Bill Impact Estimator

Updated Financial Planning Resource for Savings Within Reach On Bill Repayment Customers

June 28, 2014

EnergyTrust of Oregon

SWR On Bill Repayment Financing

- Demonstration period launched this spring
- Financing for SWR eligible measures
- Loan is serviced through the customer's utility account
- Product is marketed by trade allies
- Home must be owner-occupied

OBR Product Details

- $5,000 maximum
- No minimum
- 5.99% interest, unsecured
- >$2,500 terms up to 10 years
- <$2,500 terms up to 5 years
- $600,000 initial capitalization
- Offered in PGE, NWN + PacifiCorp Territory

Bill Impact Estimator

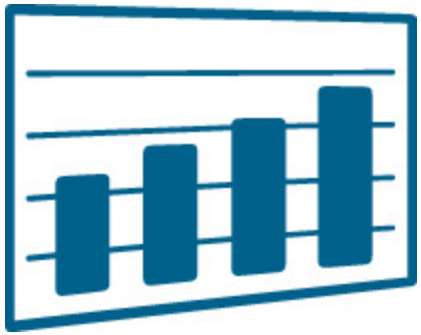
- Excel based workbook completed by the Trade Ally
- Customer provides signature confirmation they received and read the report
- All applications must include a copy of the completed Bill Impact Estimator

Bill Impact Estimator continued

- Built off the savings estimator hosted on Energy Trust's website, presented to CAC Q4 2013
- Utilizes Energy Trust deemed savings
- Assumed baselines referencing RBSA, RTF and other data sources

Key Outputs

- Summary Of Improvements
  - Incentives, quoted cost, cost net incentives
- Financing
  - Loan term, total interest paid, total cost including cost of capital
- Bill Impact
  - Energy Savings, Monthly Debt Service, Simple Payback



Bill Impact Estimator

Customer name:		Trade Ally Company:	
Customer site address:		321MITa completed by:	
Customer primary heating utility			
Customer Current Heating Fuel	Electric		

Eligible Improvements	Zone	Sq. Ft. or Count	Bid[1]	Incentive	Net Install Cost
Air Sealing				$ -	$ -
Attic Insulation	1	1,000	$ 1,000.00	$ 500.00	$ 500.00
Wall Insulation				$ -	$ -
Floor Insulation				$ -	$ -
Gas Furnace					
Ductless Heat Pump - replacing electric zonal heat	1	1	$ 4,734.36	$ 1,000.00	$ 3,734.36
Ductless Heat Pump - replacing electric forced air				$ -	$ -
Heat Pump replacing existing heat pump or non-electric heat - minimum HSPF 9.0				$ -	$ -
Heat Pump upgrade replacing electric resistance heat - minimum HSPF 9.0	1			$ -	$ -
Heat Pump replacing existing heat pump or non-electric heat HSPF 9.5				$ -	$ -
Heat Pump upgrade replacing electric resistance heat - minimum HSPF 9.5	1			$ -	$ -
Heat Pump Commissioning				$ -	$ -
Seasonal Bonus Incentive					
Totals			**$ 5,734.36**	**$ 1,500.00**	**$ 4,234.36**

[1]Includes the cost of labor and materials

Term of the Loan	**10**
Downpayment if required	**$ -**
Principal Loan Amount	**$ 4,234.36**
Total interest paid over the life of the loan	**$ 1,404.30**
Total Cost	**$ 5,638.66**

Estimated Monthly Energy Savings	$ 38.20
Monthly Loan Payment	$46.99
Estimated Net Monthly Utility Bill Impact: Higher Bill	⇧ **$8.79**

Total Interest Payments	$1,404.30
Simple Payback in years	12.3

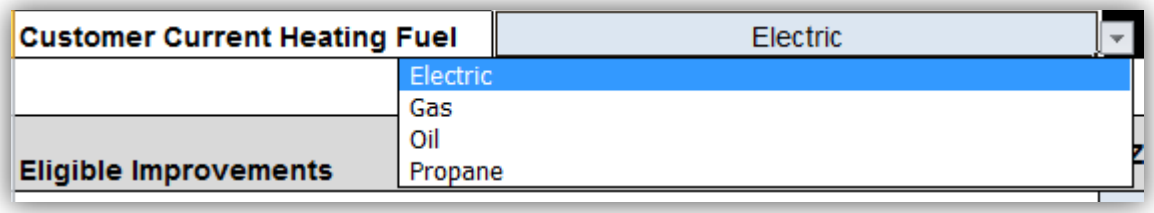
V2 Update: What's New?

- Easier to understand Bill Impact Estimate
- Ability to incorporate seasonal bonus
- Bill Impact estimates for oil or propane customers switching to either natural gas or electricity. The intent is to educate consumers on the bill impact of load shifting

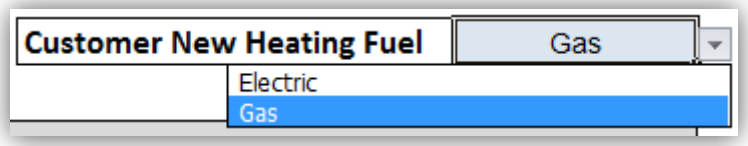
The tool does not offer the ability to model conversions between electric and gas

Delivered Fuel Functionality

Step 1: select “current heating fuel”



Step 2: If oil or propane is selected as current heating fuel, then select “new heating fuel”



Step 3: Enter Improvements (next slide)

Step 3: Enter Improvements

Customer Current Heating Fuel	Oil

Customer New Heating Fuel	Gas

Electric
Gas

Eligible Improvements	Zone	Sq. Ft. or Count	Bid[1]	Incentive	Net Install Cost
Air Sealing				$ -	$ -
Attic Insulation	1	1,000	$ 1,000.00	$ 500.00	$ 500.00
Wall Insulation	1			$ -	$ -
Floor Insulation	1			$ -	$ -
Gas Furnace	1	1	$ 4,191.05	$ 550.00	$ 3,641.05
Ductless Heat Pump - replacing electric zonal heat					
Ductless Heat Pump - replacing electric forced air					
Heat Pump replacing existing heat pump or non-electric heat - minimum HSPF 9.0					
Heat Pump upgrade replacing electric resistance heat - minimum HSPF 9.0					
Heat Pump replacing existing heat pump or non-electric heat HSPF 9.5					
Heat Pump upgrade replacing electric resistance heat - minimum HSPF 9.5					
Heat Pump Commissioning					
Seasonal Bonus Incentive					
Totals			**$ 5,191.05**	**$ 1,050.00**	**$ 4,141.05**

Selection of “gas” disables electric-fueled heating upgrades. Gas furnace is disabled when the fuel choice is “electric”

Step 4: Loan Terms

Term of the Loan		10
Downpayment if required	$	-
Principal Loan Amount	$	4,141.05
Total interest paid over the life of the loan	$	1,373.35
Total Cost	$	5,514.40

- Projects >$2,500 default term is 10 years
- Projects <$2,500 default term is 5 years
- Down payments are optional
- Workbook calculates interest

Updated Bill Impact Output

Impact of load shifting expressed as heating costs + debt service

Estimated Monthly Energy Costs	$42.36
Monthly Loan Payment	$45.95
Estimated Net Monthly Utility Bill Impact: Higher Bill ⇧	**$88.31**

Total Interest Payments	$1,373.35
Estimated Annual Energy Savings	$1,510.41
Simple Payback in years	3.7

Impact of same fuel upgrade expressed as debt service – energy savings

Estimated Monthly Energy Savings	$ 13.48
Monthly Loan Payment	$9.66
Estimated Net Monthly Utility Bill Impact: Lower Bill ⇩	**-$3.81**

Total Interest Payments	$79.84
Simple Payback in years	3.6

Comparison Of Outputs

Attic insulation + HVAC

	Resistance to DHP	Gas Furnace Upgrade	Oil to HP 9.5hspf	Oil To Gas Furnace
Simple Payback	12.3	40.5	3.8	3.7
Bill Impact	$8.79	$34.62	$67.90	$88.31

- HVAC costs pulled from SWR production data
- Oil furnace assumed effective AFUE of 75% (Resnet)
- Oil + propane pricing sourced from federal data

Questions?

Bill Impact Estimator

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Attic Insulation	1	1,000	$ 1,000.00	$ 500.00	$ 500.00
Wall Insulation				$ -	$ -
Floor Insulation				$ -	$ -
Gas Furnace					
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Heat Pump Commissioning				$ -	$ -
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Totals			**$ 5,734.36**	**$ 1,500.00**	**$ 4,234.36**

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Thank You

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EnergyTrust of Oregon