

CLEARResult

Commercial & Industrial Energy Efficiency in Arkansas

Presented by Evan Bowers

We change the way
people use energy™

Special Thanks to our case study providers



Agenda

- History of C&I Programs in Arkansas
- Key Data and Statistics
- Program structure and benefits
- Case Studies

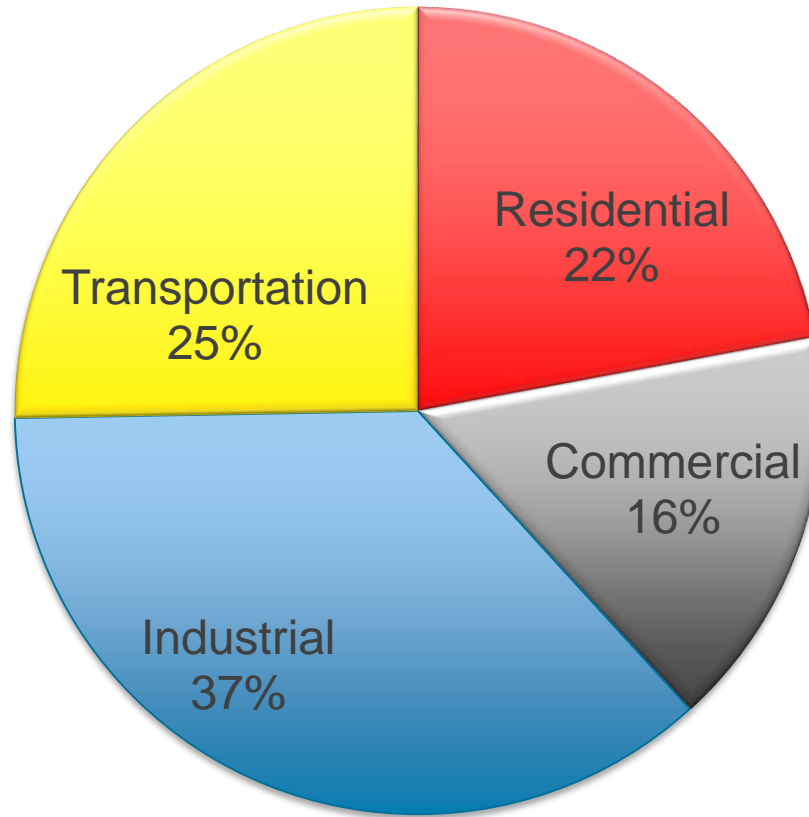
Arkansas

17th highest in energy consumption per capita



4th highest number of industrial electric customers in the nation

Arkansas Energy Consumption by End-Use Sector






In 2010, under Docket No. 08-144-U, the Arkansas Public Service Commission (APSC) developed the Sustainable Energy Resources Action Guide:

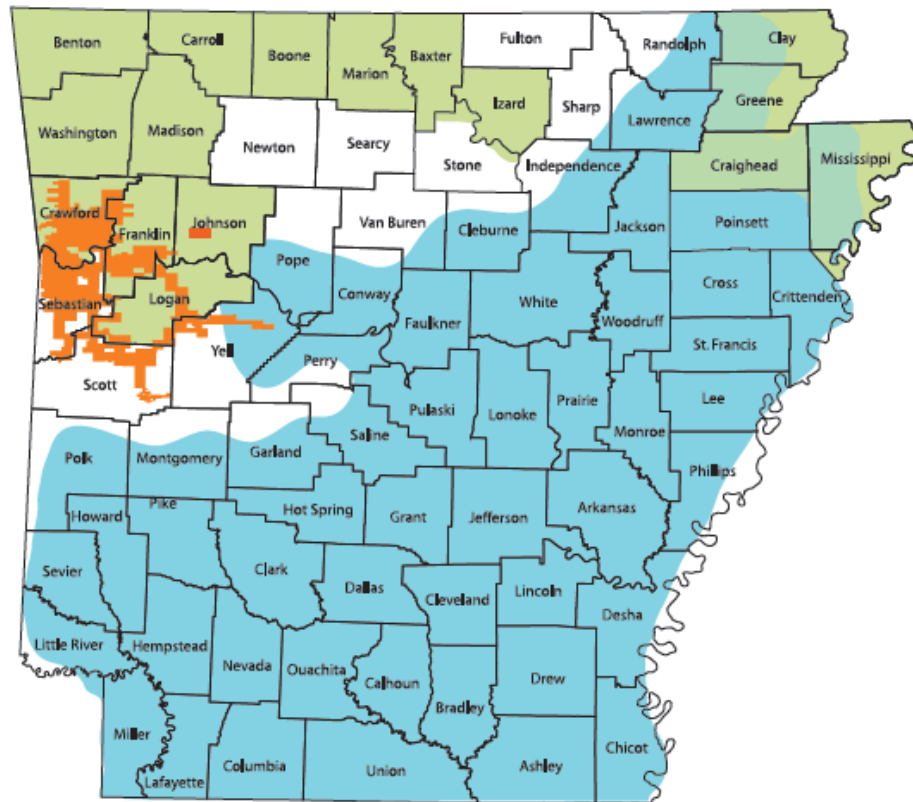
“[d]efining and requiring **comprehensive** energy efficiency programs that meet high standards that will help both customers and public utilities save money by saving energy.”

Arkansas Investor-Owned Utilities



Natural Gas Utilities Service Area

-  Arkansas Oklahoma Gas (AOG) Service Territory
-  Centerpoint Energy Service Territory
-  SourceGas Service Territory



Electric Utilities Service Area

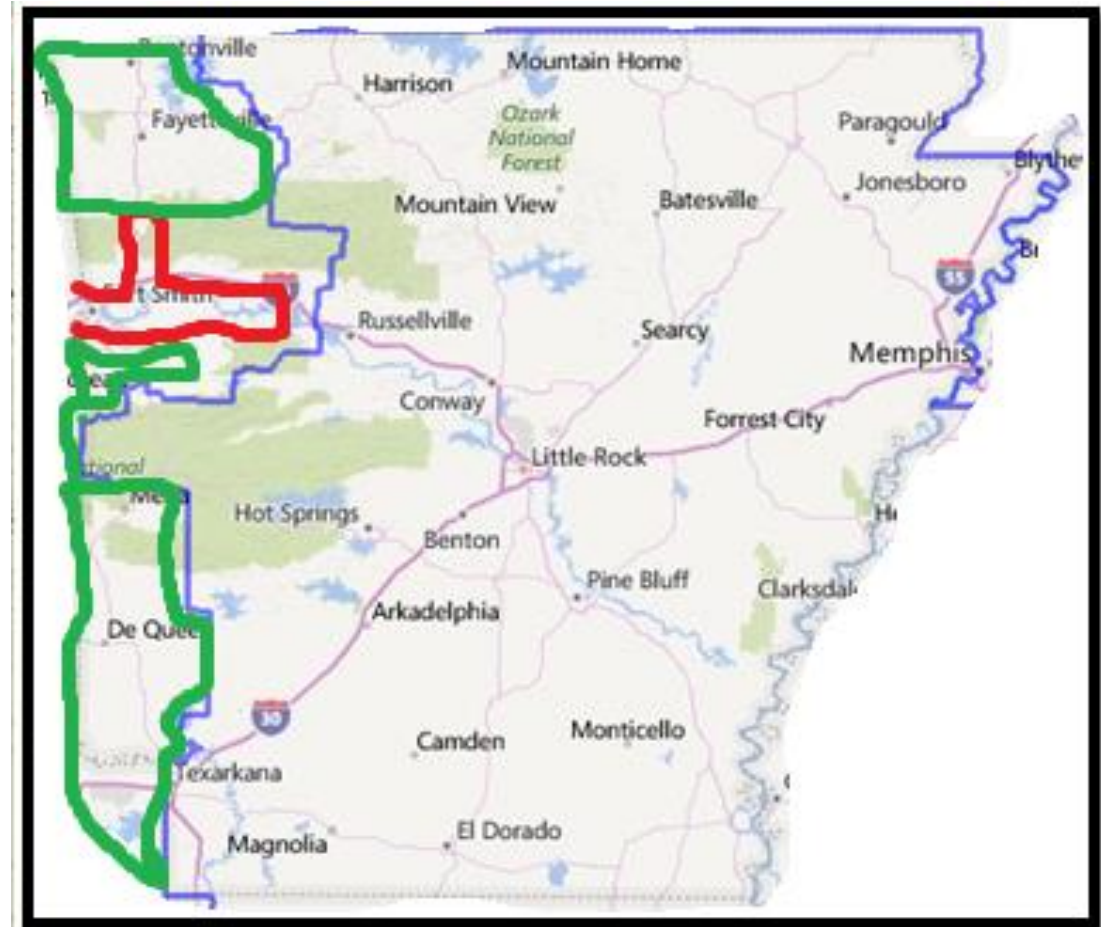
Entergy Arkansas



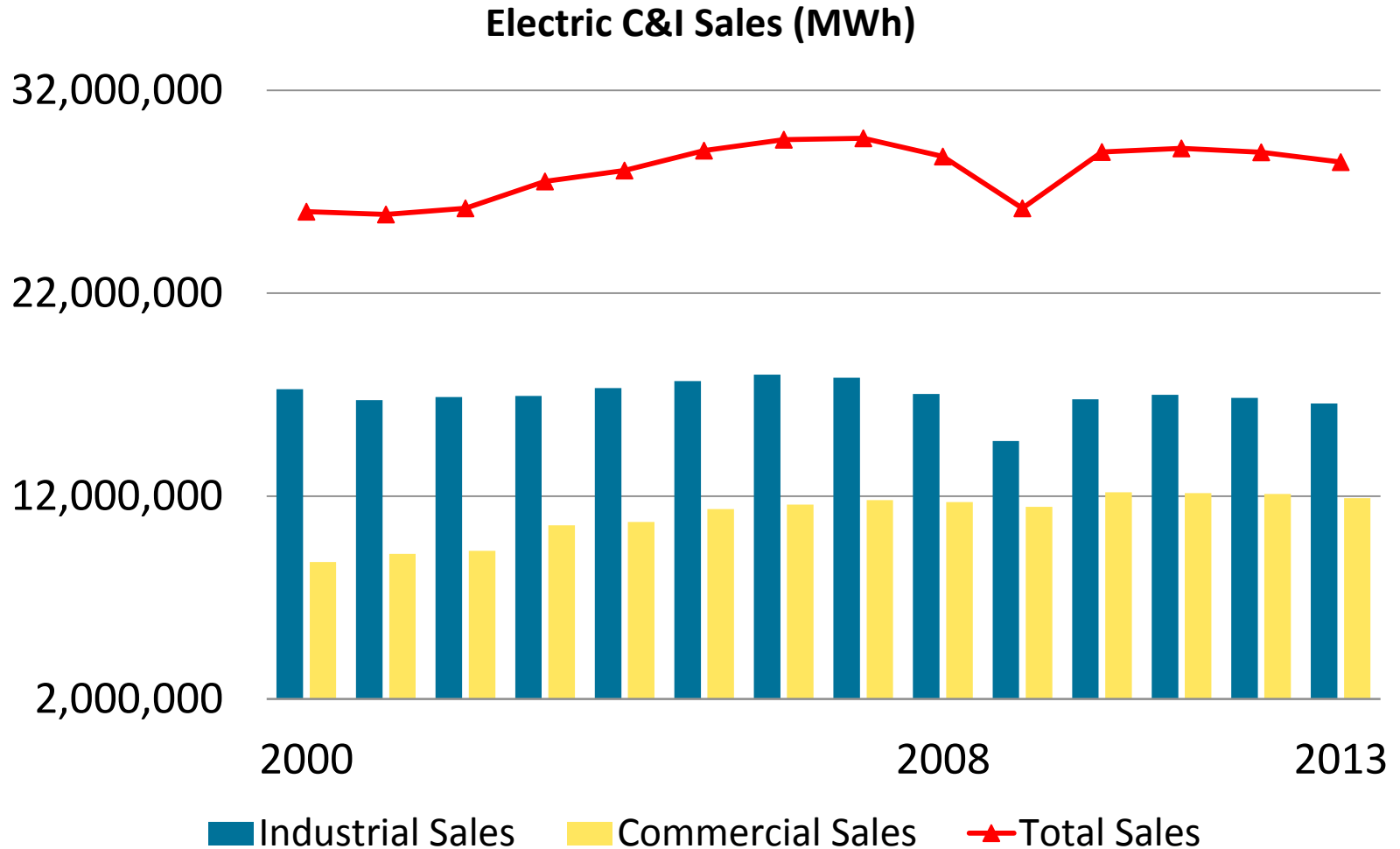
AEP SWEPCO



OG&E

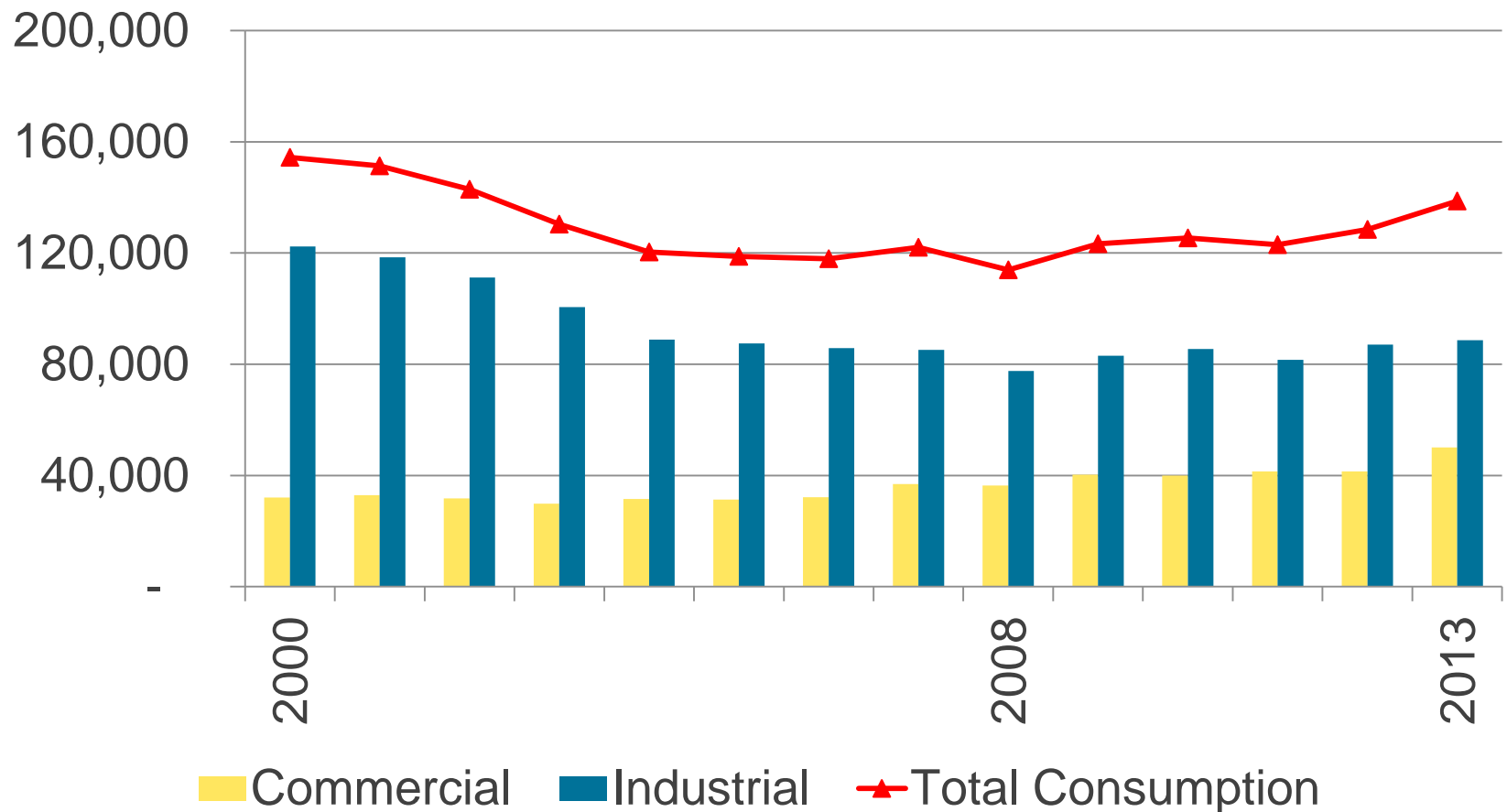


Annual Electric Consumption



Annual Natural Gas Consumption

Natural Gas Consumption in MMCF



Natural Gas Program Highlights

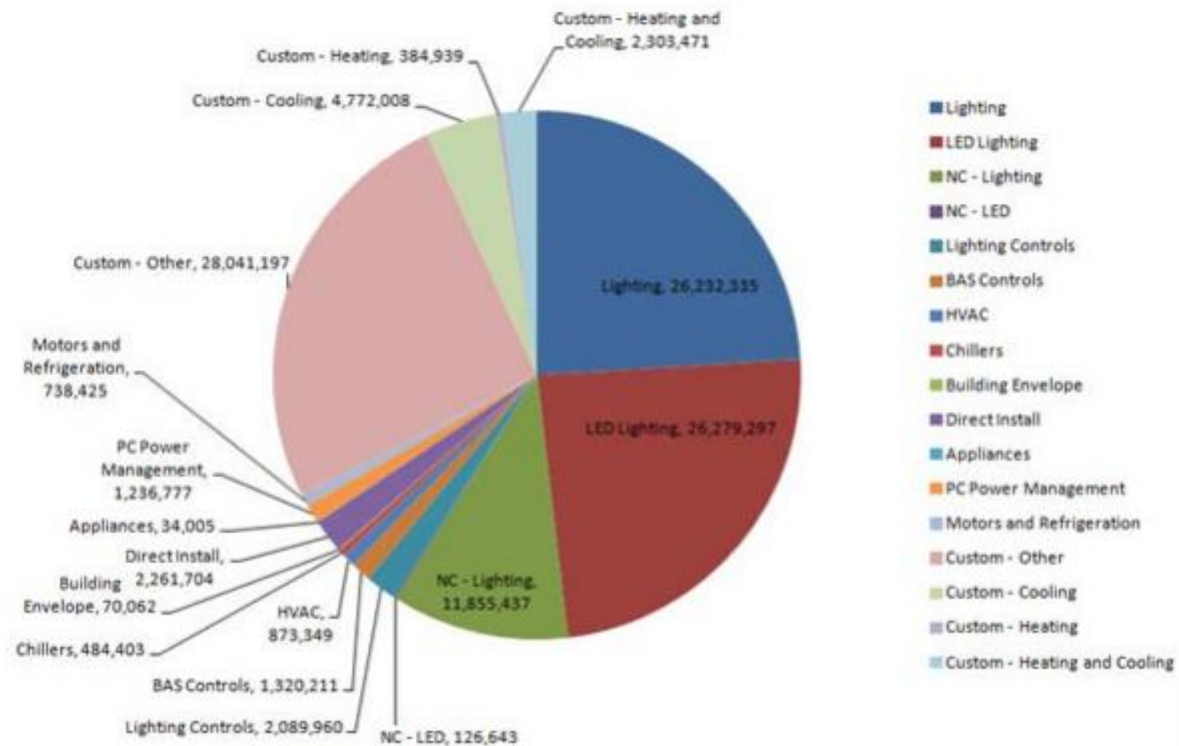
- Prescriptive and Custom Programs
- \$0.80 per therm saved (custom programs)
- Incentives can be used to pay up to 100% of project cost
- Direct Install Program
- Technical and engineering assistance
- Trade Ally network

Electric Program Highlights

- Incentives – by demand or energy differ by utility
- Incentive assignment to contractors option
- Direct Install Program
- Technical and engineering assistance
- Trade Ally Network
- Co funding of feasibility studies

Large C&I Program measure mix

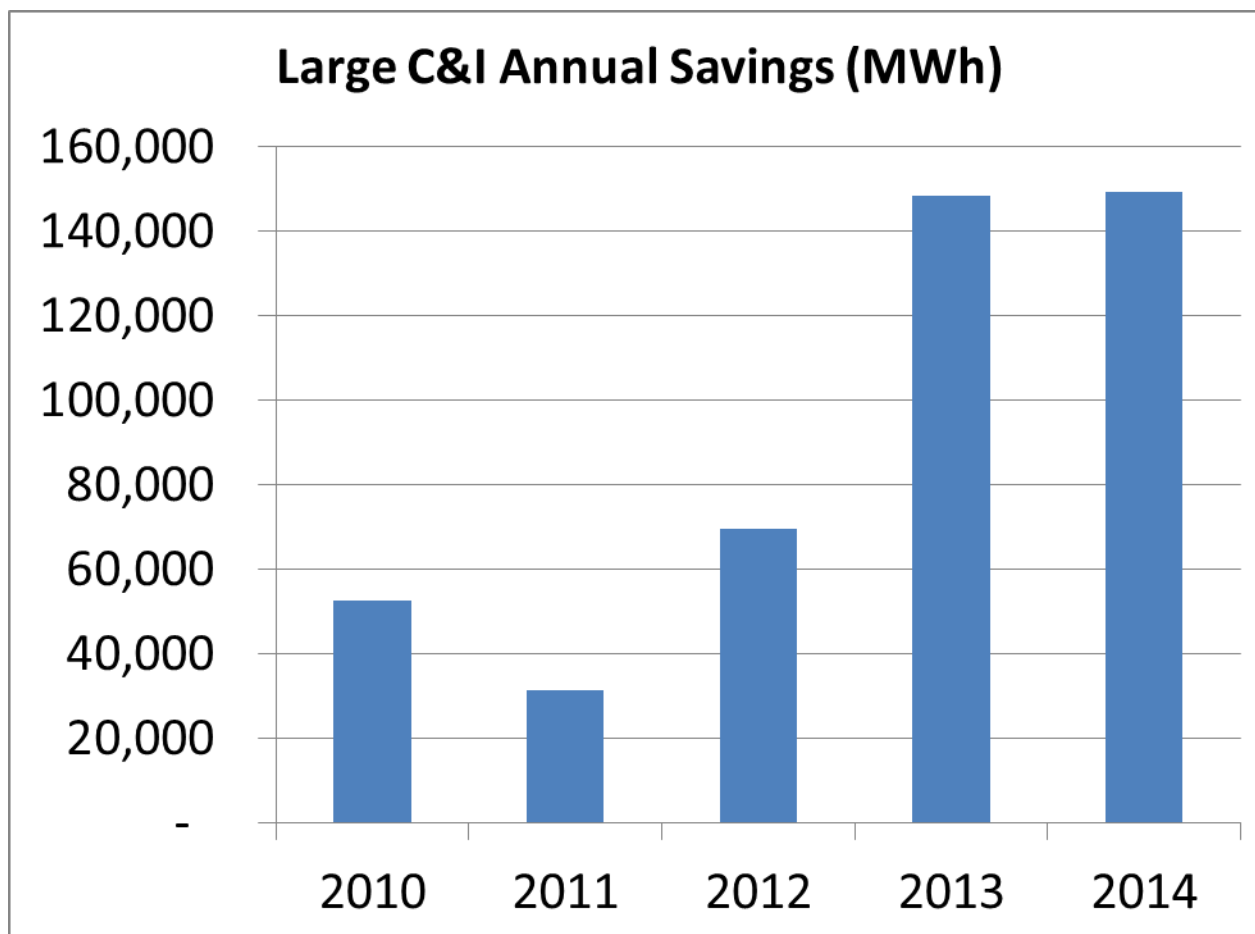
Large C&I Program Measure Mix (2014 kWh) table 2.11.2.1



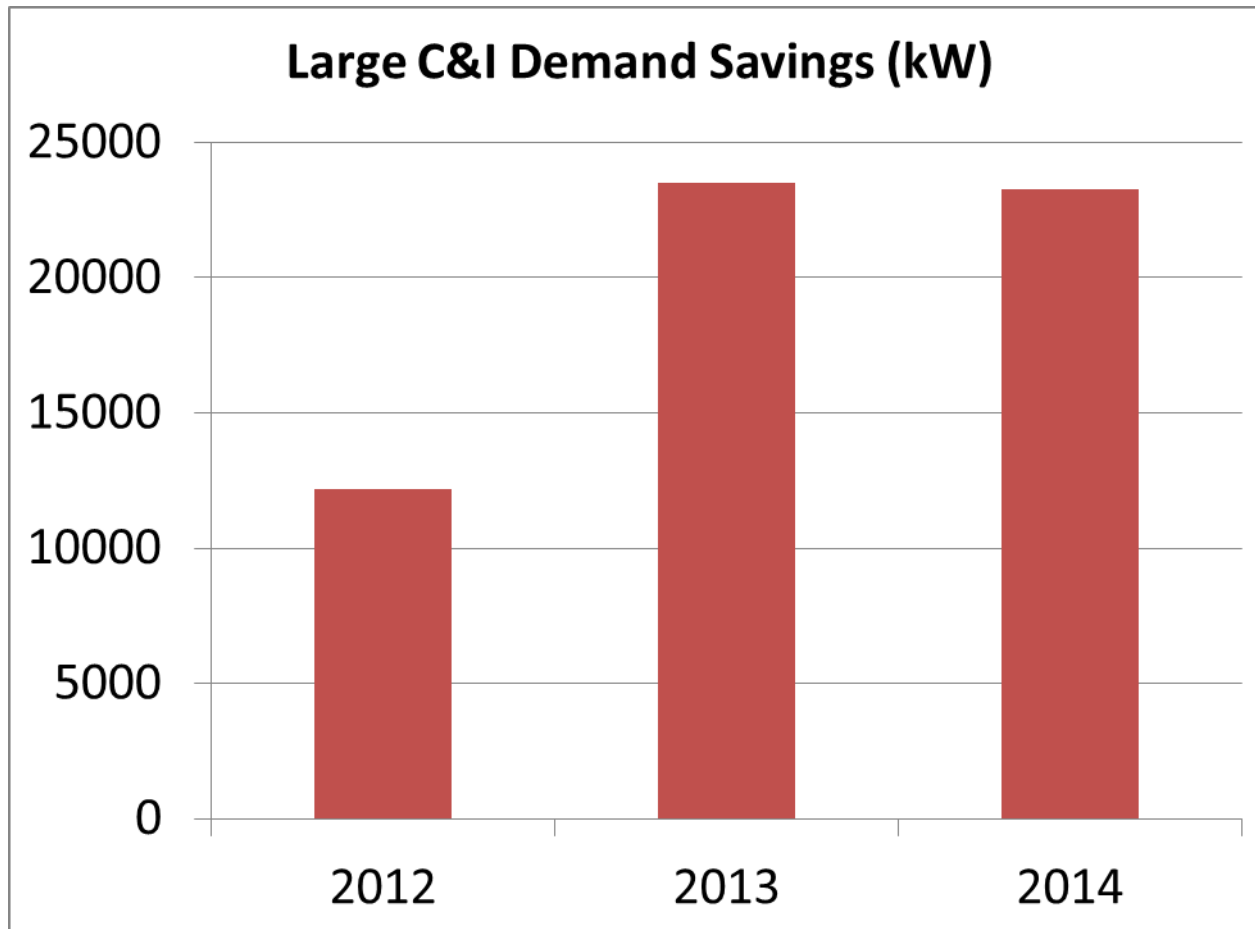
In 2014, the Arkansas Commercial and Industrial programs budgeted \$22MM of incentives on projects that will save 150 million kWh and 5 million therms per year

Approximate, based on 2014 Annual filed data

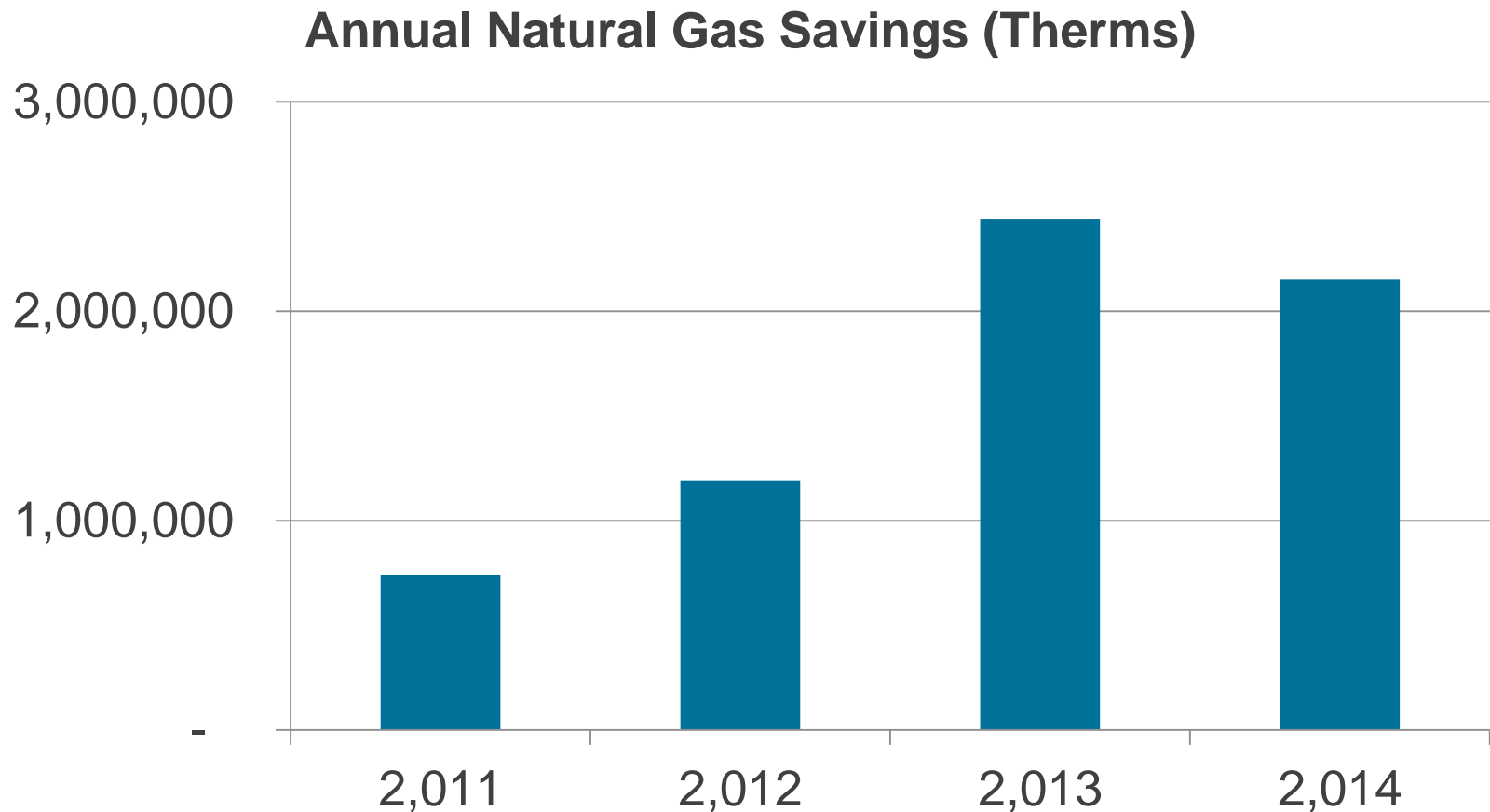
The electric C&I Programs have saved a cumulative 450,000 MWh since 2010



The Arkansas C&I Programs have also achieved a demand reduction of 59 MW since 2012



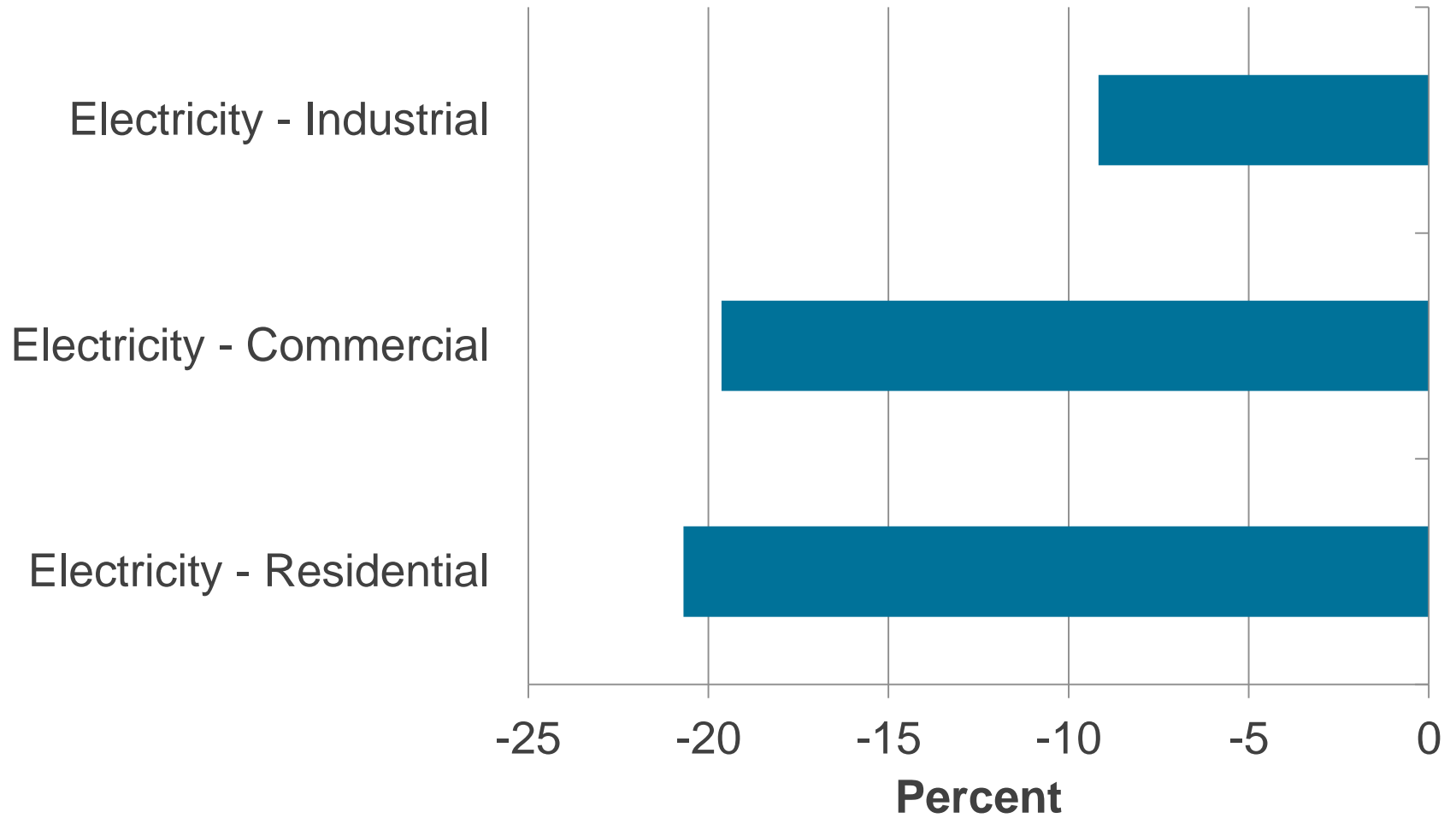
The gas C&I programs have saved a cumulative 6.5MM therms (652,000 MMBtu) since 2011



Program Challenges

- Low utility rates
- Self-direct option
- Changing baselines – TRM is retroactive
- Building Codes

AR Price Differences from U.S. Average



Self Direct Option

- Some customers eligible to “opt out” and choose self direct option
- Approximately 31% of industrial electric sales in self-direct option

CASE STUDY

RANGER BOATS



PROJECT AT A GLANCE

764,325

Kilowatt-hours saved

149,780

Therms saved

\$135,388

Estimated annual utility bill savings

\$270,625

Total incentives paid

2.3 years

Payback period

ENERGY SOLUTIONS
AN ENTERGY ARKANSAS PROGRAM

THE OPPORTUNITY

Ranger Boats is a family-owned boat manufacturer that started its Flippin-based operations in the '60s with the goal of developing exceptionally crafted fishing boats that are more comfortable and efficient than any other boat on the market. Since then, Ranger Boats has built an international reputation for delivering premium quality and unmatched value while strengthening families, fishing and personal dreams. To further its goal of delivering maximum value while being mindful of how its business impacts the community, Ranger Boats enlisted the help of Entergy Arkansas and SourceGas.

THE PROJECT

Ranger Boats worked with staff from Entergy Arkansas and SourceGas to install six direct-digital controls that will enable a computerized system to automatically adjust the temperature and pressure of the Ranger Boat manufacturing facility to achieve maximum energy efficiency.

THE RESULTS

By installing the direct-digital controls, Ranger Boats earned a \$175,795 incentive from Entergy Arkansas and will save 764,325 kilowatt-hours of electricity each year, or \$62,445 in electricity costs. Ranger Boats also earned a \$94,830 incentive from SourceGas and will reduce its annual natural gas consumption by 149,780 therms or \$72,943 in natural gas costs. In all, the energy that Ranger Boats will save each year as a result of this project is equal to \$135,388 in energy costs or the CO2 emissions from 17.5 tanker trucks worth of gasoline.

sourceGas

Entergy.
THE POWER OF PEOPLE™

Building Automation Lighting Compressed Air Dual Fuel Savings

PROJECT AT A GLANCE

764,325

Kilowatt-hours saved

149,780

Therms saved

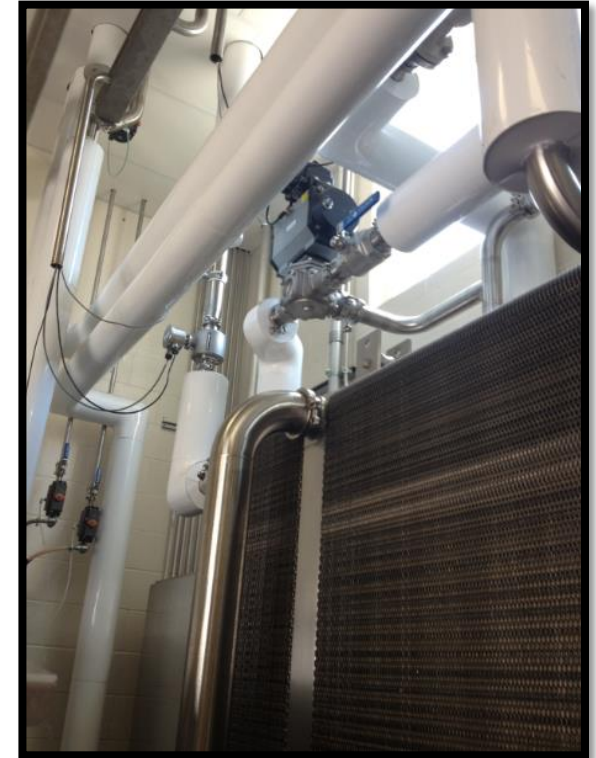
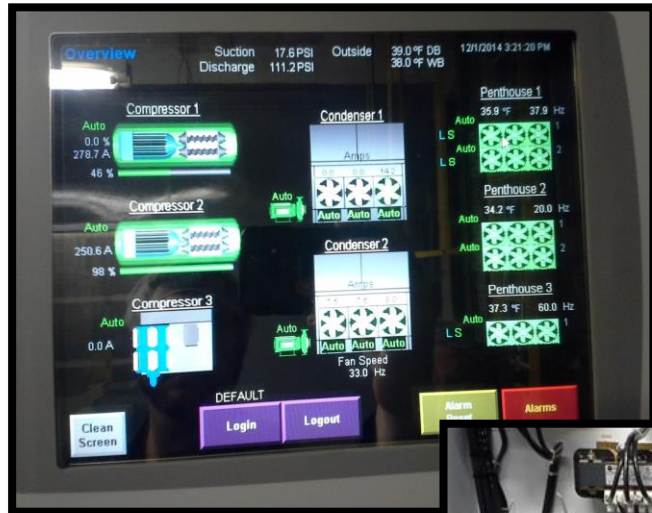
\$135,388

Estimated annual utility bill savings

\$270,625

Total incentives paid

Hiland Dairy Case Study



Hiland Dairy Case Study

- Refrigeration Upgrades **2,291,152 kWh/yr Savings**
- Lighting Retrofits **314 kW Demand Reduction**
- Process Heat Recovery **33,000 Therms/yr of NG Savings**
- Compressed Air **\$443,000 in incentives**





CASE STUDY

LENNOX

PROJECT AT A GLANCE:

Annual kWh savings:	1,465,703
Annual kW reduction:	223.36
Estimated annual savings:	\$95,271
Total incentives paid:	\$178,263
Payback period:	2.4 years



THE OPPORTUNITY.

Lennox Commercial is a leading provider of high-efficiency packaged rooftop units, split systems, HVAC controls, furnaces and indoor air quality. Having experienced the great benefits of energy efficient upgrades through the Energy Solutions programs before, they wanted to continue saving energy through upgrading their HVAC system, compressed air system controller and air-cooled chillers. It turns out Lennox and Entergy Arkansas weren't going to be disappointed.

THE PROJECT.

The facility undertook a massive overhaul of its heating and cooling systems, starting with replacing several of with newer, top-tier energy efficient units. The buck didn't stop there, as a central compressed air system controller installed, along with bigger piping. To finish things off, the team removed small air-cooled chillers at each of cutting machines and tied the whole system into an existing cooling tower that had available water. This eliminated small air-cooled chillers inside the plant, saving the company even more energy and money.

THE RESULTS.

Both parties were very proud of the outcome. In total, 1,465,703 kWh of savings were realized—the equivalent of green house gas emissions from 362 tons of waste sent to a landfill. In addition, Lennox earned rebate after to \$178,263 in total. Total savings? They're looking at an impressive \$95,271 taken off their energy per year. Lighting projects in the works, Lennox is a great example of a company that's realizing the many benefits of.

To learn more about how the Large Commercial & Industrial Program can help your company, visit entergyark.com



THE POWER OF PEOPLE.
A message from Entergy Arkansas, Inc. ©2015 Entergy Services, Inc. All Rights Reserved.
 The Energy Solutions program is an energy efficiency program and not affiliated with Entergy Solutions, LLC.

Measures:
 Compressed Air
 Process Cooling Upgrades
 HVAC Replacements
 Lighting Retrofits

PROJECT AT A GLANCE:

Annual kWh savings:	1,465,703
Annual kW reduction:	223.36
Estimated annual savings:	\$95,271
Total incentives paid:	\$178,263
Payback period:	2.4 years



Questions?

- Evan Bowers
- Energy Engineer III
- Evan.bowers@cleareresult.com

Thank you