



## ATTACHMENT A

Bay Area Regional Energy Network (BayREN)  
Single Family Residential Program  
Program Manual

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## WELCOME, PROGRAM PARTICIPANTS!

Welcome to the Bay Area Regional Energy Network (BayREN) Single Family Residential (SF) Program also referred to as BayREN Home+ (the Program). This innovative Program offers energy efficiency rebates and services targeted specifically to residential homeowners and renters of single family detached homes and up to four unit buildings within the nine-County San Francisco Bay Area.<sup>1</sup>

As a Participating Contractor or Rater, you are a critical program ally. It is your expertise that allows customers to make their homes more energy efficient and helps the state reach its greenhouse gas reduction goals.

The Program will help you by providing lead generation through BayREN marketing efforts, an active listing on the BayREN “Find a Contractor” tool, and customer access to rebates or reduced interest rate financing. A high level of cooperation and communication is expected of Participating Contractors and Raters. Other benefits may include workforce development opportunities, trainings and networking events.

This manual provides you with information about BayREN Home+, guidelines on becoming a Participating Contractor and providing Rater services, and the processes you need to follow to help your customers access Program services and rebates.

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<sup>1</sup> The nine counties are: Alameda, Contra Costa, Marin, Napa, Solano, San Francisco, San Mateo, Santa Clara and Sonoma.

## ABOUT THE PROGRAM

### Program Goals

The objective of BayREN Home+ is to increase the number of customers who complete energy saving upgrades in BayREN territory. The Program will:

- Help homeowners and renters reduce their energy use, while improving market awareness of health, safety, indoor air quality, and other non-energy benefits associated with energy efficiency improvements
- Improve Program participation among moderate income homeowners in the Bay Area
- Provide access to rebates and other energy efficiency services including the Energy Advisor, Green Home visits, and energy efficiency kits
- Provide tools and resources necessary for Participating Contractors to market and grow their business
- Facilitate a customer journey that encourages multiple energy efficiency improvements over time while encouraging customers to implement a “whole-house” approach

### Benefits of Participation

BayREN Home+ offers you the following participation benefits:

- BayREN, local government, and statewide marketing and outreach based on market targeting analytics raises customer awareness and generates leads
- Rebates for common energy efficiency measures that reduce overall cost to the customer and access to reduced interest rate financing to help sell more comprehensive energy efficiency jobs
- BayREN “Find a Contractor” web tool listing allows customers to search for your company and identify the services you provide
- Access to Program resources, educational material, and web-based and in-person trainings to help you grow your business and improve your technical skills

### Project Team Roles and Responsibilities

#### *Participating Contractor Role*

Your role as a Participating Contractor will be to provide high quality energy efficiency services to customers who wish to pursue improvements through the Program. Participation in the Program requires the following activities:

- **Completion of Required Enrollment Documents & Training** – Before becoming a Participating Contractor, the following is required:
  - Fully executed BayREN SF Contractor Participation Agreement (CPA)
  - Certificates of Insurance
  - Proof of active CSLB license
  - W-9

- Primary Building Performance Institute (BPI) Building Analyst certificate<sup>2</sup>
  - Completion of Program overview, Program requirements, Program rebate application / portal, and BPI best practices training
- **Adherence to Program Installation Standards and Building Codes** – Participating Contractors will be required to complete improvements that meet the Program Installation Standards and meet all applicable building codes. The Program Installation Standards can be found in Appendix B.
  - **Combustion Appliance Safety (CAS) Testing** - Before receiving a rebate for any Program measure, it is required that a certified BPI Building Analyst complete a CAS Test according to ANSI/BPI-1200-S-2015 Standards<sup>3</sup>. The Participating Contractor is responsible for submitting the Program CAS Grading Sheet upon completion of a project (see “Required Forms and Documents” section in this manual).
  - **High Standards of Professionalism** - High standards of professionalism are necessary to maintain a good reputation in the communities we serve, and we encourage you to strive for the best in customer service. BayREN’s goal is to ensure that customers are completely satisfied with their home improvement experience, including their interactions with Participating Contractors. It is expected that contractors will handle all interactions with customers and BayREN partners with the utmost respect and professionalism (see “Customer Service” section in this manual).
  - **Minimum Work Requirement** - To ensure that contractors are staying up-to-date with Program standards, Program benefits, and requirements, active participation in the Program is a requirement. All contractors must successfully complete at least (1) job every (6) months in order to maintain an active status in the Program.
  - **Rebate Application Management** – Customers will rely on Participating Contractors to submit finalized rebate applications to the Program. Participating Contractors are expected to complete rebate applications in a timely manner and respond to incomplete applications within (1) week or sooner of any project flaw notice from Program staff. Failure to respond to project flaw notices will negatively impact a contractor score according to the “Evaluation of Participating Contractor Performance” section in this manual.

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<sup>2</sup> The Primary Building Performance Institute (BPI) Building Analyst certificate of the Building Analyst who will be performing Combustion Appliance Safety (CAS) testing for your company

<sup>3</sup> <https://www.bpi.org/sites/default/files/ANSI-BPI-1200%20Standard%20Practice%20for%20Basic%20Analysis%20of%20Buildings.pdf>

### *Participating Rater Role*

- **BPI BA Services & CAS Testing** – BayREN Participating Raters (Raters) will partner with Participating Contractors to address Program participation requirements. Raters may enter into a subcontract agreement with Participating Contractors to meet the BPI BA Program requirements and to complete CAS testing according to ANSI/BPI-1200-S-2015 Standards as well as support other requirements associated with rebate application and documentation management on behalf of the Participating Contractor.
- **QA/QC Services** – BayREN places a high value on work quality and project performance. Raters are expected to verify that installed measures meet Program Installation Standards (see Appendix B) and work with Participating Contractors to address any CAS or measure eligibility issues prior to project completion and Program application submission.
- **BayREN Home+ Application & Documentation Management** – Raters may be subcontracted by Participating Contractors to complete Program rebate applications. In this scenario, it is the Rater’s responsibility to submit complete and accurate rebate applications on behalf of the Participating Contractor and coordinate with BayREN Program staff to ensure timely rebate application processing.
- **High Standards of Professionalism** - High standards of professionalism are necessary to maintain a good reputation in the communities we serve, and we encourage you to strive for the best in customer service. Our goal is to ensure that participants are completely satisfied with their home improvement experience, including their interactions with Participating Contractors and Raters. It is expected that all interactions will be handled with the utmost respect and professionalism.

### *Contractor Services Role*

BayREN provides guidance and support to Participating Contractors through the BayREN Contractor Services department. BayREN Contractor Services will provide the following Program oversight and support services:

- **Onboarding Support** – BayREN Contractor Services will support interested Contractors with the onboarding process. This includes assistance with required Program participation documents, initial Program training, assistance with the rebate portal and application process, BPI Building Analyst identification, and staff training and mentoring. The Program will also provide one-on-one resources to support contractors with initial Program participation.
- **Ongoing Training and Mentoring** – Some Participating Contractors may lack the technical capabilities to manage an upgrade project, lack access to training and educational resources, and may thus be reluctant to participate in the Program. BayREN Contractor Services will:
  - Be available for individual training and support needs



- Provide web-based and in-person technical and sales trainings
  - Provide on-site training and mentoring
  - Be transparent with Participating Contractors in regard to Program performance, available rebates, and customer feedback
  - Assist with integrating Program rebates and financing into the Participating Contractor’s business model
  - Provide a go to resource for all Program needs and/or issues
- **Quality Assurance (QA)/Quality Control (QC)** – BayREN Contractor Services will perform QA/QC inspections on a sampling of all work completed through the Program. Participating Contractors are expected to perform work compliant with state and local building codes and the Program Installation Standards (see Appendix B) in this manual. To protect the reputation and effectiveness of the Program, Participating Contractors may be removed from the Program if work does not pass QA/QC inspections.
  - **Participating Contractor and Project Management** – In order to ensure successful Program delivery, BayREN Contractor Services will track the performance of Participating Contractors. This includes, but is not limited to, QA/QC results, customer feedback, Program participation levels, project timeline management and communications, as well as Program participation documentation management. Contractor Services will provide regular feedback on contractor performance. As part of that feedback, each Participating Contractor will receive an overall performance score. Details on this score can be found in the “Evaluation of Participating Contractors” section of this manual.

*Incentive Processing Center (IPC) Role*

- **Incentive Processing** – On behalf of BayREN, the IPC will review rebate applications submitted by the Participating Contractor on behalf of the customer and either approve them, reject them, or return them to the applicant for corrections.
- **Desktop Review** – The IPC will review applications and required documentation for accuracy and adherence to applicable Program requirements. This includes the review of customer eligibility, measure eligibility, invoice accuracy, CAS Grading Sheet, Proof of Permit Closure, and other documentation specified in the “Project Details” section of this manual necessary for BayREN to claim savings and ensure work quality and the health and safety of customers.
- **Payment** – Approved applications will be processed by IPC for payment. Payments will be made to Program Customers by check or, if assigned by the Customer in the application, the payment may be made to the Participating Contractor.

*Energy Advisor Role*

Energy Advisors act as a first point of contact for Program participants and offer free phone-based services. Energy Advisors assist customers step-by-step through their energy efficiency journey and will:

- Walk customers step-by-step through the Program and associated requirements
- Provide education and resources about energy efficiency improvements and associated non-energy benefits that encourage participation in the Program
- Perform utility bill analysis for customers and develop a long term energy efficiency plan
- Assist customers to identify a Participating Contractor for their project and drive ‘warm’ leads to Participating Contractors
- Assist customers with project bids or estimate reviews
- Maintain ongoing relationships with customers and provide follow-up services to ensure potential customers move forward with an energy efficiency project
- Provide referrals to other complementary programs and/or incentives based on the customer’s interest
- Collect customer feedback about their experience and communicate results to BayREN and the Program team
- Encourage word-of-mouth referrals and provide tools and resources to facilitate the process
- Serve as a resource to Participating Contractors by providing excellent customer facing services and a resource for Participating Contractors to direct potential clients to for additional sales and education support

#### *BayREN Member Agencies*

BayREN’s outreach activities are primarily performed by the BayREN member agencies.<sup>4</sup> The member agencies will conduct marketing activities and host workshops and events in order to drive interest in the Program. BayREN member agencies will:

- Promote the Program through activities such as local workshops and events, social media campaigns, existing and new relationships with other complementary agencies and programs, and other marketing activities
- Provide opportunities for Participating Contractors (as available) to table and/or present at events and homeowner workshops
- Conduct targeted outreach to customers with a high propensity to participate in the Program
- Interact with potential customers and promote the value of completing energy efficiency improvements through the Program

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<sup>4</sup> The agencies are: Energy Council (Alameda Cities and County); County of Contra Costa; County of Marin; County of Napa; County of Solano; San Francisco Department of Environment (City and County of San Francisco); County of San Mateo; County of Santa Clara; Regional Climate Protection Authority (Sonoma County and cities).

## Program Resources and Support

### *Marketing and Outreach*

Participating Contractors and Raters will have primary responsibility for acquiring your own customers. BayREN will support your marketing efforts – at a minimum - through the following activities:

1. Statewide, regional, and local marketing initiatives targeted at high-propensity customers
2. Development of Program resources and collateral to help convey Program and energy efficiency benefits to customers
3. Advertise your Company and services provided through the BayREN “Find a Contractor” Tool (depending on Participating Contractor status)
4. Drive warm leads to your Company through BayREN’s Energy Advisor service (depending on Participating Contractor status)
5. Ongoing follow-up and support for potential customers interested in energy efficiency improvements
6. Complementary access to Program trainings and resources
7. Allow you to co-brand your services with BayREN to reinforce the credibility of your marketing messages

### *Participating Contractor Support*

BayREN will be available to assist you with Program participation by providing:

- A dedicated phone number and email for Participating Contractor and Rater support
- Training opportunities with BayREN Contractor Services representatives related to energy efficiency measure best practices, rebates, financing, Program administrative requirements, and customized trainings as needed
- Regular Program updates communicated via monthly newsletters or ad-hoc announcements
- Feedback on overall and individual job performance
- Ongoing mentoring and guidance for Participating Contractors and staff

### *Programmatic Support*

The Program will provide Participating Contractors and Raters with access to a Program resources website, [www.bayrenresidential.org](http://www.bayrenresidential.org), which contains the necessary Program documents including: downloadable Program forms and agreements, this Program manual, and other relevant materials. BayREN will also provide a dedicated telephone number and email address for contacting implementation staff with questions regarding participation requirements, qualifying equipment, and instructions on filling out required forms and applications.

## GENERAL TERMS AND CONDITIONS

### Contacts

#### *Program Administrator*

Jeffery Liang  
Metropolitan Transportation Commission (MTC)  
375 Beale St. San Francisco, CA 94105  
(415) 778-5298  
[jliang@bayareametro.gov](mailto:jliang@bayareametro.gov)

#### *Program Implementer*

Jeff Strauss  
CLEAResult Consulting Inc  
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[jeff.strauss@clearesult.com](mailto:jeff.strauss@clearesult.com)

#### *Contractor & Rater Services*

Marc Bigby & Tony Jung  
CLEAResult Consulting Inc  
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(866) 878-6008 (ext. 3)  
[support@bayren.org](mailto:support@bayren.org)

### Project Details

The BayREN Home+ was established to ensure that PG&E ratepayer dollars for energy efficiency would be used to provide services that result in energy savings, backed by a strict quality control process and exceptional customer service to Bay Area customers. Following the direction of the California Public Utilities Commission, which authorizes these funds, projects must include the following to be eligible for a rebate:

1. Record of an active PG&E customer account ID and service ID (Customers of Marin Clean Energy, Sonoma Clean power, East Bay Community Energy, Peninsula Clean

Energy, Silicon Valley Clean Energy, CleanPowerSF and San Jose Clean Energy, are eligible for the Program)

2. Basic home details and customer information
3. Itemized invoice detailing measures installed, measure price, and customer incentive amount
4. Program Application with PG&E account holder, Participating Contractor, and BPI BA signatures
5. For duct sealing measures, photo documentation (date and time stamped) of duct leakage results
6. For equipment downsizing measures, photo documentation (date and time stamped) of pre-and post-project equipment nameplates with input & output kBTU
7. For building air sealing, photo documentation (date and time stamped) of CFM50 building leakage results
8. By law, all projects containing central air conditioning or heat pump measures will need to submit proof of permit closure in order to receive an incentive for the project.<sup>5</sup> BayREN cannot legally pay incentives or rebates to customers or contractors for central air-conditioning or heat pumps without collecting proof of permit closure
9. All projects containing an air conditioning measure must submit proof of an existing condenser. BayREN will only incentivize replacement of central air conditioning systems. Projects that increase the rated capacity of air conditioning will not be incentivized.
10. For Program measures that impact the building envelope, it is required that a certified BPI Building Analyst complete a CAS Test after all upgrades are complete and according to ANSI/BPI-1200-S-2015 Standards. The CAS results must be submitted with the Program rebate application
11. For electrification measures, Contractor must provide itemized invoice with infrastructure upgrade costs if the site required any electric infrastructure upgrades (i.e. panel upgrades)
12. For electrification equipment measures, Contractor must provide itemized invoice for other electrification measures installed at the site
13. For electrification equipment measures, Contractor must provide photographs of existing equipment and capped gas line(s)
14. For electrification appliance measures, Customer must provide itemized invoice with electric infrastructure (electrical panel, etc.) upgrades (if applicable)
15. For electrification appliance measures, Customer must provide photographs of installed equipment and proof of existing natural gas equipment and capped gas line(s)

## Double Counting of Energy Savings

The energy savings from measures installed through BayREN Home+ may not count towards energy savings for other programs, pilots, or demonstration projects funded by the Public Goods

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<sup>5</sup> Senate Bill No. 1414, Chapter 678.

[https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201520160SB1414](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB1414)

Charge or any other ratepayer-funded source. Therefore, it is necessary to validate customer eligibility prior to completing any improvements. Customer validation and rebate eligibility are described in more detail under the Customer Eligibility Requirements section in this manual.

## Availability of Funds

Home+ incentives are available on a first-come, first-served basis until funds are depleted. To ensure that your project receives the eligible rebates, Participating Contractors are encouraged to submit the Home+ Enrollment form before completing the project to confirm customer eligibility and reserve funds. In the unlikely event that funds are limited to serve eligible customers, BayREN reserves the right to allocate incentives in a manner that maximizes energy savings and customer satisfaction. Any unserved customers will be referred to the Energy Advisor service and other complementary existing programs.

## Customer Service

Participating Contractors are expected to provide exemplary customer service in connection with any activities related to the Program. At a minimum, this customer service shall include:

- Providing an accurate description and representation of the Program and its benefits
- Offering the most comprehensive, cost-effective, and energy efficient solution to ensure customer satisfaction
- Providing the customer with courteous, attentive, and responsive staff with a professional manner and appearance
- Promoting and strengthening the partnership with the Program, PG&E, Marin Clean Energy, and other BayREN partners
- Working effectively with customer and Program staff to identify and resolve issues as quickly as possible
- Ensuring that the efficiency measures are installed with minimal disruption to the customer
- Providing the customer an estimate of the date the installation will be completed and informing the customer if the installation appears to be taking longer than the original estimate and why
- Responding to customer inquiries and Program provided leads promptly (within 48 hours or 2 business days). If requested information is not available on short notice, a response acknowledging the inquiry is still required and should provide a reasonable time when a full response is to be expected
- Performing all corrections as identified during field QA/QC activities. If the problem presents a health and safety threat, the correction shall be made immediately
- Participating Contractor's contracts with the Property Owner must provide a warranty for all labor and materials furnished or performed for the Property Owner from defects in workmanship for a period of at least twelve (12) months after installation is completed.
- All rebate Program measures must be either: a) installed by a Participating Contractor, or b) installed by a subcontractor to the Participating Contractor. All subcontractors must be reported through the 'Subcontractor Consent Form' and the project contract must only be

between the customer and the Participating Contractor. Measures installed by non-participating contractors who contract directly with the customer are ineligible.

## Required Forms and Documents

The Program requires the documents, forms, and agreements listed below. All Program forms and sample documents will be maintained at the BayREN website: [www.bayrenresidential.org](http://www.bayrenresidential.org). BayREN reserves the right to make changes in any or all of these documents, forms, and agreements as needed.

- A. **Contractor Participation Agreement (CPA):** Required for Participating Contractors receiving incentives through the Program, the CPA details requirements related to contractor licensing, insurance, training, and work standards.
- B. **Subcontractor Consent Form:** Required for any subcontractors that Participating Contractors utilize for the direct installation of any measured within the Home+ Program. A form is required for each individual subcontractor. Each subcontractor must also meet the insurance requirements for the Program as outlined below. This does not include Raters in the Program.
- C. **IRS W-9 Form:** Required attachment to the Contractor Participation Agreement, this form provides the Participating Contractor's tax status for possible filing of incentive income to the IRS and a 1099 report to the Participating Contractor at the end of each calendar year. This form must also be used for Customers who will receive a rebate but are *not* the active PG&E account holder.
- D. **Certificates of Insurance:** All contractors participating in the Program and each of their installing subcontractors must provide and maintain acceptable levels of insurance that meet Program requirements. This includes General Liability, Automotive, and Workers Comp insurance. Certificates are required for each insurance type and must include ABAG, CLEAResult, and PG&E as certificate holders. Additional information about insurance requirements can be found in the Contractor Participation Agreement.
- E. **Rebate Application:** Participating Contractors are encouraged to submit a rebate application before completing the project to reserve funds. The final Program rebate application must be completed fully and correctly and signed by the appropriate parties for any project seeking rebates. The application must include proper documentation of installation date and submitted along with other required documentation as soon as possible after project installation has been completed.
- F. **Itemized Customer Invoice:** Itemized invoices listing all completed measures must be submitted after project installation to qualify for Program rebates. Invoices must list: (1) equipment manufacturer, model number, and quantity; (2) itemized measure cost; (3) total project cost; and (4) the amount is paid. Project costs should exclude any equipment and labor for work unrelated to energy efficiency improvements.

**G. CAS Grading Sheet:** An excel workbook is provided for Participating Contractors to collect and report CAS test-out results to the Program. Before receiving a rebate for Program measures, it is required that a certified BPI Building Analyst complete a CAS test-out according to ANSI/BPI-1200-S-2015 Standards. The Participating Contractor is responsible for submitting the CAS Grading Sheet along with a rebate application in order for a project to be eligible.



## BECOMING A PARTICIPATING CONTRACTOR

### Participating Contractor Eligibility Requirements

Contractors interested in Program participation will need to meet all Program eligibility requirements and successfully complete initial Program onboarding and training requirements.

Contractors will need to complete a Contractor Participation Agreement and demonstrate the following eligibility criteria:

- Hold and maintain appropriate licenses required by the State of California Contractors State License Board to perform the class and type of work required, and if applicable, ensure that any subcontractors meet the same requirement
- Maintain an active BPI BA certification. This may include proof of an active certification for existing staff, or proof of a partnership with a BayREN Rater who holds equivalent credentials. BayREN will verify these capabilities as part of the Participating Contractor request process
- Hold and maintain general commercial liability insurance coverage with a single limit of \$1,000,000 or higher per event
- Hold and maintain worker's compensation insurance with a single limit of \$1,000,000 or higher per event
- Hold and maintain automotive liability insurance with a single limit of \$1,000,000 or higher per event
- Submit a signed Contractor Participation Agreement to BayREN
- Complete the BayREN Participating Contractor orientation and training

### Contractor Participation Agreement (CPA)

Contractor Participation Agreements will be executed when a prospective contractor demonstrates their eligibility. The CPA is between the Participating Contractor and CLEAResult Consulting Inc. in its role as a Program Implementer under contract to MTC. This Agreement sets out the terms and conditions under which Participating Contractors shall participate in the Program. The CPA does not create any contractual relations between Participating Contractor and MTC, ABAG<sup>6</sup>, its member agencies or PG&E. Participating Contractors will enter into a separate agreement with Property Owners to provide building performance consulting and/or installation services that are in compliance with Program requirements and standards. This Agreement is completely voluntary and can be terminated at any time for any reason by either CLEAResult or the Participating Contractor with prior written notice from the terminating party to the other party. In the event of termination of the Participation Agreement for non-compliance, the Participating Contractor will be notified of such termination in writing by CLEAResult, and will be allowed 30 days from the date of the notification to submit any remaining documentation

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<sup>6</sup> Association of Bay Area Governments

for qualifying equipment or improvements that have previously been installed by the Participating Contractor. Participating Contractor and Program Implementer obligations are further defined in the CPA.

## Evaluation of Participating Contractor Performance

BayREN Home+ staff will provide training and support to Participating Contractors in order to facilitate successful participation in the Program. However, Contractor eligibility to participate is contingent upon high performance and customer satisfaction. Participating Contractors are expected to abide by all policies and procedures set forth in this manual and its appendices. Program staff monitor Participating Contractor performance carefully and will communicate directly with a Participating Contractor if there are areas that need improvement. Any Participating Contractor who systemically fails to address errors and does not improve performance will be subject to suspension and removal from the Program.

### Overview

The Program will evaluate Participating Contractor performance on an ongoing basis using a weighted score composed of three critical components. The following components are each scored and then weighted, and the sum of the three weighted components becomes the Participating Contractor score:

- Quality of work (50%) – All inspections scored on a 10-point scale and averaged
  - Inspectors review installed energy efficiency measures at job sites or through Photo QC process and create an objective score for each measure (i.e. if a project has 3 measures, the average score from the 3 individual measures will be the inspection score for that project)
- Customer surveys (25%) – All surveys and feedback scored on a 5-point scale and averaged
  - The customer provides quantifiable feedback on their level of satisfaction by answering the following survey questions:
    - Overall, I am satisfied with my contractor’s performance on our project (Scale five stars – select 1-5, 5 is most satisfied))
    - My contractor completely explained the process for receiving the BayREN Home+ Program rebates (scale five stars – select 1-5, 5 is most satisfied)
    - My contractor completed the project to the quality I expected. (scale five stars – select 1-5, 5 is most satisfied)
    - I would recommend this contractor to a family / friend or neighbor (scale five stars – select 1-5, 5 is most satisfied)

- My contractor discussed additional ways to improve the health, safety and indoor air quality while reducing my energy costs. (scale five stars – select 1-5, 5 is most satisfied)
- Responsiveness and data quality – (25%) – Ongoing communications scored on a 5-point scale and averaged
  - Program administration rates quality of submitted data and timeline to respond to customer and inquiries from Program staff and averaged

This Participating Contractor scoring concept is a vital component of an integrated contractor management system. The Participating Contractor’s score would determine their ‘Active’ or ‘Probationary’ status. The scoring system and benefits of the Participating Contractor status are detailed below. The overall contractor management system is developed to identify and promote our most effective business partners: those who will contribute the most to Program success.

*Contractor Score & Status*

The Contractor Score is calculated as an average, over each calendar quarter. The Contractor Score will place the contractor in a status; however, that status can be overridden based upon other grounds the Program defines.

To be eligible for rebates, a Participating Contractor needs to maintain an ‘Active’ status. All Participating Contractors are ranked by their score and divided into four categories based on the following tier levels:

<b>Status</b>	<b>Contractor Score</b>
Active, Tier 1	9.2 or higher
Active, Tier 2	at least 8.8 but less than 9.2
Active, Tier 3	at least 8.0 but less than 8.8
Probationary	less than 8.0

Contractor status is intended to identify Participating Contractors’ standing in the Program, and provide Program staff guidance regarding the contractors’ ability to successfully participate in the Program. Status will identify contractors who have violated tenets of the Contractor Participation Agreement, or whose performance does not meet the performance expectations of the Program. All ‘Active’ status contractors will be listed on the Program website where Customers can identify a Participating Contractor for their project using the ‘Find a Contractor’ web tool. ‘Probationary’ status contractors will be removed from the list until they move to an ‘Active’ status.

Status changes will only be from ‘Provisional’ to ‘Active’, from ‘Provisional’ to ‘Probationary’, from ‘Active’ to ‘Probationary’ or from ‘Probationary’ to ‘Suspension/Termination’, or vice versa.

## **Provisional Status**

All new contractors to the Program gain ‘Provisional’ status by executing a Contractor Participation Agreement and meeting the terms and conditions outlined in the agreement. In addition to agreeing to comply with the rules of the Program, contractors provide proof of insurance, any necessary licensing and/or certifications, and company information necessary to receive Program incentives.

Jobs undertaken by ‘Provisional’ status contractors are scored along the lines previously outlined. However, it is assumed that new ‘Provisional’ status contractors will require additional training and mentoring on the technical and work quality requirements as well as the Program administrative processes, which the Program will provide if requested. All contractors that successfully enroll in the Program are expected to bring their own customers to the Program<sup>7</sup>. Such ‘Provisional’ status contractors are required to satisfactorily complete an appropriate number of jobs to result in three (3) inspections within the first three (3) months of entering the program. The first BayREN project must be tested out with Program QC staff and with the installing contractor present as well as the BPI analyst present for diagnostic testing. It is the Contractor’s responsibility to schedule their first QC with Program staff. The remaining two QCs may be completed by Photo Quality Control (PQC) or require additional in-field QCs coordinated with Program staff.

These initial three inspections will be averaged to determine the Contractor’s initial grade. If the Contractor’s initial grade is 8.0 or better, ‘Active’ status is achieved. Contractors with an initial grade below 8.0 or who do not bring in an adequate number of jobs to achieve three (3) inspections over the first three months will be moved to a ‘Probationary’ status. Contractors who receive a ‘Probationary’ status will need to submit a Performance Improvement Plan to Program staff before they can move back into a ‘Provisional’ status.

## **Active Status**

Active status Contractors have proven that they can meet the Program expectations, are eligible to offer Program rebates to their customers, and will be listed on the Program website where Customers can identify a Participating Contractor for their project using the ‘Find a Contractor’ web tool.

To maintain ‘Active’ status, Contractors are expected to maintain a minimum work quality standard (see the “Quality Assurance / Quality Control” section of this manual). Contractors who do not meet this standard and whose score falls below 8.0 will be placed in a ‘Probationary’ status and will not be eligible for Program rebates until a Performance Improvement Plan is submitted to and accepted by Program staff, at which point they can move back into a ‘Provisional’ status and required to satisfactorily complete an appropriate number of jobs to result in three (3) inspections within the first three (3) months. Participating Contractors are

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<sup>7</sup> ‘Provisional’ status contractors are still eligible to offer Program rebates as defined in the “Rebates” section of this manual.

required to complete a minimum of one (1) successful job per quarter in order to retain an ‘Active’ status in the Program.

Any ‘Active’ status Contractor, regardless of their Contractor score, may be placed in the ‘Probationary’ status if there is a Work Quality Emergency Failure (the home has been left in a serious health and safety situation), Program fraud is committed, or an egregious customer service situation occurs as determined by the Program.

‘Active’ status contractors will be distributed into tiers based upon their Contractor scores as described above. The tiers will determine the level of QC and Program oversight assigned to the Contractor. The highest tier will receive preference at BayREN marketing events and from Energy Advisors. The second tier is next and will receive preference over the lowest tier.

### **Probationary Status**

Contractors who do not maintain the standards described in the ‘Provisional’ or ‘Active’ statuses sections of this manual as described above will fall into the ‘Probationary’ status. Contractors who receive a ‘Probationary’ status will not be eligible for Program rebates until a Performance Improvement Plan is submitted to and accepted by Program Staff, at which point they can move back into a ‘Provisional’ status and required to satisfactorily complete an appropriate number of jobs to result in three (3) inspections within the first three (3) months, at which point their Contractor score will be re-evaluated. Contractors who fail to increase their score to an 8.0 or higher after being placed in a ‘Probationary’ status within (3) months will be suspended/terminated.

A clear work plan for moving to an ‘Active’ status will be presented to and agreed to by the Contractor. This work plan will be based off the Contractors Performance Improvement Plan and prepared by CLEAResult in consultation with MTC and the Contractor.

If a contractor is placed on probation for a Work Quality Emergency Failure (the home has been left in a serious health and safety situation), or fraud is committed, the Program will undertake additional retroactive inspections to ascertain whether the issue is isolated or part of a pattern of problems. Patterns of problems could be grounds for moving to Suspension/Termination.

Contractors could also be placed on ‘Probationary’ status for failing to meet certain vital health and safety, regulatory, scheduling and backlog management or other programmatic requirements articulated elsewhere in this Program manual or the Contractor Participation Agreement.

### **Suspension/Termination Status**

Contractors who fail to increase their score to an 8.0 or higher after being placed in a ‘Probationary’ status will receive a ‘Suspended/Terminated’ status and no longer be eligible for Program rebates or services. If a Contractor receives a ‘Suspended/Terminated’ status, all jobs not yet completed would be cancelled. If a Contractor with a ‘Suspended/Terminated’ status wanted to re-enter the Program, they would need to provide evidence to Program staff that the problem(s) have been corrected and could re-enter the Program (at the discretion of Program staff) as a ‘Provisional’ status Contractor.

Contractors could also receive a ‘Suspended/Terminated’ status for failing to meet certain vital health and safety, regulatory, scheduling and backlog management or other programmatic requirements articulated elsewhere in this Program manual or the Contractor Participation Agreement.

## BAYREN CUSTOMER PARTICIPATION

### Customer Eligibility Requirements

The Program will offer services to SF residential homeowners and renters of single family detached homes and up to four unit buildings and their contractors throughout the BayREN service territory. Eligible homes must meet the following requirements unless otherwise specified below:

- Be a homeowner or renter living in a detached single family or 2-4 unit home built in 2016 or earlier in the nine-County Bay Area, consisting of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.
- Receive gas or electric distribution service from PG&E and pay into the Public Goods Charge (PGC) fund for the respective service type. Community Choice Aggregator (CCA) customers are also eligible to participate.
- Receive energy efficiency measures eligible for the Program that correspond directly to the type of service (i.e. electricity and/or natural gas) that the property receives from PG&E.
- Have not previously received a rebate for the same product or equipment from more than one energy-efficiency program offering rebates, financing or other rebates funded with PG&E ratepayer dollars within the past three years for O&M measures, eight years for building shell and HVAC measures. In addition, products discounted by PG&E at the point of sale, whether retail (“upstream”) or distributor (“midstream”), are not eligible for additional rebates.
- All rebate Program measures must be either: a) installed by a Participating Contractor, or b) installed by a subcontractor to the Participating Contractor. Measures installed by non-participating contractors who contract directly with the customer are ineligible.
- Additional Electrification Measure Eligibility clarification: Customer must be a PG&E natural gas customer. Municipal Utility customers are eligible (i.e. Alameda Municipal Power and Silicon Valley Power)

Customers must pass eligibility screens tied to their PG&E account data and other home data provided during the application process in order to participate in the Program. Prospective customers will work closely with their Participating Contractor and/or Energy Advisor to verify Program eligibility. Customers may also be asked to provide their PG&E energy data via ‘ShareMyData’ in order to more accurately track and analyze project-specific data and identify additional potential for energy savings.

Customers who do not qualify or meet eligibility requirements may be referred to other complementary programs.

If there is any question regarding customer eligibility, please contact Program staff.

## PROGRAM SERVICES & REBATES

### Online Self-Evaluation and Energy Efficiency (EE) Kit

BayREN Home+ offers an online self-evaluation to customers. The online self-evaluation will provide customers with an opportunity to answer a short online survey to see how their home is using energy and where they might improve. Upon completion of the online self-evaluation, the customer is asked to provide their PG&E energy data via ‘ShareMyData’, at which point, if the customer completes the ‘ShareMyData’ process, they will be assigned an EE kit that will be mailed to the customer for self-installation.

The process of completing an online self-evaluation also includes the creation of a “customer portal account” which the customer will use throughout their energy efficiency journey. If the customer is applying for a Program rebate through a Participating Contractor, this portal will be used to transfer basic home and customer information to the Participating Contractor thereby reducing the time commitment associated with the application process.

The EE kit will be mailed directly to the customer. To receive an EE kit, customers must comply with the following:

- Be a homeowner or renter living in a detached single family or 2-4 unit home built in 2016 or earlier in nine-county Bay Area, consisting of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties
- Receive gas and/or electric distribution service from PG&E and pay into the Public Goods Charge (PGC) fund for the respective service type. Community Choice Aggregator (CCA) customers are also eligible to participate
- Receive energy efficiency measures that correspond directly to the type of service (i.e. electricity and/or natural gas) that the property receives from PG&E
- Have not previously received a rebate for the same product or equipment from more than one energy-efficiency program offering rebates, financing or other rebates funded with PG&E ratepayer dollars within the past three years for O&M measures, eight years for building shell and HVAC measures. In addition, products discounted by PG&E at the point of sale, whether retail (“upstream”) or distributor (“midstream”), are not eligible for additional rebates
- Complete the online self-evaluation and create a “customer portal account”
- Provide access to customer energy consumption data via ‘ShareMyData’ to Program Implementer

The purpose of the online self-evaluation and EE kit is to facilitate an easy entry point for customers wishing to participate in the Program while gathering valuable home and energy data to inform energy efficiency potential and Energy Advisor recommendations to the customer.

**Energy Efficiency (EE) Kit Contents.** EE Kits will contain the items described in the table below. Eligible Customers who successfully provide access to customer energy consumption data via ‘ShareMyData’ will be assigned a kit based on their responses during the Online Self-



Evaluation and the Customers active PG&E Service Address ID (SAID). The contents of the kit configurations are as follows:

Kit Assignment Criteria	Kit Item and Quantity				
	LED 12W A19 DIM 27K T20 JA8	Low-Flow Showerhead - 1.5 GPM	Low-Flow Aerator (bath) - 0.5 GPM	Low-Flow Aerator (kitchen) - 1.5 GPM	Tier 2 Advanced Power Strip
Gas Only	0	1	2	1	0
Electric Only No AV No Water	10	0	0	0	0
Electric Only AV No Water	5	0	0	0	1
Combo Water No AV	10	1	2	1	0
Combo AV Water	5	1	2	1	1
Combo No AV No Water	10	0	0	0	0
Combo AV No Water	5	0	0	0	1
Electric Only No AV Water	10	1	2	1	0
Electric Only AV Water	5	1	2	1	1

**Program Referrals.** Some customers may not have completed an online self-evaluation or received an EE kit. It is encouraged that Participating Contractors, Raters, Home Energy Score Assessors, and other Program staff communicate the benefits of the EE kit to potential and existing customers in order to increase overall energy savings and drive Program awareness. The intent is to guide customers to the Program or Programs that offer them the maximum benefit.

## Green Home Visits

The Program will collaborate with local Community Based Organizations (CBOs) to offer services to specific groups of customers that have historically low participation rates. Some of these groups will include but are not be limited to households where English is not the primary spoken language and senior households. BayREN will partner with select CBOs to perform in-home ‘Green Home Visits’ for these customers. During the Green Home Visit, the CBOs will perform a basic energy evaluation of the home and gather customer information. During the visit, EE kit measures will be direct installed for the customer. The Green Home Visit will also provide the customer with energy saving tips. The customer will be referred to an Energy Advisor who will maintain a longer-term relationship with them and educate the customer on the energy savings potential of their home and ways to achieve it.

## Rebates

BayREN Home+ will pay rebates for eligible measures completed by a Participating Contractor. The rebate may be paid to the customer or the Participating Contractor. Participating Contractors are responsible for completing a rebate Enrollment form with the customer, completing eligible upgrades, and submitting the rebate application and other required forms once the project is completed. Once these have been submitted to the Program, the Incentive Processing team will confirm customer eligibility and reserve rebate funds for the project. Customers’ must work with a Participating Contractor to be eligible for a rebate.

To qualify for a rebate, a customer must comply with the following:

- Be located in the nine-county Bay Area, consisting of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties
- Receive gas and/or electric distribution service from PG&E and pay into the Public Goods Charge (PGC) fund for the respective service type. Community Choice Aggregator (CCA) customers are also eligible to participate
- Receive energy efficiency measures that correspond directly to the type of service (i.e. electricity and/or natural gas) that the property receives from PG&E
- EE upgrades be done in a home that was built/constructed in 2016 or earlier
- Have not previously received a rebate for the same product or equipment from more than one energy-efficiency program offering rebates, financing or other rebates funded with PG&E ratepayer dollars within the past three years for O&M measures, eight years for building shell and HVAC measures. In addition, products discounted by PG&E at the point of sale, whether retail (“upstream”) or distributor (“midstream”), are not eligible for additional rebates
- Complete a Combustion Appliance Safety (CAS) test if any measures completed impact the air tightness of the home
- Agree to allow random field inspections, by BayREN, CLEAResult or their designee, of work that has been performed. The customer will need to allow CLEAResult or BayREN access to the home for this purpose if the project is chosen for a field inspection

Rebates for projects completed in 2019 will be priced as shown in the Eligible Program Measure table, below:

*Table 1: Program Rebate Amounts*

<b>Measure</b>	<b>2019 Incentives</b>	<b>Unit</b>	<b>Eligible Climate Zone</b>
<b><i>EE Kit and Direct Install</i></b>			
Screw in LED – A19	Free to customer	Lamp	All
Faucet aerator – Bathroom ≤ 1.0 GPM	Free to customer	Faucet	All
Faucet aerator – Kitchen ≤ 1.5 GPM	Free to customer	Faucet	All
Low-flow showerhead 1.5 GPM	Free to customer	Showerhead	All
Tier 2 advanced power strip	Free to customer	Each	All
<b><i>Operations and Maintenance</i></b>			
Smart thermostat (must be listed on the ENERGY STAR qualified product list for Smart Communicating Thermostats)	\$150.00	Each	All
Duct Seal / Repair ≤ 10% total leakage (Not eligible in homes with ductwork or FAU/Furnace/Air Handler in Garage)	\$200.00	Each	All
Duct Replacement ≤ 5% total leakage	\$800.00	Each	All
<b><i>Building Shell</i></b>			
Attic insulation ≥ R-44 (includes air sealing)	\$0.75 (maximum of \$1,000)	Area (ft <sup>2</sup> )	All

Wall insulation $\geq$ R-13 (2x4 framing) or $\geq$ R-19 (2x6 framing)	\$0.70 (maximum of \$1,000)	Area (ft <sup>2</sup> )	All
<b><i>HVAC Equipment</i></b>			
High efficiency furnace $\geq$ 95% AFUE with Variable Speed Motor (must replace existing central gas furnace)	\$300.00	Each	All
High efficiency split central air conditioner $\geq$ 17 SEER or $\geq$ 13.3 EER High efficiency packaged central air conditioner $\geq$ 16 SEER  (must replace existing central air conditioner)	\$800.00	Each	All
High efficiency heat pump $\geq$ 17 SEER / 9.4 HSPF  (must replace entire load associated with an existing electric heating system or heat pump)	\$1,000.00	Each	All
<b><i>DHW Equipment</i></b>			
Heat pump water heater $\geq$ 3.1 UEF (must replace existing electric or heat pump water heater)	\$1,000.00	Each	All
High efficiency storage gas water heater medium usage $\geq$ 0.64 UEF, high usage $\geq$ 0.68 UEF Instantaneous water heater $\geq$ 0.87 UEF  (must replace existing gas water heater)	\$400.00	Each	All
<b><i>Bonus Rebates (only one per service address)</i></b>			
Combine one or more Building Shell measures with a Heating and Cooling measure	\$500.00	Per Home	All

Combine attic with exterior wall insulation work	\$500.00	Per Home	All
Building air sealing $\geq$ 30% (Use of vintage tables requires combination with another measure, otherwise test-in and test-out results required)	\$150.00	Per Home	All
Downsize heating and/or cooling system compared to existing system	\$100.00	Per Home	All
Combustion Appliance Safety (CAS) test-out	\$150.00	Per Home	All
<b><i>Electrification Equipment Measures</i></b>			
High efficiency heat pump $\geq$ 17 SEER / 9.4 HSPF (must replace existing central natural gas furnace and air conditioner with ducted direct exchange (non mini-split) heat pump or replace wall furnace and window air conditioner with a ductless mini-split heat pump.)	\$1,000.00	Per Home	All
Heat pump water heater $\geq$ 3.1 UEF (must replace existing natural gas tank or tankless water heater)	\$1,000.00	Per Home	All
<b><i>Electrification Appliance Measures (Customer Application)</i></b>			
*Induction electric stove and range cooktop (must replace existing natural gas range and cooktop)	\$300.00	Per Home	All
*Heat pump clothes dryer $\geq$ 4.50 Combined Energy Factor (CEF) (must replace existing natural gas clothes dryer and listed as ENERGY STAR Efficient heat pump clothes dryer.	\$300.00	Per Home	All

\*Appliance measures. In order to receive an incentive, these measures require the PG&E account holder to submit a rebate application through the customer facing BayREN Home+ Portal.

## Energy Advising

Energy Advisors are available at no cost to the customer and are an objective, unbiased third-party. Energy Advisors will act as a facilitator, educator, and advocate for customers pursuing upgrades. Energy Advisors will:

- Provide individualized and ongoing assistance to homeowners and renters with relevant Program offerings
- Educate participants on energy efficiency benefits including reduced energy bills and improved indoor air quality and comfort
- Be a single point of contact for all energy efficiency questions and/or BayREN projects
- Develop an energy efficiency plan for the customer and assist them on their journey to greater energy efficiency of their home
- Provide support with selecting a Participating Contractor, scheduling estimates and reviewing bids for eligible projects
- Help customers understand energy and evaluation reports
- Communicate available financing options and other BayREN Programs like the Green Labeling program
- Educate customers on complementary program offerings
- Maintain a long-term relationship with the customer
- Provide unparalleled customer service

## Incentive Layering

BayREN Home+ customers are not excluded from concurrent participation in any other ratepayer-funded energy efficiency program that offers rebates or incentives, as long as ratepayer-funded programs do not provide incentives for the same measures being completed through the BayREN Program.

BayREN will cross reference Program projects with participation data from other ratepayer funded programs to confirm that there is no “double-dipping”.

## QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

QA/QC are essential functions that enable the Program to verify the quality of installed measures, both for purposes of consumer protection and to safeguard ratepayer investments. The intent of QA activities is to ensure a great customer experience and deliver real project benefits to both the Participant and ratepayers.

For purposes of BayREN Home+, Quality Assurance and Quality Control are defined as follows:

- **Quality Assurance (QA):** A set of processes and procedures to manage for quality; that is, a proactive means to prevent quality failures and deliver consistently high-quality results.
- **Quality Control (QC):** A set of processes and procedures to verify the quality of the results; that is, a reactive means by which quality is gauged and monitored.

If a project is selected for QA/QC, the customer is responsible for participating in QA/QC process in order to be eligible for a rebate. This includes field quality control (FQC) inspections completed by BayREN, CLEAResult, or another designee. The QA/QC efforts will provide feedback to BayREN and Participants and may inform future Program improvements.

### Quality Assurance Processes and Procedures

A comprehensive quality assurance program requires Participating Contractors to integrate quality assurance into their standard operating procedures. BayREN Home+ QA processes and procedures include the following:

- Participating Contractor training and mentoring related to measure requirements and installation best practices
- Customer screening for Program eligibility prior to investment of Program resources in providing customer services
- Availability of a certified BPI BA to ensure adequate health and safety testing (CAS) by qualified personnel
- Qualifying measure list and equipment specifications
- Participating Contractor quality assurance plans, including standard operating procedures for customer service, data management, rebate applications, financing, and installation procedures

The following table highlights the frequency of quality assurance provisions associated with the Program:

Table 3: Quality Assurance Provisions

<b>Program Element</b>	<b>QA Requirements</b>	<b>QA Sampling Rate (Indicate Pre/Post Sample)</b>	<b>QA Personnel Certification Requirements</b>
<b>Rebates</b>	Property must meet eligibility requirements for measures installed	100% pre/post	BPI-BA
	Contractor holds valid license and meets eligibility requirements	100% pre/post	None
	Project meets requirements of Program	100% pre/post	BPI-BA
	Field Verification of Measures Installed and performance of Combustion Safety Test	Post: Home Performance w/ENERGY STAR Protocols	BPI-BA

### Quality Control Processes and Procedures

QC activities will identify all material defects that are in conflict with the Program’s installation requirements and CAS requirements. Participating Contractors must remediate all identified defects before the project is eligible for a Program rebate, or if a rebate is already paid, to retain an ‘Active’ status in the Program.

#### *Desktop Review of Job Submissions*

The intent of the desktop review is to evaluate the validity of the submittals, such as the rebate application. The rebate application will be manually compared to PG&E customer data to ensure customer eligibility and Program requirements. Rebate applications may be returned for revision if: (1) The customer or measures are not eligible for the Program; (2) The application is incomplete or inaccurate; and/or (3) The Participating Contractor is not eligible to apply for incentives due to their standing with the Program.

#### *Field Quality Control (FQC) Inspection*

FQC inspections focus on verifying proper installation of improvements and ensuring customer satisfaction. The Program will leverage BayREN Raters as well as CLEAResult staff and other designees to complete FQC inspections. Eligible projects will be based on a sampling basis and/or as directed. BayREN Home+ QC will be conducted by (1) BayREN Raters who are responsible for verifying and “signing off” on measure installation quality according to Program requirements when subcontracted for CAS testing on ALL projects; (2) CLEAResult staff and/or designees will QC projects based on random sampling of projects.



The Participating Contractor shall coordinate with a BPI certified CAS technician to schedule an inspection to coincide with project completion in order to reduce impacts to the participant. Projects selected for FQC must pass the FQC inspection in order to receive a rebate. FQC inspections will confirm the following:

- Participating Contractor has adhered to all installation requirements and Program requirements, proper function and cleanliness of installed equipment, and accuracy of work
- Counts and types of all measures installed are as indicated in the rebate application
- Installed equipment is eligible for Program rebates and meets Program requirements
- Proper completion of CAS Testing

*Photo Quality Control (PQC) Inspection*

PQC inspections focus on verifying proper installation of eligible measures through the use of photographs submitted to CLEAResult through the project application process. PQCs will be completed by the Participating Contractor and each measure will require a Photograph(s) that is date and time stamped to depict the proper installation of the measure(s).

To be eligible for PQC Inspections, the Participating Contractor first must achieve an ‘Active’ status and have good standing in the Program. The Participating Contractor must then participate in a mandatory BayREN PQC webinar. PQCs will allow Participating Contractors to increase their QC score and elevate their standing in the program. Projects submitted through the PQC process are still subject to random in-field inspections.

*QC Sampling Rates*

The minimum FQC inspection rate is set at 5% (1 in every 20 jobs). The Program has also established an adjustable on-site inspection rate for contractors based on job experience and performance. This inspection rate reduces as the contractor gains experience in the Program and as on-site inspections and the Participating Contractor score (described in “Evaluation of Participating Contractor” above) show the contractor is performing well. Contractors may drop down a tier if performance slips.

<b>Contractor Status</b>	<b># of Jobs</b>	<b>QC Level</b>	<b>QC Requirements</b>
Provisional	0-5	Level 3 QC	First job inspected on-site with Contractor present during CAS test-out. Next 2-5 jobs inspected on-site or through PQC inspections
Probationary	N/A	Level 3 QC	Requires on-site inspection with Contractor present during CAS test-

			out. Next 2-5 jobs inspected on-site or through PQC inspections
Active (Any Tier)	5-20	Level 2 QC	20% of all jobs inspected on-site or through PQC inspections (4 out of 20)
Active (Any Tier)	20+	Level 1 QC	5% of all jobs inspected on-site or through PQC inspections (1 in 20)

Inspection failure(s) will trigger corrective action(s) to the job. Sampling rates may be increased, or other penalties introduced if inspections produce unsatisfactory results.

Inspections completed by Program staff will seek to complete verification activities within ten (10) business days of the application submission, barring any delays associated with difficulty in contacting the Customer or scheduling an inspection.

*Ongoing Monitoring*

Performance will be monitored on an ongoing basis for all Participating Contractors. Performance is based on:

- Customer Satisfaction Survey results
- Feedback provided to Energy Advisors by customers
- Ability for Participating Contractor to meet minimum work requirements set forth in this manual
- QA/QC results
- Responsiveness and professionalism associated with BayREN requests

Where applicable, the Program may leverage metered energy savings data to support Participating Contractor development and training and performance analysis. The Program aims to provide a transparent and collaborative process to Participating Contractor performance improvements and will use data collected to inform BayREN Contractor Services support and mentoring activities.

*Customer Satisfaction Surveys*

Customers participating in the Program services will be invited to participate in customer satisfaction surveys. The timing of the survey will vary depending on the customers participation in the Program. Surveys will be deployed according to the following schedule:

*Table 4: Customer Satisfaction Survey Schedule*

<b>Program Service</b>	<b>Milestone</b>	<b>Survey Delivery Date</b>
Online Self-Evaluation & EE Kit	Completion of online self-evaluation & customer portal account	Within 5 weeks of portal account created date
Green House Call	Completion of Green House Call	Within 2 weeks of Green House Call
Rebates	Completion of Program measure	Within 3 weeks of project paid date

## ELIGIBLE ENERGY EFFICIENCY MEASURES

Table 4: Eligible Program Measures

Measure	2019 Incentives	Unit	Eligible Climate Zone
<b><i>EE Kit and Direct Install</i></b>			
Screw in LED – A19	Free to customer	Lamp	All
Faucet aerator – Bathroom ≤ 1.0 GPM	Free to customer	Faucet	All
Faucet aerator – Kitchen ≤ 1.5 GPM	Free to customer	Faucet	All
Low-flow showerhead 1.5 GPM	Free to customer	Showerhead	All
Tier 2 advanced power strip	Free to customer	Each	All
<b><i>Operations and Maintenance</i></b>			
Duct Replace ≤ 5% total leakage	\$800.00	Each	All
Duct Seal / Repair ≤ 10% total leakage (Not eligible in homes with ductwork or FAU/Furnace/Air Handler in Garage)	\$200.00	Each	All
Smart thermostat	\$150.00	Each	All
<b><i>Building Shell</i></b>			
Attic insulation ≥ R-44 (includes air sealing)	\$0.75 (maximum of \$1,000)	Area (ft <sup>2</sup> )	All
Wall insulation ≥ R-13 (2x4 framing) or ≥ R-19 (2x6 framing)	\$2.00 (maximum of \$1,000)	Area (ft <sup>2</sup> )	All
<b><i>HVAC Equipment</i></b>			
High efficiency furnace ≥ 95% AFUE with Variable Speed Motor (must replace existing central gas furnace)	\$300.00	Each	All

High efficiency split central air conditioner $\geq 17$ SEER or $\geq 13.3$ EER High efficiency packaged central air conditioner $\geq 16$ SEER (must replace existing central air conditioner)	\$800.00	Each	All
High efficiency heat pump $\geq 17$ SEER / 9.4 HSPF (must replace entire load associated with an existing electric heating system or heat pump)	\$1,000.00	Each	All
<b><i>DHW Equipment</i></b>			
Heat pump water heater $\geq 3.1$ UEF (must replace existing electric water heater)	\$1,000.00	Each	All
High efficiency gas water heater medium usage $\geq 0.64$ UEF, high usage $\geq 0.68$ UEF Instantaneous water heater $\geq 0.87$ UEF (must replace existing gas water heater)	\$400.00	Each	All
<b><i>Bonus Rebates</i></b>			
Combine one or more Building Shell measures with a Heating and Cooling measure	\$500.00	Per Home	All
Building air sealing $\geq 30\%$ (Use of vintage tables requires combination with another measure, otherwise test-in and test-out results required)	\$150.00	Per Home	All
Downsize heating and/or cooling system compared to existing system	\$100.00	Per Home	All

Combustion Appliance Safety (CAS) test-out	\$150.00	Per Home	All
<b><i>Electrification Equipment Measures</i></b>			
High efficiency heat pump $\geq$ 17 SEER / 9.4 HSPF (must replace existing central natural gas furnace and air conditioner with ducted direct exchange (non mini-split) heat pump or replace wall furnace and window air conditioner with a ductless mini-split heat pump.)	\$1,000.00	Per Home	All
Heat pump water heater $\geq$ 3.1 UEF (must replace existing natural gas tank or tankless water heater)	\$1,000.00	Per Home	All
<b><i>Electrification Appliance Measures (Customer Application)</i></b>			
*Induction electric stove and range cooktop (must replace existing natural gas range and cooktop)	\$300.00	Per Home	All
*Heat pump clothes dryer $\geq$ 4.50 Combined Energy Factor (CEF) (must replace existing natural gas clothes dryer and listed as ENERGY STAR Efficient heat pump clothes dryer.	\$300.00	Per Home	All

\*Appliance measures. In order to receive an incentive, these measures require the PG&E account holder to submit a rebate application through the customer facing BayREN Home+ Portal.

## APPENDIX A. DICTIONARY OF TERMS

A Glossary-Program Administrator Dictionary, identified by the California Energy Efficiency Coordinating Committee Stakeholder process during the Business Plan development, can be found at [https://abag.ca.gov/bayren/documents/BayREN\\_BusinessPlan\\_20170123\\_PDFA.pdf](https://abag.ca.gov/bayren/documents/BayREN_BusinessPlan_20170123_PDFA.pdf), Appendix C.

## APPENDIX B. MEASURE INSTALLATION STANDARDS

Equipment must be installed in a manner that yields energy savings and provides long-term occupant comfort and safety. The Program uses the Installation Standards defined below for measure installation best practices. This ensures that the work performed is effective, durable, and safe. While the installation standards help identify the desired outcomes of energy efficiency measures associated with a project, they are not a replacement for the codes and/or technical standards mandated by a particular jurisdiction. State, local, or municipal code or ordinance has legal precedence and Participating Contractors should obtain copies of the applicable codes and standards for their jurisdiction before performing the work. For each measure, the Participating Contractor must meet the following Installation Standards:

*Table 5: Program Measure Installation Standards and QC Checklist*

<b>Operations and Maintenance</b>	
<b>Duct Replace <math>\leq</math> 5% total leakage</b>	<b>Points</b>
Duct test reveals $\leq$ 5% total system leakage	2
Accessible Ducts and plenums have all been replaced and are properly fastened and supported	2
Duct boots sealed to floor, wall, or ceiling using caulk, foam, mastic tape, or mastic paste	2
All seams, cracks, joints, holes, and penetrations are sealed using mastic including the air handler	2
Connections and routing of duct work completed without kinks or sharp bends	2
<b><i>Duct Replace <math>\leq</math> 5% total leakage Total Points</i></b>	<b><i>10</i></b>
<b>Duct Seal / Repair <math>\leq</math> 10% total leakage (Not eligible in homes with ductwork or FAU/Furnace/Air Handler in Garage)</b>	<b>Points</b>
Duct test reveals $\leq$ 10% total system leakage	2
Ducts and plenums are properly fastened and supported	2
Duct boots sealed to floor, wall, or ceiling using caulk, foam, mastic tape, or mastic paste	2
All seams, cracks, joints, holes, and penetrations are sealed using mastic including the air handler	2



Connections and routing of duct work completed without kinks or sharp bends	2
<b><i>Duct sealing &lt;= 10% total leakage Total Points</i></b>	<b>10</b>
<b>Smart Thermostat</b>	<b>Points</b>
Thermostat installed matches thermostat in Application	3.5
Thermostat is void of defects and functions according to manufacturer specifications	3.5
Customer was instructed on thermostat use and provided with the thermostat manual	3
<b><i>Smart Thermostat Total Points</i></b>	<b>10</b>
<b>Building Shell</b>	
<b>Attic Insulation <math>\geq</math> R-44 (includes air sealing)</b>	<b>Points</b>
Thermal Boundary continuous and supports insulation. Proper Sealants and	2
Proper clearance and non-combustible materials used around combustion sources (e.g. Flues, Chimneys, Vents). Non-insulation contact (IC) lights have an airtight enclosure taller than the surrounding insulation. 3" clearance maintained. Top of enclosure has an R value not to exceed R.5	2
Insulation level matches manufacturer's coverage chart for desired R-value. Knee wall insulation has 6-sided encapsulation with proper insulation/air barrier alignment and has all gaps cracks and penetrations sealed	2
Attic access hatch is insulated to same R-value as surrounding insulation and is permanently attached to hatch cover. Hatch cover is properly weather stripped and has a tight seal. Rigid dam (wood or better) having height greater than surrounding insulation is constructed to ensure insulation does not fall into access opening.	2
Install attic depth markers no less than 1 for every 300sqft. Attic ventilation maintained (e.g. soffit baffles present)	2
<b><i>Attic Insulation Total Points</i></b>	<b>10</b>
<b>Wall Insulation <math>\geq</math> R-13 (2x4 framing) or <math>\geq</math> R-19 (2x6 framing)</b>	<b>Points</b>

Consistent, uniform thermal boundary between conditioned and unconditioned space to prescribed R-value of an adjoining insulated assembly	2
Complete insulation coverage without settling or voids throughout exterior wall plane.	2
Accuracy of application wall insulation sq. ft. compared to installed	2
Drill and fill holes are patched and returned to paint-ready condition	2
A dated receipt signed by the installer will be provided that includes coverage area, thickness, R-value	2
<b><i>Wall Insulation Total Points</i></b>	<b><i>10</i></b>
<b>HVAC Equipment</b>	
<b>High Efficiency Furnace <math>\geq</math> 95% AFUE (must replace existing central gas furnace)</b>	<b>Points</b>
Furnace meets AFUE $\geq$ 95%	2
Furnace model # matches model # associated with rebate application	2
Furnace is void of defects and functions according to manufacturer specifications	2
Return Air duct/grille is sufficiently sized for the BTU and Airflow of the System	2
Supply and Return air opening is closed off and sealed with a durable material equivalent in strength to the surrounding material	2
<b><i>High Efficiency Furnace Total Points</i></b>	<b><i>10</i></b>
<b>High Efficiency Split Central Air Conditioner <math>\geq</math> 17 SEER or High Efficiency Packaged Central Air Conditioner <math>\geq</math> 16 SEER (must replace existing air conditioner)</b>	<b>Points</b>
Meets Program requirements $\geq$ 17 SEER	2
Air conditioner model # matches model # associated with rebate application	2
Air conditioner is void of defects and functions according to manufacturer specifications	2

Return Air duct/grille is sufficiently sized for the BTU and Airflow of the System	2
Supply and Return air opening is closed off and sealed with a durable material equivalent in strength to the surrounding material	2
<b><i>High Efficiency Air Conditioner Total Points</i></b>	<b><i>10</i></b>
<b>High Efficiency Heat Pump <math>\geq 17</math> SEER / 9.4 HSPF (must replace existing electric heating system)</b>	<b>Points</b>
Meets Program requirements $\geq 17$ SEER / 9.4 HSPF	2
Heat Pump model # matches model # associated with rebate application	2
Heat Pump is void of defects and functions according to manufacturer specifications	2
Return Air duct/grille is sufficiently sized for the BTU and Airflow of the System	2
Supply and Return air opening is closed off and sealed with a durable material equivalent in strength to the surrounding material	2
<b><i>High Efficiency Heat Pump Total Points</i></b>	<b><i>10</i></b>
<b>DHW Equipment</b>	
<b>Heat Pump Water Heater <math>\geq 3.24</math> EF or <math>\geq 3.1</math> UEF (must replace existing electric water heater)</b>	<b>Points</b>
Water Heater Meets Program requirements $\geq 3.24$ EF or $\geq 3.1$ UEF	2
Water Heater model # matches model # associated with rebate application	2
Water Heater is void of defects and functions according to manufacturer specifications	2
Water Heater location, surrounding space for air flow, access, and mounting equipment is correctly installed. HPWH has unrestricted airflow and, according to the typical manufacturer specification, a minimum installation space of 700 cubic feet (depending on size of system).	2
Condensate drain lines are properly installed and piped to an adequate drain or condensate pump installed.	2
<b><i>Heat Pump Water Heater Total Points</i></b>	<b><i>10</i></b>

<b>High Efficiency Gas Storage Water Heater <math>\geq</math> 0.70 EF or medium draw pattern <math>\geq</math> 0.64 UEF, high draw <math>\geq</math> 0.68 UEF for Instantaneous Water Heater <math>\geq</math> 0.82 EF or <math>\geq</math> 0.87 UEF (both options must replace existing gas water heater)</b>	<b>Points</b>
Meets Program requirements, for gas storage water heater $\geq$ 0.70 EF or medium draw pattern $\geq$ 0.64 UEF, high draw $\geq$ 0.68 UEF, for instantaneous water heater $\geq$ 0.82 EF or $\geq$ 0.87 UEF	2
Water Heater model # matches model # associated with rebate application	2
Water Heater is void of defects and functions according to manufacturer specifications	2
Water Heater piping meets the applicable code requirements and manufacturer specifications and prevents thermo-siphoning (e.g. heat traps or pipe insulation)	2
Condensate drain lines are properly installed and piped to an adequate drain or condensate pump installed.	2
<b><i>High Efficiency Gas Water Heater Total Points</i></b>	<b><i>10</i></b>

General Requirements

- Materials and installation procedures shall conform to all applicable building and electrical codes, standards, and regulations, and shall meet the specified warranty standards
- Participating Contractor will maintain all required permits and licenses necessary to conduct the installation work and pay all associated fees for such permits and licenses
- Plan and conduct installation work to safeguard persons and property from injury, in compliance with reasonable safety and work practices and with applicable laws, ordinances, codes and regulations of governmental agencies, including federal, state, municipal and local governing bodies having jurisdiction over any or all of the scope of services
- Use qualifying equipment that is new and free of defects in design, engineering, workmanship, and material. The equipment shall comply with the requirements of the Program and shall be fit for its intended purpose
- Equipment and materials shall be carefully handled, properly stored, and adequately protected to prevent damage before and during installation, in accordance with the manufacturers' recommendations
- Protect people and property from damage and debris at all times during the installation process, covering furniture, electronics, equipment, etc. to protect against dust and dirt during installation. Remove fingerprints from all surfaces touched by Participating Contractor or Participating Contractor staff and sweep or vacuum all debris from work site. Worksites shall be left in the same condition they were found at the end of each day

and at the completion of the installation. The Participating Contractor shall be solely responsible for damage or cleaning costs caused by installation

- Any unused or leftover materials, garbage, and debris shall be promptly removed from worksites and disposed of at the Participating Contractor's expense. On-site refuse containers shall not be used for disposal of any material whatsoever, without prior approval of the customer
- Keep access to all areas of each building clear; move and replace furniture during the project; minimize interference to occupants; and interrupt building services only after attaining the customer's approval
- Ensure Participating Contractor staff (both sales and installation) behave respectfully to other staff and customers. The Participating Contractor's staff shall not behave in any manner that is offensive to the customer. This includes, but is not limited to, the use of loud or foul language, smoking, the use of illegal drugs, and suggestive or provocative words or gestures. The Participating Contractor shall be accountable for the behavior and actions of employees and sales and installation personnel working on projects under the Program
- Immediately following installation, remove all replaced equipment from installation site and dispose in accordance with proper recycling/disposal requirements. Removed equipment may not be reinstalled at the customer's site or elsewhere
- Maintain accurate business records relating to the installation of qualifying equipment according to customary industry practice for at least one (1) year following installation

## APPENDIX C. HEALTHY HOME+ PILOT

### “Healthy Home+” Pilot Contractor Expectations- “HH+ Contractor”

**Objective:** An opportunity for homeowners/property managers to connect with indoor health-focused and performance-focused contractors who are capable of ‘best practice’ solutions, exceeding Home+ standards to maximize the health of building indoor environments.

#### *“Healthy Home+” Lead Handling*

Homeowners who express health concerns and associated remediation for their home will be introduced to a select group of contractors who are able to perform a deeper assessment of the home, conduct safety and performance testing services before and after the project, provide a structured and transparent estimate with detailed options for recommended solutions focused on indoor air quality, safety, comfort, and efficiency. These homeowners will be guided to HH+ Contractors through:

- Online participating contractor list to include designation for “Healthy Home+” Pilot participating Contractors
- Customer-facing marketing materials supporting the “Healthy Home+” solutions
- A designated page on the Home+ website
- Through the Home Advisor Team handing over leads to the contractors in the customer’s County for those customers who need health improvements. A minimum of two Contractors will be given each lead to prevent favoritism.

#### *Contractor Expectations*

Committed contractors will offer approved services and upgrade processes focused on building performance, health, and safety in the home. Contractors will be expected to adhere to the following:

- **Require BPI certified staff**
- **Maintain average Photo QC rate of 15% or greater**
- **Excellent Customer Service as defined by:**
  - <48 hour contractor response time for estimate requests and estimate questions
  - <48 hour response time to BayREN Advisors for Lead distribution and confirmation

#### *Contractor Capabilities*

In addition to the above expectations, HH+ Contractors must be capable of:

- **Stand-alone testing services such as:**
  - Load calculations for HVAC system upgrades or modifications

- Airflow testing for duct system upgrades or modifications utilizing duct blasters, flow hoods, or similar diagnostic equipment to measure delivered airflow at each register as well as total system leakage
- Envelope leakage testing utilizing blower doors, worst-case depressurization testing, smoke producing devices and infrared imaging to identify Air Sealing opportunities
- Indoor Air quality testing using air quality monitoring devices and reporting
- Access to Hazardous material or airborne pollutant safety testing (state link)(in-house or via third-party partner)
  - Mold, lead, VOCs, ventilation, air cleaners, cleaning products, combustion pollutants, carbon monoxide, allergens, asbestos, legionnaires, ozone, radon, etc.
- **Electrification of homes**
  - Capable of upgrading electrical panels or working with a licensed contractor to do so.
  - Capable of removing/decommissioning gas appliances and changing to electric appliances.
  - Capable of proper load calculations and installation methods to deliver maximum efficiency and effectiveness.
- **Meeting calibration requirements for Test-In and Test-Out equipment such as Blower Doors, Manometers, CO Detectors, Air Quality Meters, etc.**
- **Providing estimates by BPI Certified employee for indoor health improvement projects**
  - Estimates in a detailed format to clearly communicate upgrade project details and capability to email to the homeowner and [advisor@bayren.org](mailto:advisor@bayren.org)
  - Clear explanation of upgrade options and process as well as product details on estimates. Details to include model numbers, efficiency ratings, other pertinent ratings for equipment, and major project scope details. For example: Air Sealing scope, Attic Insulation, etc.

### **Examples of Best Practice Solutions for HH+ Contractors**

- **Smart Thermostat**
  - Capable of Thermostat relocation if needed
  - Homeowner thermostat scheduling and device training
  - Smart / Internet connectivity activation
- **Duct Sealing**
  - Manual D Load Calculation w/ Duct Replacements
  - Duct Blaster Test
  - In cases of Asbestos ductwork, certified removal of ductwork or existing system components containing Asbestos (complete removal, not encapsulation)

- Seal all accessible joints, registers, plenum, supply, and return ducting
  - Replacing: Utilize R-8 insulated ducts or buried under loose-fill attic insulation when possible. Utilize hard elbows to connect into boots where possible. Ducts should be straight with runs as sort as possible. Utilize tape, mastic, panduit (zip ties), and metal collars & plenums (no ductboard except when lining metal plenum).
  - New ducts should be installed to “goal zero” leakage where possible.
  - Balance via Load Calculation and flow hood testing (Rebate Eligible?)
- **Attic insulation**
    - Roof ventilation added if attic is not properly vented
      - Follow code requirements at minimum
      - Recommended additional ventilation for areas prone to fire.
    - Existing insulation removal, disposal, or recycling.
    - Rodent/pest cleaning and proofing
      - Pre-inspection of existing attic space to determine if pest problem exists
      - Have access to professional, licensed third-party for proper clean up, removal, prevention of re-infestation before installation of new attic insulation, or provide the service in-house.
    - Eave vent baffles to allow ventilation without disturbing insulation
    - Advanced air sealing procedures including the installation of:
      - Fire rated top hats for exposed gang boxes, terminals, receptacles, and ceiling mounted can lights or similar fixtures
      - Seal all joints at top plates, drywall joints, plumbing and electrical penetrations
      - Build dams using fire rated materials for all flue pipes, chimneys, and similar extreme heat hazards
    - Blower Door Assisted Air Sealing with Thermal Imaging and/or smoke producing device guidance
    - R44+ Blown-In Cellulose or Fiberglass
    - Not recommended: Batt Insulation on any horizontal plane
    - Other offerings: Suggestions to improve Thermal Envelope & air barrier alignment
- **Wall insulation**
    - For exposed walls: Dense Pack Fiberglass or Cellulose, OR Spray Foam with Fire Barrier.
    - Unexposed 4” walls: R13 Drill and Fill Cellulose or Fiberglass
    - Unexposed 6” walls: R19 Drill and Fill Cellulose or Fiberglass
    - Air Seal if possible
    - If possible, insulate between garage and house
    - Rough patch drill & fill holes to be ready for tape, texture, & paint.



- **Gas Furnace**
  - Load Calculation / AFUE 95%+ with right sized gas input or Dual Stage gas valve for reduced sizing where needed. Capability to ‘lock out’ high stage to eliminate overheating.
  - Safety: Install, redirect, or enlarge Air Source for Combustion Air if the existing system is atmospherically vented (when not replacing)?
  - Replace or modify ducts to be large enough for new system to keep static pressure within acceptable manufacturer range
  - Run combustion intake pipe to fresh air source (outside building envelope, not in closet)
  - Capability to offer/install Mini Split when full system replacement is being considered
  - Static pressure measurements taken and written on unit
  - Ensure adequate airflow to deliver full cooling capacity using flow hood
  
- **Air Conditioner**
  - Load Calculation to ensure system is right sized
  - Replace or modify ducts to match new system
  - Ensure adequate airflow to deliver full cooling capacity using flow hood
  - Properly charged refrigerant at startup
  - Mini Split when full system replacement is being considered
  
- **Heat Pump**
  - Load Calculation to ensure system is right sized
  - Properly charged refrigerant at startup
  - Offer full electric system and capability to avoid backup heat strips/ dual fuel furnace where possible
  
- **Gas water heater**
  - Safety: Powered vent, powered igniter, and flex gas line
  - Safety: Is there a recommendation to install, redirect, or enlarge an Air Source for Combustion Air if the existing system is atmospherically vented?
  - Insulation on exposed water pipe
  - Water heater blanket for systems over 15 years of age that will not be replaced
  - Capability to reroute or modify exhaust for atmospherically drafted DHW
  
- **Heat Pump Water Heater**
  - Heat Pump Water Heater ducted if possible
    - Source from/to Garage, Crawl space, or Attic space
  - Proper air volume in air source location (minimum 700 cubic ft depending on manufacturer specs)

- **Energy Audits or Stand-Alone services**
  - Blower door data from test-in is required and vintage tables will not be allowed.
  - Thermal Imaging report in addition to Energy Audit results
  - Energy Audit report with recommendations
  - 30+ minute private assessment review and efficiency plan offered by Auditor or Energy Advisor
  - Capable of Blower Door Assisted Air Sealing for any BPSC, duct blaster testing, safety testing, flow hood air delivery testing, and zonal pressure testing
  
- **Indoor Air Quality (IAQ)**
  - Capable of monitoring indoor air quality using approved, professional rated equipment
  - Capability of installing high Merv, efficient, low static pressure filtration systems
  - Capability of safely installing and tuning air-scrubber and similar air cleaning systems
  - Capability of installing or having installed moisture-prevention systems, such as crawlspace vapor barriers, landscape drainage systems, windows, roofing, etc.