

Oregon Forest Biomass Energy Opportunity Map

The Oregon Forest Resources Institute (OFRI) contracted with Mason, Bruce and Girard, Inc. (MBG) to create this *Forest Biomass Energy Opportunity Map* as a follow on to the OFRI-funded, MBG-led study on *Biomass Energy and Biofuels from Oregon's Forests*.

The *Forest Biomass Energy Opportunity Map* shows:

- Oregon Forest Biomass Supply
- Oregon Forest Biomass Facility Locations
- Oregon Power Transmission Line Locations
- Oregon Federal and State Highway Locations

Oregon Forest Biomass Supply is taken from the OFRI/MBG study. The map shows net biomass supply that can be recovered through a program of forest thinning to reduce the risk of uncharacteristically intense wildfires in eastern and interior southwest Oregon. The map indicates 160,000 acre E-map hexagons colored in different shades of green to show the range of Bone Dry Tons (BDT) of biomass available. Classes include:

- 0 – 45,000 BDT
- 45,001 – 100,000 BDT
- 100,001 – 200,000 BDT
- 200,001 – 300,000 BDT
- 300,001 – 500,000 BDT
- 500,001 – 1,000,000 BDT
- 1,000,000 + BDT

Note: 100,000 BDT/year is enough biomass fuel to generate about 15 megawatts (MW) of electricity for a year, depending on power plant design and efficiency.

Oregon Biomass Facility Locations are taken from an MBG database, using data from the Northwest Power and Conservation Council. The map shows the location of 55 facilities currently using biomass for steam production listed by:

- Fuel Type – Wood Fiber Solids or Pulping Liquor
- Cogeneration of Electricity or no cogeneration (12 of 55 facilities do cogeneration)
- Fuel Consumption is listed in BDT/year

Oregon Power Transmission Line Locations are taken from the National Renewable Energy Lab (NREL) website. Transmission line capacity is classified as:

- 115 kilovolts
- 138 – 161 – 230 kilovolts
- 345 – 500 kilovolts

The *Forest Biomass Energy Opportunity Map* also shows:

- County boundaries
- Locations of major Oregon cities
- Locations of federal and state highways

In reviewing this map, there are some obvious opportunities for expansion of biomass energy in Oregon. These are areas that appear to have good biomass supplies, existing biomass facilities that may be capable of expansion, excellent electric transmission opportunities, and excellent transportation. It is no surprise that many of these locations are already under consideration.

Identified forest biomass energy opportunities include:

- Grants Pass/Cave Junction
- Medford/White City
- Glendale/Riddle
- Roseburg/Glide/Sutherlin
- Klamath Falls
- Lakeview
- Gilchrist
- Warm Springs
- Canyon City/Prairie City/John Day
- LaGrande/Elgin/Walloa

A small-scale, low-resolution copy of the *Forest Biomass Energy Opportunity Map* is included in this document. Full sized (36" x 45") high resolution prints of the map are available from OFRI.

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Mill ID#	Mill Name	Mill Type	City	Fuel Consumption (BDT/Year)	Fuel Source	Cogen-eration
17	Biomass One, L.P.	Power Plant	White City	111,895	WFS	✓
47	Unquag Lumber Co.	Sawmill	Ollard	7,135	WFS	
96	Pacific Wood Laminates	LVL	Brookings	26,132	WFS	
99	Roseburg Forest Products	Plywood	Coquille	34,576	WFS	
102	Johnson Lumber Co. - CoGen II	Sawmill	Riddle	82,752	WFS	✓
104	Gide Lumber Products Co.	Sawmill	Glide	6,220	WFS	
112	Rough & Ready Lumber Co.	Sawmill	Cave Junction	3,250	WFS	
117	Fremont Sawmill	Sawmill	Lakeview	7,655	WFS	
119	Interfor Pacific Inc.	Sawmill	Gilchrist	79,180	WFS	✓
126	Boise Cascade - Medford	Sawmill	Medford	101,768	WFS	✓
133	Murphy Plywood	Plywood	Sutherlin	9,700	WFS	
137	Superior Lumber Co.	Sawmill	Glendale	27,777	WFS	
138	Panel Products, LLC	Veneer	Rogue River	6,648	WFS	
140	Boise Cascade	LVL	White City	20,042	WFS	
141	Columbia Plywood	Plywood	Klamath Falls	15,791	WFS	
142	Sun Studs LLC	Sawmill	Roseburg	13,641	WFS	
356	Blue Mountain Forest Products	Sawmill	Pendleton	3,702	WFS	
357	Boise Cascade - Elgin	Plywood	Elgin	83,055	WFS	
361	Boise Cascade - La Grande	Sawmill	La Grande	24,400	WFS	
363	Boise Cascade - Willamina Veneer	Veneer	Willamina	8,639	WFS	
367	Weyerhaeuser - Warrenton Sawmill	Sawmill	Warrenton	18,935	WFS	
387	Fort Hill Lumber Co.	Sawmill	Grande Ronde	1,188	WFS	
388	Frank Lumber Co., Inc.	Sawmill	Mill City	9,130	WFS	
389	Freres Lumber Co.	Sawmill	Lyons	33,881	WFS	
394	Grant Western Lumber	Sawmill	John Day	7,695	WFS	
399	Hull-Oakes Lumber Co.	Sawmill	Monroe	1,668	WFS	
405	Melheur Lumber Company	Sawmill	John Day	4,026	WFS	
417	Johnson Lumber Co. - CoGen I	Sawmill	Prairie City	96,695	WFS	✓
421	Wallowa Forest Products	Sawmill	Wallowa	7,143	WFS	
422	Rosboro Lumber Company	Plywood	Springfield	no data	no data	
424	Roseburg Forest Products	Plywood	Riddle	87,966	WFS	
431	McKenzie Forest Products	Plywood	Springfield	21,150	WFS	
435	Stimson Lumber Co.	Sawmill	Forest Grove	63,826	WFS	
444	Tillamook Lumber Co.	Sawmill	Tillamook	29,398	WFS	
448	Warm Springs Forest Products Ind.	Sawmill	Warm Springs	35,344	WFS	✓
451	Weyerhaeuser - Coburg Sawmill	Sawmill	Eugene	56,938	WFS	
454	Weyerhaeuser - Foster Plywood	Plywood	Sweet Home	11,579	WFS	
458	Weyerhaeuser - Springfield Plywood	Plywood	Springfield	12,290	WFS	
575	South Coast Lumber Co	Chipmill	Brookings	4,680	WFS	
592	Blue Heron Paper Co.	Paper	Oregon City	594	WFS	
594	Fort James Wauna Mill	Paper	Clatskanie	491,597	PL	
595	Boise Cascade - St. Helens	Paper	St. Helens	577,500	PL	
597	Weyerhaeuser - Springfield	Paper	Springfield	469,148	PL	✓
598	Georgia-Pacific West, Inc.	Paper	Toledo	470,721	PL	
599	Weyerhaeuser - Albany Paper Mill	Paper	Albany	287,635	PL	✓
600	Pope & Talbot	Pulp	Halsey	400,428	PL	
604	SP Newsprint	Paper	Newberg	119,880	WFS	✓
635	Jeld-Wen Inc. - Thomas Lumber Co.	Sawmill	Klamath Falls	19,431	WFS	
645	Roseburg Forest Products	Plywood	Roseburg	137,577	WFS	✓
670	SierraPine Ltd	Particleboard	Springfield	5,749	WFS	
701	Elk River Enterprises, Inc.	Sawmill	Swisshome	1,680	WFS	
702	Heppner Power Plant	Power Plant	Boardman	12,981	WFS	✓
703	Oregon Industrial Lumber Products	Sawmill	Springfield	3,400	WFS	
704	Fort James Wauna Mill	Paper	Clatskanie	65,097	WFS	✓
705	Georgia-Pacific West, Inc.	Paper	Toledo	11,888	WFS	

*WFS = Wood Fiber Solids PL = Pulp Liquor LVL = Laminated Veneer Lumber BDT = Bone Dry Tons

Legend

Oregon Biomass Facilities

- Wood Fiber Solids
- Wood Fiber Solids / Cogeneration
- Pulping Liquor
- Pulping Liquor / Cogeneration

Net Biomass Supply (Bone Dry Tons)

- 0 - 45,000
- 45,001 - 100,000
- 100,001 - 200,000
- 200,001 - 300,000
- 300,001 - 500,000
- 500,001 - 1,000,000
- 1,000,001+

Transmission Lines (Kilovolts)

- 115 KV
- 138 - 161 - 230 KV
- 345 - 500 KV

- Counties in Study
- Other Counties