HOG FUEL TO PRODUCE ENERGY (SALES & USE TAX)

Report Summary

What the Preference Does	Public Policy Objective	Estimated Beneficiary Savings	JLARC Recommendation
Provides sales and use tax exemptions for hog fuel used to produce electricity, steam, heat, or biofuel.	The Legislature did not specifically state a public policy objective for these preferences; however, it did make the preferences temporary. Because of the sharp declines in oil and natural gas prices occurring at the time that the preferences were enacted, JLARC infers that the Legislature may have intended to temporarily make the price of hog fuel more competitive.	$3.2 million in 2011-13 Biennium	**Allow to expire**: Because the Legislature intended the exemptions to be temporary and did not provide performance goals to guide any other assessment of performance.

Hog Fuel to Produce Energy (Sales & Use Tax)

Report Detail

Current Law

This tax preference provides exemptions from the retail sales and use tax for hog fuel used to produce electricity, steam, heat, or biofuel. The exemptions expire on June 30, 2013.

Statute defines "hog fuel" as wood waste, including forest derived biomass, and specifically states that hog fuel does not include firewood or wood pellets. The sales tax exemption for hog fuel is available only if the purchaser provides the seller with an exemption certificate in a form prescribed by the Department of Revenue. The seller must retain a copy of the certificate for the seller's files. The use tax exemption does not require an exemption certificate.

This review focuses on the sales and use tax exemptions for hog fuel. JLARC is also reviewing three other tax preferences that include consideration of hog fuel. A 2011 review looks at a use tax exemption for extracted fuels, including hog fuel. A second 2011 review discusses a sales and use tax exemption for machinery and equipment used to generate electricity using renewable resources in general. A third preference on harvesting biomass for energy production will be reviewed in 2013.

See page A3-3 in Appendix 3 for the current statutes, RCW 82.08.956 and RCW 82.12.956.

Legal History

1935 The Legislature created the retail sales tax and companion use tax in 1935. The sales tax applied to retail sales of tangible personal property in Washington while use tax applied to the use of tangible personal property purchased at retail in another state or produced or manufactured for commercial use within Washington. No exemptions were provided for hog fuel.

1949 The Legislature provided a specific use tax exemption for fuel produced in extracting or manufacturing activities when the fuel is used directly in the operation of the extracting or manufacturing activity. In the timber industry, hog fuel was considered an extracted fuel. For example, if a timber product manufacturer generated hog fuel and then used it as fuel to dry lumber, the hog fuel was exempt from use tax under the extracted fuel exemption.

2009 The Legislature passed a bill entitled "Environmental Tax Incentives" that included temporary sales and use tax exemptions for hog fuel sold or used to generate electricity, steam, heat, or biofuel.

Other Relevant Background

What Is Hog Fuel?

Hog fuel is composed primarily of tree bark and/or wood scraps that have been fed through a mechanical chipping device (a “hog”). The wood waste is ground into a size and consistency that can be used to fire boilers or furnaces. Because statute defines hog fuel as wood waste and forest derived biomass, the terms hog fuel, wood waste, and wood or forest biomass are intermixed in this review.

Historically, after completing a logging job, many parts of the harvested tree were left uncollected. The branches, tops, bark, and other parts of the tree had no market value. These wood wastes, referred to as slash in the timber industry, were either put into landfills or burned in open piles on the logging site. At wood processing facilities, the wood chips and sawdust were often burned in "teepee" burners just to get rid of them. Urban wood waste from construction and demolition jobs, discarded furniture, pallets and packing crates, etc., was typically disposed into a landfill. Now electricity, steam, heat, and other biofuels can be generated from what was once wood waste.

Where Does Hog Fuel Come From?

Exhibit 22 below shows the types and numbers of tons of wood waste that were produced in Washington in 2010.

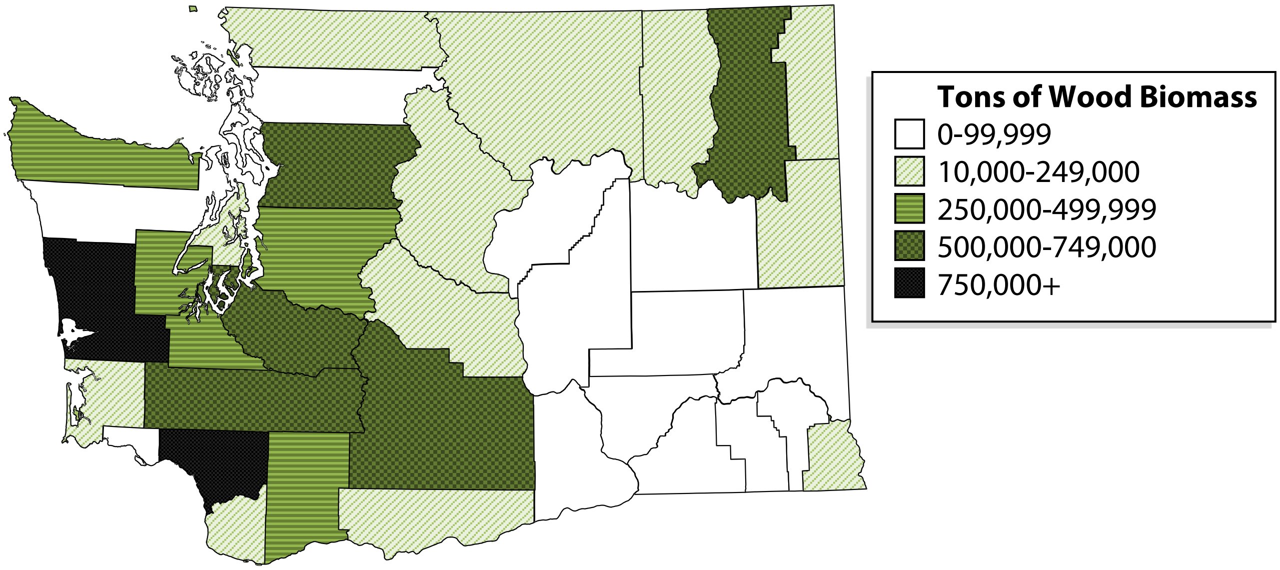
Exhibit 22 – Washington Wood Waste in 2010

Source of Wood Waste	Number of Tons	Percent of Wood Waste
Lumber Mill	5,278,353	59.1%
Logging	1,901,072	21.3%
Forest Thinning	505,666	5.7%
Land Clearing Debris	418,595	4.7%
Urban Wood Waste	834,057	9.3%
TOTAL Wood Waste	**8,937,743**	**100%**

Source: Pacific Region Bioenergy Partnership.

Every county in the state produces some wood waste, ranging in 2010 from less than 2,500 tons in Adams County to nearly 955,500 tons in Grays Harbor County. Exhibit 23 on the following page shows how much wood biomass was produced in each county in 2010.

Exhibit 23 – Tons of Wood Biomass Produced in 2010



Source: Pacific Region Bioenergy Partnership.

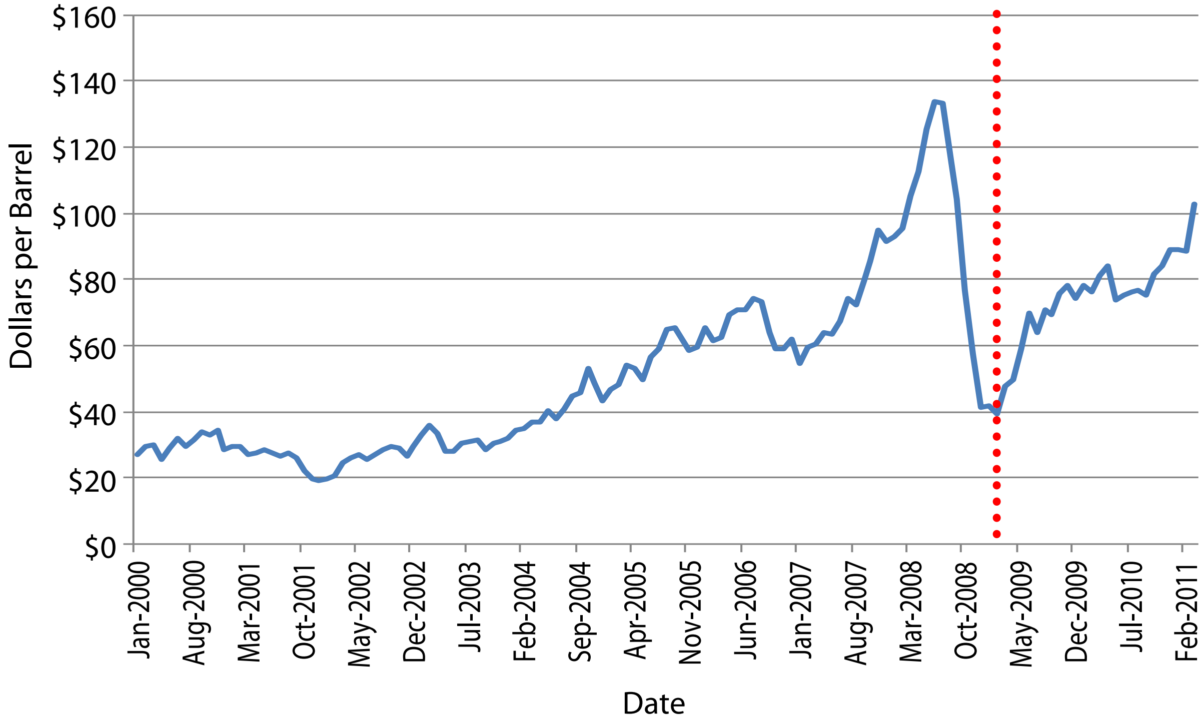
Hog Fuel Used in Energy Generation

Only a portion of the wood waste produced in Washington is used for energy generation. In the 1990s, approximately 3.3 million tons of wood waste were combusted each year for energy production. As the timber industry started a decline in 2005, so did the use of hog fuel for energy. In 2009, less than 1.4 million tons of hog fuel were used to produce energy. Use is projected to remain below this mark for 2011 through 2013. However, in November 2006, Washington voters approved Initiative 937, the Energy Independence Act. The initiative mandates that electric utilities with 25,000 or more customers meet specified electricity generation requirements using renewable energy sources such as wood waste. Because of this, the demand for hog fuel and other wood waste might increase in future years.

Hog Fuel Exemptions Passed at Time of Declining Oil Prices

The Legislature passed the sales and use tax exemptions on hog fuel as oil prices were taking a sharp drop. The price of hog fuel was also declining, though far less dramatically. From an economic standpoint, at the time the tax exemptions were enacted, the new lower price of oil made oil a less expensive source of energy than wood biomass in boilers that could use either fuel. Exhibit 24 on the following page shows changes in oil prices over time and marks the point at which the tax exemptions on hog fuel were being considered.

Exhibit 24 – Oil Prices Dropped Dramatically in 2008



Source: Spot Prices for Crude Oil and Petroleum Products, Thompson Reuters, 4/13/2011.

Public Policy Objective

What are the public policy objectives that provide a justification for the tax preference? Is the purpose or intent of the tax preference clear?

The Legislature did not state a public policy objective for the sales and use tax exemptions on hog fuel.

Because of the sharp declines in oil and natural gas prices occurring at the time the preferences were enacted, JLARC infers that the Legislature may have intended to temporarily make the price of hog fuel more competitive in relation to oil and natural gas prices by providing the tax exemptions.

Additionally, because the sales and use tax exemptions on hog fuel were included in a bill containing several other tax preferences designed to promote renewable energy, the public policy for the hog fuel tax exemptions may have been to promote the use of hog fuel as a source of renewable energy.

Preferences Intended To Be Temporary

As mentioned above, the Legislature included these sales and use tax exemptions for hog fuel in a bill that provided numerous environmental tax incentives. The Legislature made a decision about the end date for each preference. For some preferences, such as the livestock nutrient incentives and an incentive related to radioactive waste cleanup, the Legislature chose to have no expiration dates. Other preferences in the same bill have specific expiration dates, and the dates vary. For example, sales and use tax exemptions related to renewable energy have the same 2013 expiration date as the hog fuel preferences. The Legislature provided a 2015 expiration date for a biomass energy preference and expiration dates of 2018 and 2020 for different solar incentives. Given the construction of the bill, JLARC assumes the Legislature made a deliberate choice to make the hog fuel exemption temporary.

No Performance Goals Established

When enacting some tax preferences, the Legislature establishes specific performance goals for the preferences. For example, the Legislature established specific employment level targets for a preference for electrolytic processing businesses and for preferences for the aluminum industry (all reviewed by JLARC in 2009). An assessment of the preference's contribution to reaching a desired goal could assist the Legislature in determining whether to extend an expiration date for a temporary preference. However, in this case, the Legislature did not establish any performance goals for the temporary hog fuel preferences.

Is there any readily available evidence related to the achievement of any of these public policy objectives?

JLARC found no readily available information to determine whether or not the public policy objectives are being achieved. While seven sellers of hog fuel reported using the sales tax exemption, JLARC did not find any evidence to indicate that the tax exemptions have promoted the use of hog fuel for the generation of electricity, steam, heat, or biofuel beyond what might have occurred without the tax preferences.

Very early in 2008 when oil prices exceeded $120 a barrel and were still climbing, the demand for wood fuels throughout the country was expected to grow. U.S. utility companies were planning to build biomass-fueled power facilities to reduce greenhouse gas emissions and avoid the rising costs of oil. These facilities were expected to come online between 2010 and 2012.

In Washington, according to Northwest Power and Conservation Council data, in recent years four biomass power generation sites were proposed and two more sites moved into the planning stage. However, plans for one of the wood waste burning power plants were canceled and the other planned facility is on hold while county commissioners study biomass issues.

The Legislature did not provide any performance goals to assess this preference.

Beneficiaries

Who are the entities whose state and/or local tax liabilities are directly affected by the tax preference?

The direct beneficiaries of the sales and use tax exemptions are Washington facilities using hog fuel to generate energy. According to Northwest Power and Conservation Council data, 18 facilities in Washington are currently using wood waste to produce energy. If one of these facilities purchases hog fuel from a Washington seller, the user benefits from the sales tax exemption. If the hog fuel is purchased from an out-of-state seller, the user benefits from the use tax exemption. A 2003 study by the Department of Ecology identified 13 facilities in Washington that used some purchased hog fuel. Facilities that generate energy from wood waste they have produced can also qualify for this use tax exemption. However, an additional use tax exemption for extracted fuels also applies to this activity. Discussion of the extracted fuel exemption is contained in a separate 2011 review.

Revenue Impacts

What are the past and future tax revenue impacts of the tax preference to the taxpayer and to the government if it is continued?

In 2009, when the Legislature was considering the hog fuel tax preference, the Department of Revenue estimated the tax savings based on a Department of Natural Resources 2006 Mill Survey that found approximately 1.88 million tons of wood and bark residue had been used as fuel. Due to slower economic conditions, DOR assumed that usage would drop to 1.61 million tons and that two-thirds of this amount would be sold at a value of $20 per ton. The fiscal note projected a total taxpayer savings of $1,336,000 in Fiscal Year 2010. Exhibit 25 below shows the estimated beneficiary savings for FY 2010 through FY 2013.

Exhibit 25 – Estimated Beneficiary Savings from Hog Fuel Exemption

Year	State Tax	Local Tax	Total Tax
FY 2010	$1,050,000	$390,000	$1,440,000
FY 2011	$1,004,000	$373,000	$1,377,000
FY 2012	$1,098,000	$408,000	$1,506,000
FY 2013	$1,262,000	$469,000	$1,731,000
2011-13 Biennial Total	**$2,360,000**	**$877,000**	**$3,237,000**

Source: JLARC estimates based on DOR tax return data, Northwest Power and Conservation Council data, and Forecast Council growth rates (Global Insights).

Recommendation

Because the Legislature intended the exemptions to be temporary and did not provide performance goals to guide any other assessment of performance, the Legislature should allow the sales and use tax exemptions for hog fuel to expire.

Legislation Required: No

Fiscal Impact: None