



## Harvesting Clean Energy eNews Bulletin

*Working with Northwest farmers, ranchers and rural communities to generate clean energy*

March 2005 – Newsletter #9

As you'll see from the extended length of this edition, the past few months have seen a frenzy of rural clean energy development in the Northwest! We begin with a focus on Montana, where this year's **Harvesting Clean Energy Conference** recently took place. We also summarize the many proposals now pending before the four Northwest legislatures. Look for an exciting announcement about the Harvesting Clean Energy website in the next edition...

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### Montana Roundup

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Frozen lakes and rivers, and daytime high temperatures over 60 degrees greeted more than 300 attendees at the Fifth Harvesting Clean Energy Conference in Great Falls in late January. The unusual weather, with temperature extremes spanning more than 100 degrees in five days, provided an appropriate background for discussions on clean energy policies and opportunities for rural economic development. With strong participation by rural landowners, tribal leaders, and agricultural groups, this year's event was especially productive. See our special [Conference Report](#) for more details, including comments by keynote speakers and elected officials. Most conference presentations are also available through the online version of the [agenda](#).

#### Schweitzer Sets Aggressive Agenda

Montana Gov. Brian Schweitzer's strong support for clean energy development was a continual topic of conversation at the Harvesting conference. Last July, candidate Schweitzer unveiled a [renewable energy plan](#) calling for state utilities to buy at least 10% of their electricity from wind power by 2010. He said Montana should remain competitive with neighboring states, and create a market for wind power by guaranteeing private wind generators the right to sell electricity to utilities at the average power price. "Right now, in Eastern Montana farm country, we are letting dollars blow away," Schweitzer said.

Since the November election, he has continued to emphasize a wide variety of new energy opportunities, particularly wind energy and biofuels production. Plans are already underway for an [energy summit](#) in Billings this September that would bring in world-class specialists. "We're going to chart a direction that puts Montana at the head of the class," Schweitzer told his directors and top staff at their first Cabinet meeting.

#### Legislative Initiatives Abound

As the *Great Falls Tribune* noted in a January 17 [editorial](#), "Montana lags its neighbors in developing green and clean power (because of) a paucity of people (consumers), distance to major markets, lack of transmission capacity, and laws that weren't entirely favorable. Lawmakers can't do much about our distance to major markets, but they are attempting to deal with the other factors through a range of legislation."

Legislators agreed, introducing more than 85 energy-related bills. Noted the Tribune, "If even some of those bills succeed, electricity is likely to be a spark in the economic resurgence of north central Montana and many other parts of the state." Visit the Montana legislature's bill tracking [website](#) to determine the status of various legislative proposals. In addition to the biofuels legislation discussed below, the following clean proposals are still considered "alive" as of March 17:

- [SB 415](#) – The "Montana Renewable Power Production & Rural Economic Development Act" requires regulated utilities and competitive electricity suppliers to procure eligible renewables for 5% of retail sales by 2008, 10% by 2010 and 15% by 2015. Cooperative utilities would be exempt. Considered by many to be the most significant clean energy proposal before the legislature, the bill has already garnered the [editorial support](#) of the *Great Falls Tribune*.
- [SB 365](#) – Extends the current Universal System Benefits program through 2009. Numerous other bills were submitted that altered USB funding levels, timelines and participants, but this appears to be the sole survivor.

- [SB 50](#) – Extends the state’s alternative energy revolving loan program to local government, universities and nonprofits, increases the loan ceiling to \$40,000, and extends the repayment term to 10 years.
- [SB 83](#) – Extends the state’s renewable resource grants and loans program to include renewable energy sources.
- [SJ 17](#) – This joint resolution encourages renewable energy development through immediate expansion and extension of the federal Renewable Energy Production Incentive and Production Tax Credit, and authorization of tradable tax credits.
- [SB 115](#) – Lowers the property tax rate for commercial wind farms while adding a local impact fee on construction costs for three years. Supporters [said](#) the legislation would spur wind development, and associated economic development. “There is tremendous opportunity in wind generation in Montana,” said sponsoring Sen. Jon Tester (D-Big Sandy). “We have yet to take much advantage of that.”

## Biofuels Take Center Stage

Biofuels production, particularly ethanol, has been one of Schweitzer’s highest legislative priorities. “You will see us pass an ethanol bill that will create a market for ethanol produced in Montana, which will spur the construction of ethanol plants in Montana,” he [announced](#) at the end of December. A January 2005 Montana Department of Environmental Quality [report](#) on the potential economic effects of ethanol predicted that an ethanol plant could provide dozens of high-paying jobs, significant economic impacts at the local level and a one-time economic boost to a community during the construction phase.

Taking the first step towards attracting ethanol producers, legislators from both sides of the aisle [introduced legislation](#) requiring a 10% ethanol blend in gasoline by 2006. The bill seen as mostly likely to succeed, [SB 293](#) has already [cleared](#) the Senate. A similar measure, [HB 464](#), [stalled](#) last month in the House Agriculture Committee. With the Senate version now in hand, the House committee has scheduled a hearing for March 22.

Schweitzer has said he will not support a bill unless it requires that all ethanol fuel used in the state come from local producers. Such a strict requirement would likely run afoul of interstate commerce concerns, so the current version of SB 293 has the ethanol requirement kick-in within one year after in-state production reaches 55 mgly (roughly equal to 10% of current in-state gasoline consumption).

The bill would also change how the state allocates \$6 million in existing incentives for ethanol plant construction. At present the maximum per-plant grant is capped at \$3 million. The proposal would split the pot three ways instead of two. Agri-Technology has long proposed a 100 mgly plant near Great Falls, while Rocky Mountain Ethanol has announced plans for a 60 mgly facility near Hardin. It’s estimated another half-dozen business plans are waiting in the wings.

One related proposal, [HB 674](#), would provide one-time tax incentives to refineries (\$2,500/ terminal) for converting terminal facilities to allow for blending gasoline with ethanol. Retailers that convert gasoline tanks to ethanol would receive a one-time tax credit of \$300 per year. A second bill, [SB 68](#), exempts ethanol production facilities from property tax during construction and for the first ten years of operation.

Biodiesel advocates have focused their attention on [HB 756](#), a production incentive proposal that, among other things, would offer a tax credit of up to \$500,000 for investments in property to crush oilseeds for biodiesel production (up to 25% of depreciable property) and provide 10¢/gallon tax credits for biodiesel. A new bill separating biodiesel from ethanol incentives, and adding new biodiesel-specific incentives (e.g. road tax exemption), may yet be submitted.

Apparently dead for this session are proposals to use motor vehicle tax from the Montana Department of Transportation for an ethanol education board, and an effort to establish uniform net metering standards for power generating facilities, including those burning biofuels.

## Treasure State Wind Projects Proliferate

Ranked fifth in the nation in wind power potential but lagging in power generation, Montana is about to catch up with surrounding states like Wyoming and North Dakota. “This year is going to be a very big year for wind all over the place, and that’s going to include Montana,” [said](#) Ron Lehr, the western representative for the American Wind Energy Association. “Montana has a fantastic wind resource,” he said. “The question is how do you get that to the load.” Other challenges include the need for new transmission lines or line improvements, and, as NorthWestern Energy emerges from bankruptcy, financial stability for power purchase agreements.

While wind-related legislative proposals have generated their own [debates](#) around the capital, the *Helena Independent Record* celebrated the impending explosion of wind energy in the state in a recent [editorial](#). “Although people differ as to whether giant wind turbines are elegant structures that enhance the landscape or are a blot on the natural view, there’s no question that they symbolize a far less polluted future.” The paper notes, “Even considering pollution from the manufacturing of wind turbines and building wind plants, wind energy’s emissions are on the order

of 1% of a coal-fired power plant or 2% of a gas-fired plant.” Their conclusion, “It’s good to see that Montana finally is beginning to take advantage of a natural resource that even Americans can never deplete.”

## Planning Proceeds on Commercial Wind Farms

The high winds along the Rocky Mountain Front Range have received the most of the attention from energy prospectors, but wind advocates are exploring many other areas, including the Blackfeet and Fort Peck reservations. Wind Hunter LLC, a Texas developer, has [applied](#) to the state Department of Environmental Quality to build the largest wind farm in the state, a 300-500 MW installation about 30 miles northwest of Glasgow. Wind Hunter has leased 10,000 acres of state, federal and private land for the project, which includes a 33- to 40-mile transmission line and substation. They hope to have the first phase of the project up and running by the end of 2006. Wind Hunter has an agreement with Western Area Power Administration to use power lines on the Hi-Line once the lines have been updated, but they have yet to secure a power sales contract.

A number of [wind projects](#) are already in the works in Montana. One of the biggest is near Judith Gap, where Bob Quinn’s Windpark Solutions Arcadia of Big Sandy recently [sold](#) its wind farm to Inverenergy Wind LLC of Chicago, which plans to build, own and operate the \$150 million project. A 20-year power purchase agreement has been [signed](#) with NorthWestern Energy for up to 150 MW of power priced at 3.1¢/kWh. A transmission interconnection agreement with NorthWestern is expected soon; a new substation would be built adjacent to the 230 kV line running through the site.

The Judith Gap wind farm emerged from NorthWestern’s 2004 request for proposals as “the project that met all the criteria we were looking for in terms of inclusion in the (default supply) portfolio,” based on such criteria as cost, benefit and risk. The wind power purchase would fulfill part of the utility’s default supply resource acquisition plan unveiled a year ago. If approved by the Montana Public Service Commission, construction could start this spring on the project, which would feature as many as 100 turbines on state and private land spread over 8,000 acres in Wheatland County roughly between Great Falls and Billings. However the PSC deliberations, scheduled for completion by the end of March, have generated [controversy](#) over the participation of competitors in the project’s review.

Just west of Great Falls International Airport is the much smaller, 9 MW Horseshoe Bend Wind Park. The six, 326-foot turbines will sit on 1,700 acres United Materials is developing as a source of gravel for Montana roads. The new park will replace the company’s 4 MW diesel generator and sell 5 MW of power to Idaho Power via Northwestern’s 100 kV transmission grid. The farm is expected to be up and running within four or five months of taking delivery on the turbines later this spring.

Already making electricity are two [smaller farms](#) southwest of the Judith Gap site in the upper Musselshell River Valley of Wheatland County. Seven turbines started whirling last year near Two Dot, and 12 more came online at the beginning of the year near Martinsdale. Owned by Two Dot Wind LLC and utilizing refurbished turbines from California, the two sites combined crank out 1.2 MW of electricity. The power is sold to NorthWestern Energy at the regulated wholesale price of 3.27¢/kWh.

## Communities Explore Local Ownership

Many Montana communities are also looking at wind power for publicly owned facilities like city halls, museums, schools and water plants. Liberty County has installed a small turbine to power its county shop with the assistance of Our Wind Co-op. The county expected it to provide 30-50% of their power needs. It has averaged closer to 60%. Liberty County has now [purchased](#) and installed seven anemometers to map wind power capability in the area. Four are mounted on 20-foot tall towers, two on 30-foot tall towers and one on a 50-foot -tall tower. “There’s local people, a school or a group of community entities who might want to get together and start a co-op and put up some turbines,” said Commissioner Don Marble, who is spearheading the project. The state Department of Environmental Quality also has eight anemometers to loan, and a lengthy waiting list.

Hill County Electric has [installed](#) an anemometer at its office west of Havre in hopes of eventually erecting a turbine. Once the testing is done, the anemometer will be loaned out to members so they can test the wind on their properties. “Our board wants to be very proactive in supporting wind generation and in educating our members about wind generation,” said spokesman Rollie Miller.

To support these efforts, a conference on financing and implementing community-scale wind power systems, “Bringing Wind to the Ground”, has been scheduled for April 1 at the Community Center in Joliet from 10am to 3pm. The meeting will focus on participants who have a project in process or are very interested in starting one. Speakers and resource persons will help guide groups through a planning session. A fee of \$25 will be charged. For more information, contact Beartooth RC&D at 406-962-3914.

Sales of power generated by wind and other renewable sources are also on the [increase](#), thanks to five members of the Southern Montana Electric Generation and Transmission Cooperative offering their approximately 60,000 customers a green power option at a price premium of 1.054¢/kWh. The program features Bonneville Power

Administration's Environmentally Preferred Power product, a blend of new and existing wind and low-impact hydro. In southwestern Montana, Park Electric Cooperative, a distribution co-op serving nearly 3,500 customers, is offering a renewable energy option supplied by the Bonneville Environmental Foundation with green tags derived from wind (>98%), solar (<1%), and biomass (<1%) energy projects located in the Pacific Northwest.

### Fuels for Schools and More...

Though often overshadowed by biofuel and wind initiatives, biomass projects are also playing an important role in Montana's energy future. As noted in a January 17 *Missoulian* [opinion](#), "Wood from western Montana forests is a ready, relatively inexpensive but underused source of heating fuel for schools and other larger buildings." Noting the highly-touted Fuels for Schools program, the paper points out, "While we're saving money on institutional heating costs by burning wood, we'll also be paying local loggers and truckers money that now goes to Saudi princes. And buying this wood for fuel – even at a substantial savings over oil – could help subsidize the cost of sound forest stewardship."

The second Fuels for Schools project in the state is [saving](#) big money in Philipsburg, where the school district's January heating expense plunged to a mere \$467 from December's bill of \$8,000. Thanks to the highly efficient design, the 181 tons of chips burned in January left only 80 gallons of ash. The boilers produce less than 3% of wood particulates and methane, less than 5% carbon monoxide and less than 40% of the nitrous oxide of an equal amount of free burning slash. The program's business plan includes the current demonstration phase, where biomass burners modeled after a pilot project in Darby are established in several towns, including Victor, Philipsburg and Thompson Falls.

Thompson Falls Public Schools, the third western Montana school district to climb on the national biomass bandwagon, recently [accepted](#) a \$200,000 federal grant to help convert their older diesel-burning boiler to a biomass boiler fueled by wood waste from a local lumber mill plus forestry slash. The biomass heat will take care of about 80% of the campus' total heat bill.

Some \$1.29 million in new funding was recently [allocated](#) for elementary and secondary schools in Kalispell, Troy, and Townsend, the University of Montana-Western in Dillon, and a hospital in Lewistown. Noted Sen. Conrad Burns (R-MT), "These clean biomass systems are saving our local schools and communities thousands of dollars in winter heating costs and creating a market for small-diameter timber."

## Regional Legislation

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Montana is not the only Northwest state to see numerous clean energy proposals during their legislative sessions. To track the legislation mentioned below, visit the bill tracking websites for [Oregon](#), [Washington](#), and [Idaho](#).

### ...OREGON...

#### Seeding the Biofuels Industry

Thanks to the ongoing efforts of the Oregon Environmental Council, Oregon Business Association, Oregon Farm Bureau and numerous other advocates, biofuels legislation has enjoyed a prominent role in the state's legislative deliberations. Track all the action at the Oregon Biofuels Network [website](#).

Specific proposals began to emerge last fall during a [study](#) (PDF 188KB) of the economic development potential of biofuels prepared for the Oregon Economic & Community Development Department by OBA and OEC. Among the report's conclusions, "With a small amount of encouragement and a minimal impact on the state's budget, Oregon stands a very good chance of leading a West Coast biofuels industry – to the advantage of a wide swath of the state's economy."

At about the same time, the Advisory Group on Global Warming, convened by Gov. Kulongoski in early 2004 to recommend strategies aimed at reducing Oregon's contribution to global warming, [issued](#) their final [report](#). The group's recommendations featured measures to increase the use and production of biofuels, including a 2% biodiesel fuel standard by the time federal ultra low sulfur requirements kick-in by mid 2006 (growing to 5% by 2010 and 20% by 2025), and a 10% ethanol standard by 2010. Also recommended was a minimum biofuel content requirement for all state-owned fueling stations (10% E-85, and 20% B20 use by 2010 growing to 25% by 2025).

The reports and burgeoning legislative efforts generated extensive coverage of biofuels by papers across the state, including the [Portland Business Journal](#), [Salem Statesman Journal](#), [Oregonian](#), and [Oregon Public Broadcasting](#). Noted grass-seed farmer Rep. Jeff Kropf (R-Sublimity), "We are at the point where we can create an industry in Oregon that will create tremendous benefits if oil prices go into the stratosphere. It is great for the environment, great for agriculture and reduces our dependence on foreign oil."

The next stop for the biofuels bandwagon was [Biofuels Lobby Day](#) on March 2, when biofuels enthusiasts from [Corvallis](#), [Eugene](#) and throughout the state converge on Salem to lobby their legislators, view biofuel-powered vehicles and equipment, and participate in a forum, "Bio-Energy: A Boost for Oregon's Economy," at nearby Willamette University. Again, the event generated strong press coverage, particularly from the [Salem Statesman Journal](#) and [Eugene Register-Guard](#).

In a glowing [editorial](#) on March 6, *The Oregonian* extended their support to biofuels development as "a chance to develop a promising new industry, create hundreds of jobs, mostly in rural areas, and help Oregon emerge as a leader in reducing the greenhouse gases that contribute to global warming." Concluded the paper, "This state has the farmers, the cropland, the sites for production plants and the proud history of leading on environmental issues. It's ready for biofuels."

The timing for Lobby Day couldn't have been better, as a broad-based coalition of legislators from both parties, 70 environmental groups, and the Oregon Farm Bureau busily lined up co-sponsors for the full package of seven bills which have now been submitted. Hearings are expected to begin by the end of month:

- [SB 736](#) – Allows biodiesel production plants to take advantage of the expedited energy facility siting process that ethanol production plants currently receive. The bill has already passed the Senate and awaits attention in the House.
- [HB 3030](#) – Expands the property tax exemption for ethanol production facilities to include biodiesel production facilities and oilseed crushing facilities. Local taxing districts may opt out.
- [HB 3031](#) – Allows farm equipment used for biofuels crop production to qualify for the Pollution Control Tax Credit.
- [HB 3032](#) – Provides tax credits for biofuels crop production.
- [HB 3033](#) – Requires a minimum blend of renewable fuel in gasoline and diesel sold in the state: 10% ethanol by 2010, and 2% biodiesel by mid-2006 rising to 5% biodiesel by 2010.
- [HB 3034](#) – Requires state government to displace with biodiesel at least 5% of the total amount of diesel it consumes in on- and off-road diesel engines, reduces the fuel tax on biodiesel purchased for use in lightweight vehicles by \$.0024 per percent of biodiesel blend (e.g. fuel tax on B20 would be 19.2¢ instead of 24¢), and waives the "use fuel tax" on farm vehicles burning 100% biodiesel.
- [HB 3035](#) – Provides school districts with funding for up to ten pilot projects utilizing biodiesel in school applications. A 20% increase in the Department of Agriculture's annual license fee on retail fuel pumps will generate \$350,000 per biennium for this Clean School Bus Grant Fund.

Consideration of HB 3033 has slowed, however, due to [concerns](#) from vegetable seed growers that oilseed crops will outcross with their *Brassica* crops, ruining their marketability, and attracting insects and diseases. A February 22 [forum](#) in Albany, "Biodiesel on the Farm: Using Biobased Products in Agricultural Operations," brought a standing-room-only audience of around 250, most of who were grass and vegetable seed growers. Topics included biodiesel in farm vehicles and equipment, legislative proposals, other uses for bio-based products, and biodiesel purchase, storage and spill control.

A follow-up [forum](#) in Albany, "Evaluating Options for Management of Canola Production in the Willamette Valley," took place on March 14 to specifically address canola management in the Willamette Valley. Because specialty seed crops are not grown in significant amounts in Eastern Oregon, the concerns are less likely to be an issue for Canola seed production in that region.

### **Other Proposals Pending**

- [SB 834](#) – Establishes the Community Renewable Energy Project Fund, and authorizes issuance of up to \$1 million in lottery bonds. Entities eligible for the state's current small-scale local energy project loans may also apply to the Project Fund. The bill also directs the state Department of Energy to establish a program to fund feasibility studies for small-scale local and community renewable energy projects.
- [SB 733](#) – Provides individual tax credits for solar energy devices installed on homes or businesses.
- [SB 84](#) – Directs the PUC to extend net metering requirements for generators producing more than 25 kW if they're customers of a public utility, and allows biomass as a generation source. A companion bill, SB 658, containing amendments that set the new limit at 250 kW with a monthly credit rollover for customers, was recently defeated.
- [HB 2646](#) and [HB 2647](#) – Authorize issuance of renewable energy bonds by public utilities for wind-powered electricity generation facilities.

**...WASHINGTON...**

With the failure of Renewable Fuels Standards and Renewable Energy Standards bills to get out of committee in the House, this year's clean energy focus has been on stimulating the solar energy industry, expanding biofuel production and use incentives, and facilitating small-scale community wind development.

Waiting in the wings is a [Renewable Energy and Energy Efficiency Plan](#) prepared by the Washington Technology Center. Mandated by the legislature, the plan will outline opportunities in the energy technology sector and suggest actions for capitalizing on the state's strengths. Delivered to legislators in draft form in January, the plan calls for development of a \$5 billion statewide energy industry by 2020. A public release is expected later this month.

### [Landmark Solar Legislation Passes State Senate](#)

A pair of bills designed to nurture new, high-tech renewable energy manufacturing, particularly for solar technology, have sailed through the state Senate. "The bottom line is we're trying to boost the production and use of solar power in Washington state, and bring jobs to Washington state," said co-sponsor Sen. Erik Poulsen (D-West Seattle). "We will have the best solar legislation in the United States," as a pay-for-performance approach compared to cost-based incentives elsewhere, added Jim White of Chelan County PUD. "The eyes of much of the country will be on this performance-based approach," said Tom Starrs, Chair of the American Solar Energy Society.

- [SB 5111](#) – Offers solar system manufacturers a 50% reduction in the B&O tax rate, B&O tax exemptions for manufacturers locating in counties with high unemployment, B&O credits based on number of employees, a property tax exemption on machinery and equipment used in such solar manufacturing facilities, and sales tax exemptions for labor, services and sales involved in the building of solar manufacturing plants in high-unemployment counties.
- [SB 5101](#) – Provides a base incentive of 15¢/kWh for wind or solar power generated by individuals, businesses or local governments. Higher rates available for solar and wind systems with Washington-made components, but all payments capped at \$2,000 annually. Utilities pay the incentives, and receive credits against their public utility taxes.

### [Biofuels Bills Expand Incentives](#)

A trio of biofuels bills has generated similar praise in their approach to economic development. "We have a golden opportunity to fire up the economic engine and improve the health of kids and everyone," notes prime sponsor Rep. Brian Sullivan (D-Mukilteo). Said Rep. Jeff Morris, (D-Anacortes), "We create a lot of new jobs, especially in rural areas. We encourage energy independence with less oil from other countries. And we start using cleaner fuels which is better for public health."

- [HB 1645](#) – Exempts school districts from the state's 28¢/gallon special fuel tax on the bio-fuel portion of the fuel in their school buses if they use a blend that has more than 20% of a bio-based fuel mix with regular diesel.
- [HB 1646](#) – Encourages the alternative fuels industry through tax exemptions on sales and use tax, B&O, and property taxes for six years after building manufacturing facilities.
- [HB 1647](#) – Provides tax incentives for using and purchasing alternative fuel vehicles, alternative fuel refueling equipment, and alternative fuel.

### [Interconnection Standards & Wind Permits Simplified](#)

- [HB 1011](#) – Creates one standard for every utility in the state, and also allows accumulated net metering credit from the summer and fall to last beyond January 1 until April 30. Currently, if a company sought to install new electricity generation technologies they would have 63 different connection standards to negotiate, depending on where the installation is located.
- [HB 1021](#) – Authorizes a local agency to establish a conditional use permitting process and install small wind energy systems on parcels at least one acre in size within its jurisdiction.

### [...IDAHO...](#)

By far the most visible and controversial clean energy bill in the Idaho legislature was the 10% ethanol Renewable Fuels Standard proposal championed by the Idaho Farm Bureau. After extensive public hearings and editorial page skirmishes, the bill died in the Senate Transportation committee on a tie vote. In its place, ethanol advocates are seeking support for a [bill](#) to expand tax credits for higher level ethanol blends, and a [resolution](#) to Congress asking support for a blending bias for ethanol derived from agricultural byproducts in any Federal energy bill.

Other Idaho clean energy bills still alive as of March 17 include:

- [HB 106](#) – Establishes the Energy Resources Authority as an independent entity to finance the construction of electric generation and transmission projects. It could also offer energy conservation loans to utilities for their customers. The ERA's purpose is to provide investor-owned, municipal and cooperative electric utilities that serve

Idaho customers a least-cost financing vehicle for building Idaho's electric infrastructure.

- [HB 110](#) – Provides sales and use tax exemptions for purchases of machinery and equipment used to generate at least 5 MW of electricity using fuel cells, low impact hydro, wind, geothermal resources, co-generation, sun or landfill gas as the principal source of power. The exemption would be in effect until July 1, 2011.

## NATIONAL PICTURE

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### [25x25 Presents Bold Vision for America's Energy Future](#)

Over 150 farm leaders from across the country gathered in Austin, TX in February to discuss the potential of agriculture-based energy for farmers, rural communities, and the nation. Conversations revealed an appreciation of clean energy's potential for farm income and rural development without running afoul of international trade rulings. In addition, several attendees commented on the rare opportunity for collaboration between farm groups and environmental and sustainable energy allies.

The unifying goal of the group is "25 by 25," meaning "Agriculture will provide 25% of the total energy consumed in the United States by 2025 while continuing to produce abundant, safe and affordable food and fiber." In a February 4 [guest commentary](#) in *Capital Press*, Ag Energy Work Group co-chairman Read Smith explores their [Blueprint for Action](#) (PDF 153KB) for farmers, ranchers and foresters. "The productivity of our farms and forests – everything from grain and grasses to windmills and waste – can help ensure America's energy independence and contribute to a cleaner environment," says Smith, who raises wheat, small grains and cattle near St. John, WA.

### [Federal Energy Bill Rises Again, Secondary Initiatives Launched](#)

With the long-stalled federal Energy Bill once again showing signs up life in the House, legislators are beginning to float their own energy-related bills in the hope they'll either be rolled into comprehensive energy legislation or passed elsewhere.

Extension of the Production Tax Credit is widely expected to be part of the federal Energy Bill, but Sen. Gordon Smith (R-OR) isn't taking any chances and has introduced bipartisan [legislation](#) to extend the credit for five years without excluding any particular technologies, and allow tax-exempt rural cooperatives, municipal utilities, and tribes to benefit. "I believe the government can play a key role in protecting the environment by providing market-based incentives to encourage the use of clean, renewable energy," Smith said.

The Administration has [proposed](#) extending the federal Production Tax Credit for producing electricity from wind, biomass, and landfill gas through January 1, 2008, but electricity produced from livestock waste, geothermal and solar would be excluded. The Administration also proposes a 10% investment credit for businesses that install a combined heat and power system that produces more than 50 kW of power or more than 67 HP, if placed in service between December 31, 2004, and January 1, 2010.

Another Northwest legislator, Sen. Maria Cantwell (D-WA), has entered the fray as co-sponsor of the [Renewable Energy Investment Act](#), which would establish a national Renewable Portfolio Standard of 5% by 2010 and 20% by 2020. Directed toward electric utilities, it would establish a credit trading system allowing triple credits for distributed generation and solar energy.

### [Federal Budget Threatens Ag Energy Programs](#)

Congressional appropriations committees are now starting work on the FY 2006 budget, with a tentative date of April 15 to reach consensus on a budget resolution. This year the Administration's budget proposal includes major cuts to key Farm Bill Clean Energy Title programs:

- **Value-Added Producer Grants** (Sec 6401) – \$15.5 million  
Same as current year. Technically speaking, the Administration is proposing to zero out the program from the \$40 million in "mandatory" funding Congress appropriated in the 2002 Farm Bill and appropriate \$15.5 million from another source. Congress used the same maneuver last year.
- **Federal Procurement of Biobased Products** (Sec 9002) – no information  
Current year \$1 million. Farm Bill allocated \$1 million.
- **Biodiesel Fuel Education** (Sec 9004) – no information  
Current year \$1 million. Farm Bill allocated \$1 million.
- **Renewable Energy & Energy Efficiency** (Sec 9006) – \$10 million  
Current year \$23 million. Administration proposal splits funds between grants and loans. Farm Bill allocated \$23 million.
- **Biomass Research & Development** (Sec 9008) – \$12 million

Current year \$14 million. Farm Bill allocated \$14 million.

• **CCC Bioenergy Program** (Sec 9010) – \$60 million  
Current year \$100 million. Farm Bill allocated \$150 million.

#### [Utility Commissioners Support Farm Bill Programs](#) (PDF 24KB)

The nation's utility regulators recently adopted a resolution supporting the Farm Bill's key Section 9006 grant program, calling on Congress to provide full funding at its authorized level of \$23 million. The Commissioners also urged USDA to create a shorter application for smaller "off-the-shelf" systems, a rebate program for smaller projects, and an on-line application process.

#### [Final Rule Announced for Biobased Product Procurement Program](#)

Publication of a final [rule](#) (PDF 136KB) to implement a preferred procurement program for biobased products by federal agencies, "creates a preference across the entire federal government to purchase biobased products, when practical, based on price, availability and performance," said Agriculture Secretary Ann Veneman during remarks at the 2005 American Farm Bureau Federation Annual Meeting. "This rule promotes energy independence and the use of environmentally sustainable energy from biological sources, while at the same time creating new demand for agricultural commodities and new business investment and job growth in rural America." To date, USDA has identified 83 items for which it is developing test information to support designation by rulemaking. Federal agencies have one year to ensure that they have procurement specifications in place consistent with the final rule. EESI has an excellent [summary](#) (PDF 36KB) of the program.

#### [Administration Pushes Renewable Energy Development on Public Lands](#) (PDF 1.6MB)

Secretary of the Interior Gale Norton recently announced a new report highlighting administration efforts to increase development and use of renewable energy resources on public lands. "Renewable Resources for America's Future" shows that lands managed by the Department of the Interior provide 48% of the nation's geothermal energy, 17% of hydropower and close to 10% of the nation's wind energy production. As part of their efforts, the department now ensures that BLM considers future renewable energy development in all current and future revisions of land-use plans, appointed a Renewable Energy Ombudsman to answer questions from the industry and public, and initiated assessments of renewable energy resources on tribal lands.

### ...FUNDING OPPORTUNITIES...

#### [Value-Added Producer Grants Available, Section 9006 Notice Expected](#)

The Value-Added Producer program applies to a wide range of agricultural products, including ag energy projects. This year, the USDA has \$14.3 million to distribute and is giving priority to bioenergy projects. The program is intended to help independent agricultural producers with planning activities needed to establish a viable value-added marketing opportunity for an agricultural product, or acquire working capital to operate a value-added business venture that will allow producers to better compete in domestic and international markets. Draft applications are due April 22, and final applications are due May 6. Download the complete, 89-page VADG [application guide](#) (PDF 2.2MB) for a checklist, sample applications and other resources.

Renewable Energy & Energy Efficiency grants under Section 9006 of the Farm Bill Energy Title provide financial assistance to farmer, ranchers and rural small businesses to build renewable energy systems or to invest in energy efficiency measures. The 2005 application and funding notice is likely to be released later this month, the earliest release date in the program's three year history. This year's program is expected to be "grants only," and not include loans.

State agency, USDA Rural Development and RC&D staff throughout the region have already been offering technical assistance workshops to aid applicants for these highly competitive programs. Remaining educational sessions include:

- Eastern Washington: Pasco (Mar 23), Yakima (Mar 30). Contact Dan McNeley, 509-454-5743 x134.
- Western Washington: South Bend (Mar 24), Chehalis (Mar 29). Contact Don Wagoner, 360-704-7724.
- Oregon: Eugene (Mar 21), Pendleton (Mar 22). Contact Dan Streng, 503-414-3366.
- [Idaho](#) (PDF 44KB): McCall (Mar 18). Contact Dayna Ball, 208-287-4891.
- Montana: Contact Bill Barr, 406-585-2545.

For Oregon farmers and ranchers, the Energy Trust of Oregon will [share](#) the cost of hiring a qualified grant consultant to assist applicants in writing proposals for Value-Added Producer Grant feasibility studies that support farm or ranch generated renewable energy projects. Off-grid projects are not eligible. For qualified wind project applicants, Energy Trust will also make available a limited number of 60-meter meteorological towers, anemometers

and analyses to collect wind data for one year. The applicant will be required to cost-share the installation of the equipment.

#### [Biomass Research and Development Initiative Grants](#) (PDF 554KB)

USDA and US DOE are in the midst of reviewing pre-applications for \$15 million to support research, development, and demonstration of biomass-based products, bioenergy, biofuels, biopower, and related processes. This year's focus is on Feedstock Development and Production, Biobased Products Development and Environmental and Economic Performance, Integrated Resource Management and Biomass Use, and Incentive Analysis for Commercialization. Applications for \$200,000 to \$2 million were due February 15. Projects invited to submit a complete proposal must respond by April 15.

#### [Conservation Innovation Grants](#)

CIG is a voluntary program intended to stimulate development and adoption of innovative conservation approaches and technologies in conjunction with agricultural production, including bio-based energy opportunities. Under CIG, some \$15 million in Environmental Quality Incentives Program funds will be used to award competitive grants to non-Federal governmental or non-governmental organizations, tribes, or individuals. Montana producers are eligible for a \$400,000 [state-specific program](#) with a deadline of April 11. Producers in other states will have to compete on the [national level](#) (PDF 136KB) with a deadline of March 28.

#### [Conservation Security Program Funds Available](#)

Signups are about to occur for this innovative, voluntary program which features financial and technical assistance to promote conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on tribal and private working lands. Eligible activities include energy enhancement efforts such as biofuels feedstock propagation. Landowners need to be in selected watersheds during an eight-year rotation in each state. Check out the CSP [Watershed Map](#) to see if you're eligible.

#### [Economic Development Assistance Grants Available](#) (PDF 139KB)

The US Department of Commerce's Economic Development Administration is soliciting proposals for Economic Development Assistance programs, including energy facilities. The projects would have to be owned by a public body or non-profit entity, be a high priority for the region, implement a regional or tribal economic development plan, and create permanent private sector jobs and stimulate private investment. Proposals are accepted on a continuing basis and applications are invited and processed as received. Normally, two months are required for a final decision.

#### [SEP Special Projects Sought](#)

April 22 is the deadline for State Energy Program Special Projects seeking US DOE funding. Special Projects are intended to assist states with deployment of energy efficiency and renewable energy technologies, facilitate the acceptance of emerging and underutilized energy efficiency and renewable energy technologies, and increase the responsiveness of federally funded technology development efforts to private sector needs. Applications must be submitted by a designated state energy office. Some \$14.7 million is expected to be available. Contact your State Energy Program Managers in Idaho ([Rene Arellanes](#)), Montana ([Brian Green](#)), Oregon ([Dean Owens](#)) or Washington ([Cory Plantenberg](#)) to explore opportunities.

## **Biofuels**

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...BIODIESEL...

#### [Biodiesel Hot Topic in Washington](#)

With the burgeoning interest in biodiesel in many urban markets, producers, distributors and users have been enjoying extensive media coverage. A [profile](#) of consumers, and an extensive [feature](#) on the realities of production appeared in the *Seattle Post-Intelligencer*. Noted the *P-I*, "It's difficult to quantify, but many here are convinced that, at a minimum, the Seattle area has the highest number of pure biodiesel (B100) users in the country." Interest in biodiesel is growing in the [construction industry](#) as well. Earthwise Excavation in Snohomish, WA, whose construction fleet uses roughly 18,000 gallons of B100 annually, was featured in the *Seattle Daily Journal of Commerce*. They recently announced plans to begin producing 200-400 gallons per month of their own biodiesel by mid-2005 from waste vegetable oil. Efforts to grow oilseeds and process biodiesel in central Washington were captured in an article by the *Yakima Herald-Republic*.

#### [Third Northwest Biodiesel Forum, March 19, Seattle](#)

Top energy researchers, municipal fleet transportation managers and environmental agency experts will speak on

the urgent economic, environmental and social issues driving the switch to cleaner burning fuels. Advocates for reducing global warming, weaning our society off fossil fuels, and establishing a regional market for domestically grown fuel sources will share how everyone can get involved to support our region's farmers to grow biodiesel feedstocks and advocate for legislators to create incentives to grow a regional biodiesel industry.

### [Oilseed Forum Explores Regional Industry](#)

Eighty-five oilseed industry representatives from Washington, Idaho and Montana, including twenty-five producers, attended the Inland Northwest Oilseed Forum on February 10 in Spokane. Canola, rapeseed, and mustard crops were the focus of discussions on production issues, potential products and markets, current research projects, and commercial efforts underway or being planned. All felt that oilseeds could be successfully grown in the Northwest, but the current market price to the farmer is too low for major increases in production. Value-added products from both oil and meal are needed to make these crops profitable.

### [Learning from Minnesota's Biodiesel Law](#)

Since enactment of the nation's first state mandate for nearly all diesel fuel sold in the state to contain a small percentage of biodiesel, there has always been some uncertainty over whether or not production facilities would be built to meet the goal in the law. Language in the law would have allowed the mandate to never take effect unless the in-state production reached 8 mgly. With the opening of one production plant in December and two more under construction, the mandate is expected to come into force at the end of June 2005.

### [Mustard Can Spice Up Economy](#)

Thanks to a \$613,000 USDA National Research Initiative grant, University of Idaho has put together a research team focused on finding ways to help mustard fulfill its promise of boosting rural fortunes. The project, among eight funded nationwide of 240 submitted through the initiative's managed ecosystems program, seeks data necessary to win federal registration of mustard meal as an herbicide and insecticide. The oil would become an inexpensive raw material to produce biodiesel. The crop itself would cut reliance on synthetic herbicides because mustard can protect itself. And farmers would benefit because wheat and barley that follow mustard in crop rotations typically yield more abundantly.

### [Colorado Biodiesel from Rapeseed](#) (PDF 406KB)

With the help of two substantial USDA grants, Blue Sun Biodiesel LLC has begun preparations for a \$4 million processing plant that will rely on rapeseed, the preferred feedstock in Europe. Some 45% of rapeseed's weight is oil, versus 20% for soybeans, and it can be harvested with the same equipment as other small grains. Blue Sun President Jeff Probst notes, "Feedstock is 85% of the cost of 100% biodiesel." The allied Blue Sun Producers Cooperative currently has 40 member-producers with a minimum \$5,000 equity stake.

### [Equipment Manufacturers Support Biodiesel Use](#)

Thanks to growing interest in biodiesel, major farm-equipment companies such as John Deere and Case New Holland are providing guidelines on biodiesel use in farm machinery. John Deere has [announced](#) they will use B2 as the preferred factory-fill for all their diesel-propelled machines made in the US before the end of 2005. "We are promoting the use of B2 fuel because it is readily available and meets the high quality fuel standards that we have set for our engines, and it is a positive step toward adoption of renewable fuels," said Don Borgman, manager of Market Planning and Customer Integration for John Deere.

### [Federal Tax Incentive Forms Published, B100 Excluded](#)

The IRS has published the first in a series of registration and claim [forms](#) associated with the new federal biodiesel tax incentive, but their interpretation of "blend" is frustrating biodiesel advocates. About 70 biodiesel manufacturers and distributors have [urged](#) (PDF 72KB) the IRS to broaden their interpretation of the term, and allow B100 to qualify for the Excise Tax Credit.

### [New Biodiesel Guidelines Released](#)

The National Renewable Energy Lab has released the 2004 version of their "Biodiesel Handling and Use Guidelines." The guide includes a frequently asked questions section, expanded biodiesel basic information, and the most currently available blending information.

### [West Coast Reduction Western Canada's Largest Biodiesel Distributor](#)

West Coast Reduction, a leader in Canada's rendering industry, has announced plans to distribute B100 to customers on Vancouver Island and in the Greater Vancouver area. British Columbia showed its commitment to biodiesel in Budget 2004 when they announced preferential tax treatment for alternative motor fuels that included biodiesel blends.

## ...ETHANOL...

### [Renewable Fuels Association Releases New Industry Outlook](#)

RFA's "Homegrown for the Homeland: Ethanol Industry Outlook 2005," examines the policies and market drivers – air quality, the economy, energy security and the growing need for domestic fuel sources – driving the growth for ethanol, both in the US and abroad. For the first time, this year's Outlook discusses how the growing worldwide production and use of ethanol impacts international trade.

### [Biorefinery Contracts Straw for Ethanol Production](#)

Idaho Biorefinery, a subsidiary of Canada-based Iogen Corp., is aggressively contracting for Idaho straw to fuel the first commercial-scale cellulosic ethanol plant in the country. Eastern Idaho regularly produces more than 1 million tons of harvested straw from irrigated wheat and barley fields each year. It would take most of those resources to make a large cellulose ethanol plant a reality. The plant would double the income from small grains for many farms. "Cellulose ethanol could develop very quickly as an industry and have a major impact on rural incomes and the environment as well as our energy security," Sen. Larry Craig (R-ID) told Congress last fall.

### [SUNY Researchers Make Ethanol from Wood Chips](#)

Researchers at the State University of New York's College of Environmental Science and Forestry have invented a method for removing energy-rich sugars from wood for ethanol production. The process is still a year or two away from commercial application. Ordinary wood chips are mixed with water and heated at high temperatures for a specified length of time. That time can be shortened if the chips are first subjected to biopulping, a process that allows natural wood-decaying fungi to munch through the lignin that binds the cellulose in the wood. The watery solution that remains after the chips are removed is then forced through a membrane that separates the sugars. The separation process also produces acetic acid, which has a commercial value nearly three times that of ethanol.

### [Argentine Scientists Make "Green Hydrogen" from Ethanol](#)

Argentine scientists have invented a technique that converts ethyl alcohol into hydrogen, producing a fuel of low carbon content that may spur the development of less-polluting vehicles and industrial processes. The current cost of obtaining the gas through electrolysis, plus storing and distributing it, is prohibitive. Though a technique for converting ethanol into hydrogen was already known in Europe, the Argentine team perfected it to the point of achieving an "ultra-pure" hydrogen.

## *Biopower*

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### [WSU R&D Efforts Expand](#) (PDF 60KB)

With the largest extension-based energy program in country, Washington State University is rapidly expanding their bioenergy and bioproduct research and outreach efforts. The breadth of their work was detailed in presentations at the Spokane Ag Expo in January. These and other resources are available on their Climate Friendly Farming program [website](#). As host for the Pacific Regional Biomass Energy Partnership's [website](#), WSU has also made available many of the best biomass energy assessments in the region.

While some of their efforts have focused on oilseed trials and biofuels coproducts research, WSU's primary focus has been on [biomass energy](#). Their recent [Dairy Anaerobic Digestion Workshop](#), held in Sunnyside on February 25, featured extensive discussions on digester design and farm management with the three leading technology providers in the country and dairy operators from throughout the lower Yakima Valley. Presentations were offered by [Mark Moser](#) (PDF 331KB), [Steve Dvorak](#) (PDF 285KB), and Phil Lusk, who offered talks on both [Digesters 101](#) (PDF 1.1MB) and [Digester Economics](#) (PDF 247KB).

At the same time, WSU staff were helping to load the state's [first digester](#) at the Vander Haak Dairy in Lynden. The \$1.2 million project was on display for nearly 70 people during a March 10 [open house](#). Three farms contribute manure from some 1,000 cows. At full capacity, the digester can handle manure from 1,500 cows, creating enough electricity to power 180 homes. Puget Sound Energy will purchase electricity generated at the farm as part of its Green Power program. More than 1,400 Whatcom County residents have signed up for the program, as has Western Washington University.

A smaller, 25-cow scale mobile digester is being built by WSU's Agri-Environment & Bioproducts Engineering Research Group. Designed to showcase small-scale digester viability and positive utilization of a full range of co-products, the project received \$100,000 in direct discretionary [funding](#) from the Washington Department of Ecology's Solid Waste Program. "We will operate the system at WSU to further test and refine our ability to extract usable energy and products and to develop operations and business models," said Shulin Chen, WSU's research team leader. "After that, we will work with Ecology to find the best places around the state to demonstrate the project." The AEBE group is also nearing completion of a statewide Washington State Biomass and Bioenergy Inventory. The

results will eventually be visible online.

WSU's efforts have been noticed in "the other Washington" where the Climate Friendly Farming project was a featured exhibit at the 7th Annual Food and Agricultural Science Exhibition hosted by the National Association of State Universities and Land Grant Colleges. The display included posters and interactive material outlining ongoing research and outreach efforts, including an interactive computerized cropping systems model and a functioning bioproduct fermenter.

Also on the agenda for DC was a little lobbying in support of federal funding for a proposed [Sustainable Waste to Energy Education and Training Center](#) (PDF 894KB) at WSU's Tri-Cities campus. The \$24 million bioproducts lab is among the top 10 priorities for Washington's six universities. Gov. Gregoire has included half of the funding in her construction budget proposal to the Legislature. The remainder would be paid off using federal funds. As noted in an editorial from the *Tri-City Herald*, "The technology stands to revolutionize the state's agricultural economy by creating a new layer of industry to process crop wastes into materials and products. Inadequate investments in agricultural technology are part of the reason Washington's rural communities were largely bypassed by recent economic booms."

### [Energy Northwest Mulls Cow Power](#)

Energy Northwest is at a crossroads with its pilot biogas digester project at 5D Farms near Pasco. Tests suggest the facility could produce up to twice the power of traditional digesters, yet their .3-.5 kW/cow return is still not considered competitive. The utility is awaiting a review from a WSU microbiologist before deciding whether the technology is commercially viable. Left to be seen is whether utility customers would be willing to subsidize a dairy waste generator, and if farmers would be willing to chip in to compensate for the odor reduction the system provides.

### [Latest Trends in Anaerobic Digestion](#)

This paper by Richard Mattocks of Environomics reviews trends in the manure digester industry in three general categories: recorded history, current events, and a brief look to the future. It was derived from a presentation at the BioCycle Fourth Annual Conference on "Renewable Energy From Organics Recycling," in November 2004 in Des Moines, Iowa.

### [USDA Rural Development and EPA Collaborate on Digester Projects](#)

A new interagency partnership to support agricultural and business-based renewable energy systems provides EPA technical support for USDA reviews of anaerobic digestion projects. EPA will also consult on technical guidelines for USDA Rural Development initiatives encouraging more state-of-the-art digester technologies. USDA and EPA are also investigating expanding support to other areas. "We believe that through our cooperative efforts, we will be able to increase the use of anaerobic digestion technology in a way that enhances rural agricultural development, provides environmental benefits, and increases farm revenues through the generation of renewable energy," commented EPA Assistant Administrator Jeff Holmstead.

### [Anaerobic Pump Shows Promise](#) (PDF 96KB)

US DOE has posted a fact sheet, "A New Biomass Energy Conversion Technology Yields Methane for Power Generation," discussing use of the Anaerobic Pump. Developed under the agency's Inventions and Innovation Program for converting treatment plant sludge to methane gas, the pump nearly tripled methane gas production over conventional anaerobic digestion processes.

### [Forestland Managers Explore Biomass Energy Options](#)

In January, USFS chief Dale Bosworth issued a directive to implement the [Memorandum of Understanding](#) (PDF 184KB) on Policy Principles for Woody Biomass Utilization for Restoration and Fuel Treatments on Forests, Woodlands, and Rangelands signed by the departments of Agriculture, Energy and Interior in 2003. In the Northwest, the Forest Service and BLM are looking at pooling resources in the form of a joint staffer that serves both agencies and expedites biomass policy, strategy and actions. Contact [Bill von Segen](#), Rural Development Program Manager for the Forest Service's Pacific Northwest Region, for more information. Key coordination strategies include summarizing technical information and linking to research and grant opportunities, and using ecosystem restoration stewardship contracts and agreements as vehicles for accessing biomass.

Recently, the Oregon Governor's Office, Forest Service, BLM, Oregon Economic & Community Development Department, Sustainable Northwest and many others signed a [commitment](#) to support the Central Oregon Coordinated Resource Offering Protocol. Discussions are focusing on specific geographic areas, in particular central and Southwest Oregon. Other options include establishing a focal point for tracking contracts, labor resources and skills available for biomass recovery, and aligning efforts with the PNW Research station and others to incorporate R&D efforts into regional activities.

One project looking to take advantage of the CROP agreement is the first "Fuels for School" style effort in Oregon. The 3-5 MW biomass [power plant](#) in Sisters would use material government agencies are already taking out of

forests as part of fire prevention efforts to provide heat and electricity for the local Middle and High Schools, and possibly a future ranger station. "It's a logical thing to do with a renewable resource, trees, particularly the smaller ones that don't have much value for anything else," said Cindy Glick, assistant silviculturist for the Ochoco and Deschutes National Forests.

Warm Springs Forest Product Industries has also announced plans for a \$26 million, 15 MW expansion of their nearby cogen plant. Both projects are looking to land [Woody Biomass Utilization Grants](#). As part of the Administration's Healthy Forest Restoration Initiative, the Forest Service, state and private foresters, and the Forest Products Laboratory are requesting proposals for projects that increase the use of woody biomass from National Forest lands. A total of \$4.4 million is available, with individual grants no less than \$50,000 or more than \$250,000. Pre-application were due March 15, full applications need to be in by May 16. Successful applicants will be announced by June 1.

### [UW Researchers Convert Woody Debris to Methanol](#)

Researchers in the University of Washington's Forest Systems and Bio-Energy Program have developed a new, yet-to-be-patented process for quickly converting woody debris into methanol. Yielding 186 gallons of methanol per ton of biomass, the fuel would be used to power fuel cells using a process developed by IdaTech in Bend. Demonstration projects are planned for Republic and Forks, the Yakama Indian Reservation, and possibly the Confederated Tribes of Warm Springs reservation. The program is profiled in [Fuel Cell Today](#). You can also listen to Kristiina Vogt, Professor at the University of Washington School of Forest Resources, talk about the process on the national radio show, [Timber Talk](#) (RM Audio).

### [Bio-Energy: A Boost for Oregon's Economy](#)

Dr. Jim Boyer, from the University of Minnesota's Department of Bio-Based Products, explored energy production from biomass and shared that state's leading policies and incentives at a special forum on March 3 in Roseburg. Glenn Montgomery, Sustainable Business Liaison for Oregon Economic & Community Development Department, shared the recent renewable energy cluster analysis action plan that examined the potential for a biomass industry.

### [Bio-Oil from Wood Waste Fuels Gas Turbine](#)

Orenda Aerospace, a Canadian subsidiary of Magellan Aerospace, has developed the world's first gas turbine fueled by bio-oil. The turbine is part of a pilot bio-oil processing facility and 2.5 MW combined heat and power plant in Ontario that uses mainly wood waste from a nearby wood-flooring manufacturer. The company believes their technology, "has the potential to change the landscape of distributed energy." According to DynaMotive Energy Systems of Vancouver, BC, whose pyrolysis technology will produce the BioOil, the reactor is expected to process up to 100 tons of biomass per day and to produce 70 tons of BioOil, 20 tons of char, and 10 tons of non-condensable gases.

### [NREL Opens New Lab Dedicated to Biomass Research](#)

The Department of Energy's National Renewable Energy Laboratory recently opened a \$2.9 million facility designed to study biomass-to-energy processes at "the most basic atomic and molecular levels." The Biomass Surface Characterization Laboratory will give scientists insights into the chemical and biological reactions that can transform renewable plant and waste materials into useful sources of energy. "By assembling the best research equipment available within this new facility, we will hasten the day when our abundant biomass resources can be harnessed to cleanly and economically meet the nation's critical energy needs," said Michael Pacheco, Director of the National Bioenergy Center at NREL.

### [State Incentives for Biomass Energy](#)

Following up on an excellent article on how biomass electricity suppliers are participating in green power markets, the January edition of *BioCycle* explores state renewable electricity incentives and their impact on biomass power generators. This extensive feature focuses on three policy tools generally agreed to be the most influential factors behind the growth of renewable electricity: portfolio standards, public benefit funds, and net metering.

### [Renewable Energy Certificates Explored for Biomass Energy](#)

Forest-derived biomass energy projects in Colorado and New York designed to replace coal with wood waste are angling to become the first in the nation to sell their environmental benefits issuing Renewable Energy Certificates. Colorado-based Aquila recently [received](#) (PDF 32KB) EcoPower certification from the Environmental Resources Trust for electricity produced from small wood chips generated by federal forest fire mitigation activities. Green Energy Resources of New York has developed a [plan](#) to certify green fuels so third party emission accreditors and emissions brokers can approve the biomass energy source for sale on the renewable energy certificate market. Green Energy Resources will utilize the urban tree certification system as its model.

## Wind

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### [Fossil Gulch Completed, Exergy Eyes New Magic Valley Projects](#)

As [construction](#) (WMV Video) of the 10.5 MW Fossil Gulch Wind Farm near Mountain Home, ID wraps up, developer Exergy Development Group is looking towards other ventures in the area to generate an additional 42 MW of power. Exergy hopes to add permanent jobs in the area if it establishes other wind farms. The response to Fossil Gulch bodes well for future development. "We just have had no negative comments from the locals," said Exergy president James Carkulis.

### [Power County, Idaho Lives Up to Name](#)

Power County has approved separate plans from Windland-Shell and Ridgeline Energy to bring wind energy to the area. After two years measuring wind conditions, the Boise-based companies are confident they have found suitable locations and hope to start construction later this year once power contracts have been secured from any of three nearby utilities. Windland plans a \$140 million, 120-150 MW Cotterel Mountain wind farm with 80 turbines on the edge of the Deep Creek Mountains. They estimate the project will create 150 jobs during a six-month construction period and about a dozen full-time jobs throughout the project's 30-year life. Ridgeline Energy will host as many as 200 wind turbines in an area covering approximately 30,000 acres near American Falls. Ridgeline also hopes to secure a bid to supply power from a 200-turbine farm spanning the Bonneville and Bingham county lines.

### [Area Wind Farm Adds Third Generator](#) (PDF 36KB)

Idaho wind pioneer Bob Lewandowski was honored recently by the Idaho Energy Division for his dedication to promoting and generating wind energy. Four years ago, he began developing wind power on his property, paving the way for the first commercial wind farm in Idaho. The first of three turbines began generating electricity in late October 2002, and the second turbine went on line in the spring of 2003. With the addition of a third turbine, the wind farm will have the capacity to generate 324 kW of electricity.

### [Oregon Wind Projects Proliferate](#)

BPA is in the final stages of deciding whether to provide an interconnection for PPM Energy's 200 MW [Leaning Juniper Wind Project](#) (PDF 181KB), formerly known as Arlington PPM Wind. Leaning Juniper is roughly 25 miles east of the Klondike Project and the proposed John Day Wind Project, both of which are in Sherman County. Two other wind projects are proposed in Gilliam County, the Shepherds Flat Wind Project, and the Willow Creek Wind Project.

### [Oregon Wind Working Group to Meet April 8 in Klamath Falls](#) (Word Doc)

Held in cooperation with Klamath and Lake county and rural economic development officials, this workshop seeks to transfer knowledge gained for efforts to develop community wind projects in North-central Oregon to other parts of the state and apply it to other locally owned renewable energy projects. Topics include small wind farm development, project ownership and financing, Farm Bill grants and loan guarantees, and prospective biomass and geothermal projects. A \$10 registration fee is payable on site. Register by April 1 with [Jennifer Wetherbee](#).

### [Klondike Wind Farm Explores Third Phase Expansion](#)

PPM Energy has asked BPA to provide interconnection services for up to 300 MW for the third phase of their Klondike Wind Farm. BPA would build and operate an approximately 12-mile-long 230-kV transmission line and two project substations.

### [Last Mile's White Creek Project Moves Forward](#)

Members of the Last Mile Electric Cooperative have submitted an application to Klickitat County for a Conditional Use Permit for their 200 MW White Creek wind power project. A public hearing has been scheduled for April. In September 2003, members of the Last Mile Electric Cooperative secured development rights to some 28,000 acres of high quality wind resource land owned by six local ranchers north of the Columbia River near Roosevelt, WA. Since 2003, the project participants have been collecting wind resource data and working on required studies.

### [Life in the Slow Lane: The New Frontier in Wind Technology](#)

New technology will make wind a viable power generator in places where the average wind speed is 13 mph or lower. The US Department of Energy and turbine developers are working to build turbines that will maximize wind power generation, especially at Class 3 and 4 sites where wind speed range from 6.4 to 7.5 mph. The goal is to bring down the kWh price enough to make these sites attractive both for large utility-owned wind farms and for small distributed generation operations. Hybrid generation (low-speed wind in combination with other fuels) is also being investigated.

### [Wind Power: To Own or Not To Own](#)

One of the world's fastest growing energy technologies is wind power. Landowners on windy sites face a choice – to lease or to own. Leasing land to a wind developer will provide a landowner with a relatively risk free venture with a steady stream of income. Owning and operating a wind energy project involves more risk but offers landowners that own them significantly more potential revenue. A recent report provides a comparison of a few of the business structures for farmer-owned wind projects in the US.

### [Wind Energy Economic Myths & Facts](#) (PDF 66KB)

A new [report](#), the second in a series from the American Wind Energy Association, responds to common myths about the technology and its impacts. Topics include the role of tax incentives, property values, and local economic benefits.

### [APPA Develops Wind Power Handbook](#)

The American Public Power Association recently published a “Wind Power Handbook for Public Power Utilities” in coordination with the US DOE Wind Powering America Program and Western Area Power Administration. Topics include wind power technologies, transmission issues and challenges, siting and assessment, wind on federal and state lands, zoning, contracts, environmental issues, interconnection, costs, economic development benefits, integrated resource planning, green pricing and state policies. Copies can be obtained from Michele Ghosh at APPA, 202-467-2960.

### [Major Wind Power Developer Acquired](#)

Global power company AES Corporation has announced plans to acquire wind power project developer SeaWest Holdings of San Diego for \$60 million. SeaWest has 1,800 MW of development sites in ten states in the western US, including the 49.8 MW Condon facility in north-central Oregon.

### [New Standards to Guide Next-Gen US Wind Power](#)

In a clear sign that wind power facilities are being considered an increasingly relevant and important part of the US electrical grid, the nation's top regulatory agency released details of their new proposed interconnection guidelines. Once official, they will have a far-ranging impact on the US wind power industry including manufacturers, developers, and grid-operators alike. In 2003, FERC adopted standard procedures for the interconnection of generation facilities larger than 20 MW. Their new proposal responds to a request by the American Wind Energy Association that the Commission set specific standards applicable to the unique characteristics of wind generation plants.

### [DOE Wind Program Implementation Meeting Presentations](#)

Presentations from the US DOE Wind Technologies Program's annual Wind Program Implementation meeting, held November 16-18 in Colorado, are now available. Sessions include Technology Deployment & Coordination Issues, Low Wind Speed Technology Development, Distributed Wind Technology Development, Technology Acceptance, Utility Systems Integration, Resource Assessment, Testing Facilities & Support Activities, and Emerging Technology & Environmental Impact.

## **Solar**

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### [Northwest Helps Advance Solar Diffusely](#)

The Northwest is advancing solar electricity in a wide variety of ways, from training solar installers in Oregon and Washington to a proposed Central Washington demonstration project, from WSU's participation in the upcoming Solar Decathlon to assorted utility programs. This extensive *Con.WEB* article profiles some regional examples of solar progress.

### [Largest Northwest System Installed in Oregon](#)

The region's biggest solar-electric system, rated at 172 kW capacity, has been installed at Pepsi Cola's offices in Klamath Falls. A combination of tax credits, financial incentives, attractive loan terms – and the prospect of eliminating all of their electric bills – attracted Pepsi to solar energy. “The tax benefits for installing a solar electric system are substantial and the prospect of making all the electricity we need is appealing,” said John Bocchi, general manager, Pepsi Cola of Klamath Falls. “I don't know why more businesses aren't taking advantage of this. It makes financial sense and it's the right thing to do.”

### [Clallam County PUD Supports Solar](#)

Clallam County PUD offers its customers a low interest loan and rebates for the purchase of energy efficient

equipment, including solar water heaters, installed in the District's service area. The loan is available for existing homes (site built and manufactured) and small commercial businesses. The recent [report](#) (PDF 898KB) to the Washington legislature on renewable energy use in the State noted the PUD had the highest green power penetration rate of any reporting utility.

### [Letting the Sun Help Bring the Rain](#)

Solar-powered, remote-controlled wheel line movers are making a difference for alfalfa growers near Burns. The system replaces gas engines with electric motors better suited to short-duration operations such as moving wheel lines, resulting in significant savings in time and energy.

## **Geothermal**

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### [US Geothermal Project Moves Ahead](#)

The Idaho Public Utilities commission has [approved](#) (PDF 20KB) a sales agreement between Idaho Power and Boise-based US Geothermal that clears the way for what could be the first geothermal power plant in the Pacific Northwest. The Raft River Geothermal Power Plant near Malta is expected to be completed in mid-2006. It will sell up to 10 average MW to Idaho Power under the 20-year agreement. The project is predicted to have a substantial annual economic impact on Cassia County, according to a 2004 report from the University of Idaho College of Agricultural and Life Sciences: \$6.3 million in sales, \$1.4 million in earnings, \$718,000 in indirect business taxes and 26 jobs. US Geothermal was recently [awarded](#) (PDF 89KB) a \$2.2 million dollar grant from the US DOE Geothermal Technologies Program to assist in development and application of an innovative, potentially more efficient generation technology known as ammonia adsorption power.

### [GeoPowering the West Hosts Power Generation Workshops](#)

Utility resource personnel are invited to learn more about the key benefits and risks of including geothermal power in a utility's resource portfolio at three similar gatherings this spring: March 29 in [Yakima](#), April 13 in [Boise](#) (PDF 88KB), and May 11 in Salem. There's no fee but pre-registration is required. Contact [Guy Nelson](#) for details.

### [Geothermal-Agricultural Industrial Park Funded](#)

The recently federal omnibus appropriations bill maintained funding for GeoPowering the West and university research programs at current levels, and specifically earmarked \$300,000 for the Klamath and Lake Counties Geothermal-Agricultural Industrial Park in Oregon.

### [GeoPowering the West Program Reviewed](#)

DOE's GeoPowering the West initiative underwent its first peer review in 2004. The process used objective criteria and qualified independent peer reviewers to judge the merits, results, and effectiveness of the GPW program and its components. Specific recommendations included combining State Energy Program awards and state working group activities, holding annual coordination meetings of all GPW partners, and consolidating many outreach and education efforts through the National Renewable Energy Lab.

### [GeoPowering the West Annual State Working Group Summit](#) (PDF 4.5MB)

Presentations from GeoPowering the West's "Geothermal State Working Groups 101" webcast on November 29 are now available. The webcast was designed to help states establish geothermal working groups, structure memberships, identify key issues, and adopt effective strategies.

### [New Publications Available On Geothermal Technologies](#)

Several new publications were recently released by NREL for US DOE's Geothermal Technologies Program:

- [Buried Treasure: Environmental, Economic, and Employment Benefits of Geothermal Energy](#) (PDF 2.6MB)
- [Geothermal Technologies Program: Direct Use](#) (PDF 2.4MB)
- [Geothermal Technologies Program: Enhanced Geothermal Systems](#) (PDF 1.2MB)
- [Geothermal Technologies Program Strategic Plan \(2004\)](#) (PDF 714KB)

## **Policy**

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### [Berkeley Lab Releases Report on State Markets](#) (PDF 812KB)

Berkeley Lab, in collaboration with the National Renewable Energy Laboratory, has released "Evaluating State

Markets for Residential Wind Systems: Results from an Economic and Policy Analysis Tool.” The market for small, residential wind systems in the US is small, but growing, with recent growth primarily spurred by aggressive state policy efforts. This new report, sponsored by the US DOE’s Wind & Hydropower Technologies Program, evaluates the economics of these residential wind systems, by state, given current and possible future state and federal incentives. Among the conclusions: state financial incentives help drive the small wind market, multiple incentives make the largest difference, and absent additional incentives installed cost reductions are necessary.

### [Fact Sheet on State Renewable Energy Standards Updated](#)

The Union of Concerned Scientists has issued an updated fact sheet on state Renewable Energy Standards, reflecting the recent adoption of standards in Colorado, Pennsylvania, and Washington, DC. Collectively, state standards are expected to add 25,550 MW of new renewable power to the US grid by 2017, and reduce US carbon dioxide emissions by 65.2 million metric tons annually.

### [Renewable Energy Associations Form National Alliance](#)

Leading renewable energy associations announced the formation of the Renewable Energy Business Alliance to amplify and unify their support of policies and programs to expand renewable energy production. Among its goals, the Alliance supports making the federal Production Tax Credit permanent, applying it to all renewable technologies on an equal basis, and providing comparable incentives for non-profit entities. “Strong and sustained growth in renewable energy production will lead to major benefits in US energy security, job growth, fuel diversity, domestic supplies of fuel, and environmental enhancement,” said Karl Gawell, executive director of the Geothermal Energy Association. Other organizations involved are American Wind Energy Association, Solar Energy Industries Association, USA Biomass Power Producers Alliance, Integrated Waste Services Association, National Rural Electric Cooperative Association, American Public Power Association, and Solid Waste Association of North America.

### [National Report Calls for Government Support of Renewables](#) (PDF 2.3MB)

The National Commission on Energy Policy, a bipartisan group representing industry, government, labor, academia, and environmental and consumer groups, released a consensus strategy on December 8. More than two years in the making, “Ending the Energy Stalemate: A Bipartisan Strategy to Meet America’s Energy Challenges” contains detailed policy recommendations for addressing oil security, climate change, natural gas supply, the future of nuclear energy, and other long-term challenges, and is backed by more than 30 original research studies. Among the recommendations are increased federal support for renewable technology R&D, extension of the federal production tax credit through 2009, and expanding eligibility to all non-carbon energy sources.

### [PacifiCorp Proposes New Generating Resources](#)

PacifiCorp has filed plans with state regulators that propose adding significant new power generating resources over the next 10 years. The combination of growth in energy needs of current and future customers, combined with lost capacity due to aging plants, reduced output and expiring contracts, results in a need of more than 2,700 MW of new resource by 2015, according to the company’s 2004 integrated resource plan. The plan includes a mix of conservation, renewable resources (wind and geothermal) and thermal resources (gas and coal).

## **Resources**

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### [Northwest Communities Pursue Energy Technology Clusters](#)

Many communities are taking a long look at the promises of emerging technologies for energy efficiency, power systems controls and renewable generation to deliver economic opportunity. Among them are Washington’s Kitsap County and the Central Oregon area around Bend, both of which are laying the groundwork to develop local clusters of energy technology manufacturers and service companies as an economic development strategy. This article looks at the opportunities and obstacles these communities face.

The Business Alliance for Sustainable Energy, formed to support the economic development that the renewable energy industry can bring to Central Oregon, was officially [launched](#) last month. “We have a renewable energy resource base that is unparalleled by any other similar geographic area in the country,” said Cynthia Hayes, executive director of Bend consulting firm 3Estrategies. A more extensive article in [The Oregonian](#) explores the economic potential of clean energy throughout the state, and the role of government in supporting its development.

In Washington, the upcoming ‘Innovation Industries’ [Technology Summit](#) on April 8 in Seattle will examine four of the state’s most promising industries, including Energy Innovation: Positioning the Pacific Northwest to Lead the Energy Economy. Registration is \$125.

### [Energy Trust of Oregon Looking for Innovative Demonstrations](#)

The Energy Trust's Open Solicitation program provides financial incentives and support for innovative renewable energy projects not eligible for other Trust programs. Projects must encompass new commercial technologies in established end uses, existing technologies in new end uses, good ideas that need additional support to succeed, or projects that can be replicated elsewhere, thereby helping to build renewable energy markets.

### [Financing Distributed Generation in the New Energy Marketplace](#)

The 2003 Northeast blackout, power quality concerns for digital businesses, and the disappearance of funding from combustion engine investors has changed the distributed generation investment picture. "Venture capitalists are on the prowl for innovative, renewable technologies." Distributed generation and renewables are popular with venture capitalists.

### [Maximizing Agricultural Clean Energy Projects through the Farm Bill](#)

At the Energy Outlook Conference recently held in Washington, DC, attendees heard from leading policymakers, federal officials, congressional staff and energy issues experts. Among the topics, "How to Maximize Agricultural Clean Energy Project Successes Under Section 9006 and Other Programs Under the Farm Bill," presented by [Charlie Kubert](#) (PDF 76KB), Environmental Law & Policy Center, and [Carol Werner](#) (PDF 123KB), Environmental and Energy Study Institute.

### [Renewable Energy Credits Suddenly a Hot Topic](#)

The National Renewable Energy Laboratory has released a new [report](#) (PDF 2.0MB) analyzing the emerging market for Renewable Energy Certificates in the United States. The 76-page report, issued in January, describes how RECs are marketed, examines REC markets including scope and prices, and identifies and describes the key challenges facing the growth and success of REC markets. *Distributed Energy notes* that over the past four years, RECs have had little impact on energy production and financing. Now, the market is just about as hot a topic as global warming.

### [Democratic Energy Newsletter Resurrected](#)

After a long hiatus, the New Rules Project has re-launched its Democratic Energy e-bulletin, a newsletter reporting on the growing movement by households, businesses, and local and state governments to democratize the energy system. Email subscriptions are free. In addition, the New Rules Project has redesigned the energy portion of its web site, which now includes actual rules – from statutes and zoning codes to utility tariffs and regulations – that encourage technologies and ownership forms and systems that decentralize power, energy production and energy policymaking. For more information, email [John Bailey](#) at the Institute for Local Self-Reliance.

### [NW Energy Efficiency Alliance Launches News Service](#)

*nwcurrent*, a new electronic news service funded by the Northwest Energy Efficiency Alliance and developed by the Celilo Group Media, covers energy efficiency, renewables and smart energy in Idaho, Montana, Oregon and Washington. Visit their site to register for the free monthly newsletter.

### [Sustainable Business Offers News, Employment and Investment Tips](#)

Visit this one-stop source for the sustainable business and investor news, events, and networking, their popular jobs service, Green Dream Jobs. Unique to their site is the only newsletter that tracks sustainable investments. Editor Rona Fried sits on the advisory board for the first Clean Energy Index that recently debuted on AMEX.

### [E&ETV Launched](#)

On January 24, E&E Publishing began webcasting interviews with top people from the environmental and energy policy world, delivering up-to-the-minute news from Capitol Hill and hosting panel discussions among key players with opposing views on major issues. And there will be much, much more to come. Watch hard-hitting exchanges on key topics right on your desktop.

### [Bachelor's Program in Renewable Energy Systems](#)

With renewable energy technologies sporting the fastest growth rates of any energy industry, higher education is beginning to offer degrees catered specifically to the field. A new Bachelor of Science degree in Renewable Energy Systems (RES) will be offered by Oregon Institute of Technology in collaboration with Clackamas Community College beginning Winter Term 2005. The program is believed to be the first of its kind in the country. Plans call for the program to be offered on the main campus in Klamath Falls. According to John Yarbrough, program director, "mechanical and electrical course work leads to courses in energy systems, heat pump systems, photovoltaics, energy management and auditing, wind and bio-mass, renewable energy transportation systems, zero net energy buildings, and fuel-cells."

non-profit organization promoting climate change solutions that create jobs, boost rural economies, and strengthen communities in the Pacific Northwest.

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