



Western Forestry Leadership Coalition Issue Brief

Bioenergy – A Western Update

September 8, 2009

As Congress moves into their fall session for 2009, it is timely for us to review the current legislation and activities of the Council of Western State Foresters and the WFLC. This issue brief and others can be found at http://www.wfleweb.org/infomaterials/issue_briefs.php

Bioenergy Legislative Update

Climate change and energy legislation are moving forward in the House and Senate in the form of either a stand-alone Renewable Electricity Standard (RES) (Bingaman S.1462) that could be adopted as part of a renewable energy legislation, or as part of a comprehensive Climate Change Bill (Waxman-Markey H.R. 2452). The Senate climate change bill's introduction (Boxer-Kerry) has been delayed until later in September when the debate in the Senate will resume. One of the primary challenges has been the crafting of a definition of "renewable biomass" that is broad enough to reach the goals of both the Renewable Fuels Standard (RFS) and the RES while providing workable restrictions on the types of eligible feedstocks and the lands where they grow. There are currently at least three different definitions for "renewable biomass" passed into law, and two additional definitions in the legislation that is currently working its way through the House and Senate. A side-by-side comparison of the definitions is provided in the two attachments.

Bioenergy Rulemaking

Renewable Fuels Standard: On May 26, 2009 the EPA released draft regulations to implement the Renewable Fuels Standard that was passed as part of the Energy Independence and Security Act of 2007. The public comment period ends September 27, 2009. A comprehensive scientific peer review of the proposed life-cycle greenhouse gas methodology and indirect land use was posted on the EPA's RFS website on August 7, 2009. The Council of Western State Foresters (CWSF) is drafting comments on the proposed regulations. For more information visit: <http://www.epa.gov/otaq/renewablefuels/index.htm>

The Biomass Crop Assistance Program (BCAP) provides financial assistance to producers or entities that deliver eligible biomass material to designated biomass conversion facilities for use as heat, power, biobased products or biofuels. Initial assistance will be for collection, harvest, and storage costs associated with the delivery of eligible materials. For a listing of qualified conversion facilities and how to apply for the program please visit <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=ener&topic=bcap>. The CWSF submitted comments on the BCAP program during the public comment period available at http://www.wflccenter.org/infomaterials/letters_of_comment.php

Bioenergy Technology

Transportation Biofuels in the United States: An Update, August 2009. The Minnesota Project published this report as a tool to provide an overview of the current status of major developments in the biofuels industry. The report highlights recent changes in biofuels production processes, biomass development, and federal level policies such as the Biomass Crop Assistance Program. The

report also reviews unavoidable issues including the food versus fuel debate and the difficult indirect land use change debate.

http://www.mnproject.org/pdf/TMP_Transportation-Biofuels-Update_Aug09.pdf

Co-Firing Biomass with Coal: The discussion of a national renewable electricity standard has generated considerable interest by utilities in the potential to co-fire biomass with coal in existing facilities. The EPA and NREL publications provide useful information about emissions, technology, and ash disposal considerations.

EPA: <http://www.epa.gov/etv/pubs/600etv08018s.pdf> ,
<http://www.epa.gov/etv/pubs/600etv08017.pdf>

NREL: <http://www.nrel.gov/docs/fy00osti/28009.pdf>

Biomass Harvesting: The Department of Energy is providing funding for integrated harvesting systems. \$21 million will be made available for five projects that will develop supply systems to handle and deliver high tonnage biomass feedstocks for cellulosic biofuels production. Only two involve woody biomass. Details are available at <http://www.energy.gov/news2009/7848.htm>. The two forestry projects are:

- Auburn University (up to \$4.9 million) will work with leading producers of forest biomass for energy in Alabama to design and demonstrate a high productivity system to harvest, process, and transport woody biomass from southern pine plantations.
- The SUNY College of Environmental Science and Forestry (up to \$1.3 million) plans to build on existing collaborative efforts among the project partners to develop, test, and deploy a single-pass cut-and-chip harvester combined with a handling, transportation, and storage system that is effective and efficient in a range of different short-rotation wood crops production systems throughout North America.

U.S. Forest Service Biomass Grants

On August 26, 2009 the Secretary of Agriculture announced more than \$4.2 million in grants to 17 small businesses and community groups to develop innovative uses for woody biomass from hazardous fuel reduction projects on the national forests. Uses of this woody biomass include renewable energy and new products. The investments will help further the goal of conservation, management, and restoration of these natural treasures, which will reduce catastrophic fires, disease and pests that have all led to declining forest health in recent decades. (See the following page for details of all recently funded grants by state.) The Woody Biomass Grants Program for 2010 will be announced in the Federal Register in the next few weeks, with pre-proposals due on November 20, 2009.

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Summary of US Forest Service Biomass and Bioenergy Grants

The Forest Service's State and Private Forestry, Technology Marketing Unit, at the agency's Forest Products Laboratory in Madison, Wisconsin, will administer the grant program. The recipients were chosen from 109 applications and were awarded approximately \$250,000 each. The following are the 2009 woody biomass utilization grantees. For more information on FPL grants please visit: <http://www.fpl.fs.fed.us/partners/tmu/tmugrants.shtml>

Rover Shavings & Post, Inc., Rover, AR
Pure Wood Products, LLC, Pinetop, AZ
California Wood Shavings, Inc., Jamestown, CA
CLT Logging, Inc., Grenada, CA
Franklin Logging, Inc., Bella Vista, CA
Scott Dunn Logging, Fortuna, CA
Trinity River Lumber Co., Weaverville, CA
Independent Log Company, Alamosa, CO
Intermountain Resources, LLC, Montrose, CO

Rogue Res., Inc./More Lumber, Milner, CO
Idaho Forest Group, LLC, Athol, ID
Eagle Stud Mill, Inc., Missoula, MT
Eureka Pellet Mills, Inc., Missoula, MT
Southwest Piñon, Inc., Datil, NM
Community Smallwood Solutions, Wallowa, OR
Marubeni Sustainable Energy, Lakeview, OR
Olson Brothers Enterprises, LLC, Crivitz, WI

An additional \$2.97 million was awarded for twelve biomass and bioenergy projects through the Woody Biomass Grants Program at FPL and funded by American Recovery and Reinvestment Act (ARRA).

NORESCO, LLC (Project in Florence, CO), CA
Colorado Springs Utilities, CO
Confluence Energy, LLC, CO
Boulder County Parks, CO
Dakota Logging, LLC, AZ
APC Pallets, AZ

Treasure Valley Forest Products, ID
Renewable Energy Providers, Inc, CA
T2, Inc., OR
Vaagen Brothers Lumber, Inc., WA
Bellerud Energy, LLC (Project in Pine River, Minnesota), ND
Bois Forte Development Corporation, MN

Finally, an additional \$48 million in Wood to Energy and Biomass Projects were funded by ARRA directly through the USFS Regions, Stations, and Area. Totals for Western states are listed below. The full list of ARRA projects by state is at www.recovery.gov.

Arizona, \$1.9 million
California, \$4.7 million
Colorado, \$1.0 million
Idaho, \$9.75 million

North Dakota, \$237,000
New Mexico, \$2.5 million
Nevada, \$620,000
Oregon, \$1.86 million
Washington, \$4.25 million

Please see the following attachments of legislation comparisons.

**Side-by-Side
Language Passed in Different Laws for
Renewable Biomass Definitions as of August 2009**

<p style="text-align: center;">PL 109-58 Energy Policy Act of 2005 (42 USC 15855)</p>	<p style="text-align: center;">PL 110-140 Energy Independence and Security Act of 2007 Title II sec. 201 (1) (I) (Renewable Fuels Standard)</p>	<p style="text-align: center;">P.L. 110-234 2008 Farm Bill Title IX (Energy) – Definitions</p>
<p>15855. GRANTS TO IMPROVE THE COMMERCIAL VALUE OF FOREST BIOMASS FOR ELECTRIC ENERGY, USEFUL HEAT, TRANSPORTATION FUELS, AND OTHER COMMERCIAL PURPOSES</p> <p>(a) Definitions In this section:</p> <p>(1) Biomass The term “biomass” means nonmerchantable materials or precommercial thinnings that are byproducts of preventive treatments, such as trees, wood, brush, thinnings, chips, and slash, that are removed—</p> <ul style="list-style-type: none"> (A) to reduce hazardous fuels; (B) to reduce or contain disease or insect infestation; or (C) to restore forest health. <p>(2) Indian Tribe</p> <p>(3) Nonmerchantable For purposes of subsection (b), the term “nonmerchantable” means that portion of the byproducts of preventive treatments that would not otherwise be used for higher value products.</p>	<p>(I) RENEWABLE BIOMASS.—The term ‘renewable biomass’ means each of the following:</p> <ul style="list-style-type: none"> (i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to the enactment of this sentence that is either actively managed or fallow, and nonforested. (ii) Planted trees and tree residue from actively managed tree plantations on non-federal land cleared at any time prior to enactment of this sentence, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States. (iii) Animal waste material and animal byproducts. (iv) Slash and pre-commercial thinnings that are from non-federal forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest. 	<p>(12) RENEWABLE BIOMASS- The term ‘renewable biomass’ means--</p> <p>(A) materials, pre-commercial thinnings, or removed exotic species that--</p> <ul style="list-style-type: none"> (i) are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed-- <ul style="list-style-type: none"> (I) to reduce hazardous fuels; (II) to reduce or contain disease or insect infestation; or (III) to restore ecosystem health; (ii) would not otherwise be used for higher-value products; and (iii) are harvested from National Forest System land or public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), in accordance with-- <ul style="list-style-type: none"> (I) Federal and State law; (II) applicable land management plans; and (III) the requirements for old-growth maintenance, restoration, and management direction of paragraphs (2), (3), and (4) of subsection (e) of section 102 of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6512) and the requirements for large-tree retention of subsection (f) of that section; or <p>(B) any organic matter that is available on a renewable or recurring basis from non-Federal land</p>

	<p>(v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.</p> <p>(vi) Algae.</p> <p>(vii) Separated yard waste or food waste, including recycled cooking and trap grease.</p>	<p>or land belonging to an Indian or Indian tribe that is held in trust by the United States or subject to a restriction against alienation imposed by the United States, including--</p> <p>(i) renewable plant material, including (I) feed grains; (II) other agricultural commodities; (III) other plants and trees; and (IV) algae; and</p> <p>(ii) waste material, including-- (I) crop residue; (II) other vegetative waste material (including wood waste and wood residues); (III) animal waste and byproducts (including fats, oils, greases, and manure); (IV) construction waste; and (V) food waste and yard waste.</p>
<p>“Original” legislative definition</p>	<p>Exclusionary definition.</p> <p>Feedstocks that are <u>ineligible</u>, include:</p> <ul style="list-style-type: none"> • thinning materials and woody residues from federal forests; • most woody material from non-plantation, native or naturally occurring forest land; • a wide array of feedstocks from municipal solid waste. <p>THIS IS A REGULATORY DEFINITION; namely EPA is likely to require producers of biofuels to certify that their sources of woody biomass meet the definitional requirements.</p>	<ul style="list-style-type: none"> •Broadly inclusive of all biomass material from private & Tribal lands. •Material from federal lands are only those removed to mitigate fuel hazards, insect and disease outbreaks, and to effect forest restoration. •Further requirements for program eligibility are contained in each relevant Farm Bill section, i.e. Biomass Crop Assistance Program, for example, would require forest management plans for private lands. <p>THIS IS A PARTICIPATORY DEFINITION; individual landowners or harvesters apply to the Sec. AG. for inclusion in the program. Sec. AG certifies requirements are met for each applicant.</p>

**Side-by-Side
House and Senate language in progress for
Renewable Biomass Definitions as of August 2009**

Senate – S.1462 American Clean Energy Leadership Act as introduced to the Senate Energy and Natural Resources July 26, 2009	House – H.R. 2454 American Clean Energy and Security Act of 2009 as passed by the House on June 26, 2009
<p>‘ ‘ (b) DEFINITIONS.—In this section:</p> <p>“(1) BIOMASS.—The term ‘biomass’ means the following types of nonhazardous organic materials:</p> <p>“(A) Residues and byproducts from milled logs.</p> <p>“(B) Wood, paper products that are not commonly recyclable, and vegetation (including trees and trimmings, yard waste, pallets, rail road ties, crates, and solid-wood manufacturing and construction debris), if diverted from or separated from other waste out of a municipal waste stream.</p> <p>“(C) Hazard trees, trimmings, and brush that are necessary to remove in order to maintain a utility right-of-way or a public road (not including any unpaved road within Federal land).</p> <p>“(D) Trees, trimmings, and brush harvested from the immediate vicinity of any building, campground, or other structure in wildfire prone areas to reduce the risk to the structure or campground or to human life from wildfires.</p> <p>“(E) Invasive species (as defined in Executive Order 13112 (42 U.S.C. 4321 note; relating to invasive species)) removed to control or eradicate the invasive species.</p> <p>“(F) Animal waste and animal byproducts (including biogas and any solid produced by micro-organisms).</p> <p>“(G) Food waste.</p> <p>“(H) Algae.</p> <p>“(I) Slash, brush, trees, and other vegetation that is harvested from non-Federal land or Indian land—</p> <p>“(i) that is, at the time of harvest—</p>	<p>“(16) RENEWABLE BIOMASS.—The term ‘renewable biomass’ means any of the following:</p> <p>“(A) Plant material, including waste material, harvested or collected from actively managed agricultural land that was in cultivation, cleared, or fallow and nonforested on January 19 1, 2009.</p> <p>“(B) Plant material, including waste material, harvested or collected from pastureland that was nonforested on January 1, 2009.</p> <p>“(C) Nonhazardous vegetative matter derived from waste, including separated yard waste, landscape right-of-way trimmings, construction and demolition debris or food waste (but not municipal solid waste, recyclable waste paper, painted, treated or pressurized wood, or wood contaminated with plastic or metals).</p> <p>“(D) Animal waste or animal byproducts, including products of animal waste digesters.</p> <p>“(E) Algae.</p> <p>“(F) Trees, brush, slash, residues, or any other vegetative matter removed from within 600 feet of any building, campground, or route designated for evacuation by a public official with responsibility for emergency preparedness, or from within 300 feet of a paved road, electric transmission line, utility tower, or water supply line.</p> <p>“(G) Residues from or byproducts of milled logs.</p> <p>“(H) Any of the following removed from forested land that is not Federal and is not high conservation priority land:</p> <p>“(i) Trees, brush, slash, residues,</p>

<p>“(I) naturally regenerated forest land; “(II) forest land that was planted for the purpose of restoring land to a naturally regenerated forest; or “(III) if harvested in quantities and through practices that maintain or contribute toward the restoration of the species, ecological systems, and ecological communities for which the conservation forest land was identified, conservation forest land; or “(ii) that is— “(I) at the time of harvest, planted forest land; and “(II) on the date of enactment of this section, cropland (including fallow land), pastureland, or planted forest land. “(J) Crops, crop byproducts, and crop residues from non-Federal land or Indian land that is— “(i) at the time of harvest, not forest land; and “(ii) on the date of enactment of this section— “(I) cropland (including fallow land and not including planted forest land); or “(II) pastureland. “(K) If harvested from Federal land in accordance with applicable law and land management plans and in quantities and through practices that maintain or contribute toward the restoration of ecological sustainability— “(i) slash; and “(ii) brush and trees that are byproducts of ecological restoration, disease or insect infestation control, or hazardous fuels reduction treatments and— “(I) are from stands that— “(aa) were killed by an insect or disease epidemic or a natural disaster; and “(bb) do not meet the utilization standards for sawtimber; or “(II) do not exceed the minimum size standards for sawtimber.</p>	<p>interplanted energy crops, or any other vegetative matter removed from an actively managed tree plantation established— “(I) prior to January 1, 2009; or “(II) on land that, as of January 1, 2009, was cultivated or fallow and non-forested. “(ii) Trees, logging residue, thinnings, cull trees, pulpwood, and brush removed from naturally-regenerated forests or other non-plantation forests, including for the purposes of hazardous fuel reduction or preventative treatment for reducing or containing insect or disease infestation. “(iii) Logging residue, thinnings, cull trees, pulpwood, brush and species that are non-native and noxious, from stands that were planted and managed after January 1, 2009, to restore or maintain native forest types. “(iv) Dead or severely damaged trees removed within 5 years of fire, blowdown, or other natural disaster, and badly infested trees. “(I) Materials, pre-commercial thinnings, or removed invasive species from National Forest System land and public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), including those that are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed as part of a federally recognized timber sale, or that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health, and that are— “(i) not from components of the National Wilderness Preservation System, Wilderness Study Areas, Inventoried Roadless Areas, old growth or late successional stands, components of the National Landscape Conservation System, National Monuments, National Conservation Areas, Designated Primitive Areas, or Wild and Scenic Rivers corridors; “(ii) harvested in environmentally sustainable quantities, as determined by the</p>
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<p>“(2) CONSERVATION FOREST LAND.—</p> <p>“(A) IN GENERAL.—The term ‘conservation forest land’ means forest land that contains a species, or includes all or part of an ecological system or community, that is at risk of extinction or elimination within a State or globally.</p> <p>“(B) IDENTIFICATION.—Conservation forest land shall be identified based on the best available science and data by any of—</p> <p>“(i) the State in which the land is located, unless the land is under the jurisdiction of an Indian tribe;</p> <p>“(ii) an Indian tribe with jurisdiction over the land;</p> <p>or</p> <p>“(iii) in consultation with the State in which the land is located or the Indian tribe with jurisdiction over the land—</p> <p>“(I) the Secretary of Agriculture;</p> <p>or</p> <p>“(II) the Secretary of the Interior.</p> <p>“(C) EXCEPTIONS.—A tract of conservation forest land may not be removed from conservation forest land status under this section as a result of land management practices on the tract that—</p> <p>“(i) occurred on or after the date of enactment of this subparagraph; and</p> <p>“(ii) contributed toward the elimination of the species, or all or part of an ecological system or ecological community, for which the land was identified as conservation forest land.</p> <p>“(3) FEDERAL LAND.—</p> <p>“(A) IN GENERAL.—The term ‘Federal land’ means—</p> <p>“(i) National Forest System land; and</p> <p>“(ii) public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)).</p> <p>“(B) EXCLUSIONS.—</p> <p>“(i) IN GENERAL.—The term ‘Federal land’ does not include—</p> <p>“(I) any area designated by Congress to be administered for conservation purposes; or</p> <p>“(II) a National Monument proclaimed by the President.</p> <p>“(ii) OLD GROWTH OR LATE SUCCESSIONAL FOREST STANDS.—</p> <p>The term ‘Federal land’ does not include an old growth or late successional forest stand unless</p>	<p>appropriate Federal land manager; and</p> <p>“(iii) harvested in accordance with Federal and State law and applicable land management plans.</p>
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<p>biomass from the stand does not exceed the minimum size standards for sawtimber and is a byproduct of an ecological restoration treatment that fully maintains, or contributes toward the restoration of, the structure and composition of an old growth forest stand in accordance with the old growth conditions characteristic of the forest type and retains the large trees contributing to old growth structure.</p>	
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