

Request for Proposal
Project Delivery Services
Southern Maryland Electric
Cooperative (SMECO)
Quick Home Energy Check-up (QHEC)
October 9, 2015



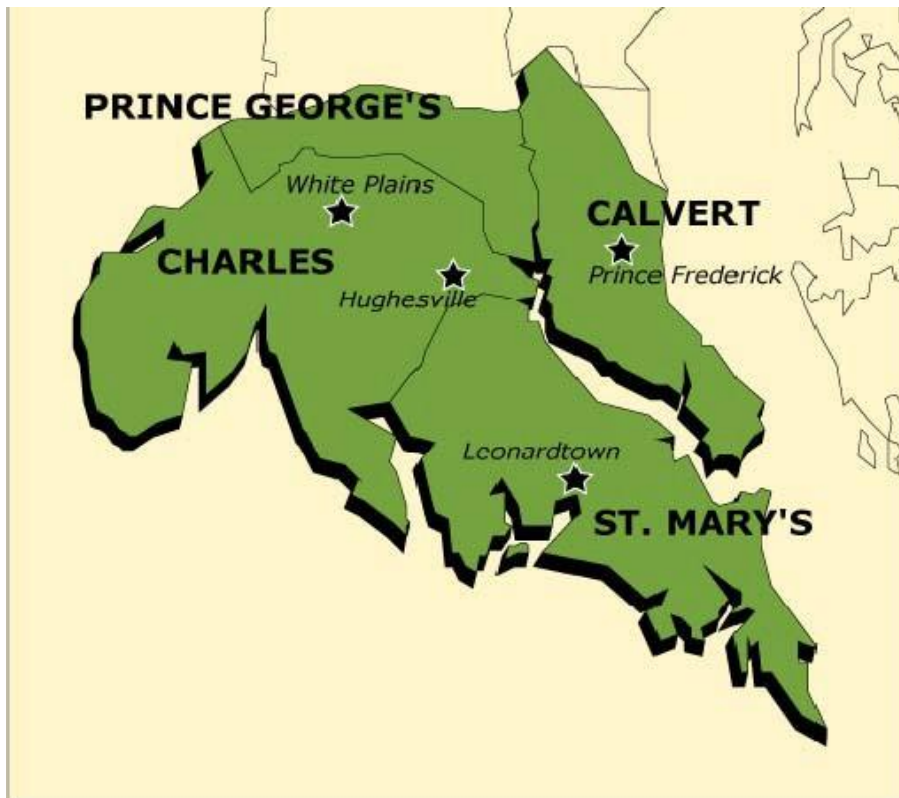
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1. Introduction

SMECO is a customer-owned electric cooperative providing electricity to over 154,000 services in southern Prince George's County, and in Charles County, St. Mary's County, and all but the northeast portion of Calvert County. The map below illustrates SMECO's service territory

SMECO Service Territory



SMECO has implemented a suite of Conservation/Energy Efficiency programs to provide residential and commercial customers with energy and cost savings opportunities. In order to accomplish this task in the expected timeframe, SMECO has selected ICF Resources, LLC, a subsidiary of ICF International (ICF), to assist in the program design, implementation and management. ICF has longstanding experience in delivering energy efficiency programs for numerous utilities throughout the United States, both through its own staff and through subcontractors.

The purpose of this request for proposals is to select subcontractors with the qualifications necessary to provide Quick Home Energy Check-ups (QHEC) to SMECO customers. The delivery of QHECs provides SMECO a significant opportunity to educate customers on how they can save energy and motivate them to participate in other SMECO energy efficiency programs that best fits their needs and budget.



In addition, SMECO and ICF encourage minority, service-disabled veterans, and women-owned businesses to participate in this opportunity as Diverse Business Enterprises (DBE's). Respondents must provide documentation of such status in order to be considered a DBE. It is our policy that DBEs shall have the maximum practicable opportunity to participate in the performance of contracts. However, this policy shall not be used to exclude qualified non-DBEs from participating in this opportunity. The awarded company is encouraged to carry out this policy in the award of subcontracts to the fullest extent consistent with the efficient performance of this contract.

From responses to this RFP, ICF will select a list of on-call contractors who will be retained by ICF through a standard subcontract agreement on behalf of SMECO. The selected contractors will receive training from ICF on the delivery of the QHEC and will be required to follow all program procedures and policies. QHEC Contractors are prohibited from marketing the QHEC Program without expressed written consent by ICF and SMECO. QHEC Contractors shall use only marketing materials, provided and/or approved by ICF, to QHEC participating customers. **If the subcontractor is soliciting door-to-door or over the phone, the subcontractor must provide the program manager with the specific areas being targeted and the specific materials being used within a week of the solicitation tactics.** Subcontractors are prohibited from selling any services or products not already included in the QHEC to the SMECO customer during the QHEC service and from proactively soliciting the customer post-QHEC delivery. Rather, subcontractors are required to refer customers to the SMECO website www.SMECO.coop/save, as appropriate for each customer's program interest, for lists of participating contractors.

2.0 Minimum Qualifications & Eligibility

ICF is looking for companies that possess the knowledge and experience to analyze a home's performance with a whole-house approach. Prospective QHEC subcontractor must have experience delivering residential energy audits and have staff persons certified as Building Performance Institute (BPI) Building Analysts. All auditors to be deployed in the program for conducting Check-ups must be certified as Building Performance Institute (BPI) Building Analysts.

Companies must hold a Maryland Home Improvement Contractors (MHIC) license and provide a minimum of a 1 year warranty and meet ICF insurance requirements that are outlined in Attachment A, Section 2.

3.0 Scope of Work

The successful companies (hereafter referred to as "SUBCONTRACTOR") shall provide comprehensive residential auditing services for the SMECO Quick Home Energy Check-up Program.

The QHEC is designed as a thorough visual inspection of the home; labeled as a "Check-up" to avoid confusion with the comprehensive home energy audit delivered by participating contractors in the Home Performance with ENERGY STAR (HPwES) Program. The primary purpose of the QHEC is to educate SMECO customers on energy efficiency and conservation. The QHEC will educate customers about the opportunities for improvements, help them find the right energy efficiency program for their home and budget, and install energy efficient measures at no additional cost to the customer. The measures installed include:

- Efficient-flow showerheads
- ShowerStart™ Adapters
- Faucet aerators
- 1 LED bulb
- DWH tank wrap
- DWH pipe wrap
- Smart strips
- DWH Temp Turndown

3.1 Scheduling



SUBCONTRACTOR will utilize an online scheduling system for the QHEC appointments with SMECO customers. SMECO customers will schedule through the SMECO Call Center and/or visit the SMECO Web site to use Quick Home Energy Check-up online Scheduler. The process is described below:

1. Customer signs up for the Check-up, through the SMECO Call Center, online appointment request system or through a SUBCONTRACTOR-generated lead.
2. The Scheduler software will assign the lead to a SUBCONTRACTOR based on the SUBCONTRACTOR's assigned zip codes. The SUBCONTRACTOR must check the system frequently and within one (1) business day respond to the request for scheduling.
 - a. The confirmation of an exact time will be completed closer to the QHEC delivery date which allows SUBCONTRACTORS scheduling flexibility for routing their appointments.
3. If the homeowner provided an email address, they would receive a reminder email 48 hours in advance of their Check-up appointment.
4. The business day before the delivery of the Check-up, the SUBCONTRACTOR will phone the homeowner to verify their appointment for the next day and give them a 1-2 hour timeframe for their QHEC appointment. If the SUBCONTRACTOR is unable to reach the customer for appointment verification, the SUBCONTRACTOR shall leave a message (if possible) and is still expected to keep the appointment.

3.2 QHEC Documentation

The following documentation must be completed as a part of the QHEC program.

1. ICF will provide subcontractors access to a database in which to identify customer utility account numbers.
2. The SMECO QHEC Mobile Tool will be used to deliver the check-up and subcontractor will provide a printed or emailed summary of findings to the customer.
 - a. The QHEC Mobile Tool, which is compatible with both Android and Apple tablets, will streamline data collection and reporting. QHEC Reports will be emailed or printed onsite (via mobile printer), or printed and mailed to the customer within 1 business day. ICF will train SUBCONTRACTORS on the use of the QHEC Mobile Tool prior to its release in the field.
 - b. The mobile tool has a place for both the Customer and Subcontractor to sign; agreeing to the Quick Home Energy Check-up Terms and Conditions. By signing the Terms and Conditions, the customer agrees that:
 - i. SMECO does not provide any warranties on the work being performed.
 - ii. The SUBCONTRACTOR is an independent contractor delivering services.
 - iii. They will accept the installation of direct install measures.

3.3 Quick Home Energy Check-up Description

The visual inspection, checklist, and customer education process shall take approximately 1 hour. Installation of direct install measures may take up to an additional hour. The QHEC visit typically includes the following:

1. A review of customer's consumption data that highlights seasonal usage and base load.
2. A visual inspection of the home (insulation levels, HVAC equipment, ductwork, lighting, and appliances).
3. Suggestions for ways to reduce energy consumption, energy saving tips, and customer education.
4. Recommendations for participation in another SMECO energy efficiency programs.
5. Installation of direct install measures (outlined in section 3.0)
6. For water measures to be installed, the residence must have an individual water heater.

4.0 Proposal Form

Companies wishing to participate as a QHEC SUBCONTRACTOR should submit a response describing their expertise to provide required services. Each section is required; **incomplete or late responses**



will not be considered. Responses should include the following items:

Proposal Part 1: Cover Sheet (Attachment A)

All proposals must include the attached application form as a cover sheet.

Proposal Part 2: Questionnaire (Attachment B)

Please include a response to all questions in the questionnaire. This questionnaire is designed to allow SUBCONTRACTORS the opportunity to demonstrate their capabilities and specific experience in managing and delivering residential energy audits.

Proposal Part 3: Energy Audit Report and other Documentation

Please attach to this document an energy audit report and/or any documentation of previous experience delivering energy audits.

Proposal Part 4: Provide Qualifications of Key Staff

A standard resume including professional experience, publications, membership in professional organizations, education, certifications, training and any other relevant experience should be attached. All staff that will be performing QHECs on behalf of the SMECO QHEC program will be required to submit required information and a badge photo, before the contract may be signed, that meets all SMECO photo requirements (Appendix 2). Badges can only be worn while performing QHECs. Badges must be returned if an employee is terminated or leaves the subcontractors' employment for any reason or if a badge expires.

Proposal Part 5: Professional References

A minimum of three (3) professional references directly related to the delivery of residential energy audits.

Proposal Part 6: Proposed Pricing (Attachment C)

Provide pricing for delivery of the Quick Home Energy Check-up per the pricing schedule. Pricing shall be reflective of labor, administrative costs, travel time, tools, incidental materials, and discounts for volume. Pricing should NOT include costs of any of the direct install products. Companies will be required to purchase and store direct install materials from a pre-selected vendor. For development of the pricing proposal SUBCONTRACTORS should assume that material costs will be approximately \$35 per QHEC delivery. SUBCONTRACTORS are required to purchase all QHEC measures before the QHECs are completed. All pricing information will be kept confidential.

The SUBCONTRACTOR should anticipate receipt of their first payment three months after they properly complete and submit their first QHECs. All QHECs must be submitted within 30 days of the QHEC date. It is expected that SUBCONTRACTORS will have the capital necessary to cover the costs of the work they do until they are paid. After the first payment is received, SUBCONTRACTORS can expect to be paid approximately every two weeks, as long as they continue to submit QHECs in the system.

5.0 Proposal Evaluation

The selected SUBCONTRACTORS must demonstrate a clear understanding of the services being solicited through this RFP. Proposal evaluation will consider the following:

- Experience
- Customer Service
- Staffing and Qualifications
- Pricing

5.1 Experience

The selected SUBCONTRACTORS shall have strong, practical hands-on experience and shall



possess a sound understanding of the requirements of the project.

5.2 Customer Service

The selected SUBCONTRACTORS shall have demonstrated success in providing exceptional customer service.

5.3 Staffing and Qualifications

SUBCONTRACTORS shall display experienced staff resources (including administrative and technical employees) that are capable of initiating the delivery of Program services with minimal training and start-up.

5.4 Pricing

All bids shall be inclusive of all pricing, including labor and incidental materials as well as general administration, data collection, data tracking, scheduling, and any and all other fees and charges.

6.0 Deadlines & Submittal Instructions

Submittals must be delivered by 5:00 PM (Eastern) on Friday, November 6, 2015. Please submit your completed response via the online procurement portal only by the deadline at this URL: <https://eeprourementportal.icfwebservices.com/>. The document must be saved and uploaded in the following format: CompanyName_UTILITY_2016RFP.

7.0 For Further Information

Questions may be submitted on the procurement portal by 5 PM (Eastern), Monday, November 2, 2015. ICF cannot guarantee a response to questions received after that date and time. Any questions submitted will be sent to anyone who is registered as a respondent on the procurement portal

8.0 Miscellaneous

8.1 Contract Term

The Quick Home Energy Check-up Subcontract that results from this RFP will be for services from no earlier than January 1, 2016 and will remain contingent on the sign-date of agreement, through March 31, 2016. SUBCONTRACTOR must offer the option of extending the contract at ICF's sole discretion for an additional three months, at the rates quoted in the SUBCONTRACTOR's proposal, subject to inflation adjustment as agreed upon by both parties per a defined price index.

8.2 Confidentiality

ICF and SMECO may supply the SUBCONTRACTOR with confidential customer information. All such information is the exclusive property of SMECO. The SUBCONTRACTOR shall not sell, barter or exchange any information provided for this Program, including but not limited to the customer information, in perpetuity. SUBCONTRACTOR shall not copy customer information without prior written consent provided by ICF and SMECO.

SUBCONTRACTOR and its employees, SUBCONTRACTORS and agents shall not use the customer information or the delivery of the Program for the generation of leads for sales of any other services or products the SUBCONTRACTOR may offer in perpetuity. SUBCONTRACTOR shall have each employee, subcontractor and agent with access to any information provided by SMECO/ICF for this Program sign a statement acknowledging this confidentiality agreement.

Bidders' responses and pricing for this solicitation will be treated as confidential.

8.3 Regulatory Scrutiny of Work

SUBCONTRACTOR should understand that their documents and work will become part of a public process involving incentive regulation and cost recovery, and be reviewed and scrutinized by



SMECO and ICF staff, by independent consultants, intervener groups and regulatory staff. All data developed by the SUBCONTRACTOR under these contracts are the property of SMECO and ICF, and electronic files containing all data shall be submitted to ICF as described herein.

8.4 Termination Right of ICF

ICF may terminate this Agreement at any time upon five (5) days written notice to SUBCONTRACTOR for any reason. ICF shall NOT be responsible for reimbursing the SUBCONTRACTOR for any cost incurred in reliance on the expectation that the Agreement would remain in effect throughout the end of the term.

8.5 Termination Right of Contractor

SUBCONTRACTOR may terminate this Agreement upon thirty (30) day's advance written notice to ICF if it has materially breached this Agreement.

8.6 M/W Diverse Business Enterprises (DBE)

ICF encourages minority, service disabled veterans, and women-owned businesses to participate in this opportunity. Please provide documentation of such status in order to be considered as a DBE.



Attachment A: Company Information

SMECO Quick Home Energy Check-Up Program

I. Company Details

Company Name: _____ Tax ID#: _____
 MHIC # _____ Suite #: _____
 Street Address: _____ State: _____ Zip Code: _____
 City: _____
 Phone: _____ Fax: _____
 Email: _____ Website: _____
 Hours of Operation: _____

II. Insurance Minimum Requirements

<u>Type</u>	<u>Minimum Amount Required</u>	<u>Have Required Coverage?</u>
Commercial General Liability – Each occurrence	\$1,000,000	<input type="checkbox"/>
Business Auto Liability	\$1,000,000	<input type="checkbox"/>
Worker's Compensation	Statutory Coverage	<input type="checkbox"/>
Employer's Liability	\$1,000,000	<input type="checkbox"/>
Excess or Umbrella Liability – Each Occurrence*	\$1,000,000	<input type="checkbox"/>

* Waived if Contractor has Commercial General Liability AND Auto Liability in amounts not less than \$2,000,000 each occurrence

III. Counties Serviced

Please check all areas which you are able to service (use additional sheets if necessary):

<u>County</u>	<u>All Zips</u>	<u>Selected Zips (list in text box)</u>
<input type="checkbox"/> Charles County	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Calvert County	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> St. Mary's County	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Prince Georges County	<input type="checkbox"/>	<input type="checkbox"/>



Attachment B: Company Questionnaire SMECO Quick Home Energy Check-up Program

Please provide answers to all questions below in the space provided. Please fill out as many sheets as necessary and sign below.

1. Are you a registered Maryland business? If so, describe your business. What services does your business currently provide? How many customers does your business serve in Maryland?

2. Describe your company's experience in building science, energy efficiency, delivering home energy audits, and providing comprehensive building performance services. Please provide an example (building, project, etc...).



3. Describe your company's approach to customer service through specific examples. Documented internal company workflows for dealing with challenging customers are preferred, and awards/articles/testimonials proving positive customer service are also welcome to prove your company's commitment to provide exceptional customer service.



4. SMECO requires BPI-certified contractors to deliver Quick Home Energy Check-ups to SMECO customers. Please describe how you would provide Quick Home Energy Check-up services and ensure that it is separate from other business operations and services you provide.
5. It is encouraged that SUBCONTRACTORS generate leads in the QHEC program in addition to receiving program-generated leads by zip code. How do you propose to supplement utility marketing efforts with your own in order to generate leads for any of the programs in which you plan to participate? Provide any examples you may have.
6. Are you currently a participant in the SMECO's Home Performance with ENERGY STAR Program? How does Home Performance with ENERGY STAR fit in with your business plan?



7. Is your company a woman- or minority-owned Diverse Business Enterprise (DBE)? If so, please respond below and attach documentation of DBE status.

8. Please highlight your company's administrative abilities to handle large volume of leads and database regulation. Feel free to provide examples below.



I understand this application is to determine my eligibility to participate in the SMECO Quick Home Energy Check-Up Program (QHEC) and does not constitute any formal participation in QHEC. I further understand that if my company is selected to participate, that it will require signing a standard task ordering agreement with ICF on behalf of SMECO outlining all terms, program policies, and procedures to deliver QHEC services.

Company Representative Name:

Title:

Signed:



Attachment C: Pricing Proposal SMECO Quick Home Energy Check-up Program

Provide pricing for delivery of the Quick Home Energy Check-up per the pricing schedule. Pricing shall be reflective of labor, administrative costs, travel time, tools, incidental materials, and discounts for volume. Pricing should NOT include costs of any of the direct install products. Companies will be required to purchase and store direct install materials from a pre-selected vendor. For development of the pricing proposal SUBCONTRACTORS should assume that material costs will be approximately \$35 per QHEC delivery. SUBCONTRACTORS are required to purchase all QHEC measures before the QHECs are completed. All pricing information will be kept confidential.

Pricing for Home Energy Check-up Delivery and Measure Installation: Price:

Quick Home Energy Check-up - Survey and Inspection (adjustment of water heater set point is included in the Check-up pricing) for <i>single family home/row or townhome</i> .	
Quick Home Energy Check-up - Survey and Inspection (adjustment of water heater set point is included in the Check-up pricing) for an <i>apartment/condo</i> .	
Installation of 12 CFL bulbs	
Installation of 1 LED bulb	
Installation of 2 faucet aerators	
Installation of 6' of pipe wraps (2) on water heater hot and cold pipes	
Installation of 1 efficient-flow showerhead	
Installation of 1 ShowerStart™ Valve	
Installation of tank wrap on water heater	
Installation of 1 smart strip	

* Many Check-up deliveries may include only a partial installation of measures



Policies and Procedure for Delivery of the Quick Home Energy Check-up Program (Scope of Work) – APPENDIX 1

Procedures for Delivery of the Single-Family Quick Home Energy Check-up (QHEC)

All QHEC Analysts should have a copy of this set of Policies and Procedures at their disposal during the delivery of QHECs.

1.0 Check-up Basic Description

The Quick Home Energy Check-up is a one-hour visual inspection of a home that assesses its:

- Insulation levels
- Air tightness
- Heating and cooling systems
- Windows and doors
- Lighting and appliances
- Health & Safety

Energy savings measures are installed at no additional cost to the customer. Following the Check-up, the customer receives a report summarizing important findings before the Analyst leaves the home, recommending improvements, and educating the customer about and recommending other energy efficiency programs to reduce energy usage and costs.

Any service completed outside of the QHEC Scope of Work must take place on a different day other than the QHEC and be charged at a separate fee agreed to by the Contractor and Customer. Rate payer funds performing the QHEC may not be used for subcontractors to complete additional work at the time of the QHEC nor can SMECO badges be worn by SUBCONTRACTOR employees for work outside the scope of the QHEC.

A Building Performance Institute certified Building Analyst will deliver a Check-up of the home. Quick Home Energy Check-ups will help utility customers understand their home's energy consumption and how to make it more comfortable and energy efficient. The QHEC analyst will leave customers with a complete Summary Report that contains specific actions the customer can take to improve their home, as well as recommendations for participating in one or more additional EmPOWER Programs. The delivery of this Check-up is expected to include a one-hour visual inspection, along with interaction and education of the customer, delivery of a Summary Report noting important findings and recommendations, and then the additional time necessary to install measures described in Section 4.0.

1.1 Eligibility

In order to participate in the QHEC program, the customer must have:

- 1) An active, residentially metered SMECO account regardless of electric or natural gas supplier.
- 2) An adult (over the age of 18) present.
- 3) Not participated in the QHEC program or LIEEP (Limited Income Energy Efficiency Program) previously at the designated address.

2.0 Scheduling

Contractor will utilize a utility-sponsored Scheduler system for the QHEC appointments with utility customers. Customers will schedule through the call center and/or visit the web site to use Quick Home Energy Check-up Scheduler.

- 1) Customer is entered into Scheduler by either:
 - a) Call Center
 - b) Themselves (Online)
 - c) ContractorPrior to QHEC scheduling, leads must be entered in Scheduler and verified for eligibility.



- 2) Customer will provide a contact phone number and an email address unless they schedule through the Call Center and do not have access to email.
- 3) Scheduler will assign the lead to a QHEC Subcontractor based on the assigned zip code of the utility's service territory. All leads generated by Subcontractor will be assigned to them once entered. The QHEC subcontractor will check the system daily and within 1 business day, respond to the request for scheduling by confirming the appointment or by contacting the customer via phone. If the customer is not available, the QHEC contractor must leave a voice message regarding their attempt to schedule the appointment and provide a contact number for the customer to return the call.
- 4) Scheduler will allow the QHEC Contractor to respond to the request via email (if an email is provided) and to offer a specific date and time window for an appointment. This appointment will then be moved to the status "Unconfirmed" by Scheduler. A customer must click a link in the email to make the appointment change to the status of "Confirmed".
- 5) Alternatively, if the customer is contacted via phone and the appointment is confirmed verbally with them, then the appointment can be moved directly to "Confirmed" status by the Contractor.
- 6) If an appointment with a status of "Unconfirmed" is within 3 business days of the requested appointment date, then the QHEC Contractor must contact the customer via phone to either confirm or reschedule the appointment. The QHEC Contractor may not let the date of scheduled delivery come to pass without contacting the customer to confirm the date/time. If done over the phone then the Scheduler must be updated to the "Confirmed" status and appointment date/time.
- 7) If the homeowner provided an email address, the homeowner will receive a reminder email 48 hours in advance of their receipt of the Check-up.
- 8) One business day before the delivery of the Check-up, the subcontractor will phone the homeowner to verify/remind the homeowner of the scheduled QHEC appointment.
- 9) During the reminder call or during the day of delivery, the QHEC Contractor will contact the customer to give them an approximate time of arrival – this can still be a window of time, but must be restricted to a maximum time frame of 2 hours.
- 10) The QHEC Contractor must attempt to schedule an appointment with a customer at least 3 times. On the first attempt, if the customer is not reached, then a voice message should be left, and the appointment should be saved as "Contacted" status. All three attempts should include contact information for the contractor and must be made within a 2-week period. A Note must be added to the Appointment record in the scheduler denoting the date and time of each attempted contact and the result (such as "left message on x date at y time").
- 11) If the customer has not responded to at least 3 attempts via phone, and multiple attempts at email (if available) across a 2 week period to schedule the appointment, then it may be moved to an "Inactive" status, and a final voice message must be left with the customer that would give them an option to call and re-activate the appointment request at any time. If an account has been in Inactive status for 6 months, it will automatically be cancelled.
- 12) If upon being contacted to set up or confirm an appointment the customer cancels the appointment, or later decides to cancel the appointment, the record should be changed to "Cancelled" status. The customer should be asked for the reason for the cancellation, and a note must be added to the appointment record indicating the customer's reason for the cancellation.
- 13) Upon delivery of a QHEC, Scheduler must be updated within 2 business days to show the appointment in "Completed" status.

3.0 Technical Delivery Process

3.1 Introduction by QHEC Contractor

- 1) Proper Dress: Collared shirt (polo or button down – no t-shirts), and closed-toed shoes. Khakis or jeans (no holes).
- 2) Inform customer that you work for an approved independent contractor working in support of the utility and show your utility badge. Verify customer is over 18 years old.
- 3) Review the process for QHEC delivery and direct installations, request their involvement with the Check-up delivery.
- 4) Customer is required to sign Terms & Conditions before QHEC begins. If no signature is provided, the QHEC may not continue.

3.2 Customer Discussion

- 1) Age of home, square footage, # of years that customer has lived there, number of occupants.
- 2) Remodeling, additions, window replacement, bonus rooms.
- 3) Basic information about HVAC system(s), type of fuel, age of systems (if known). This includes use of room air conditioners in summer if Check-Up is conducted in winter.
- 4) Comfort complaints (cold rooms/hot rooms, drafts, moisture and humidity).
- 5) Discuss any concerns the homeowner may have about their home.



- 6) Review of historical energy usage (depending on availability of data; data may be available through the utility)

3.3 Exterior walk

- 1) Look for signs of moisture or ice dam damage (if applicable) on walls and soffits that may have resulted from building performance problems.
- 2) Check for roof moisture damage (stains, soft or rotted deck or rafters, wet or moisture-damaged insulation) from roof leaks or inadequate ventilation.
- 3) Note any issues with shading or exposure to sun (linked to issues with hot/cold rooms and can help prioritize window-related measures).
- 4) Note any grading features, downspout terminations, or sprinklers that may direct water towards the foundation or affect the performance of an exterior wall.

3.4 Interior walk of the home

Conduct a walk-through with the homeowner to ascertain additional information (homeowner has opportunity to bring up any issues or concerns that s/he has with any major items in the assessment). The contractor can take this opportunity to inspect major appliances and lighting with the customer and educate them on the benefits of replacing older appliances and lighting with ENERGY STAR qualified products. Additionally, the Analyst will educate the customer about the consumption of energy in the average home by energy use for heating, cooling, water heating, appliances, lighting, and baseload.

3.4.1 Envelope Inspection

- 1) Note key features of home typical of house type (porch roof, multiple roof lines, cantilevers, bay windows, dormers, kneewall attics, attic access, crawlspaces, basements, attached garages).
- 2) Determine the thermal boundary of the home and identify thermal bypasses.
- 3) Record type(s), amount and condition of insulation in all components of the thermal boundary as are visibly accessible.
 - Attic flats, slopes, knee walls, knee wall flats, dropped soffits, etc., as appropriate for type of home and per configuration of additions.
 - Basement and crawlspace walls or ceilings.
 - Rim joists.
 - Attic staircase walls.
- 4) Window inspection: Note condition of windows, type, age, signs of moisture damage and air infiltration around windows.
- 5) Door inspection: Note type and condition of all doors to exterior (including garage) – especially note if doors are un-insulated, in poor condition, or if they are leaky and in need of weather-stripping or door sweeps.
- 6) Envelope air leakage characteristics
 - Visual Inspection of attic and basement/crawlspace to identify paths of air leakage
 - Look for visual signs of air leakage such as discoloration of insulation
 - Attic: openings in wall top plates, electrical and plumbing runs, open areas around flues and chimneys, recessed light housings, around exhaust fans, open framing cavities, dropped soffits and ceilings.
 - Basement/Crawl: openings around electrical and plumbing runs and around flue pipes and chimneys, accessible sill plate areas, basement windows, exterior doors, and accessible rim/band joist areas.

3.4.2 Heating, Ventilation, and Air Conditioning (HVAC) and Domestic Hot Water (DHW) Systems Visual Inspection

The HVAC and DHW systems can offer dramatic comfort and energy savings opportunities. Therefore, QHEC Subcontractors will perform a basic visual inspection of the HVAC and DHW systems in the home as follows:

- 1) Determine number and type of thermostats:
 - Note number of heating and/or cooling zones.
 - Note whether thermostats are programmable or manual.
 - If programmable, check status of setback periods and, if not being used, educate homeowner on the benefits of scheduled setbacks based on their lifestyle.
 - Cool Sentry should be mentioned as an opportunity
- 2) Visually inspect heating system:
 - Verify system information: age, model, general condition and maintenance history.



- Check for evidence of back draft/flame roll-out.
- If boiler, verify that pressure relief valve is present and not obstructed.
- Check if exhaust vents are vented to the outside.
- The HVAC equipment replacement program should be mentioned as an opportunity as warranted.

3) Visually inspect air conditioning system:

- Verify system information: age, model, capacity (sometimes available on nameplate).
- Note any issues around compressor/fan unit in yard, such as recirculation/air flow obstruction from built features or plantings or problems with coil blockage from leaves, twigs or other debris.
- Record number of window or wall units, model and SEER if available.
- The HVAC equipment replacement program should be mentioned as an warranted.

4) Visually inspect distribution systems:

- Inspect air filter(s) and ask homeowner how frequently they are replaced.
- Note the presence of any ducts or air handlers in garages (this requires a recommendation to re-locate or create air-tight enclosures to isolate them from garage and prevent transportation of carbon monoxide and other fumes from the garage to the living space).
- Record levels of insulation on ducts in unconditioned spaces.
- Check for visual signs of ductwork leaks, disconnects, crimps, moisture presence, return leaks near combustion equipment, damage or other atypical conditions. (accessible areas only)
- For hydronic systems, record insulation levels and note opportunity for pipe insulation if practical, especially on long pipe runs if there are comfort issues.
- For baseboard systems, check for condition and positioning of covers and for presence of dust, webs and other material on the fins.
- A discussion about the performance of the duct system and the duct sealing program should be mentioned as warranted.

5) Visually inspect DHW system:

- Record approximate age, model, capacity, condition.
- Check for evidence of back draft/flame roll-out.
- Verify that pressure relief valve is present and not obstructed.
- Note temperature setting on water heater. This is a good opportunity to educate homeowner on standby losses and scalding threats if it's above 125 degrees F, and reduce the setting if homeowner approves.(check temperature at nearest faucet)
- Check for signs of leakage from water heater tank vessel.
- Conduct visual inspection of water heater and hot water pipes for efficiency improvements (presence or lack of insulation, convective loop, and feasibility of retrofitting insulation on tank and/or pipes.)
- Install tank wrap if the system is non-efficient and/or was manufactured in 2000 or earlier, and if the tank is electrically heated. (Do not install tank wraps on oil-fired, gas, or propane water heaters.)
- Install pipe insulation on the first six feet of hot and cold pipes from the water heater, but be sure to keep at least a 6" separation from combustion vent pipe

6) Combustion appliance zone (CAZ) safety inspection:

- Make sure that there are no flammable or explosive materials near any combustion source. This is a good opportunity to recommend moving them to a safe place, if there are.

7) Living space safety inspection:

- Note number, location and operability of CO detectors and smoke detectors in living space. Codes in some jurisdictions may require them. Suggest the purchase of a CO and or/smoke detector in all appropriate spaces if not present, and especially if there are any visual signs of backdrafting of combustion appliances. Be sure to note this suggestion on the Summary Report. Customers should be educated that both CO detectors and smoke detectors have a specific life span and should be replaced on a periodic basis.
- Note presence of unvented gas fireplaces and propane or kerosene space heaters, and discuss with and educate the homeowner.



8) Inspect mechanical exhaust ventilation:

- Check whether mechanical exhaust venting systems are in bathrooms and kitchen; if present, they are venting properly to the outside (as visibly accessible).
- Note presence and operability of power attic or whole-house exhaust fans and inform homeowner of correct operation.

3.4.3 Moisture Inspection

- 1) Visually check basement and crawlspace for moisture deposition or damage on basement floors, walls, sill plate area, around basement windows and bulkhead doors.
- 2) Determine whether there is continuous moisture barrier in the crawlspace.
- 3) Check around exterior of foundation for signs of moisture deposition from such sources as faulty gutters or from watering too close to the foundation.
- 4) Check attic for moisture deposition or damage on roof deck, rafters, joists, and insulation (wet or moisture-compacted insulation).
- 5) Inspect condition of windows and look for signs of condensation or other conditions that could cause damage or affect durability.
- 6) If there is evidence of high moisture levels in the living space, check for discoloration on walls behind headboards, furniture – corners of closets on exterior walls, and other areas of stagnation and cold temperature for moisture deposition or damage and conditions that promote fungal growth.

4.0 Direct Installation of Measures

In order to be paid for direct-install measures on behalf of the QHEC program:

- Measures must be installed (may not be left behind for customer or property manager/owner installation)
- Measures must be purchased through ICF's preferred vendor, as listed in final contract
- Must meet eligibility requirements listed below

Measures:

1) Compact Fluorescent Lamps (CFLs)

- Ask the customer about their lighting usage, and explain the savings potential from switching to CFLs.
- Demonstrate a CFL bulb to the customer if they are unsure about replacing their incandescent bulbs.
- Discuss the variety of CFLs available – globe, chandelier, three way, etc.
- Select the type of CFL and its wattage, according to its use and the light level to which the customer is accustomed.
- Turn on each CFL after installation to ensure that it operates and that the customer is satisfied with the lighting level.
- Do not add bulbs to empty fixtures.
- Record the average burn time of all like-CFLs being replaced.
- Only replace incandescent bulbs; may not replace LEDs or pre-existing CFLs.
- A soft cap of 12 CFLs can be installed at a given location; a maximum of 16 bulbs can be installed with the understanding that CFLs and LEDs are the only measure that the customer is eligible to receive.
- Educate customer that energy efficient light bulbs are available from a number of retail outlets at a reduced price from the EmPOWER program.

2) Water-Heater Pipe Insulation

Perform this measure to slow convection of hot water into the water lines near the tank.

- Insulate the first 6 feet of both hot and cold water pipes (as accessible); pipe insulation should be kept at least 6" away from a combustion vent pipe.
- Use pipe wrap of a minimum of R-2. Cover elbows, unions, and other fittings to the same thickness as pipe.
- Use the correct diameter of insulation sleeve so it fits tightly.
- Fasten with zip ties or wire. Tape seams, joints, and ends of pipe sleeves.

3) Electric Water-Heater Tank Wrap

- Installation on non-efficient tanks manufactured in or before 2000.
- Minimum R-6.7 insulation wrap/blanket.
- Cut the blanket around the thermostat and heating element access plates.
- Do not cover the pressure relief valve.



- Cover the top of the water heater with insulation if it doesn't obstruct the pressure relief valve.
- Typically you can see the depth and type of insulation around the gap where hot and cold pipes enter the tank.
 - Fiberglass 1 inch – assume an R-3
 - Fiberglass 2 inches – assume an R-6
 - Isocyanurate 1 inch – assume an R-6.5
 - Isocyanurate 2 inches – assume an R-13
 - Isocyanurate 3 inches – assume an R-19.5
- Do not install tank wraps on oil-fired, gas, or propane water heaters.

4) Measuring and Adjusting Hot Water Temperature

- Measure the home's hot water temperature at the nearest faucet to the water heater; if over 125 degrees, reduce the tank's thermostat to 125 degrees with the customer's consent.
- Make a mark at the current setting (with customer permission) and move the control to a lower temperature. Note difference between electric and gas controls. Combustion-fueled water heaters have a warm-hot control and electric water heaters typically have temperatures listed.
- Set both upper and lower thermostats to the same temperature on water heaters. Shut off power to the water heater before opening thermostat access panels.

5) Efficient-flow Shower heads

- Replace high-flow shower heads with a water-saving shower head if the GPM is 2.2 or higher.
- Replace with a showerhead rated 1.5 GPM or 1.75 GPM
- Use caution removing the existing showerhead; fragile plumbing systems could break during removal. Clarify and warn the customer of the potential for breakage and discontinue installation if pipe seems likely to break.
- Do not remove the neck that connects the shower head to the fitting inside the wall, but replace just the showerhead itself. Have additional necks available in case of breaking.
- Existing fixtures must be replaced by like-fixtures (e.g. chrome replaced with chrome, handheld with handheld etc.).
- Do not attempt to replace custom fixtures.
- A unit with 1-2 residents is eligible to receive up to 2 showerheads; a unit with 3+ residents is eligible to receive up to 3 showerheads.

6) Thermostatic Showerhead Controls

- Install on showerheads allowing more than 20 PSI, and no higher than 2.5 GPM.
- Do not install on tankless water heaters
- All units are eligible to receive a maximum of 2 ShowerStart™ Adapters

7) Faucet Aerators

- Install faucet aerators (rated at 1.0 or 1.5 gallons per minute based on customer preference) in high use fixtures; typically targeting the kitchen and master bathroom faucets.
- Replace aerators that are 2.2 GPMs or higher
- 1.0 aerators should be installed in the bathroom and 1.5 in kitchens unless otherwise requested by the customer.
- A unit with 1-2 residents is eligible to receive 1-3 aerators; a unit with 3+ residents is eligible to receive up to 6 aerators.

8) Energy Saving Smart Strips

- Locate potential installation locations during the walk-thru of the home. Ideally these would target installations for the home entertainment system, home office, or another location with multiple devices (e.g., PC, monitor, printer) plugged into one power strip that consume energy in stand-by mode or that do not have a stand-by mode.
- Request permission to install the smart strip; clarify that unplugging certain devices may cause an unintended consequence like programming being lost. While this is unlikely, it is a potential outcome depending on the type of receiver being used (satellite, cable, FIOS, or other).
- Review the instructions on how to operate the energy saving power strip with the customer. Verify the device that should be the "control" that turns off power to the other devices.
- Verify the plugs that should be in a constant hot on the smart strip versus being automatically turned off.
- Test the energy saving power strip to verify that it is functioning properly when the control is turned on/off. Adjust the sensitivity screw if necessary. Verify that the customer is satisfied with the installation.
- A maximum of two smart strips may be installed at one residence.



9) 9W LED

- Ask the customer about their lighting usage, and explain the savings potential from switching to light emitting diodes (LEDs).
- Demonstrate an LED bulb to the customer if they are unsure about replacing their incandescent bulbs.
- Discuss the benefits and trends of installing LED bulbs
- Turn on the LED after installation to ensure that it operates and that the customer is satisfied with the lighting level.
- Do not add an LED bulb to an empty fixture.
- Record the average burn time of all like-bulbs being replaced.
- Only replace incandescent bulbs; may not replace CFLs or pre-existing LEDs.
- Each customer is only eligible to receive one LED during their QHEC
- Educate customer that LED bulbs are available from a number of retail outlets at a reduced price from the EmPOWER program.

5.0 Quick Home Energy Check-up Summary Report

Reviewing the findings with the customer is the culmination of the Quick Home Energy Check-up, and is a vital part of the Check-up process. This is the opportunity to present the homeowner with the improvement opportunities discovered during the Check-up and solutions for improving the performance of the customer's home. The participating contractor will also review energy efficiency programs, and which programs match up best with the recommendations of the Check-up.

The report on the mobile tool must be printed in color at the customer's home and provided to them onsite, printed at the office and mailed within one business day, or emailed to the customer on-site. If service is dropped on site, the analyst will use a PDF to complete the checkup; data collected in the PDF will be entered into the mobile application once service is available. All emails sent to the customer must have SMECOqhec@icfi.com cc'ed.

Do not merely hand the report to the customer; review it with them in detail, so that any questions can be answered or any recommendations explained.

Thank the customer at the end of your visit.

6.0 Administrative Processes

6.1 Reporting

- 1) ICF will provide subcontractors with utility bill / energy usage information to the subcontractor delivering the Quick Home Energy Check-up through the mobile tool.
- 2) The information collected in the mobile tool will automatically be submitted into Vision DSM for payment processing.

6.2 Incentive Processing

ICF processes payments based on the Check-ups delivered and associated direct install items as entered in the mobile tool and verified in the Vision Database. These invoices will be provided to subcontractors for their own documentation at regular intervals.

6.3 Quality Assurance/Quality Control

- 1) Every customer will receive a satisfaction survey; this survey will either be online or hard copy depending on whether the customer has provided an email address. If the customer does not provide an email address, the QHEC Analyst will provide a hard copy satisfaction survey postcard during the delivery of the QHEC. Otherwise, customers will receive an email request to complete the online satisfaction survey. The subcontractor is not permitted to perform any additional survey in addition to what is offered and supplied by the program only.
- 2) In-field inspections may be utilized to address specific customer concerns and/or to validate work being completed and provide additional training to analysts. Inspector will record inspection notes in the Vision Conservation Management Database. An ICF QA technician is required to attend the first five appointments for each new analyst completing QHECs on behalf of the subcontractor in order to provide additional training and mentoring.



- 3) If the contractor receives a complaint from a customer regarding the QHEC Program, the customer should be referred directly to ICF, Erika Macy, at (443) 718-4848.

If any damage to customer's property occurs during the course of the QHEC delivery, the QHEC Analyst should immediately inform the proper contact at his or her employer, and this information should also be relayed to ICF, Erika Macy, at (443) 718-4848.

- 4) ICF runs reports to analyze contractor performance
 - Number of customers referred to other programs, by program type
 - Number of customers participating in another program after QHEC
 - Number of direct install items per Check-up
 - Completeness of the Checklist
 - Energy savings per check-up
 - Average scoring on customer satisfaction surveys

7.0 Health and Safety

- 1) Personal Protective Equipment - QHEC subcontractors are responsible for having their staff follow BPI Standards and OSHA Regulations regarding the use of Personal Protective Equipment (PPE) during the delivery of a QHEC. This equipment should include, but is not limited to, the use of eye protection, head protection, and respiratory protection when entering areas such as an attic and/or crawlspace to inspect for air sealing, duct sealing, and insulation opportunities.
- 2) Asbestos – If the presence of asbestos is suspected during a QHEC delivery, the QHEC Analyst should use the following policy in their interaction with the customer.

Some materials that look like asbestos may not actually be asbestos. However, where the presence of asbestos is suspected, all relevant state and federal (EPA) guidelines must be followed to ensure technician and occupant safety. If you suspect the presence of asbestos, you may inform the homeowner that a material is suspected to contain asbestos, but make it clear to the homeowner that the only way to know definitely is to have the material tested by an accredited laboratory. Tell the homeowner that they should not touch it, and should consider contacting an asbestos professional. You can refer the customer for additional information to the Web sites listed below and/or suggest that the customer contact the Maryland Department of Environment's Division of Asbestos Licensing and Enforcement at 410-537-3200 to find a Licensed Asbestos Contractor. You can continue with the QHEC unless you feel that your or the homeowner's health or safety is in jeopardy. Refer customer to the following Web sites of more information:

Asbestos in Your Home (good information for homeowners) <http://www.epa.gov/asbestos/pubs/ashome.html>

List of Licensed Asbestos Contractors

http://www.mde.maryland.gov/assets/document/licensed_contractors.pdf

Maryland Department of Environment Web page for Air Programs

<http://www.mde.maryland.gov/Programs/AirPrograms/Asbestos/home/index.asp>

- 3) Gas Leak Policy - Following is the policy for Gas Leak Testing and Reporting for any energy auditor in a customer's home performing work under the Quick Home Energy Check-Up.

If the energy auditor smells a gas leak:

If the energy auditor or customer smells gas, consistent with utility current guidance, the energy auditor and customer shall leave the home immediately and call the utility from the nearest telephone. Even homes that don't use gas could experience gas leaks coming through walls from the outside.

Calls for emergency gas service will be answered 24 hours a day, seven days a week. A utility service person will come to the home free of charge. The energy auditor is required to stay with the customer until the utility arrives

(Natural gas is colorless, tasteless, and odorless. An unpleasant odor is added to the gas so you will know if natural gas is escaping.)

- 5) If the QHEC Analyst does not feel safe in the home or with the customer or observes illegal or questionable activity, they should politely terminate the QHEC and leave. They should notify their supervisor when safely away from the



home and the Supervisor is required to report the termination of the QHEC. Illegal activity should be reported to the proper authority.

- 6) QHEC may not be completed unless there is an adult over 18 in the home with minor children.
- 7) Safety incidents in a customer's home must be reported within 24 hours.

8.0 Best Practices

Subcontractor is expected to attend any meetings/trainings, and submit any data requested within the designated period of time as stated by the ICF QHEC team. This includes but is not limited to:

- 1) Biweekly Subcontractor Meeting
- 2) QHEC Orientation
- 3) Correcting Submittal Flaws

Subcontractors are prohibited from selling or recommending their services or products during the Quick Home Energy Check-up, and from any direct marketing of their services or products to the customer subsequent to Check-up delivery. Any subcontractor found to be proactively selling services or products to the customer or performing work outside the scope of the QHEC will be removed immediately from the Quick Home Energy Check-up program.



Appendix 2

Prime Contract Clauses

To the extent any of the terms and conditions set forth in this Appendix D are inconsistent with those found in the body of the Agreement, the terms and conditions of this Appendix D shall control.

The following clauses are hereby incorporated in full text and by reference. The clauses incorporated by reference have the same force and effect as if they were given in their full text.

In all such clauses, unless the context of the clause requires otherwise, the term "Consultant" shall mean Subcontractor and the term "Agreement" shall mean this Subcontract Agreement.

1. **WARRANTY.** Consultant shall perform the Services, as defined in the Agreement, utilizing the standard of care normally exercised by professional consulting firms in performing comparable services under similar conditions. THE WARRANTIES SET FORTH IN THIS SECTION ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANT-ABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Specifically, Consultant makes no warranty or guarantee regarding the accuracy of any forecast, estimates, or analyses.