

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Renewable Fuel Standard

Mandate a 10% ethanol blend and 2% biodiesel blend throughout the state. Tie the mandate to local production (e.g., 300 million gallons of ethanol, 15 million gallons of biodiesel produced in-state).

### Working Assumption

The top priority for would-be ethanol and biodiesel producers is assurance that the fuels they produce will be consumed. Renewable fuel standards ensure a steady market for biofuels. Renewable fuel standards provide a way to level the competitive playing field with conventional fuels. In addition, by requiring a statewide minimum blend of ethanol in gasoline and biodiesel in petroleum diesel, blending will occur as soon as the fuel enters the state preventing potential distribution or blend issues that might occur under a patchwork system.

Pursuing a statewide RFS for ethanol and biodiesel is timely. First, if DEQ drops the oxygenated fuel requirement in the Portland metro area, the market for ethanol will be uncertain. Second, by federal mandate, ultra-low sulfur diesel fuel (ULSD) will replace conventional on-road diesel nationwide beginning June 2006. ULSD will require the addition of a "lubricity agent." Biodiesel provides the necessary lubrication for ULSD and, unlike a petroleum-based lubricity agent, could be produced in Oregon.

### Desired Outcomes

*Two Year:* All gasoline sold in Oregon will have a 10% blend of ethanol, and all diesel will contain a 2% blend of biodiesel.

*Five Year:* All gasoline sold in Oregon will have a 10% blend of ethanol, and all diesel will contain a 5% blend of biodiesel.

| Action Steps                   | Timeline     | Key Partners                              |
|--------------------------------|--------------|---|
| Introduce and pass legislation | 2005 session | Legislators<br>OEC<br>Biofuels supporters |

### Resource Requirements

Assistance with lobbying for legislation

### Other States

Minnesota has built a largely farmer-owned ethanol industry with an RFS and is beginning to build a biodiesel industry using a content mandate tied to local production.

- An oxygenated fuel statute requires state-wide oxy-fuel (ethanol blend) use. It was changed in 2003 from 2.7% by weight to 10% by volume.
- Gov. Pawlenty will ask the 2005 legislature to change state law to require a 20% ethanol blend.
- All diesel fuel sold or offered for sale in the state must contain at least 2% biodiesel fuel by volume. This mandate will take effect by June 30, 2005 as long as one of the following conditions has been met: the state is able to produce more than 8 million gallons of biodiesel fuel annually, or a federal action creates a \$0.02 per gallon or greater reduction in the price of taxable fuel containing at least 2% biodiesel fuel sold in the state.

In Hawaii, regulations call for at least 85% of gasoline to contain 10% ethanol beginning April 2006.

Biodiesel is an "eligible technology" in Nevada's RPS.

Idaho and Montana will be pursuing RFS legislation for ethanol in 2005.

The pending federal Energy Bill includes an RFS.

# Renewable Energy Economic Development Strategy Action Plan

## Recommended Action: Production Tax Credit

### Working Assumption

A production-based tax credit would provide an economic incentive to spur development of a new biofuels production industry in Oregon. A production tax credit for Oregon could be designed for both ethanol and biodiesel. Any production tax credit plan would require legislative action.

Minnesota is one of 12 states that have adopted such a production tax credit for biofuels. The 20-cent ethanol producer payment legislation initially provided the security required by lenders to invest in small farmer owned ethanol facilities. In addition to opposition from the petroleum industry, bankers were concerned that these plants could not compete in the market with large agribusiness processors. At the time, most ethanol production occurred in large mills outside the state. Minnesota corn prices were among the lowest in the country, which was an advantage for local processing. The producer incentive provides payment for ethanol produced.

- \$550 million was spent for total corn/ethanol plant construction and startup costs.
- \$370 million in private sector financing was contingent on local equity capital.
- \$180 million in local equity capital was raised by over 8,000 farmer and business members.
- Over \$200 million worth of corn is committed for processing annually by local farmers.

Although Minnesota's ventures have been successful to date, margins have been squeezed by periods of record high corn prices and low ethanol prices. Minnesota hopes that ten years of payments will allow plants to retire debt, increase efficiency and develop new products and markets so they can survive the competition and price fluctuations in agricultural and petroleum markets. Minnesota projects that its ethanol industry contributes over \$350 million in net annual benefit to the state.

Ethanol is already cost competitive due to federal incentives. Recent changes in federal legislation will provide incentives for biodiesel similar to those provided for ethanol. The main logic behind a state production tax credit would be to help Oregon compete with the Midwest market. Ethanol facilities tend to locate in states with production tax credits.

### Desired Outcomes

*Two Year:* Provide to the Oregon Legislature an economic analysis of both the fiscal impact on the state spending and the economic development benefits of different production-based tax credit scenarios.

*Five Year:* Have in place a production-based tax credit program for ethanol and biodiesel produced in Oregon.

| Action Steps  | Timeline     | Key Partners   |
|---|--------------|--|
| 1. Collect detailed information on current production tax credit programs in other states, including bill language and administrative rules.  | 3 months     | OBA, OEC, ODOE, OECDD, ODA, biofuel production facility developers |
| 2. Identify potential sponsors for legislation, and get them involved in the process.   | 3 – 6 months |  |
| 3. Develop a framework for possible production tax credit programs for ethanol and biodiesel produced in Oregon. Considerations include:<br>a) Tax credit rate (How much per gallon?) | June 2005    |  |

|   |   |  |
|---|---|--|
| <p>b) Cap on the overall credit (Should there be a limit on the total value of the credit that would be available to any single producer? If so, what should the limit be?)</p> <p>c) In-state feedstock requirements (Should eligibility for the credit be based on use of Oregon-produced feedstock? Should it specify a percentage of in-state feedstock less than 100 percent to be eligible for the credit? Should this requirement be phased-in over time?)</p> <p>d) Sunset provision (Should there be a time limit on the availability of the credit?)</p> <p>4. Issue a Request for Proposals (RFP) for a qualified contractor to conduct the analysis and deliver a report to the Governor and the Oregon Legislature.</p> <p>5. Analysis and preparation of the report (draft)</p> <p>6. Peer-review, revision, delivery of final report; draft legislative concept for tax credit program.</p> <p>7. Legislative action.</p> <p>8. Implement the program.</p> | <p>August 2005</p> <p>March 2006</p> <p>July 2006</p> <p>2007</p> |  |
|---|---|--|

**Resource Requirements**

1. Funding for the analysis and report RFP.
2. Task force made up of representatives from the “key partners” to oversee this effort and keep it on track.
3. Support from members of the Legislature who would be “champions” of the proposal.

**Other States**

*Minnesota:* Minnesota has an ethanol production incentive of \$0.20 per gallon of ethanol produced on up to 15 million gallons of ethanol per year for a maximum of 10 years. This incentive only applies to qualified ethanol production facilities that began production on or before June 30, 2000. The small scale requirement has resulted in the formation of more than a dozen farmer-owned ethanol processing cooperatives. Annual payments are limited to \$3.0 million to any one producer. For fiscal years 2004 through 2007, this incentive is \$0.13 per gallon of ethanol, up to \$1.95 million annually to any one producer. This incentive may return to \$0.20 after 2007 and expires June 30, 2010.

*North Dakota:* The ethanol production incentive program provides funds for an incentive of \$0.40 per gallon for agriculturally derived fuel produced and sold in North Dakota. An ethanol plant with a production capacity of less than 15 million gallons is eligible for up to \$600,000 in production incentives per year and an ethanol plant with a production capacity of more than 15 million gallons may receive up to \$300,000 in production incentives per year. The total amount for any ethanol plant may not exceed \$10,000,000. North Dakota’s ethanol incentive operates on a counter cyclical feature that is market-based. It is not a fixed payment, but is provided to a facility when the price of ethanol drops or the price of corn increases to levels that make ethanol less profitable. Incentives are

based on a combination of a \$1.80/bushel price for corn and a \$1.30/gallon rack price for ethanol (price at the terminal).

*Maine:* There is a state income tax credit of \$0.05 per gallon for the production of biofuels for use in motor vehicles or otherwise substitute for liquid fuels. A taxpayer claiming this credit must provide information to the Commissioner of Environmental Protection regarding the biofuel being produced, including the type of forest or agricultural product being utilized, the nature and composition of the biofuel being produced, the proportion and composition of any nonbiofuel with which the biofuel is blended and the type of application for which it is intended to be used. Upon review of the information, the commissioner will provide the taxpayer with a letter of certification that the biofuel produced during the taxable year is eligible for this tax credit. For blends of biofuels with petroleum or other nonbiofuels the credit is allowed only on the portion of that blend that the biofuel constitutes. Any portion of unused credits may be carried over for the succeeding five taxable years.

*Indiana:* A taxpayer that produces biodiesel at a facility located in Indiana is entitled to a credit of \$1 per gallon of biodiesel that is used to produce blended biodiesel (diesel/biodiesel blends of at least 2% biodiesel) and \$.02 per gallon of blended biodiesel. The total cost to the state may not exceed \$1,000,000.

*South Dakota:* A production incentive payment of \$0.20 per gallon is available to ethanol producers for ethyl alcohol that is fully distilled and produced in South Dakota. To be eligible for this payment, the ethyl alcohol shall be denatured and subsequently blended with gasoline to create an ethanol blend. The cumulative annual production incentive payments may not exceed \$4 million for fiscal year 2003, \$5 million for fiscal year 2004, \$6 million for fiscal year 2005, and \$7 million thereafter.

*Wyoming:* Effective July 1, 2003, any person who has a tax liability for the sale of ethanol-based motor fuel, or gasoline sold for the purpose of blending into an ethanol-based motor fuel, may redeem a credit of \$0.40 per gallon, valid with the Wyoming Department of Transportation. To be eligible to receive this credit, 25% of an ethanol producer's distillation purchases shall be products that originate in Wyoming, excluding water, during the year the tax credits were earned. The total credits redeemed by all ethanol producers shall not exceed \$4,000,000 per year, and the total credits redeemed by any individual ethanol producer shall not exceed \$2,000,000 per year. An ethanol producer constructing a new ethanol plant after July 1, 2003 may receive tax credits for a period not to exceed 15 years after the date the construction of the new plant is complete. Any ethanol producer that expands its production after July 1, 2003 by at least 25% is eligible for tax credits with an increased maximum. Ethanol producers qualifying for the tax credit on or before July 1, 2003 may only receive a tax credit until June 30, 2009.

*Missouri:* In 2002, Missouri enacted two incentive programs to promote in-state, cooperatively-owned biofuels production. Targeted at increasing homegrown production of ethanol and biodiesel, the five-year incentive programs provide grants to producers that are at least fifty-one percent owned by agricultural producers actively engaged in agricultural production for commercial purposes in the state. Ethanol incentives include a payment of 20 cents per gallon for the first 12.5 million gallons and 5 cents per gallon for the next 12.5 million gallons. Biodiesel incentives are 30 cents per gallon for up to 15 million gallons of production.

*Kansas:* The Kansas Qualified Agricultural Ethyl Alcohol Producer Fund enables qualified agricultural ethyl alcohol producers to apply to the Department of Revenue for a production incentive. Ethyl alcohol producers who began production before July 1, 2001 are eligible to receive \$0.05 for each gallon sold to an alcohol blender during 2002, 2003, and 2004. If the producer who is in production

prior to July 1, 2001, increases production capacity by an amount of 5,000,000 gallons over the producer's base sales, \$.075 may be collected for each gallon sold to an alcohol blender that is in excess of the producer's base sales (up to 15,000,000 gallons). Producers who start production on or after July 1, 2001 and who have sold at least 5,000,000 gallons to an alcohol blender may receive \$0.075 for each gallon sold (up to 15,000,000 gallons).

*Texas:* The Texas Economic Development and Tourism Office administers a grant program for ethanol and biodiesel fuel producers. In order to be eligible for a grant, ethanol and biodiesel fuel producers are required to register with the state and contribute \$0.032 per gallon, up to 18 million gallons per producer, to a fund. Additionally, the state contributes \$0.168 per gallon produced to the fund. A producer is then entitled to receive a grant of \$0.20 per gallon from the fund, up until the 10th anniversary of the date production from the plant began. For each fiscal year a fuel producer may not receive a grant for more than 18 million gallons of fuel ethanol or biodiesel produced at any one registered plant, regardless of total gallons produced. This incentive expires August 31, 2005.

*Arkansas:* The Alternative Fuels Commission may provide grants for the production of biodiesel of up to \$0.10 per gallon, up to 5 million gallons per producer per year, for a period not to exceed 5 years.

*Mississippi:* Mississippi's Commissioner of Agriculture and Commerce is authorized to make direct payments to new ethanol producers in the amount of \$0.20 per gallon, up to 30 million gallons per year per producer, for a period of up to 10 years. Program payments shall not exceed \$6 million per producer or \$37 million per year cumulative total. The incentive program expires June 30, 2015.

*North Carolina:* A tax credit is available for the production or processing of biodiesel, 100% ethanol or ethanol/gasoline mixtures consisting of at least 70% ethanol. The credit is equal to 25% of the cost of constructing and equipping the facility. The credit must be taken in seven equal annual installments beginning with the taxable year in which the facility is placed in service. Facilities must be placed in service before January 1, 2008.

*Hawaii:* Hawaii's Ethanol Investment Tax Credits provide tax credits for the production of ethanol in the state. These tax credits help sugar growers on Kauai and Maui by offering incentives to use molasses and other wastes as the feedstock for ethanol. Supporters also hope the possibility of using municipal solid waste as a feedstock will cut down on the amount of waste being landfilled.

*Wisconsin:* Wisconsin Ethanol Program provides ethanol producers a credit much like Minnesota's -- 20 cents per gallon for no more than 15 million gallons of production. The feedstock must come from a "local" source.

*Oklahoma:* Oklahoma has a state ethanol producer credit of 20 cents per gallon for production in place after Dec 31, 2003 and before Dec 31, 2006. The credit is available for up to 25 mgy per facility for 5 years.

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Coordinated Industry Support or “Vertical Integration Assistance”

Develop and implement a comprehensive long-term strategy to connect and support the biofuels industry cluster.

Build on the Oregon Renewable Energy Action Plan and the action items identified in the Renewable Energy Economic Development Strategy. Fund staff positions at relevant state agencies to provide technical assistance. Develop a system for information sharing and policy development among agencies and with stakeholders and interest groups. Work together to implement strategies that will achieve the short- and long-term biofuels production, business and job development, and leading edge expertise goals.

As examples: 1) the Oregon Department of Agriculture will consult with agricultural producers to assist in planning for biofuels business opportunities; 2) the Oregon Economic & Community Development Department will link biofuels businesses with financing opportunities; 3) the state’s higher education institutes will share their research findings with relevant community partners; and 4) retailers and interest groups will build the market for biofuels. (Many of these strategies are expanded upon in other action item write-up, e.g., Market Analysis & Marketing Strategy for Biofuels)

To coordinate these activities, the state could convene a Biofuels Economic Revitalization Team (ERT). The ERT was established by the 72nd Oregon Legislature to focus state agencies on working together at the local level to increase economic opportunity and help local governments and business and property owners bring industrial sites to "shovel ready" status. However, the Focus Group did not feel this was the appropriate mechanism. The Focus Group did recommend that a funded position be created to serve as coordinator of all the processes currently happening.

### Working Assumption

The Northwest needs a virtually simultaneous build-up of all phases of biofuels production, from carving out a larger market to sowing hundreds of thousands of acres of oilseed crops for biodiesel production. A coordinated effort will be required to build a successful biofuels industry cluster. To illustrate a current difficulty, many producers are not willing to commit acreage to the production of canola, mustard seed or other seed crops because projected revenue from those crops do not cover production costs. At current market prices for biofuels and lubricants, farmers cannot afford to produce seeds to supply a processor if one existed. Vertical integration assistance will lead to market conditions that will support the establishment of a seed crushing business.

### Desired Outcomes

*Two Year:* Market conditions support the establishment of in-state production of biofuels and in-state production of the feedstock (oilseed production and seed crushing operations).

*Five Year:* Oregon produces a majority of the biodiesel and ethanol consumed in-state.

| Action Steps   | Timeline           | Key Partners   |
|--|--------------------|--|
| Hold a meeting between agencies, stakeholders and interest groups to develop the action plan and assign tasks. | January 2005       | ODA, ODOE, OECD, resource economists, extension personnel, biofuels producers and retailers, agricultural producers, county economic development departments, biofuels |
| Determine funding needs and work to secure through grants and state funding.                                   | February-June 2005 |  |

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|---|--|-------------------|
| <p>Secure funding from the 2005 Legislative Assembly for agency positions. (Or redirect current agency resources to this effort.)</p> <p>Carry out action plan.</p>   | <p>January-June 2005</p> <p>January 2005-<br/>January 2007</p> | <p>proponents</p> |
| <p><b>Resource Requirements</b><br/>TBD</p>   |  |                   |
| <p><b>Other States</b></p> <p>Minnesota is considered to be the state that has been most successful at developing a biofuels industry and one that has particularly benefited rural communities. See <a href="http://www.mda.state.mn.us/Ethanol/">www.mda.state.mn.us/Ethanol/</a>. The program has been very successful in promoting local ownership of ethanol production through the development of New Generation Co-ops (NGCs). Thirteen of Minnesota's 14 ethanol plants are NGCs. These plants may, however, be converted to limited liability corporations or partnerships and are generally designed to:</p> <ul style="list-style-type: none"> <li>• Be built by farmers to process member crops</li> <li>• Return more cash to farmers than conventional markets would provide</li> <li>• Be controlled by farmer board members so that farmer profits remain a top priority</li> <li>• Create a source of local jobs and economic development</li> </ul> |  |                   |

## Renewable Energy Economic Development Strategy Action Plan

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|--|-----------------|--|
| <b>Recommended Action: MTBE Ban</b>  |                 |  |
| <p><b>Working Assumption</b></p> <p>MTBE is an alternative to ethanol for oxygenated fuel requirements and other fuel uses. It has been found to be a severe groundwater contaminate. Whether or not DEQ rescinds the oxygenated fuels requirement in the Portland area, applications for MTBE will still exist, and oil companies may turn to MTBE instead of ethanol if neighboring states (which have banned MTBE) use up the West Coast's supply of ethanol. Banning MTBE would ensure that ethanol remains the oxygenate of choice in Oregon.</p> <p>MTBE contamination has been found in groundwater throughout Oregon. It is time for Oregon to step up and ban MTBE in gasoline as has been done in many other states.</p> |                 |  |
| <p><b>Desired Outcomes</b></p> <p><i>Two Year:</i> MTBE is banned as a gasoline additive in the State of Oregon</p>  |                 |  |
| <b>Action Steps</b>  | <b>Timeline</b> | <b>Key Partners</b>  |
| Introduce and pass an MTBE ban in the upcoming legislative session   | 2005 session    | Legislators<br>Governor's Office<br>Governor's Coalition for Ethanol |
| <p><b>Resource Requirements</b></p> <p>Drafting the MTBE ban and submitting to legislature.<br/>Securing a proponent who can organize support and guide the bill through the legislative process.</p>  |                 |  |
| <p><b>Other States</b></p> <p>20 states have banned MTBE, including Washington and California. 6 others are considering such bans.</p>   |                 |  |



## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Market Analysis & Marketing Strategy

Complete a market analysis for the state. Identify biofuel & biolubricant end users and retailers; engage them in market strategy; secure commitments. Develop purchasing guidelines. Develop & implement marketing strategy & tools.

### Working Assumption

It is essential to identify and quantify key target markets and engage them in development of a marketing strategy. Without the direct input of potential customers, it will be difficult to design a successful strategy for biofuels in Oregon. Purchasing guidelines – developed on the basis of customer needs – ensure that there will be consumers to buy the biofuel products we are encouraging Oregon companies to produce. (Lane County is considering such purchasing guidelines.)

As one example, the current state renewable energy action plan calls for 5% of the state fleet to use biofuels by 2006. As a larger end-user, it is critical for state purchasing officials to explain to producers, distributors and retailers what types of fuel and under what conditions (including safety and environmental regulation) the state agencies will buy biofuels. Similarly, biofuel producers need to understand the terms and conditions under which distributors and retailers will purchase products such as ethanol and biodiesel for resale to the general public.

With input from biofuels end users, professionally-designed marketing materials can then be designed and disseminated to biofuels users, retailers, and others. For example, bumper/window recognition stickers touting “my fuel is home grown.”

Likewise, workshops should be held for target markets, such as government fleets, school buses, construction equipment, marine engines, residential/commercial heating oil cooperatives, that explore the environmental, economic and other benefits of switching to biofuels.

### Desired Outcomes

*One Year:* Key target market identified and quantified. Purchasing guidelines developed and distributed to city, state and private fuel purchasers. Marketing materials developed and distributed.

*Two Year:* Achieve the stated state renewables action plan goal of 5% of the Oregon state automobile fleet using bio-fuels with similar percentages of city fleets using bio-fuels in Portland, Eugene and Salem. Achieve significant inroads in non-governmental markets.

*Five Year:* Biodiesel comprises at least 5% of the diesel market; ethanol comprises at least 10%.

| Action Steps  | Timeline   | Key Partners  |
|---|------------|---|
| 1. Hold focus group meeting to discuss the development of biofuel purchasing standards. Involve state and local governments and businesses that are already using biofuels (e.g., Portland, Multnomah County, Hood River, Eugene, DAS, Port of Portland), as well as local fuel distributors and independent retailers. | Early 2005 | Local governments, businesses, fuel retailer and distributor executives |
| 2. Develop and disseminate purchasing guidelines.   | Mid 2005   |   |
| 3. Track implementation and adherence to standards.   | Late 2005  |   |
| 4. Identify & quantify key target markets.  | Late 2004  |   |
| 5. Develop & implement focused marketing strategies that target these key markets.  | Early 2005 |   |

|  |         |  |
|--|---------|--|
| 6. Produce & distribute professionally-designed collateral materials.  | 2005-06 |  |
| 7. Hold workshops for key markets that explore the environmental, economic & other benefits of switching to renewable fuels.   | 2005-06 |  |
| <p><b>Resource Requirements:</b></p> <p>Lead organizations/agencies willing to undertake designing and implementing a marketing campaign that includes development of purchasing guidelines.</p> <p>OECD secured a grant from the EPA to create and launch a marketing campaign to increase biodiesel purchase and has contracted with OEC (purchasing guidelines are not outlined in the grant). However, no one has taken the lead on ethanol. The Pacific Northwest Biofuels Network is also interested in this work.</p> |         |  |

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Diesel Emissions Offset Program

Allow major diesel users (e.g., FedEx, UPS, other freight businesses) to elect to use some percentage of biodiesel as a greenhouse gas offset or to pay into a fund that would be used to subsidize biodiesel use elsewhere. Because availability of biodiesel is so difficult (not many B20 or B100 locations yet), the users would pay a per gallon amount for each percentage point, and the payments (plus administration fees) would go into a pool that would allow certain public fleets (e.g., school buses) to burn B20 or higher for no additional cost. (The buyers of the credit would subsidize the biodiesel use in another fleet -- very similar to how the consumption of wind power works.)

### Working Assumption

The market infiltration of biodiesel is somewhat slowed by spotty availability. An emissions offset program would allow companies that can't readily access biodiesel to subsidize the cost of it being used by entities that can readily access it. The cost for B20 may become less of an issue as a result of the recently passed federal legislation. Nevertheless, the availability for B20 may remain an issue for awhile, as it is generally fleets that receive truck and trailer loads of fuel that burn B20 (not vehicles that fuel at cardlocks or retail stations).

There is currently no mandatory cap and trade program for either greenhouse gases or diesel. However, there is interest on the part of companies that emit diesel to voluntarily reduce both their air quality impacts and their climate impacts. As noted in the Puget Sound Business Journal (10/15/04), something akin to this concept is being carried out by a Seattle utility: "Seattle City Light continues to launch efforts to reduce greenhouse gases in the Puget Sound region, part of the city's policy to meet the goals set out in the Kyoto Protocol on climate change. The Seattle-run utility is funding pilot programs to help the city's fleet and garbage haulers burn cleaner fuels in their cars and trucks. Seattle City Light also is working with the King County Metro to burn a 5 percent blend of biodiesel in buses. Now the utility has started funding a one-year pilot program for three Washington State Ferries boats to run on a cleaner-burning diesel and biodiesel blend."

Climate Trust is interested in projects that reduce transportation-related emissions, and recent research indicates that diesel emissions might be a key contributor to global warming in and of themselves. Climate Trust may therefore be interested in developing such an offset program. Likewise Bonneville Environmental Foundation has experience with this sort of approach.

### Desired Outcomes

*Two year:* Offset program set up and operational. X # of gallons of diesel offset through the program.

*Five Year:* Perhaps no longer necessary?

| Action Steps                         | Timeline    | Key Partners   |
|--------------------------------------|-------------|--|
| Hold meeting to discuss feasibility. | Winter 2005 | Climate Trust,<br>Bonneville<br>Environmental<br>Foundation, retailers |
| Choose lead.                         | Winter 2005 |  |
| Develop details of program.          | Spring 2005 |  |
| Launch program.                      | Summer 2005 |  |
| Monitor and evaluated.               | Winter 2005 |  |

**Resource Requirements**

.3 FTE for one year absorbed by lead? Minimal maintenance by lead group thereafter.

**Other States**

There are many examples of emissions trading programs, though none are diesel specific. These are the closest examples:

*Michigan:* A voluntary statewide emissions trading program allows AFV credits to be traded or retained for future use based on an emission reductions basis, not on a per vehicle basis.

*Missouri:* The Biodiesel Fuel Revolving Fund uses the money generated by the sale of EPA credits to cover the incremental cost of purchasing fuel containing B20 or higher biodiesel blends for use by state fleet vehicles.

## **Renewable Energy Economic Development Strategy Action Plan**

### **Recommended Action: Biodiesel Feedstock Incentives**

Treat seed oil crushing facilities locating in Oregon that agree to meet a certain minimum annual percent for in-state production and sales of biodiesel feedstock as “qualified applicants” for either/or both the Small Energy Loan Program (SELP) and the Business Energy Tax Credit (BETC).

Consider SELP financing and tax-credit approval for facilities willing to make a five-year commitment of a minimum of 80% of their annual unrefined oil crush to be sold, at a pre-determined discounted or reduced fixed price, to a qualified in-state producer(s) of ASTM D6751 quality biodiesel.

Consider providing crushing operations participating in this program with 50% reduction (tax abatement) of real estate and personal property taxes for each of the five years they have committed to participate.

Provide, for a minimum of five years, Oregon corporate income tax credits to both the qualified Oregon crushing facility(ies) meeting the 80% requirement mentioned previously and qualified Oregon biodiesel production facilities purchasing the unrefined seed oil and converting it into ASTM D6751. Such Oregon corporate tax credits for the crushing facilities might be based on the percent of seed oil production ultimately sold as biodiesel feedstock and, for the biodiesel producers, a production credit to offset the typically higher costs associated with the purchase and use of various virgin seed oils in the production of ASTM D6751 quality biodiesel.

Encourage ownership of seed oil crushing facilities by presently established or yet-to-be formed Oregon-based farm cooperatives and biodiesel manufacturers.

Utilize proper government channels, including the 2005 Oregon legislative assembly, to establish programs and incentives that promote new and varied in-state biodiesel feedstock sources and availability. This might include incentives to farmers to grow various seed oil plants, the oil from which might be extracted and used as a biodiesel feedstock.

Also, consider new incentives for rendering companies that currently collect and recycle vegetable oils, grease, and animal tallow that in turn agree to dedicate a significant percent of their treated/processed product as a biodiesel feedstock for producers within Oregon.

And, finally, consider ongoing incentives for in-state manufacturing facilities that produce ASTM-quality biodiesel fuel, allowing such facilities to offer a more reasonable and competitively-priced finished product to local distributors than that which is presently imported to the region.

### **Working Assumption**

Numerous north central and eastern Oregon wheat farmers require planting of rotational crop every three or four years, to improve soil nutrients and increase future wheat yields, or such fields are let to go fallow that third or fourth year. Two ideal rotational crops for most Oregon wheat fields include canola and mustard. The unrefined oil from crushed canola, which can be refined further into a cooking oil fit for human consumption, has a significantly higher yield per acre and value per pound of oil than the mustard oil. Canola is a hybrid plant of the more common rapeseed plant which, due to climate and available water, can be grown on significantly more acreage in Oregon than canola. Canola presently grown in Oregon each year, estimated to be less than 10,000 acres annually, is harvested in June and July and typically shipped to a crushing facility in Montana.

A recent study of select Oregon wheat farmers has shown that, because of the competitive Canadian market and cost of transportation to ship harvests to Montana, those who have grown canola have typically lost money or broken even at best. Minimal mustard and virtually no rapeseed are grown in Oregon, simply because there is no market. While rapeseed would do better on the east side of the Cascade range, mustard can be grown successfully on both sides of the mountain.

The opportunity is simple and real among one group of wheat farmers who own and plant close to one million acres of wheat annually in Oregon and southern Washington. If they could, for example, rotate their wheat fields by planting up to 250,000 acres in canola each year, the potential

yield in crushed, unrefined canola oil could be as much as 28-30 million gallons, from which a like amount of ASTM-quality biodiesel could be produced. Assuring the farmers a market for the oil crush, combined with a reasonable price for the oil, plus various initial financing and tax-related incentives for establishing the crushing operations, will reduce risk and help make seed oil crop growth in Oregon profitable.

**Desired Outcomes**

*Two year:* With the Oregon legislature being asked to consider a mandate of a two percent blend of biodiesel blend with ultra-low sulfur diesel (ULSD) beginning mid-2006, the availability of locally grown, virgin seed oil feedstock for biodiesel production will be ideally for 2006 and more critical by 2007. It is believed by those in the industry that a 3.5-4 million gallon per year ASTM-quality biodiesel production facility -- placed adjacent a comparable seed oil crushing operation -- can be profitable, especially with some initial tax incentives. This would suggest that approximately 40,000 acres of canola, as a dedicated biodiesel feedstock, be planted in the fall of 2006, and harvested June-July of 2007. (Note: A biodiesel operation this size would employ approximately 15 people. A 24-hour, 7 days/week operation producing 5-7 million gallons of biodiesel might employ 20 people.)

*Five Year:* In order for in-state biodiesel production to grow to levels that are to be suggested to the Oregon Legislature, and meet possible goals of the pending 2005 Oregon Renewable Energy Plan, acreage planted in canola, for example, may need to be doubled each year following the suggested 40,000 acres planted in 2006. (In other words, plant at least 80,000 acres in 2007 for harvest in 2008; plant 160,000 acres in the fall of 2008 for harvest in 2009; and, plant 320,000 acres in the fall of 2009 for harvest in 2010.) Total employment at biodiesel operations required to produce an estimated 35+ million gallons of ASTM-quality fuel beginning in 2010 would likely exceed 100 employees.

| Action Steps   | Timeline                        | Key Partners  |
|--|---------------------------------|---|
| 1. Bring potential Strategic Partners together to discuss the suggestions presented and how best to collaborate.   | Nov.-Dec. 2004                  | Oregon Biofuels, LLC<br>Columbia Crush, LLC<br>Harvest Moon |
| 2. Refine recommendations to be presented to appropriate state government entities and included for legislative discussion in 2005.  | Nov.-Dec. 2004                  | The Lake Group<br>StarOilco<br>ODA                          |
| 3. Present a consistent story to all parties concerned and for inclusion in the proposed/ revised 2005 Oregon Renewable Energy Plan, Oregon Sustainability Plan, Oregon Greenhouse Gas Reduction Plan, and Oregon Economic and Community Development Plan. | Dec. 2004-Feb. 2005             | ODOE<br>OECDD<br>OEC  |
| 4. Develop contingency plan(s) concurrent with and/or subsequent to Oregon Legislative discussions and ruling recommendations; be available to speak to legislative committees as needed   | Jan.-May 2005<br>(as necessary) |   |

**Resource Requirements**

A place to meet in Portland; available appropriate AV equipment.

**Other States**

*Maine:* The Agriculturally Derived Fuel Fund was developed to provide direct loans and subsidies to a business or cooperative for the design and construction of a facility to produce agriculturally derived fuel, such as methanol and ethanol. It is a non-lapsing fund, which is controlled by the Finance Authority of Maine.

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Research & Development (Overview)

#### Working Assumption

When research and development capacity is located within a state or region, companies can access breakthrough research that can be commercialized into new products, enhancing and quickening the cycle of innovation. There are numerous university research efforts focused on renewable energy in Oregon including programs located at OHSU/OGI, OIT, Oregon Nanoscience & Microtechnologies Institute, OSU, PSU and the U of O. In addition, regional research is occurring at the Pacific Northwest Renewable Energy Lab and the Northwest Energy Alliance Collaborative.

Partnerships between research agencies and renewable energy advocates will help Oregon secure more federal funding as well as non-federal dollars.

See the two attached examples of R&D efforts that OSU has identified as deserving of additional support.

#### Other States

Below are a few examples of states that support renewable energy R&D, as per the DSIRE database at [www.ies.ncsu.edu/dsire](http://www.ies.ncsu.edu/dsire).

*Massachusetts:* Massachusetts offers both corporate and personal income tax deductions for any income received from the sale of royalty income from a patent that is deemed beneficial for energy conservation or alternative energy development. The Alternative Energy & Energy Conservation Patent Exemption is unique among incentives in that it targets patents not simply real property.

*Michigan:* Companies located in Michigan's NextEnergy Zones and engaged in the research, development or production of alternative energy technologies are exempt from certain state and local taxes, including personal property taxes, real property taxes, a property tax exemption on all alternative energy equipment, personal income taxes, and the state's education tax. NextEnergy is a comprehensive economic development plan to make Michigan a world leader in the research, development, commercialization and manufacture of alternative energy technologies.

*Illinois:* The Alternative Energy Research, Development, and Demonstration Program is administered by the Illinois Department of Commerce and Economic Opportunity (DCEO). The goal of this program is to promote and expand the use of ethanol as a clean, renewable transportation fuel. DCEO manages ethanol test and demonstration projects designed to encourage economic growth in both industrial manufacturing and rural communities. DCEO also sponsors the research and development of new and innovative technologies to help reduce ethanol production costs, and to develop new value-added products.

*Iowa:* The Iowa Energy Center provides grants for energy research on renewable energy and energy efficiency. Eligible organizations include Iowa-based colleges and universities, non-profit organizations and foundations. Past grants have supported research in biofuels, wind resource assessment, photovoltaic research, biomass gasification, energy-efficient livestock confinement ventilation, process manufacturing efficiency and commercial building HVAC control.

*New York:* New York's Public Benefits Fund provided \$40.4 million for R&D in the first three years of its existence. An extensive evaluation effort found that the program (which provides funding for other efforts, as well) has fostered and accelerated market development in the areas of energy efficiency, peak load reduction and renewable energy that would not have occurred absent the program, including an average of 3,500 jobs annually over the 1998 through 2003 period. It is expected to create an average of 5,500 jobs annually over the full eight year program period (1998-

2006). The New York State Energy Research & Development Authority also runs a competitive research program to assist companies in the development, testing and commercialization of renewable energy technologies that will be manufactured in New York.

*Connecticut:* Some of Connecticut's public benefits funds are made available for non-investment programs such as R&D and demonstrations.

*Delaware:* The Green Energy Fund's R&D program offers grants to projects that develop or improve renewable energy technology in Delaware and is funded by the Delaware public benefits program. Eligible projects are ones that improve the engineering adaptation or development of products that relate to renewable energy technology.



## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Lignocellulose Feedstock R&D

Support and target research and development projects associated with lignocellulose feedstocks.

#### Working Assumption

The production or processing of a wide range of chemicals and co-products from lignocellulose biomass using biological or chemical processes will continue to require considerable research & development attention. Technological advances are needed in many areas, including those pertaining to biobased transportation fuels (ethanol, methanol, hydrogen), biomaterials (thermoplastics, composites, etc.), and biochemicals (solvents, specialty chemicals, etc.). Commercially viable biobased products, which encompass biomaterials and biochemicals, are, at a minimum, going to be necessary co-products of any large-scale biobased industry. Hence, research and development targeting this sector of future biobased-industries is essential for its implementation.

Major obstacles to overcome in the short-term include biomass variability, engineering systems, resource availability, and sustainability requirements (e.g., information and decision support tools to predict impacts). Near term feedstocks are primarily agricultural and forestry residues. Long-term barriers to large-scale replacement of petroleum include the development of new crops with higher yield and productivity, a vision for biomass production, and a shift in how people think about farming to move to energy, biomaterial and biochemical production from agriculture (US Dept. of Energy, 2003).

Examples of current research programs in Oregon are:

- Conversion of lignocellulosic biomass to value added products, primarily ethanol. Components of ongoing research include: optimization of the dilute acid pretreatment of milled biomass using woody and herbaceous feedstocks; understanding the mechanism of action of cellulolytic enzymes such as fungi; and the simultaneous saccharification and fermentation of lignocellulosic substrates.
- The development of edible and biodegradable packaging materials using agricultural by-products. Recent studies include the fruit and vegetable pomaces, by-products in the processing of fruit and vegetable juices, concentrates, and purees. Research has been emphasized on understanding their functionality and developing applications for food industry.
- Work on yeast biology and fermentation for food, beverage, and industrial fermentations and work with the Oregon food processors to convert sugar-containing waste streams into value-added products such as alcohol. Projects also involve simultaneous saccharification and fermentation of lignocellulosic biomass to alcohol, a precursor to some bioproducts and biofuels.

#### Desired Outcomes

*Two year:* Coalition brings in additional funding to support biobased product development in Oregon; More R&D projects targeting biobased energy and product development.

*Five Year:* Prototype products and devices are ready for commercialization.

| Action Steps  | Timeline       | Key Partners                                 |
|---|----------------|--|
| Further identify and prioritize needs of biofuel and bioproduct producers in the state and region to help target research and development activities of Oregon's higher education | Two-five years | Oregon Departments of Energy and Agriculture |

|   |  |  |
|---|--|--|
| <p>institutions (e.g., handling and storage of high moisture biomass, spoilage, preprocessing, etc.)</p> <p>Identify complementary work in the region's higher education institutions that support Oregon's emerging biobased industries (e.g., ID wheat straw harvest and processing)</p> <p>Develop expertise hotline and referral system</p> <p>Encourage appropriate researchers to aggressively pursue lignocellulose harvest and processing projects that address biobased energy product development (e.g., engineering systems, technical and economic feasibility studies, environmental or social impact forecast, residue supplies forecast, supply logistics modeling tools)</p> <p>Encourage farmers to recycle residues and to plant rotational crops in support of biomass feedstocks</p> <p>Identify lower cost feedstocks and examine current crops or by-products that might serve as feedstocks, e.g., meadowfoam</p> <p>Develop a model to identify alternative biomass supply flows and timeframes to support a 10+ year feedstock demand</p> <p>Expand OSU's collaboration with Treasure Valley Renewable Resources's biorefinery, which is complementary to OSU's strong tradition of breeding in small grains</p> <p>Provide growers in eastern Oregon with viable alternative uses for their lignocellulosic crops and by-products to get better returns for their straw than what they get when they use straw as livestock feed</p> <p>Develop storage and transport systems to connect growers and users of feedstock</p> |  | <p>Oregon Higher Education Institutions and those within the region and elsewhere</p> <p>Oregon biofuel producers and proponents</p> <p>Regional resource economists</p> <p>Oregon extension personnel</p> |
| <p><b>Resource Requirements</b><br/> TBD – general actions noted above need to be prioritized and further details determined</p>  |  |  |

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Technical Assistance to Businesses Seeking Funding

Bring stakeholders and agencies together in a coalition to help Oregon agriculturalists, foresters and companies better access and obtain federal grants (and other sources of funding) for renewables projects. Ensure that key agencies are able to devote staff time to hands-on assistance for applicants. Seek new financing options such as venture capital (see attached) and the state risk fund.

### Working Assumption

The process of applying for grants and otherwise seeking funding can be intimidating for the novice. State and federal agencies should provide more assistance by helping applicants better understand the process, complete the forms, and meet the deadlines.

Oregon is lagging in receiving federal funding for renewables projects. For example, Oregon has received zero funding from the USDA Value-Added Producer Grants despite several applications. Oregon agencies need to focus staff time on getting these and other federal grants awarded to Oregon farmers and other entities. In addition, sufficient resources should be devoted to disseminating information about state incentives.

This strategy would involve lobbying Oregon's congressional delegation. It would also involve coordination with the Governor's office, which is working to ensure that federal agency staff in Oregon improve their ability to serve Oregonians.

In addition, more attention needs to be given to nontraditional sources of funding for such projects, such as venture capital (see attached) and the state risk fund.

### Desired Outcomes

*Two year:* Oregon entities are awarded at least 2-3 competitive federal grants. New non-federal sources of funding have been identified and tapped.

*Five Year:* Oregon entities secure federal funding at a higher rate than the rest of the county. Oregon businesses regularly tap into venture capital and other sources of funding.

| Action Steps  | Timeline                       | Key Partners   |
|---|--------------------------------|--|
| Relevant state agencies ensure that job descriptions are written and budget requests are adequate for providing technical assistance to businesses seeking funding. | December 2004-<br>January 2005 | ODA, Office of Rural Policy, ODOF, ODOE, universities, Governor's office |
| Governor's office works with state agencies and federal agencies to develop strategy to improve technical assistance.   | January 2005-<br>March 2005    |  |
| Governor's office and relevant agencies create broader coalition & utilize it on as-needed basis.   | April 2005 forward             | Biomass/biofuels proponents  |
| Strategy is implemented   | April 2005 forward             |  |

### Resource Requirements

Prioritization of hands-on technical assistance by relevant agencies.

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Increase Venture Funding for Renewable Energy

Develop a three-phased program to increase the access to and deals made between renewable energy companies and NW venture capital.

### Working Assumption

There is adequate venture capital available in the Northwest and energy, especially renewable and "smart" energy, which is a growing piece of the venture capital market.

Recent Oregon venture investments, including the Oregon Investment Fund, provide a new opportunity to connect renewable energy companies to start up and expansion financing.

There are state and national organization in place to facilitate this connecting, including the Oregon Entrepreneur's Forum/Venture Oregon and Clean Tech Venture.

### Desired Outcomes

*One year:* Venture Oregon 2005 has a session specifically focused on energy.

*Two year:* EnVenture or Clean Technology Venture will host a regional or national conference in Oregon.

*Five year:* Oregon will account for 35% of Northwest venture investment in energy (the current benchmark is that Oregon accounts for less than 25% of Northwest VC investment).

| Action Steps  | Timeline           | Key Partners                                |
|---|--------------------|---|
| Convene a targeted work session between northwest venture funds, energy/energy technology companies, and key research centers to identify specific ways to enhance the connection between viable business concepts and funders. | First Quarter 2005 | OECD, Cascadia Partners, Nth Power          |
| Work with the Oregon Entrepreneurs Forum to develop an energy focus for the 2005 Venture Oregon.  | Early 2005         | OECD, Selected VCs, OEF                     |
| Explore the feasibility and requirements for hosting a national energy-focused venture conference in Oregon.  | 2005-06            | OECD, selected VCs, renewable energy groups |

### Resource Requirements

OECD staff time to coordinate action #1; approximately \$10,000 to host an energy section for Venture Oregon; national conference resources to be determined.

### Other States

According to a Sacramento Bee article date November 29, 2004, two California public pension funds -- the largest and third-largest in the U.S. -- recently announced plans to invest a combined \$950 million in the clean-technology field in coming years. Beneficiaries of their investment funds include companies developing non-toxic batteries, ocean-wave power systems, water-treatment systems, and other products and services that cut down on energy use and waste.

## Renewable Energy Economic Development Strategy Action Plan

### Recommended Action: Renewable Portfolio Standard (RPS)

Require minimum amount of renewable energy in electric providers' portfolios (biomass, wind, solar, etc.)

### Working Assumption (brief description of challenge or opportunity being addressed)

Many stakeholders consider a mandate as essential and the surest way to create the demand that will stimulate production. A number of stakeholders have indicated a willingness to advocate for an RPS. Due to state budget constraints, a mandate may be preferable to additional tax credits, as a mandate would not require state funds. And because there are significant projected benefits to rural communities resulting from increased production, supporters may be able to secure bipartisan support.

### Desired Outcomes

Two year: Provide to the Oregon Legislature an economic analysis of both the fiscal impact on state spending and the economic development benefits of different RPS scenarios.

Five Year: RPS in place.

| Action Steps   | Timeline     | Key Partners   |
|--|--------------|--|
| 1. Convene group of interested stakeholders to set agenda  | 1 month      | OBA, OEC, OECDD, ODOE, PPM, Pacificorp, RNW, others from wind industry |
| 2. Develop list of research needs, begin introducing idea to legislators   | 2-6 months   |  |
| 3. Develop a framework for possible state RPS.   | Spring, 2005 |  |
| 4. Issue a Request for Proposals (RFP) for a qualified contractor to conduct the analysis and deliver a report to the Governor and the Oregon Legislature. | Late 2005    |  |
| 5. Analysis and preparation of the report (draft)  | 2006         |  |
| 6. Peer-review, revision, delivery of final report; draft legislative concept.   | 2007         |  |
| 7. Legislative action.   |              |  |
| 8. Implement the program.  |              |  |

### Resource Requirements

1. Funding for the analysis and report.
2. Task force made up of representatives from the "key partners" to oversee this effort and keep it on track.
3. Support from members of the Legislature who would be "champions" of the proposal.

# Renewable Energy Economic Development Strategy Action Plan

Prepared by Patricia Scruggs, OECDD

## Recommended Action: **Increasing Venture funding for Renewable Energy**

Develop a three-phased program to increase the access to and deals made between renewable energy companies and NW venture capital

### Working Assumption (brief description of challenge or opportunity being addressed)

There is adequate venture capital available in the Northwest and energy, especially renewable and "smart" energy, is a growing piece of the venture capital market.

Recent Oregon venture investments including the Oregon Investment Fund provide a new opportunity to connect renewable energy companies to start up and expansion financing.

There are state and national organization in place to facilitate this connecting, including Oregon Entrepreneur's Forum/Venture Oregon, and Clean Tech Venture

### Desired Outcomes

One year: Venture Oregon 2005 has a session specifically focused on energy.

Two Year: EnVenture or Clean Technology Venture will host a regional or national conference in Oregon

Five Year: Oregon will account for 35% of Northwest venture investment in energy (current benchmark is that Oregon accounts for less than 25% of Northwest VC investment)

| Action Steps  | Timeline           | Key Partners                                 |
|---|--------------------|--|
| Convene a targeted work session between northwest venture funds, energy/energy technology companies, and key research centers to identify specific ways to enhance the connection between viable business concepts and funders. | First Quarter 2005 | OECDD, Cascadia Partners, Nth Power          |
| Work with the Oregon Entrepreneurs Forum to develop an energy focus for the 2005 Venture Oregon   | Early 2005         | OECDD, Selected VCs, OEF                     |
| Explore the feasibility and requirements for hosting a national energy-focused venture conference in Oregon   | 2005-06            | OECDD, selected VCs, renewable energy groups |

### Resource Requirements:

OECDD staff time to coordinate action #1; approximately \$10,000 to host an energy section for Venture Oregon; national conference resources to be determined.

## Renewable Energy Economic Development Strategy Action Plan

**Recommended Action:**  
**Vertical Integration Assistance**

**Working Assumption** (brief description of challenge or opportunity being addressed)

Industry representatives indicate frustration with the lack of coordination among state agencies and the inconsistency of leadership. Specifically, different agencies have different objectives, some of which are in conflict. For example, the PUC requires utilities to obtain power at the lowest cost, while ODOE emphasizes a transition to renewables, and OECDG wants to focus on economic development. Additionally, industry representatives seem to place little faith in government processes and reports such as the recent Renewable Energy Plan put out by ODOE because it has too many goals and there seems to be little interest from leadership to promote the recommendations in the Plan.

**Desired Outcomes**

Two year: Governor’s Council or some other framework that coordinates the on-going renewables efforts of various government agencies in an effort to provide better support for industry and nascent companies.

Five Year: A well-coordinated state government effort to advance development of wind-power and wind-related industry in Oregon.

|  | Timeline    | Key Partners |
|--|-------------|--------------|
| <b>Identify leadership willing to bring together the decision-makers of various agencies (PUC, OECDG, ODOE) or identify existing framework (such as the Governor’s Global Warming Advisory Group?)</b> | Winter 2005 |              |

Resource Requirements

## Renewable Energy Economic Development Strategy Action Plan

| <p>Recommended Action: <b>Marketing/Outreach Strategy</b><br/>                 Inventory Oregon's world-class assets/resources in wind and renewables. Use these assets to develop a comprehensive marketing and education program that can be used for policymakers, communities and business development efforts.</p>   |  |   |
|---|--|---|
| <p><b>Working Assumption</b> (brief description of challenge or opportunity being addressed)</p> <p>Despite common perception, the wind industry is rather developed in Oregon. Significantly enhanced marketing efforts are for a variety of reasons: 1) to market our assets outside of the state; 2) to market wind energy products to the commercial sector (whose level of purchasing is significantly less than the residential sector); 3) to educate rural communities about economic development opportunities, including rural electric cooperatives and PUDs.<br/> <i>[While unique marketing programs may be needed to fulfill the above-listed objectives, one Action Plan will be developed for the purpose of this report.]</i></p>                              |  |   |
| <p><b>Desired Outcomes</b></p> <p style="padding-left: 20px;">Two year<br/>                 Cooperative marketing effort for Oregon's wind industry and related industries driven by OECDD and private sector partners. Collaboration with state's Brand Oregon program. Early implementation of outreach plan to both businesses (with emphasis on commercial sector) and rural communities.</p> <p style="padding-left: 20px;">Five Year<br/>                 Location of new wind industry-related business in Oregon, including a turbine manufacturer. Increased purchasing of wind power by Oregon businesses. Rural communities and agriculture industry actively advocating for wind power. PUDs and rural electric co-ops purchasing renewables for their members.</p> |  |   |
| Action Steps  | Timeline   | Key Partners  |
| <p>Convene strategy meeting to discuss the development of a cooperative marketing strategy. Explore if there should be one comprehensive strategy or several individual strategies. Break into working groups accordingly.</p> <p>Strategy development</p> <p>Produce &amp; distribute professionally-designed collateral materials.</p> <p>Hold workshops for key markets</p>  | <p>Early 2005</p> <p>Mid-2005</p> <p>Late 2005</p> <p>2006</p> | <p>OBA, OECDD, ODOE, RNP, Energy Trust, marketing agents for IOUs, representatives from PUDs and rural electric cooperatives, other private sector partners</p> |
| <p><b>Resource Requirements</b></p> <p>Lead organizations/agencies willing to undertake designing and implementing a marketing campaign or folding this effort into on-going state marketing efforts.</p> <p>OECDD secured a grant from the EPA to create and launch a marketing campaign to increase biodiesel purchase. Perhaps a similar grant could be identified for wind.</p>   |  |   |



# Renewable Energy Economic Development Strategy Action Plan

Submitted by Renewable Northwest Project

## Recommended Action:

- 1) Complement, rather than duplicate, existing efforts on policy. Participate with community already working here.
- 2) OBA uniquely situated to be a strong voice declaring commercial sector support for renewable energy. Outreach to policymakers, utilities and others to announce this support.

## Working Assumption (brief description of challenge or opportunity being addressed)

Focus on education/outreach and participate in policy arena:

**1)** It is exciting to see OBA's interest in renewable energy and the group can play a critical part in supporting these technologies in a number of ways, especially when it comes to financial leveraging, establishing equity capital and as a voice for the commercial sector. However, in the policy arena there are many groups and organizations already working here and it seems most efficient for OBA to lend support as a participant here as opposed to leading new policy efforts.

**2)** Getting the message out about the benefits of renewable development is imperative and OBA can be especially effective here. Spreading the word about the benefits of wind and other renewable technologies to their members will help create demand for renewables and this, in turn, will encourage developers and utilities to supply more power from renewable resources.

OBA is also uniquely positioned to be a strong voice declaring the commercial sector's support for renewable energy. Unlike industrial and residential energy consumers, the commercial sector is often under-represented in important deliberations regarding energy issues in the legislature, the utility commission, etc. Telling policymakers and utility operators (via letters and phone calls) that the commercial sector supports clean energy and the stable prices it can deliver can be particularly effective. It is critical that any education and outreach efforts OBA undertakes are directed toward utilities (investor-owned and consumer-owned) and PUC commissioners.

**3)** In any education efforts, highlight the economic development potential of wind energy. Can't stress this enough. Many are familiar with the environmental benefits of renewables but the economic argument is critical and of particular interest to rural areas and decision-makers and therefore can be helpful in generating support for renewables statewide. The body of evidence showing how large-scale wind projects can inject life into rural economies continues to grow. Renewable energy = economic development for rural areas and stable electricity prices for all consumers.

**4)** It would also be helpful for OBA to have a single point person that their business members and other interested parties can go to for guidance/information/involvement. This person could also work with the existing renewable energy network/coalition to identify ways that OBA can lend support in the policy arena.

| Action Steps  | Timeline | Key Partners |
|---|----------|--------------|
| Develop education campaign/presentation with sort of a "traveling road show" aimed at businesses. This can result in building support among constituents who can sign onto letters supporting renewable energy that OBA drafts. When doing this, maintain close communication and coordination with other policy advocates in order complement each other's work. |          |              |

## Renewable Energy Economic Development Strategy Action Plan Submitted by Dr. Stel Walker, OSU

| <p><b>Recommended Action:</b></p> <p>Anemometer Loan Program Expansion – Develop an anemometer loan program similar to the Energy Trust sponsored Anemometer Loan Program (ALP) at OSU, but for areas in Oregon outside PPL and PGE service territories for which the Energy Trust’s program is limited to.</p>  |          |  |
|--|----------|--|
| <p><b>Working Assumption</b> (brief description of challenge or opportunity being addressed)</p> <p>The Energy Trust sponsored ALP at OSU is limited to PPL and PGE customers. A similar program is needed for other residents of Oregon. This provides a resource to Oregon’s residents to which they can call to find if they may be in an area that could support a small wind turbine and if it is, to provide the instrumentation, to help them instrument the site, and to guide them in possible further development.</p> |          |  |
| <p><b>Desired Outcomes</b></p> <p>Two year A number of site evaluations with probably 6+ sites instrumented, and over 30 inquires.</p> <p>Five Year: Maybe up to 24 sites instrumented, and 100+ inquiries addressed.</p>  |          |  |
| Action Steps   | Timeline | Key Partners                             |
| <p>Program would model OSU’s ALP for the Energy Trust but expand the area serviced to include all areas of Oregon outside PPL and PGE’s service areas.</p>   |          | <p>OSU, OOE, private sector partners</p> |
| <p><b>Resource Requirements</b></p> <p>\$65 to 100 k per year, a minimum of three years.</p>   |          |  |

# Renewable Energy Economic Development Strategy Action Plan

| <p><b>Recommended Action:</b> Provide farmers and rural businesses with assistance in preparing applications for Federal and other available funding.</p>   |          |   |
|---|----------|---|
| <p><b>Working Assumption</b> (brief description of challenge or opportunity being addressed)</p> <p>The 2002 Farm bill makes \$23 million per year available for rural RE and EE projects for five years. State winning these grants have made a concerted effort to do so through marketing their availability to prospective applicants, and assisting them in applying. Oregon has not done this, and has not fared well (see <a href="http://www.rurdev.usda.gov/rd/newsroom/2004/EnergyLists0904.html">http://www.rurdev.usda.gov/rd/newsroom/2004/EnergyLists0904.html</a> for this year's awards). While there is no guarantee that these funds will be appropriated next year, there may be other funds that are similarly available given the right facilitation on the part of the an appropriate agency.</p> |          |   |
| <p><b>Desired Outcomes</b></p> <p>Two year: Significant increase in number and quality of OR applications for obtaining Federal, foundation and other assistance for bioenergy projects.</p> <p>Five Year: Significant increase in success rate in obtaining Federal, foundation and other assistance for bioenergy projects in OR</p>  |          |   |
| Action Steps  | Timeline | Key Partners  |
| 1) Identify agency resources and collaborators  | 11/04    | ETO, ODOE, ag agencies, economic development groups |
| 2) Task lead agency with setting up Funding facilitation service  | 12/04    |   |
| 3) Identify possible sources of project funding   | 2/05     |   |
| 4) Develop and launch marketing for this service  | 2/05     |   |
| <p><b>Resource Requirements</b></p> <p>0.5 FTE, travel budget.</p>  |          |   |