

TO: Low Income Consumer Advisory Task Force

FROM: Denise Kuehn and Liz Jambor

DATE: March 25, 2015

SUBJECT: Single Family Energy Efficiency Data

Attached is the response to a question posed by Chris Strand. The question was:

Average per home retrofitted within the past three years (using actual utility bills and normalized weather data)

- a) \$/kw customer savings with weatherization retrofits and total yearly cost before and after retrofits
- b) \$/kw customer savings with weatherization and HVAC retrofits and total yearly cost before and after retrofits
- c) \$/kw customer savings with weatherization, refrigerator and HVAC retrofits and total yearly cost before and after retrofits
- d) Number of days to complete for each of the above three scenarios
- e) Rental vs owned for each of the above first three scenarios
- f) Average cost per home for each of the above first three scenarios
- g) Payback in years
- h) Provide each measure \$/kw and \$/kwh savings

The data aligns with the question as we are able to collect and provide the data. If you have any further questions, please let us know.

Submitted b	Question 1	_					
	y Chris Stra	nd					
12/14/2014							
						HVAC	Attic
		Gas	Deemed		HVAC	New	Insulation
Metric	AE Rebate	Rebate	kW	HVAC Cost	Rebate	Seer	Cost
Average	\$1,623	\$293	0.87	\$7,721	\$730	16	\$1,169
Median	\$1,913	\$329	0.96	\$6,723	\$650	16	\$1,111
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	Attic	- · · ·	514.1	Radiant	Radiant	•	•
	Insulation	_	R Value	Barrier	Barrier	Comp	Comp
Metric	Rebate	Value	Added	Cost	Rebate	Cost	Rebate
Average	\$158	15	24	·	\$18	\$820	\$251
Median	\$160	15	24	\$0	\$0	\$749	\$228
							Duct
	Screen	Screen	Window	Window	Sys Perf	Sys Perf	Replace
Metric	Cost	Rebate	Cost	Rebate	Cost	, Rebate	Cost
Average	\$677	\$108	\$3,665		\$373	\$129	\$1,642
Median	\$450	\$80	\$786		\$316	\$200	\$1,500
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		Duct					
	Duct	Replace	Duct	Duct		Drape/	
	Replace	Gas	Insulation	Insulation	Drape/	Bury	
Metric	Rebate	Rebate	Cost	Rebate	Bury Cost	Rebate	WX Bonus
	\$159	\$72	\$1,055		\$130	\$9	\$969
Average Median	\$139	\$40	\$1,055		\$100	\$9 \$0	\$1,000
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Median			Savings			, -	Ψ=,000
	2013	2014	Savings 2012 to	2014	\$/		Ψ-,,
2012 Billed	2013 Billed	2014 Billed	2012 to	2014 \$/kWh	\$/ Deemed	Annual	¥2,000
2012 Billed kWh	2013 Billed kWh	2014 Billed kWh	2012 to 2014	2014 \$/kWh Saved	\$/ Deemed kW	Annual kWh/sqft	¥2,000
2012 Billed kWh 14,455	2013 Billed kWh	2014 Billed kWh	2012 to 2014 2,137	2014 \$/kWh Saved \$0.75	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	72,000
2012 Billed kWh	2013 Billed kWh	2014 Billed kWh	2012 to 2014	2014 \$/kWh Saved	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	¥2,600
2012 Billed kWh 14,455	2013 Billed kWh	2014 Billed kWh	2012 to 2014 2,137	2014 \$/kWh Saved \$0.75	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	¥2,600
2012 Billed kWh 14,455	2013 Billed kWh	2014 Billed kWh	2012 to 2014 2,137 1,936	2014 \$/kWh Saved \$0.75 \$0.48	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	¥ 2,000
2012 Billed kWh 14,455	2013 Billed kWh 13,977 11,705	2014 Billed kWh	2012 to 2014 2,137 1,936 Actual	2014 \$/kWh Saved \$0.75 \$0.48	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	72,000
2012 Billed kWh 14,455	2013 Billed kWh 13,977 11,705	2014 Billed kWh 12,318 10,281	2012 to 2014 2,137 1,936 Actual Cost	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	42,000
2012 Billed kWh 14,455 12,561	2013 Billed kWh 13,977 11,705	2014 Billed kWh 12,318 10,281	2012 to 2014 2,137 1,936 Actual Cost Minus	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	72,000
2012 Billed kWh 14,455 12,561 Metric Average	2013 Billed kWh 13,977 11,705 Annual Deemed kw/sqft	2014 Billed kWh 12,318 10,281 Rebate/ sqft	2012 to 2014 2,137 1,936 Actual Cost Minus Rebate	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	72,000
2012 Billed kWh 14,455 12,561 Metric Average	2013 Billed kWh 13,977 11,705 Annual Deemed kw/sqft 0.00	2014 Billed kWh 12,318 10,281 Rebate/ sqft \$1.10	2012 to 2014 2,137 1,936 Actual Cost Minus Rebate \$5,456	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years 9.1	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	, z, e e e
2012 Billed kWh 14,455 12,561 Metric Average Median	2013 Billed kWh 13,977 11,705 Annual Deemed kw/sqft 0.00 0.00	2014 Billed kWh 12,318 10,281 Rebate/ sqft \$1.10 \$1.07	2012 to 2014 2,137 1,936 Actual Cost Minus Rebate \$5,456 \$5,311	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years 9.1	\$/ Deemed kW \$3,168.00	Annual kWh/sqft	, z, s s s
2012 Billed kWh 14,455 12,561 Metric	2013 Billed kWh 13,977 11,705 Annual Deemed kw/sqft 0.00 0.00	2014 Billed kWh 12,318 10,281 Rebate/ sqft \$1.10 \$1.07	2012 to 2014 2,137 1,936 Actual Cost Minus Rebate \$5,456 \$5,311	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years 9.1 11.8	\$/ Deemed kW \$3,168.00 \$2,316.20	Annual kWh/sqft	, z, s s s
2012 Billed kWh 14,455 12,561 Metric Average Median	2013 Billed kWh 13,977 11,705 Annual Deemed kw/sqft 0.00 0.00 027 homes posed to provide	2014 Billed kWh 12,318 10,281 Rebate/ sqft \$1.10 \$1.07 articipating de the 12 m	2012 to 2014 2,137 1,936 Actual Cost Minus Rebate \$5,456 \$5,311	2014 \$/kWh Saved \$0.75 \$0.48 Avg Payback Time in Years 9.1 11.8	\$/ Deemed kW \$3,168.00 \$2,316.20	Annual kWh/sqft	