About ADM
For more than a century, the people of Archer Daniels Midland Company (NYSE: ADM) have transformed crops into products that serve vital needs. Today, 30,000 ADM employees around the globe convert oilseeds, corn, wheat and cocoa into products for food, animal feed, industrial and energy uses. With more than 265 processing plants, 460 crop procurement facilities, and the world’s premier crop transportation network, ADM helps connect the harvest to the home in more than 140 countries. For more information about ADM and its products, visit www.adm.com.
Cogeneration vs. Separate Heat and Power

**Conventional Generation**
- Power Station Fuel (U.S. Fossil Mix)
  - 91 Units Fuel
- Electricity
  - EFFICIENCY: 33%
- 147 Units Fuel
- Boiler
  - 56 Units Fuel
  - Boiler Fuel
  - Heat
  - EFFICIENCY: 80%

**Combined Heat and Power**
- 5 MW Natural Gas Combustion Turbine and Heat Recovery Boiler
- Electricity
- 30 Units Electricity
- Heat
- 45 Units Steam
- Combined Heat & Power (CHP)
- 100 Units Fuel

**Overall Efficiency**
- 51% to 75%
What makes a Good CHP?

A Constant need for STEAM or Heat!!!!!
ADM Oilseed and Corn Processing Locations are “Quality” CHP candidates.

ADM Oilseed CHP’s:
- Des Moines, IA
- Lincoln, NE
- Mankato, MN
- Enderlin, ND
- Lloydminster, AB

Past facilities:
- Fredonia, KS
- Little Rock, AR
- Taylorville, IL
- Galesburg, IL
- Valdosta, GA

ADM Corn CHP’s:
- Decatur, IL
- Peoria, IL
- Cedar Rapids, IA
- Clinton, IA
- Columbus, NE
- Southport, NC

Past facilities:
- Walhalla, ND

Other Past Sites: Mansfield, MA (Cocoa)  Steger, IL (Wheat)  Chicago, IL (Malt)
CLINTON, IA
Corn Processing Operations
Combined Heat and Power
Nameplate: 180 MW of steam turbine generators and 3.3 million pounds of boiler capacity
The CHP Decision

The decisions to construct a CHP is based on “ECONOMICS”.

A major concern of any CHP decision is the cost of standby service from the local utility. Standby costs are a means of discouraging customers from pursuing a CHP.

The costs of Standby Service are much higher than any other class of customer.

(Residential, Commercial, and Industrial)
Interstate Power and Light
Alliant
LGS Rate Design

1 shift M-F  24% - 30%
2 shift M-F  48% - 55%
3 shift M-F  73% - 80%
24/7        90%+

Load Factor
Interstate Power and Light
Alliant
LGS Rate Design

Load Factor

1 shift M-F  24% - 30%
2 shift M-F  48% - 55%
3 shift M-F  73% - 80%
24/7         90%+

Average Industrial Customer
Interstate Power and Light
Alliant
LGS Rate Design

Load Factor

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24/7 90%+

Average Industrial Customer

ADM w/o CHP
Load Factor

Average Industrial Customer

1 shift M-F 24% - 30%
2 shift M-F 48% - 55%
3 shift M-F 73% - 80%
24/7 90%+

CAPS – Protecting the Consumer

ADM w/o CHP
Interstate Power and Light
Alliant
LGS Rate Design

Load Factor

1 shift M-F 24% - 30%
2 shift M-F 48% - 55%
3 shift M-F 73% - 80%
24/7 90%+

Average Industrial Customer

ADM w/ CHP
CAPS – Protecting the Consumer
ADM w/o CHP
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<th>ECA</th>
<th>EECR</th>
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<td>4%</td>
<td>47%</td>
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ADM Cedar Rapids

8%  $ 0.279 | 38% | 6%  | 1%   | 55%  |
9%  $ 0.251 | 37% | 7%  | 1%   | 55%  |
10% $ 0.229 | 37% | 7%  | 1%   | 55%  |
15% $ 0.163 | 35% | 10% | 1%   | 54%  |

Alliant LGS Rate

20% $ 0.131 | 32% | 13% | 2%   | 53%  |

Industrial Customers

25% $ 0.111 | 31% | 15% | 2%   | 52%  |
30% $ 0.098 | 29% | 17% | 2%   | 52%  |
35% $ 0.088 | 27% | 19% | 2%   | 51%  |
40% $ 0.081 | 26% | 21% | 3%   | 50%  |
45% $ 0.076 | 25% | 22% | 3%   | 50%  |
50% $ 0.071 | 24% | 24% | 3%   | 50%  |
55% $ 0.068 | 23% | 25% | 3%   | 49%  |

**Average Customer**
### IPL Unit Costs

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<tr>
<td>ADM</td>
<td>Average LGS Customer</td>
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</tbody>
</table>

### Transmission and overall rates

- **28%** Fuel costs
- **48%** Base rates/service charges
- **21%** Regional transmission service
- **3%** Energy Efficiency

### ADM Cedar Rapids Electric Purchases

- **EECR**, 1%
- **ECA**, 6%
- **Base Energy**, 2%
- **Base Demand**, 20%
- **RTS**, 71%

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**Transmission Stakeholder Update Conference Call**

April 3, 2013

John Weyer
Manager – Transmission Services

<Alliant Energy Logo>
There are CHP plants that are not being built because of Standby Rates.

Utilities do not want to encourage CHP development based on Standby Rates.

Natural Gas as a fuel source is more flexible than Coal in the development of new CHP’s but it is competing against itself for steam production in most circumstances.

Utilities need to develop a Standby Rate that does not strap it with high demand related costs to be connected to the grid.

CHP is the energy efficiency that utilities hate; you cannot get funding from utility energy efficiency programs to support CHP.

CHP needs to be embraced and encouraged.