

NASCSP WAP Technical Policy & Staffing Report

June 2019



Summary of Results

In May 2019, NASCSP administered a Peer-to-Peer survey related to Grantee-specific data collection tools, customized written guidance for energy auditors, and the use of in-house staff and/or contractors for technical services including certified Building Performance Institute (BPI) Energy Auditor (EA) or Quality Control Inspector (QCI) professionals. Twenty-one Grantees responded to the survey. Below is a summary of the key findings:

- A majority of respondents indicated that customized technical tools and protocols have been developed for the energy audit process.
 - Approximately 86% of respondents have customized audit field data collection forms.
 - Over 68% of respondents reported having customized written guidance for field data collection and energy audit software.
- The number of Subgrantees appears to be correlated with having an EA or QCI on staff, as well as their salary range. Grantees with three or less Subgrantees tend to contract for technical services, while Grantees with more Subgrantees utilize both in-house staff and contractors.
 - Over 76% of respondents has one or more BPI Certified EA or QCI on staff.
 - 67% of respondents reported utilizing contractors for technical monitoring, policy development, or Training and Technical Assistance (T&TA).

Survey respondents reported a range of 1 to 28 Subgrantees in their WAP network. [Question #3](#) asked if their state/territory has one or more BPI certified Energy Auditors (EA) or Quality Control Inspector (QCI) on staff and **16 (76.19%)** responded yes, while **5 (23.81%)** responded that they do not. Based on the responses to questions 2 and 3, Grantees with a higher number of subgrantees generally had more EAs and QCIs on staff.

In [question #4](#), respondents were asked about the salary range for BPI certified EA or QCI Grantee staff. **17 (80.95%)** responded and the ranges can be seen in Table 1 below. Based on data received, the more Subgrantees that were reported, the higher the average salary range for EA and QCIs on staff. (Note: responses from two Grantees indicated that EA/QCI certification did not influence salary range)

In [question #5](#), Grantees were asked if they contract any technical monitoring or T&TA services such as in-progress inspections, quality assurance inspections, specific onsite training (just-in-time or production-based training), or technical policy and manual development, to which **14 (66.67%)** responded yes and **7 (33.33%)** responded no. [Question #6](#) asked respondents about writing and maintaining technical policy for their state. **Sixteen (76.19%)** respondents indicated that Grantee staff are responsible for the majority of this work, while **2 (9.52%)** indicated that they utilize a contractor or consultant, and **3 (14.29%)** responded with “other” (*See Comments*). Based on this information, summarized in Table 1 below, Grantees with less than four Subgrantees tend to utilize contractors and Grantees with larger Subgrantee networks utilize a mix of contractors and in-house staff.

Table 1: Technical Staff and Contractors by Size of Subgrantee Network

| # of Subgrantees | # of Grantees | EA or QCI on Staff? | | Salary range for Grantee staff. | | Technical Monitoring or TTA Contractors? | |
|------------------|---------------|---------------------|----|---------------------------------|----------|--|----|
| | | Yes | No | Low | High | Yes | No |
| 0-3 | 5 | 1 | 4 | N/A | N/A | 5 | 0 |
| 4-6 | 4 | 3 | 1 | \$39,000 | \$62,000 | 2 | 2 |
| 7-9 | 4 | 4 | 0 | \$31,000 | \$85,280 | 2 | 2 |
| 10+ | 8 | 7 | 1 | \$40,000 | \$96,000 | 5 | 3 |

A majority of respondents reported having customized energy audit field data collection forms and combustion safety protocols (Question #7) and customized written guidance for using those tools and entering data into the computerized audit (Question #8). Table 2 shows the distribution of this data by energy audit tool.

Table 2: Occurrence of Customized Data Collection Tools and Written Manuals by Energy Audit Tool

| | # of Grantees Using Software | Customized Field Data Collection Form? | | Customized written guidance for field data collection and audit data entry (e.g., manual)? | |
|------------------|------------------------------|--|----------|--|----------|
| | | Yes | No | Yes | No |
| NEAT/MHEA | 10 | 8 | 2 | 8 | 2 |
| HEAT | 3 | 3 | 0 | 1 | 2 |
| TREAT | 2 | 2 | 0 | 1 | 1 |
| REM | 1 | 1 | 0 | 1 | 0 |
| WxPRO | 1 | 1 | 0 | 1 | 0 |
| Other | 2 | 2 | 0 | n/a | n/a |
| Total | 19 | 17 | 2 | 12 | 5 |

Additionally, Grantees that reported in **question #6** that staff did the majority of writing in maintaining technical state policy, were likely to have customized energy audit field data collection forms and safety protocols. [Question #9](#) asked respondents to describe how their state/territory shares this guidance with Subgrantee energy auditors and any training methods that have been successful. Some of these responses included a “tips” document, a featured section in the program manual, committee meetings, or on the state office’s websites. The full responses can be seen below.

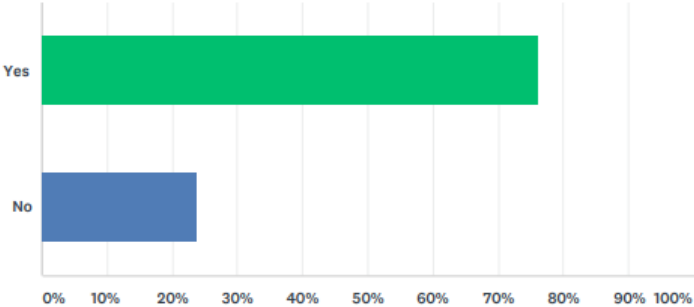
Finally, [question #11](#) asked respondents to share any additional information that may assist other Grantees in hiring technical staff and/or developing written technical guidance for Subgrantee energy auditors. Eight (39.09%) responded and suggestions included hiring experienced personnel from the Network, careful budgeting, working with an IREC accredited training center for new hires, and utilizing State Office peers.

Survey Responses

Full responses can be seen below. Comments appear as provided in the survey and have been modified to remove references to specific Grantees and other entities. To receive a full copy of the survey results contact [Amy Klusmeier](#).

Q3 Does your state/ territory have one or more BPI certified Energy Auditors (EA) or Quality Control Inspector (QCI) on staff?

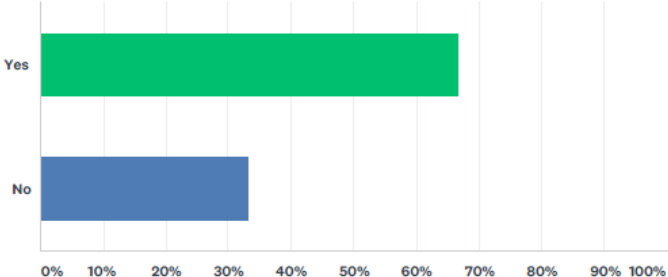
Answered: 21 Skipped: 0



| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|----|
| Yes | 76.19% | 16 |
| No | 23.81% | 5 |
| TOTAL | | 21 |

Q5 Does your state/territory contract any technical monitoring or T&TA services such as in-progress inspections, quality assurance inspections, specific onsite training (just-in-time or production-based training), or technical policy and manual development?

Answered: 21 Skipped: 0



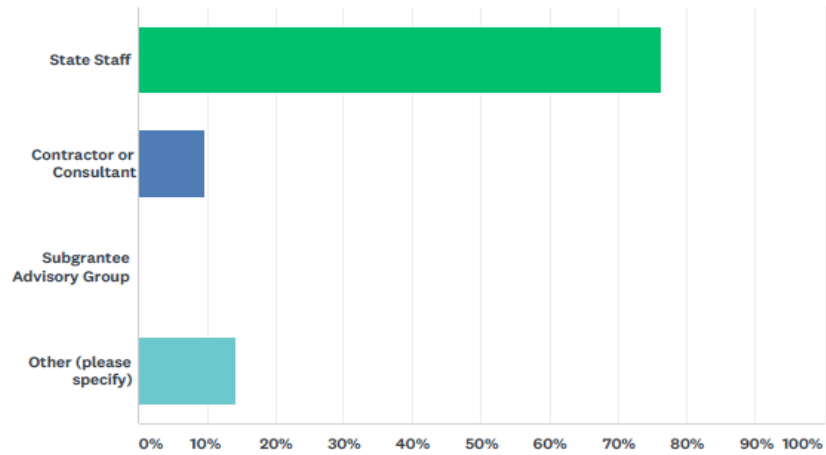
| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|----|
| Yes | 66.67% | 14 |
| No | 33.33% | 7 |
| TOTAL | | 21 |

Additional comments for **question #5** discuss reasons why Grantees do not contract out certain T&TA services or inspection while other discuss the processes for contracting out such activities:

- We contract out quality assurance inspections and have JUST started to do some in-progress inspection (only completed one). We are exploring options to contract out technical policy and manual development this program year (PY19)
- Our state has a FTE monitor, we have a FTE who developed our states tech. manual with staff from our grantees. Some trainings are contracted out.
- We outsource specific on-site trainings based on the subject matter/training needed.
- We are looking at contracting some QCI inspections.
- Yes, currently we contract with an IREC-accredited training center to conduct Quality Assurance inspections as part of annual monitoring. We also use this contractor for the majority of comp/spec training as well.
- We hire Auditor and Inspector
- no. We do it in house. If we get significant increase in State Wx Funding we will sub some of that out as we won't be able to increase State staffing significantly enough
- We procured a State Program Monitor through a state competitive process. He acts in the capacity to oversee all field quality assurance, all technical policies, SWS compliance, and Hancock software/technical issues.
- 1. We have a contract with a local firm to provide Quality Assurance Inspections on 10% of the WAP completions each year. 2. Our state has a contract with an independent QCI to provide "roving mentor" services to field staff of Subgrantees and their subcontractors. This QCI conducts training on everything from installing dense pack insulation to proper use of the audit/modeling software in use (TREAT). 3. We have a contract with a second independent QCI to provide technical monitoring support to the Grantee 4. Our state has a contract with a retired WAP management professional to assist OSI with T&TA planning and execution.
- I have 3 on staff they meet all needs
- We are contracted to conduct technical training
- Grantee Technical is contracted via consultant
- Some hands-on training is contracted. I have a subgrantee that assists with our WOM and our Field Guide as well. We do all our own inspections.
- We have in the past but not currently.
- We only contract on-site field trainings to a third-party trainer. Everything else is done by Grantee staff.
- We are contracting with an IREC to provide state level QCI to help us meet our 10% monitoring requirement on completed units. They are also doing audit reviews as part of this QCI process and a one day NEAT/MEAT training to include resetting measure costs and fuel costs and issuing approvals on the libraries.

Q6 Who does the majority of the work in writing and maintaining technical policy for your state?

Answered: 21 Skipped: 0



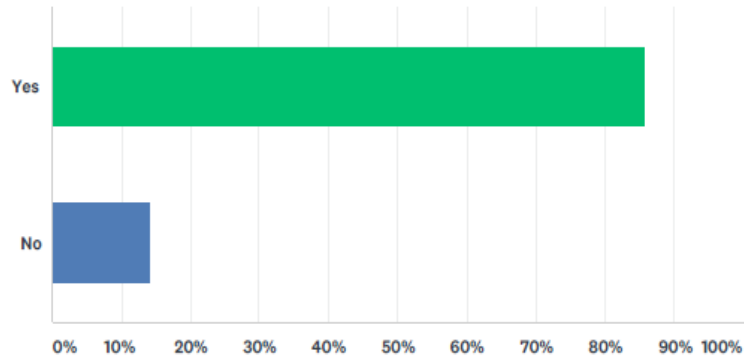
| ANSWER CHOICES | RESPONSES | |
|---------------------------|-----------|----|
| State Staff | 76.19% | 16 |
| Contractor or Consultant | 9.52% | 2 |
| Subgrantee Advisory Group | 0.00% | 0 |
| Other (please specify) | 14.29% | 3 |
| TOTAL | | 21 |

“Other” responses to question #6 discussed a collaboration or combination of additional partners for either input or assistance in writing and maintaining technical policy for their state. The responses can be seen below:

- We seek input from our grantees but have the final say as to what our policies are.
- Combination of state staff and contracted technical provider.
- This is a collaboration with state staff (me) and our subgrantee agencies. We meet periodically and one subgrantee does a lot of the actual book production.

Q7 Do you have energy audit field data collection forms and combustion safety protocols that are customized for your state or territory?

Answered: 21 Skipped: 0



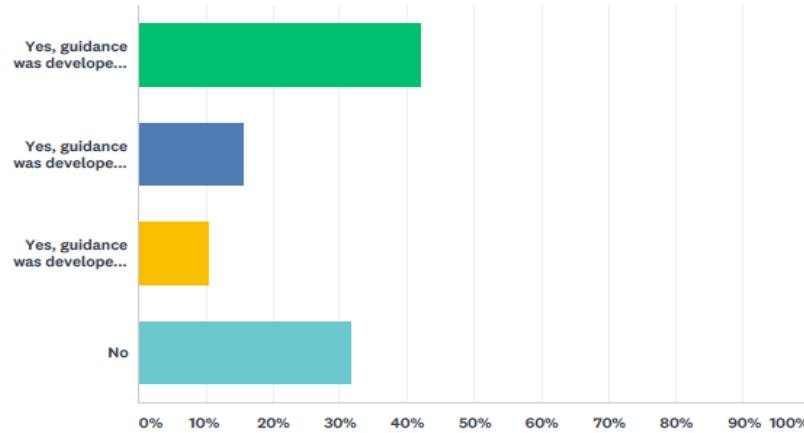
| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|----|
| Yes | 85.71% | 18 |
| No | 14.29% | 3 |
| TOTAL | | 21 |

Additional comments were received for **question #7** that touch upon the energy audit and safety protocols being used more in depth:

- We have a single form for energy audit data collection and diagnostics that all agencies are required to use. It includes places for both the local and state QCI to complete.
- Our combustion safety protocols are governed by the Fuel Board. Auditors and QCIs are required to hold valid limited oil and propane energy auditor licenses issued by the state.
- Our state uses the Weatherization Assistant data collection forms. We use a custom state QCI form that includes inputs for combustion safety protocols.
- Yes, we have done that ourselves with our network
- Our state has their own field data collection forms and is currently developing an Auditor's Guide.
- Our state uses a "building test data information sheet" (BTDIS) to document audit information and from which modeling information is drawn. Over the years each Subgrantee has "customized" this form for its own purposes and in PY19 OSI is moving to bring the state network back to a universal BTDIS form. The revised form will be in use starting on July 1, the beginning of our program year. Our combustion safety protocols are based on the SWS and the practices outlined in our SWS aligned Field Guide, produced by our contractor.
- We make our own forms. Local agencies tend to make their own collection forms as well. Modified NEAT/MHEA DC forms State Specific Combustion Report State Specific QCI Combustion Reporting
- We have our own DOE approved energy audit and our combustion testing forms are part of our approved field guide.
- We have state specific field audit forms that can be found on the state WAP website

Q8 Do you have written guidance for field data collection and energy audit software data entry, such as a manual or guide, that is customized for your state/ territory? Select one.

Answered: 19 Skipped: 2



| ANSWER CHOICES | RESPONSES |
|---|-----------|
| Yes, guidance was developed by state/territory staff | 42.11% 8 |
| Yes, guidance was developed by software tool developer | 15.79% 3 |
| Yes, guidance was developed by contractor or consultant | 10.53% 2 |
| No | 31.58% 6 |
| TOTAL | 19 |

Question #8 had 7 additional comments providing more information on how the guidance was developed highlighting collaboration or combination of developers during the guidance writing process:

- Our guidance comes from a combination state staff and software tool developers, maintain DOE compliance.
- Combination of software developer and technical contractors 1. Software Developer - Data entry procedures using custom weatherization software. 2. Technical Contractors - Provide regular training to EAs/QCIs on proper data collection and entry to conduct accurate audits.
- sort of. We are working on this and have pieces done. Completed by our office or by paying a subgrantee
- It is under development by the contracted State Program Monitor.
- Our state uses TREAT, in collaboration with our State utility low income weatherization partners. Our "roving mentor" contractor (see question 5) developed a "TREAT Tips" handbook to assist local auditors and QCIs in the use of TREAT.
- Technical Consultant is embedded in State Staff
- Once again this is state staff working with a software developer.

Question #9 asked respondents to please describe how their state/territory shares this guidance with Subgrantee energy auditors and any training methods that have been successful. Their responses are listed here.

- We are a small network that is always communicating with each other.
- The topics are discussed at the monthly Building Technical Committee meetings that are attended by all sub grantees. There are also one on one trainings that take place onsite or at the sub grantee's office.
- We share at Technical Committee meetings and Weatherization Coordinator meetings. We also have a State Plan Committee that works on this which includes subgrantees.
- The software developer portion of the instruction is still in process. Our previous guidance has been included in our state policy and procedures manual. This practice will continue once the new technical guidance is published.
- We use Standard and Field Guide Manual and Program Operation Manual.
- Energy Audit procedures are shared with new staff during initial and on-going training. Most training is handled internally at the subrecipients with senior staff training new staff. Grantee training is provided as needed.
- The "TREAT Tips" document was developed during PY18 and was shared network-wide. It has undergone some revisions, which have also been shared network-wide. And the author of the "TREAT Tips" handbook, our "roving mentor" contractor, is available on request to spend a day, or whatever it takes, with auditors and QCI's seeking help in developing better habits and skills in utilizing TREAT.
- Energy Auditing standards are part of the program policy manual.
- Through web-site, at monthly managers' meetings and through weekly visits by State Monitors.
- All Technical Materials are provided via Grantee Website and via hard copy training as training curricula.
- They have all been doing this for 40 years and it has evolved over time. We have periodic training if we make updates or new staff needs it.
- Manuals are made available to sub-grantees. Specific training by state staff provide step-by-step procedures.
- Guidance is currently being developed by a contractor developing the Energy Audit submittal to DOE.
- Subgrantees are aware of the data collection form. We have periodic trainings that remind of the need to use the forms.
- This guidance is in the Missouri WAP Technical Manual (available at energy.mo.gov). State staff in periodically hold computerized audit trainings for subgrantees. Additionally, during the onsite monitoring, homes where the audit has been completed but no work started are reviewed and used as a training opportunity.

Question #11 comments listed as hiring experienced personnel from the Network, smart budgeting, technical support, working with an IREC accredited training center for new hires, and utilizing State Office peers as important in hiring technical staff.

- Hiring from within the network, if possible, is a great way to gain insight into the workings of the program at the sub grantee level.
- Hire someone who has worked in the field at a local agency. If you don't know the Wx Program and the specific work we do, even though you have a construction or energy background, it is so

much harder to learn Wx correctly and get the respect of the folks at the local agencies who are doing the work every day.

- NH would be glad to share our "TREAT Tips" handbook, but my understanding is that there may be only one other state (Washington) using TREAT as its audit tool. Our energy audit data collection form, the "building test data information sheet" or BTDIS, is also gladly shared, but probably not until sometime in June. The new version will be usable both electronically and as a paper form.
- Technical support, while generally defined by DOE is highly state specific and familiarity with State policy, procedure and utility-based efficiency programs is essential knowledge to be successful. A minimum of 6 months on the job is necessary to familiarize staff in most cases.
- Always available for a call if you need more specific advice.
- Contract with a IRC training center to provide training to new hires.
- Budget accordingly, within parameters, if using outside vendors to assist in developing written guidance.