2SHB 1095 - S COMM AMD
By Committee on Energy, Environment & Telecommunications

Strike everything after the enacting clause and insert the following:

"NEW SECTION. **Sec. 1.** The legislature finds that it is in the public interest to encourage and foster the development of a thermal standard and to encourage combined heat and power (cogeneration) systems throughout the state. Combined heat and power systems can help the state achieve energy independence and comply with new federal electric energy emission efficiency standards by generating both electric power and useful thermal energy from a single fuel source, thereby increasing energy efficiency and decreasing grid-based emissions. It is the intent of the legislature to promote the deployment of combined heat and power by requiring consideration of combined heat and power systems in the construction of new critical governmental facilities, incorporating reports on combined heat and power facilities in integrated resource plans, and streamlining the process by which combined heat and power facilities obtain permits.

Sec. 2. RCW 39.35.010 and 2001 c 214 s 15 are each amended to read as follows:

The legislature hereby finds:

(1) That major publicly owned or leased facilities have a significant impact on our state's consumption of energy;

(2) That energy conservation practices including energy management systems, combined heat and power systems, and renewable energy systems adopted for the design, construction, and utilization of such facilities will have a beneficial effect on our overall supply of energy;

(3) That the beneficial effect of the electric output from combined heat and power systems includes both energy and capacity value;

(4) That the cost of the energy consumed by such facilities over the life of the facilities shall be considered in addition to the initial cost of constructing such facilities;

((~~(4)~~)) (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; and

((~~(5)~~)) (6) That the use of energy systems in these facilities which utilize combined heat and power or renewable resources such as solar energy, wood or wood waste, or other nonconventional fuels, and which incorporate energy management systems, shall be considered in the design of all publicly owned or leased facilities.

Sec. 3. RCW 39.35.020 and 1982 c 159 s 2 are each amended to read as follows:

The legislature declares that it is the public policy of this state to ((~~insure~~)) ensure that energy conservation practices and renewable energy systems are employed in the design of major publicly owned or leased facilities and that the use of 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.

Sec. 4. RCW 39.35.030 and 2011 1st sp.s. c 43 s 247 are each reenacted and 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:

(1) ((~~"Cogeneration"~~)) "Combined heat and power" means the sequential generation of ((~~two or more forms of energy from a common fuel or energy source. Where these forms are electricity and thermal energy, then the operating and efficiency standards established by 18 C.F.R. Sec. 292.205 and the definitions established by 18 C.F.R. 292.202 (c) through (m) as of July 28, 1991, shall apply~~)) electricity and useful thermal energy from a common fuel source where, under normal operating conditions, the facility has a useful thermal energy output of no less than thirty-three percent of the total energy output.

(2) "Critical governmental facility" means a building or district energy system owned by the state or a political subdivision of the state that is expected to:

(a) Be continuously occupied;

(b) Maintain operations for at least six thousand hours each year;

(c) Have a peak electricity demand exceeding five hundred kilowatts; and

(d) Serve a critical public health or public safety function during a natural disaster or other emergency situation that may result in a widespread power outage, including a:

(i) Command and control center;

(ii) Shelter;

(iii) Prison or jail;

(iv) Police or fire station;

(v) Communications or data center;

(vi) Water or wastewater treatment facility;

(vii) Hazardous waste storage facility;

(viii) Biological research facility;

(ix) Hospital; or

(x) Food preparation or food storage facility.

(3) "Department" means the state department of enterprise services.

((~~(3)~~)) (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.

((~~(4)~~)) (5) "Economic life" means the projected or anticipated useful life of a major facility as expressed by a term of years.

((~~(5)~~)) (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:

(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.

((~~(6)~~)) (7) "Energy systems" means all utilities, including, but not limited to, heating, air-conditioning, ventilating, lighting, and the supplying of domestic hot water.

((~~(7)~~)) (8) "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:

(a) The comparison of three or more system alternatives, at least one of which shall include renewable energy systems, and one of which shall comply at a 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;

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

(c) 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;

(d) The identification and analysis of critical loads for each energy system; and

(e) For a critical governmental facility, a combined heat and power system feasibility assessment, including but not limited to an evaluation of 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.

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.

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

((~~(9)~~)) (10) "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.

((~~(10)~~)) (11) "Life-cycle cost analysis" includes, but is not limited to, the following elements:

(a) The coordination and positioning of a major facility or a 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

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

((~~(11)~~)) (12) "Major facility" means any publicly owned or leased building having twenty-five thousand square feet or more of usable floor space.

((~~(12)~~)) (13) "Public agency" means every state office, officer, board, commission, committee, bureau, department, and all political subdivisions of the state.

((~~(13)~~)) (14) "Renewable energy systems" means methods of facility design and construction and types of equipment for the utilization of renewable energy sources including, but not limited to, hydroelectric power, active or passive solar space heating or cooling, domestic solar water heating, windmills, waste heat, biomass and/or refuse-derived fuels, photovoltaic devices, and geothermal energy.

((~~(14)~~)) (15) "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.

((~~(15)~~)) (16) "Selected buildings" means educational, office, residential care, and correctional facilities that are designed to comply with the design standards analyzed and recommended by the department.

Sec. 5. RCW 39.35.040 and 1994 c 242 s 2 are each amended to read as follows:

Whenever a public agency determines that any major facility or a critical governmental facility is to be constructed or renovated, such agency shall cause to be included in the design phase of such construction or renovation a provision that requires a life-cycle cost analysis conforming with the guidelines developed in RCW 39.35.050 to be prepared for such facility. Such analysis shall be approved by the agency prior to the commencement of actual construction or renovation. A public agency may accept the facility design if the agency is satisfied that the life-cycle cost analysis provides for an efficient energy system or systems based on the economic life of the ((~~major~~)) facility.

Nothing in this section prohibits the construction or renovation of major facilities ((~~which~~)) or critical governmental facilities that utilize renewable energy or combined heat and power systems.

NEW SECTION. **Sec. 6.** A new section is added to chapter 19.280 RCW to read as follows:

(1) The legislature finds that combined heat and power systems provide both energy and capacity resources. Failure to value the electric output of combined heat and power systems as both an energy and a capacity resource results in a failure to account for the total benefits of that output in its posted price.

(2) Electric utilities with over twenty-five thousand customers in the state of Washington must value combined heat and power as having both energy and capacity value by December 31, 2016, for the purposes of setting the value of power under the federal public utility regulatory policies act, establishing rates for power purchase agreements, and integrated resource planning.

NEW SECTION. **Sec. 7.** A new section is added to chapter 19.280 RCW to read as follows:

(1) Beginning December 31, 2016, electric utilities with over twenty-five thousand customers in the state of Washington must offer a minimum term of fifteen years for new power purchase agreements for the electric output of combined heat and power systems, unless a lesser number of years is mutually agreed to by both parties. Power purchase agreements for the electric output of combined heat and power systems must reflect both the energy and capacity value of that output. Parties in a power purchase agreement that is established before December 31, 2016, are not required to renegotiate the terms of that agreement.

(2) The commission may authorize recovery of the actual cost of fuel incurred by an electrical company under a power purchase agreement for the electric output of a combined heat and power system.

(3) The governing body of a consumer-owned utility that offers a fifteen-year minimum term for a power purchase agreement for the electric output of a combined heat and power system may, every five years after signing the agreement, initiate a fuel cost adjustment process in order to recover the actual cost of fuel incurred by the consumer-owned utility under a power purchase agreement under this section.

Sec. 8. RCW 19.280.020 and 2013 c 149 s 2 are each reenacted and amended to read as follows:

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

(1) "Commission" means the utilities and transportation commission.

(2) "Conservation and efficiency resources" means any reduction in electric power consumption that results from increases in the efficiency of energy use, production, transmission, or distribution.

(3) "Consumer-owned utility" includes a municipal electric utility formed under Title 35 RCW, a public utility district formed under Title 54 RCW, an irrigation district formed under chapter 87.03 RCW, a cooperative formed under chapter 23.86 RCW, a mutual corporation or association formed under chapter 24.06 RCW, a port district formed under Title 53 RCW, or a water-sewer district formed

under Title 57 RCW, that is engaged in the business of distributing electricity to one or more retail electric customers in the state.

(4) "Department" means the department of commerce.

(5) "Electric utility" means a consumer-owned or investor-owned utility.

(6) "Full requirements customer" means an electric utility that relies on the Bonneville power administration for all power needed to supply its total load requirement other than that served by nondispatchable generating resources totaling no more than six megawatts or renewable resources.

(7) "Governing body" means the elected board of directors, city council, commissioners, or board of any consumer-owned utility.

(8) ((~~"High efficiency cogeneration"~~)) "Combined heat and power" means the sequential production of electricity and useful thermal energy from a common fuel source((~~,~~)) where, under normal operating conditions, the facility has a useful thermal energy output of no less than thirty-three percent of the total energy output.

(9) "Integrated resource plan" means an analysis describing the mix of generating resources, conservation, methods, technologies, and resources to integrate renewable resources and, where applicable, address overgeneration events, and efficiency resources that will meet current and projected needs at the lowest reasonable cost to the utility and its ratepayers and that complies with the requirements specified in RCW 19.280.030(1).

(10) "Investor-owned utility" means a corporation owned by investors that meets the definition in RCW 80.04.010 and is engaged in distributing electricity to more than one retail electric customer in the state.

(11) "Lowest reasonable cost" means the lowest cost mix of generating resources and conservation and efficiency resources determined through a detailed and consistent analysis of a wide range of commercially available resources. At a minimum, this analysis must consider resource cost, market-volatility risks, demand-side resource uncertainties, resource dispatchability, resource effect on system operation, the risks imposed on the utility and its ratepayers, public policies regarding resource preference adopted by Washington state or the federal government, and the cost of risks associated with environmental effects including emissions of carbon dioxide.

(12) "Overgeneration event" means an event within an operating period of a balancing authority when the electricity supply,

including generation from intermittent renewable resources, exceeds the demand for electricity for that utility's energy delivery obligations and when there is a negatively priced regional market.

(13) "Plan" means either an "integrated resource plan" or a "resource plan."

(14) "Renewable resources" means electricity generation facilities fueled by: (a) Water; (b) wind; (c) solar energy; (d) geothermal energy; (e) landfill gas; (f) biomass energy utilizing animal waste, solid or liquid organic fuels from wood, forest, or field residues or dedicated energy crops that do not include wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic; (g) by-products of pulping or wood manufacturing processes, including but not limited to bark, wood chips, sawdust, and lignin in spent pulping liquors; (h) ocean thermal, wave, or tidal power; or (i) gas from sewage treatment facilities.

(15) "Resource plan" means an assessment that estimates electricity loads and resources over a defined period of time and complies with the requirements in RCW 19.280.030(2).

Sec. 9. RCW 19.280.030 and 2013 c 149 s 3 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 shall 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. Such assessment may include, as appropriate, ((~~high efficiency cogeneration~~)) 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, and addressing overgeneration events, if applicable to the utility's resource portfolio;

(f) The integration of the demand forecasts and resource evaluations 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, at the lowest reasonable cost and risk to the utility and its ratepayers; and

(g) A short-term plan identifying the specific actions to be taken by the utility consistent with the long-range integrated resource plan.

(2) 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; and

(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.

(3) 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.

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

((~~(4)~~)) (5) Resource plans developed under this section must be updated on a regular basis, at a minimum on intervals of two years.

((~~(5)~~)) (6) Plans shall not be a basis to bring legal action against electric utilities.

((~~(6)~~)) (7) 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.

Sec. 10. RCW 19.280.060 and 2013 c 149 s 4 are each amended to read as follows:

The department shall review the plans of consumer-owned utilities and investor-owned utilities, and data available from other state, regional, and national sources, and prepare an electronic report to the legislature aggregating the data and assessing the overall adequacy of Washington's electricity supply. The report shall include a statewide summary of utility load forecasts, load/resource balance, and utility plans for the development of thermal generation, renewable resources, conservation and efficiency resources, and an examination of assessment methods used by utilities to address overgeneration events. The commission shall provide the department with data summarizing the plans of investor-owned utilities for use in the department's statewide summary. The department shall submit any reports it receives of existing and potential combined heat and power facilities as reported by utilities to the Washington State University extension energy program for analysis. The department may submit its report within the biennial report required under RCW 43.21F.045.

NEW SECTION. **Sec. 11.** A new section is added to chapter 19.280 RCW to read as follows:

The Washington State University extension energy program may electronically submit an annual report to the appropriate legislative committees on the planned and completed combined heat and power facilities in the state, including but not limited to the following information: Number, size, and customer base of combined heat and power installations in the state; projects that have been publicly

considered but have not been developed; and recommendations to further attain the goal of improving thermal energy efficiency.

Sec. 12. RCW 80.04.550 and 1996 c 33 s 2 are each amended to read as follows:

(1) It is the intent of the legislature to exempt from commission regulation thermal energy services provided by thermal energy companies and combined heat and power facilities that are not otherwise regulated under this title. Nothing in this section shall prevent the commission from issuing or enforcing any order affecting combined heat and power facilities owned or operated by an electrical company that are subsidized by a regulated service.

(2) Nothing in this title shall authorize the commission to make or enforce any order affecting rates, tolls, rentals, contracts or charges for service rendered, or the adequacy or sufficiency of the facilities, equipment, instrumentalities, or buildings, or the reasonableness of rules or regulations made, furnished, used, supplied, or in force affecting any ((~~district~~)) thermal energy system owned and operated by any thermal energy company or by a combined heat and power facility engaged in thermal energy services.

((~~(2)~~)) (3) For the purposes of this section:

(a) "Thermal energy company" means any private person, company, association, partnership, joint venture, or corporation engaged in or proposing to engage in developing, producing, transmitting, distributing, delivering, furnishing, or selling to or for the public thermal energy services for any beneficial use other than electricity generation;

(b) "((~~District~~)) Thermal energy system" means any system that provides thermal energy for space heating, space cooling, or process uses from a central plant or combined heat and power facility, and that distributes the thermal energy to two or more buildings through a network of pipes;

(c) "Thermal energy" means heat or cold in the form of steam, heated or chilled water, or any other heated or chilled fluid or gaseous medium; and

(d) "Thermal energy services" means the provision of thermal energy from a ((~~district~~)) thermal energy system and includes such ancillary services as energy audits, metering, billing, maintenance, and repairs related to thermal energy.

NEW SECTION. **Sec. 13.** A new section is added to chapter 70.94 RCW to read as follows:

(1) It is the intent of the legislature for a general permit or permit by rule adopted by the department under this section to streamline the permitting process for a stationary natural gas engine used in a combined heat and power system. It is the further intent of the legislature that a general permit or permit by rule be adopted and implemented as the permitting mechanism for the new construction of a combined heat and power system.

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

(a) "Natural gas" includes: Naturally occurring mixtures of hydrocarbon gases and vapors consisting principally of methane, whether in gaseous or liquid form; and biogas derived from landfills, wastewater treatment facilities, anaerobic digesters, and other sources of organic decomposition that have been purified to meet standards for natural gas derived from fossil fuel sources.

(b) "Stationary natural gas engine" includes any stationary, natural gas internal combustion engine, whether it is an internal combustion reciprocating engine or a gas turbine. The term does not include a natural gas engine that powers a motor vehicle or other mobile source.

(3) This section applies only to a stationary natural gas engine used in a combined heat and power system.

(4) The department shall issue a general permit or permit by rule for new stationary natural gas engines used in a combined heat and power system that establishes emission limits for air contaminants released by the engines.

(5) In adopting a general permit or permit by rule under this section, the department may consider:

(a) The geographic location in which a stationary natural gas engine may be used, including the proximity to an area designated as a nonattainment area;

(b) The total annual operating hours of a stationary natural gas engine;

(c) The technology used by a stationary natural gas engine;

(d) Whether the stationary natural gas engine will be a major stationary source or part of a new or modified major stationary source as those terms are utilized in Title I of the federal clean air act; and

(e) Other relevant emission control or clean air policies of the state.

(6) In addition to emission limits required by federal and state laws, the department must provide for the emission limits for stationary natural gas engines subject to this section to be measured in terms of air contaminant emissions per United States environmental protection agency unit of energy output. The department shall consider both the primary and secondary functions when determining the engine's emissions per unit of energy output.

NEW SECTION. **Sec. 14.** A new section is added to chapter 70.94 RCW to read as follows:

(1) An owner or operator of an industrial, commercial, or institutional boiler or process heater required to complete an energy assessment under 40 C.F.R. Part 63 subpart DDDDD shall:

(a) By January 31, 2016, submit nonproprietary information reported in the energy assessment electronically to the department or air pollution control authority that issues the air operating permit for the source, following completion of the assessment; and

(b) By January 1, 2017, submit a report electronically to the Washington State University extension energy program that identifies, if applicable, the economic, technical, and other barriers to implementing thermal efficiency opportunities identified in the energy assessment.

(2) An owner or operator of an industrial, commercial, or institutional boiler or process heater who has not completed an energy assessment under 40 C.F.R. Part 63 subpart DDDDD must request a free combined heat and power site qualification screening from the United States department of energy.

(3) The requirements established in this section shall not apply to an owner or operator of an industrial, commercial, or institutional boiler or process heater if the owner or operator is not required to complete an energy assessment under 40 C.F.R. Part 63 subpart DDDDD as it existed on the effective date of this section."

2SHB 1095 - S COMM AMD
By Committee on Energy, Environment & Telecommunications

On page 1, line 1 of the title, after "efficiency;" strike the remainder of the title and insert "amending RCW 39.35.010, 39.35.020,

39.35.040, 19.280.030, 19.280.060, and 80.04.550; reenacting and amending RCW 39.35.030 and 19.280.020; adding new sections to chapter 19.280 RCW; adding new sections to chapter 70.94 RCW; and creating a new section."

--- END ---