

E2SHB 1287 - S COMM AMD
By Committee on Transportation

ADOPTED AND ENGROSSED 04/10/2021

1 Strike everything after the enacting clause and insert the
2 following:

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

9 (2) The widespread adoption of zero emissions vehicles is
10 essential to the achievement of the state emissions limits
11 established in RCW 70A.45.020, which, by 2050, requires a reduction
12 of greenhouse gas emissions to 5,000,000 metric tons and the
13 achievement of net zero greenhouse gas emissions. The rapid uptake of
14 zero emissions vehicles is also an essential component of the state
15 energy strategy, which calls for the phase out of vehicles powered by
16 gasoline or diesel by mid-century. To ensure that the necessary
17 infrastructure is in place to facilitate zero emissions vehicle
18 adoption, the state energy strategy calls for the establishment of
19 building codes that require installation of the conduit, wiring, and
20 panel capacity necessary to support electric vehicle charging in new
21 and retrofitted buildings.

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

29 (4) A Washington state transition to a zero emissions
30 transportation future requires accurate forecasting of zero emissions
31 vehicle adoption rates, comprehensive planning for the necessary
32 electric vehicle charging and green hydrogen production

1 infrastructure, including the siting of infrastructure in desirable
2 locations with amenities, such as near convenience stores, gas
3 stations, and other small retailers, and managing the load of
4 charging and green hydrogen production and refueling infrastructure
5 as a dynamic energy service to the electric grid.

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

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

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

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

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

23 (1) The department, through the department's public-private
24 partnership office and in consultation with the department of
25 ecology, the department of commerce, and the office of equity, must
26 develop and maintain a publicly available mapping and forecasting
27 tool that provides locations and essential information of charging
28 and refueling infrastructure to support forecasted levels of electric
29 vehicle adoption, travel, and usage across Washington state.

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

35 (b) The tool must:

36 (i) Initially prioritize on-road transportation;

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

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

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

6 (c) The tool must, if feasible:

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

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

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

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

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

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

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

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

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

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

38 (i) Retail electricity suppliers;

39 (ii) Public transportation agency boundaries;

40 (iii) Municipalities;

1 (iv) Counties; and
2 (v) Federally recognized tribal governments;
3 (e) Existing and known publicly or privately owned level 2,
4 direct current fast charge, and refueling infrastructure. The
5 department must identify gas stations, convenience stores, and other
6 small retailers that are colocated with existing and known electric
7 vehicle charging infrastructure identified under this subsection;
8 (f) A public interface designed to provide any user the ability
9 to determine the forecasted charging and refueling infrastructure
10 needs within a provided geographic boundary, including those listed
11 under (d) of this subsection; and
12 (g) The ability for all data tracked within the tool to be
13 downloadable or usable within a separate mapping and forecasting
14 tool.
15 (5) The tool must, if feasible, integrate scenarios including:
16 (a) Varying levels of public transportation utilization;
17 (b) Varying levels of active transportation usage, such as biking
18 or walking;
19 (c) Vehicle miles traveled amounts above and below the baseline;
20 (d) Adoption of autonomous and shared mobility services; and
21 (e) Forecasts capturing each utility service area's relative
22 level of zero emissions vehicle use that would achieve each utility
23 service area's relative emissions reductions consistent with RCW
24 70A.45.020.
25 (6) To support highly impacted communities and vulnerable
26 populations disproportionately burdened by transportation-related
27 emissions and to ensure economic and mobility benefits flow to
28 communities that have historically received less investment in
29 infrastructure, the mapping and forecasting tool must integrate
30 population, health, environmental, and socioeconomic data on a census
31 tract basis. The department may use existing data used by other state
32 or federal agencies. The department must consult with the department
33 of health, the office of equity, the department of ecology, and other
34 agencies as necessary in order to ensure the tool properly integrates
35 cumulative impact analyses best practices and to ensure that the tool
36 is developed in coordination with other state government
37 administrative efforts to identify disproportionately impacted
38 communities.
39 (7) The mapping and forecasting tool must, to the extent
40 appropriate, integrate related analyses, such as the department of

1 commerce's state energy strategy, the joint transportation
2 committee's public fleet electrification study, the west coast
3 collaborative's alternative fuel infrastructure corridor coalition
4 report, and other related electric vehicle supply equipment
5 assessments as deemed appropriate. To the extent that the mapping and
6 forecasting tool is used by the department as the basis for the
7 identification of recommended future electric vehicle charging sites,
8 the department must consider recommending sites that are colocated
9 with small retailers, including gas stations and convenience stores,
10 and other amenities.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

38 (c) An assessment of commercially available, utility scale
39 renewable and nonrenewable generating technologies including a

1 comparison of the benefits and risks of purchasing power or building
2 new resources;

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

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

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

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

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

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

23 (j) The integration of the demand forecasts, resource
24 evaluations, and resource adequacy requirement into a long-range
25 assessment describing the mix of supply side generating resources and
26 conservation and efficiency resources that will meet current and
27 projected needs, including mitigating overgeneration events and
28 implementing RCW 19.405.030 through 19.405.050, at the lowest
29 reasonable cost and risk to the utility and its customers, while
30 maintaining and protecting the safety, reliable operation, and
31 balancing of its electric system;

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

37 (l) A ten-year clean energy action plan for implementing RCW
38 19.405.030 through 19.405.050 at the lowest reasonable cost, and at
39 an acceptable resource adequacy standard, that identifies the

1 specific actions to be taken by the utility consistent with the
2 long-range integrated resource plan; and

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

4 (i) Modeled load forecast scenarios that consider the anticipated
5 levels of zero emissions vehicle use in a utility's service area,
6 including anticipated levels of zero emissions vehicle use in the
7 utility's service area provided in section 2 of this act, if
8 feasible;

9 (ii) Analysis, research, findings, recommendations, actions, and
10 any other relevant information found in the electrification of
11 transportation plans submitted under RCW 35.92.450, 54.16.430, and
12 80.28.365; and

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

18 (2) For an investor-owned utility, the clean energy action plan
19 must: (a) Identify and be informed by the utility's ten-year cost-
20 effective conservation potential assessment as determined under RCW
21 19.285.040, if applicable; (b) establish a resource adequacy
22 requirement; (c) identify the potential cost-effective demand
23 response and load management programs that may be acquired; (d)
24 identify renewable resources, nonemitting electric generation, and
25 distributed energy resources that may be acquired and evaluate how
26 each identified resource may be expected to contribute to meeting the
27 utility's resource adequacy requirement; (e) identify any need to
28 develop new, or expand or upgrade existing, bulk transmission and
29 distribution facilities; and (f) identify the nature and possible
30 extent to which the utility may need to rely on alternative
31 compliance options under RCW 19.405.040(1)(b), if appropriate.

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

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

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

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

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

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

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

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

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

23 (c) Explains why the resources in (b) of this subsection were
24 chosen and, if the resources chosen are not: (i) Renewable resources;
25 (ii) methods, commercially available technologies, or facilities for
26 integrating renewable resources, including addressing any
27 overgeneration event; or (iii) conservation and efficiency resources,
28 why such a decision was made; (~~and~~)

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

32 (e) Accounts for:

33 (i) Modeled load forecast scenarios that consider the anticipated
34 levels of zero emissions vehicle use in a utility's service area,
35 including anticipated levels of zero emissions vehicle use in the
36 utility's service area provided in section 2 of this act, if
37 feasible;

38 (ii) Analysis, research, findings, recommendations, actions, and
39 any other relevant information found in the electrification of

1 transportation plans submitted under RCW 35.92.450, 54.16.430, and
2 80.28.365; and

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

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

13 (7) An electric utility that is required to develop a resource
14 plan under this section must complete its initial plan by September
15 1, 2008.

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

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

21 (10)(a) To maximize transparency, the commission, for investor-
22 owned utilities, or the governing body, for consumer-owned utilities,
23 may require an electric utility to make the utility's data input
24 files available in a native format. Each electric utility shall
25 publish its final plan either as part of an annual report or as a
26 separate document available to the public. The report may be in an
27 electronic form.

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

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

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

36 (1) The building code council shall adopt rules for electric
37 vehicle infrastructure requirements. Rules adopted by the state
38 building code council must consider applicable national and

1 international standards and be consistent with rules adopted under
2 RCW 19.28.281.

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

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

28 (c) ~~((The))~~ Except for rules related to residential R-3, the
29 required rules required under this subsection must be implemented by
30 July 1, 2021. The rules required under this subsection for
31 occupancies classified as residential R-3 must be implemented by July
32 1, 2024.

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

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

3 **Sec. 5.** RCW 82.44.200 and 2019 c 287 s 15 are each amended to
4 read as follows:

5 The electric vehicle account is created in the transportation
6 infrastructure account. Proceeds from the principal and interest
7 payments made on loans from the account must be deposited into the
8 account. Expenditures from the account may be used only for the
9 purposes specified in RCW 47.04.350, 82.08.9999, and 82.12.9999, and
10 the support of other transportation electrification and alternative
11 fuel related purposes, including section 2 of this act. Moneys in the
12 account may be spent only after appropriation.

13 NEW SECTION. **Sec. 6.** (1) Once a road usage charge, or
14 equivalent fee or tax based on vehicle miles traveled, is in effect
15 in the state of Washington with at least 75 percent of the registered
16 passenger and light duty vehicles in the state participating, then a
17 goal is established for the state that all publicly owned and
18 privately owned passenger and light duty vehicles of model year 2030
19 or later that are sold, purchased, or registered in Washington state
20 be electric vehicles. The department of licensing shall provide
21 notice to the secretary of the senate and the chief clerk of the
22 house of representatives, and the office of the governor when the
23 road usage charge is in effect and the required number of registered
24 vehicles are participating.

25 (2) The goal established in this section does not supersede any
26 other law, and the other law controls if inconsistent with the goal
27 established in this section.

28 (3) For purposes of this section:

29 (a) "Electric vehicles" are vehicles that use energy stored in
30 rechargeable battery packs or in hydrogen and which rely solely on
31 electric motors for propulsion.

32 (b) "Passenger and light duty vehicles" are on-road motor
33 vehicles with a scale weight of up to 10,000 pounds and three or more
34 wheels. Emergency services vehicles are not passenger and light duty
35 vehicles.

36 (4) Nothing in this section:

37 (a) Authorizes any state agency to restrict the purchase, sale,
38 or registration of vehicles that are not electric vehicles; or

1 (b) Changes or affects the directive to the department of ecology
2 to implement the zero emission vehicle program required under RCW
3 70A.30.010.

4 NEW SECTION. **Sec. 7.** Section 6 of this act constitutes a new
5 chapter in Title 70A RCW."

E2SHB 1287 - S COMM AMD
By Committee on Transportation

ADOPTED 04/10/2021

6 On page 1, line 2 of the title, after "future;" strike the
7 remainder of the title and insert "amending RCW 19.280.030,
8 19.27.540, and 82.44.200; adding a new section to chapter 47.01 RCW;
9 adding a new chapter to Title 70A RCW; and creating a new section."

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