
**Key Recommendations**

1. Extend the Production Tax Credit equal to the closed-loop rate for any biomass to electricity facility able to document system efficiency greater than 60%.

2. As requested in the President’s FY2011 budget, appropriate full authorization of $5 million to the Community Wood Energy Program. Increase authorization of CWEP to $50 million for FY2012 and beyond.

3. In the FY2011 Interior Appropriations Bill, increase funding for the Woody Biomass Utilization Grant Program to $10 million.

4. Increase the maximum amounts per project under Section 471 of the 2007 Energy Bill to $5,000,000 or 60% of capital costs to include more capitalization assistance for district energy systems. Consider allowing the States to administer the program through the state department of energy.

5. Establish a Revolving Loan Fund to support retro-fits of institutional facilities that use petroleum-based fuels to generate thermal energy.

6. Authorize ‘Fuels for Schools and Beyond’ as a stand alone program of the U.S. Forest Service. Increase funding for the program to at least $15 million to support program delivery across the western states. At this funding level, the program would provide $1 million annually to each state to meet the financial and technical assistance needs of communities.

7. Provide a 2:1 REC multiplier for electricity generation from newly constructed biomass systems that can achieve a minimum 60% system efficiency; Include a cap for the RECs fulfilled by multipliers.

---


2 RVCC; [http://www.sustainablenorthwest.org/rvcc](http://www.sustainablenorthwest.org/rvcc)


A Vision for Woody Biomass Utilization

- Biomass harvesting and utilization are used as tools to accomplish collaboratively developed public land management objectives based in forest ecology.
- A diversified woody biomass utilization infrastructure exists in rural communities and is made up of appropriately-scaled integrated facilities that sort woody materials for their highest and best use-values to produce a suite of wood and energy products.
- The appropriate scale of these facilities and the associated forest management projects to supply them with raw material resources are determined through collaborative processes.
- At the local scale, these facilities provide a means of economic diversification and development for rural public lands communities while supporting ecological restoration, forest fuel reduction, and community wildfire protection.

For many Western rural communities, petroleum-based fuels are relied upon to generate heat for rural community facilities, residences, and businesses. In Wallowa County, Oregon, petroleum-based fuels account for over 74% of heating demand, a trend shared by many other counties across the rural West. The cost of petroleum-based fuels is directly tied to the variability of the crude oil market. Rising costs of energy have major economic impacts on small, rural communities, especially when coupled with unemployment rates higher than the national average. A transition from petroleum-based fuels to wood-based heat could result in significant energy savings for community facilities and businesses.

Current Strategy

Renewable energy legislation promotes the development of electricity and transportation fuels through market-based and regulatory incentives, such as the Federal Production Tax Credit for electricity generation and the Renewable Fuels Standard for transportation fuels. While legislation has been developed to adopt a Renewable Electricity Standard, no attempt has been made to date to encourage the generation of renewable thermal energy, either as a stand-alone piece of legislation or inclusion in other policy mechanisms. Admittedly, a similar mechanism for thermal energy is problematic, because heat is not typically metered or supplied by large utilities that can be regulated. Thus, market-based and regulatory strategies are insufficient to promote generation of renewable thermal energy. As a result:

- Current energy policy discourages the most efficient use of woody biomass (heat), and thus, the proliferation of a distributed network of highly efficient combined heat and power (CHP) facilities.
- Most community facilities (such as schools, hospitals, and municipal buildings) cannot access capital to retro-fit existing heating oil or propane boilers to utilize wood-based fuels that would result in significant energy and financial savings and reduction of petroleum consumption.
- Private equity lenders are reluctant to invest in community-scaled energy development due to the relatively small investment per project and the associated return; these projects, however, could have substantial benefits for local economies.

Recommendations

In addition, The Rural Voices for Conservation Coalition proposes the following recommendations to promote the generation of thermal energy through national renewable energy legislation:

1. Federal Production Tax Credit.

   The Federal Production Tax Credit (26 USC § 45) establishes a different rate per kilowatt hour for electricity produced from open-loop\(^5\) biomass than that produced from closed-loop biomass, wind, or solar energy. Several bills have been introduced to create parity in these rates, such as HR4374 (Herseth-Sandlin), S.1090 (Wyden) and S.870 (Lincoln). We support an alternative to this approach:

   • Extend the Production Tax Credit equal to the closed-loop rate for any biomass to electricity facility able to document system efficiency greater than 60%.

   The closed-loop tax credit rate of $0.019 per kilowatt hour should be offered to any biomass facility, new or existing, that can document system efficiency greater than 60%.

5 Open-loop biomass means unregulated or not farmed.
than 60%. Providing parity based on system efficiency would encourage the developer of a new facility, or the operator of an existing facility, to capture the “byproduct” heat and utilize it for energy. In an industrial setting, this could provide an affordable source of process heat for a manufacturing facility located within proximity. These potential synergies and associated energy savings between the industrial sector and the energy sector are largely unrealized under current energy policy.

2. Appropriation and increased authorization of existing programs.

Programs exist within the Department of Agriculture that, when appropriated, could provide the type of funding necessary for feasibility analyses and capitalization of community-scaled renewable energy projects. These projects are scaled in a manner that contributes immensely to local economies. The relatively small investments needed allow for local ownership, which would provide opportunity for local profit retention. The retro-fit of a woody biomass boiler in a community facility can serve as a means of wealth capture from the energy savings.

The Community Wood Energy Program (CWEP) was authorized in the 2008 Farm Bill at $5 million. The program will provide up to $50,000 grants to qualifying state or local governmental entities to prepare “community wood energy plans.” Once a plan has been approved, the qualified applicant may request up to 50% matching grants toward the capital cost of installing biomass energy systems. The program has never been appropriated, yet even if full funding were allocated evenly to the states, each would only receive $100,000. We recommend the following:

- As requested in the President’s FY2011 budget, appropriate full authorization of $5 million to the CWEP; and
- Increase authorization of the CWEP to $50 million for FY2012 and beyond.

The Woody Biomass Utilization Grant Program, funded under the US Forest Service’s Wildland Fire, Hazardous Fuels Line Item, is a program that supports the utilization of forest restoration byproducts from National Forest system lands.

- In the FY2011 Interior Appropriations Bill, increase funding for WBUG to $10 million.

3. Authorize programs to address capitalization of community facilities.

The 2007 Energy Bill authorized a program in Section 471 entitled ‘Energy Sustainability and Efficiency Grants’. Administered through the Department of Energy, this program seeks to implement or improve the efficiency of district energy systems, combined heat and power applications, production of energy from renewable resources, and developing sources of thermal energy. These funds would leverage investments by eligible public sector entities, including institutions of high education, local governments, municipal utilities, public school districts, or a designee of one of those entities.

Before rulemaking, Congress should:

- Increase the maximum amounts per project to $5,000,000 or 60% of capital costs to include more capitalization assistance for district energy systems.
- Enable the program to be administered through state energy departments.

During rulemaking, the Department should:

- Establish a Revolving Loan Fund to support retro-fits of institutional facilities, which currently use petroleum-based fuels, to generate thermal energy.
- Require that existing facilities incorporate energy efficiency upgrades of 20% to qualify for the program.

In addition, Congress could:

- Establish a grants program within the Department of Education to support retro-fits of elementary and secondary schools which are currently utilizing petroleum-based fuels for space heating.

The program would require that existing buildings incorporate energy efficiency upgrades of 20%. Maximum amount per facility would be $500,000 or 60% of costs.

---

**Thermal Energy Legislative Proposals**

While there is currently no comprehensive thermal energy component of national renewable energy policy, pending legislative initiatives exist that provide viable mechanisms to promote renewable thermal energy. The following is a sample of legislative proposals that include incentives and programs to promote the development and use of renewable thermal energy:

- **H.R. 4227 (Schrader)** - Provides loans through the Department of Agriculture to support the conversion of energy generation or heating and cooling systems to the use of renewable biomass and to support the installation of new equipment to use renewable biomass for such systems.

- **S.1643 (Snowe)** - Extends the current tax credit for residential biomass heating systems through 2011 and increases the maximum credit to $4,000.

- **S.1621 (Sanders)** - Establishes a Thermal Energy Efficiency Fund that would award grants for district energy, combined heat and power, and recoverable waste energy projects. This also includes biomass facilities.

- **S.1094 (Wyden)** - Provides that renewable thermal energy would get the same production tax credit as electric generation on a BTU basis.
4. Expand the Fuels for Schools and Beyond Initiative.

*Fuels for Schools and Beyond*, administered by the U.S. Forest Service in Region 1 (northeastern Washington, northern Idaho, Montana, and the national grasslands in North Dakota and northwestern South Dakota), has been a significant resource for communities in the region to explore conversion of boilers at elementary and secondary schools from petroleum-based fuels to woody biomass. Although, a similar interest pervades across the West, many communities have struggled to achieve similar results without dedicated technical assistance. This program has been funded through a congressionally designated set-aside within the Economic Action Program of the U.S. Forest Service.

- Increase funding for Fuels for Schools and Beyond to at least $15 million to support program delivery across the western states. We estimate that the program should provide $1 million annually in grant funds to meet the financial and technical assistance needs of communities.
- Congress should authorize Fuels for Schools and Beyond as a stand alone program of the U.S. Forest Service.


Although focused on providing a framework to generate renewable electricity, a Renewable Electricity Standard (RES) could be a powerful tool to encourage energy development that utilizes our resources most efficiently and provides funding to generate renewable energy in other sectors. Two recommendations are:

**REC multiplier for system efficiency**

The Renewable Energy Credit (REC) multiplier mechanism is one method to increase the efficiency of the use of woody biomass when generating electricity. Providing a multiplier for systems with high system efficiency will also promote distributed generation that can have many positive effects for local economies and will not require high cost upgrades to transmission. In the development of an RES, Congress should:

- Provide a 2:1 REC multiplier for electricity generation from newly constructed biomass systems that can achieve a minimum 60% system efficiency; Include a cap for the RECs fulfilled by multipliers.

Use compliance payments to fund retro-fits

In addition to using an REC multiplier mechanism, the use of compliance payments to fund cost-effective retrofits of heating and cooling systems currently operating on petroleum-based fuels is also recommended. Funds generated from non-compliance under an RES could be used in many ways to further promote generation of renewable energy and energy efficiency across all sectors of the energy economy. Some of these funds could be used to reduce the consumption of petroleum-based fuels used for thermal energy. A list of options includes:

- Fund the existing Community Wood Energy Program (CWEP) within the USDA.
- Fund USDA Community Facilities Grant Program. This program has traditionally been used to fund upgrades of facilities such as sewage treatment facilities, fire departments, etc. These funds could be used to capitalize a portion of a boiler or furnace retro-fit project. However, most state allocations are underfunded and oversubscribed; for example, the Oregon allocation in 2009 was only $200,000.
- Fund the Revolving Loan Fund mentioned herein for institutional facilities and the grants program for rural schools that transition from the use petroleum-based fuels to woody biomass to generate thermal energy, both described above.
Coalition Partners

Alaska
Sitka Conservation Society

Arizona
Forest Energy Corporation

California
Alliance of Forest Workers and Harvesters
Calaveras Healthy Impact Products Solutions
California Center for Rural Policy
Fourth Sector Strategies
Humboldt Area Foundation
Redwood Coast Rural Action
Sierra Forest Legacy
Trinity County Supervisor, District 3
Watershed Research and Training Center

Idaho
Framing Our Community, Inc.
Lemhi County Economic Development Association
National Association of Forest Service Retirees
Salmon Valley Stewardship
Shoshone County Board of Commissioners
Silver Valley Economic Development Corporation
Woody Biomass Utilization Partnership

Maryland
Alliance for Green Heat
Communities Committee

Minnesota
League of Rural Voters

Montana
Northwest Connections
Restore Montana
Swan Ecosystem Center
Vander Meer’s Wildland Conservation Services

Nebraska
Native American Public Telecommunications, Inc.

New Hampshire
Northern Forest Center

New Mexico
Center for the Education and Study of Diverse Populations
Gila Woodnet
Forest Guild
Restoration Technologies
Santa Clara Woodworks
SBS Wood Shavings

Oregon
A3 Energy Partners
Applegate Partnership and Watershed Council
Central Oregon Intergovernmental Council

Ecosystem Workforce Program
Hells Canyon Preservation Council
Integrated Biomass Resources LLC
Lake County Resources Initiative
Marcus Kauffman and Associates
Oregon Rural Action
Renewable Energy Solutions
Rural Development Initiatives
Siouxsse Institute
South Central Oregon Economic Development District
Southern Oregon Small Diameter Collaborative
Sustainable Northwest
Wallowa Resources

Vermont
Biomass Energy Resource Center

Washington
Mt. Adams Resource Stewards
Skamania County Commissioners

Washington D.C.
American Forests
Pinchot Institute for Conservation

West Virginia
Center for Economic Options

RVCC Issue Experts

Forest Guild
Mike DeBonis
505-983-8992 x14
mike@forestguild.org

Sustainable Northwest
Chad Davis
503-221-6911 x110
cdavis@sustainablenorthwest.org

Rural Voices for Conservation Coalition

A policy initiative of Sustainable Northwest

Learn more:
503-221-6911
www.sustainablenorthwest.org/rvcc