



**Black Hills Energy Arkansas
Commercial & Industrial Solutions
2020-2023 Program Manual**

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PREPARED BY
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PROGRAM OVERVIEW

PROGRAM DESCRIPTION

The **Commercial and Industrial Solutions Program (the Program)** is being offered to all commercial and industrial (C&I) customers located in the **Black Hills Energy Arkansas (BHEA)** 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.

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 BBHEA.

Program Objectives include:

- Provide 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.
- Facilitate 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 BHEA sponsored programs.

PROGRAM MANAGEMENT & CONTACTS

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PROGRAM ROLES & RESPONSIBILITIES

PROGRAM SPONSOR (BLACK HILLS ENERGY ARKANSAS):

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

PROGRAM IMPLEMENTER (CLEAResult):

- 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 BHEA 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 (BLACK HILLS ENERGY ARKANSAS 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 2020-2021 Commercial and Industrial Solutions Program is being offered to all C&I gas customers of BHEA. 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 BHEA 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 BHEA.

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.

It is the sole discretion and responsibility of the Participant to choose the service provider or contractor that they are most comfortable with. BHEA 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. For the purpose of Project Eligibility, a facility can be either a single structure or multiple structures as long as they are all served by one (1) natural gas meter.

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 four types of incentives being offered in this Program, they are described in detail below.

1. Direct Install Measures

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 aerator 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 the facility type.
Door Sweeps & Weather Stripping	Door sweeps and compression weather stripping reduce infiltration of outside air into heated spaces.	Savings range from 4 to 26 CCF per linear foot, depending on the size of the gap covered.

2. Custom Measures

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

\$0.75/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*). Below is a partial 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
Waste Heat Recovery	Capturing heat from facility air compressors to provide additional comfort heat
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

3. Prescriptive Rebates for Comfort Heating Boilers, Commercial Cooking Equipment, Tankless Water Heaters, & Commercial Forced Air Heating Equipment

Incentives are available to commercial customers who install eligible comfort heating boilers, boiler components and commercial cooking equipment. These measures are deemed savings and thus have a set incentive for each piece of equipment, based on size or efficiency level. The eligible measures include:

Measure Type	Measure Description	Incentive Amount
90% - 93.9% Efficient Boiler	Commercial hot water boiler for comfort heating only. Must be between 100,000 BTU – 4 MMBTU.	\$1,400 MMBTU/hour input
≥94% Efficient Boiler	Commercial hot water boiler for comfort heating only. Must be between 100,000 BTU – 4 MMBTU.	\$2,000 MMBTU/hour input
Burner Replacement	Fully modulating or 6-step modulation burners only. Not eligible for new boilers	\$1,000 MMBTU/hour input, up to 25% of the equipment cost
Boiler Reset Controls		\$150 per system*
Boiler Cut Out Controls		\$150 per system*
Boiler Vent Damper		\$150 per system*
High Efficiency Combi Oven	ENERGY STAR® or Food Service Technology Center qualified equipment	\$1,500
High Efficiency Conveyer Oven	ENERGY STAR® or Food Service Technology Center qualified equipment	\$1,000
High Efficiency Convection Oven	ENERGY STAR® or Food Service Technology Center qualified equipment	\$400
High Efficiency Rotating Rack Oven	ENERGY STAR® or Food Service Technology Center qualified equipment	\$1,500
High Efficiency Fryer	ENERGY STAR® or Food Service Technology Center qualified equipment	\$500
Tankless Water Heaters	90% AFUE or higher	\$500
Forced Air Furnaces	95% AFUE or higher	\$500

*Not to exceed equipment cost

MEASUREMENT & VERIFICATION APPROACH

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

- 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.
- 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 to a process boiler.
- 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.
- 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: Retrocommissioning (RCx) 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 conservation measures in order to determine which projects are viable.

Communications & Public Relations – The Program provides 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 natural gas efficiency of their facilities, reduce operating costs, and use budget dollars more efficiently. This service is only performed if the Participant desires to publicize the achievements.

PROJECT APPLICATION PROCESS

Direct Install Measures

The Direct Installed Measures are provided to Participants on a first come, first served basis and are free of charge to Participants that have natural gas water heaters and/or natural gas space heating. They are installed once the Participation Agreement is signed. A second form will be presented on the day of the installation for acknowledgement of the location and quantity of the installation. Incentive reservation is not required in the case of Direct Install Measures.

Custom Measures

3.1 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. The Project Application reserves incentive funds for 90 days. After 90 days, the funds reserved for the project may be released. A request to waive the 90-day requirement must be submitted in writing. BHEA will review this request and may grant a reprieve for extenuating circumstances. BHEA 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.

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 by indicating such intention on the Project Application which must then be signed by both parties..

For projects that are utilizing M&V savings methodologies, a partial installation payment may be administered for the completion of the installation of the equipment. The remaining incentive payment will be held in reserve until the final verification activities are complete. The final payment will be made up to the reserved incentive 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.

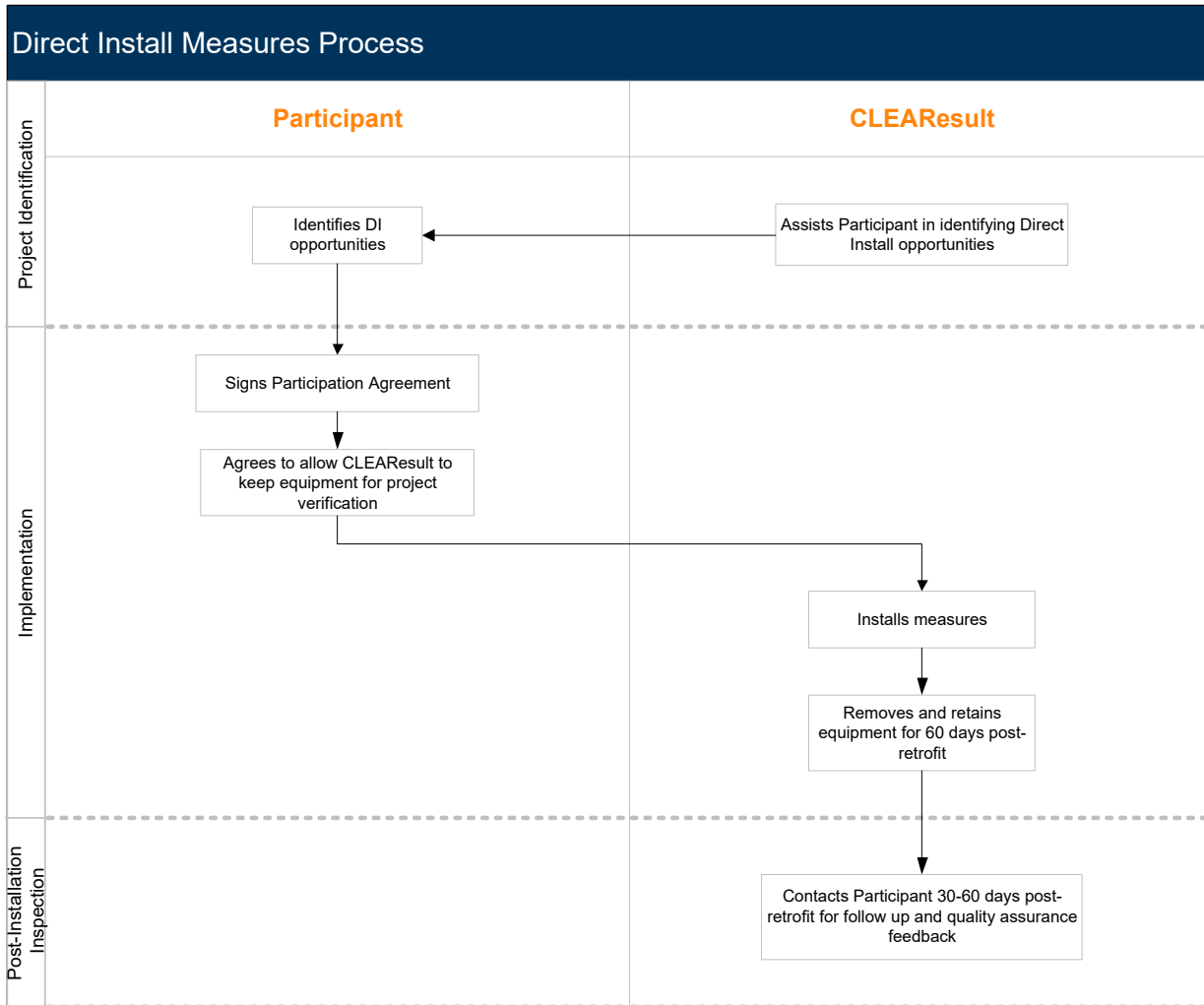
Any Participant submitting projects that are unable to receive cash incentives in the current program year due to oversubscription may choose to continue with their installation without incentives or delay the project until the next program year when additional incentive budget becomes available.

No one customer (identified by Tax-ID number) may receive more than 33% of the incentives for the program in the program year. If by July 1 of the program year, the program is not completely subscribed, the program reserves the right to manage the incentives to match the goals of the program. These actions could include, but are not limited to, allowing customers to exceed the 33% cap, shifting remaining incentives to direct install measures, or other actions to reach program goals.

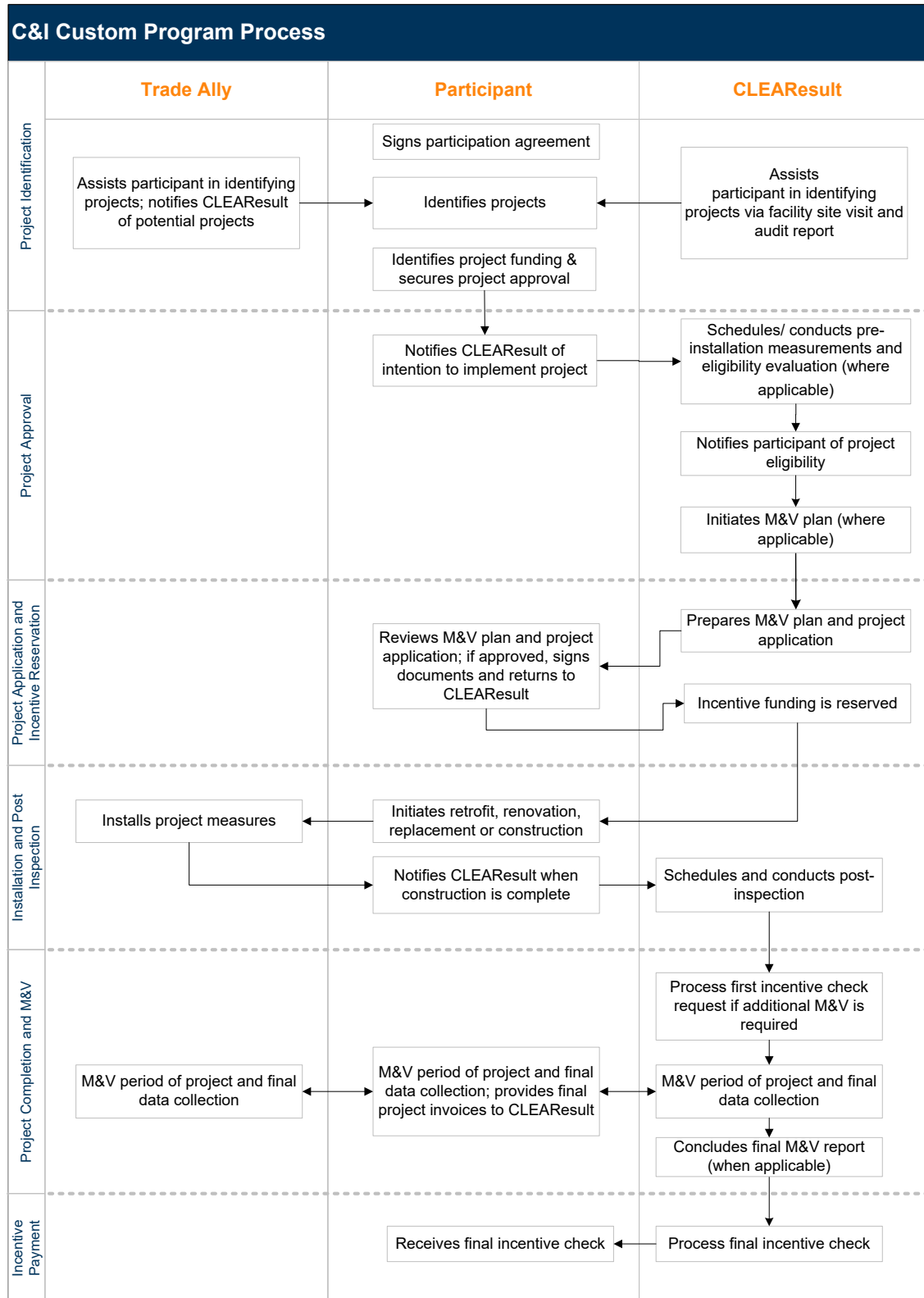
CUSTOMERS MUST RECEIVE PRIOR APPROVAL BEFORE INSTALLING EQUIPMENT.

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 an 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. <i>Inspections shall not include evaluations of workplace safety or compliance with codes or laws.</i>

Participant Comments / Feedback

Please contact Black Hills Energy Arkansas or the Program Implementer to submit any comments / feedback that you may have about participation in the Program:

Black Hills Energy Arkansas
Lisa Pfitzinger
479-601-8194
lisa.pfitzinger@blackhillscorp.com

Program Implementer
Leonard Tidyman
479-316-4525
Leonard.Tidyman@CLEAResult.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 BHEA. 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 BHEA 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 BHEA 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 BHEA. In performing any such inspection or review or in accepting the installed equipment for the award of incentives, Participant acknowledges and agrees that BHEA 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 BHEA. BHEA 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 BHEA's commercial and industrial Participants to reduce annual natural gas usage by providing access to technical knowledge, natural gas assessments, and financial incentives to improve the efficiency of their buildings and processes.

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

The Commercial and Industrial Solutions Program is offered to commercial and industrial Participants that own/operate facilities within the BHEA service territory.

3. What does the Program cost?

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). Program assistance is available at no additional cost to the Participant. As mandated by the AR Public Service Commission, a monthly fee is incurred based on a Participant's usage. These fees fund AR energy efficiency programs.

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?

By contacting the following;

Corey McAnally

479-316-4523

Corey.Mcanally@CLEAResult.com

Or

Leonard Tidyman

479-316-4525

Leonard.Tidyman@CLEAResult.com

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

The Participant 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.