

Arkansas Oklahoma Gas Corporation Commercial & Industrial Solutions Program 2017-2019 Program Manual



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PROGRAM OVERVIEW

Program Description

The **Commercial and Industrial Solutions Program (Program)** is being offered to all commercial and industrial (C&I) customers in the **Arkansas Oklahoma Gas Corporation (AOG)** service territory. The Program seeks to accomplish objectives through a variety of services. The Program helps facility personnel operate their buildings more efficiently by understanding the technical and financial benefits of investing in natural gas efficiency and developing a plan to make natural gas efficiency improvements. Customers enrolling in the Program, referred to as **Program Participants (Participants)**, receive technical and energy-efficiency related assistance to help them make decisions about cost-effective investments in facility natural gas efficiency.



*AOG is committed to reducing
the energy consumption of its
customers*

Program Participants are eligible for financial incentives for completing qualifying natural gas efficiency measures. Other Program benefits include technical assistance, communications support, and direct install measures.

The Program does not prescribe technologies or end uses, but instead provides a framework through which the Participant can receive incentives for implementing and installing a wide range of measures at their sites.

Program Objectives

The Commercial and Industrial Solutions Program is a market transformation program offered to commercial and industrial customers of AOG.

Program Objectives include:

- Introduce a cost-effective natural gas efficiency program to commercial and industrial customers, while complementing current residential and commercial program offerings.
- Encourage delivery of natural gas efficiency products and services to the target market segment(s).
- Transform these markets over time by addressing specific barriers that hinder adoption of natural gas efficient technologies and practices.
- Provide a suite of educational and supporting services to facilitate the implementation of natural gas efficiency projects.
- Create a simple and streamlined program process to stimulate strong participation from the targeted markets.
- As part of the streamlined direct install process, the Program will:

- Offer direct installation of specific natural gas efficiency measures
- Provide immediate savings to the Participants
- Reach many Participants for the first time
- Educate Participants about natural gas use in their facilities
- Encourage Participants to further partake in custom measures or other AOG sponsored programs.

Program Management & Contacts

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Program Roles & Responsibilities

Program Sponsor (AOG):

- Provide customer database to allow implementer to verify the eligibility of the Participants
- Provide Participants with the necessary incentive funds
- Oversee the Program Implementer (CLEARResult)

Program Implementer (CLEARResult):

- Conduct outreach to potential Participants
- Verify Participant eligibility and enrollment
- Make recommendations for higher efficiency options
- Install direct install measures
- Provide some or all of the following services, based on the specific Participant's needs, as assessed by AOG and Program Implementer: education, training, technical assistance, and public relations/communications support
- Review and approve Project Application Forms, including any required supporting documentation
- Maintain a database of all necessary program information
- Conduct quality control and quality assurance activities

- Assist in identification of energy efficiency opportunities
- Secure and review Participant Agreements

Program Participant (AOG Customer):

To participate in the Program, a Participant will be asked to fulfill a combination of the following requirements, determined in conjunction with Program Implementer:

- Commit to the terms of the Commercial and Industrial Solutions Program Participation Agreement
- Provide energy bills and building characteristics data for analysis
- Review, sign, and return the Project Application form and Measurement & Verification (M&V) documentation to reserve incentives for qualifying energy efficiency projects
- Exert its best efforts to approve, fund, and install cost-effective natural gas efficiency projects identified through the Program before the last day of the program year
- Notify Program Implementer when projects are complete and schedule a post-inspection
- Provide copies of the invoices for all completed work relevant to the project. Provide access to project facilities and ample lead time both before and after project completion for inspection of the baseline and post-retrofit condition(s), if necessary, allowing for pre- and/or post-retrofit monitoring of equipment

PROGRAM ELIGIBILITY

Participant Eligibility

The 2017-2019 Commercial and Industrial Solutions Program is being offered to all C&I gas customers of AOG. A customer is defined by a single Tax ID number. Multiple locations of one organization are thereby considered a single customer, regardless of how many AOG account numbers they may have. For a specific facility to be eligible for financial incentives in the Program, its gas meter number or specified account number (noted on the gas bill) must be provided in order to verify gas service provided by AOG.

The eligibility of custom projects to be included in the Program and receive incentive funds is evaluated on a case by case basis.

Please note that while the Program is offered to all C&I customers, due to a limited budget, not all interested customers may have the opportunity to participate in a given program year.

Trade Ally Availability

A Trade Ally is a contractor or service provider that has chosen to participate and affiliate their business with the Program.

In order to become a Trade Ally a business must sign a Trade Ally Agreement and designate what services or products they are willing to provide, and in which part of the state they are willing to provide these services or products.

A list of Trade Allies is available on the AOG website.

Each Trade Ally must participate in a program training session to become familiar with the process and requirements of the program before being posted on the website.

It is the sole discretion and responsibility of the Participant to choose the service provider or contractor that they are most comfortable with. AOG or the Program Implementer in no way warrants or recommends a specific provider for any Participant.

Participants that choose to use a provider that is not a Trade Ally, can still participate in the Program. The Participant will still be required to adhere to the Program rules, and designate a specific point of contact for fulfillment of those rules.

PROGRAM INCENTIVES

Project Eligibility

A Project, for program purposes, is defined as one or more proposed measures, installed concurrently at one (1) facility owned and/or operated by the Participant.

All measures must meet the following requirements:

- Must result in a measurable and verifiable reduction in natural gas consumption
- New equipment must exceed minimum equipment efficiency standards
- Direct Install Measures must be installed by Program Implementer

Measures & Incentive Levels

The Program provides financial incentives, based upon reductions in natural gas consumption at a Participant's facility. These incentives help the Participant to "buy down" the incremental cost of purchasing more energy-efficient equipment and are meant to encourage adoption of construction and maintenance practices which will reduce energy operating costs. There are two types of incentives being offered in this Program, they are described in detail below.

1. Direct Install Measures

The Program targets measures that reduce water heating energy for Participants. These measures are offered at no cost to the Participant and will be installed by the Program Implementer. The Direct Install measures being offered through this Program are in the table below.

Measure Type	Measure Description	Estimated Energy Savings
Faucet Aerators	Faucet aerators offer significant water heating and water use savings for Participants. The Program will offer 0.5 and 1.0 gpm aerators. Savings depend on facility type.	Savings range from 10 to 100 CCF per aerator depending on facility type and use.
Pre-Rinse Spray Valves	Pre-rinse spray valves substantially reduce the hot water used for rinsing dishes prior to dishwashing.	Savings range from 40 to 480 CCF per valve depending on facility type.
Showerheads	1.5 GPM showerheads are available to select facilities and offer water heating and water use savings for Participants.	Savings range from 7 to 20 CCF per showerhead depending on facility type.
Door Sweeps & Weatherstripping	Door sweeps and weatherstripping installed around the perimeter of exterior doors can significantly reduce air infiltration into heated spaces.	Savings range from 3 to 20 therms per linear foot depending on facility type.

2. Custom Measures

The Program provides financial incentives, based on reductions in natural gas consumption (MCF) at a Participant's facility. Custom measures require more complex savings verification after installation. The cash incentive for eligible Custom Measures is:

\$0.80/ CCF based on annual first year gas savings.

The Program will work with each Participant to select and implement an appropriate Measurement and Verification (M&V) plan (including installing field monitoring equipment where applicable*). The Participant will still need to select a Trade Ally or other service provider to actually implement the measure. Below is a list of potential custom measures for Participants to consider. Other measures may be eligible provided the Program and Participant can identify an appropriate way to complete M&V for the project.

* Subject to the availability and demand of specific equipment.

Measure Type	Measure Description
HVAC Boiler Replacement for Large Boilers, > 12,5 MMBTU	Large boilers that are not eligible for a prescriptive rebate may apply for incentives through the Commercial and Industrial Solutions Program
Process Boiler Measures	Non-HVAC boilers are not eligible for prescriptive rebates and may apply for incentives through the Commercial and Industrial Solutions Program
Linkless Controls	Replacing a process boiler's linked controls with Linkless controls
Steam Trap Survey & Replacement	Conducting a survey of the facility's steam system and replacing all traps that have failed open
Optimizing Process Systems	Optimization of industrial process systems
Infrared (IR) Heating	Replacing gas fired heating systems with Infrared systems. Typical uses are warehouses, bus terminals, facilities with high ceilings and high air exchange rates
Steam & Hot Water Pipe Insulation	Insulation of steam or hot water pipes, tanks, steam valves, or fittings
Demand Control Ventilation	Installing sensors that control HVAC operations according to space occupancy
Energy Management Control Systems	Installing building energy management systems that allow for improved control of energy use
Process Controls	Installing controls on industrial processes that reduce process gas use
Heat Recovery	Recovering useful heat from HVAC or process systems For example recovering heat from thermal oxidation (pollution control) systems

3. Small Business C&I Measures

The Small Business pathway to participating in the C&I Solutions program exists to serve commercial natural gas customers whose gas usage is 200,000 therms or less a year. Financial incentives are available to Small Business customers who utilize the program to reduce their natural gas usage by installing energy efficient equipment or qualified building maintenance measures. The measures available include both custom measures that require more complex savings verification (see 'M&V Approach' section below) as well as prescriptive measures that have a simplified approach to counting energy savings. The cash incentive for eligible Custom Measures for the Small Business customers is:

\$0.90/CCF based on annual first year gas savings

This incentive rate is offered to Small Business customers in recognition of the market barriers they face to implementing meaningful energy reduction efforts. The Program will help the Participant to identify appropriate measures for their facility and the Participant will need to select a Trade Ally or other service provider to actually implement the measure. Below is a list of potential measures for Participants to consider. Other measures may be eligible provided the Program and Participant can identify an appropriate way to complete savings measurement for the project.

Measure Type	Measure Description
Steam Trap Survey & Replacement	Conducting a survey of the facility's steam system and replacing all traps that have failed open
Separate Domestic Hot Water (DHW) for Kitchens	Installing a booster heater for kitchen facilities that require higher temperature water
Duct Efficiency Improvements	Deliver energy savings for sealing leaks in supply and return ducts in unconditioned spaces of commercial buildings, including repair and replacement of damaged ductwork
Steam & Hot Water Pipe Insulation	Insulation of steam or hot water pipes, tanks, steam valves, or fittings
Schedule Optimization	Delivers energy savings by adjusting the temperature set point of the HVAC system to account for occupancy to reduce load during unoccupied periods
Economizer Function Optimization	Delivers energy savings by programming appropriate operating ranges for economizers on central air-handling units that are disabled or functioning in a suboptimal operating range
Demand Control Ventilation	Delivers energy savings by reducing the amount of outdoor air that needs to be heated or cooled through optimization of CO2 Sensor set points and the minimum damper position

Measurement & Verification Approach

Cash incentives received through the Program will be based on a measure's reduction in energy consumption (MCF). Savings will be calculated using one of several M&V approaches.

1. **Deemed or Stipulated Savings:** Deemed savings are standardized savings values or simple formulas for a range of measures in representative building types. This approach is suitable for a variety of projects where energy savings may be estimated to a reasonable degree of accuracy without additional M&V. Variables such as operating hours and energy consumption of existing equipment are assumed in these cases according to previously gathered field data. For example, pre-rinse spray valves installed by the Program qualify for a stipulated savings approach, meaning that estimated energy consumption savings are determined without additional testing.
2. **M&V Option A (Key Parameter Measurement):** For an Option A project, the main aspect that affects energy use is measured, usually with data logging equipment. Project example: Linkless controls for a process boiler.
3. **M&V Option B (All Parameter Measurement):** For an Option B project, all aspects that affect energy use are measured. Typically the actual energy use of the system is logged. All parameters that affect energy use, such as temperature of an HVAC system or occupancy, must be measured. Project example: industrial process improvement.
4. **M&V Option C (Whole Facility: Bill Analysis):** When savings are expected to be more than 10% of the whole building's energy use, Option C can be used. This option involves collecting at least a year's worth of utility bills or sub-meter data for a facility. Project examples: Retro-commissioning of a facility, involving numerous operational and control changes that have complex interactions.
5. **M&V Option D (Whole Facility: Calibrated Simulation):** Option D is for new construction buildings or major retrofits. Instead of measuring energy use, it is modeled with building modeling software like eQUEST. Project example: new construction project involving numerous efficiency improvements that have complex interactions.

The savings methodologies described above differ in terms of detail and rigor and some are chosen based upon the predictability of equipment operation, availability of evaluation data from previous programs, and benefits of the chosen measurement and verification approach relative to its cost. The Program will work with individual Participants to select the most appropriate M&V option from the above list for each specific project.

Non-Cash Incentives

The Program Implementer will work with enrolled Participants to determine the appropriate non-cash incentives to provide in addition to assisting with identification and development of measures that may be eligible for cash incentives.

Technical Assistance & Project Identification– The Program provides technical support to help Participants identify and evaluate energy efficiency measures (ECM's) in order to determine which projects are viable. As part of this service, the Program also educates senior decision makers on project financing options where funding sources are not immediately available.

Communications & Public Relations – If the customer wishes, the program can provide press releases and other communications support (such as case studies) to inform the community about the steps their area businesses are taking to improve the energy performance of their facilities, reduce operating costs, and use budget dollars more efficiently. This step will not be taken without consent of the Participant.

Project Application Process

Cash incentives are subject to availability and reservation. In order to receive cash incentives from the Program, Participants must first reserve incentives by completing and submitting a Project Application Form and providing the Program Implementer with all necessary supporting documentation. After an M&V Plan has been completed for a proposed project, the Program Implementer will prepare a Project Application, which the Participant must review and sign, to approve eligible projects for an initial incentive reservation. The incentive reservation amount may be adjusted during the course of the program year, according to changes in the estimated savings and provided that the budget is able to accommodate any additional incentives that need to be reserved. The Program Implementer will update the Participant if any significant changes are made to the incentive amount reserved for their projects. AOG is not required to pay the Participant in excess of 100% of the original incentive reserved for a particular project if the Program is fully subscribed at the time of project completion.

Direct Install Measures

The Direct Installed Measures are provided to Participants on a first come, first served basis and are free of charge to the Participant. Incentive reservation is not required in the case of Direct Install Measures. Once a Participant agrees to receive Direct Install at their facility, they will be presented an electronic Participation Agreement which they must review and sign electronically. After the work is complete, they will also electronically acknowledge the location and quantity of measures installed.

Project Application Requirements

In order to receive cash incentives for installation of custom measures, Participants are required to submit the following as part of their completed Project Application:

- Project scope
- Project cost information (invoices, receipts, service costs, etc.)
- Project start and completion date

Incentive Payment Process

Any cash incentives received through the Program are paid directly to the Participant after the project is completed, post-inspected, and the savings are verified in an M&V Report, when, applicable. In some cases, the Participant may opt to assign the incentive to be paid directly to the installing Trade Ally, if an agreement and waiver is signed by both parties prior to the project's implementation.

For projects that are utilizing M&V savings methodologies, a 40% installation payment will be administered for the completion of the installation of the equipment. The remaining 60% incentive payment will be held in reserve until the final verification activities are complete. The

final payment will be made up to the reserved 60% payment amount, subject to final verified savings.

Limits on Participation

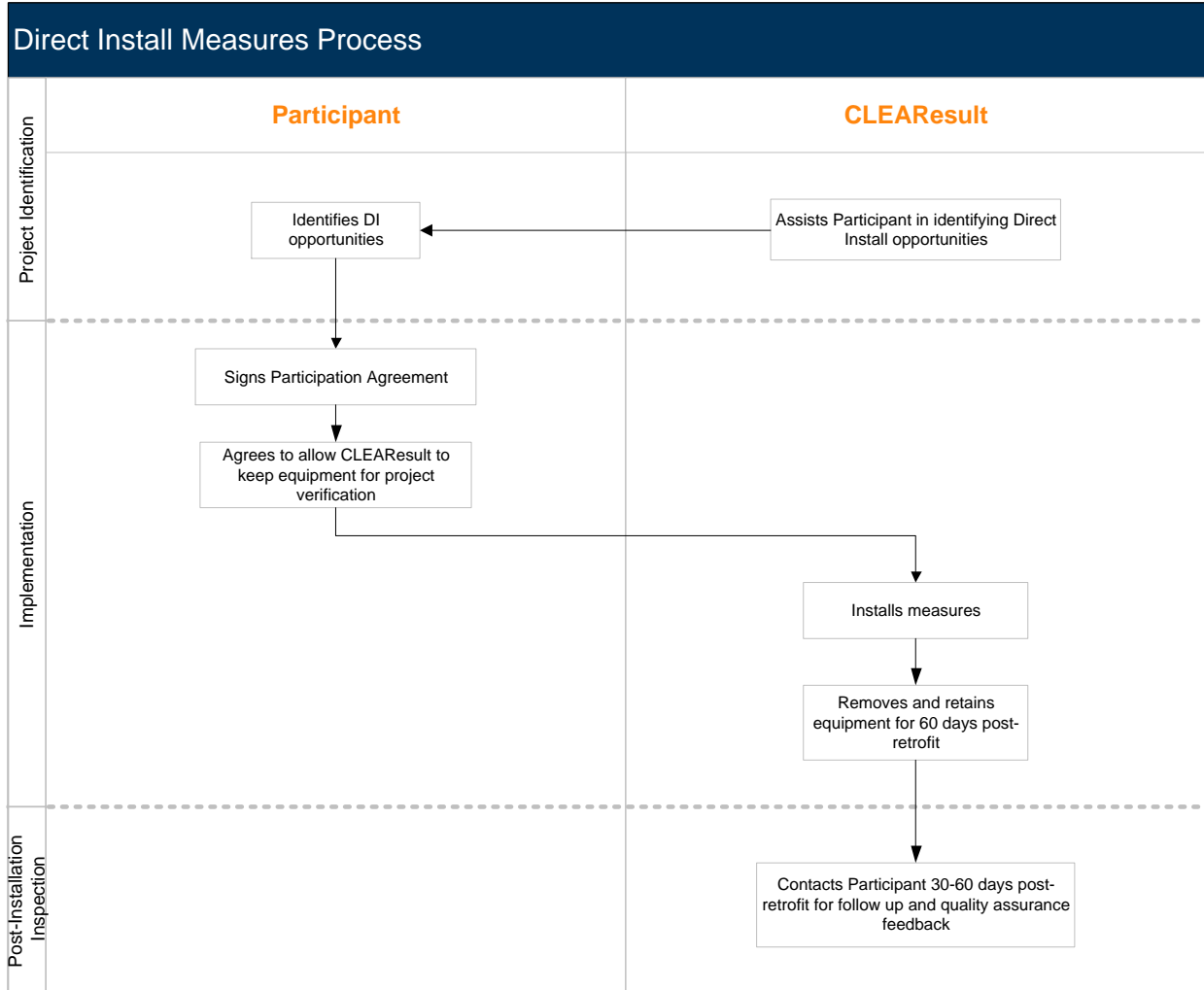
To ensure incentive availability, Participant must work with the Program Implementer to complete and submit the Project Application Form. No incentives are reserved for a project until the Project Application Form is completed and signed by the Participant and approved by the Program Manager.

Any Participant submitting projects that are unable to receive cash incentives in the current program year due to oversubscription may choose to continue with their installation without incentives or delay the project and reapply for incentive funds during the next program year when additional incentive budget becomes available.

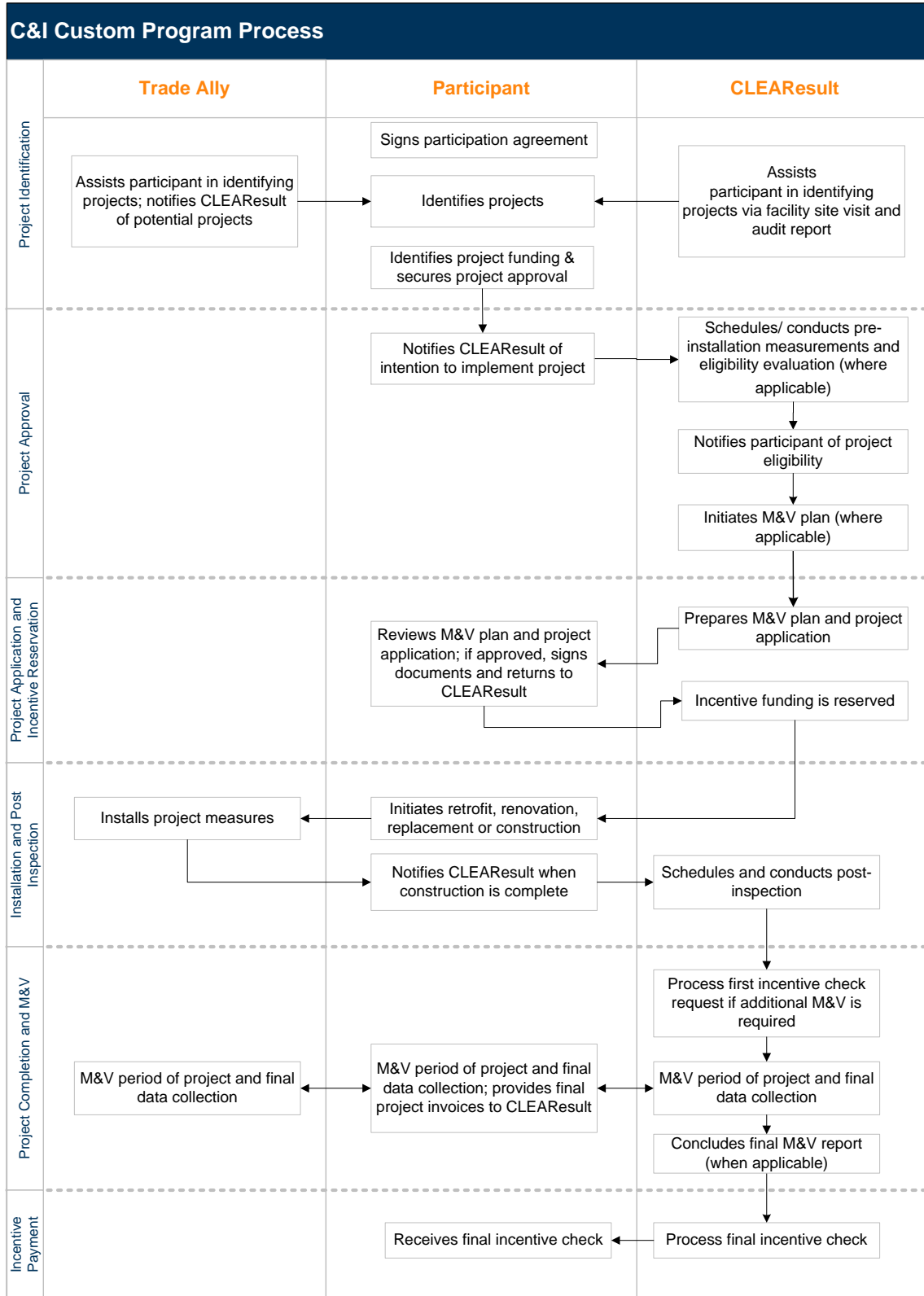
CUSTOMERS MUST RECEIVE PRIOR APPROVAL BEFORE INSTALLING EQUIPMENT.

PROJECT PARTICIPATION PROCESS

Participant Direct Install Measures



Participant Custom Measures



QUALITY MANAGEMENT SYSTEM

Quality Assurance

Mechanism	Description
Application Review (QA)	A completed M&V Plan must be reviewed and accepted by both the Participant and the Implementer prior to a Project Application being completed. The Participant does not receive a reservation of incentive funding notice until the Project Application is completed.

Quality Control

Mechanism	Description
Post-Installation Inspections (QC)	Projects will be inspected in accordance with the QA/QC Protocol. The inspection will signify a 80/20 confidence factor. If more than the 20 percent fails inspection, then a full inspection is required and adjustments to the project application will be made and resubmitted to the Participant to complete and return to the Program Administrator. Depending on the discrepancies found, the incentive amount may increase or decrease.

Participant Feedback/Concerns

Please submit feedback or concerns to:

John Ware
Director - Energy Efficiency Programs
Arkansas Oklahoma Gas Corporation
479-424-4688
jware@aogc.com

DISCLAIMERS

Confidentiality

The Program is subject to oversight by the Arkansas Public Service Commission (APSC), which may request a copy of any Program materials received by the Program Implementer or AOG. A Participant's sensitive company and project information submitted to the Program, such as financial statements and project costs, will be treated confidentially to the fullest extent possible and will not be provided directly to outside parties other than the APSC. Neither the Program Implementer nor AOG will be liable to any Participant or other party as a result of public disclosure of any submittals.

False, Misleading, or Incorrect Information

The Program Implementer will discontinue its evaluation of all submittals from any Participant who submits false, misleading or incorrect information. If an evaluation is discontinued under these circumstances, the Program Implementer will return all of the Participant's submittals.

Disclaimer of Warranties

Participant acknowledges and agrees that any review or inspection by AOG or the Program Implementer of Participant's facilities/premises or of the design, construction, installation, operation or maintenance of the natural gas efficiency equipment installed or to be installed in connection with the program is solely for the information of AOG. In performing any such inspection or review or in accepting the installed equipment for the award of incentives, Participant acknowledges and agrees that AOG or the Program Implementer, CLEAResult, makes no guarantee, representation or warranty whatsoever as to the economic or technical feasibility, capability, safety or reliability of the equipment, its installation by a project contractor or its compatibility with Participant's facilities.

Program Implementer is an Independent Contractor

The Program Implementer is an independent contractor and is not authorized to incur obligations on behalf of AOG. AOG is not responsible for the truth or validity of any representation not contained in the Program Manual or Program Participation Agreement.

FREQUENTLY ASKED QUESTIONS (FAQS)

1. What is the Commercial and Industrial Solutions Program?

The Commercial and Industrial Solutions Program is a natural gas efficiency program designed to assist AOG's commercial and industrial Participants to reduce annual gas usage by providing access to technical knowledge, natural gas assessments, and financial incentives to improve the efficiency of their buildings.

2. Who is eligible to participate in Commercial and Industrial Solutions Program?

Please see the "Eligibility" section of this Program Manual for exact details. In general, the Commercial and Industrial Solutions Program is offered to commercial and industrial Participants that own/operate facilities within the AOG service territory.

3. What does the Program cost?

The Program is offered at NO COST to eligible Participants. Any costs incurred by Participant during the course of their Program participation is at their discretion and is typically for the installation of gas saving measures that are recommended by the Program (and for which financial incentives are available).

4. What incentives are available through the program?

The Commercial and Industrial Solutions Program offers both cash and non-cash incentives to Participants in order to assist with a specific organization's needs. Financial incentives may be available for natural gas efficiency projects, depending on the budget available at the time of a Project Application Form submission. Other program services, such as technical assistance and communications support, are made available according to the needs of each Participant.

5. How does a Participant enroll in the Program?

An eligible Participant may participate in the Program by completing the Program Participation Agreement (PPA) and submitting it to the Program Implementer.

6. Who decides what natural gas efficiency technologies to install and who installs them?

The Participants decides what natural gas efficiency measures to implement and how they are implemented. The Program offers only improved access to assistance for identification and evaluation of natural gas efficiency opportunities. The Program only provides installation of measures specified as Direct Install Measures.

7. How are natural gas efficiency opportunities determined?

The Commercial and Industrial Solutions Program works with each Participant to assess natural gas efficiency opportunities in both existing facilities and with new construction projects using a combination of facility walk thru, natural gas performance benchmarking analysis, and staff interviews.