

ENERGY STAR HVAC Quality Installation

Colorado Utility Exchange
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Agenda

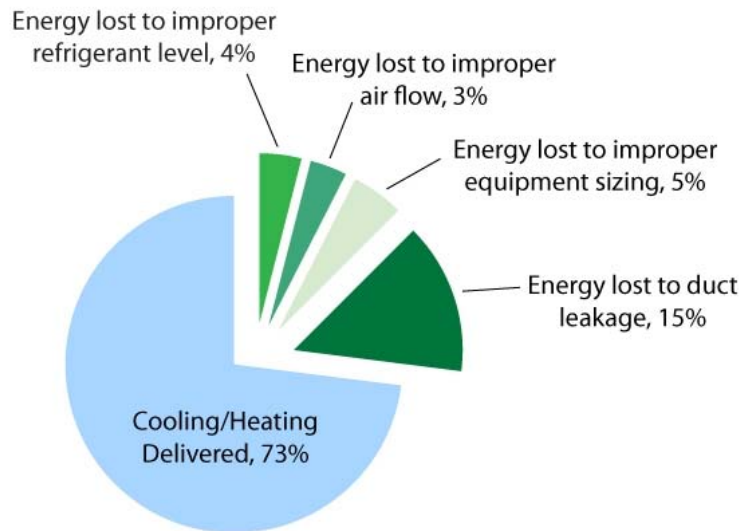


- About ENERGY STAR Quality Installation
- Why sponsor a Quality Installation program?
- Program edibility, requirements & key components
- Resources offered by EPA
- Key takeaways

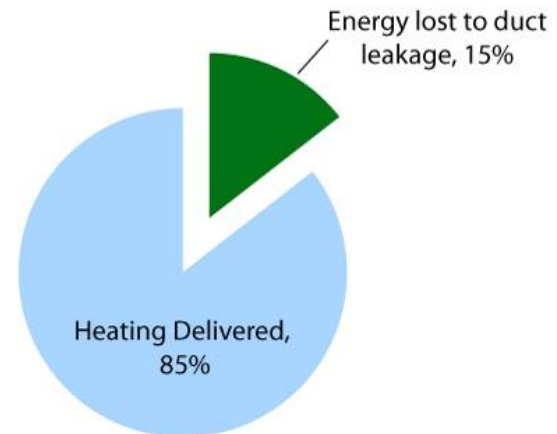
Energy Savings Potential



Typical Air Conditioner or Heat Pump Installation



Typical Furnace Installation



Quality installations help deliver the equipment's full potential.

What Is Quality Installation?



- HVAC Quality Installation (QI) is a comprehensive approach to improving the performance and energy efficiency of home heating and cooling systems, while helping customers maintain/improve their comfort
- Helps homeowners identify contractors who properly install systems

HVAC QI Guidelines



- The QI Specification identifies consensus requirements associated with quality installations



Available for free at:
http://www.energystar.gov/ia/home_improvement/home_contractors/qispec.pdf



ENERGY STAR QI (ESQI)



- Residential program offered by EPA in conjunction with a local program sponsor (usually a utility company)
- Current ENERGY STAR QI programs:



Why Sponsor an ESQI Program?



- Offer new and improved service, with many benefits to residential customers
 - Improved energy efficiency of heating and cooling systems
 - Enhanced comfort
 - Increased system dependability
 - Reduced utility bills

Why Sponsor an ESQI Program?



- Focus attention on energy-efficient practices that go beyond traditional equipment upgrades
- Higher energy savings over only offering equipment rebates
- Improve public perception by being an advocate for energy efficiency
- Reduce air pollution and greenhouse gas emissions
- Meet energy efficiency mandates for utilities

Eligible Equipment



- Type
 - Central Air Conditioning
 - Furnace
 - Heat Pump
- Efficiency
 - The HVAC QI program encourages, but does not require, ENERGY STAR qualified equipment

Program Requirements



- Four technical elements – system must be:
 - Correctly sized and matched equipment based on load calculations
 - Connected to a well-sealed duct system
 - Maximum duct leakage 20% of airflow
 - Or 50% reduction in leakage
 - Installed with the proper amount of refrigerant (*refrigerant charge*)
 - Operating with sufficient airflow in the system

Program Requirements



- Documentation on equipment selection and installation
 - Contractor must submit commissioning form and load calculations for each installation
- Verification by third-party
 - File review for all installations
 - In-field verification for a sampling of installations
 - Phase 1: 3 of the first 5 jobs completed by a new contractor
 - Phase 2: 20% of the next 25 jobs
 - Phase 3: 5% of the subsequent installations

Resources offered by EPA



- Program website at www.energystar.gov/HVACQI
- Free support and guidance for program sponsors
 - Program design and on-going implementation support
 - Sample program documents and forms
 - Contractor training covering both technical and marketing topics
 - Online training
 - In-person training may be available

Resources offered by EPA



- Free marketing materials
 - ENERGY STAR QI brochures co-branded with sponsor and contractor logo and contact information
 - Case studies to highlight QI success stories




CASE STUDY
ENERGY STAR®
HVAC Quality Installation

Finally Finding Comfort
Moreno Valley, CA

Soon after Linda and her family bought their new house 25 years ago they found that two rooms were consistently either too cold or too hot. A few years ago, they upgraded to new double-paned windows, with the hopes that it would solve their comfort problems. But they found that the improvement was minor. Those rooms were “driving us nuts,” said Linda.

Last year, the family decided to upgrade the home’s furnace and air conditioner. Linda looked to her electric utility company, Southern California Edison (SCE), to help find a quality contractor. SCE offers an ENERGY STAR Quality Installation program to provide maximum efficiency and comfort in heating, ventilation and air conditioning (HVAC) systems. On the utility’s website, www.ac-quality.com, customers can see a list of participating contractors who have been trained to offer this specialized service. Linda called several contractors from the list and also checked with the Better Business Bureau. Ultimately, she selected JBS Mechanical, based in San Bernardino, CA.

JBS Mechanical staff began by conducting a comprehensive assessment of Linda’s home and the existing HVAC system. This assessment included collecting information about the home to determine the appropriate equipment size and measuring air flow and leakage in the duct system.

In Linda’s home, JBS technicians found that the air conditioner was oversized and the ductwork was undersized and leaking 30% of the air into the attic. As a result, conditioned air was not being well distributed throughout the entire house. So, in addition to replacing the old air conditioner and furnace with new, properly sized, high efficiency models, they also redesigned and replaced ductwork to provide adequate air flow throughout the house and reduce leakage. During installation, the technicians also made sure that the system refrigerant was properly charged and air flow in the system was correct. “It now works great! Changing the ductwork made a big difference,” Linda said. JBS submitted the installation file to SCE and Linda earned a rebate toward the cost of her new installation.

After the system was installed, SCE conducted independent testing to verify that the system passed the ENERGY STAR Quality Installation requirements. “With the ENERGY STAR program, we felt we had back up people with us to make sure the system that was installed correctly. We had the program on our side,” said Linda.

Now, Linda and her family are comfortable in their entire home all year round. Linda highly recommends the Quality Installation program, “It’s just great. It’s not just the rebate money. It’s the confidence it gives you in the company putting the system in.”

The ENERGY STAR Quality Installation program is offered by EPA in partnership with utility companies in several states. Benefits of the program include:

- Up to 30% savings on heating and cooling costs
- Increased comfort throughout the home
- Improved system efficiency and air distribution

To find out more about HVAC Quality Installation, visit: www.energystar.gov/HVACQI


WHAT IS ENERGY STAR?

ENERGY STAR is the government-backed program that helps us all to save money and protect our environment with energy-efficient products and practices. Whether you are looking to replace old appliances, remodel your home, or buy a new house, ENERGY STAR can help.


More than 50 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the ENERGY STAR label.

ENERGY STAR also offers best practice solutions, like HVAC quality installation and home sealing, that can make your home more comfortable and reduce your energy costs.

For more information
CALL 888-STAR-YES

 **LEARN MORE AT**
energystar.gov


The ENERGY STAR Quality Installation program is available to SCE residential customers who have a new air conditioner or heat pump installed by a participating program contractor.



SOUTHERN CALIFORNIA
EDISON
AN ENERGY INTERNATIONAL COMPANY

For more information, please visit our website at www.ac-quality.com.

*contractor
logo and
contact
information*

**ENERGY STAR®
QUALITY INSTALLATION:
CENTRAL HEATING &
AIR CONDITIONING**



 U.S. Environmental Protection Agency
and U.S. Department of Energy

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Key Program Components



- Staffing
 - Internal or third party
- Incentives
 - To contractor, customer or both
- Contractor recruitment and training
 - In-person training, EPA online training, ongoing mentoring
- Sponsor website
 - Program and incentive information, contractor listing
- Marketing
- Consider partnership with other utilities in region

Key Takeaways



- ENERGY STAR HVAC Quality Installation
 - Is a comprehensive approach to improving the performance and energy efficiency of home heating and cooling systems
 - Goes beyond traditional equipment incentives by targeting energy savings from proper installation
 - Offers utilities a new approach to reaching customers and achieving savings
 - Offers customers increased confidence in their contractor and utility
 - Sponsors receive support from EPA from program planning through implementation

For More Information



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