CERTIFICATION OF ENROLLMENT

HOUSE BILL 1280

Chapter 178, Laws of 2022

67th Legislature 2022 Regular Session

PUBLIC FACILITIES—GREENHOUSE GAS EMISSIONS

EFFECTIVE DATE: June 9, 2022

Passed by the House January 21, 2022 CERTIFICATE Yeas 57 Nays 40 I, Bernard Dean, Chief Clerk of the House of Representatives of the LAURIE JINKINS State of Washington, do hereby certify that the attached is **HOUSE** Speaker of the House of BILL 1280 as passed by the House of Representatives Representatives and the Senate on the dates hereon set forth. Passed by the Senate March 1, 2022 Yeas 29 Nays 20 BERNARD DEAN Chief Clerk DENNY HECK President of the Senate Approved March 25, 2022 10:34 AM FILED March 28, 2022

JAY INSLEE State of Washington

Governor of the State of Washington

HOUSE BILL 1280

Passed Legislature - 2022 Regular Session

State of Washington 67th Legislature 2021 Regular Session

By Representatives Ramel, Duerr, Bateman, Fitzgibbon, Berry, Peterson, Goodman, Hackney, Frame, Macri, Pollet, and Harris-Talley

Read first time 01/19/21. Referred to Committee on Environment & Energy.

- 1 AN ACT Relating to greenhouse gas emissions reductions in the
- design of public facilities; and amending RCW 39.35.010, 39.35.020,
- 3 39.35.030, and 39.35.050.

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- 4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:
- 5 **Sec. 1.** RCW 39.35.010 and 2015 3rd sp.s. c 19 s 2 are each 6 amended to read as follows:
 - The legislature hereby finds:
- 8 (1) That major publicly owned or leased facilities have a 9 significant impact on our state's consumption of energy <u>and emission</u> 10 of greenhouse gases from the <u>buildings sector</u>;
- 11 (2) That energy conservation practices including energy 12 management systems, combined heat and power systems, and renewable 13 energy systems adopted for the design, construction, and utilization 14 of such facilities will have a beneficial effect on our overall 15 supply of energy;
- 16 (3) That the beneficial effect of the electric output from 17 combined heat and power systems includes both energy and capacity 18 value;
- 19 (4) That the cost of the energy consumed by such facilities, and 20 the greenhouse gas emissions associated with that energy consumption,

p. 1 HB 1280.SL

over the life of the facilities shall be considered in addition to the initial cost of constructing such facilities;

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- (5) That the cost of energy is significant and major facility designs shall be based on the total life-cycle cost, including the initial construction cost, and the cost, over the economic life of a major facility, of the energy consumed, and of the operation and maintenance of a major facility as they affect energy consumption, including the costs associated with greenhouse gas emissions from energy consumption; and
- 10 (6) That the use of energy systems in these facilities which 11 utilize combined heat and power or renewable resources such as solar 12 energy, wood or wood waste, or other nonconventional fuels, and which 13 incorporate energy management systems, shall be considered in the 14 design of all publicly owned or leased facilities.
- 15 **Sec. 2.** RCW 39.35.020 and 2015 3rd sp.s. c 19 s 3 are each 16 amended to read as follows:

The legislature declares that it is the public policy of this state to ensure that energy conservation practices, greenhouse gas emissions reduction practices, and renewable energy systems are employed in the design of major publicly owned or leased facilities and that the use of all-electric energy systems and at least one renewable energy or combined heat and power system is considered. To this end the legislature authorizes and directs that public agencies analyze the cost of energy consumption of each major facility and each critical governmental facility to be planned and constructed or renovated after September 8, 1975.

- 27 **Sec. 3.** RCW 39.35.030 and 2015 3rd sp.s. c 19 s 4 are each 28 amended to read as follows:
- For the purposes of this chapter the following words and phrases shall have the following meanings unless the context clearly requires otherwise:
- 32 (1) "Combined heat and power" means the sequential generation of 33 electricity and useful thermal energy from a common fuel source 34 where, under normal operating conditions, the facility has a useful 35 thermal energy output of no less than thirty-three percent of the 36 total energy output.

p. 2 HB 1280.SL

- 1 (2) "Critical governmental facility" means a building or district 2 energy system owned by the state or a political subdivision of the 3 state that is expected to:
 - (a) Be continuously occupied;
- 5 (b) Maintain operations for at least six thousand hours each 6 year;
- 7 (c) Have a peak electricity demand exceeding five hundred 8 kilowatts; and
- 9 (d) Serve a critical public health or public safety function 10 during a natural disaster or other emergency situation that may 11 result in a widespread power outage, including a:
- 12 (i) Command and control center;
- 13 (ii) Shelter;

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- 14 (iii) Prison or jail;
- 15 (iv) Police or fire station;
- 16 (v) Communications or data center;
- 17 (vi) Water or wastewater treatment facility;
- 18 (vii) Hazardous waste storage facility;
- 19 (viii) Biological research facility;
- 20 (ix) Hospital; or
- 21 (x) Food preparation or food storage facility.
- 22 (3) "Department" means the state department of enterprise 23 services.
 - (4) "Design standards" means the heating, air-conditioning, ventilating, and renewable resource systems identified, analyzed, and recommended by the department as providing an efficient energy system or systems based on the economic life of the selected buildings.
- 28 (5) "Economic life" means the projected or anticipated useful life of a major facility as expressed by a term of years.
 - (6) "Energy management system" means a program, energy efficiency equipment, technology, device, or other measure including, but not limited to, a management, educational, or promotional program, smart appliance, meter reading system that provides energy information capability, computer software or hardware, communications equipment or hardware, thermostat or other control equipment, together with related administrative or operational programs, that allows identification and management of opportunities for improvement in the efficiency of energy use, including but not limited to a measure that allows:

p. 3 HB 1280.SL

(a) Energy consumers to obtain information about their energy usage and the cost of energy in connection with their usage;

- (b) Interactive communication between energy consumers and their energy suppliers;
- (c) Energy consumers to respond to energy price signals and to manage their purchase and use of energy; or
 - (d) For other kinds of dynamic, demand-side energy management.
- (7) "Energy systems" means all utilities, including, but not limited to, heating, air-conditioning, ventilating, lighting, and the supplying of domestic hot water.
- (8) (a) "Energy-consumption analysis" means the evaluation of all energy systems and components by demand and type of energy including the internal energy load imposed on a major facility or a critical governmental facility by its occupants, equipment, and components, and the external energy load imposed on a major facility or a critical governmental facility by the climatic conditions of its location. An energy-consumption analysis of the operation of energy systems of a major facility or a critical governmental facility shall include, but not be limited to, the following elements:
- ((\(\frac{(a)}{(a)}\)) (i) The comparison of three or more system alternatives, at least one of which shall include renewable energy systems, and one of which shall ((\(\frac{comply}{at}\) a \text{minimum}\) with the sustainable design guidelines of the United States green building council leadership in energy and environmental design silver standard or similar design standard as may be adopted by rule by the department)) include allelectric energy systems;
- (((b))) (ii) The simulation of each system over the entire range of operation of such facility for a year's operating period;
- (((c))) <u>(iii)</u> The evaluation of the energy consumption of component equipment in each system considering the operation of such components at other than full or rated outputs;
- $((\mbox{\ensuremath{$(($($d)$)}}))$ The identification and analysis of critical loads for each energy system; and
- $((\underbrace{(+)}))$ <u>(v)</u> For a critical governmental facility, a combined heat and power system feasibility assessment, including but not limited to an evaluation of: $((\underbrace{(+)}))$ <u>(A)</u> Whether equipping the facility with a combined heat and power system would result in expected energy savings in excess of the expected costs of purchasing, operating, and maintaining the system over a fifteen-year period; and $((\underbrace{(+)}))$ <u>(B)</u>

p. 4 HB 1280.SL

1 the cost of integrating the variability of combined heat and power 2 resources.

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- (b) The energy-consumption analysis shall be prepared by a professional engineer or licensed architect who may use computers or such other methods as are capable of producing predictable results.
- (9) "Greenhouse gas" has the same meaning as provided in RCW 70A.45.010.
- (10) "Initial cost" means the moneys required for the capital 8 construction or renovation of a major facility. 9
 - $((\frac{10}{10}))$ <u>(11)</u> "Life-cycle cost" means the initial cost and cost of operation of a major facility or a critical governmental facility over its economic life. This shall be calculated as the initial cost plus the operation, maintenance, and energy costs over its economic life, reflecting anticipated increases in these costs discounted to present value at the current rate for borrowing public funds, as determined by the office of financial management. The energy cost projections used shall be those provided by the department. The department shall update these projections at least every two years.
- $((\frac{11}{11}))$ <u>(12)</u> "Life-cycle cost analysis" includes, but is not 19 limited to, the following elements: 20
- (a) The coordination and positioning of a major facility or a 21 22 critical governmental facility on its physical site;
 - (b) The amount and type of fenestration employed in a major facility or a critical governmental facility;
 - (c) The amount of insulation incorporated into the design of a major facility or a critical governmental facility;
 - (d) The variable occupancy and operating conditions of a major facility or a critical governmental facility; and
- 29 (e) An energy-consumption analysis of a major facility or a critical governmental facility. 30
- 31 $((\frac{12}{12}))$ <u>(13)</u> "Major facility" means any publicly owned or leased building having twenty-five thousand square feet or more of usable 32 floor space. 33
- (((13))) (14) "Public agency" means every state office, officer, 34 board, commission, committee, bureau, department, and all political 35 subdivisions of the state. 36
- (((14))) "Renewable energy systems" means methods 37 facility design and construction and types of equipment for the 38 utilization of renewable energy sources including, but not limited 39 to, hydroelectric power, active or passive solar space heating or

p. 5 HB 1280.SL cooling, domestic solar water heating, windmills, waste heat, biomass and/or refuse-derived fuels, photovoltaic devices, and geothermal energy.

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- (((15))) (16) "Renovation" means additions, alterations, or repairs within any twelve-month period which exceed fifty percent of the value of a major facility or a critical governmental facility and which will affect any energy system.
- 8 (((16))) <u>(17)</u> "Selected buildings" means educational, office, 9 residential care, and correctional facilities that are designed to 10 comply with the design standards analyzed and recommended by the 11 department.
- 12 **Sec. 4.** RCW 39.35.050 and 2001 c 214 s 17 are each amended to 13 read as follows:

The department, in consultation with affected public agencies, shall develop and issue guidelines for administering this chapter. The purpose of the guidelines is to define a procedure and method for performance of life-cycle cost analysis to promote the selection of low-life-cycle cost alternatives. At a minimum, the guidelines must contain provisions that:

- 20 (1) Address energy considerations during the planning phase of 21 the project;
 - (2) Identify energy components and system alternatives including energy management systems, <u>all-electric energy systems</u>, renewable energy systems, and ((cogeneration)) <u>combined heat and power</u> applications prior to commencing the energy consumption analysis;
 - (3) Identify simplified methods to assure the lowest life-cycle cost alternatives for selected buildings with between twenty-five thousand and one hundred thousand square feet of usable floor area;
 - (4) Establish times during the design process for preparation, review, and approval or disapproval of the life-cycle cost analysis;
- 31 (5) Specify the assumptions to be used for escalation and 32 inflation rates, equipment service lives, economic building lives, 33 and maintenance costs;
 - (6) Determine life-cycle cost analysis format and submittal requirements to meet the provisions of chapter 201, Laws of 1991;
 - (7) Provide for review and approval of life-cycle cost analysis.

Passed by the House January 21, 2022. Passed by the Senate March 1, 2022. Approved by the Governor March 25, 2022.

Filed in Office of Secretary of State March 28, 2022.

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