EnergyTrust of Oregon

Home Energy Solutions
Existing Homes
2007 Program Modifications

February 21, 2007

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Contractor Feedback

- Tiered incentives for insulation are complex & open to gaming
- Contractor spiffs for trade allies should be added to customer incentive
- Continue $50 payment for a duct leakage test
- Provide a $300 incentive for faced duct insulation
- Create an air sealing test incentive for contractors
- Add duct leakage and duct sealing incentive to multiplex and multifamily programs
- Create an attic ventilation incentive

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Contractor Feedback

- Develop an incentive for gas hearth
- Increase window incentives to cover incremental cost of U-.30 window
- Meet minimum window U-Value .30 on an overall weighted U-Value average
- Trade ally to assist customers with Tax Credit paperwork
  - Provides differentiation
- Minimum jobs per year requirement to be a Trade Ally

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Staff Recommended Changes

- Combine gas and electric incentives
- Tiered incentive not recommended for insulation measures
  - Insulation measures (attic, wall and floor) paid per square foot for all building types
  - No incentive cap
- Contractor spiffs eliminated (duct & air sealing)
  - Dollars allocated to appropriate measure incentives
- Air sealing test added at $50 level

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Staff Recommended Changes

- SF window incentives increased from $2 to $2.25 sq. ft.
- Gas hearth incentive at minimum 80% AFUE
- No incentives for attic ventilation since required in program Weatherization Specification Manual
- SF measure packages added with enhanced incentives
- Minimum of 5 measures completed in a calendar year to remain on active trade ally list; must also have completed Participation Agreement and appropriate insurance assignment on file with PMC

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Staff Recommended Changes

- Bundled Incentives
  - Thermal package
    - Air sealing and thermal measures combo – all available insulation measures and air sealing - $150 Bonus
  - Heat pump upgrade package
    - HSPF 8.5 EER 12 or better, commissioning, and performance tested/sealed ducts - $600 bonus
  - Gas HVAC package
    - Furnace at 90%-94% AFUE and performance tested/sealed ducts - $350 bonus
    - Furnace at 95+ AFUE and performance tested/sealed ducts - $400 bonus

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Trade Ally Performance, 2006

- 29 qualified trade allies installed under 5 measures
- Easy to accrue 5 measures if work is done under the program (insulation jobs tend toward 2-3 measures per job)

Number of measures installed bin	Number of companies in bin
0-4	29
5-19	31
20-49	27
50-99	14
100+	15

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Window Discussion – Overall U-Value versus Individual Window U-Value

- Increase minimum U-Value for windows in single family homes to U-Value .30
  - Be consistent with BPA, RTF, and other regional entities
  - Keep incentive at $2.25 per square foot
- Weighted average of overall window U-Value versus per window U-Value
  - Program is successfully on a per window U-Value
  - May add administrative time to determine overall if trade allies only provide individual window U-Values for calculation
  - Supplying overall U-Value only could lead to need for more quality control

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SF Attic/Ceiling Insulation

Existing R-value bin		Square Foot Attic/Ceiling Bins					Grand Total
		0-499	500-999	1000-1499	1500-2000	2000+	
0-11	Average of Measure Incentive	$190.92	$262.47	$262.22	$299.38	$202.55	**$258.87**
	Average of Measure sq. ft.	325.8	780.6	1,219.6	1,668.6	2,309.3	**1,145.4**
	Count of Measures	94	351	410	183	65	**1103**
12-18	Average of Measure Incentive	$214.56	$291.30	$209.18	$216.74	$233.47	**$228.65**
	Average of Measure sq. ft.	340.7	802.5	1,239.7	1,672.5	2,468.3	**1,314.7**
	Count of Measures	17	73	174	91	29	**384**
Total Average of Measure Incentive		**$194.54**	**$267.44**	**$246.41**	**$271.93**	**$212.09**	**$251.07**
Total Average of Measure Sq. ft.		**328.0**	**784.3**	**1,225.6**	**1,669.9**	**2,358.4**	**1,189.2**
Total Count of Measures		**111**	**424**	**584**	**274**	**94**	**1487**

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SF Attic/Ceiling Insulation

Existing R-value bin	Proposed incentive per sq. ft.[1]	Square Foot Attic/Ceiling Bins					Weighted average incentive
		0-499	500-999	1000-1499	1500-2000	2000+	
0-11	$0.25	$81.44	$195.14	$304.90	$417.16	$577.33	$285.61
12-18	$0.20	$68.14	$160.50	$247.94	$334.51	$493.66	$262.43

1-Methodology includes incentive rate (on a per sq. ft. basis) times the average sq. ft. in each sq. ft. bin
N=1487

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SF Floor Insulation

Existing R-value Bin		Square Foot Floor Insulation Bins					
		0-499	500-999	1000-1499	1500-2000	2000+	Grand Total
0	Average of Measure Incentive	$142.87	$206.80	$208.62	$211.08	$226.95	**$199.40**
	Average of Measure sq. ft.	254.6	761.1	1,226.6	1,676.3	2,394.6	**1,088.3**
	Count of Measures	160	285	366	156	63	**1030**
1-11	Average of Measure Incentive	$138.59	$199.25	$225.00	$200.00		**$178.47**
	Average of Measure sq. ft.	282.5	856.5	1,160.0	1,630.0		**718.9**
	Count of Measures	6	6	2	1		**15**
>=11	Average of Measure Incentive	$152.30	$220.04	$200.00	$200.00	$250.00	**$193.63**
	Average of Measure sq. ft.	261.8	652.5	1,304.4	1,787.5	2,264.0	**957.6**
	Count of Measures	5	4	5	2	1	**17**

SF Floor Insulation

Existing R-value bin	Proposed incentive per sq. ft.[1]	Square Foot Floor Insulation Bins					Weighted average incentive
		0-499	500-999	1000-1499	1500-2000	2000+	
0	$0.45	$114.58	$342.48	$551.99	$754.31	$1,077.55	$488.86

1-Methodology includes incentive rate (on a per sq. ft. basis) times the average sq. ft. in each sq. ft. bin
N=1062

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SF Wall Insulation

Existing R-value bin		Square Foot Wall Insulation Bins					Grand Total
		0-499	500-999	1000-1499	1500-2000	2000+	
0	Average of Measure Incentive	$147.97	$205.38	$203.62	$208.32	$199.86	**$195.32**
	Average of Measure sq. ft.	264.8	786.1	1,200.0	1,674.2	2,428.1	**1,005.8**
	Count of Measures	108	238	208	66	30	**650**
1-11	Average of Measure Incentive	$150.00	$191.87			$200.00	**$185.12**
	Average of Measure sq. ft.	300.0	741.0			2,000.0	**904.6**
	Count of Measures	1	3			1	**5**
>=11	Average of Measure Incentive					$200.00	**$200.00**
	Average of Measure sq. ft.					2,147.0	**2,147.0**
	Count of Measures					1	**1**
Total Average of Measure Incentive		**$147.99**	**$205.21**	**$203.62**	**$208.32**	**$199.87**	**$195.25**
Total Average of Measure sq. ft		**265.2**	**785.5**	**1,200.0**	**1,674.2**	**2,405.9**	**1,006.8**
Total Count of Measures		**109**	**241**	**208**	**66**	**32**	**656**

SF Wall Insulation

Existing R-Value bin	Proposed incentive per sq. ft.[1]	Square Foot Wall Insulation Bins					Weighted average total
		0-499	500-999	1000-1499	1500-2000	2000+	
0	$0.30	$79.45	$235.82	$359.99	$502.26	$728.43	$300.04

1-Methodology includes incentive rate (on a per sq. ft. basis) times the average sq. ft. in each sq. ft. bin
N=656

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SF Windows

	U=0.32	U<0.32	Grand Total
Average of Measure Cost	$3,852.83	$6,009.35	$5,466.79
Count of Measure Cost	79	235	314
Average of Measure Sq feet	246.83	560.96	482.68
Count of Measure Sq feet	78	235	313
Average of Delta-U	0.57	0.63	0.61
Count of Delta-U	19	62	81
Average of Final U-value	**0.320**	**0.301**	**0.306**
Average of Existing Windows	0.848	0.857	0.855
Count of Existing Windows	20	68	88
Average of Measure Incentive	$178.17	$351.53	$307.91
Count of Measure Incentive	79	235	314

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MF Windows

	U=0.32	U<0.32	Grand Total
Average of Measure Cost	$50,429.35	$88,201.99	$76,926.58
Count of Measure Cost	20	47	67
Average of Measure Sqft	2,246.59	2,991.94	2,769.45
Count of Measure Sqft	20	47	67
Average of Delta U	0.83	0.83	0.83
Count of Delta U	18	35	53
Average of Final U-value	**0.322**	**0.305**	**0.310**
Average of Existing Windows	1.151	1.130	1.136
Count of Existing Windows	20	47	67
Average of Measure Incentive	$6,221.97	$8,718.00	$7,972.92
Count of Measure Incentive	20	47	67

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SF/MF Windows

	Single Family			Multifamily		
	U-values			U-values		
	.32	**<.32**		**.32**	**<.32**	
Weighting of splits	25%	75%	**Weighted average total**	30%	70%	**Weighted average total**
Current Incentive Amount	$1.25	$2	$1.81	$1.25	$2	$1.78
Current Average Incentive	$178.17	$351.53	$307.91	$6,221.97	$8,718.00	$7,972.92
Projected Incentive[1]	**$308.53**	**$1,121.93**	**$917.29**	$2,808.23	$5,983.88	$5,035.93
n(U-values)=81	n(total)=314			n(U-values)=53		n(total)=67

1-Methodology: (weighted average U-value split) * (incentive/sq. ft. amount) * sq. ft.

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SF Air Sealing

CFM reduction bin	Average CFM reduction	Weighting	Current incentive per CFM reduction bin	Proposed measure incentive
100-499	289.9	41.2%	$ 0.50	$ 144.97
500-999	756.2	30.9%	$ 0.50	$ 378.09
1000-1499	1197.6	15.2%	$ 0.50	$ 400.00
1500-1999	1809.6	6.1%	$ 0.50	$ 400.00
2000+	3127.6	6.7%	$ 0.50	$ 400.00
WA SF total	***852.86***	***100.0%***	***$ 0.50***	***$ 288.12***

n=165

Cap=$400

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SF Duct Sealing

CFM reduction bin	Average CFM reduction	Weighting	Current incentive per CFM reduction bin	Proposed measure incentive
100-499	287.9	53.5%	$ 1.00	$ 287.89
500-999	691.5	34.1%	$ 1.00	$ 400.00
1000-1499	1147.0	7.4%	$ 1.00	$ 400.00
1500-1999	1748.6	3.3%	$ 1.00	$ 400.00
2000+	2738.0	1.7%	$ 1.00	$ 400.00
WA SF total	***578.63***	***100.0%***	***$ 1.00***	***$ 340.01***

n=299 **Cap=$400**

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