

# Spire ENERGY Seminar STL Green Business Challenge Program

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Presented by

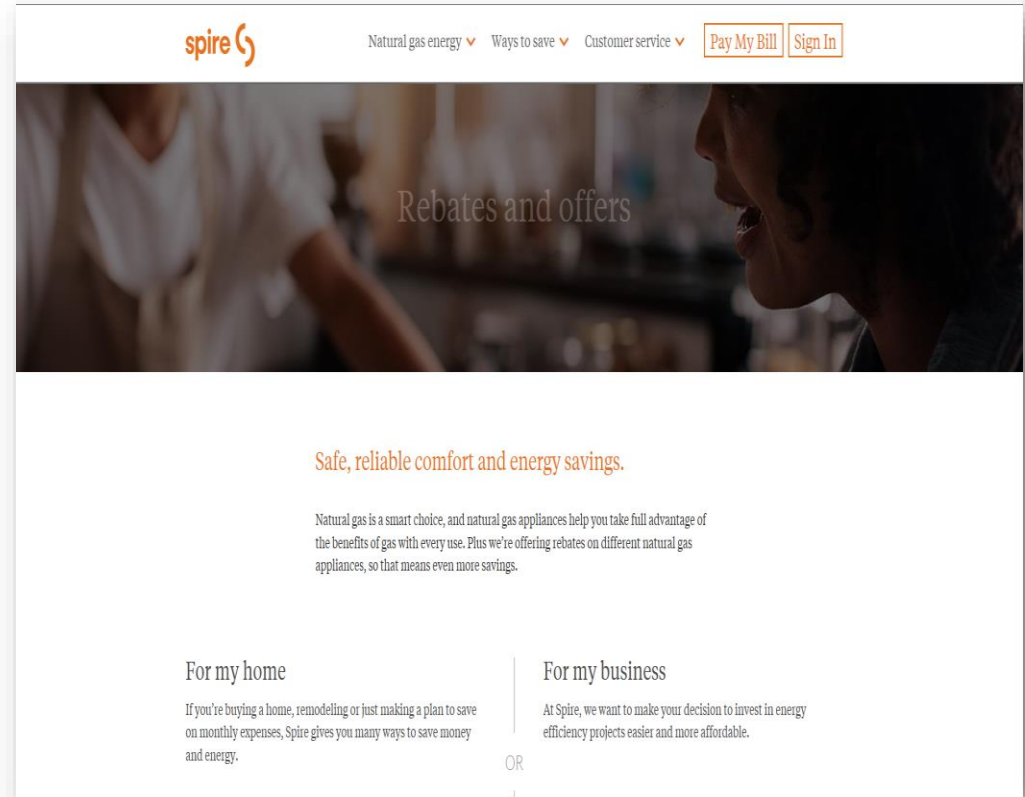
Paul Englert



# SPIRE ENERGY EFFICIENCY PORTFOLIO

## • SPIRE Programs

- Residential High Efficiency Rebate
  - EnergyWise® (Appliance) On-Bill Financing
  - Insulation On-Bill Financing
  - Home Energy Advisor Tool(Online EE)
- Commercial & Industrial Rebates
  - Standard Rebates
  - Custom Rebates
  - Energy Audits
- Co-Delivery with Ameren on CommunitySavers & School Kits



<https://www.spireenergy.com/rebates-offers>



# EE Commercial & Industrial Rebate Program Overview

## Standard

- Pre-qualified list of equipment and services with fixed rebate amounts

## Custom

- Projects that feature energy saving gas equipment or technologies not included under our Standard rebates (E.g. Building management systems)
- Integrated facility projects resulting in gas savings (E.g. Building shell improvements, extensive renovations)
- Pre-approval is necessary to determine rebate commitment

## Energy Audits

- Rebates up to 75% of the Audit cost (ASHRAE Level I minimum requirement) for customers who implement a Standard Rebate or Custom Rebate project



<https://www.spireenergy.com/commercial-rebates>



# EE Commercial & Industrial Overview continued

## Who can take part in the rebate program?

- All active Commercial and Industrial Spire Missouri customers (Restaurants, universities, hospitals, retailers, manufacturers, etc.)

## Is there a cap on rebates?

- \$100,000 / customer / program year

## What is the program year?

- October 1 – September 30

## How to Apply for Rebates?

- Customers and Implementation Contractors can submit an application on behalf of the customer
- Online rebate form or paper application
- Required documentation: invoices with equipment model numbers, labor and material costs, equipment cut sheets (Custom projects) and other documents if required by measure

<https://www.spireenergy.com/commercial-rebates>



# Commercial & Industrial Rebate Program (Standard)

## • Standard Pre-qualified Rebate Measures

- Condensing Gas Furnaces
- Condensing Gas Unit Heaters
- Radiant Infrared Heaters
- High Temperature Heating & Ventilating (HTHV) Direct-Fired Heaters
- Space heating boilers
- Boiler Controllers
- Continuous Modulating Burners
- Gas Storage/Tankless Water Heaters
- Steam Traps
- Boiler tune ups
- Vent Dampers
- Foodservice Equipment
- Programmable Thermostats



**Over 30 standard measures are now offered within the C&I program**



# Commercial & Industrial Rebate Program (Standard)



Natural gas energy ▾ Ways to save ▾ Customer service ▾

Pay My Bill

Sign In

## Standard rebates

HVAC systems and components: save up to \$500	+
Thermostat rebates: save up to 50%	+
Boiler heating systems and components: save up to \$15,000	+
Boiler tune ups: Save up to \$750	+
Steam trap rebates: save up to 50%	+
Water heating system rebates: save up to \$450	+
Food service equipment rebates: save up to 50%	+

<https://www.spireenergy.com/commercial-rebates>



# Commercial & Industrial Rebate Program (Standard)

## Commercial & Industrial Rebates – boiler tune-up

Equipment or Service	Rebate
Gas-fired boiler tune up (Non-profit customers)	75% of the tune-up cost up to \$750 per boiler, whichever is lower
Gas-fired boiler tune up (All other C/I customers)	50% of the tune-up cost up to \$500 per boiler, whichever is lower

Submit a combustion test result performed both before and after tune-up  
Boilers are eligible for tune-up rebate every two years



# Commercial & Industrial Rebate Program (Standard)

## ADVANCED BOILER CONTROLS

### Advanced Load Monitoring (ALM) Boiler Control

#### **Retro-fit to hydronic (hot water) space-heating (closed-loop) boiler systems**

#### **Reduces energy consumption by minimizing boiler “dry-cycling”**

- Dry-cycling occurs when boilers cool down due to standing losses and then fire only to recover the heat lost.
- This “unnecessary” firing to recover losses is experienced even though the building may not be calling for heat.

#### **The Advanced Load Monitoring (ALM) serves to match boiler operation with true demand.**

#### **Benefits:**

- Average energy savings (**≈15% annually**)
- Extends the time between boiler maintenance
- Environmental – less CO<sub>2</sub>

Product Resource: <http://greffensys.com/>





# Commercial & Industrial Rebates Program (Energy Audits)

## Building Energy Audit Rebate

- The energy audit incentive offers a rebate for part of the cost of an energy audit performed in support of any measure that subsequently receives a standard or custom rebate.
- **Non-profit customers** will be eligible for a rebate of 75% of the audit cost up to **\$600** for buildings under 25,000 sq. ft. and \$750 for buildings over 25,000 sq. ft.
- All other C/I customers will be eligible for a rebate of 50% of the audit cost up to **\$375** for buildings under 25,000 sq. ft. and \$500 for buildings over 25,000 sq. ft.
- For customers with more than one building per account, there is a limit of **3 audit rebates per customer per program year.**
- Audits must be performed by qualified professionals (Registered Professional Engineer, Registered Architect, Certified Energy Manager, or equivalent training, experience, and continuing education).  
**ASHRAE Level 1 Audit**
- To qualify for the audit rebate, at least one eligible energy efficiency measure identified in the audit must be installed and the audit must be performed prior to the implementation of the eligible energy efficiency measure.



# Commercial & Industrial Rebate Program (Custom)

## Custom Rebates for EE projects that fall outside the portfolio of Standard Rebates...

Send us your project design to evaluate: (examples below)

- Steam to high-efficiency hot-water boiler replacements
- Boiler economizers
- Boiler O<sub>2</sub> trim systems
- Direct-contact water heaters
- High-efficiency pool heaters
- Heat-recovery projects
- Desiccant system replacing a steam or hot water loop for reheat

- Project application must be submitted to Spire for pre-approval prior to implementation
- **Benefit / Cost Ratio Result  $\geq 1.0$**
- **Simple payback  $\geq 2$  years**
  - No rebate for measures that achieve a payback of less than 2 years
- **Maximum allowable rebate** (per project per account per program year) = \$100,000



# Spire Commercial & Industrial Case Studies

## St. Louis Art Museum

- St. Louis Art Museum received a **C&I Custom Rebate** in the amount of **\$28,482.00**



- **Project: Saint Louis Art Museum Airflow Reduction and Control Upgrade:**  
Significant Reduction in Airflow in Constant Volume System. (35%) Consistent with Code and Site Issues.  
Reduction in Airflow allows reduction in hot water heating generation to reheat coils; maintaining humidity control.
- **What is the estimated savings?** 4,296 of annual MCF savings with an estimated bill savings of \$38,640.00



# Spire Commercial & Industrial Case Studies

## Jost Chemical

- Jost Chemical, a manufacturer of specialty chemicals, needed to increase the amount of steam produced to keep up with production levels. Installed two (2) 85% efficiency Clayton Industries 250 HP steam generators equipped with a stack economizer rather than expand operation on the current 80% efficiency steam boilers. The rebate from Spire made the project economics look even better:
- Project cost: \$241,908
- **Estimated savings of 6,514.06 MCF per year** (vs. operating existing boilers)
- Simple payback: 8.25 years at \$4.50/MCF
- **Spire rebate: \$43,188 (\$23,403 & \$19,785)**
- Simple payback including Spire rebate: 6.8 years



# Spire Commercial & Industrial Case Studies

## Local Community College Commercial Custom Rebate

Replaced (1) natural gas boiler (approx. 75% efficient) with (3) 93% efficient natural gas boilers operating in parallel and controlled by a boiler management control system.

Also installed occupancy sensors in 120 classrooms and integrated to the individual lighting circuits and terminal boxes serving the HVAC to the rooms

Natural gas savings achieved by higher efficiency boilers and minimizing heat requirements resulting from set point controls from occupancy sensors



<b>Annual Gas Savings (therms)</b>	<b>37,653</b>
Annual Bill Savings (Gas)	\$44,054
Incremental Equipment Cost	\$224,181
Simple Payback (Gas)	5.1 years
Benefit/Cost Ratio	2.30
Spire Gas Custom Rebate	<b>\$24,964</b>

**ASHRAE Energy Audit  
Performed**



# Energy Efficiency Co-Delivery Programs

Spire is now co-delivering two Multi-Family Low Income Programs with Ameren:

## CommunitySavers:

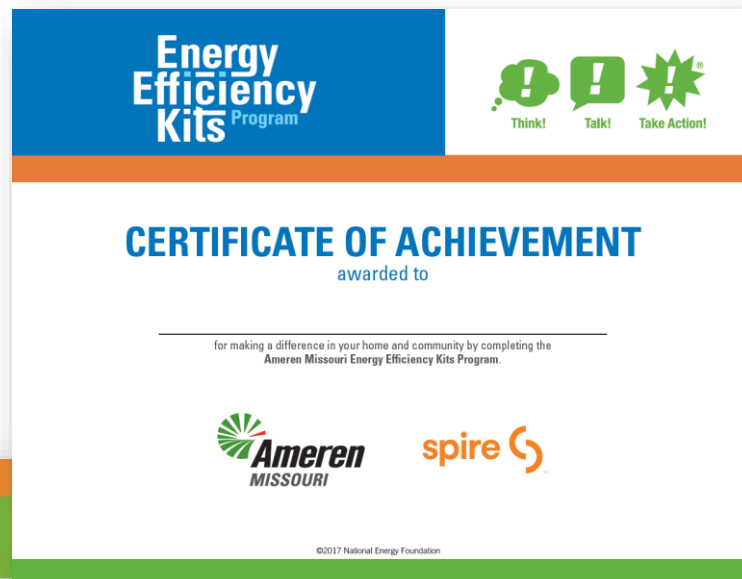
Spire will co-deliver the Program with Ameren to achieve synergies and help eligible customers receive energy savings along with bill reductions from both energy sources.

- Includes Furnace Clean and Checks
- Low-Flow Showerheads
- Insulating Water-Heater Pipe Wrap
- Low-Flow Faucet Aerators
- Programmable Thermostat

## School Kits:

Spire will work with Ameren to raise customer awareness of the benefits of high efficiency products and to educate residential customers about energy use in their homes.

- Low-Flow Faucet Aerators
- Low-Flow Showerheads
- Pipe Wrap
- Dirty Filter Alarms



# How to Apply or Obtain More Information

## **SPIRE Team**

**Shaylyn Dean:** Energy Efficiency Program Manager

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## **Spire Business Development Representatives (BDR)**

- Ramona Stevens, Large Volume BDR
- William Weindel, Large Volume BDR
- Pat Bloomfield, Large Volume BDR
- Michael Langan, Small Volume BDR
- Sara Furlow, Small Volume BDR
- Pat McMillen, Small Volume BDR
- Keli Graham, Small Volume BDR
- Belmin Salihovic, Energy Efficiency Representative

## **Program Support Team: Applied Energy Group (AEG)**

- **Marianne Peña:** Application Support
- **Huei Wong:** Technical Support
- **Barb Spanfelner:** Trade Ally Program Support



# Questions & Feedback