



New Yorkers for Cool Refrigerant Management
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Draft Scoping Plan Comments
NYSERDA
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Albany, NY 12203-6399

Sent via email: scopingplan@nyserda.ny.gov

June 24, 2022

Re: An EPR Program to Fund Refrigerant Management in the Scoping Plan

Dear Members of the Climate Action Council,

[New Yorkers for Cool Refrigerant Management](#) is a citizen-run climate organization that is fiscally sponsored by Sustainable Hudson Valley. Since 2018, this active group of expert volunteers has focused on mitigating emissions of refrigerant gases such as hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), and chlorofluorocarbons (CFCs). Our organization applauds the Climate Action Council for its attention to HFC emissions in the Draft Scoping Plan (DSP), but asks that the DSP be amended to more clearly address emissions from existing installed heating, ventilation, air conditioning and refrigeration (HVACR) systems. We recommend revisions to existing language in the DSP and also recommend enhancing the DSP with an extended producer responsibility (EPR) program that covers HFC gases themselves, to be funded by HFC manufacturers.

The DSP includes recommendations for EPR programs for many *products*, and also includes special recommendations for EPR programs for *appliances with refrigerants* (Waste Sector Strategies W3 and W5 in Chapter 16, pages 243-246), but fails to address HFCs from existing installed HVACR systems in its discussion of EPR and refrigerant diversion programs – a significant omission since HVACR systems provide a much greater source of HFC emissions than appliances containing refrigerants. The building sector chapter 12 (Section B11, “Transition from Hydrofluorocarbons,” pages 147-148) addresses HVACR system emissions, but fails to point to an EPR program as an effective approach to address existing emissions from HVACR systems. Effective EPR programs engage companies in reducing waste, and an EPR program covering HFCs themselves would provide the state an effective way to increase recovery rates of HFCs from all sources.

We recommend fixing these issues with the DSP in two ways: One, we recommend amending text in these two chapters of the DSP that mention refrigerant emissions to ensure all HVACR equipment that uses refrigerants is specifically addressed. Here, for example, is existing text in Section B11, “Transition from Hydrofluorocarbons,” pages 147-148, with our recommended addition in italics:

DEC should promulgate regulations requiring reclamation or destruction of refrigerants from appliances *and all HVACR equipment that uses refrigerants* at

end-of-life, with verification and reporting... . Provide education and training, technical assistance, and economic support (such as, incentives to purchase leak detection and reclamation equipment, or compensation for refrigerant reclamation¹) to aid local industry with this transition.

Similar language exists in the waste sector chapter 16 and should be similarly amended to ensure HVACR equipment is identified, along with appliances, as a significant source of HFC emissions that require proper management. The refrigerants in stationary air conditioning and refrigeration equipment that we see in residences and buildings represent a much bigger share of HFC emissions than appliances and should be addressed more pointedly in the DSP.

Beyond this, we also recommend that the DSP include an EPR program for HFCs themselves. We believe the time is particularly ripe for an EPR program covering HFCs because the American Innovation and Manufacturing (AIM) Act of 2020 will increasingly restrict the supply of HFCs, which has resulted in much higher prices for these chemicals. Based on the history of phase outs and phase downs for ozone depleting substances (ODSs) and HFCs, it is reasonable to believe these prices will stay high and even move higher, while the underlying costs of producing these chemicals have not had the same dramatic changes. Asking HFC manufacturers to bear extended responsibility for their products with some of their windfall profits clearly meets the standard of basic fairness. Moreover, these manufacturers have been contributing for decades to EPR programs in countries such as Canada, Australia, Japan and several European countries, a practice which has resulted in better outcomes in those countries than in the United States for preventing emissions of HFCs.² The DSP calls for a 90% recovery rate for HFCs,³ and an EPR funded by the HFC manufacturers could help in achieving this very lofty goal and ultimately contribute to New York State meeting its emissions reductions goals for 2030 and 2050.

Funds collected in this EPR program could support at least these three essential pieces of the refrigerant management process: (1) Incentivizing recovery of HFCs by HVAC technicians in the field, (2) improving reclamation capacity, and (3) increasing destruction capacity.⁴

1. *Incentivizing Recovery of HFCs by HVAC Technicians in the Field:* HVAC contractors are required by Title VI of the Clean Air Act to collect refrigerant gases (this is referred to as “recovery”) during servicing and repair and when HVAC systems are retired at end of life. Several factors limit the amount of refrigerant that HVACR contractors recover:
 - Collection is more cumbersome than venting. Done at residences, the process ties technicians up for an hour or more per site, and collections from several sites are needed to fill a 30-pound cylinder. In the past, contractors had to pay a processing fee of around \$30 for returning these cylinders to refrigerant distributors, but recently they

¹ The Building Panel should also support funding of recovery, which is the work done by HVAC technicians in the field to capture refrigerants and take them to the reclaimers for reclamation.

² See this report compiled by Navigant for the Air-Conditioning, Heating, & Refrigeration Institute: “[AHRI Project 8018 Final Report; Review of Refrigerant Management Programs.](#)”

³ DSP Appendix G: Integration Analysis Technical Supplement, Section 1, “Techno-Economic Analysis,” pp. 35, 57, 117, and 121.

⁴ See this article by the Environmental Investigation Agency for an excellent overview of the life cycle of refrigerants and where emissions can be avoided: “[Search, Reuse, and Destroy: How States Can Take the Lead on a 100 Billion Ton Climate Problem.](#)”

have been paid around \$1/pound, or about \$30 for a full cylinder, for certain HFCs. An EPR program would align the financial incentives of the contractors with reasonable expectations for work expended, thereby supporting New York's climate goals.

- Because technicians cannot be certain if the refrigerants they are recovering are mixed with other refrigerants or otherwise too contaminated to be reclaimed, they sometimes must pay penalties for those cylinders, which serves as a disincentive to recover refrigerant. An EPR program that covers the costs of refrigerant destruction could remove this concern for contractors.
 - Contractors do not uniformly accept the outsized climate impacts of HFC emissions, and this could limit their willingness to embrace cumbersome requirements without financial incentives.
 - Current capacity for ensuring compliance through enforcement is extremely limited. Refrigerants are colorless and odorless, limiting the ability of regulators to detect when venting has occurred or is occurring. Moreover, no central tracking system of amounts and locations of gases exists to help identify shortages in expected reclaimed amounts.
2. *Improving Reclamation Capacity:* Refrigerant reclamation refers to processing used refrigerant to return it to its original standard of purity, making it a saleable product in the refrigerant market. This work is done by a few large-scale reclaimers and many smaller companies. Many small reclaimers got established by reclaiming ODSs, but will be increasingly confronted with the need to reclaim the more complex HFCs, which tend to be blends that require more sophisticated equipment along with extra time and energy to process. Funding from EPR proceeds could support the expansion of reclamation capacity, especially at the small business level.
 3. *Increasing Destruction Capacity:* Destruction is called for when reclamation can't be done in a cost-effective manner and when reuse of a gas is not appropriate given phase down or other requirements. The process, which involves permanently transforming the chemicals into one or more stable substances that are not greenhouse gases, results in an end product with no economic value other than the huge value to society of safely removing a potential source of high global warming potential (GWP) emissions. Public goods like this are not effectively incentivized in the market, and an EPR program for HFCs could help rectify this market failure.

We are encouraging New York state to start an EPR program for refrigerants, when in fact our entire country could use one. Ideally the EPA would work with industry to start this program. But under the AIM Act, the EPA is not authorized to use funds collected from the refrigerant manufacturers to fund this important refrigerant management work, and few political observers believe Congress will provide new instructions on this issue in the foreseeable future. The United States Climate Alliance has already stated the need for this kind of refrigerant management work⁵ and would be a good organization for New York to work with in launching a multi-state extended producer responsibility program.

While the refrigerant industry is engaged in replacing older HFCs with lower GWP refrigerants in new appliances and equipment, large stores of conventional high-GWP refrigerants remain in existing

⁵ See this publication on short-lived climate pollutants from the United States Climate Alliance: [“From SLCP Challenge to Action; A roadmap for reducing short-lived climate pollutants to meet the goals of the Paris Agreement.”](#)

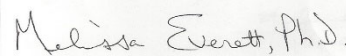
installed HVACR systems across NYS. These chemicals are vulnerable to leakage when in use and potential venting when being serviced or retired, which makes them a huge opportunity for preventing emissions. The lack of a financial incentive to capture these gases is an important factor causing a significant portion of these high-GWP refrigerants to be vented to the atmosphere rather than captured, and lack of funding is also a factor in insufficient reclamation and destruction capacity in NYS. An EPR program covering HFCs would address these issues, and should be included in the DSP to help NYS meet the goals of the CLCPA.

Thank you for reviewing our letter. We would be delighted to answer any questions it might raise.

Gratefully,



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