
HOUSE BILL 1280

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
2 design of public facilities; and amending RCW 39.35.010, 39.35.020,
3 39.35.030, and 39.35.050.

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:

7 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 and emission
10 of greenhouse gases from the buildings sector;

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,

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

3 (5) That the cost of energy is significant and major facility
4 designs shall be based on the total life-cycle cost, including the
5 initial construction cost, and the cost, over the economic life of a
6 major facility, of the energy consumed, and of the operation and
7 maintenance of a major facility as they affect energy consumption,
8 including the costs associated with greenhouse gas emissions from
9 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:

17 The legislature declares that it is the public policy of this
18 state to ensure that energy conservation practices, greenhouse gas
19 emissions reduction practices, and renewable energy systems are
20 employed in the design of major publicly owned or leased facilities
21 and that the use of all-electric energy systems and at least one
22 renewable energy or combined heat and power system is considered. To
23 this end the legislature authorizes and directs that public agencies
24 analyze the cost of energy consumption of each major facility and
25 each critical governmental facility to be planned and constructed or
26 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:

29 For the purposes of this chapter the following words and phrases
30 shall have the following meanings unless the context clearly requires
31 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.

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:

4 (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;

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.

24 (4) "Design standards" means the heating, air-conditioning,
25 ventilating, and renewable resource systems identified, analyzed, and
26 recommended by the department as providing an efficient energy system
27 or systems based on the economic life of the selected buildings.

28 (5) "Economic life" means the projected or anticipated useful
29 life of a major facility as expressed by a term of years.

30 (6) "Energy management system" means a program, energy efficiency
31 equipment, technology, device, or other measure including, but not
32 limited to, a management, educational, or promotional program, smart
33 appliance, meter reading system that provides energy information
34 capability, computer software or hardware, communications equipment
35 or hardware, thermostat or other control equipment, together with
36 related administrative or operational programs, that allows
37 identification and management of opportunities for improvement in the
38 efficiency of energy use, including but not limited to a measure that
39 allows:

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

3 (b) Interactive communication between energy consumers and their
4 energy suppliers;

5 (c) Energy consumers to respond to energy price signals and to
6 manage their purchase and use of energy; or

7 (d) For other kinds of dynamic, demand-side energy management.

8 (7) "Energy systems" means all utilities, including, but not
9 limited to, heating, air-conditioning, ventilating, lighting, and the
10 supplying of domestic hot water.

11 (8) (a) "Energy-consumption analysis" means the evaluation of all
12 energy systems and components by demand and type of energy including
13 the internal energy load imposed on a major facility or a critical
14 governmental facility by its occupants, equipment, and components,
15 and the external energy load imposed on a major facility or a
16 critical governmental facility by the climatic conditions of its
17 location. An energy-consumption analysis of the operation of energy
18 systems of a major facility or a critical governmental facility shall
19 include, but not be limited to, the following elements:

20 ~~((a))~~ (i) The comparison of three or more system alternatives,
21 at least one of which shall include renewable energy systems, and one
22 of which shall ~~((comply at a minimum with the sustainable design
23 guidelines of the United States green building council leadership in
24 energy and environmental design silver standard or similar design
25 standard as may be adopted by rule by the department))~~ include all-
26 electric energy systems;

27 ~~((b))~~ (ii) The simulation of each system over the entire range
28 of operation of such facility for a year's operating period;

29 ~~((c))~~ (iii) The evaluation of the energy consumption of
30 component equipment in each system considering the operation of such
31 components at other than full or rated outputs;

32 ~~((d))~~ (iv) The identification and analysis of critical loads
33 for each energy system; and

34 ~~((e))~~ (v) For a critical governmental facility, a combined heat
35 and power system feasibility assessment, including but not limited to
36 an evaluation of: ~~((i))~~ (A) Whether equipping the facility with a
37 combined heat and power system would result in expected energy
38 savings in excess of the expected costs of purchasing, operating, and
39 maintaining the system over a fifteen-year period; and ~~((i))~~ (B)

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

3 (b) The energy-consumption analysis shall be prepared by a
4 professional engineer or licensed architect who may use computers or
5 such other methods as are capable of producing predictable results.

6 (9) "Greenhouse gas" has the same meaning as provided in RCW
7 70A.45.010.

8 (10) "Initial cost" means the moneys required for the capital
9 construction or renovation of a major facility.

10 ~~((10))~~ (11) "Life-cycle cost" means the initial cost and cost
11 of operation of a major facility or a critical governmental facility
12 over its economic life. This shall be calculated as the initial cost
13 plus the operation, maintenance, and energy costs over its economic
14 life, reflecting anticipated increases in these costs discounted to
15 present value at the current rate for borrowing public funds, as
16 determined by the office of financial management. The energy cost
17 projections used shall be those provided by the department. The
18 department shall update these projections at least every two years.

19 ~~((11))~~ (12) "Life-cycle cost analysis" includes, but is not
20 limited to, the following elements:

21 (a) The coordination and positioning of a major facility or a
22 critical governmental facility on its physical site;

23 (b) The amount and type of fenestration employed in a major
24 facility or a critical governmental facility;

25 (c) The amount of insulation incorporated into the design of a
26 major facility or a critical governmental facility;

27 (d) The variable occupancy and operating conditions of a major
28 facility or a critical governmental facility; and

29 (e) An energy-consumption analysis of a major facility or a
30 critical governmental facility.

31 ~~((12))~~ (13) "Major facility" means any publicly owned or leased
32 building having twenty-five thousand square feet or more of usable
33 floor space.

34 ~~((13))~~ (14) "Public agency" means every state office, officer,
35 board, commission, committee, bureau, department, and all political
36 subdivisions of the state.

37 ~~((14))~~ (15) "Renewable energy systems" means methods of
38 facility design and construction and types of equipment for the
39 utilization of renewable energy sources including, but not limited
40 to, hydroelectric power, active or passive solar space heating or

1 cooling, domestic solar water heating, windmills, waste heat, biomass
2 and/or refuse-derived fuels, photovoltaic devices, and geothermal
3 energy.

4 ~~((15))~~ (16) "Renovation" means additions, alterations, or
5 repairs within any twelve-month period which exceed fifty percent of
6 the value of a major facility or a critical governmental facility and
7 which will affect any energy system.

8 ~~((16))~~ (17) "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:

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

20 (1) Address energy considerations during the planning phase of
21 the project;

22 (2) Identify energy components and system alternatives including
23 energy management systems, all-electric energy systems, renewable
24 energy systems, and ~~((cogeneration))~~ combined heat and power
25 applications prior to commencing the energy consumption analysis;

26 (3) Identify simplified methods to assure the lowest life-cycle
27 cost alternatives for selected buildings with between twenty-five
28 thousand and one hundred thousand square feet of usable floor area;

29 (4) Establish times during the design process for preparation,
30 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;

34 (6) Determine life-cycle cost analysis format and submittal
35 requirements to meet the provisions of chapter 201, Laws of 1991;

36 (7) Provide for review and approval of life-cycle cost analysis.

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