



COMMERCIAL & INDUSTRIAL

ASHRAE Seminar

April 23, 2013

Kari Gehrke, Senior Product Manager







Demand Side Management Programs

- Also known as: Energy Efficiency Programs
- Mandated by Iowa Utilities Board for Investor-Owned utilities
- Intended to reduce energy consumption
- Offered to all customer classes
- Funded through the Energy Efficiency Cost Recovery tariffs



From the IUB Website

The lowa Utilities Board (IUB) is charged with responsibility for energy efficiency programs and energy efficiency plans by lowa utilities.

Investor-owned utilities conduct energy efficiency programs under plans which are reviewed and approved by the IUB.

Energy efficiency plans in lowa address both electric and natural gas use through a variety of programs which attempt to give all customers opportunities to participate.



Rider EECR

Rider EECR – Energy Efficiency Cost Recovery

The <u>Energy Efficiency Cost Recovery Clause</u> provides a mechanism to recover the amount of expenditures and related costs approved by the Iowa Utilities Board for the recovery through the application of cost recovery factors. The cost recovery factors are added to the base kWh energy charges for the purpose of billing.

Cost Recovery Factors to be applied to all uses for all bills rendered on and after April 1, 2012:

Clas	<u>S Price Codes</u>	ECE Contemporaneous \$/kWh	
Residentia Service Us			
General Source	200, 207-8, 240, 247-8, 250, 257-8, 50 ervice 507-8, 520, 527-8, 600, 607-8, 650, 657-8, 810, 817-8, 820, 827-8	.0036	R
	300, 307-8, 320, 327-8, 440, 447-8, 480, 490, 760, 790, 807-8, 840*	0.0041	



- Energy Efficiency Dealers are important to Alliant Energy
 - You're there when people are making purchasing decisions about energy efficiency products
 - We want to provide you with the tools you need to help customers choose energy efficiency
 - We offer benefits to you to help you promote energy efficiency



- Funds available for Dealers and Builders
 - \$1,000/yr Training Reimbursement & Trade
 Show Assistance only
 - Reminder: No co-op advertising benefit
 - Associates do not qualify for financial dealer benefits
- Dealer incentives available on prescriptive measures
 - Percentage of customer incentive



Additional Program Benefits

- Dedicated Energy Efficiency Dealer Network website
 - alliantenergy.com/eedealers
- Exclusive Online Dealer Locator
 - alliantenergy.com/dealerlocator
- Free Point of Purchase Materials
 - Brochure Holders
 - Static Clings for Appliance Dealers
 - Reference Sheets
 - Rebate booklets
- Technical Assistance
 - Submit a product research or technical question
- Frequent Information Updates
 - Monthly e-newsletter
 - Webinars on programs or technologies
 - Training opportunities



- Insurance requirements
 - Certificate of Liability Insurance
 - \$1 million per occurrence
 - Worker's Compensation
 - Automobile
 - Have it automated
 - Insurance provider to list Alliant Energy as a certificate holder to your policy
- Dealer information updates
 - Keep your e-mail addresses updated



Customer Energy Efficiency Programs

- Programs for Commercial and Industrial (C&I) customers
 - Energy Audit and Studies
 - Custom Rebates
 - Prescriptive Rebates
 - Performance Contracting
 - Commercial New Construction



Energy Audit

 Modeled after ASHRAE level II guidelines for Energy Survey and Analysis

Energy Saving Strategy		Rough timated easure Cost (\$)	Rough Estimated Electrical Savings (kWh)	Rough Estimated Gas Savings (therms)	Rough Annual Energy Savings (\$)		Approx. Payback (Years)	Recommended Action*
Install Occupancy Sensors for Seldom Used Areas	\$	200	800	0	\$	90	2.3	1
Replace Existing T12 Fixtures	\$	500	10	0	\$	_	315.6	4
Install Skylights in Process Area	\$	2,400	7,000	(40)	\$	800	3.1	1
Replace Cooling Units with More Efficient Units Using Economizers	\$	6,100	11,000	0	\$	1,200	5.0	2
Replace Pneumatic Tools with Electric Tools	\$	800	5,000	0	\$	600	1.4	1
Find and Repair Leaks in the Compressed Air System	\$	500	2,200	0	\$	200	1.9	1
Lower the Pressure on the Compressed Air System	\$	500	2,400	0	\$	300	1.8	2
Control the Exhaust Fan From the Oven	\$	8,900	4,700	900	\$	1,200	7.4	2
Reduce the Opening at the Entrance and Exit to the Conveyor	\$	800	0	200	\$	100	6.3	2
Total for all measures recommended for implementation or study**:	\$	20,200	33,100	1,060	\$	4,490	4.5	

*Recommended Actions

- 1 Obtain Specifications for Implementation
- 2 Further Study Required
- 3 Drop / Not Recommended
- 4 Implementation on Equipment Failure / End of Life

^{**} Only projects with Recommended Action 1 and 2 are included in the totals.

^{***} Incremental Cost



Feasibility Study

- Analyzes current energy usage and documents the feasibility, associated expenses, energy savings, and cost effectiveness of potential energy-saving measures
- Frequently used for compressed air, lighting, HVAC
- Reimburse study cost up at \$15,000 plus custom rebates for projects.



Retrocommissioning (RCx) Studies

- Identify ways to optimize direct digital controls or process controls
- Save up to 20% of annual energy usage by fine-tuning your systems
- Implementation cost commitment is capped

Item Number	Project Title	Estimated Cost		Net Cost		Estimated Energy		Simple Payback
RCx Measures					Savings		(Years)	
1	AHU 427	\$	4,400	\$	4,400	\$	11,690	0.4
2	AHU 428	\$	4,400		4,400	\$	7,583	0.6
3	AHU 442	\$	5,200	\$	5,200	\$	2,636	2.0
4	AHU 449	\$	5,200	\$	5,200	\$	550	9.5
5	AHU 462	\$	3,000	\$	3,000	\$	71	42.0
6	AHU 303/	\$	4,400	\$	4,400	\$	2,334	1.9
7	AHU 432	\$	4,400		4,400	\$	8,559	0.5
8	AHU 123	\$	4,400	\$	4,400	\$	10,919	0.4
9	AHU 130	\$	4,400	\$	4,400	\$	17,552	0.3
10	AHU 158	\$	4,400	\$	4,400	\$	4,179	1.1
11	AHU 144	\$	4,400	\$	4,400	\$	4,401	1.0
12	AHU 429	\$	3,600	\$	3,600	\$	930	3.9
13	AHU 108	\$	3,600	\$	3,600	\$	1,220	3.0
14	AHU 105	\$	3,600	\$	3,600	\$	809	4.5
15	AHU 151	\$	6,200	\$	6,200	4	5,882	1.1
16	AHU 302	\$	_	\$	_	69	_	N/A
17	AHU 152	\$	3,600	\$	3,600	\$	7,729	0.5
18	AHU 100	\$	2,800	\$	2,800	\$	4,156	0.7
19	AHU 102	\$	5,400	\$	5,400	69	6,202	0.9
20	AHU 117	\$	11,900	\$	11,900	\$	18,853	0.6
	Total for all Measures	\$	89,300	\$	89,300	\$	116,257	0.8
	With 20% Contingency	\$	107,160	\$	107,160	\$	116,257	0.9



Custom Rebates

- Cash incentives for high efficiency equipment ranging from compressed air systems to processing equipment, variable frequency drives and more.
- Incentive equal to 150% of annual energy dollar savings

```
Project Cost – Incentive

Annual Energy $ Savings = Net Payback
```

• Minimum 2-year payback required



Custom Rebates Eligible Equipment

- Compressed air systems
- Energy management control systems
- Heating & cooling systems
- Lighting fixtures and controls
- Pipe insulation
- Processing equipment
- Refrigeration systems
- Variable frequency drives
- Ventilation
- Waste heat recovery systems



Custom Rebates Ineligible Projects

- Equipment powered by renewable energy resources, e.g.
 - Wind
 - Biomass
- Energy savings associated with fuel switching (changing the power source for an existing function or process)



Prescriptive Rebates

- Specific dollar amounts for installing technology on prescriptive list of highefficiency equipment
- Common for motors and lighting projects
- All forms at alliantenergy.com/forms



Prescriptive Rebate 2013 changes

- Lighting
 - Added delamping
 - Additional occupancy sensors
- Commercial food service
 - Added broilers, griddles, rotisserie ovens and rack ovens



Commercial New Construction (CNC)

- CNC proves financial incentives to help building projects get started right by optimizing energy-efficiency strategies before construction
- Four tracks to suite your energy-efficiency needs



Thank You!

Whenever you have questions or project plans...please contact Alliant Energy