

<b>PROGRAM</b>	<b>Residential Home Performance with ENERGY STAR®</b>
<b>Program Description</b>	<p>Home Performance with ENERGY STAR (HPwES) is an energy efficiency program focused on a whole house approach. An implementation contractor will market and administer the program, leveraging Ameren Illinois' existing trade ally network of subcontractors. The contractor will market various services including energy audits, air sealing, insulation, and highlight free direct-install measures (CFLs, Faucet Aerators, and High Efficiency Shower Heads, Water Heater Temperature Adjustment). The contractor will begin with an energy audit and recommend various energy efficiency measures found in Ameren Illinois' portfolio based on the audit findings. In addition, as warranted, the contractor will coordinate with the HVAC New Equipment Program to deliver various program services as determined by the audit. The contractor will direct the homeowner to Ameren Illinois' Lighting and Energy Efficient Products programs for additional discounted home energy efficiency measures.</p>
<b>Delivery Strategy</b>	<p>Program Duration: June 2014 – May 2017</p> <p>Customer billing analysis will be conducted to identify customers with the greatest savings potential. Potential segments to target include high-use customers and hard to reach segments which are sometimes underserved by other programs (rural agricultural customers, low income, or elderly). Various forms of marketing, including direct mail, community outreach events, and direct calling, will be utilized to maximize participation.</p> <p>The contractor will utilize qualified Energy Advisors to assess residential homes. The audit will involve four main steps. First, the auditor will conduct a short interview with the customer, outlining the program and the services he/she can provide. Next, the auditor will install no-cost savings measures, including CFLs, high efficiency faucet aerators and shower heads, and if needed, turn down the temperature of the domestic hot water. The auditor then conducts a walk-through audit, identifying areas of improvement in infiltration and heat loss/gain through the walls and attic space. In addition, the assessment will include identification of the age and size of the HVAC system(s) and the last service date. During the last step of the audit, the auditor will present, and review with the homeowner, a list of BPI (Building Performance Institute) certified contractors qualified to complete the recommended efficiency installations. Contractor list generation will be based on types of improvements recommended, geographic proximity to the audited home, and quality of past work with the program.</p> <p>The contractor will utilize proprietary software capable of incorporating audit results to generate real-time reports for the customer. The report will be informed by utility billing data (to the extent it is available) and will summarize existing household energy characteristics, and suggested improvements from the audit, and chart available incentives for the project follow-up work.</p>

	<p>There will be multiple incentive strategies for the HPwES program, as energy savings can be delivered through multiple avenues, including:</p> <ul style="list-style-type: none"><li>• Direct Install (100% incentive to customer) of measures including CFLs, high efficiency shower heads and faucet aerators, as well as domestic water heater temperature adjustment.</li><li>• Mid-stream incentives paid to independent contractors (program allies) for follow-up measure installation. Incentives include, but, are not limited to: air and duct sealing and wall, attic, crawl space, and rim joint insulation.</li><li>• On the invoice presented to the customer, the incentives will be displayed as a line item discount to identify the marked-down price of the retrofit via program incentives to contractors.</li></ul> <p>Incentive levels are guided by a formulaic approach determining the necessary payback to move the market. Incentive levels are by no means fixed and will likely change to reflect market conditions and drive program participation. The incentive values below represent estimated dollar amounts and will be verified by the implementer at the time of program launch.</p>
<b>Target Market</b>	<p>All existing single family residential homes. Major measure retrofit incentives are limited to homes heated with an Ameren-supplied energy source (electric or natural gas).</p>
<b>Marketing Strategy</b>	<p>The marketing strategy will focus on targeted market segments of customers encompassing large energy users, hard-to-reach customers, and underserved market segments. The HPwES program is closely aligned with the Moderate Income and HVAC programs.</p> <p>The implementation contractor will conduct a billing analysis to identify high-use customers and leverage AIC databases highlighting underserved market segments. These target markets will receive either a direct mail or some community informational session to spark interest in the program. In addition, for the HPwES component of the program, customers will be contacted directly by the contractor.</p> <p>To initiate contact and broaden the network of trade allies associated with the HPwES component, AIC will utilize two HPwES specific account managers to recruit, educate and mentor program allies. These account managers will also perform community outreach through speaking engagements with local organizations.</p> <p>Marketing activities include, but are not limited to: direct mail, bill inserts, public speaking events, home shows, print ads, referral programs and direct call.</p>

**Eligible Measures**

There will be multiple incentive strategies for the HPwE program, as energy savings can be delivered through multiple avenues, including:

- Direct Install (100% incentive to customer) of measures including CFLs, high efficiency shower heads and faucet aerators, as well as hot water pipe wrapping.
- Mid-stream incentives paid to subcontractors for follow-up measure installation.
- On the invoice presented to the customer, the incentives will be displayed as a line item to identify the marked-down price of the audit via program incentives to contractors.

Incentive levels will be guided by a formulaic approach determining the necessary payback to move the market. The appropriate incentive level for each measure will bring the payback down to two years. Incentive levels are by no means fixed and will likely change to reflect market conditions and drive the market participation. The incentive values below represent estimated dollar amounts and will be verified by the implementer at the time of program launch.

RES - HPwES

Measure	Incentive per Unit	Gross Annual kWh Savings	Gross kW Savings	Gross Annual Therm Savings	Annual BTU Electric Savings	Annual BTU Gas Savings	Net Annual Therm Savings	Effective Useful Life	Incremental Cost
CFL 43w to 14w - Post-EISA	\$0	26	0.00	(0.56)	261,656	(55,640)	(0.49)	5	\$0
CFL 53w to 19w - Post-EISA	\$0	31	0.00	(0.65)	306,769	(65,233)	(0.57)	5	\$0
CFL 72w to 23w - Post-EISA	\$0	44	0.01	(0.94)	442,109	(94,012)	(0.83)	5	\$0
CFL 60w to 14w globe - Pre-EISA	\$0	55	0.01	(0.88)	548,668	(88,256)	(0.78)	7	\$0
CFL 60w to 14w candelabra - Pre-EISA	\$0	59	0.01	(0.88)	587,606	(88,256)	(0.78)	7	\$0
CFL 60w to 14w reflector - Pre-EISA	\$0	42	0.00	(0.88)	415,041	(88,256)	(0.78)	7	\$0
Showerhead 1.75 gpm - Electric DHW	\$0	368	0.02	-	3,678,500	-	-	10	\$0
Faucet Aerator - Electric DHW	\$0	42	0.02	-	422,200	-	-	9	\$0
Water Heater Temp Adjustment - Electric DHW	\$0	86	0.01	-	864,000	-	-	2	\$5
Showerhead 1.75 gpm - Gas DHW	\$0	-	-	15.64	-	1,564,000	12.36	10	\$0
Faucet Aerator - Gas DHW	\$0	-	-	1.89	-	189,000	1.36	9	\$0
Water Heater Temp Adjustment - Gas DHW	\$0	-	-	6.40	-	640,000	6.40	2	\$5
Air Sealing - Electric Heat	\$473	3,779	1.40	-	37,792,125	-	-	15	\$1,181
Ceiling Insulation (R-11 to R-49) - Electric Heat	\$500	1,521	0.12	-	15,205,750	-	-	25	\$1,500
Ceiling Insulation (R-19 to R-49) - Electric Heat	\$441	846	0.14	-	8,456,910	-	-	25	\$1,375
R-11 Wall Insulation - Electric Heat	\$600	2,095	0.24	-	20,950,240	-	-	25	\$1,280
Rim Joist Insulation - Electric Heat	\$145	382	0.03	-	3,816,052	-	-	25	\$363
Crawl Space Insulation - Electric Heat	\$290	1,001	0.06	-	10,008,016	-	-	25	\$1,088
Air Sealing - Gas Heat Only	\$473	173	-	189.00	1,732,500	18,900,000	151.20	15	\$1,181
Ceiling Insulation (R-11 to R-49) - Gas Heat Only	\$500	88	-	87.50	875,000	8,750,000	67.38	25	\$1,500
Ceiling Insulation (R-19 to R-49) - Gas Heat Only	\$441	59	-	58.80	588,000	5,880,000	45.28	25	\$1,375
R-11 Wall Insulation - Gas Heat Only	\$600	128	-	144.00	1,280,000	14,400,000	110.88	25	\$1,280
Rim Joist Insulation - Gas Heat Only	\$145	25	-	27.55	246,500	2,755,000	21.21	25	\$363
Crawl Space Insulation - Gas Heat Only	\$290	65	-	71.05	652,500	7,105,000	54.71	25	\$1,088
Air Sealing - Gas Heat w/ AC	\$473	1,355	1.42	189.00	13,545,000	18,900,000	151.20	15	\$1,181
Ceiling Insulation (R-11 to R-49) - Gas Heat w/ AC	\$500	225	0.13	87.50	2,250,000	8,750,000	67.38	25	\$1,500
Ceiling Insulation (R-19 to R-49) - Gas Heat w/ AC	\$441	132	0.15	58.80	1,323,000	5,880,000	45.28	25	\$1,375
R-11 Wall Insulation - Gas Heat w/ AC	\$600	312	0.24	144.00	3,120,000	14,400,000	110.88	25	\$1,280
Rim Joist Insulation - Gas Heat w/ AC	\$145	48	0.03	27.55	478,500	2,755,000	21.21	25	\$363
Crawl Space Insulation - Gas Heat w/ AC	\$290	106	0.06	71.05	1,058,500	7,105,000	54.71	25	\$1,088

**Program  
 Targets**

**Installations**

Measure	2014 Installations	2015 Installations	2016 Installations	Total Installations
CFL 43w to 14w - Post-EISA	10,101	10,101	10,101	30,303
CFL 53w to 19w - Post-EISA	2,730	2,730	2,730	8,190
CFL 72w to 23w - Post-EISA	2,184	2,184	2,184	6,552
CFL 60w to 14w globe - Pre-EISA	6,825	6,825	6,825	20,475
CFL 60w to 14w candelabra - Pre-EISA	6,825	6,825	6,825	20,475
CFL 60w to 14w reflector - Pre-EISA	9,555	9,555	9,555	28,665
Showerhead 1.75 gpm - Electric DHW	191	191	191	573
Faucet Aerator - Electric DHW	328	328	328	983
Water Heater Temp Adjustment - Electric DHW	164	164	164	491
Showerhead 1.75 gpm - Gas DHW	1,525	1,525	1,525	4,575
Faucet Aerator - Gas DHW	2,467	2,467	2,467	7,401
Water Heater Temp Adjustment - Gas DHW	1,201	1,201	1,201	3,604
Air Sealing - Electric Heat	88	88	88	263
Ceiling Insulation (R-11 to R-49) - Electric Heat	61	61	61	182
Ceiling Insulation (R-19 to R-49) - Electric Heat	18	18	18	55
R-11 Wall Insulation - Electric Heat	46	46	46	138
Rim Joist Insulation - Electric Heat	55	55	55	166
Crawl Space Insulation - Electric Heat	9	9	9	28
Air Sealing - Gas Heat Only	600	600	600	1,800
Ceiling Insulation (R-11 to R-49) - Gas Heat Only	320	320	320	960
Ceiling Insulation (R-19 to R-49) - Gas Heat Only	94	94	94	282
R-11 Wall Insulation - Gas Heat Only	310	310	310	930
Rim Joist Insulation - Gas Heat Only	320	320	320	960
Crawl Space Insulation - Gas Heat Only	62	62	62	186
Air Sealing - Gas Heat w/ AC	2,178	2,178	2,178	6,535
Ceiling Insulation (R-11 to R-49) - Gas Heat w/ AC	1,513	1,513	1,513	4,540
Ceiling Insulation (R-19 to R-49) - Gas Heat w/ AC	459	459	459	1,376
R-11 Wall Insulation - Gas Heat w/ AC	1,147	1,147	1,147	3,440
Rim Joist Insulation - Gas Heat w/ AC	1,376	1,376	1,376	4,127
Crawl Space Insulation - Gas Heat w/ AC	229	229	229	688

**Estimated Electric Budget**

Category	2014	2015	2016	Total
Incentives	\$2,379,876	\$2,379,876	\$2,379,876	\$7,139,627
Admin	\$1,684,636	\$1,684,636	\$1,684,636	\$5,053,909
<b>Total</b>	<b>\$4,064,512</b>	<b>\$4,064,512</b>	<b>\$4,064,512</b>	<b>\$12,193,536</b>

**Estimated Gas Budget**

Category	2014	2015	2016	Total
Incentives	\$1,640,622	\$1,640,622	\$1,640,622	\$4,921,867
Admin	\$794,186	\$794,186	\$794,186	\$2,382,557
<b>Total</b>	<b>\$2,434,808</b>	<b>\$2,434,808</b>	<b>\$2,434,808</b>	<b>\$7,304,424</b>

**MWh Savings**

Category	2014	2015	2016	Total
Gross MWh	6,269	6,269	6,269	18,808
Net-to-Gross	0.82	0.82	0.82	0.82
Net MWh	5,114	5,114	5,114	15,341

**Therm Savings**

Category	2014	2015	2016	Total
Gross Therms	1,031,386	1,031,386	1,031,386	3,094,159
Net-to-Gross	0.79	0.79	0.79	0.79
Net Therms	811,933	811,933	811,933	2,435,799

**Program Cost-Effectiveness**

Program	TRC
RES-HPwES	1.23