H-1030.1

# SECOND SUBSTITUTE HOUSE BILL 1287

**State of Washington 67th Legislature 2021 Regular Session**

**By** House Transportation (originally sponsored by Representatives Ramel, Hackney, Bateman, Fitzgibbon, Berry, Goodman, Santos, Kloba, Macri, Bergquist, Ormsby, and Pollet)

READ FIRST TIME 02/22/21.

AN ACT Relating to preparedness for a zero emissions transportation future; amending RCW 19.280.030 and 19.27.540; adding a new section to chapter 47.01 RCW; and creating a new section.

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

NEW SECTION. **Sec. 1.** (1) Motor vehicles are a significant source of air pollution, including greenhouse gas emissions, in Washington. The transportation sector accounts for nearly one-half of greenhouse gas emissions in Washington, and on-road vehicle emissions are responsible for the vast majority of the transportation sector emissions.

(2) The widespread adoption of zero emissions vehicles is essential to the achievement of the state emissions limits established in RCW 70A.45.020, which, by 2050, requires a reduction of greenhouse gas emissions to 5,000,000 metric tons and the achievement of net zero greenhouse gas emissions. The rapid uptake of zero emissions vehicles is also an essential component of the state energy strategy, which calls for the phase out of vehicles powered by gasoline or diesel by mid-century. To ensure that the necessary infrastructure is in place to facilitate zero emissions vehicle adoption, the state energy strategy calls for the establishment of building codes that require installation of the conduit, wiring, and

panel capacity necessary to support electric vehicle charging in new and retrofitted buildings.

(3) In 2005, Washington first took action to adopt some of the motor vehicle emissions standards of the state of California, which are more protective of human health and the environment than federal motor vehicle emissions standards. In 2020, the legislature directed the department of ecology to adopt all of California's motor vehicle emissions standards, including California's zero emissions vehicles program.

(4) A Washington state transition to a zero emissions transportation future requires accurate forecasting of zero emissions vehicle adoption rates, comprehensive planning for the necessary electric vehicle charging and green hydrogen production infrastructure, including the siting of infrastructure in desirable locations with amenities, such as near convenience stores and other small retailers, and managing the load of charging and green hydrogen production and refueling infrastructure as a dynamic energy service to the electric grid.

(5) To ensure that the transition to a zero emissions transportation future proceeds efficiently and conveniently for users and operators of the multimodal transportation system, it is the intent of the legislature to:

(a) Require state government to provide resources that facilitate the planning and deployment of electric vehicle charging and refueling infrastructure in a transparent, effective, and equitable manner across the state;

(b) Ensure utility resource planning analyzes the impacts on electricity generation and delivery from growing adoption and usage of electric vehicles; and

(c) Require state building codes that support the anticipated levels of zero emissions vehicle use that result from the program requirements in chapter 70A.30 RCW and that achieve emissions reductions consistent with RCW 70A.45.020.

NEW SECTION. **Sec. 2.** A new section is added to chapter 47.01 RCW to read as follows:

(1) The department, through the department's public-private partnership office and in consultation with the department of ecology, the department of commerce, and the office of equity, must develop and maintain a publicly available mapping and forecasting

tool that provides locations and essential information of charging and refueling infrastructure to support forecasted levels of electric vehicle adoption, travel, and usage across Washington state.

(2)(a) The publicly available mapping and forecasting tool must be designed to enable coordinated, effective, efficient, and timely deployment of charging and refueling infrastructure necessary to support statewide and local transportation electrification efforts that result in emissions reductions consistent with RCW 70A.45.020.

(b) The tool must:

(i) Initially prioritize on-road transportation;

(ii) To the greatest extent possible, maintain the latest data;

(iii) Model charging and refueling infrastructure that may be used by owners and operators of light, medium, and heavy-duty vehicles; and

(iv) Incorporate the department's traffic data for passenger and freight vehicles.

(c) The tool must, if feasible:

(i) Provide the data necessary to support programs by state agencies that directly or indirectly support transportation electrification efforts;

(ii) Evolve over time to support future transportation electrification programs;

(iii) Provide data at a scale that supports electric utility planning for the impacts of transportation electrification both systemwide and on specific components of the distribution system; and

(iv) Forecast statewide zero emissions vehicle use that would achieve the emissions reductions consistent with RCW 70A.45.020. The department may reference existing zero emissions vehicle use forecasts, such as that established in the state energy strategy.

(3) The department, in consultation with the department of commerce, the department of ecology, and the office of equity, may elect to include other transportation charging and refueling infrastructure, such as maritime, public transportation, and aviation in the mapping and forecasting tool.

(4) The tool must include, to the extent feasible, the following elements:

(a) The amount, type, location, and year of installation for electric vehicle supply equipment that is expected to be necessary to support forecasted electric vehicle penetration and usage within the state;

(b) Electric vehicle adoption, usage, technological profiles, and any other characteristics necessary to model future electric vehicle penetration levels and use cases that impact electric vehicle supply equipment needs within the state;

(c) The estimated energy and capacity demand based on inputs from (b) of this subsection;

(d) Boundaries of political subdivisions including, but not limited to:

(i) Retail electricity suppliers;

(ii) Public transportation agency boundaries;

(iii) Municipalities;

(iv) Counties; and

(v) Federally recognized tribal governments;

(e) Existing and known publicly or privately owned level 2, direct current fast charge, and refueling infrastructure. The identification of refueling infrastructure must, if possible, distinguish refueling infrastructure that supplies green hydrogen from other hydrogen refueling infrastructure;

(f) A public interface designed to provide any user the ability to determine the forecasted charging and refueling infrastructure needs within a provided geographic boundary, including those listed under (d) of this subsection; and

(g) The ability for all data tracked within the tool to be downloadable or usable within a separate mapping and forecasting tool.

(5) The tool must, if feasible, integrate scenarios including:

(a) Varying levels of public transportation utilization;

(b) Varying levels of active transportation usage, such as biking or walking;

(c) Vehicle miles traveled amounts above and below the baseline;

(d) Adoption of autonomous and shared mobility services; and

(e) Forecasts capturing each county's relative level of zero emissions vehicle use that would achieve each county's relative emissions reductions consistent with RCW 70A.45.020.

(6) To support highly impacted communities and vulnerable populations disproportionately burdened by transportation-related emissions and to ensure economic and mobility benefits flow to communities that have historically received less investment in infrastructure, the mapping and forecasting tool must integrate population, health, environmental, and socioeconomic data on a census

tract basis. The department may use existing data used by other state or federal agencies. The department must consult with the department of health, the office of equity, the department of ecology, and other agencies as necessary in order to ensure the tool properly integrates cumulative impact analyses best practices and to ensure that the tool is developed in coordination with other state government administrative efforts to identify disproportionately impacted communities.

(7) The mapping and forecasting tool must, to the extent appropriate, integrate related analyses, such as the department of commerce's state energy strategy, the joint transportation committee's public fleet electrification study, the west coast collaborative's alternative fuel infrastructure corridor coalition report, and other related electric vehicle supply equipment assessments as deemed appropriate.

(8) Where appropriate and feasible, the mapping and forecasting tool must incorporate infrastructure located at or near the border in neighboring state and provincial jurisdictions.

(9) In designing the mapping and forecasting tool, the department must coordinate with the department of commerce, the department of ecology, the utilities and transportation commission, and other state agencies as needed in order to ensure the mapping and forecasting tool is able to successfully facilitate other state agency programs that involve deployment of electric vehicle supply equipment.

(10) The department must conduct a stakeholder process in developing the mapping and forecasting tool to ensure the tool supports the needs of communities, public agencies, and relevant private organizations. The stakeholder process must involve stakeholders, including but not limited to electric utilities, early in the development of the tool.

(11) The department may contract with the department of commerce or consultants, or both, to develop and implement all or portions of the mapping and forecasting tool. The department may rely on or, to the extent necessary, contract for privately maintained data sufficient to develop the elements specified in subsection (4) of this section.

(12) The definitions in this subsection apply throughout this section unless the context clearly requires otherwise:

(a) "Charging infrastructure" means a unit of fueling infrastructure that supplies electric energy for the recharging of battery electric vehicles.

(b) "Direct current fast charger" means infrastructure that supplies electricity to battery electric vehicles at capacities no less than 50 kilowatts, typically using 208/408 volt three-phase direct current electricity.

(c) "Electric vehicle" means any craft, vessel, automobile, public transportation vehicle, or equipment that transports people or goods and operates, either partially or exclusively, on electrical energy from an off-board source that is stored onboard for motive purpose.

(d) "Electric vehicle supply equipment" means charging infrastructure and hydrogen refueling infrastructure.

(e)(i) "Green hydrogen" means hydrogen produced using: (A) Electricity that meets the carbon neutrality standard of RCW 19.405.040 by 2030 and carbon-free standard of RCW 19.405.050 by 2045 for the energy input into the production process; and (B) renewable resources for the source of the hydrogen.

(ii) "Green hydrogen" includes renewable hydrogen as defined in RCW 19.405.020.

(f) "Level 2 charger" means infrastructure that supplies electricity to battery electric vehicles at 240 volts and equal to or less than 80 amps.

(g) "Refueling infrastructure" means a unit of fueling infrastructure that supplies hydrogen for the resupply of hydrogen fuel cell electric vehicles.

**Sec. 3.** RCW 19.280.030 and 2019 c 288 s 14 are each amended to read as follows:

Each electric utility must develop a plan consistent with this section.

(1) Utilities with more than twenty-five thousand customers that are not full requirements customers must develop or update an integrated resource plan by September 1, 2008. At a minimum, progress reports reflecting changing conditions and the progress of the integrated resource plan must be produced every two years thereafter. An updated integrated resource plan must be developed at least every four years subsequent to the 2008 integrated resource plan. The integrated resource plan, at a minimum, must include:

(a) A range of forecasts, for at least the next ten years or longer, of projected customer demand which takes into account econometric data and customer usage;

(b) An assessment of commercially available conservation and efficiency resources, as informed, as applicable, by the assessment for conservation potential under RCW 19.285.040 for the planning horizon consistent with (a) of this subsection. Such assessment may include, as appropriate, opportunities for development of combined heat and power as an energy and capacity resource, demand response and load management programs, and currently employed and new policies and programs needed to obtain the conservation and efficiency resources;

(c) An assessment of commercially available, utility scale renewable and nonrenewable generating technologies including a comparison of the benefits and risks of purchasing power or building new resources;

(d) A comparative evaluation of renewable and nonrenewable generating resources, including transmission and distribution delivery costs, and conservation and efficiency resources using "lowest reasonable cost" as a criterion;

(e) An assessment of methods, commercially available technologies, or facilities for integrating renewable resources, including but not limited to battery storage and pumped storage, and addressing overgeneration events, if applicable to the utility's resource portfolio;

(f) An assessment and ten-year forecast of the availability of regional generation and transmission capacity on which the utility may rely to provide and deliver electricity to its customers;

(g) A determination of resource adequacy metrics for the resource plan consistent with the forecasts;

(h) A forecast of distributed energy resources that may be installed by the utility's customers and an assessment of their effect on the utility's load and operations;

(i) An identification of an appropriate resource adequacy requirement and measurement metric consistent with prudent utility practice in implementing RCW 19.405.030 through 19.405.050;

(j) The integration of the demand forecasts, resource evaluations, and resource adequacy requirement into a long-range assessment describing the mix of supply side generating resources and conservation and efficiency resources that will meet current and

projected needs, including mitigating overgeneration events and implementing RCW 19.405.030 through 19.405.050, at the lowest reasonable cost and risk to the utility and its customers, while maintaining and protecting the safety, reliable operation, and balancing of its electric system;

(k) An assessment, informed by the cumulative impact analysis conducted under RCW 19.405.140, of: Energy and nonenergy benefits and reductions of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits, costs, and risks; and energy security and risk; ((~~and~~))

(l) A ten-year clean energy action plan for implementing RCW 19.405.030 through 19.405.050 at the lowest reasonable cost, and at an acceptable resource adequacy standard, that identifies the specific actions to be taken by the utility consistent with the long-range integrated resource plan; and

(m) An analysis of how the plan supports and accounts for:

(i)(A) Modeled load forecast scenarios that consider the anticipated levels of zero emissions vehicle use in a utility's service area, taking into consideration zero emissions vehicle program effects, including those of chapter 70A.30 RCW; and

(B) Any discrepancy between the modeled forecasted levels of zero emissions vehicle use under (m)(i)(A) of this subsection and the levels of zero emissions vehicle use that would achieve emissions reductions consistent with RCW 70A.45.020;

(ii) Analysis, research, findings, recommendations, actions, and any other relevant information found in the electrification of transportation plans submitted under RCW 35.92.450, 54.16.430, and 80.28.365; and

(iii) Assumed use case forecasts and the associated energy impacts. Electric utilities may, but are not required to, use the forecasts generated by the mapping and forecasting tool created in section 2 of this act. This subsection (1)(m)(iii) applies only to plans due to be filed after September 1, 2023.

(2) For an investor-owned utility, the clean energy action plan must: (a) Identify and be informed by the utility's ten-year cost-effective conservation potential assessment as determined under RCW 19.285.040, if applicable; (b) establish a resource adequacy requirement; (c) identify the potential cost-effective demand response and load management programs that may be acquired; (d) identify renewable resources, nonemitting electric generation, and

distributed energy resources that may be acquired and evaluate how each identified resource may be expected to contribute to meeting the utility's resource adequacy requirement; (e) identify any need to develop new, or expand or upgrade existing, bulk transmission and distribution facilities; and (f) identify the nature and possible extent to which the utility may need to rely on alternative compliance options under RCW 19.405.040(1)(b), if appropriate.

(3)(a) An electric utility shall consider the social cost of greenhouse gas emissions, as determined by the commission for investor-owned utilities pursuant to RCW 80.28.405 and the department for consumer-owned utilities, when developing integrated resource plans and clean energy action plans. An electric utility must incorporate the social cost of greenhouse gas emissions as a cost adder when:

(i) Evaluating and selecting conservation policies, programs, and targets;

(ii) Developing integrated resource plans and clean energy action plans; and

(iii) Evaluating and selecting intermediate term and long-term resource options.

(b) For the purposes of this subsection (3): (i) Gas consisting largely of methane and other hydrocarbons derived from the decomposition of organic material in landfills, wastewater treatment facilities, and anaerobic digesters must be considered a nonemitting resource; and (ii) qualified biomass energy must be considered a nonemitting resource.

(4) To facilitate broad, equitable, and efficient implementation of chapter 288, Laws of 2019, a consumer-owned energy utility may enter into an agreement with a joint operating agency organized under chapter 43.52 RCW or other nonprofit organization to develop and implement a joint clean energy action plan in collaboration with other utilities.

(5) All other utilities may elect to develop a full integrated resource plan as set forth in subsection (1) of this section or, at a minimum, shall develop a resource plan that:

(a) Estimates loads for the next five and ten years;

(b) Enumerates the resources that will be maintained and/or acquired to serve those loads;

(c) Explains why the resources in (b) of this subsection were chosen and, if the resources chosen are not: (i) Renewable resources;

(ii) methods, commercially available technologies, or facilities for integrating renewable resources, including addressing any overgeneration event; or (iii) conservation and efficiency resources, why such a decision was made; ((~~and~~))

(d) By December 31, 2020, and in every resource plan thereafter, identifies how the utility plans over a ten-year period to implement RCW 19.405.040 and 19.405.050; and

(e) Supports and accounts for:

(i)(A) Modeled load forecast scenarios that consider the anticipated levels of zero emissions vehicle use in a utility's service area, taking into consideration zero emissions vehicle program effects, including those of chapter 70A.30 RCW; and

(B) Any discrepancy between the modeled forecasted levels of zero emissions vehicle use under (e)(i)(A) of this subsection and the levels of zero emissions vehicle use that would achieve emissions reductions consistent with RCW 70A.45.020;

(ii) Analysis, research, findings, recommendations, actions, and any other relevant information found in the electrification of transportation plans submitted under RCW 35.92.450, 54.16.430, and 80.28.365; and

(iii) Assumed use case forecasts and the associated energy impacts. Electric utilities may, but are not required to, use the forecasts generated by the mapping and forecasting tool created in section 2 of this act. This subsection (5)(e)(iii) applies only to plans due to be filed after September 1, 2023.

(6) Assessments for demand side resources included in an integrated resource plan may include combined heat and power systems as one of the measures in a conservation supply curve. The value of recoverable waste heat resulting from combined heat and power must be reflected in analyses of cost-effectiveness under this subsection.

(7) An electric utility that is required to develop a resource plan under this section must complete its initial plan by September 1, 2008.

(8) Plans developed under this section must be updated on a regular basis, on intervals approved by the commission or the department, or at a minimum on intervals of two years.

(9) Plans shall not be a basis to bring legal action against electric utilities.

(10)(a) To maximize transparency, the commission, for investor-owned utilities, or the governing body, for consumer-owned utilities,

may require an electric utility to make the utility's data input files available in a native format. Each electric utility shall publish its final plan either as part of an annual report or as a separate document available to the public. The report may be in an electronic form.

(b) Nothing in this subsection limits the protection of records containing commercial information under RCW 80.04.095.

(11) By December 31, 2021, the department and the commission must adopt rules establishing the requirements for incorporating the cumulative impact analysis developed under RCW 19.405.140 into the criteria for developing clean energy action plans under this section.

**Sec. 4.** RCW 19.27.540 and 2019 c 285 s 18 are each amended to read as follows:

(1) The building code council shall adopt rules for electric vehicle infrastructure requirements. Rules adopted by the state building code council must consider applicable national and international standards and be consistent with rules adopted under RCW 19.28.281.

(2)(a) Except as provided in (b) of this subsection, the rules adopted under this section must require electric vehicle charging capability at all new buildings that provide on-site parking. Where parking is provided, the greater of one parking space or ten percent of parking spaces, rounded to the next whole number, must be provided with wiring or raceway sized to accommodate 208/240 V 40-amp or equivalent electric vehicle charging. Electrical rooms serving buildings with on-site parking must be sized to accommodate the potential for electrical equipment and distribution required to serve a minimum of twenty percent of the total parking spaces with 208/240 V 40-amp or equivalent electric vehicle charging. Load management infrastructure may be used to adjust the size and capacity of the required building electric service equipment and circuits on the customer facilities, as well as electric utility-owned infrastructure, as allowed by applicable local and national electrical code. For accessible parking spaces, the greater of one parking space or ten percent of accessible parking spaces, rounded to the next whole number, must be provided with electric vehicle charging infrastructure that may also serve adjacent parking spaces not designated as accessible parking.

(b) For occupancies classified as assembly, education, or mercantile, the requirements of this section apply only to employee parking spaces. The requirements of this section do not apply to occupancies classified as residential R-3, utility, or miscellaneous.

(c) The required rules required under this subsection must be implemented by July 1, 2021.

(3)(a) The rules adopted under this section must exceed the specific minimum requirements established under subsection (2) of this section for all types of residential and commercial buildings to the extent necessary to support the anticipated levels of zero emissions vehicle use that result from the zero emissions vehicle program requirements in chapter 70A.30 RCW and that result in emissions reductions consistent with RCW 70A.45.020.

(b) The rules required under this subsection must be implemented by July 1, 2024, and may be periodically updated thereafter.

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