Title: An act relating to reducing greenhouse gas emissions from hydrofluorocarbons.

Brief Description: Reducing greenhouse gas emissions from hydrofluorocarbons.


Brief History: Passed House: 3/01/19, 55-39.
Committee Activity: Environment, Energy & Technology: 3/14/19, 3/26/19 [DP-WM, DNP, w/oRec].
Ways & Means: 4/04/19, 4/09/19 [DPA, DNP, w/oRec].

Brief Summary of Bill
(As Amended by Senate)

- Restricts hydrofluorocarbons (HFCs) and other substitutes for ozone-depleting substances (ODS) in products and equipment covered by a court-vacated 2015 United States Environmental Protection Agency regulation, and authorizes the Department of Ecology (DOE) to adopt related rules.

- Directs the Department of Enterprise Services (DES) to establish a purchasing and procurement policy for products that do not use or were not manufactured using ODS substitutes or HFCs, or that are associated with HFCs or ODS substitutes with comparatively low global warming potential.

- Directs the State Building Code Council to adopt codes that do not require the use of restricted ODS substitutes.

- Directs the DOE to consult with other agencies and submit a study and report to the Legislature by December 2020 addressing certain uses of HFCs.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.
SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

**Majority Report**: Do pass and be referred to Committee on Ways & Means.

Signed by Senators Carlyle, Chair; Palumbo, Vice Chair; Billig, Das, Hobbs, Liiias, McCoy, Nguyen, Rivers and Wellman.

**Minority Report**: Do not pass.

Signed by Senator Short.

**Minority Report**: That it be referred without recommendation.

Signed by Senators Ericksen, Ranking Member; Fortunato, Assistant Ranking Member, Environment.

Staff: Greg Vogel (786-7413)

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SENATE COMMITTEE ON WAYS & MEANS

**Majority Report**: Do pass as amended.

Signed by Senators Rolfes, Chair; Frockt, Vice Chair, Operating, Capital Lead; Billig, Carlyle, Conway, Darneille, Hasegawa, Hunt, Keiser, Liiias, Palumbo, Pedersen and Rivers.

**Minority Report**: Do not pass.

Signed by Senators Brown, Assistant Ranking Member, Operating; Honeyford, Assistant Ranking Member, Capital; Bailey, Becker, Schoesler, Wagoner and Warnick.

**Minority Report**: That it be referred without recommendation.

Signed by Senator Braun, Ranking Member.

Staff: Jed Herman (786-7346)

**Background**: Hydrofluorocarbons and Greenhouse Gas Emissions. HFCs are a category of gases used primarily as refrigerants in a variety of commercial and industrial applications. HFCs are among the greenhouse gases (GHGs) identified by the United States Environmental Protection Agency (EPA) and DOE as a result of their capacity to trap heat in the earth's atmosphere. According to the EPA, the global warming potential (GWP) of HFCs and other GHGs is measured as a function of how much of the gas is concentrated in the atmosphere, how long the gas stays in the atmosphere, and how strongly the particular gas affects global atmospheric temperatures. Under state law, the GWP of GHGs are measured in terms of their equivalence to the emission of an identical volume of carbon dioxide over a 100-year timeframe—carbon dioxide equivalent or CO2e. In rules adopted by DOE for purposes of measuring GHG emissions, the GWP of HFCs ranges from 12 to 14,800.

DOE must report to the Governor and Legislature by December 31st of even-numbered years regarding total GHG emissions and GHG emissions by source sector in Washington. According to the most recent report to the Legislature in December 2018, HFCs and ODS substitutes accounted for 3.76 million tons of CO2e out of the state's total reported GHG emissions of 97.4 million tons of CO2e in 2015.
Federal Regulation of Ozone-Depleting Substances. In 1987, the United States and other members of the United Nations committed, in an agreement known as the Montreal Protocol, to phase out the use of certain ODSs. The United States Congress subsequently amended the federal Clean Air Act in 1990 to provide authority to the EPA to restrict the use of ODSs and to require manufacturers to use non-ozone depleting substitutes. In 1994, the EPA promulgated regulations authorizing the use of certain HFCs as a substitute for ODSs in specified products. However, in 2015 the EPA promulgated new regulations that entirely prohibited certain HFCs and other ODS substitutes or restricted their use to specified circumstances. Products and uses covered by the HFC restrictions in the EPA's 2015 regulations include aerosol propellants, motor vehicle air conditioning systems, retail food refrigeration and vending machines, and foams. In August 2017, the District of Columbia Circuit Court of Appeals vacated the portion of the EPA's 2015 regulations to the extent it required manufacturers to replace HFCs with a substitute substance.

In 2018, the state of California enacted a law to restrict the ODS substitutes covered by the 2015 EPA rule.

State Clean Air Act. DOE and seven local air pollution control authorities have each received approval from the EPA to administer aspects of the federal Clean Air Act in Washington. The Air Pollution Control Account is used to fund DOE's responsibilities in developing and implementing the state Clean Air Act. Violations of the state Clean Air Act requirements are punishable by a variety of criminal and civil penalties. Civil penalties of up to $10,000 per violation are authorized by the state Clean Air Act.

State Purchasing and Procurement. DES is responsible for providing products and services to support state agencies, and sets policies and procedures for the state's purchases. State agencies covered by DES's procurement policies include all executive and judicial branches of state government including offices, divisions, boards, commissions, higher education institutions, and correctional and other institutions. DES may enter into agreements with other state agencies that delegate certain authority to those agencies to purchase their own goods and services.

State law establishes certain preferences for the procurement of goods or services that meet a variety of criteria, including goods and services through inmate work programs administered by the Department of Corrections, minority and women-owned businesses, goods that contain recycled content, electronic products that meet environmental performance standards, and products that do not contain polychlorinated biphenyls.

State Building Code. The State Building Code Council (council) is a state agency that adopts and triennially updates the State Building Code (code). The code adopted by the council establishes the minimum building, mechanical, fire, plumbing, and energy code requirements applicable to the construction of buildings.

Summary of Amended Bill: Regulation of Hydrofluorocarbons. The HFCs and ODS substitutes specified in the court-vacated 2015 EPA regulations are restricted for the products and uses specified in the EPA regulations, with the exception of restrictions in the EPA regulations on motor vehicle air conditioning. Persons may not sell, install, offer for lease, rent, or otherwise cause restricted equipment or products to enter commerce in Washington.
The following effective dates for restrictions applicable to products and equipment are established:

- January 1, 2021, for propellants, foam blowing agents such as polyurethane or spray foam, and supermarket systems, stand-alone systems, remote condensing units, and vending machines;
- January 1, 2022, for refrigerated food processing and dispensing equipment, compact residential consumer refrigeration products, polystyrene extruded boardstock and billet, and rigid polyurethane low-pressure two component spray foam;
- January 1, 2023, for residential consumer refrigeration products, except compact and built-in residential consumer refrigeration products;
- January 1, 2024, for built-in consumer refrigeration products and cold storage warehouses; and
- January 1, 2025, for centrifugal chillers and positive displacement chillers.

For any restricted uses covered in the 2015 EPA regulation but not covered by the above list, the effective date of the restrictions is the latter of January 1, 2021, or the effective date of the EPA regulation. Products manufactured prior to the effective date of a restriction may be sold, imported, exported, distributed, installed, and used after the effective date of the restriction, and persons that acquired products or equipment, including commercial refrigeration equipment, prior to the effective date are not required to cease use of restricted types of products or equipment. However, when products are retrofit from using one refrigerant to another, the products may not use a restricted HFC.

For restrictions in the EPA regulation on motor vehicle air conditioning, DOE may adopt rules restricting the uses addressed by the EPA regulation within 12 months of another state's enactment or adoption of such restrictions. These restrictions may address the manufacture, sale, lease, or other introduction into commerce by vehicle manufacturers. Restrictions on the use of ODS substitutes in motor vehicle air conditioning may not take effect prior to the effective date of the restrictions of at least one other state.

DOE must expeditiously propose a draft rule to conform with any future EPA approval of certain previously prohibited HFC blends for foam blowing and spray foam.

DOE may, by rule:

- modify the effective date of prohibitions if it determines that doing so reduces overall risk to human health and the environment and reflects the earliest date that an ODS substitute is available;
- modify the effective date of the prohibition on the use of HFCs in certain specific applications of vending machines to a date no later than January 1, 2022, if DOE determines that relevant safety standards do not permit the use of commercially available substitutes in those specific applications;
- prohibit ODS substitutes if the prohibition reduces overall risk to human health and the environment and lower-risk ODS substitutes are available; and
- add or remove ODS substitutes, use conditions, or use limits on approved substitutes, provided that doing so reduces overall risk to human health and the environment.

Manufacturers of products that contain or use ODS substitutes must disclose the use of the ODS substitutes as follows.
1. In the form of a label on the product or equipment that meets requirements established by DOE by rule. DOE must recognize existing labeling requirements to the extent feasible, must consider labeling requirements of other state building codes and other safety standards, and may not require labeling of aircraft or aircraft components.

2. By submitting information to DOE about the use of ODS substitutes by December 2019, within 120 days of a restriction taking effect, and within 120 days of new products or equipment being introduced that are of a product class that use HFCs.

DOE may adopt rules, and in doing so must seek to be consistent with or the same as the regulations adopted by the federal government or with other states that have adopted restrictions on HFCs and other ODS substitutes. Prior to adopting a rule, DOE must cite the sources of information it relied upon, including peer-reviewed science.

Acceptable uses for ODS substitutes for aircraft maintenance under the vacated EPA regulation must be interpreted by DOE to apply to the production, manufacture, or repair of aircraft, aircraft parts, or aerospace vehicles and components. The compound 2-BTP or other compounds used in aerospace fire extinguishing systems are not considered ODS substitutes subject to state restrictions.

Violations of restrictions on ODS substitutes are subject to criminal and civil penalties under the state Clean Air Act. The Air Pollution Control Account may be used to develop and implement the ODS substitute restrictions.

Other Provisions. DES must establish a purchasing procurement policy favoring HFC-free products, or products that use ODS substitutes with comparatively low global warming potential. Every two years beginning December 1, 2020, DES must submit status reports to the Legislature regarding their implementation of this policy.

The council must adopt rules that permit the use of allowed ODS substitutes and do not require the use of restricted ODS substitutes.

DOE, in consultation with the Utilities and Transportation Commission and the Department of Commerce, must complete a study on how to increase the use of low global warming potential HFCs in mobile sources, utility equipment, and consumer appliances, and how to reduce the use of other HFCs. DOE must submit a report to the Legislature by December 1, 2020, including recommendations for incentivizing or providing grants to eliminate legacy uses of restricted HFCs or uses of unrestricted HFCs.

A severability clause is included.

**Appropriation**: None.

**Fiscal Note**: Available.

**Creates Committee/Commission/Task Force that includes Legislative members**: No.

**Effective Date**: Ninety days after adjournment of session in which bill is passed.
PRO: This is a bill with a great impact on greenhouse gas reduction at a very low cost. Safe alternatives for HFCs are available and comparable in cost. The global warming potential of HFCs can range from 1000 to 10,000 times that of carbon dioxide.

For manufacturers, the bill creates a reasonable and predictable transition away from HFCs. The bill is similar to efforts in California, New York, and others. The dates were founded in the national discussion in 2015 and the transition has already begun. The bill provides the right timeline to do this transition the right way and it has wide bipartisan support, which is rare for a climate change bill.

CON: Air conditioning contractors and the food industry are opposed to the bill, unless the restrictions are delayed for two years. There are several concerns about cost, safety, availability, and affordability. The substitutes for refrigerants are highly flammable and equipment operators need to be properly trained. Extending the timeline will allow the market to be ready and for businesses to be better prepared.

Rather than avoid a patchwork state-by-state approach, the restrictions should be implemented through federal regulation.

OTHER: A little more time for adequate supply would make contractors feel like they can do the best job for their customers.


CON: Carolyn Logue, Washington Food Industry Association and Washington Air Conditioning Contractors Association; Melissa Olson-Frause, President, Washington Air Conditioning Contractors Association; Jeff DeVere, Arkema Inc. and Mexichem Fluor.

OTHER: Kathleen Collins, Sheet Metal and Air Conditioning Contractors of Western Washington.

Persons Signed In To Testify But Not Testifying (Environment, Energy & Technology): No one.

Staff Summary of Public Testimony on Engrossed Second Substitute House Bill (Ways & Means): The committee recommended a different version of the bill than what was heard. PRO: This bill creates a reasonable and predictable transition for industry to shift to alternatives. Having timeframes and standards similar to other states maintains certainty for businesses. HFCs are thousands of times more potent than carbon dioxide in terms of greenhouse gas impact on climate. This bill is necessary to mitigate against this risk.

CON: The time frames in the bill go into effect too soon. Industry needs more time to adequately make the transition. We need a year delay in implementation. An effective date of 8 months is too soon. We are asking for two years of delay, with a year for phase-out.
OTHER: We support the reduction of HFCs, and could change our position to PRO if we could get an amendment regarding labeling requirements.

**Persons Testifying (Ways & Means):** PRO: Marty Loesch, Honeywell; Stu Clark, DOE.


**Persons Signed In To Testify But Not Testifying (Ways & Means):** No one.