

# SENATE BILL REPORT

## ESSB 5709

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As Passed Senate, March 7, 2013

**Title:** An act relating to a pilot program to demonstrate the feasibility of using densified biomass to heat public schools.

**Brief Description:** Concerning a pilot program to demonstrate the feasibility of using densified biomass to heat public schools.

**Sponsors:** Senate Committee on Ways & Means (originally sponsored by Senators Smith, Ericksen, Sheldon, Holmquist Newbry, Dammeier, Brown and Roach).

**Brief History:**

**Committee Activity:** Energy, Environment & Telecommunications: 2/14/13 [DP-WM].

Ways & Means: 2/26/13, 3/01/13 [DPS].

Passed Senate: 3/07/13, 46-0.

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### SENATE COMMITTEE ON ENERGY, ENVIRONMENT & TELECOMMUNICATIONS

**Majority Report:** Do pass and be referred to Committee on Ways & Means.

Signed by Senators Ericksen, Chair; Sheldon, Vice Chair; Ranker, Ranking Member; Billig, Brown, Chase, Cleveland and Honeyford.

**Staff:** William Bridges (786-7416)

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### SENATE COMMITTEE ON WAYS & MEANS

**Majority Report:** That Substitute Senate Bill No. 5709 be substituted therefor, and the substitute bill do pass.

Signed by Senators Hill, Chair; Baumgartner, Vice Chair; Honeyford, Capital Budget Chair; Hargrove, Ranking Member; Nelson, Assistant Ranking Member; Bailey, Becker, Braun, Conway, Dammeier, Fraser, Hasegawa, Hatfield, Hewitt, Keiser, Kohl-Welles, Murray, Padden, Parlette, Ranker, Rivers, Schoesler and Tom.

**Staff:** Maria Hovde (786-7710)

**Background:** Densified Biomass. According to the Washington State University (WSU) Energy Program, densified biomass is a solid biofuel pellet made of compressed sawdust and chipped wood that has a consistent quality, low moisture content, high energy density, and

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homogenous size and shape. Densification increases the energy density of biomass by approximately 10 to 15 percent, so more heat is produced per unit of pellets burned than if the same amount of raw wood was burned.

WSU Report. The 2012 supplemental operating budget required WSU to study densified biomass as a renewable fuel for heating homes, businesses, and other facilities in the state. WSU issued an early report in December 2012 that assessed the opportunities and challenges of developing a densified biomass industry in Washington. WSU expects to issue a more comprehensive report in early 2013.

The December 2012 report cites several opportunities for densified biomass fuel, such as environmental advantages over traditional fossil fuels, restoring healthy forests after pine beetle destruction, reducing the volumes of landfills, providing a less expensive alternative to heating homes in remote areas, and providing a valuable export commodity. The report also cites several challenges facing densified biomass, such as reduced fossil fuel prices, enhanced energy efficiency technologies, competition for biomass feedstock, and price volatility in the wood pellet marketplace.

Biomass Heating in Public Schools. In 2009, the Quillayute Valley School District received a \$1 million grant from the Energy Freedom Fund to purchase and install a wood-chip fired boiler for steam heat at Forks Middle and High School. The facility became operational in October 2010.

**Summary of Engrossed Substitute Bill:** Creating a Densified Biomass Pilot Program and Requiring a Report. Subject to receiving federal and private funds for this purpose, by December 1, 2013, WSU must develop and initiate a pilot program to demonstrate the feasibility of using densified biomass to heat public schools. The pilot program must replace the current heating systems in two public schools with heating systems that use densified biomass as a fuel. WSU must measure and evaluate the heating systems, including a cost comparison with other conventional fuels and emission measurements.

WSU must use the following criteria when choosing one of the schools for the pilot program: (1) the school's proximity to a currently operating densified biomass manufacturing facility; (2) the age and condition of the school's current heating system; and (3) the school's design is of a nature that most resembles other schools of its class. The second school must be chosen from a rural county bordering Hood Canal, the Olympic National Park, and southern Puget Sound.

In designing the pilot program, WSU must seek to leverage other existing private and federal funding programs and resources. It may also contract with other entities for assistance in implementing the pilot program.

Findings. The Legislature finds, among other things, that clean-burning, renewable densified biomass leads the country to energy independence, stimulates the economy, reduces carbon emissions, promotes healthy forests, and is complimentary to other biofuel industries.

**Appropriation:** None.

**Fiscal Note:** Available.

**Committee/Commission/Task Force Created:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.

**Staff Summary of Public Testimony (Energy, Environment & Telecommunications):**

PRO: Densified biomass is a proven technology used in Europe and Asia. Not only is it sustainable and environmentally friendly, it is the only renewable fuel that can be easily handled and transported. Densified biomass heating appliances are highly efficient and cost effective, and if used in schools, the fuel savings can be used to help teachers and students. Washington currently sends biomass out of the state and imports manufactured pellets, which is backwards. Densified biomass reduces carbon emissions from fossil fuels, improves air quality in non-compliant air sheds, can lead our country toward energy independence, creates jobs in rural areas, and stimulates our economy by keeping more of our money circulating locally.

OTHER: WSU has the in-house expertise to run the pilot program and is eager to do so if it is funded.

**Persons Testifying (Energy, Environment & Telecommunications):** PRO: Senator Smith, prime sponsor; Dan Henry, 5G3 Consulting; Leah Hauer, NW Hearth Products Assn.; Stan Elliot, Olympus Pellets; Rachael Jamison, Department of Natural Resources; David Palmer, Schneider Electric.

OTHER: Sheila Riggs, Dave Sjoding, WSU Energy Program.

**Staff Summary of Public Testimony on Original Bill (Ways & Means):** PRO: Results of a demonstration project from a county hospital in Oregon have shown in less than three years, that densified biomass is a cheaper source of fuel. The cost savings were used to make payments on their MRI scanner. Harvesting densified biomass from our forests will help with forest health.

**Persons Testifying (Ways & Means):** PRO: Daniel Henry, 5G3 Consulting.