

Institute of Heating and Air Conditioning Industries, Inc.

Visual Service Software

Project Description

A critical HVAC technician shortage stands in the way of California achieving its ambitious goals for heat pump installation. To overcome this challenge, the Institute of Heating and Air Conditioning Industries, Inc. (IHACI) developed a new diagnostic software tool called Visual Service. The Visual Service tool aims to expand the capacity of existing HVAC technicians and reduce the time to train new technicians in the field. Visual Service allows a single experienced employee to provide live support for multiple technicians as they service and install heat pump systems. The software provides the necessary remote monitoring, accountability, and real-time performance documentation to improve the efficiency and quality of maintenance services and installations. In addition, Visual Service can connect with digital, wireless HVAC diagnostic tools and provide real-time data collection.

- Recruited 37 technicians to use Visual Service in the field
- Software was used to document over 300 systems serviced
- Smart tools used in conjunction with Visual Service drastically increase visibility of HVAC equipment performance and quality of service and installations

Key Learnings

- Service technicians responded well to the training and had the technical competency to utilize Visual Service
- Software must be used frequently to be established as routine
- Enhancing the training with a focus on support and mentorship, as well as providing trainings in Spanish
- As refrigerant reclamation and monitoring have become prominent areas of focus for the HVAC industry, Visual Service now includes a refrigerant tracking module



TIMELINE:

January –
February 2023



HOUSING TYPE:

Single and
Multifamily



TECHNOLOGY:

Heat Pump HVAC
and Heat Pump
Water Heaters



LOCATION:

Southern
California

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This program is part of the TECH Quick Start Grants (QSG) program, designed to fund targeted, innovative projects that test approaches to overcoming market barriers to heat pump space and water heating adoption.

Next Steps

Visual Service can operate as a critical facilitator of workforce development and quality assurance for the HVAC industry. The software allows contractors to train technicians effectively in a much shorter time frame. This gets more personnel active in the field while supporting the sustainability of operations through staff turnover. Furthermore, it is essential to measure system performance following installation and servicing. Visual Service is also an intelligible way for the HVAC industry to provide contractors, homeowners, program implementors, and regulators insights into actual system performance. Implementing this software is a tremendous opportunity to improve the efficiency of equipment through the workforce in conjunction with technological improvements. As such, it can serve a prominent role in achieving climate goals.

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