

HOUSE BILL REPORT

2SHB 1390

As Passed House:

March 2, 2023

Title: An act relating to district energy systems.

Brief Description: Concerning district energy systems.

Sponsors: House Committee on Capital Budget (originally sponsored by Representatives Ramel, Berry, Duerr, Doglio, Pollet and Reed).

Brief History:

Committee Activity:

Environment & Energy: 1/24/23, 2/9/23 [DPS];

Capital Budget: 2/20/23, 2/22/23 [DP2S(w/o sub ENVI)].

Floor Activity:

Passed House: 3/2/23, 92-4.

Brief Summary of Second Substitute Bill

- Requires owners of state campus district energy systems to develop a decarbonization plan by June 2024 and provide their final plan to the Department of Commerce (Commerce) for approval by June 2025 and every five years thereafter.
- Establishes an alternative compliance pathway to meet the state energy performance standard for an owner of a state campus district energy system if the owner: (1) is implementing an approved decarbonization plan; (2) meets benchmarking, energy management, and operations and maintenance planning requirements; and (3) gets a request approved by Commerce once every five years.
- Provides owners of nonstate owned campus district energy systems the option to pursue the alternative compliance pathway.

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

HOUSE COMMITTEE ON ENVIRONMENT & ENERGY

Majority Report: The substitute bill be substituted therefor and the substitute bill do pass. Signed by 10 members: Representatives Doglio, Chair; Mena, Vice Chair; Abbarno, Berry, Duerr, Fey, Lekanoff, Ramel, Slatter and Street.

Minority Report: Without recommendation. Signed by 5 members: Representatives Dye, Ranking Minority Member; Ybarra, Assistant Ranking Minority Member; Barnard, Couture and Goehner.

Staff: Megan McPhaden (786-7114).

HOUSE COMMITTEE ON CAPITAL BUDGET

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 Environment & Energy. Signed by 23 members: Representatives Tharinger, Chair; Callan, Vice Chair; Hackney, Vice Chair; Steele, Ranking Minority Member; Abbarno, Assistant Ranking Minority Member; Sandlin, Assistant Ranking Minority Member; Alvarado, Bateman, Cheney, Farivar, Fosse, Kloba, Leavitt, Maycumber, McClintock, Morgan, Orwall, Peterson, Reed, Rule, Shavers, Stearns and Waters.

Minority Report: Without recommendation. Signed by 5 members: Representatives Christian, Couture, Dye, McEntire and Mosbrucker.

Staff: Dawn Eychaner (786-7135).

Background:

State Energy Performance Standard.

In 2019 the State Energy Performance Standard was established, requiring the Department of Commerce (Commerce) to establish rules for energy performance standards for covered commercial buildings, collect data on compliance, and report on outcomes. The performance standards seek to maximize reductions in greenhouse gas emissions from the building sector. The performance standards include energy use intensity targets by building type, as well as requirements for an energy management plan, operations and maintenance program, energy efficiency audits, and investments in energy efficiency measures.

The 2019 law applies to what is now known as a Tier 1 covered commercial building, which is a building where the sum of nonresidential, hotel, motel, and dormitory floor areas exceed 50,000 square feet, excluding the parking garage area. In 2022 the State Energy Performance Standard was amended to add a second tier of covered buildings. Tier 2 covered buildings are commercial buildings greater than 20,000 square feet but less than 50,000 square feet, and multifamily residential buildings greater than 20,000 square feet.

Dates of compliance are phased in for Tier 1 and Tier 2 buildings. For example, the first set of Tier 1 buildings, those over 220,000 square feet, must comply with the standard by 2026. Tier 2 buildings must comply with the benchmarking and energy management planning element of the standard by 2027, but do not have to comply with the energy use intensity performance target until 2031.

Commerce's Rules for Tier 1 Buildings.

Commerce finalized rules for Tier 1 buildings in December 2020 and included guidance for energy efficiency measures (EEMs) for campus district systems. Commerce's rules specify that implementation of EEMs to campus district heating and/or cooling systems in lieu of energy efficiency measures implemented directly to campus buildings is acceptable for compliance, as long as an energy audit demonstrates that the energy savings from the district system EEMs will be greater than the buildings' EEMs. These rules also include detail on a conditional compliance method that is intended to ensure that Tier 1 buildings that do not meet their energy use intensity targets are taking action to achieve reduction in energy use in certain ways. These buildings must adopt an implementation plan, which may include phased implementation, meaning that the building owner is not required to replace a system or equipment before the end of its useful life.

Industrial Symbiosis Projects.

Industrial symbiosis is the use by one company or sector of waste resources from another. Waste resources are broadly defined to include waste, by-products, residues, energy, water, logistics, capacity, expertise, equipment, and materials. In 2021 Commerce was directed to establish an industrial waste coordination program to provide expertise, technical assistance, and best practices to support local industrial symbiosis projects.

Summary of Second Substitute Bill:

Campus District Energy Systems.

A campus district energy system is a district energy system that provides heating, cooling, or heating and cooling to three or more buildings with more than 100,000 square feet of combined conditioned space, where the system and all connected buildings is owned by:

- a single entity;
- a public-private partnership where a private entity owns the energy system and one public entity owns the buildings; or
- two private entities where one owns the connected buildings and the other owns the energy system.

A state campus district energy system is a campus district energy system owned by the State of Washington, or owned by a public-private partnership including one public buildings owner and one private entity.

Decarbonization Plans.

The owner of a state campus district energy system must develop a decarbonization plan

and consult with their electric utility during plan development. The plan must provide a strategy for up to 15 years, or longer if approved by the Department of Commerce (Commerce). The plan must be under development by June 30, 2024, and a final plan must be submitted to Commerce by June 30, 2025. Commerce must provide a summary report on decarbonization plans to the Governor and Legislature by December 1, 2025.

Required Elements.

The plan must include mechanisms to replace fossil fuels in the heating plants, including a schedule for replacement. The plan must also assess options to partner with nearby sources and uses of waste heat and cooling, opportunities to add facilities and a strategy to incentivize growth to a decarbonized system, and requirements for facilities joining the system. The plan must also include an evaluation, prioritization, and scheduled plan of reducing energy use through conservation efforts at the central plant and connected buildings that results in meeting the campus energy use intensity target.

Encouraged Elements.

The decarbonization plan is encouraged to include considerations for distribution network upgrades, on-site energy storage facilities, space cooling for residential facilities, labor and workforce, options for public-private partnerships, and incorporation of industrial symbiosis projects or networks.

Compliance with the State Energy Performance Standard.

Alternative Compliance Pathway.

The owner of a state campus district energy system is not required to meet the energy use intensity target for the system and for all buildings connected to the system, or conduct an investment grade audit, to otherwise comply with the state energy performance standard, if the owner of the system:

1. is implementing or completed implementation of an approved decarbonization plan, and that plan, when fully implemented, meets the energy use intensity target established for the campus at the time of required measurement and verification. The owner may apply for phased implementation through conditional compliance in accordance with requirements of the decarbonization plan;
2. meets the state energy performance standard requirements for benchmarking, energy management, and operations and maintenance planning; and
3. submits a request to Commerce once every five years and Commerce approves the request.

These conditions apply to both the system and all its connected buildings.

Non-state owned campus district energy systems may opt into this process to achieve an alternative compliance pathway, provided the owner of the campus district energy system submits a request to the Commerce, and that request is approved.

Clarification on the Number of Plans Required.

The owner of a state campus district energy system may not be required to implement more than one energy management plan and more than one operations and maintenance plan for the campus.

Implementation of Energy Efficiency Measures.

Commerce must guarantee that a state campus district energy system and all its connected buildings are in compliance with any requirements for campus buildings to implement energy efficiency measures (EEMs) identified in an energy audit if: (1) the energy audit demonstrates that energy savings from the system's EEMs will be greater than the EEMs for the campus buildings; and (2) the system implements the EEMs.

Appropriation: None.

Fiscal Note: Available.

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

Staff Summary of Public Testimony (Environment & Energy):

(In Support) District energy systems are more efficient than building-to-building systems, and we support upgrading them. Added benefits are the highly skilled energy sector jobs that will be created. There are about 15 state-owned campuses that this bill would apply to, including the capitol campus, universities, and correctional facilities. There are at least six community and technical colleges that would need to create decarbonization plans under this bill, and the schools vary in age, condition, and type. District energy systems usually rely on a central heating plant using gas boilers and pumping steam to buildings which are due for an upgrade. These systems are some of the biggest energy users under state control. There is a significant maintenance backlog for these systems, and replacing central heating plants by using waste heat or other methods will help with the backlog as well as reduce the carbon footprint. This will not be inexpensive over time but if it is planned, we can budget for it, there may be economies of scale, and we can build public-private partnerships. When looking at how these systems comply with the state building performance standards, this is an alternate compliance approach, not an exemption.

Some state universities have already completed work to understand that the majority of carbon emissions are coming from a campus steam plant, and have completed strategies to plan for 100 percent clean energy. The bill would align these efforts with the state building performance standards instead of duplicating and creating competing efforts to comply with standards. Decarbonization planning will give the state a clear picture of the energy and upfront costs, and help each institution meet its unique systems goals. This helps align with the state budget cycle. Coordinating repairs will provide the greatest benefit in return. An energy efficiency portfolio for connected buildings is better than a building-by-building approach because it allows for strategic and highly impactful investments.

CenTrio Energy, the largest district energy system in the state providing steam energy to 125 buildings in downtown Seattle, is working on a decarbonization plan and has significant costs to comply with the Climate Commitment Act (CCA) which will impact the business and customers. The CCA gave no thought to privately owned district energy systems, and the cost to comply compared to the cost to decarbonize for CenTrio would be roughly the same in the first four years of compliance. We don't want to lose the benefits of district energy so we hope CenTrio will find support to remedy this situation because CenTrio can play a part in the state's decarbonization goals.

We should be open to conversations to expand this to both private campuses and district energy utilities where the system serves third party private customers. It makes sense to expand definition of campus to include private and local government owned campuses. Section 3(2)(f) still seems to require audits, and while energy audits are important, there could be flexibility to the building owner and Commerce if there is other documentation that the energy upgrade is better, rather than requiring an energy audit which may be duplicative of past work. The proposed change in Section 3 acknowledging district energy is good.

(Opposed) Public buildings should not be exempted from the state energy performance standard. There is no opposition to promoting the concept of district energy. The state energy performance standard was initially promised to result in modest costs for buildings but is now appearing to be very expensive. During negotiations on that standard, we made sure there was no distinction between public and private buildings, but if public buildings had been exempted, we would have opposed that bill.

(Other) The fiscal impacts are not in the Governor's budget. Buildings are the second largest contributor of greenhouse gas emissions in the state, and the State Energy Strategy found that energy efficiency and electrification are the most cost-effective strategies to decarbonize buildings. Upgrading district energy systems has great potential to increase efficiency and reduce emissions, sometimes more than a building-by-building approach. Strategic campus-level investments are the best use of public and private dollars. Legislation would be needed to allow campus-level compliance. It doesn't make sense to require per-building metering and level two audits on campus energy districts, especially in Seattle, which is developing its own building performance standards. Seattle has a feasible compliance pathway, and this bill should allow the same or similar compliance path, which would also relieve the burden of tracking different time periods and compliance. This should apply to all buildings, not just state-owned buildings. The state building performance standard is very costly; it is more costly to comply than initially projected. The conversation should be opened to all building owners; one type of building shouldn't be exempted. Campuses without a central plant should have an optional path to implement a decarbonization plan. Adding a timeframe to the decarbonization plans would help our concerns with exempting these systems from making capital investments.

Staff Summary of Public Testimony (Capital Budget):

(In support) The state owns more than a dozen of these campus energy systems at institutions such as universities, correctional facilities, and the capitol campus. These systems are some of the state's biggest energy users, and in many cases, there is significant deferred maintenance needed. Upgrading these systems systematically will dramatically cut down on Washington's carbon footprint and will be significant expenses for state budgets in the coming decade or two. Since these expenses are known to be coming, the state should plan and budget for them. There is exciting potential for public-private partnerships where public agencies can work with private entities to provide energy services. This policy was initially envisioned as only focused on state capital facilities and has evolved to include private entities. Please move the bill forward while the details are worked out. A private system that serves private buildings is not currently incorporated into the bill. Please provide the same opportunities to these private systems to participate in this policy. This is an intelligent approach to combine efficiency of central systems and buildings working in concert. This bill addresses an unintended consequence of the Clean Buildings Act by allowing campuses and district energy systems to work together. District thermal energy is an untapped resource for efficiently decarbonizing buildings. With the Clean Buildings Standard pushing energy efficiency, customers are interested in district thermal energy to reduce their carbon footprint. This policy is good for skilled jobs and building trades across the state.

(Opposed) None.

Persons Testifying (Environment & Energy): (In support) Representative Alex Ramel, prime sponsor; Nora Selander, Western Washington University; Amy Wheelless, Northwest Energy Coalition; David Woodson, University of Washington; Brandon Houskeeper, Clarence Clipper, and Mick Reeves, CenTrio Energy; Jonathan Finch and Christine Reid, International Brotherhood of Electrical Workers Local 77; Darrell Jennings, State Board for Community and Technical Colleges.

(Opposed) Greg Hanon, National Association for Industrial and Office Parks.

(Other) Janette Plunkett, Washington Higher Education Sustainability Coalition; Emily Salzberg, Department of Commerce; Peter Godlewski, Association of Washington Business; Steve Abercrombie, Connected Buildings.

Persons Testifying (Capital Budget): Representative Alex Ramel, prime sponsor; Ash Awad, McKinstry; Bonnie Hemphill, UMC, Inc.; and Brandon Houskeeper, CenTrio Energy.

Persons Signed In To Testify But Not Testifying (Environment & Energy): None.

Persons Signed In To Testify But Not Testifying (Capital Budget): None.