

# FEDERAL HFC LEGISLATION

## *Implementation Considerations, Overview, and Summary*

### **1. INTRODUCTION**

An omnibus/COVID-19 relief legislative package was passed by Congress on Monday, December 21, 2020.

Section 103 of this legislation grants the federal government express authority to phase down the production and consumption of hydrofluorocarbons (HFCs) in a manner consistent with the Kigali Amendment to the Montreal Protocol. It also authorizes the U.S. Environmental Protection Agency (EPA) to restrict the use of certain HFCs in certain applications and otherwise manage the transition into HFC substitutes.

This new authority is critical to eventual ratification of the Kigali Amendment. Without this legislation, the federal government lacks express authority to phase down HFCs. Such authority is a prerequisite to consideration of the Kigali Amendment by the Senate.

### **2. CONSIDERATIONS FOR IMPLEMENTATION**

The enactment of federal HFC legislation will come barely a month before a change in presidential administrations. As with any transition, there may be delays or other unexpected developments that could affect the implementation of the HFC phase down.

The legislation gives EPA 270 days from the date of enactment to issue a final rule establishing an allowance allocation program to phase down production and consumption of HFCs. It also gives EPA 180 days to respond to petitions to restrict the use of HFCs in certain applications. In light of these statutory deadlines, the following is a possible implementation timeline. This timeline may shift, potentially considerably, as a result of the forthcoming transition.

- May 2021 – EPA issues a proposed rule for the allowance allocation and phase down program, including proposed allocations of allowances for the 2022-2023 period.
- June 2021 – EPA issues one or more proposed rules restricting the use of one or more HFCs in one or more applications.
- September 2021 – EPA issues a final rule for the allocation and phase down program.
- October 2021 – EPA issues final rule or rules for sector-specific use restrictions.
- Additional rulemakings restricting sector-specific HFC uses may continue in 2022.

### 3. OVERVIEW

- The legislation authorizes EPA to regulate a group of about 20 HFCs.
- HFCs are widely used as refrigerants, solvents, fire suppressants, foam blowing agents, aerosols, propellants, and various other applications.
- HFCs were developed and commercialized as substitutes to substances that deplete the stratospheric ozone layer. Those ozone-depleting substances have been regulated under Title VI of the Clean Air Act since 1990 and the Montreal Protocol since 1987.
- This bill is broadly based on Title VI programs, which are familiar to industry and widely supported, but represents a separate and discrete grant of authority to EPA that can be used only to regulate HFCs and not any other substance.
- The bill regulates HFCs in three ways:
  - It gradually phases down the production and consumption of HFCs over a 15-year period via an allowance allocation program. This is substantially similar to the way ozone-depleting substances were regulated under Title VI.
  - It authorizes EPA to establish standards for the management of HFCs used as refrigerants, such as in equipment servicing and repair, and for the recovery of “used” HFCs for purification and resale, known as reclaim. This allows for a safe and efficient transition out of HFCs.
  - It authorizes EPA to establish sector-based use restrictions, as a way to facilitate transitions to next generation refrigerant technologies. These use restrictions would complement the broader production and consumption phase down, aiding sectors able to transition more quickly out of HFCs and providing more flexibility for those sectors in need of more time to complete a transition.
- The bill would not interfere with the use of HFCs in existing refrigeration and air conditioning equipment – meaning consumers would not be forced to replace equipment before the end of its useful life. The bill also would not constrict aftermarket supplies of HFCs for servicing existing equipment.
- The bill was prepared with substantial input and guidance from experts and others in industry and in the environmental community with significant experience with Title VI and associated EPA regulatory programs, with the common goal of creating an effective federal regulatory program for HFCs.

#### 4. SECTION-BY-SECTION SUMMARY

- **Subsection (a) – Short Title**
  - This section may be cited as the American Innovation and Manufacturing Act of 2020.
- **Subsection (b) – Definitions**
  - Most of these terms are based on defined terms in Title VI of the Clean Air Act and associated EPA regulations.
- **Subsection (c) – Listing of Regulated Substances**
  - The HFCs subject to regulation under this bill are listed in a table in this subsection.
  - The “exchange value” refers to the effective weight of each HFC, for purposes of trades, transfers, and related calculations, since not all HFCs are the same in terms of their manufacture and/or use. Each HFC’s exchange value corresponds to its 100-year Global Warming Potential (GWP), based on the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).
  - EPA is granted authority to adjust the values of the exchange values based on newly available scientific information. This allows for harmonization with other HFC-related regulatory programs among the states and internationally.
  - EPA may add substances that are considered “saturated hydrofluorocarbons” with an exchange value greater than 53. This prevents the development and use of a new HFC not listed in the table solely for purposes of avoiding regulation.
- **Subsection (d) – Monitoring and Reporting Requirements**
  - EPA is granted authority to require reporting of any production, consumption, import, export, reclaim, destruction, and feedstock usage of HFCs, which is necessary to carry out a regulatory program for HFCs.
  - Because some of this information may already be reported to EPA, EPA is granted authority to coordinate and harmonize with existing reporting requirements, to minimize administrative burdens and avoid confusion.
- **Subsection (e) – Phase-Down of Production and Consumption of Regulated Substances**
  - The baselines established in paragraph (1) are the baselines used in the Kigali Amendment to the Montreal Protocol, the internationally recognized standard for HFC production and consumption.
  - The percentage reductions in the phasedown schedule contained in this subsection are the same as those for the United States in the Kigali Amendment, which similarly reflects an internationally recognized standard for reducing HFC

production and consumption.

- The provisions in paragraphs (2) and (3) are based on similar provisions in Title IV, directing EPA to utilize an allowance allocation and trading program to administer a production and consumption phase down of HFCs.
- The exceptions in paragraph (4) for essential uses and feedstocks and process agents are based on similar exceptions under Title VI and reflect internationally recognized practices, including under the Montreal Protocol.
- In addition to any other essential use exception EPA may grant, paragraph (4) designates the following as statutory or “mandatory” essential use exceptions: propellant in metered-dose inhalers; defense sprays; structural composite preformed polyurethane foam for marine use and trailer use; the etching of semiconductor material or wafers and the cleaning of chemical vapor deposition chambers within the semiconductor manufacturing sector; mission-critical military end uses, such as armored vehicle engine and shipboard fire suppression systems and systems used in deployable and expeditionary applications; and onboard aerospace fire suppression.
- For these statutory essential uses, EPA must allocate allowances to cover production and consumption for these uses, based on projected, current, and historical trends.
- The provisions in paragraph (5) regarding exceptions certain types of export-bound domestic manufacturing would allow domestic production of HFCs for export to foreign countries, so such countries do not seek to develop their own production facilities as an HFC phase down is implemented globally under the Kigali Amendment.
- ***Subsection (f) – Accelerated Schedule***
  - EPA is granted authority to adjust the percentage reductions in the phase down schedule if petitioned to do so and if certain practical criteria are met.
  - The first tranche of percentage reductions, from 2019 to 2024, is exempt from this authority, as it would be difficult and potentially impracticable to change the percentage reductions so soon after enactment and initial implementation.
  - EPA can only propose changes to the phase down schedule in response to a petition, and no petition may be granted before 2025.
  - In proposing any change to the schedule, EPA must ensure sufficient quantities of HFCs will exist to service any essential use exceptions currently in place.

- Any proposed change to the schedule is limited to current consumption levels, based on the prior year's data. This means the schedule can only change to reflect prevailing market conditions – *i.e.*, if the original phase down schedule is 30 percent of the baseline and current consumption levels are 25 percent of the baseline, the schedule can only be changed up to 25 percent of the baseline and not to a percentage less than 25 percent.
- ***Subsection (g) – Exchange Authority***
  - EPA is granted authority to allow trading of HFC production and consumption allowances to facilitate compliance and reduce costs.
  - The language and structure of this subsection are based substantially on a similar provision in Title IV of the Clean Air Act.
  - The primary purpose of this language is to ensure (i) exchange values are utilized in the transferring of allowances, (ii) a net total reduction in production and consumption occurs as a result of each transfer, and (iii) transfers occur only between parties with compliance obligations for HFC production and consumption.
- ***Subsection (h) – Management of Regulated Substances***
  - EPA is granted authority to establish standards for HFC management, such as equipment servicing and repair, as well as the recovery of “used” HFCs from equipment for purification and resale, known as reclaim.
  - EPA is required to consider using its authority to increase opportunities for reclaim. Additionally, any HFC used as a refrigerant that is recovered from equipment must be reclaimed before that HFC is sold or transferred to a new owner (except if sold or transferred for reclaim or destruction).
  - EPA is granted authority to coordinate and harmonize with such programs to ease administrative burden and avoid duplicative and potentially conflicting standards.
  - HFCs contained in a foam are not subject to this subsection.
  - EPA is required to establish, subject to appropriations, a grant program for small businesses for the purchase of new equipment for recycling, recovery, or reclaim. The total amount authorized is \$5 million per year from 2021 through 2023.
- ***Subsection (i) – Technology Transitions***
  - EPA is granted authority to establish standards restricting the use of certain HFCs in certain applications.
  - These use restrictions would complement the production and consumption phase down, aiding sectors able to transition more quickly out of HFCs and providing

more flexibility for those sectors in need of more time to complete a transition.

- Given the complexity of crafting such standards, EPA is given the option of utilizing the Negotiated Rulemaking Act of 1990. Any petitions under this subsection for a use restriction must include a request for negotiated rulemaking.
- Rules issued under this subsection cannot take effect before one year from the date the final rule is issued. Such rules also cannot apply to applications currently under essential use exceptions or to equipment existing at date of enactment. However, such rules could apply to equipment existing prior to date of enactment if the equipment is deemed a retrofit application, *i.e.*, it has been converted to achieve system compatibility or had key parts replaced for that purpose.
- ***Subsection (j) – International Cooperation***
  - This subsection prohibits the export of HFCs to countries that have not enacted or otherwise imposed an HFC phase down, as a way to support a global transition out of HFCs and into various substitutes and alternatives.
  - This is substantially similar to requirements and practices under Title VI and is intended to ensure harmonization with the Kigali Amendment’s prohibition on trade with non-parties beginning in 2033.
- ***Subsection (k) – Relationship to Other Laws***
  - To allow EPA to implement an HFC phasedown effectively, this subsection cross-references key administrative provisions of Title I and Title III of the Clean Air Act.
  - The cross-referenced provisions involve recordkeeping, monitoring, enforcement, and judicial review, among others. Their application will help EPA and regulated entities avoid uncertainty in implementation and minimize administrative burdens.
  - For a five-year period beginning on the date of enactment, state laws involving the management or use of an HFC in an application falling under the statutory essential uses listed in paragraph (4) of subsection (e) are preempted, with this period extendable for up to an additional five years.