



Harvesting Clean Energy eNews Bulletin

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

April 2005 – Newsletter #10

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NW Legislative Roundup

...Montana...

Two key planks of Gov. Brian Schweitzer's renewable energy platform have been hammered into place after a rough 'n tumble [legislative session](#) and now await his signature. The **Montana Renewable Power Production & Rural Economic Development Act (SB 415)** [establishes](#) Renewable Portfolio Standards requiring the state's utilities to secure a portion of their electricity from renewable sources by certain dates: 5% by 2008, 10% by 2010 and 15% by 2015. Rural electric cooperatives can opt out of the requirement.

After handily passing the Senate, the bill's [prospects](#) before the House Energy & Telecommunications committee dimmed, but [endorsement](#) by the *Billings Gazette* on April 7, and strong [support](#) from agricultural and environmental groups during an April 11 hearing helped bring the bill to a vote. Noted Roby Roberts of PPM, a wind power company, and president of the American Wind Energy Association, "We're prepared to invest hundreds of millions in Montana."

During their deliberations, however, the House added a cost-cap amendment that may cripple bill's effectiveness. The amendment mandates an economic comparison between various energy sources, but artificially inflates the cost of renewable energy by requiring consideration of numerous additional factors. The bill also applies different cost-cap provisions to different utilities.

Equally controversial was the Governor's **Ethanol Fuel legislation (SB 293)** requiring a 10% ethanol blend in gasoline by 2006. The measure was extensively [debated](#), with lengthy articles exploring ethanol's economic potential appearing in many of the state's papers, including the *Billings Gazette* and *Great Falls Tribune*. After relatively smooth sailing in the Senate, the bill was heavily [amended](#) by the House Agriculture committee before finally receiving [approval](#). Even then final House passage was on a largely party-line vote of 52-48.

The requirement is triggered once instate production reaches 40 million gallons in a given year, and sustains that level for an additional three months. The program is scheduled to sunset five years after the date of implementation. An additional tax incentive of up to 20¢/gallon is also available over the first six years of a refinery's operation, with the actual amount dependent upon the percentage of instate feedstock used in production. To qualify, a refiner must use at least 20% Montana-grown feedstocks in the first year, with the threshold increasing each year until year six, when refiners must use 65% instate crops.

Other renewable energy bills which survived the session and either await the Governor's signature or have already been signed into law include:

- [HB 756](#) – Offers 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.
- [HB 776](#) – Provides a similar property tax incentive for equipment to blend biodiesel, eliminates the special fuel tax rate, and removes labeling requirements at the pump.
- [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 68](#) – Exempts ethanol production facilities from property tax during construction and for the first ten years of operation.
- [SB 83](#) – Extends the state's renewable resource grants and loans program to include renewable energy sources.
- [SB 115](#) – Lowers the property tax rate for commercial wind farms while adding a local impact fee on construction costs for three years.

- [SB 213](#) – Allows the property tax credit on equipment used for collecting or processing reclaimable material to apply to energy production, and extends the credit through 2010.
- [SB 365](#) – Extends the current Universal System Benefits program through 2009.
- [SJ 17](#) – 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.

...Oregon...

Gov. Ted Kulongoski ramped up his renewable energy agenda with the April 13 [release](#) of the five-step **Oregon Strategy for Greenhouse Gas Reduction** [report](#) prepared by the Governor's Advisory Group on Global Warming. "Oregon has an opportunity to be a leader on the front end by developing new technologies, investing in renewable energy, and practicing conservation – which will reduce greenhouse emissions in our state," said Kulongoski.

Accompanying the release was a letter to the Senate President and House Speaker urging passage of numerous renewable energy bills being considered by the legislature. "We have an opportunity this session to solidify Oregon's role as a leader on the issues of renewable energy and biofuels production, which reaches across party and regional lines and will help grow our economy and protect our environment," he said.

As in other Northwest states, a proposed **renewable fuels requirement** ([HB 3033](#)) for 10% ethanol by 2010, and 2% biodiesel by mid-2006 rising to 5% biodiesel by 2010, triggered the most lively public debate. In a March 16 [editorial](#), the *Eugene Register Guard* argued that, "large-scale production of biofuels tends to consume more energy than it creates." Biofuels proponents were quick to respond with their own opinions on production efficiency in the paper's [March 20](#) and [March 25](#) editions.

Oregon's renewable fuels standard measure was one of six biofuels bills subject to hearings before the House Environment committee on April 14 and 19. The other bills, which advocates hope to advance as a package, include:

- [SB 736](#) – Allows biodiesel production plants to take advantage of the expedited energy facility siting process that ethanol production plants currently receive.
- [HB 3030](#) – Expands the property tax exemption for ethanol production facilities to include biodiesel production facilities and oilseed crushing facilities.
- [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 3034](#) – Requires the state to replace at least 5% of their diesel consumption with biodiesel, reduces the fuel tax on biodiesel in lightweight vehicles, 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.

As the press examined the role of HB 3030 in fostering growth of ethanol production plants such as Cascade Grain's proposed Port Westward [facility](#), agricultural interests were debating the impacts of *Brassica* propagation on specialty seed operations, particularly in the Willamette Valley. Agricultural leaders, state agency staff, OSU researchers, commodity groups, and individual farmers are now reviewing a [draft proposal](#) to amend canola growing restrictions to address seed growers concerns about cross-pollination and related problems.

In addition to numerous energy efficiency bills still working their way through the Oregon legislature, proposals geared more towards energy production include:

- [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 (passed Senate, before House Business, Labor and Consumer Affairs committee since mid-March).
- [SB 733](#) – Provides individual tax credits for solar energy devices installed on homes or businesses (before Senate Environment & Land Use committee).
- [SB 834](#) – Establishes the Community Renewable Energy Project Fund, authorizes issuance of up to \$1 million in lottery bonds, and establishes a program to fund feasibility studies for small-scale local and community renewable energy projects (passed Senate Environment & Land Use committee, before Ways & Means).
- [HB 2646](#) & [HB 2647](#) – Authorizes issuance of renewable energy bonds by public utilities (before House Environment committee, no action since mid-February).

...Washington...

Renewable energy bills in Washington had their own measure of last minute excitement. A flurry of amendments came and went as two groundbreaking, **solar industry** support bills were buffeted by committee and floor action in both the House and Senate. Varying proposals for sunset dates and required interconnection standards resulted in a [hybrid bill](#) (HB 1020) that included the original provisions plus creation of an interconnection technical advisory group charged with coming up with recommendations for a common standard by next summer. The bill establishes a B&O tax rate and provides tax incentives for solar manufacturers located in rural areas of the state. Incentives include a sales tax exemption for construction of new buildings, a use tax exemption for personal property incorporated into the project, a B&O job tax credit of \$3,000 for each full-time position, and a property tax exemption on machinery & equipment. It now returns to the House for their concurrence.

Meanwhile, advocates of a package of three **biofuels** bills are hoping to resurrect their measures during the final legislative budgeting process. Originally left to languish in the House Finance committee in early March, the bills include:

- [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.

Two bills mentioned last month dealing with interconnection standards and net metering credit (HB 1011), and small wind permitting (HB 1021) are now considered dead.

...Idaho...

The most visible renewable energy measure to survive the Idaho legislature is [HB 110](#), which 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 remains in effect until July 1, 2011. Gov. Dirk Kempthorne recently [signed](#) the legislation, which potentially benefits eleven different wind power projects planned from Boise to Idaho Falls. Early estimates put the combined generating capacity from these proposed projects at about 750 MW, enough to power about 175,000 homes.

Other renewable energy bills already signed into law include:

- [HB 106](#) – Establishes the Energy Resources Authority as an independent entity to finance the construction of electric generation and transmission projects, and possibly offer energy conservation loans to utilities for their customers.
- [HB 322](#) – Expands tax credits for higher level ethanol blends.
- [HJM 8](#) – Sends a resolution to Congress requesting support for a blending bias for ethanol derived from agricultural byproducts in any Federal energy bill.

National Scene

...Funding Opportunities...

[USDA Section 9006 Grant Applications Due June 28](#)

USDA Rural Development has announced \$11.4 million is available for grants under this year's Renewable Energy Systems and Energy Efficiency Improvements Program (Section 9006 of the 2002 Farm Bill). Another \$11.4 million will be provided for guaranteed loans later this fiscal year. Any funds for loan guarantees not used by August 31 will be awarded to grant applicants under this solicitation.

The basic grant program and application processes are largely unchanged from last year. The minimum grant size is \$2,500 and the maximum is \$250,000 for energy efficiency improvements and \$500,000 for renewable energy systems. Grants can provide up to 25% of total project costs. Grant awards will be announced by September 30. Visit ELPC's [Farm Energy](#) website for an overview of significant changes in how projects will be evaluated and scored. You can also contact your state USDA Rural Development offices for assistance:

- **Idaho:** [Brian Buch](#), 208-785-5840 x118
- **Montana:** [John Guthmiller](#), 406-585-2549

- **Oregon:** [Don Hollis](#), 541-278-8049 x129
- **Washington:** [Chris Cassidy](#), 360-704-7707

Value-Added Producer Grant Deadlines Near

USDA technical assistance workshops around the region have wrapped up for this grant cycle, but it's not too late to request some guidance. Contact the friendly folks listed above and see if they have time to look over your application. Some \$14.3 million is available this year, with priority given to bioenergy projects. Draft applications are due April 22, and final applications May 6. Download the complete VADG [application guide](#) (PDF 2.2MB) for a checklist, sample applications and other resources. A brief [summary](#) and responses to [questions](#) (PDF 88KB) raised during recent workshops were prepared by USDA Rural Development's Oregon office.

USDA RUS Loan Program Funds Renewable Energy Projects

The USDA Rural Utility Service is a great source of funding for rural projects generating power from renewable sources. Some \$200 million of Treasury loan funds are available through the end of the current federal fiscal year. Historically most of the applications have come from rural electric cooperatives, but many other potential applicants are eligible. Interest rates are determined largely by the term of the loan, which is based upon the project's useful life, usually 20-years. Applications should be submitted no later than early July. For more info, contact [Dan Bowers](#), 208-321-8095.

Conservation Security Program Includes Efficiency, Renewable Incentives

Primarily meant to support ongoing private agricultural land stewardship, this year's CSP sign-up includes a renewable energy and energy efficiency component which compensates for energy audits, cutting energy use, converting to renewable energy fuels, and implementing renewable energy production, including methane production as well as wind, solar, hydroelectric and geothermal energy. See the CSP [job sheets](#) for details. Almost 50 watersheds in the Northwest are eligible this year. Check out the CSP [Watershed Map](#) to see if you're in one of them. To apply, potential participants complete a self-assessment workbook available on the Web or from local NRCS offices. The sign-up will be held until May 27. Questions? Call the CSP Hotline, 402-687-2100.

...Federal Legislation...

House Starts Markup of Energy Policy Act

The House Energy and Commerce, Resources, and Ways and Means committees have resumed work on a comprehensive energy bill. Committee Chairman Joe Barton (R-TX) said he expects lawmakers to offer between 70 and 80 amendments. Quick action by the Senate appears unlikely, though, with Finance Committee Chairman Chuck Grassley (R-IA) suggesting his committee would not act on tax bills, including the energy tax package, until the latter half of this year.

House Energy and Commerce Committee member Greg Walden (R-OR), who also serves as vice-chairman of the House Renewable Energy and Energy Efficiency Caucus and co-chairman of the Northwest Energy Caucus, has expressed [support](#) for legislative action that would encourage the development and use of renewable forms of energy such as solar power, wind power, fuel cells and biomass. "With the increasing demand for oil around the world and the rising costs in Oregon and throughout the nation, we must focus on the development of alternate energy sources, especially those that are clean, efficient and renewable," said Walden.

Walden recently voted in favor of an amendment offered by Rep. Jay Inslee (D-WA) that provides \$60 million per year, for five years, in an effort to equip more than 20,000 federal buildings with solar panels by 2010. "We need to combine the genius of solar energy technology with the procurement power of the U.S. government to develop policies that lower energy costs, decrease America's dependence on foreign oil and addresses climate change," said Inslee.

Additionally, Walden and other leaders of the bipartisan Energy and Energy Efficiency Caucus submitted a letter to House Ways and Means Committee Chairman Bill Thomas (R-CA) and Ranking Member Charles Rangel (D-NY) expressing the caucus' support for the extension of current renewable energy production tax credits (PTC). Current PTCs are set to expire at the end of this calendar year. The Energy and Energy Efficiency Caucus believes that these credits should be extended for at least three years, giving companies an opportunity to develop comprehensive plans.

Fuels Security Act

Legislators aren't hooking all their horses to the Energy Bill wagon, however. A bipartisan group of 22 representatives from Midwest states has [introduced](#) legislation (HR 1608) setting a national renewable fuel standard of 4 billion gallons by 2006 and 8 billion gallons by 2012, more than doubling the current production of domestically produced renewable fuels. Eligible biofuels include ethanol, biodiesel, and cellulosic biomass fuels.

The bill is one of three RFS proposals this session, including a Senate companion measure (S 650) spearheaded by Sens. Tom Harkin (D-IA) and Dick Lugar (R-IN), and cosponsored by 19 additional Midwest senators. Commented Lugar, "The development of renewable fuels would help ensure national and economic security and gas price stability. With high oil prices, ethanol, biodiesel and fuels produced from biomass becoming increasingly important." Introduced simultaneously was legislation (S 610) providing biodiesel producers making up to 60 mgly with a 10¢/gal tax credit, and expanding the existing ethanol production tax credit to producers also making up to 60 mgly.

Reliable Fuels Act

The third, less ambitious proposal [passed](#) out of the Senate Environment and Public Works Committee on March 16. Committee member Sen. Max Baucus (D-MT) was seen as instrumental in supporting the RFS measure. The bill sets a goal of 6 billion gallons per year of biofuels by 2012. Championed by Sens. John Thune (R-SD) and James Inhofe (R-OK), the measure establishes a national, flexible program that does not require renewable fuels be used in any particular area or state, allows refiners to use renewable fuel blends in areas where it is most cost-effective, eliminates the reformulated gasoline oxygenate standard, enhances RFG air quality requirements, and bans the use of MTBE in gasoline by 2010.

Solar Energy Bill Linked to Natural Gas Act

Recent legislation proposed by Lamar Alexander (R-TN), Chairman of the Senate Energy Subcommittee, is aimed at cushioning the tight natural gas market, but includes major provisions for solar energy development. The "Natural Gas Price Reduction Act of 2005" includes a five-year, 30% investment tax credit for both residential and commercial applications of solar energy technology, taken after any existing state credits. The credit is capped at \$7,500 for residential PV and thermal projects, and unlimited for commercial projects. The bill also includes a solar Production Tax Credit of 1.8¢/kWh for five years. Combined the credits will hopefully stimulate a new round of commercial solar power development.

Extension of Production Tax Credit a Priority

Long-term extension of the current federal Production Tax Credit is a major priority for the wind industry, which is backing a bill (HR 1511) introduced by Reps. Mark Foley (R-FL) and Earl Pomeroy (D-ND) extending the PTC through the end of 2010. More than 90 House members cosponsored similar legislation during the last effort to extend the PTC. Meanwhile, the House Ways and Means committee plans to advance the PTC outside of work on the energy policy bill working its way through three different House Committees. The Committee will seek to extend the PTC as part of a package of expiring tax provisions attached to an upcoming budget bill.

Biofuels

...Biodiesel...

Seattle Biodiesel Garners Media Attention

Seattle Biodiesel owner John Plaza is a busy man these days, and it's not just because he's planning to open the Northwest's first wholesale biodiesel processing facility later this spring. A [profile](#) in the national *Biodiesel Magazine* in March was followed by an open house on April 10 for Sen. Maria Cantwell (D-WA) and dozens of biodiesel advocates from around the state that received extensive [print](#) and [television](#) coverage. Cantwell plans to introduce 20/20 Biofuels Challenge legislation, calling for national production of biofuels to increase to 20 billion gallons by the year 2020 through federal tax incentives and a tripling of research and development efforts. Subscribe to her weekly update [newsletter](#) to track this proposal.

Meeting Set to Draft Oregon Canola Rules

Growing attention to oilseed propagation has catalyzed a review of state rules governing canola propagation. A new [draft plan](#) prepared by the Oregon Dept. of Agriculture will be discussed at a special meeting on April 29 in Salem. The recommended plan would replace the existing 12 production districts with one district covering the Willamette Valley. Unregulated canola production in the rest of the state would be allowed unless a group of growers requested formation of a control area for production of a specific rapeseed type. For more information, contact [Daniel Hilburn](#), administrator of DOA's Plant Division, or call 503-986-4663.

Columbia County Completes Biodiesel Plant Study

With a favorable feasibility study now in hand, economic development leaders in southeast Washington State will soon be looking to secure the \$32 million needed to build an oilseed crushing and biodiesel processing facility in Columbia County. The project, driven by Columbia County and Blue Mountain RC&D, recently received a \$50,000 USDA grant to complete the study. "I am very optimistic that we can have this plant up and running by 2006," said Columbia County commissioner Dwight Robanske. "This is an excellent and needed opportunity for farmers and for

our rural communities.”

[SeSequential Biofuels to Rehab Eugene Brownfields Site](#)

SeSequential Biofuels, a fuel marketer and distributor in Eugene and Portland, plans to open an alternative fuel service station in Eugene this fall. SeSequential’s project represents a three-way partnership with Lane County and the state Dept. of Environmental Quality to redevelop a site contaminated by a former petroleum distribution company. The station plans to offer straight B100 as well as biodiesel and ethanol blends.

[Northwest Biodiesel Forum Huge Success](#)

Nearly 400 participants, vendors and exhibitors participated in the Third Northwest Biodiesel Forum in Seattle on March 19. Attendees were briefed on the basics of biodiesel production and use, environmental health issues, and efforts to enhance economic incentives and improve distribution. An overflowing parking lot of alternative fuels vehicles provided ample opportunity for hands-on discussions. To learn more, and see photos from the event, visit the Northwest Biodiesel Network’s [website](#).

[Alternatively Fueled Vehicle Rally, April 23 in Seattle](#)

Alternatively fueled car owners and vendors will be on hand to talk about their vehicles and alternative transportation with the public. The event will take place at the North Shore area of Sand Point. For more information contact Jennifer Knight, Seattle Parks, at 206-733-9434.

[Helena Group Explores Biodiesel Production](#)

The Alternative Energy Resource Organization, based in Helena, is looking to establish a new co-op to process fuel from used frying oil and Montana seed crops. The group hopes to emulate the success of Sustainable Systems, founded in 2001 by a group of Missoula growers, scientists and business people who got started by recovering used frying oil from the University of Montana campus.

[Corvallis High School Students to Produce Biodiesel](#)

Toyota and the National Science Teachers Association has awarded \$10,000 to a Corvallis-area science teacher for “A Green Energy Plan.” Students from Crescent Valley High School and Corvallis High School will have the opportunity to work on two green energy technologies with chemical engineering students from Oregon State University. Students will design a system to produce biodiesel and work toward installation of a solid oxide fuel cell at the local landfill. This technology will potentially convert flared landfill gas into electrical power for the local grid.

[Real Energy Solutions Trump Additional Drilling](#)

In a March 12 editorial, the *Salem Statesman Journal* supported Oregon Rep. Jeff Kropf’s efforts to call attention to the need for expanded use of biofuels in Oregon. “Congress, oil companies and manufacturers must turn to real energy solutions for motorists and truckers,” said the paper.

[Biodiesel Production Could Get Cheaper](#)

A federal Agricultural Research Service scientist has developed a new approach to synthesizing biodiesel that eliminates the use of hexane, an air pollutant traditionally used to extract vegetable oil triglycerides from raw agricultural material before biodiesel production. The new method eliminates the conventional oil extraction step by incubating oilseeds with methanol and sodium hydroxide, which are currently used to process extracted oil. ARS has filed a patent application on the process, which might be useful in producing biodiesel from lipids remaining in the corn meal byproduct of corn-to-ethanol plants.

[Making Your Own Biodiesel](#)

This entertaining and informative article in *Capital Press* explores both motive and means behind homegrown biodiesel production. As author Angela Eckhardt notes, “Growing oil crops will pay better than the government, and it comes with something subsidies can’t offer: pride. That’s something America’s farm families can always use.” Homemade biodiesel was also the focus of a [portrait](#) of a middle school science teacher in Hermiston, OR who calculates he and his partners are able to produce fuel from waste grease for less than \$1 a gallon.

[Biodiesel Mandate for Navy and Marine Facilities](#)

Beginning June 1, all US Navy and Marine non-tactical diesel vehicles will be required to operate on B20 as part of the military’s efforts to increase use of domestic and clean fuels. The Navy is the largest user of diesel fuel in the world, and is charged with protecting shipping routes to import petroleum to the US. In 2003, Naval Base Ventura County in Port Hueneme, CA began operating its own biodiesel processing unit. Eventually, the Navy could send portable biodiesel processing units overseas to produce its own fuel while on missions abroad.

[National Energy Commission Report Endorses Biofuels](#)

A report by a blue-ribbon commission of energy experts gives significant boosts to biomass electricity and biofuels as a strategy to meet US energy needs. "Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges" is the product of two years of analysis by the [National Commission on Energy Policy](#). The Commission's report recommends policies to address energy security, exposure to fuel shortages and price shocks, an aging infrastructure, and the environmental impacts of energy production and use.

[Biodiesel Directory from Biodiesel Magazine Now Online](#)

The 2005 Biodiesel Directory is now available online for free. It offers contact information for over 600 companies, searchable by keyword and category, and links to all company and advertiser web sites.

...Ethanol...

[The Energetics of Ethanol](#)

Does it take more energy to make ethanol than is contained in ethanol? That question continues to haunt the ethanol industry even after 27 years of expanding production. Over the years more than 20 scientific studies have examined the question. The New Rules Project has prepared a summary that includes studies undertaken by government, industry and educational institutions, and offers an excellent [overview](#) of the issues surrounding ethanol. The Oregon Environmental Council has also prepared a [chart](#) (PDF 88KB) comparing the findings of many of the major studies.

[Novozymes and NREL Cut Cost of Converting Biomass to Ethanol](#)

Novozymes announced it has successfully achieved a 30-fold reduction in the cost of enzymes needed to convert biomass to ethanol. Since early in 2001, Novozymes has been working with DOE's National Renewable Energy Laboratory to reduce the cost of producing ethanol from cellulosic biomass, specifically corn stover. The cost reduction was achieved through a combination of an improved pre-treatment process developed by NREL and new enzymes developed by Novozymes. Abengoa Bioenergy plans to test the improved process at its pilot plant in York, Nebraska, in 2006.

[Spurring Ethanol into the Future](#)

The Ethanol Producers & Consumers conference ventures outside Montana for the first time for their 15th annual gathering. This year's event is scheduled for June 12-14 in Cody, Wyoming.

[Governors' Ethanol Coalition Endorses Ethanol from Biomass](#)

The 30-state Governors' Ethanol Coalition has released a report, "Biomass from Ethanol: America's 21st Century Transportation Fuel." The report outlines the Coalition's concern for the nation's energy, economic, and environmental security, and recommends support for a national renewable fuel security standard, research and development, and commercialization and production incentives.

[E85 Fleet Toolkit Available Online](#)

DOE recently unveiled the E85 Fleet Toolkit, an online tool designed to help fleet managers build ethanol fueling infrastructure. This comprehensive, interactive site is designed to be a "one-stop shop" for E85 infrastructure information. It includes information on fueling equipment and processes, procedures for building new stations or converting existing equipment to be E85 compatible, fuel specifications and suppliers, and success stories, lessons learned, contacts, available flexible fuel vehicles, and more.

[UN Finds Biofuels Could Help Alleviate Poverty](#)

According to a recent study by the UN Food and Agriculture Organization, a short-term target of replacing up to 13% of petroleum-based fuels with biofuels appears feasible in the US and Europe using available cropland. Although some worry that converting crops to fuels could hurt world food supplies, the FAO finds that producing energy from biomass could be a key to eliminating extreme poverty and hunger by bringing economic development opportunities to rural areas.

Biopower

...Digestion...

[Washington's First Dairy Digester Up and Running](#)

Some 150 visitors attended a March 10 dedication ceremony for the \$1.2 million digester near Bellingham. At capacity, the digester can handle manure from about 1,500 cows to produce enough electricity to power 180 homes.

Currently some 1,100 head are producing 300 kW of energy. Puget Sound Energy purchases the power as part of its Green Power program. The estimated payback on investment is five to eight years. "I'm doing this for my son," said dairyman Darryl Vander Haak. "It's about his future as a dairy farmer."

[Tillamook Digester Produces Power, Fiber and Interest](#)

"Every eighty minutes, a truckload of raw manure is pumped into the holding cells at the Port of Tillamook Bay's Hooley Digester in Tillamook, Oregon. Then the truck is filled with liquid nutrient by-products from the digestion process, trucked back to the farms and applied to the fields." So begins an extensive profile in the March edition of *BioCycle* magazine of this expansive facility, which began operations in September 2003. Digester management challenges, coproduct marketing, and future expansion options are explored in detail. The digester is operating at half capacity, with two tank cells taking in liquid manure from 4,000 cows. Two more tank cells are planned.

[Green Energy Industrial Park Envisioned for Magic Valley](#)

Idaho Falls-based Intrepid Technology, which completed a prototype anaerobic digester near Rupert earlier this spring, has announced plans to construct a second facility at the WestPoint Dairy in Wendell. It will own and operate the \$3.3 million facility under a 20-year lease, and supply area homes with natural gas. Intrepid claims their digesters remove 50% of phosphorus from liquids, and are confident they can implement technology to remove enough phosphorus for aquifer or surface water discharge. EnviroDyne has also announced their intention to convert animal, municipal solid and biosolid wastes into electricity to sell to Idaho Power.

Methane production is the first of three phases of a "Green Energy Industrial Park" envisioned for the Wendell area. Included in this initial phase will be a pipeline to bring gas from two county areas to a central point where it can be made available to end users. The second phase would expand facilities to produce biodiesel using locally grown oilseeds. The final phase would add an ethanol plant to the park. With 375,000 animals in Gooding and Jerome counties, it's estimated the area has the potential to produce 30 million cubic feet a day in natural gas.

[Idaho Sen. Craig Urges Support for Anaerobic Technology](#)

A new feasibility study for anaerobic digesters at dairies in the Twin Falls area won the support of Sen. Larry Craig (R-ID), who called the technology a potential "win-win-win" solution to the long-standing problem of dairy waste disposal. Two sites were studied, each with two adjoining dairies. The power plant for each location will cost up to \$2.8 million, while the digester facility is estimated at \$5 million, bringing the total pilot project cost to around \$7.8 million. Craig said Congress could provide incentives to dairymen who use digester technology to create power.

[Hood Canal Clean-up Plan Includes Digester Funding](#)

Gov. Christine Gregoire has included \$560,000 in her proposed 2005-07 budget to help the Mason County Conservation District and livestock (primarily beef cattle) owners in the flood-prone Skokomish Valley construct an anaerobic digester. "It allows manure to produce electricity as well as organic fertilizer that we can use or sell," said Skokomish Valley beef producer Paul Hunter. "It would benefit the entire community." Salmon carcasses and residential waste, such as lawn clippings, could also be part of the waste stream fed to the digester.

[...Combustion...](#)

[Experimental System Turns Grass Stubble into Energy](#)

Farm Power, an effort to convert wheat stubble into electricity, is installing a down-draft gasification near Rockford, WA this month. They hope to have conversion equipment up and running by this fall. The unit will produce syngas and activated carbon. Next year, they plan to install an experimental gasification reactor that will produce high-quality syngas for both electrical generation and liquid fuel. Once the system is up and running, excess electricity and liquid fuel will be sold to electrical companies and gas wholesalers. It is estimated 3,000 acres of stubble would produce enough power for 375 homes.

[Forks Strong Contender for New CHP Mill](#)

U.S. Bioenergy is strongly considering building a patented, self-sustaining mill in the Forks area of the Olympic Peninsula. The smallest forest waste would be "transformed into biomass energy" to produce intense steam to run the mill. Larger diameter forest waste (e.g. small branches) would be combined into wood planks used primarily for new homes.

Wind

[PSC OKs Major Montana Wind Power Deal](#)

Montana's first major wind power project cleared its final hurdle on March 30 when the Public Service Commission

approved NorthWestern Energy's agreement to buy 135-150 MW of electricity for 20 years from an 8,000-acre wind farm to be built near Judith Gap. The expedited ruling allows Invenergy Wind can build the 100 turbine, \$150 million wind farm in Wheatland County this year. Under the terms, Invenergy will supply NorthWestern with electricity at an average price of \$31.60/MWh.

[Renewable Energy Offers Montana Value](#)

In an April 7 editorial, the *Billings Gazette* endorsed the PSC's approval of the proposed Judith Gap wind energy project. "Wind projects will pump investment into rural areas, boosting the tax base as well as providing lease income to farmers and ranchers," commented PSC Chairman Greg Jergeson.

[Meetings on Large Montana Wind Project Delayed](#)

A planning delay in a large-scale wind farm project proposed by Wind Hunter LLC for the Glasgow area has postponed a series of public meetings. The Texas firm plans to build a wind farm that eventually could cover 22,000 acres in northcentral Valley County and produce as much as 500 MW of power. Wind Hunter needs an additional connection agreement with the Western Area Power Administration for the project to move forward.

[Farming the Wind in Chelan County](#)

This article in *Home Power* magazine profiles installation of the most recent turbine to participate in Chelan County Public Utility District's nationally recognized SNAP program, an innovative, customer-driven, renewable energy buyback program. About 700 customers currently contribute to SNAP, which returns 100% of funds to renewable energy producers on the PUD's grid. About 50 kW of solar and wind power are installed, with more than 50 kW planned.

[Washington Grows Energy Options on Wind Farms](#)

This review of wind power in Washington State covers various technologies, issues related to the intermittent nature of wind power, green power and green tags, and organizing community support for a wind project. The Nine Canyon Wind Project is described in detail.

[Idaho Wind Conference Touts Renewable Energy](#)

Some 80 people gathered on April 1 in Burley for a workshop designed to provide information to those interested in wind generation – from farmers looking to install a turbine to power their irrigation pumps to investors hunting for large wind-farm possibilities. Participants included representatives from the city of Pocatello, which is considering a 10-50 MW wind park to help solve the city's money woes. "Capital generated from wind sales can be used in the general fund," commented spokesman Dan Sharp said. "Revenue would replace taxes."

[Idaho Wind Gains Momentum as Power Source](#)

Until recently, Idaho was home to only three large wind turbines, but wind advocates say that's all about to change. With construction of the Fossil Gulch wind farm now complete, attention is turning to other proposals around the state. PacifiCorp is negotiating contracts with several wind and geothermal projects, including Ridgeline-Airtricity Energy, which wants to install 80-100 turbines along 10 miles of land south of Idaho Falls. Idaho Power also is seeking proposals to build 200 MW of wind power for its southern Idaho and eastern Oregon customers.

[Catching the Northwest Wind](#)

This extensive article explores how owners of existing transmission lines, wind power developers and others are seeking ways to hook the Northwest's best rural wind sites onto a grid largely built out to support electricity produced from hydropower, coal and other sources of energy. It's estimated the region has steady wind to produce about 133,000 aMW of generated electricity – enough to power almost 27 million homes. Getting the power to the region's major population hubs is another matter.

[Wind Energy and Birds Workshop Proceedings](#) (PDF 348KB)

A steering committee of scientists, conservationists, and wind energy officials assembled in May 2004 to review the best available data on avian mortality and disturbance at wind turbines, and discuss ways to prevent and minimize impacts to birds and bats. The American Bird Conservancy has also developed a set of policy [guidelines](#) with links on impacts to birds and bats, and siting criteria to avoid such impacts.

[Goldman Sachs to Acquire Zilkha Renewable Energy](#)

The Goldman Sachs Group will acquire Houston-based Zilkha Renewable Energy. The investment banking giant has made quiet steps towards wind energy in the last several years, acquiring ownership interests in the Condon Wind Project in Gilliam County, OR. Zilkha is currently pursuing several projects in a dozen states nationwide, including two in Washington's Kittitas Valley.

Solar

[Wyoming Distributes Solar- and Wind-Powered Stock Pumps](#)

State officials hope to deploy 2-4 pumps in each of the state's 23 counties during the pilot phase of a project aimed at promoting renewable energy and conservation. Matching funds for the pumps, developed by the University of Wyoming's Electric Motor Training and Testing Center, will be sought so that pumps can be provided to all ranchers who qualify. Rancher Bob Yeik has been running a solar-powered pump on a 2,000-acre pasture for almost two years. "Without it, I would have had to consider running a mile and a half of electric line," said Yeik.

Geothermal

[National Geothermal Collaborative Updates Web Site](#)

A consensus-based collaborative formed in 2002 to establish dialogues among key stakeholders and catalyze appropriate geothermal development, the NGC has a number of new resources available on their website. Included are "Geothermal Outreach Principles and Comment Analysis Report," an analysis of 3,787 individual comments in federal and state environmental and permitting documents for eight proposed projects in the western US, as well as eight "NGC Geothermal Issues Briefs" that address key issues surrounding geothermal resources, energy and development.

Policy & Resources

[Oregon Looks to Expand Distributed Generation](#) (PDF 404KB)

The Oregon Public Utility Commission has issued a report, "Distributed Generation in Oregon: Overview, Regulatory Barriers and Recommendations," describing how customers and utilities are using DG technologies, their benefits, and current and projected costs. Commission Chairman Lee Beyer called the report, "An excellent blueprint to remove regulatory barriers to lower cost distributed generation." The report finds 384 MW of additional, economical DG systems could be installed by 2025 without incentives or reduction in technology costs. With incentives, reduced costs and other favorable conditions, an estimated 1,831 MW in additional DG systems could be installed in the next 20 years.

["Ag in the Classroom" Essays Explore Clean Energy](#)

Two Oregon high school students saw their essays published in the *Capital Press* as part of a regional writing competition. "Whether it's using corn and wheat for ethanol, producing feedstock for biodiesel, or using livestock manure to produce biogas, our nation may soon depend on farmers and ranchers to help with yet another aspect of daily life," commented Krista Stangel in her [essay](#) on "Biomass: Our Future Energy Source." Mary Swearingen of Keizer concludes, "As we progress into the future many forms of traditional energy will be either limited or gone and we will have new, better and safer types of energy to use," in her [essay](#), "Beneficial Bioenergy Will Power Future."

[Avoid Oil Crisis with Renewables, Security Leaders Advise](#)

Predicting a future crisis over oil supplies, 31 national security leaders advised President Bush to reduce US consumption of foreign oil through "improved efficiency and the rapid substitution of advanced biomass, alcohol and other available alternative fuels." In a letter sent in late March, the group urges "a major new initiative" that spends \$1 billion for alternative fuel production in the next five years, and uses tax incentives to encourage the use of more efficient vehicles, including hybrids, plug-in hybrids, and flexible fuel vehicles.

[The Texas Renewable Portfolio Standard](#)

This informative and in-depth article discusses the developed of a renewables portfolio standard by and for the state of Texas, with particular attention to the program's achievements and shortcomings.

[New Forecasts for Solar, Wind, Fuel Cell Market Growth](#) (PDF 612KB)

San Francisco-based research and publishing firm Clean Edge has released a new report, "Clean Energy Trends 2005," which projects that markets for solar photovoltaics will grow from \$7.2 billion in 2004 to \$39.2 billion by 2014; wind power installations will expand from \$8 billion last year to \$48.1 billion in 2014; and fuel cells and distributed hydrogen will grow from \$900 million to \$15.1 billion over the next decade. The report examines such key trends as how biomass is becoming a significant fuel source for the US military, and how centralized solar farms in sun-rich areas could power entire cities.

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