

# HOUSE BILL REPORT

## HB 1095

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**As Reported by House Committee On:**  
Technology & Economic Development  
Appropriations

**Title:** An act relating to promoting thermal energy efficiency.

**Brief Description:** Promoting thermal energy efficiency.

**Sponsors:** Representatives Morris and Hudgins.

**Brief History:**

**Committee Activity:**

Technology & Economic Development: 1/20/15, 2/10/15 [DPS];  
Appropriations: 2/26/15, 2/27/15 [DP2S(w/o sub TED)].

**Brief Summary of Second Substitute Bill**

- Requires energy-consumption analyses for certain public facilities to include critical load analyses and combined heat and power feasibility assessments.
- Incorporates certain valuation and assessment provisions for combined heat and power into Integrated Resource Plans.
- Directs the Utilities and Transportation Commission to establish a voluntary emission reduction program for natural gas companies that encourages investment in thermal energy efficiency projects.
- Directs the Department of Ecology to establish a general permit or permit by rule for stationary natural gas engines used in a combined heat and power system.

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### HOUSE COMMITTEE ON TECHNOLOGY & ECONOMIC DEVELOPMENT

**Majority Report:** The substitute bill be substituted therefor and the substitute bill do pass. Signed by 11 members: Representatives Morris, Chair; Tarleton, Vice Chair; Smith, Ranking Minority Member; DeBolt, Assistant Ranking Minority Member; Fey, Harmsworth, Hudgins, Magendanz, Ryu, Santos and Wylie.

**Minority Report:** Without recommendation. Signed by 1 member: Representative Young.

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*This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.*

**Staff:** Nikkole Hughes (786-7156).

## **Background:**

### Energy Conservation in Design of Public Facilities.

Public agencies are directed by the Legislature to analyze the cost of energy consumption for each major facility to be planned and constructed or renovated after September 8, 1975. A "major facility" is any publicly owned or leased building having 25,000 square feet or more of usable floor space. A life-cycle cost analysis must be prepared during the design phase for each newly constructed or renovated major facility. The life-cycle cost analysis includes an energy-consumption analysis of all energy systems of a major facility that must be prepared by a professional engineer or licensed architect. The public agency must approve the major facility's life-cycle cost analysis before commencement of actual construction or renovation.

### Electric Utility Resource Planning.

All investor-owned and consumer-owned electric utilities with more than 25,000 customers in the state must develop an Integrated Resource Plan (IRP). All other utilities in the state, including full requirements customers that receive all the power from the Bonneville Power Administration, must file either an IRP or a less detailed resource plan.

The minimum required components of an IRP include the following:

- an assessment of commercially available conservation and efficiency resources, which may include high efficiency cogeneration (combined heat and power);
- an assessment of commercially available, utility scale renewable and nonrenewable generating technologies; and
- a comparative evaluation of renewable and nonrenewable generating resources.

### The Utilities and Transportation Commission.

The Utilities and Transportation Commission (UTC) regulates the rates, services, and practices of privately-owned utilities and transportation companies in Washington. Companies providing the following goods or services are regulated by the UTC: electricity, natural gas, certain telecommunications service, water, solid waste collection, commercial ferry service, transportation of household goods, certain auto transportation service, and transportation of petroleum through pipelines. The UTC is required to ensure that rates charged are "fair, just and reasonable."

### District Thermal Energy Systems.

The UTC has limited regulatory authority over a district thermal energy system owned or operated by a thermal energy company. A "district thermal energy system" is any system that provides thermal energy for space heating, space cooling, or process uses from a central plant and distributes thermal energy to two or more buildings. A "thermal energy company" is any private person, company, association, partnership, joint venture, or corporation engaged in developing, producing, distributing, or selling to, or for the public, thermal energy services for any beneficial use other than electricity generation.

### Air Operating Permits.

The Department of Ecology and seven local air quality agencies administer Washington's air operating permit standards under the Washington Clean Air Act. An air operating permit specifies certain requirements for air pollution sources, including permissible emission levels.

### Boiler Maximum Achievable Control Technology.

Federal major source boiler maximum achievable control technology (boiler MACT) rules (40 C.F.R. 63, Subpart DDDDD) apply to boilers and process heaters in major sources. A "major source" is an industrial, commercial, or institutional facility that emits 10 tons per year (tpy) or more of any single hazardous air pollutant or 25 tpy or more of total hazardous air pollutants. The boiler MACT rules require affected boilers and process heaters to complete a one-time energy assessment that identifies energy savings opportunities.

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### **Summary of Substitute Bill:**

#### Energy Conservation in Design of Public Facilities.

The list of facilities for which analysis of the cost of energy consumption is required by the Legislature is expanded to include critical governmental facilities. A "critical governmental facility" is a publicly-owned building or district energy system that is expected to:

- be continuously occupied;
- maintain operations for at least 6,000 hours each year;
- have a peak electricity demand exceeding 500 kilowatts (kW); and
- 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.

An energy-consumption analysis conducted as part of a life-cycle cost analysis for a major facility or critical governmental facility must include the identification and analysis of critical loads for each energy system and a combined heat and power system feasibility assessment.

#### Electric Utility Resource Planning.

By December 31, 2016, an electric utility with over 25,000 customers in the state must:

- value combined heat and power as having both energy and capacity value 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; and
- offer a minimum term of 15 years for power purchase agreements for the electric output of combined heat and power systems, unless a lesser number is mutually agreed to by both parties.

The Utilities and Transportation Commission (UTC) 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. The governing body of a consumer-owned utility that offers a 15-year minimum power purchase agreement for the electric output of combined heat and power may, every five years after signing the agreement, initiate a fuel cost adjustment process.

An electric utility that is required to develop an integrated resource plan (IRP) may include combined heat and power systems among the measures in a conservation supply curve in the utility's assessment for demand side resources.

The Department of Commerce must submit any reports it receives of existing and potential combined heat and power facilities in IRPs to the Washington State University Extension Energy Program (WSU Energy Program) for analysis. The WSU Energy Program must submit an annual report electronically to the appropriate legislative committees on the planned and completed combined heat and power facilities in the state.

#### Thermal Energy Systems.

The UTC has limited regulatory authority over any thermal energy system owned or operated by a thermal energy company or by a combined heat and power facility engaged in thermal energy services. The UTC retains the authority to issue or enforce any order affecting combined heat and power facilities owned or operated by an electrical company that are subsidized by a regulated service.

References to "district" thermal energy systems are removed. A "thermal energy system" is 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.

#### The Utilities and Transportation Commission.

The UTC is required to establish a voluntary emission reduction program for the purpose of encouraging natural gas companies to invest in projects that reduce emissions, improve thermal energy efficiency, and provide benefits to customers of natural gas companies. The UTC must adopt rules to implement a voluntary emission reduction program by December 31, 2016.

#### Air Operating Permits.

The Department of Ecology (Ecology) must establish a general air operating permit or permit by rule for stationary natural gas engines used in a combined heat and power system. The general permit or permit by rule must establish emission limits for air contaminants released by stationary natural gas engines, and is to be adopted and implemented as the permitting mechanism for the new construction of a combined heat and power system.

In establishing a general permit or permit by rule, Ecology may consider:

- the geographic location in which a stationary natural gas engine may be used, including the proximity to an area designated as a nonattainment area;
- the total annual operating hours of a stationary natural gas engine;
- the technology used by a stationary natural gas engine;
- the types of fuel used to power a stationary natural gas engine; and
- other emission control policies of the state.

Boiler Maximum Achievable Control Technology.

An owner or operator of an industrial, commercial, or institutional boiler or process heater required to complete an energy assessment under federal major source boiler maximum achievable control technology (boiler MACT) rules (40 C.F.R. 63, Subpart DDDDD) must:

- by January 31, 2016, submit nonproprietary information reported in the energy assessment electronically to Ecology or to the air pollution control authority that issues the air operating permit for the source; and
- by January 1, 2017, submit a report electronically to the WSU Energy Program that identifies, if applicable, the economic, technical, and other barriers to implementing thermal energy efficiency opportunities identified in the energy assessment.

The reporting requirement does not apply if an owner or operator of a boiler or process heater is not required to complete an energy assessment under federal boiler MACT rules.

An owner or operator of a boiler or process heater who has not completed an energy assessment under federal boiler MACT rules must request a free combined heat and power site qualification screening from the U.S. Department of Energy.

**Substitute Bill Compared to Original Bill:**

The substitute bill:

- specifies that the 15-year term requirement for power purchase agreements offered by electric utilities for the electric output of combined heat and power systems applies to new power purchase agreements beginning December 31, 2016. Parties to a power purchase agreement that is agreed upon before December 31, 2016, are not required to renegotiate the terms of that agreement;
- authorizes the Utilities and Transportation Commission (UTC) to approve a fuel cost adjustment mechanism for an electrical company that is a party to a power purchase agreement for the electric output of a combined heat and power system;
- authorizes the governing body of a consumer-owned utility that offers a 15-year minimum power purchase agreement for the electric output of combined heat and power to initiate a fuel cost adjustment process every five years after signing the agreement;
- removes an assessment of existing and potential combined heat and power facilities from the minimum requirements of integrated resource plans;
- specifies that 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;

- adds intent language stating that thermal energy services are exempt from regulation by the UTC, but that nothing prevents the UTC from regulating combined heat and power facilities owned or operated by an electrical company;
- removes certain requirements for the establishment of a voluntary natural gas reduction program by the UTC;
- adds intent language clarifying that: (1) a general permit or permit by rule adopted by Ecology is intended to streamline the permitting process for a stationary natural gas engine used in a combined heat and power system; and (2) the general permit or permit by rule shall be adopted and implemented as the permitting mechanism for the new construction of a combined heat and power system required by Ecology under current law;
- removes the requirement that an owner or operator of a boiler or process heater subject to federal major source boiler maximum achievable control technology (boiler MACT) rules implement thermal efficiency opportunities identified in an energy assessment by January 1, 2020;
- requires an affected owner or operator of a boiler or process heater to, by January 1, 2017, submit a report to the Washington State University Energy Program that identifies any economic, technical, or other barriers to implementing thermal efficiency opportunities identified in the energy assessment required by federal boiler MACT rules; and
- requires an owner or operator of a boiler or process heater who has not completed an energy assessment under federal boiler MACT rules to request a free combined heat and power site qualification screening from the U.S. Department of Energy.

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**Appropriation:** None.

**Fiscal Note:** Available.

**Effective Date of Substitute Bill:** The bill takes effect 90 days after adjournment of the session in which the bill is passed.

**Staff Summary of Public Testimony:**

(In support) This bill looks past the 2020 target for Initiative 937. Combined heat and power will likely be a compliance pathway for federal clean power regulations in the years to come. Wasting heat energy and not taking advantage of it is a disservice to the state's economy.

(In support with concerns) Combined heat and power is a win-win-win technology for utility customers, utilities, and the environment. It's a way to capture waste heat and helps utilities by reducing load and costs associated with the distribution and transmission of electricity. Washington has the potential to expand combined heat and power in the state. The State Energy Strategy recommends encouraging and supporting both the retention and promotion of combined heat and power. It makes good sense to have state facilities look at incorporating combined heat and power, and the bill presents an ideal opportunity to look at critical governmental facilities.

Combined heat and power opportunities are not easy to identify. The bill's requirement that utilities conduct a combined heat and power feasibility assessment would be an extensive and expensive proposition. Feasibility assessments should be conducted at customer request, because combined heat and power requires a willing customer.

The bill might exempt thermal energy facilities owned by investor-owned utilities from regulation by the Utilities and Transportation Commission. The voluntary emissions reduction program proposed in the bill is a good idea, but implementation may be difficult, and concerns about cost-effectiveness and emissions reduction potential remain.

(With concerns) The language in the bill changes the way combined heat and power is treated in electric utilities' integrated resource plans. Natural gas prices are volatile, so a 15-year power purchase agreement for combined heat and power is concerning.

(Neutral) The Washington State University Energy Program has experts in combined heat and power who are engaged in conversations on the subject at the national level. The program is happy to do the work required of it in the bill.

(Opposed) None.

**Persons Testifying:** (In support) Representative Morris, prime sponsor; and Mary Moore, League of Women Voters.

(In support with concerns) Dave Danner, Utilities and Transportation Commission; Dave Warren, Washington Public Utilities District Association; John Rothlin, Avista; Joni Bosh, Northwest Energy Coalition; and Tony Usibelli, Department of Commerce.

(With concerns) Nancy Atwood, Puget Sound Energy.

(Neutral) Dave Sjoding and Sheila Riggs, Washington State University Energy Program.

**Persons Signed In To Testify But Not Testifying:** None.

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## HOUSE COMMITTEE ON APPROPRIATIONS

**Majority Report:** The second substitute bill be substituted therefor and the second substitute bill do pass and do not pass the substitute bill by Committee on Technology & Economic Development. Signed by 20 members: Representatives Hunter, Chair; Ormsby, Vice Chair; Wilcox, Assistant Ranking Minority Member; Carlyle, Cody, Dunshee, Hansen, Hudgins, S. Hunt, Jinkins, Kagi, Lytton, Magendanz, Pettigrew, Sawyer, Senn, Springer, Sullivan, Tharinger and Walkinshaw.

**Minority Report:** Do not pass. Signed by 11 members: Representatives Chandler, Ranking Minority Member; Parker, Assistant Ranking Minority Member; Buys, Condotta, Dent, Haler, MacEwen, Schmick, Stokesbary, Taylor and Van Werven.

**Minority Report:** Without recommendation. Signed by 2 members: Representatives Fagan and G. Hunt.

**Staff:** Dan Jones (786-7118).

**Summary of Recommendation of Committee On Appropriations Compared to Recommendation of Committee On Technology & Economic Development:**

The second substitute bill authorizes, rather than requires, the submission of an annual report on the completed and planned combined heat and power facilities in the state by the Washington State University Extension Energy Program.

**Appropriation:** None.

**Fiscal Note:** Available.

**Effective Date of Second Substitute Bill:** The bill takes effect 90 days after adjournment of the session in which the bill is passed.

**Staff Summary of Public Testimony:**

(In support) This bill is looking at thermal efficiency, meaning the way we heat hot water in the state, which is one of the most inefficient things the state does. The bill aligns new federal regulations with some expertise we have in the state. Many people do not realize that Washington State University's (WSU's) energy office has authority from the U.S. Department of Energy on combined heat and power policy in the United States, and is the national center for expertise on the topic. This state does not make much use of this authority. This bill applies some of the federal funding that WSU receives towards state buildings, looking at how they can achieve combined heat and power for the same amount of energy that they are using to heat hot water currently. This bill would help some state buildings become more self-sufficient in an emergency.

(Opposed) None.

**Persons Testifying:** Representative Morris, prime sponsor.

**Persons Signed In To Testify But Not Testifying:** None.