
SUBSTITUTE SENATE BILL 5509

State of Washington 62nd Legislature 2011 Regular Session

By Senate Environment, Water & Energy (originally sponsored by Senators Kline and Rockefeller)

READ FIRST TIME 02/16/11.

1 AN ACT Relating to mitigating carbon dioxide emissions resulting
2 from fossil-fueled electrical generation; and amending RCW 80.70.010,
3 80.70.020, and 80.70.040.

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

5 **Sec. 1.** RCW 80.70.010 and 2004 c 224 s 1 are each amended to read
6 as follows:

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

9 (1) "Applicant" has the meaning provided in RCW 80.50.020 and
10 includes an applicant for a permit for a fossil-fueled thermal electric
11 generation facility subject to RCW 70.94.152 and 80.70.020(1) (b) or
12 (d).

13 (2) "Authority" means any air pollution control agency whose
14 jurisdictional boundaries are coextensive with the boundaries of one or
15 more counties.

16 (3) "Carbon credit" means a verified reduction in carbon dioxide or
17 carbon dioxide equivalents that is registered with a state, national,
18 or international trading authority or exchange that has been recognized
19 by the council.

1 (4) "Carbon dioxide equivalents" means a metric measure used to
2 compare the emissions from various greenhouse gases based upon their
3 global warming potential.

4 (5) "Cogeneration credit" means the carbon dioxide emissions that
5 the council, department, or authority, as appropriate, estimates would
6 be produced on an annual basis by a stand-alone industrial and
7 commercial facility equivalent in operating characteristics and output
8 to the industrial or commercial heating or cooling process component of
9 the cogeneration plant. Where electricity in a stand-alone facility is
10 used to make thermal energy, the emissions are based on a natural gas
11 fired combined cycle generation plant with a heat rate of seven
12 thousand one hundred British thermal units per kilowatt-hour of
13 electricity.

14 (6) "Cogeneration plant" means a fossil-fueled thermal power plant
15 in which the heat or steam is also used for industrial or commercial
16 heating or cooling purposes and that meets federal energy regulatory
17 commission standards for qualifying facilities under the public utility
18 regulatory policies act of 1978.

19 (7) "Commercial operation" means the date that the first
20 electricity produced by a facility is delivered for commercial sale to
21 the power grid.

22 (8) "Council" means the energy facility site evaluation council
23 created by RCW 80.50.030.

24 (9) "Department" means the department of ecology.

25 (10) "Fossil fuel" means natural gas, petroleum, coal, or any form
26 of solid, liquid, or gaseous fuel derived from such material to produce
27 heat for the generation of electricity.

28 (11) "Mitigation plan" means a proposal that includes the process
29 or means to achieve carbon dioxide mitigation through use of mitigation
30 projects or carbon credits.

31 (12) "Mitigation project" means one or more of the following:

32 (a) Projects or actions that are implemented by the certificate
33 holder or order of approval holder, directly or through its agent, or
34 by an independent qualified organization to mitigate the emission of
35 carbon dioxide produced by the fossil-fueled thermal electric
36 generation facility. This term includes but is not limited to the use
37 of, energy efficiency measures, clean and efficient transportation

1 measures, qualified alternative energy resources, demand side
2 management of electricity consumption, and carbon sequestration
3 programs;

4 (b) Direct application of combined heat and power (cogeneration),
5 including the recovery, transmission, and distribution of thermal
6 energy from power generation facilities through district energy
7 networks;

8 (c) Recovery, transmission, and distribution of thermal energy from
9 industrial or commercial waste heat sources through district energy
10 networks;

11 (d) Verified carbon credits traded on a recognized trading
12 authority or exchange; or

13 (~~(d)~~) (e) Enforceable and permanent reductions in carbon dioxide
14 or carbon dioxide equivalents through process change, equipment
15 shutdown, or other activities under the control of the applicant and
16 approved as part of a carbon dioxide mitigation plan.

17 (13) "Order of approval" means an order issued under RCW 70.94.152
18 with respect to a fossil-fueled thermal electric generation facility
19 subject to RCW 80.70.020(1) (b) or (d).

20 (14) "Permanent" means that emission reductions used to offset
21 emission increases are assured for the life of the corresponding
22 increase, whether unlimited or limited in duration.

23 (15) "Qualified alternative energy resource" has the same meaning
24 as in RCW 19.29A.090, and includes thermal energy recovered,
25 transmitted, and distributed from cogeneration systems or industrial
26 and commercial waste heat sources.

27 (16) "Station generating capability" means the maximum load a
28 generator can sustain over a given period of time without exceeding
29 design limits, and measured using maximum continuous electric
30 generation capacity, less net auxiliary load, at average ambient
31 temperature and barometric pressure.

32 (17) "Total carbon dioxide emissions" means:

33 (a) For a fossil-fueled thermal electric generation facility
34 described under RCW 80.70.020(1) (a) and (b), the amount of carbon
35 dioxide emitted over a thirty-year period based on the manufacturer's
36 or designer's guaranteed total net station generating capability, new
37 equipment heat rate, an assumed sixty percent capacity factor for
38 facilities under the council's jurisdiction or sixty percent of the

1 operational limitations on facilities subject to an order of approval,
2 and taking into account any enforceable limitations on operational
3 hours or fuel types and use; and

4 (b) For a fossil-fueled thermal electric generation facility
5 described under RCW 80.70.020(1) (c) and (d), the amount of carbon
6 dioxide emitted over a thirty-year period based on the proposed
7 increase in the amount of electrical output of the facility that
8 exceeds the station generation capability of the facility prior to the
9 applicant applying for certification or an order of approval pursuant
10 to RCW 80.70.020(1) (c) and (d), new equipment heat rate, an assumed
11 sixty percent capacity factor for facilities under the council's
12 jurisdiction or sixty percent of the operational limitations on
13 facilities subject to an order of approval, and taking into account any
14 enforceable limitations on operational hours or fuel types and use.

15 **Sec. 2.** RCW 80.70.020 and 2004 c 224 s 2 are each amended to read
16 as follows:

17 (1) The provisions of this chapter apply to:

18 (a) New fossil-fueled thermal electric generation facilities with
19 station-generating capability of three hundred fifty thousand kilowatts
20 or more and fossil-fueled floating thermal electric generation
21 facilities of one hundred thousand kilowatts or more under RCW
22 (~~(80.50.020(14)(a))~~) 80.50.020(12)(b), for which an application for
23 site certification is made to the council after July 1, 2004;

24 (b) New fossil-fueled thermal electric generation facilities with
25 station-generating capability of more than twenty-five thousand
26 kilowatts, but less than three hundred fifty thousand kilowatts, except
27 for fossil-fueled floating thermal electric generation facilities under
28 the council's jurisdiction, for which an application for an order of
29 approval has been submitted after July 1, 2004;

30 (c) Fossil-fueled thermal electric generation facilities with
31 station-generating capability of three hundred fifty thousand kilowatts
32 or more that have an existing site certification agreement and, after
33 July 1, 2004, apply to the council to increase the output of carbon
34 dioxide emissions by fifteen percent or more through permanent changes
35 in facility operations or modification or equipment; and

36 (d) Fossil-fueled thermal electric generation facilities with
37 station-generating capability of more than twenty-five thousand

1 kilowatts, but less than three hundred fifty thousand kilowatts, except
2 for fossil-fueled floating thermal electric generation facilities under
3 the council's jurisdiction, that have an existing order of approval
4 and, after July 1, 2004, apply to the department or authority, as
5 appropriate, to permanently modify the facility so as to increase its
6 station-generating capability by at least twenty-five thousand
7 kilowatts or to increase the output of carbon dioxide emissions by
8 fifteen percent or more, whichever measure is greater.

9 (2)(a) A proposed site certification agreement submitted to the
10 governor under RCW 80.50.100 and a final site certification agreement
11 issued under RCW 80.50.100 shall include an approved carbon dioxide
12 mitigation plan.

13 (b) For fossil-fueled thermal electric generation facilities not
14 under jurisdiction of the council, the order of approval shall require
15 an approved carbon dioxide mitigation plan.

16 (c) Site certification agreement holders or order of approval
17 holders may request, at any time, a change in conditions of an approved
18 carbon dioxide mitigation plan if the council, department, or
19 authority, as appropriate, finds that the change meets all requirements
20 and conditions for approval of such plans.

21 (3) An applicant for a fossil-fueled thermal electric generation
22 facility shall include one or a combination of the following carbon
23 dioxide mitigation options as part of its mitigation plan:

24 (a) Payment to a third party to provide mitigation;

25 (b) Direct purchase of permanent carbon credits; or

26 (c) Either (i) investment in applicant-controlled carbon dioxide
27 mitigation projects, including combined heat and power (cogeneration);
28 or (ii) recovery, transmission, and distribution of thermal energy from
29 existing electric generation or from industrial and commercial waste
30 heat sources, or both.

31 (4) Fossil-fueled thermal electric generation facilities that
32 receive site certification approval or an order of approval shall
33 provide mitigation for twenty percent of the total carbon dioxide
34 emissions produced by the facility.

35 (5) If the certificate holder or order of approval holder chooses
36 to pay a third party to provide the mitigation, the mitigation rate
37 shall be one dollar and sixty cents per metric ton of carbon dioxide to

1 be mitigated. For a cogeneration plant, the monetary amount is based
2 on the difference between twenty percent of the total carbon dioxide
3 emissions and the cogeneration credit.

4 (a) Through rule making, the council may adjust the rate per ton
5 biennially as long as any increase or decrease does not exceed fifty
6 percent of the current rate. The department or authority shall use the
7 adjusted rate established by the council pursuant to this subsection
8 for fossil-fueled thermal electric generation facilities subject to the
9 provisions of this chapter.

10 (b) In adjusting the mitigation rate the council shall consider,
11 but is not limited to, the current market price of a ton of carbon
12 dioxide. The council's adjusted mitigation rate shall be consistent
13 with RCW 80.50.010(3).

14 (6) The applicant may choose to make to the third party a lump sum
15 payment or partial payment over a period of five years.

16 (a) Under the lump sum payment option, the payment amount is
17 determined by multiplying the total carbon dioxide emissions by the
18 twenty percent mitigation requirement under subsection (4) of this
19 section and by the per ton mitigation rate established under subsection
20 (5) of this section.

21 (b) No later than one hundred twenty days after the start of
22 commercial operation, the certificate holder or order of approval
23 holder shall make a one-time payment to the independent qualified
24 organization for the amount determined under subsection (5) of this
25 section.

26 (c) As an alternative to a one-time payment, the certificate holder
27 or order of approval holder may make a partial payment of twenty
28 percent of the amount determined under subsection (5) of this section
29 no later than one hundred twenty days after commercial operation and a
30 payment in the same amount or as adjusted according to subsection
31 (5)(a) of this section, on the anniversary date of the initial payment
32 in each of the following four years. With the initial payment, the
33 certificate holder or order of approval holder shall provide a letter
34 of credit or other comparable security acceptable to the council or the
35 department for the remaining eighty percent mitigation payment amount
36 including possible changes to the rate per metric ton from rule making
37 under subsection (5)(a) of this section.

1 **Sec. 3.** RCW 80.70.040 and 2004 c 224 s 4 are each amended to read
2 as follows:

3 (1) The carbon dioxide mitigation option that provides for direct
4 investment shall be implemented through mitigation projects conducted
5 directly by, or under the control of, the certificate holder or order
6 of approval holder.

7 (2) Mitigation projects must be approved by the council,
8 department, or authority, as appropriate, and made a condition of the
9 proposed and final site certification agreement or order of approval.
10 Direct investment mitigation projects shall be approved if the
11 mitigation projects provide a reasonable certainty that the performance
12 requirements of the mitigation projects will be achieved and the
13 mitigation projects were implemented after July 1, 2004. No
14 certificate holder or order of approval holder shall be required to
15 make direct investments that would exceed the cost of making a lump sum
16 payment to a third party, had the certificate holder or order of
17 approval holder chosen that option under RCW 80.70.020.

18 (3) Mitigation projects must be fully in place within a reasonable
19 time after the start of commercial operation. Failure to implement an
20 approved mitigation plan is subject to enforcement under chapter 80.50
21 or 70.94 RCW.

22 (4) The certificate holder or order of approval holder may not use
23 more than twenty percent of the total funds for the selection,
24 monitoring, and evaluation of mitigation projects and the management
25 and enforcement of contracts.

26 (5)(a) For facilities under the jurisdiction of the council, the
27 implementation of a carbon dioxide mitigation project, other than
28 purchase of a carbon credit shall be monitored by an independent entity
29 for conformance with the performance requirements of the carbon dioxide
30 mitigation plan. The independent entity shall make available the
31 mitigation project monitoring results to the council, and the council
32 shall transmit the results to the appropriate committees of the
33 legislature.

34 (b) For facilities under the jurisdiction of the department or
35 authority pursuant to RCW 80.70.020(1) (b) or (c), the implementation
36 of a carbon dioxide mitigation project, other than a purchase of carbon
37 dioxide equivalent emission reduction credits, shall be monitored by
38 the department or authority issuing the order of approval.

1 (6) Upon promulgation of federal requirements for carbon dioxide
2 mitigation for fossil-fueled thermal electric generation facilities,
3 those requirements may be deemed by the council, department, or
4 authority to be equivalent and a replacement for the requirements of
5 this section.

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