

Renewable Energy Fund Annual Report 2013

Presentation to EESE Board

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Purpose of REF Annual Report

- Mandated by RSA 362-F:10, IV
- Purpose:
 - Detail how the Renewable Energy Fund is being used and recommend any changes.
 - Report on the total peak generating capacity that is net energy metered under RSA 362-A:9 within the franchise area of each electric distribution utility, and the percentage this represents of the amount that is allowed to be net metered within each franchise area.
 - Report on group net metered facilities. (SB98)

Distribution of REF Report

- Legislative Oversight Committee on Electric Utility Restructuring
- Senate Energy and Natural Resources Committee
- House Science, Technology and Energy Committee
- EESE Board
- Posted on PUC website

Renewable Energy Fund

- Created by RPS law enacted in 2007
- Administered by PUC
- Dedicated, non-lapsing fund to support renewable energy initiatives in New Hampshire
- Sole source of funding is ACP revenue

REF REVENUES

- ACP revenues fluctuate year-to-year – because they are market based...depend on price and supply of RECs
- 2009: \$4.48 million
- 2010: \$1.4 million
- 2011: \$2.6 million
- 2012: \$19.1 million (Class III ACPs = \$15.5 million)
- 2013: \$9.3 million (Class III REC requirements reduced)

Investment of ACP Revenues

- 3 residential rebate programs
- 1 commercial and industrial rebate program
- New C & I program to be added this year
- Competitive grant program

- Key goal: create more RECs, bring down RPS compliance costs

REF program budgets FY13

- State appropriation: \$5,667,120
- Available funds, net of pre-obligated expenses:
\$4,733,271*
- Funds for residential sector: \$1.94 million (41%)
- Funds for non-residential sector: \$2.79 million (59%)

* \$813,790 – encumbered FY12 funds
\$95,059 – administrative expenses
\$25,000 - contingencies

REF FY13 rebate and grant budgets

REF PROGRAM	FY13 Program Budget	FY13 Program Expenditures	Program Balances as of June 30, 2013	Funds encumbered for FY 14
Residential PV/wind	\$1,290,641	\$830,845	\$459,796	\$396,891
Residential solar hot water	\$200,000	\$109,600	\$90,400	\$20,500
Residential wood pellet	\$450,000	\$216,391	\$233,609	\$75,819
C & I Solar (photovoltaic & solar hot water)	\$1,351,105	\$607,216	\$5,692	\$738,197
C & I RFP	\$1,790,525	\$0.00	\$1,790,525	\$1,790,525
Totals	\$5,082,271	\$1,764,051	\$2,580,022	\$3,021,932

Rebate and grant program results FY 13

REF Rebate Program	# of applications	# rebates awarded	Rebate funds disbursed	Average rebate award
Residential PV/Wind	235	234	\$830,845	\$3,551
Residential Solar Water Heating	58	70	\$109,600	\$1,570
Residential wood pellet furnace/boiler	52	38	\$216,391	\$5,694
C&I solar electric and solar thermal	59	44	\$607,216	\$13,800
Totals	404	386	\$1,764,051	\$4,570

Rebate program results - cumulative

REF Programs	# of applications	# of rebates awarded	Rebate funds disbursed	Rebate funds reserved or in process	Average rebate award	Aggregate applicant investment
Residential PV or wind	1086	945	\$4,472,502	\$338,928	\$4733	\$16,424,729
Residential solar water heating	434	405	\$874,850	\$24,300	\$2,160	\$1,732,526
Residential wood pellet	168	161	\$789,712	\$144,243	\$4,905	3,629,374
C & I solar electric and solar thermal rebates	159	103	\$1,318,472	\$859,104	\$12,801	\$11,294,107
Totals	1,847	1614	\$7,455,536	\$1,366,575	\$4,616	\$33,080,736

Benefits of rebate and grant programs

- Reduced peak demand, lower rates
- Investment of alternative energy dollars locally
- Sustain and create jobs
- Clean energy/clean tech is fastest growing sector of economy
- Cleaner air
- Reduced greenhouse gas emissions

Distributed Generation installed (or in process) due to rebates

- Residential PV/wind since 2009: 3.9 MW
 - Commercial-scale PV: 2.5 MW
 - Net metered generation statewide: 7.8 MW
- 6.4 MW

Competitive grant program

- RFP issued annually
- Commercial-scale renewable energy projects
- Fuel and technology neutral
- Funding in 2011: \$1 million
 - Grant awards: 5
- Funding in 2012: \$1 million
 - Grant awards: 7

Funding in 2013: \$4.3 million

- 11 grant awards, subject to G & C approval

Competitive grant awards 2011/2012

Grantee/Year	Grant Amount	Technology	Grant expenditures to date	Total Project Cost
Cartographic Associates, Inc. (2012)	\$43,000	Wood pellet boiler (Littleton)	\$43,000	\$65,762
Claremont Fire Dept. (2012)	\$52,000	Wood pellet boiler	\$52,000	\$65,000
Mascenic Regional School District (2011)	\$51,850	Wood pellet boiler at Greenville Elementary School	\$51,850	\$86,883
University of NH (2012)	\$59,750	Solar hot air system at Kingsbury Hall	\$59,750	\$119,500
Northeast BioEnergy Systems, LLC (2012)	\$93,000	Wood chip boiler at elementary school in Rumney	\$0.00	\$372,000
Revolution Energy (2011)	\$100,000	Photovoltaic array at Favorite Foods, Rochester	\$100,000	\$728,000
Colby Solar, LLC (2012)	\$100,000	Photovoltaic array at Colby Sawyer College	\$100,000	\$474,622
Walker Wellington, LLC (2012)	\$100,000	Hydrokinetic turbine at Dover wastewater treatment plant	\$99,142	\$129,000
Monadnock Paper Mills (2011)	\$151,040	Hydroelectric dam upgrade	\$151,040	\$151,040
Spaulding Ave. Industrial Complex (2011)	\$165,000	Hydroelectric facility upgrade	\$165,000	\$315,000
Sullivan County (2012)	\$300,000	Wood chip district heating system at Sullivan County Complex	\$300,000	\$3,180,000
Carbon Harvest Energy (2011)	\$500,000	Landfill gas-to-energy plant (combined heat and power) in Lebanon	\$183,806	\$6,658,000
Totals	\$1,715,640	---	\$1,305,588	\$5,314,807*

Apportionment of funds for FY14

\$19,156,443	Prior years' cash balance
\$9,323,198	CY12 ACP payments received in FY13
(\$17,783,000)	Transfers to General Fund, Office of Energy and Planning, Dept. of Administrative Services, and Tri County Community Action Agency, per HB 2, SB 99 and SB 191
\$10,696,641	FY14 Cash Available to REF programs
\$7,838,062	FY 14 Legislative Appropriation
(\$518,501)	FY14 Administrative Costs (budgeted)
\$2,665,987	FY 13 encumbered and committed program funds
\$9,960,548	FY14 Program funds available
(\$1,231,407)	Rebates Committed
(\$1,846,056)	RFP/Grants Committed
\$6,883,084	FY14 funds available for REF program budgets
\$2,200,000	FY14 funds allocated to residential sector
\$4,683,084	FY14 funds allocated to C & I sector

Allocation of funds between residential and non-residential sectors

- RSA 362-F:10,X to requires the Commission to reasonably balance REF funds expended, allocated or obligated between the residential and non-residential sectors over each two-year period beginning July 1, 2010, in proportion to each sector's share of total retail electricity sales.

2011-2012 Retail Sales Ratios	Year One Budgeted (7/1/12-6/30/13)	Year Two Budgeted (7/1/13-6/30/14)	2 Year Budget average
Residential 41%	41%	32%	36%
Commercial & Industrial 59%	59%	68%	64%

RPS costs

Year	REC costs	ACP costs	Total costs
2008	\$6,651,877	\$4,479,378	\$11,131,255
2009	\$15,193,142	\$1,348,289	\$16,541,431
2010	\$15,536,520	\$2,635,578	\$18,172,098
2011	\$8,701,631	\$19,108,073	\$27,809,704
2012	\$15,700,249	\$9,316,203	\$25,016,452

RPS rate impacts

- Average cost 2008-2012: \$.0019/kWh
- Average monthly residential bill impact: \$1.23
(at 650 kWh per month)

Net Metered Facilities in NH

Net Metered Facilities - 2012 and Total

	# of Installs 2012	Total Installs to Date	2012 Capacity Added (MW- DC)	Total Capacity to Date	Peak Load (MW)*	Allowed Net Metered Capacity (MW)*
Electric Utility						
Granite State Electric dba National Grid	9	63	0.03285	0.2153	189	4.12
New Hampshire Electric Cooperative	54	276	0.36046	1.5233	124	3.16
Public Service Company of NH	169	697	2.1430	5.1202	1,588	36.55
Unitil Energy Systems, Inc.	25	83	0.23069	0.7495	268	6.17
Total Net Metered Facilities 2011	257	1,119	2.76700	7.6083	2,169	50.00

* Based on the share of 2010 peak load pursuant to Puc 900 and RSA 362-A:9