

RENEWABLE RESOURCES 2005 FINAL APPROVED BUDGET



PROGRAM: SOLAR ELECTRIC PROGRAM **SECTOR: ALL**

PURPOSE: Transform the solar electric market for all sectors in Oregon by expanding participation, creating more awareness, improving standards, providing quality assurance, and ensuring there is a strong qualified installer base for consumers.

STRATEGY:

- Build upon the program’s early success, and move into the next phase of the market transformation effort.
- Offer new initiatives that will encourage more participation by residential and commercial customers.
- Moderately increase industry support by providing training and tools to reach homeowners.
- Increase outreach to leverage Energy Trust efforts with the expected marketing efforts by trade allies.
- Addresses Energy Trust strategic goals 2, 3 and 5.

GOALS FOR 2005:

- Complete 2004 projects: 44 systems, approx. 127 kW.
- Complete 2005 projects: 158 systems, 597 kW.
- New initiatives:
 - Adapt program design to accommodate new construction working with Energy Efficiency to offerings.
 - Offer an incentive for solar-ready homes.
 - Expand standard incentives to systems sized up to 25kW to encourage the lagging commercial market.
 - Design a solar electric incentive package for agricultural irrigation pumping, partnering with Pacific Power to serve the energy needs of the agricultural market.
 - Use a RFP to encourage new ideas in commercial installations in Portland General Electric (PGE) area, if necessary.
- Industry support:
 - Sponsor collection of solar radiation data and analyses of system performance, providing information for installers and consumers on actual system performance to help consumers choose.
 - Sponsor code-update and marketing training courses for trade allies.
- Marketing:
 - Support and leverage the outreach efforts of the demonstration grant recipients.
 - Continue to market directly to end users, encourage co-marketing with trade allies.
 - Participate in cross-program referral incentives, leveraging customer interactions of energy efficiency programs.
 - Continue the solar schools program through Bonneville Environmental Foundation.

TARGETED OUTCOMES:

2005		2004	
Energy	0.070-0.097 aMW (612-848 MWh); \$30.9-42.8	Energy	0.084 aMW (740 MWh); \$39.3
Generation Range	mil/aMW; \$0.279-0.387/kWh, leveled	Generation	mil/aMW
Budget	\$3.0 million	Budget	\$3.3 million*
		* Higher than 2004 original budget due to added resolutions.	

**APPROVED BUDGETS AND TARGETS:
ACTUALS—INCEPTION TO 9-30-04:**

\$M	aMW
\$5.2	0.1496
\$3.6	0.070

KEY MILESTONES

Date	Milestone Description
1Q05:	<ul style="list-style-type: none"> • Implement ideas resulting from evaluation and business model study. • Offer incentives for commercial up to 25kW and solar electric for irrigation pumping.
2Q05:	<ul style="list-style-type: none"> • Outreach to new construction industry. • Outreach to PGE to bolster marketing of solar.
3Q05:	<ul style="list-style-type: none"> • Process and impact evaluations, results presented to board by December 2005.

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PROGRAM: BIOPOWER (Formerly Biomass)	SECTOR: ALL
PURPOSE: To facilitate the emergence in Oregon of one or more biopower sectors able to deliver low-cost renewable energy to the grid while securing other non-energy benefits for industrial, municipal, commercial and other project sponsors.	
STRATEGY:	
<ul style="list-style-type: none"> • Perform market analysis and stakeholder outreach. • Establish a small number of target segments and establish price points by means of the request for proposals (RFP) process. • Use the Open Solicitation Program as the route to fund all biopower projects during the first part of 2005 while the biopower program is being defined and approved. • Focus marketing on outreach and lead generation to targeted segments. • Utilize feasibility studies to create market awareness. • Assist selected applicants in developing proposals. • Gain experience with technologies potentially able to back fill the bulk-power role currently occupied by wind. • Complete the commitment in the Renewable Resources Strategic Plan, which proposed ongoing programs in solar, wind and biomass energy. • Addresses Goal #2 of the Energy Trust’s strategic plan to position Oregon to achieve 10% new renewables by 2012. 	
GOALS FOR 2005:	
<ul style="list-style-type: none"> • Perform field market analysis in Q1/Q2 to explore 4-5 biopower segments seeking Oregon-specific information on prices and resource potential. • Perform stakeholder outreach and market analysis by targeted segment. • Design an initial program that identifies 1 – 2 biopower segments for focus and a path to expand these segments. • Launch expanded marketing to targeted audiences. • Commit funding for 1-2 projects, up to 2 MW in total. • New Program Coordinator position requested to implement the plan. 	
TARGETED OUTCOMES:	
<p>2005</p> <p>Energy Generation Range 1.0 – 3.0 aMW (8,760 –18,300 MWh); \$0.9-1.2 mil/aMW; \$0.01-0.02/kWh, levelized</p> <p>Budget \$2.8* million</p> <p><small>* \$1.2M in budget plus \$1.6M in dedicated funds.</small></p>	<p>2004</p> <p>Energy Generation NA</p> <p>Budget \$0.3 million</p>
KEY MILESTONES	
Date	Milestone Description
• 2Q 05	-- Complete program analyses and draft program design for board approval.
• July 2005	-- Launch new program.
• 3Q05	-- Release RFP in late summer 2005.
• 4Q05	-- Commit funding for 1-2 projects.

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PROGRAM: OPEN SOLICITATION PROGRAM

SECTOR: ALL

PURPOSE: Develop a portfolio of market-defining installations, each element of which demonstrates a new application, technology or business model not otherwise covered by Energy Trust programs, provides insight on whether and how to launch new, technology-specific Energy Trust programs, and/or secures a low-cost renewable energy resource.

STRATEGY:

- Continue program year round to ensure that eligible good ideas do not “fall through the cracks”
- Make funds available for renewable energy projects with economic development characteristics
- Focus on outreach and lead generation
- Make funds available for feasibility studies.
- Assist selected applicants in further developing proposals
- Addresses Energy Trust strategic goal numbers 2,3 and 5.

GOALS FOR 2005:

- Complete committed projects (Albany Hydro and City of Portland Wind)
- Launch the revised application materials and outreach and lead generation processes designed in late 2004
- Launch expanded marketing to targeted audiences, including selected biopower segments, net-metered wind-sector, and municipalities
- Offer clear and concrete information about the Open Solicitation process on the ETO website and disseminate case studies
- Explore potential for large solar electric as distribution deferral strategy
- Limit solar electric to projects that do not qualify for the standard offer proposed for the Solar Electric Program (e.g., facilities over 25 kW or building-integrated installations)
- Secure 4-6 new projects and 1MW of commitments and installations
- Create two detailed project case studies targeted to engineering and municipal decision makers
- Develop program marketing brochure

TARGETED OUTCOMES:

2005

Energy 0.20-0.34 aMW (1,752-2,978 MWh); \$6- 8
 Generation Range mil/aMW; \$0.05-0.07/kWh, levelized

Budget \$2.1*¹ million (includes dedicated funds)

*¹ \$1.6M in budget plus \$0.5M in dedicated funds.

*² \$0.8M in budget plus \$1.2M in dedicated funds.

2004

Energy 0.30 aMW; \$4-9 mil/aMW;
 Generation \$0.04-0.08/kWh, levelized

Budget \$2.0*² million

APPROVED BUDGETS AND TARGETS:

ACTUALS—INCEPTION TO 9-30-04:

	\$M	aMW
	\$2.0	0.40
	\$0.33	0.0672

KEY MILESTONES

Date Milestone Description

- 1Q05 --Launch re-designed program in January 2005
- 3Q05 --2nd program process evaluation, Board results presented by December 2005

(See budget on reverse side of page)



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PROGRAM: WIND CLUSTER PROGRAM **SECTOR: ALL**

PURPOSE:

- Expansion of the opportunities for wind and positioning wind to play a more responsive role to utility resource needs for more renewable energy sources.
- Market transformation bringing cluster development to Oregon as a form of filling in the gaps between utility request for proposals (RFPs).
- Rollout of an integrated program to support one of the top three renewable resources in Oregon, wind generation.

STRATEGY:

- Resource confirmation through anemometer loans and support for Oregon State University’s wind monitoring lab.
- Foster the development of cluster wind, launching an integrated program of incentives and services to leverage state (Business Energy Tax Credits (BETC), State Energy Loan Program (SELP)) and federal incentives and benefits.
- Develop financial and business models to help rural Oregon communities and more landowners be project sponsors.
- Define a standard incentive offer or use successive RFPs to seed market development.
- As outlined in the strategic plan for renewable resources, provide more broad-based support for wind power development in Oregon.
- Meet goal #2 of the Energy Trust strategic plan. The rollout of this program will also include previously untapped and hard to reach customers in support of goal #3.

GOALS FOR 2005:

- Launch an ongoing program to install smaller clusters of large turbines (i.e., “Wind Clusters”).
- Install of at least 1.5 MW of new capacity.
- Complete the full loan of 10 anemometers.
- Partner with Oregon Department of Energy (ODOE) to assist landowners in gaining federal co-funding of projects and studies.
- Partner with ODOE, Oregon farm groups and other state agencies to co-promote the program.
- Develop Oregon-specific guidebook to local and community-based wind development.
- Conduct 1 in-depth case study with financial fact sheet.
- The new program manager being hired in 2004 (previously approved) will staff the program.

TARGETED OUTCOMES:

2005		2004	
Energy	0.33-1.80 aMW (2,890-15,768 MWh); \$1.4- 4.5	Energy	(0.20 aMW committed)
Generation	mil/aMW; \$0.013-0.041/kWh, leveled	Generation	
Range		Budget	\$0.5 million (Wind, including Anemometer Loans)
Budget	\$2.8* million (includes Anemometer Loan Program)		

* \$1.6M in budget plus \$1.2M in dedicated funds

KEY MILESTONES--TIMELINE

Date	Milestone Description
1Q05	-- Complete contracts to support a demonstration project in Cluster/Community Wind.
1Q05	-- Complete program analyses and draft program design for board approval.
2Q05	-- Draft program guidebook and coordinated marketing plan.
3Q05	-- Field efforts and workshops to promote the program and educate landowners.
4Q05	-- Revise Anemometer Loan Program based on workshop and marketing results.

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PROGRAM: UTILITY-SCALE PROGRAMS **SECTOR: ALL**

PURPOSE: Low-cost, resource acquisition program designed to move the market for large-scale renewable resources to parity using alternative generation sources.

STRATEGY:

- Support utility Integrated Resource Plan (IRP) acquisition goals.
- Partner with Portland General Electric and Pacific on request for proposals (RFP) processes, relying on direct competition.
- Foster utility experience by helping position Portland General Electric and Pacific to acquire increasing amounts of renewable resources.
- Support Oregon’s emerging large-scale renewables industry.
- Addresses the Energy Trust’s second strategic goal to help Oregon achieve 10% renewable generation by 2012.

GOALS FOR 2005:

- Complete commitments from 2004 for up to two projects and at least 75 MW of new capacity, bringing at least one project on-line by the end of the year.
 - Final contracting and contract monitoring.
 - Financial reviews for escrow requirements.
 - Project monitoring and commissioning.
 - Performance tracking and reporting.
- Establish green tag reporting in coordination with the western regional generation information systems (WREGIS).
- Work with utilities on any updates to their IRP action plans.
- Conduct one in-depth case study of project support and process.
- Set the stage for subsequent involvement in IRP-related RFPs.

TARGETED OUTCOMES:

2005

Energy 25-33 aMW (219,000-289,000 MWh);
 Generation Range \$0.45-0.60 mil/aMW; \$0.004-0.005/kWh, levelized

Budget \$14.7 million

2004

Energy 22-30 aMW;
 Generation \$0.45-0.60 mil/aMW;
 \$0.004-0.006/kWh,
 levelized

Budget \$14.2* million
 * \$9.4 budget plus \$4.8 dedicated

APPROVED BUDGETS AND TARGETS*:

ACTUALS—INCEPTION TO 9-30-04:

	\$M	aMW
APPROVED BUDGETS AND TARGETS*	\$18.4	35
ACTUALS—INCEPTION TO 9-30-04:	\$4.5	14.25

* with dedicated funds

KEY MILESTONES

- | Date | Milestone Description |
|--------|---|
| • 1Q05 | -- Finalize commitments to PGE short-listed project. |
| • 2Q05 | -- Break ground on one project. |
| • 3Q05 | -- 1 st program process evaluation, results presented to board by December 2005. |
| • 4Q05 | -- Complete and commission at least one new project. |

(See budget on reverse side of page)