RETROFIT PAYBACK

Strategy House Retrofits 1/	$/gal	$ Cost	Saving gal/yr	When Done	Pay-back yrs
Reduce use: Lower thermostat, wear warmer clothes indoors		0	200	89	**0**
Prevent Heat Loss:					
make foam board shutters	1.39	100	10	00	**7.2**
improve insulation in 2 attic areas (glass wool) ..	1.39	400	15	00	**19**
improve insulation in 3rd attic (polyicynene)	1.39	1,600	15	01	**77**
replace old insulation in 3 living room walls with polyicynene foam	1.39	7,600	20	01	**273**
improve insulation in east & south walls	2.90	5,780	20	08	**100**
Increase Solar Insolation: (see Note 2)					
Duggin hot air collector ('03)	1.50	2,000-2,700	50-100	No	**18-27**
Install salvaged hot water collectors for domestic heat (winter) and summer hot water	2.10	2,854	10+$60 elec	05	**35**
Kreamer hot air collectors	2.90	738	10	08	**25**
Reduce Use: Second Round – Geothermal Install geothermal heating (fuel oil cost Sept 09) Total cost includes 30% Federal tax credit	2.35	18,000	450 – elect↑ of $208	10/09	**21**
Prevent Heat Loss: Second Round – 13 New Windows (see Note 3)	2.90	22,890	$25 (est 10%)	12/10	**915**

R-values & Info for House Envelope

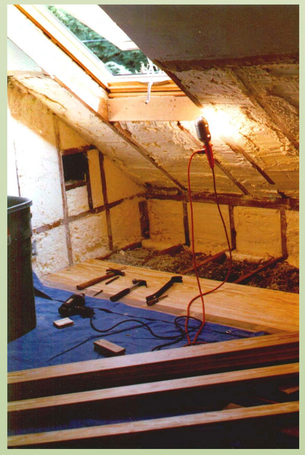
Surface	Material Used	R value improvement	Contractor
New attic	glass wool	20 to 30	Gene
Studio attic	glass wool	8 to 18	Gene and Tania
Old attic	polyicynene	12 to 22	Chris Rehm, The Insealators, State College 237-4529
Living room walls	polyicynene	11 to 20	Chris Rehm, The Insealators, State College 237-4529 Terry Taylor, Taylor Contracting, Port Matilda, 692-4671, Gene
East wall	foam board	18 to 28	Howard Kephart, Gene
South wall	polyurethane	11 to 26	Howard Kephart, Gene Jay Crest, Ron Kephart, Energy Professionals, Lock Haven, 867-8801
Windows	Serious Windows	R2 to R5.3 and 7.1	Mt. Pleasant Windows, Mt. Pleasant, PA, Dick Wrobleski, 724-547-5445 www.seriouswindows.com
North old wall	*not done*	*17 now*	
West kit wall	*not done*	*17 now*	

Foamboard window shutters: R2 → R7

Polyicynene in old attic: R12 → R22

Living Room: Polyicynene + Foamboard R11 → R20

Polyicynene in attic room: R12 → R22



Kitchen Window Before: R2

Kitchen Window After: R5.6

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