

Wood to Energy in Washington: Imperatives, Opportunities, and Obstacles to Progress

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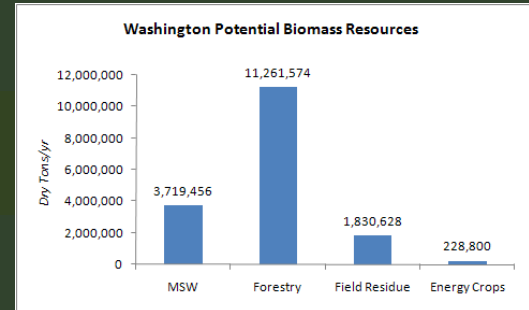
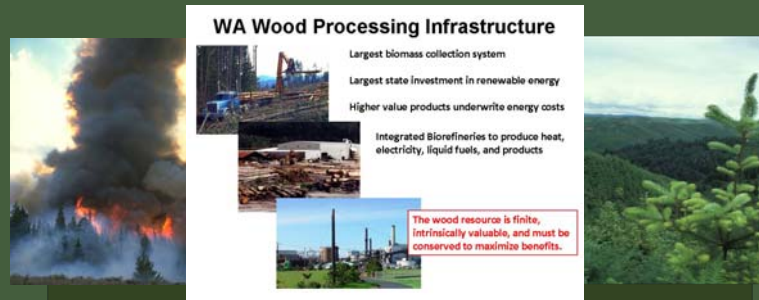
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Background

- Half of Washington is forestland and two-thirds of State potentially available biomass for renewable energy is wood.
- Wood-to-energy: Established industrial infrastructure, rural economic development, forest health, climate change mitigation.
- Woody biomass for energy is a particularly versatile renewable resource that can be used to create solid, gaseous, or liquid fuels for heat, electrical power, or transportation.
- Washington has established reduced greenhouse gas emissions and renewable energy as paramount policy priorities.

Key Study Findings

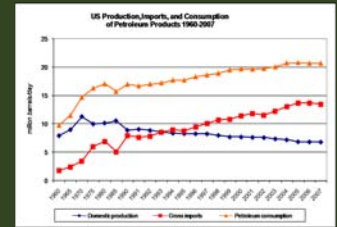
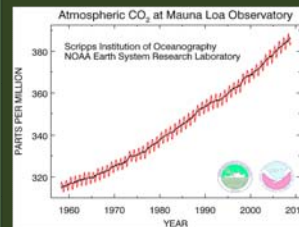
- Three fundamental imperatives compel changes in energy policy: Climate Change Mitigation, Energy Independence, and Sustainability.
- Where possible, development of renewable in-state sources of transportation fuel should be the State's highest energy priority.
- Production of renewable biofuels in Washington will necessarily require wood as a primary feedstock and efforts to reduce State greenhouse gas emissions must fully consider forests and forest resources.
- Energy recovery of liquid fuels from wood biomass will require large integrated biorefinery installations that must be able to secure sufficient resources for operations and stable markets for bioenergy outputs.
- Sustainable development of renewable energy alternatives to fossil fuels will require careful planning, resource conservation, and committed policy supports.
- In absence of integrated planning and enduring commitment to change, opportunities for wood to energy are being compromised while combustion of imported fossil fuels and associated green house gas emissions continue to increase.
- Obstacles to renewable energy development are formidable and numerous but none are insurmountable if Washington citizens choose to focus enlightened resolve.
- A cohesive strategy for renewable energy development is urgently needed for Washington.

WA Wood Processing Infrastructure

- Largest biomass collection system
- Largest state investment in renewable energy
- Higher value products underwrite energy costs
- Integrated Biorefineries to produce heat, electricity, liquid fuels, and products

The wood resource is finite, intrinsically valuable, and must be conserved to maximize benefits.



Recommendations

- A lead State agency is needed to coordinate research and policy development for the interrelated topic areas of climate change mitigation, energy independence, and sustainable management of State natural resources.
- Energy priorities must be identified to inform development of a cohesive State energy strategy.
- Washington should pursue policies for large-scale conversion of wood to biofuels rather than inefficient small-scale power projects.
- "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber, or energy from the forest, will generate the largest sustained mitigation benefit." (IPCC. 2007. Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the IPCC.).

Acknowledgments

The Washington State Department of Community Trade and Economic Development provided support for this project with funds from the 2007-2009 Washington State budget.