global warming—fast*, 596 NATURE 461 (2021), <https://doi.org/10.1038/d41586-021-02287-y>.

¹¹ Brad Plummer, *Heat Will Likely Soar to Record Levels in Next 5 Years, New Analysis Says*, NEW YORK TIMES (May 17, 2023), <https://www.nytimes.com/2023/05/17/climate/record-heat-forecast.html>.

¹² David Malmquist, *U.S. sea-level report cards: 2022 once again trends towards acceleration*, VA. INST. OF MARINE SCI. (Mar. 7, 2023), https://www.vims.edu/newsandevents/topstories/2023/slr_2022.php (last visited May 19, 2023).

¹³ David Roberts, *Gas stoves can generate unsafe levels of indoor air pollution*, VOX (May 11, 2020, 4:52 PM), <https://www.vox.com/energy-and-environment/2020/5/7/21247602/gas-stove-cooking-indoor-air-pollution-health-risks> (last visited May 19, 2023).

¹⁴ Taylor Gruenwald et al., *Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States*, 20 INT’L J. ENVTL. RESEARCH & PUB. HEALTH 75 (Dec. 2022), <https://www.mdpi.com/1660-4601/20/1/75> (last visited May 19, 2023).

¹⁵ Drew R. Michanowicz et al., *Home is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User*, 56 ENVTL. SCI. & TECH. 10258, 10258-59 (2022).

broken or inefficient heating systems.¹⁶ These same populations are likely to have greater exposure to methane-related air pollution outside their homes from sources like gas compressor stations and power plants, as well as landfills and wastewater treatment plants.¹⁷

These factors—methane’s climate-warming potency, the adverse health impacts of indoor methane leaks and combustion, and environmental justice—warrant a statewide methane reduction goal.

Virginia can take steps now to reduce methane emissions.

We also urge Virginia to take these immediate, commonsense steps to drive down methane emissions:

1. Ensure enforcement of leak detection and leak repair requirements for gas infrastructure, like pipelines and compressor stations.
2. Require the electrification of compressor stations, a step industry is already taking for some facilities and should be universal.
3. Seek federal funding to cap municipal solid waste landfills and require operators to flare or use the captured methane.
4. Seek federal funding to seal wastewater treatment digesters and require operators to flare or use the captured methane.

* * *

The rapid reduction of methane emissions in Virginia is critically important. We look forward to working with the Virginia DEQ to set a forward-looking statewide methane reduction goal and to develop and implement a robust plan to achieve that goal.

Sincerely,

/s Gregory Buppert

Gregory Buppert

¹⁶ BRADY ANNE SEALS & ANDEE KRASNER, ROCKY MOUNTAIN INSTITUTE, PHYSICIANS FOR SOCIAL RESPONSIBILITY, MOTHERS OUT FRONT, AND SIERRA CLUB, HEALTH EFFECTS FROM GAS STOVE POLLUTION 14 (220).

¹⁷ See, e.g., Seals & Krasner, *supra* note 15, at 15; *Friends of Buckingham v. State Air Pollution Control Bd.*, 947 F.3d 68, 87 (4th Cir. 2020) (“There is evidence that a disproportionate number of environmental hazards, polluting facilities, and other unwanted land uses are located in communities of color and low-income communities.”) (quoting Nicky Sheats, *Achieving Emissions Reductions for Environmental Justice Communities Through Climate Change Mitigation Policy*, 41 WM. & MARY ENVTL. L. & PO’Y REV. 377, 382 (2017)).