



2026 WINTER TRAINING CONFERENCE

“Rooted in Hope”



**On-the-Job Training:
Integrating Training
and Production**

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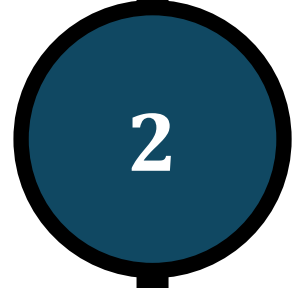
Why is training important?

- Staffing is Weatherization's most persistent challenge
- Finding and keeping the right people is essential
- Training those people to work in Weatherization is how we get them to stay and contribute
- To get people to stay we need to provide them with context, mastery, a pathway, and the feeling of control over their careers

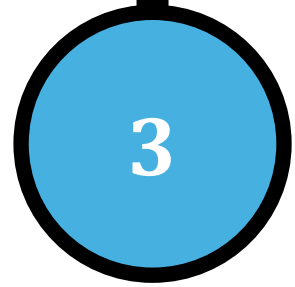
Our Journey



Challenges



**Policy & Procedure
(Training Pathway)**



**Training
Framework**

**How many of you are
agency/subgrantee staff
members?**

**How many of you are
state/grantee QCIs?**

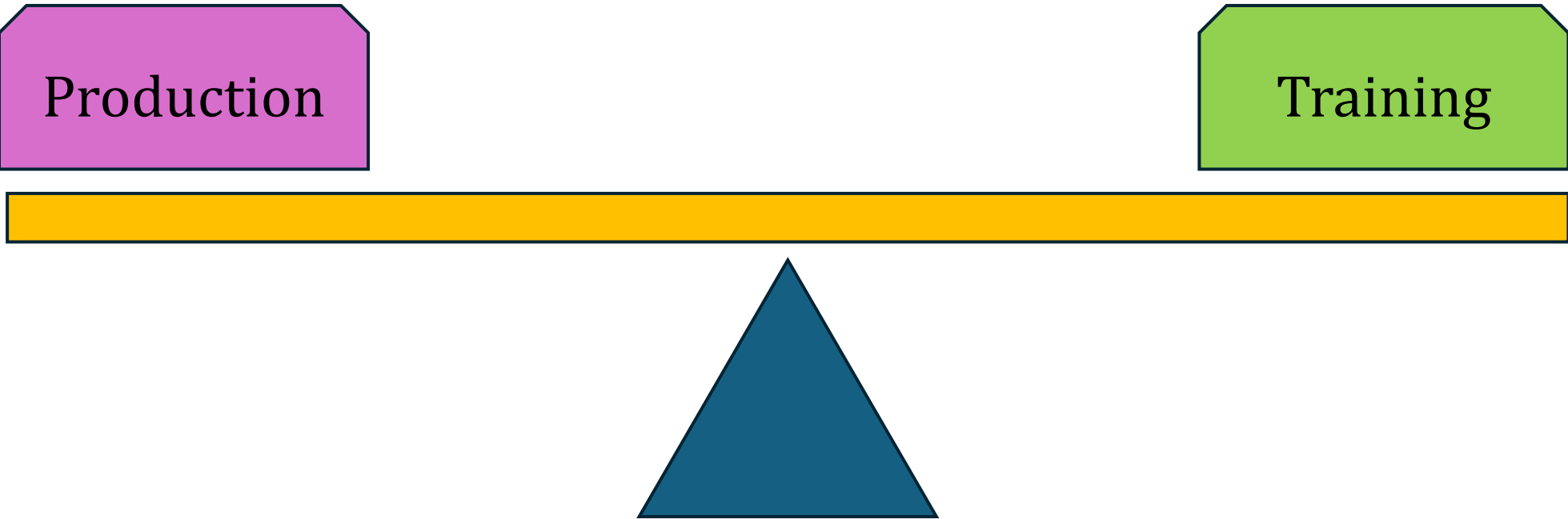
**How many of you are
state/grantee
administrative staff
members?**

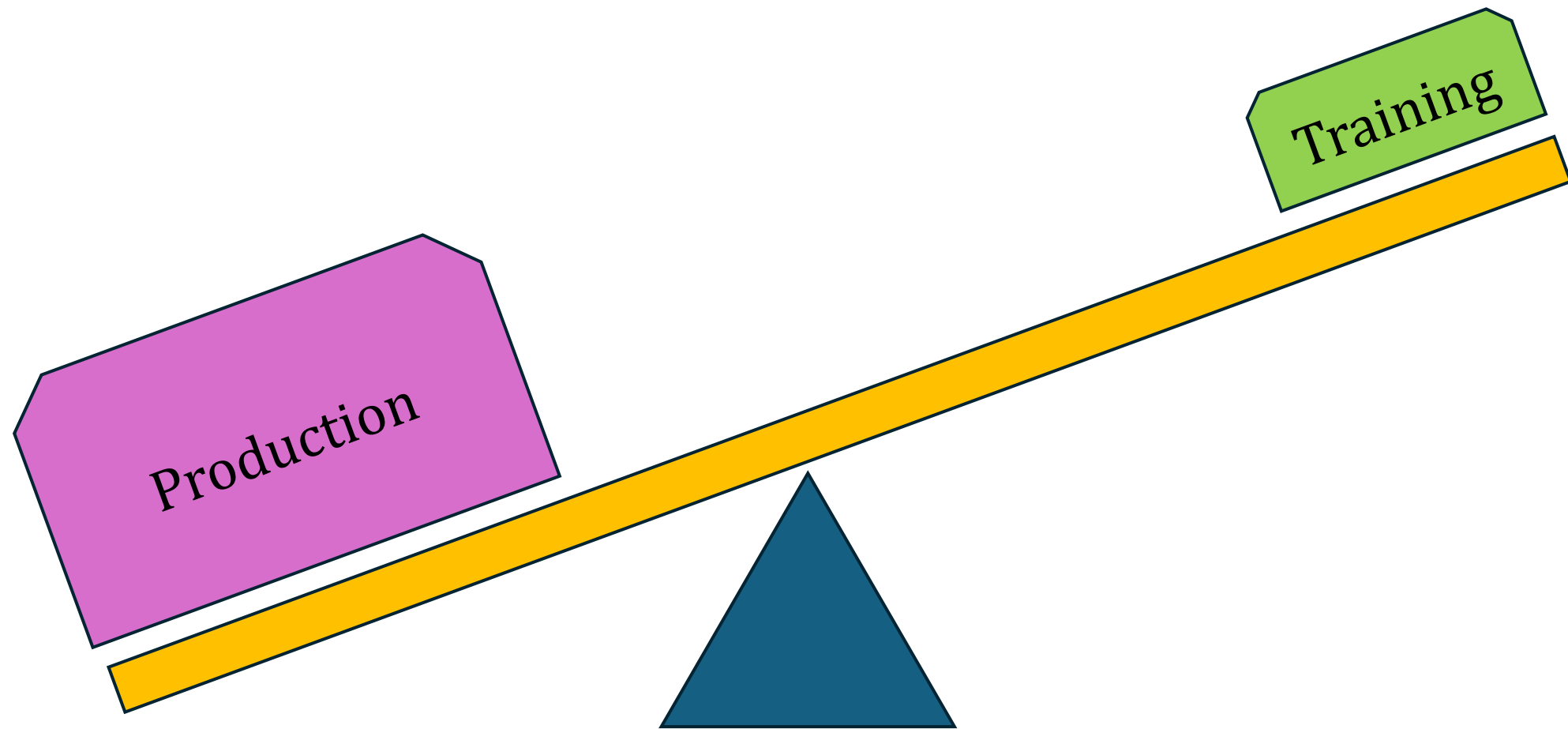
Setting the Stage

- This presentation is primarily aimed at a state/grantee audience
- The topics concern training of Installers and Crew Leaders, most likely for in-house crews
- The (main) challenge...



The Challenge

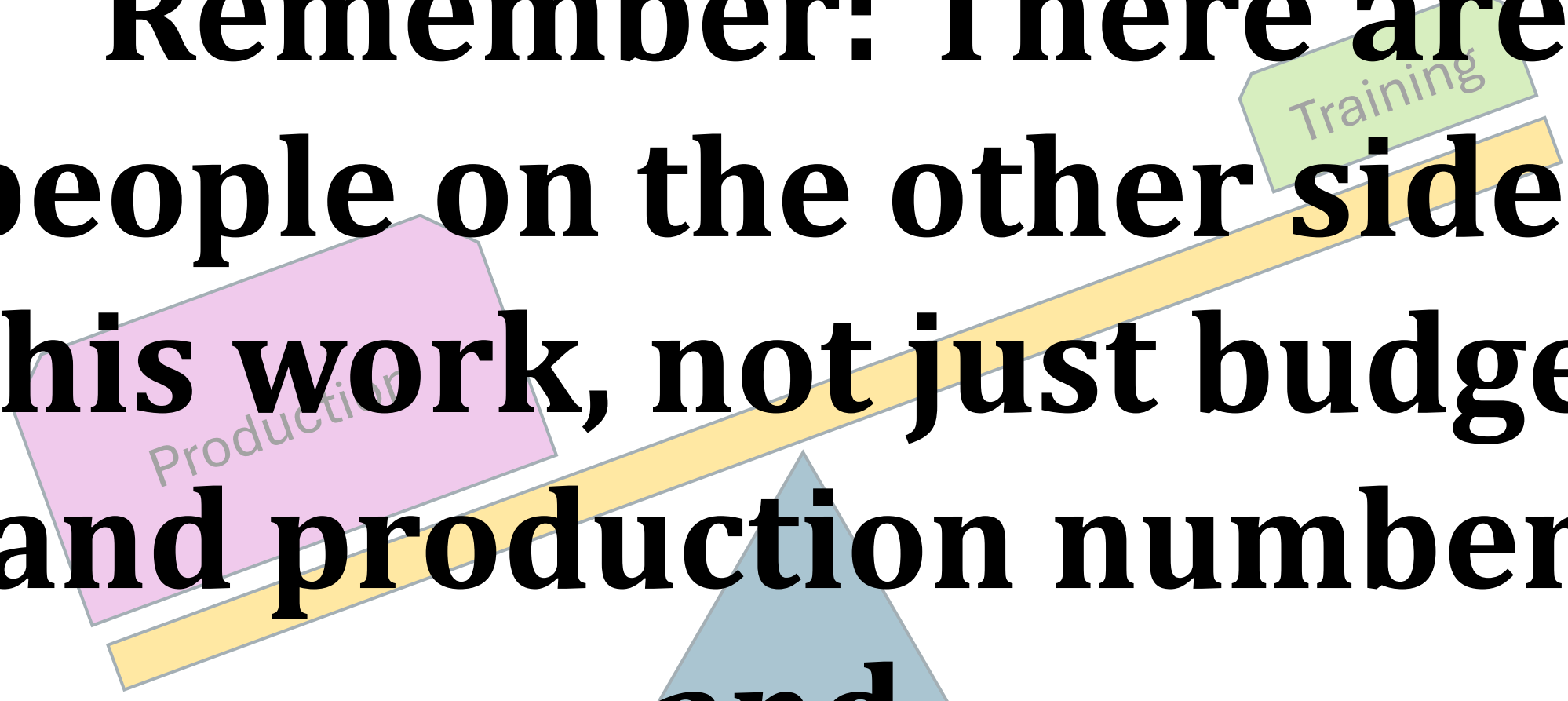




Production

Training

Remember: There are people on the other side of this work, not just budgets and production numbers, and...



The image features a seesaw diagram with a yellow beam and a blue triangular fulcrum. On the left side of the beam is a pink box labeled "Production", and on the right side is a green box labeled "Training". The text "Remember: There are people on the other side of this work, not just budgets and production numbers, and..." is overlaid on the diagram.

**This is hard work! And it
happens every day of the
week.**





Establishing the WHY for Installers

- **Why are we doing training?**
- **Context:** Building science is fascinating (and it works)
- **Mastery:** I can do this work (and that makes me feel good)
- **Pathway:** What I do now allows me to do more later (and earn more)

**Knowledge
& Ability**



**Feeling of
Control**



There is not a DOE-prescribed training pathway for Installers and Crew Leaders

- DOE has created explicit pathways for Energy Auditors and QCIs
- The pathways are not explicit for Installers and Crew Leaders
- Subgrantees and grantees get to create the pathways that make the most sense for their crews
- The challenge is taking the time to thoughtfully and properly design the policy and procedure and effectively put it into practice





On-the-Job Training is happening right now...

- *Whether you realize it or not!*
- Is it intentional?
- Are measure installs standardized?
- Is the training standardized?
- Is there support for each of the roles?
- Does training support subgrantee Installer hiring?

A construction worker wearing safety glasses and gloves is operating a yellow DeWalt miter saw. The worker is positioned in front of a brick building with a white porch. The scene is outdoors on a sunny day. The text "Where do we go from here?" is overlaid on the image in a large, bold, black font.

**Where do we go
from here?**

*Start close in,
don't take the second step
or the third,
start with the first
thing
close in,
the step
you don't want to take.*

--David Whyte

POLICY

PROCEDURE

Effective



Get the grantee team on the same page

- Ensure everyone understands the policy and procedure creation goal
- Ensure everyone knows their role and responsibilities in reaching the goal
- Ensure everyone has the knowledge, experience, and bandwidth to meet the expectations of their responsibilities
- Ensure everyone is being included and knowledge is not being lost
- Establish a timeline that is realistic, and everyone agrees on (make sure the timeline coincides with subgrantee down time).

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Genchi Genbutsu

(Go and see for yourself)

Subgrantee Engagement Best Practices

- **Visit your subgrantees:** Phone calls are efficient and better than nothing, but getting out to the subgrantee offices and job sites is essential (plus they will appreciate your visit)
- **Consult your grantee QCIs:** Of grantee staff, they typically have the best understanding of what is happening at the agency level
- **Empower your grantee Program Managers:** Give them the space to build authentic relationships, ask questions, and work with subgrantees to understand their needs
- **Engage at all subgrantee staff levels:** Don't just talk with managers and administrators, talk with subgrantee Crew Members, Energy Auditors, and QCIs

Take Inventory (Production and Staffing)

- How many units are you asking each subgrantee to produce?
- Does each subgrantee have enough staff to meet production goals?
- What is the difference between staffing production requirements and actual staffing levels?
- *What is the (quantifiable/qualifiable) experience level for each staff member? What milestones have been achieved?*
- Where are there staffing deficiencies and surpluses? Too many auditors? Not enough QCIs? Install crew too new? Not enough people to drive box trucks?
- How will the new training policy and procedure affect job costs and budgets?

Take Inventory (Training)

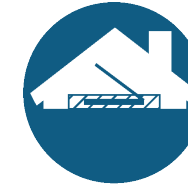
- What training has taken place in the past?
- What training is most effective for subgrantee staff?
- How are Installers and Crew Leaders currently being trained?
- What pathways exist for Installer training and promotion?
- Are the pathways documented?
- What standards are being used to train?
- How are training standards being verified?
- What training policy and procedure pitfalls should we look out for?



Create the Pathway

- **Titles:** What job titles are achieved along the way?
- **Expectations:** What experience and ability level is expected with each job title?
- **Pay scale:** What is the pay range for each role?
- **Training curricula:** What training resources are being applied to achieve experience and ability?
- **Milestones:** What are the small achievements that occur between job titles? (NREL Badges Toolkit as starting point)
- **Certifications:** What standardized testing and certification is being applied along the way? (BPI certifications)
- **Tracking progress:** How is all of this being tracked in a way that is understandable, transparent, and holds everyone accountable?

Pathway Examples



- **Titles:** Apprentice → **Installer 1** → Installer 2 → Installer 3 → Crew Leader 1 → Crew Leader 2
- **Expectations:** “Can independently air seal attic and blow attic insulation”
- **Pay scale:** \$18.00-20.50/hour
- **Training curricula:** Videos, Badges Toolkit, and BPI certification
- **Milestones:** Complete Installer badges associated with attic
- **Certifications:** BPI Retrofit Installer Technician
- **Tracking progress:** Progress Checklist of videos watched, Badges Toolkit sign-offs, BPI certification achieved, ***title and pay once checklist is complete***

Progress Checklist

- Checklist acts as the contract between the subgrantee organization and the crew member
- Includes the components of the pathway
 - Title
 - Expectations
 - Pay scale
 - Curricula components (as checklist)
 - Videos to be completed
 - Milestones required to be reached
 - Certification(s) required
- Specific new wage amount is shown on the checklist
- Date the new wage will be applied is explicitly defined at sign-off



NREL Installer Badge Toolkit



- This is a good place to start for Milestones
- It is not a turn-key solution
- The main gap is ensuring the knowledge is truly acquired and not just rubber stamped with the badge
- Crew Leaders and QCIs need to be trained on the Badges Toolkit and train Installers based on Badges Toolkit
- Other training channels must be made to installers, too
- <https://sws.nrel.gov/installerbadges>

BPI Certifications

- Good for testing and demonstrating building science knowledge
- Does not necessarily ensure that work can be done
- Other training channels must be made to Installers, too
- <https://bpi.org/certified-professionals/>



Training Videos

- Many sources of videos
- Videos provide foundational information
- Good for small chunks of knowledge
- Does not ensure any knowledge is gained
- May not be standardized
- Everblue Installer Badges with videos:
 - <https://everbluetraining.com/get/weatherization-installer-badges>



A person wearing a full white protective hazmat suit, including a hood and a respirator with a purple filter, is using a long-handled tool. The person is in a room with red caution tape on the walls. The text "On-the-Job Training Framework" is overlaid on the image.

On-the-Job Training Framework

On-the-Job Training Roles

1. Crew Leaders
2. Quality Control Inspectors
3. Agency Trainer
4. Installers
5. Energy Auditors

(In order of responsibility)



Crew Leaders

- The bulk of daily training falls to the Crew Leaders
- Must understand what is expected of them
- Must be part of the conversation about expectations
- Must be trained to SWS and training policy and procedure
- Must understand and train to building science principles
- Need to be supported (and feel supported)

Crew Leader Support Strategies

- Appropriately match Crew Leaders with Installer trainees
- Have structured check-in meetings with Crew Leaders to determine:
 - What are the requirements on the current job
 - What is working well
 - What isn't working well
- Give Crew Leaders the time and space to train their teams
- Standardize training with curricula
- Train Crew Leaders to do all aspects of their jobs
- Enable open communication between Crew Leaders and Energy Auditors
- Hire an Agency Trainer to support Crew Leader and Installers

Training Policy to Support Crew Leaders

- Must understand and train to building science principles
- Must be trained to SWS
- Must be trained to training policy and procedure
- Understand the pathway that each Installer is on
- Must be trained as trainers
- Requirement and structure for regular meetings
- Hire Agency Trainer

QCIs

- Perform the final inspection on the last day of the job
- QCIs can assist in training during the QCI visit
- QCIs will show up just prior to job completion and do a pre-inspection with crews still there
- Regular communication from QCIs to Crew Leaders and Production Managers debriefing the good and bad from each job
- Are the true knowledge bearers of the SWS

QCI Strategies

- Open and clear communication among QCIs, Crew Leaders, and Agency Scheduler is essential
- Final day QCI target
- QCIs must have strong relationships with each Installer, not just the Crew Leaders
- QCIs do not have a backlog of inspections to perform, rather they know which jobs will be closing and are expecting to be at certain jobs on certain days
- QCIs must understand how to train: ask questions of Installers rather than explaining what was done wrong

Training Policy to Support QCIs

- Create the best possible opportunity for final day inspections
- Must be the leaders in applying and training to SWS
- Trained to training policy and procedure
- Understand the pathway that each Installer is on



Agency Trainers

- The most important part of the job is: “Just being there”
- Agency Trainer needs to be on the job site to establish trust with the Installers and Crew Leaders
- Installers will come to the Agency Trainer with questions and challenges
- Agency Trainer should be responsible for administering the training policy and procedure at the subgrantee level

Agency Trainer Strategies

- Allow Agency Trainers the time and space to just be on site with the crews
- Train Agency Trainers to the training policy and procedure
- Empower them to ask questions, rather than tell how something is done
- Make it interesting → focus on building science
- Incorporate both scheduled and surprise visits

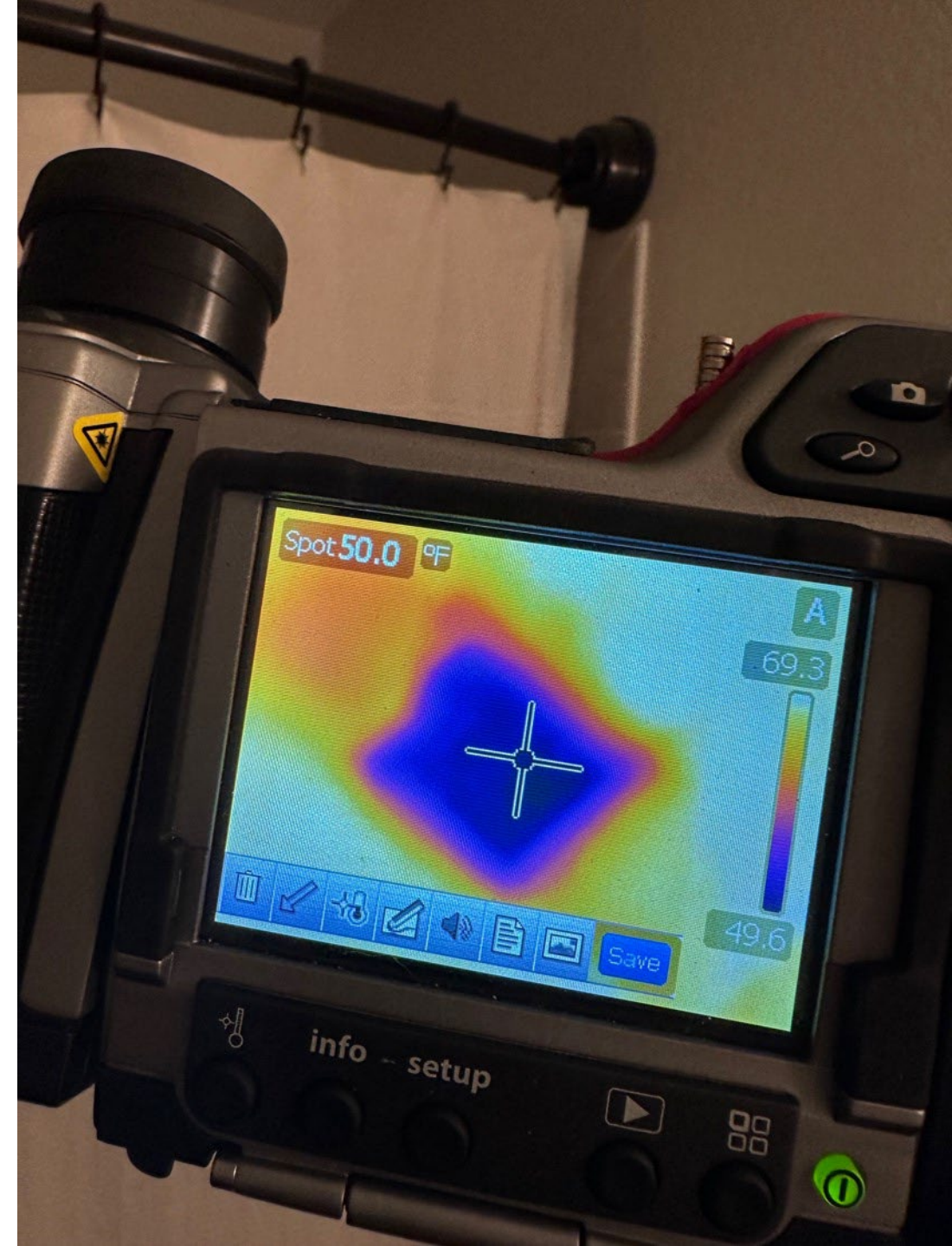
Installers

- Installers with knowledge can train new Installers
- Installers understand their job better than anyone else
- The newbie Installers now will become the Installers and Crew Leaders of the future



Energy Auditors

- Providing the best audit possible to make sure the correct measures are installed
- Having open communication with Crew Leaders *and* Installers and being available to answer questions during installation
- Being present during regular Crew Leader meetings



On-the-Job Training Venues

**Every
Job**

**Daily
Training**

**Post-install
Training**

Scheduled

**In-progress
Inspection**

**Training
Events**

**Agency
Trainer
Visits**

Daily Training

- **Who:** Crew Leaders and experienced Installers
- **What:** Installers learning how to install measures by doing the work under supervision of Crew Leader and other Installers
- **When:** Every day on every job
- **How:** Supported by SWS, established training pathway, and expectations set in training policy and procedure
- **Benefits:** High frequency, extremely hands-on
- **Challenge:** Training and standards can get lost in the work itself

Post-install Training

- **Who:** Subgrantee QCIs
- **What:** Installers learn what was done well and what needs improvement by shadowing QCI during pre-inspection on last day
- **When:** Every job
- **How:** Supported by QCI process, communication to perform QCI on the last day of each job, and expectation for QCIs and Installers to spend time on training
- **Benefits:** High frequency, retrospective
- **Challenges:** Making sure QCI happens on last day of job, training is built into the QCI process

In-progress Inspection

- **Who:** Subgrantee QCIs
- **What:** QCIs have focused work time with crews on jobs in-progress, assisting with measures being installed and reviewing measures already installed
- **When:** Once per month for each crew
- **How:** QCI schedules specific times to spend with crews on jobs
- **Benefits:** A substitute strategy if there is no Agency Trainer, improving measure installation standardization
- **Challenge:** Making time in the QCI schedule for these visits

Training Events

- **Who:** Agency Trainer and/or Training Contractor
- **What:** Installers work on specific tasks in a job-as-classroom environment led by an Agency Trainer or Training Contractor
- **When:** A few times each year
- **How:** Organized event that focuses on specific measures and training in a real-world scenario to install those measures
- **Benefits:** Special, reconnection, space for training, easier to teach to a single standard
- **Challenges:** Event organization, making time for a training event

Training Event Best Practices

- Plan for the event in advance based on the measures which need to be covered
- Tell the client you are doing a training at their home (i.e. don't ask)
- Ensure that all leaders understand their roles and are on the same page
- Break into separate groups with appropriate leaders for each group (Agency Trainer, QCIs, Energy Auditors, Crew Leaders)
- Mix groups up during the training
- Make sure everyone participates
- Allow space for questions
- Ask questions, don't just tell Installers how-to

Agency Trainer Visits

- **Who:** Agency Trainer
- **What:** Installers can ask questions to Agency Trainer on-site during the job, Agency Trainer can monitor Installer work
- **When:** A few times each month for each crew
- **How:** Agency Trainer spends a significant amount of time on-site with crews to be available for questions
- **Benefits:** Provides support for Crew Leaders, additional trusted colleague to bounce ideas off and learn from
- **Challenges:** Hiring an Agency Trainer, giving Agency Trainer plenty of time to be on job sites with crews

Quick Recap

- Create the Pathway to provide structure and support for your On-the-Job training
- **Context + Mastery + Pathway = Feeling of Control**
- Understand On-the-Job training roles and support those roles so training can happen alongside production
- Use a variety of On-the-Job training venues to provide training while also producing

NASCSP Can Help!

Contact NASCSP to help craft your training policy and procedure:

Megan Meadows

mmeadows@nascsp.org



Thank You!

- **Rahmel Bates**, Agency Trainer, Energy Resource Center
- **Bill Hulstrunk**, Independent WAP Trainer, Vermont
- **Meghan McMillen**, WAP Director, Community Housing Partners
- **Zac Stewart**, QCI, Colorado Energy Office
- **Mike Stout**, Trainer/QCI, Housing Resources of Western Colorado

WAP photos from NREL/DOE and Tri-County Community ACTION Partnership, Inc



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Keep in touch!

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SM

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EDUCATION**

Strategies for On-the-Job Training
Homes



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Session Evaluation

<https://www.surveymonkey.com/r/SJYY8DY>

