H-3710.2

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**HOUSE BILL 2379**

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**State of Washington 66th Legislature 2020 Regular Session**

**By** Representatives Smith and Fitzgibbon

AN ACT Relating to inventorying and incentivizing the reduction of the potential emissions from sulfur hexafluoride; amending RCW 70.235.020 and 19.405.020; and creating a new section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec.**  The legislature finds and declares that:

(1) Since the 1950s, sulfur hexafluoride has been the insulator of choice for electrical equipment installed along the electric grid because of its specific dielectric and arc-quenching properties. However, according to the United States environmental protection agency, sulfur hexafluoride is also an extremely potent, synthetic greenhouse gas that is at least twenty-two thousand eight hundred times more potent than carbon dioxide at trapping heat over one hundred years and can remain in the atmosphere for up to three thousand two hundred years.

(2) Chapter 288, Laws of 2019, also known as the Washington clean energy transformation act, establishes that it is the policy of the state to eliminate coal-fired electricity by 2025, transition the state's electricity supply to one hundred percent carbon-neutral by 2030, and achieve one hundred percent carbon-free electricity by 2045. Section 25, chapter 288, Laws of 2019 establishes a legislative finding that, based on current technology, there will likely need to be upgrades to electricity transmission and distribution infrastructure across the state to meet these specified goals. Such infrastructure upgrades may include upgrades to, or increased deployment of, transformers, switchgear, and other electrical equipment necessary to facilitate the safe and reliable integration of decentralized renewable and nonemitting resources into the electric grid. This electrical equipment is most likely to be insulated using sulfur hexafluoride gas.

(3) The department of ecology is required under RCW 70.235.020 to report to the governor and the legislature on the state's greenhouse gas emissions every two years, using 1990 as a baseline and delineated according to major source sector. In addition to its biennial report, the department of ecology maintains a regularly updated greenhouse gas reporting map and database on its internet web site. According to this database, in 2017, Washington's largest reporting emitters of sulfur hexafluoride emitted the equivalent of forty-eight thousand metric tons of carbon dioxide. However, this does not account for the potential emissions represented by the volume of sulfur hexafluoride currently stored in electrical equipment across the state, which can occur through leaks in equipment seals and during equipment manufacturing, installation, servicing, and disposal.

(4) Today's electric power grid is a complex network of electric generation facilities, transmission and distribution infrastructure, end-use customers, and customer-generators. As electric utilities across the state deploy more gas-insulated electrical equipment to meet the requirements established by the Washington clean energy transformation act, so the volume of sulfur hexafluoride stored statewide will increase. It is therefore the intent of the legislature to account for the full environmental cost of Washington's clean energy transformation by inventorying and reducing statewide sulfur hexafluoride emissions potential.

**Sec.**  RCW 70.235.020 and 2008 c 14 s 3 are each amended to read as follows:

(1)(a) The state shall limit emissions of greenhouse gases to achieve the following emission reductions for Washington state:

(i) By 2020, reduce overall emissions of greenhouse gases in the state to 1990 levels;

(ii) By 2035, reduce overall emissions of greenhouse gases in the state to twenty-five percent below 1990 levels;

(iii) By 2050, the state will do its part to reach global climate stabilization levels by reducing overall emissions to fifty percent below 1990 levels, or seventy percent below the state's expected emissions that year.

(b) By December 1, 2008, the department shall submit a greenhouse gas reduction plan for review and approval to the legislature, describing those actions necessary to achieve the emission reductions in (a) of this subsection by using existing statutory authority and any additional authority granted by the legislature. Actions taken using existing statutory authority may proceed prior to approval of the greenhouse gas reduction plan.

(c) Except where explicitly stated otherwise, nothing in chapter 14, Laws of 2008 limits any state agency authorities as they existed prior to June 12, 2008.

(d) Consistent with this directive, the department shall take the following actions:

(i) Develop and implement a system for monitoring and reporting emissions of greenhouse gases as required under RCW 70.94.151; and

(ii) Track progress toward meeting the emission reductions established in this subsection, including the results from policies currently in effect that have been previously adopted by the state and policies adopted in the future, and report on that progress.

(2) By December 31st of each even-numbered year beginning in 2010, the department and the department of ((~~community, trade, and economic development~~)) commerce shall report to the governor and the appropriate committees of the senate and house of representatives the total emissions of greenhouse gases for the preceding two years, and totals in each major source sector. The department shall ensure the reporting rules adopted under RCW 70.94.151 allow it to develop a comprehensive inventory of emissions of greenhouse gases from all significant sectors of the Washington economy.

(3) Except for purposes of reporting, emissions of carbon dioxide from industrial combustion of biomass in the form of fuel wood, wood waste, wood by-products, and wood residuals shall not be considered a greenhouse gas as long as the region's silvicultural sequestration capacity is maintained or increased.

(4)(a) The report required under subsection (2) of this section must include an assessment of the total volume of sulfur hexafluoride stored in gas-insulated electrical equipment in the state. The report must delineate the total volume of sulfur hexafluoride stored in gas-insulated electrical equipment used for electricity generation, transmission, and distribution. The report must also provide the amount, in metric tons, of potential carbon dioxide equivalent emissions represented by the total volume of sulfur hexafluoride stored in gas-insulated electrical equipment in the state.

(b) For the purposes of this subsection, "gas-insulated electrical equipment" means all electrical power system equipment insulated with sulfur hexafluoride gas, including but not limited to switches, stand-alone gas-insulated equipment, and any combination of electrical disconnects, fuses, electrical transmission lines, transformers, or circuit breakers used to isolate gas-insulated electrical power system equipment.

**Sec.**  RCW 19.405.020 and 2019 c 288 s 2 are each amended to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Allocation of electricity" means, for the purposes of setting electricity rates, the costs and benefits associated with the resources used to provide electricity to an electric utility's retail electricity consumers that are located in this state.

(2) "Alternative compliance payment" means the payment established in RCW 19.405.090(2).

(3) "Attorney general" means the Washington state office of the attorney general.

(4) "Auditor" means: (a) The Washington state auditor's office or its designee for utilities under its jurisdiction under this chapter that are consumer-owned utilities; or (b) an independent auditor selected by a utility that is not under the jurisdiction of the state auditor and is not an investor-owned utility.

(5)(a) "Biomass energy" includes: (i) Organic by-products of pulping and the wood manufacturing process; (ii) animal manure; (iii) solid organic fuels from wood; (iv) forest or field residues; (v) untreated wooden demolition or construction debris; (vi) food waste and food processing residuals; (vii) liquors derived from algae; (viii) dedicated energy crops; and (ix) yard waste.

(b) "Biomass energy" does not include: (i) Wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic; (ii) wood from old growth forests; or (iii) municipal solid waste.

(6) "Carbon dioxide equivalent" has the same meaning as defined in RCW 70.235.010.

(7)(a) "Coal-fired resource" means a facility that uses coal-fired generating units, or that uses units fired in whole or in part by coal as feedstock, to generate electricity.

(b)(i) "Coal-fired resource" does not include an electric generating facility that is included as part of a limited duration wholesale power purchase, not to exceed one month, made by an electric utility for delivery to retail electric customers that are located in this state for which the source of the power is not known at the time of entry into the transaction to procure the electricity.

(ii) "Coal-fired resource" does not include an electric generating facility that is subject to an obligation to meet the standards contained in RCW 80.80.040(3)(c).

(8) "Commission" means the Washington utilities and transportation commission.

(9) "Conservation and efficiency resources" means any reduction in electric power consumption that results from increases in the efficiency of energy use, production, transmission, or distribution.

(10) "Consumer-owned utility" means a municipal electric utility formed under Title 35 RCW, a public utility district formed under Title 54 RCW, an irrigation district formed under chapter 87.03 RCW, a cooperative formed under chapter 23.86 RCW, or a mutual corporation or association formed under chapter 24.06 RCW, that is engaged in the business of distributing electricity to more than one retail electric customer in the state.

(11) "Demand response" means changes in electric usage by demand-side resources from their normal consumption patterns in response to changes in the price of electricity, or to incentive payments designed to induce lower electricity use, at times of high wholesale market prices or when system reliability is jeopardized. "Demand response" may include measures to increase or decrease electricity production on the customer's side of the meter in response to incentive payments.

(12) "Department" means the department of commerce.

(13) "Distributed energy resource" means a nonemitting electric generation or renewable resource or program that reduces electric demand, manages the level or timing of electricity consumption, or provides storage, electric energy, capacity, or ancillary services to an electric utility and that is located on the distribution system, any subsystem of the distribution system, or behind the customer meter, including conservation and energy efficiency.

(14) "Electric utility" or "utility" means a consumer-owned utility or an investor-owned utility.

(15) "Energy assistance" means a program undertaken by a utility to reduce the household energy burden of its customers.

(a) Energy assistance includes, but is not limited to, weatherization, conservation and efficiency services, and monetary assistance, such as a grant program or discounts for lower income households, intended to lower a household's energy burden.

(b) Energy assistance may include direct customer ownership in distributed energy resources or other strategies if such strategies achieve a reduction in energy burden for the customer above other available conservation and demand-side measures.

(16) "Energy assistance need" means the amount of assistance necessary to achieve a level of household energy burden established by the department or commission.

(17) "Energy burden" means the share of annual household income used to pay annual home energy bills.

(18)(a) "Energy transformation project" means a project or program that: Provides energy-related goods or services, other than the generation of electricity; results in a reduction of fossil fuel consumption and in a reduction of the emission of greenhouse gases attributable to that consumption; and provides benefits to the customers of an electric utility.

(b) "Energy transformation project" may include but is not limited to:

(i) Home weatherization or other energy efficiency measures, including market transformation for energy efficiency products, in excess of: The target established under RCW 19.285.040(1), if applicable; other state obligations; or other obligations in effect on May 7, 2019;

(ii) Support for electrification of the transportation sector including, but not limited to:

(A) Equipment on an electric utility's transmission and distribution system to accommodate electric vehicle connections, as well as smart grid systems that enable electronic interaction between the electric utility and charging systems, and facilitate the utilization of vehicle batteries for system needs;

(B) Incentives for the sale or purchase of electric vehicles, both battery and fuel cell powered, as authorized under state or federal law;

(C) Incentives for the installation of charging equipment for electric vehicles;

(D) Incentives for the electrification of vehicle fleets utilizing a battery or fuel cell for electric supply;

(E) Incentives to install and operate equipment to produce or distribute renewable hydrogen; and

(F) Incentives for renewable hydrogen fueling stations;

(iii) Investment in distributed energy resources and grid modernization to facilitate distributed energy resources and improved grid resilience;

(iv) Investments in equipment for renewable natural gas processing, conditioning, and production, or equipment or infrastructure used solely for the purpose of delivering renewable natural gas for consumption or distribution;

(v) Contributions to self-directed investments in the following measures to serve the sites of large industrial gas and electrical customers: (A) Conservation; (B) new renewable resources; (C) behind-the-meter technology that facilitates demand response cooperation to reduce peak loads; (D) infrastructure to support electrification of transportation needs, including battery and fuel cell electrification; or (E) renewable natural gas processing, conditioning, or production; ((~~and~~))

(vi) Projects and programs that achieve energy efficiency and emission reductions in the agricultural sector, including bioenergy and renewable natural gas projects; and

(vii) Investments in leak detection and repair, equipment refurbishment, new equipment, gas recycling, improved gas handling, and other projects and programs that reduce emissions of sulfur hexafluoride from gas-insulated electrical equipment during the equipment's useful life and when retired from service.

(19) "Fossil fuel" means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such a material.

(20) "Governing body" means: The council of a city or town; the commissioners of an irrigation district, municipal electric utility, or public utility district; or the board of directors of an electric cooperative or mutual association that has the authority to set and approve rates.

(21) "Greenhouse gas" includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and any other gas or gases designated by the department of ecology by rule under RCW 70.235.010.

(22) "Greenhouse gas content calculation" means a calculation expressed in carbon dioxide equivalent and made by the department of ecology, in consultation with the department, for the purposes of determining the emissions from the complete combustion or oxidation of fossil fuels and the greenhouse gas emissions in electricity for use in calculating the greenhouse gas emissions content in electricity.

(23) "Highly impacted community" means a community designated by the department of health based on cumulative impact analyses in RCW 19.405.140 or a community located in census tracts that are fully or partially on "Indian country" as defined in 18 U.S.C. Sec. 1151.

(24) "Investor-owned utility" means a company owned by investors that meets the definition of "corporation" in RCW 80.04.010 and is engaged in distributing electricity to more than one retail electric customer in the state.

(25) "Low-income" means household incomes as defined by the department or commission, provided that the definition may not exceed the higher of eighty percent of area median household income or two hundred percent of the federal poverty level, adjusted for household size.

(26)(a) "Market customer" means a nonresidential retail electric customer of an electric utility that: (i) Purchases electricity from an entity or entities other than the utility with which it is directly interconnected; or (ii) generates electricity to meet one hundred percent of its own needs.

(b) An "affected market customer" is a customer of an investor-owned utility who becomes a market customer after May 7, 2019.

(27)(a) "Natural gas" means naturally occurring mixtures of hydrocarbon gases and vapors consisting principally of methane, whether in gaseous or liquid form, including methane clathrate.

(b) "Natural gas" does not include renewable natural gas or the portion of renewable natural gas when blended into other fuels.

(28)(a) "Nonemitting electric generation" means electricity from a generating facility or a resource that provides electric energy, capacity, or ancillary services to an electric utility and that does not emit greenhouse gases as a by-product of energy generation.

(b) "Nonemitting electric generation" does not include renewable resources.

(29)(a) "Nonpower attributes" means all environmentally related characteristics, exclusive of energy, capacity reliability, and other electrical power service attributes, that are associated with the generation of electricity, including but not limited to the facility's fuel type, geographic location, vintage, qualification as a renewable resource, and avoided emissions of pollutants to the air, soil, or water, and avoided emissions of carbon dioxide and other greenhouse gases.

(b) "Nonpower attributes" does not include any aspects, claims, characteristics, and benefits associated with the on-site capture and destruction of methane or other greenhouse gases at a facility through a digester system, landfill gas collection system, or other mechanism, which may be separately marketable as greenhouse gas emission reduction credits, offsets, or similar tradable commodities. However, these separate avoided emissions may not result in or otherwise have the effect of attributing greenhouse gas emissions to the electricity.

(30) "Qualified transmission line" means an overhead transmission line that is: (a) Designed to carry a voltage in excess of one hundred thousand volts; (b) owned in whole or in part by an investor-owned utility; and (c) primarily or exclusively used by such an investor-owned utility as of May 7, 2019, to transmit electricity generated by a coal-fired resource.

(31) "Renewable energy credit" means a tradable certificate of proof of one megawatt-hour of a renewable resource. The certificate includes all of the nonpower attributes associated with that one megawatt-hour of electricity and the certificate is verified by a renewable energy credit tracking system selected by the department.

(32) "Renewable hydrogen" means hydrogen produced using renewable resources both as the source for the hydrogen and the source for the energy input into the production process.

(33) "Renewable natural gas" means a gas consisting largely of methane and other hydrocarbons derived from the decomposition of organic material in landfills, wastewater treatment facilities, and anaerobic digesters.

(34) "Renewable resource" means: (a) Water; (b) wind; (c) solar energy; (d) geothermal energy; (e) renewable natural gas; (f) renewable hydrogen; (g) wave, ocean, or tidal power; (h) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests; or (i) biomass energy.

(35)(a) "Retail electric customer" means a person or entity that purchases electricity from any electric utility for ultimate consumption and not for resale.

(b) "Retail electric customer" does not include, in the case of any electric utility, any person or entity that purchases electricity exclusively from carbon-free and eligible renewable resources, as defined in RCW 19.285.030 as of January 1, 2019, pursuant to a special contract with an investor-owned utility approved by an order of the commission prior to May 7, 2019.

(36) "Retail electric load" means the amount of megawatt-hours of electricity delivered in a given calendar year by an electric utility to its Washington retail electric customers. "Retail electric load" does not include:

(a) Megawatt-hours delivered from qualifying facilities under the federal public utility regulatory policies act of 1978, P.L. 95-617, in operation prior to May 7, 2019, provided that no entity other than the electric utility can make a claim on delivery of the megawatt-hours from those resources; or

(b) Megawatt-hours delivered to an electric utility's system from a renewable resource through a voluntary renewable energy purchase by a retail electric customer of the utility in which the renewable energy credits associated with the megawatt-hours delivered are retired on behalf of the retail electric customer.

(37) "Thermal renewable energy credit" means, with respect to a facility that generates electricity using biomass energy that also generates thermal energy for a secondary purpose, a renewable energy credit that is equivalent to three million four hundred twelve thousand British thermal units of energy used for such secondary purpose.

(38) "Unbundled renewable energy credit" means a renewable energy credit that is sold, delivered, or purchased separately from electricity. All thermal renewable energy credits are considered unbundled renewable energy credits.

(39) "Unspecified electricity" means an electricity source for which the fuel attribute is unknown or has been separated from the energy delivered to retail electric customers.

(40) "Vulnerable populations" means communities that experience a disproportionate cumulative risk from environmental burdens due to:

(a) Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, access to food and health care, and linguistic isolation; and

(b) Sensitivity factors, such as low birth weight and higher rates of hospitalization.

(41) "Gas-insulated electrical equipment" means all electrical power system equipment insulated with sulfur hexafluoride gas including, but not limited to, switches, stand-alone gas-insulated equipment, and any combination of electrical disconnects, fuses, electrical transmission lines, transformers, or circuit breakers used to isolate gas-insulated electrical power system equipment.

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