



Air-Conditioning, Heating,  
and Refrigeration Institute

# **Presentation of the Air- Conditioning, Heating, and Refrigeration Institute (AHRI) at the**

**NIST Standards in Trade Workshop for the  
GCC Standardization Organization (GSO) on the  
Gulf Cooperation Council (GCC) Regulatory System**

**March 22, 2011**

# It's Nice To "Visit" Your Neighborhood Again



## AHRI – Globally Active in a Global HVACR Water Heater Industry

- North American based
  - Globally involved trade association
  - manufacturers of HVACR, Water Heater equipment
  - 300 + members. 90% of equipment used in N.A.
  - Members market and sell in 150 + countries
  - Headquarters: Arlington, Virginia USA



# AHRI – Globally Active in a Global HVACR Water Heater Industry

- Major activities
  - **Standardization:**
    - 90 + testing, rating stds. and guidelines
  - **Certification:**
    - A 60 year old program
    - Certification of claimed equipment energy efficiency
    - Over 500 licensees globally in 36 product groups



## AHRI – Globally Active in a Global HVACR Water Heater Industry

- Advocacy
  - Government relations – United States
  - Coordinated policy positions – Canada
  - Regulatory cooperation – Mexico

# AHRI – Globally Active in a Global HVACR Water Heater Industry

- Advocacy cont'd
  - International –
    - Kyoto, Montreal Protocols
    - Secretariat: International Council of Air-Conditioning, Refrigeration, and Heating Manufacturers Associations (ICARHMA)
    - Member, European Partnership for Energy and the Environment (EPEE)
    - Active: Asia Pacific Economic Cooperation
- And...
  - Research
  - Technician Training and Education

## Standards – International

- *TC 86 Secretariats*
  - *SC 6, Testing and Rating of Air-Conditioners and Heat-Pumps*
  - *SC 7, Commercial Refrigerated Display Cabinets*
  - *SC 3, Refrigeration*
  
- *IEC TC 72, Automatic Controls for Household Use*
- *IEC SC 61D, Household appliances*
  
- *CANENA, (Council for Harmonization of Electrotechnical Standardization of the Nations of the Americas)*



## Standards – International Bi-lateral Agreement

- Ten bi-lateral standards harmonization agreements

- Most Recent:

- India (RAMA/ISHRAE)
- Saudi Arabia (SASO)
- U.A.E (ESMA)
- Mexico (DGN)



## International Council of Air-Conditioning, Refrigeration and Heating Manufacturers' Associations (ICARHMA)

### ■ Members

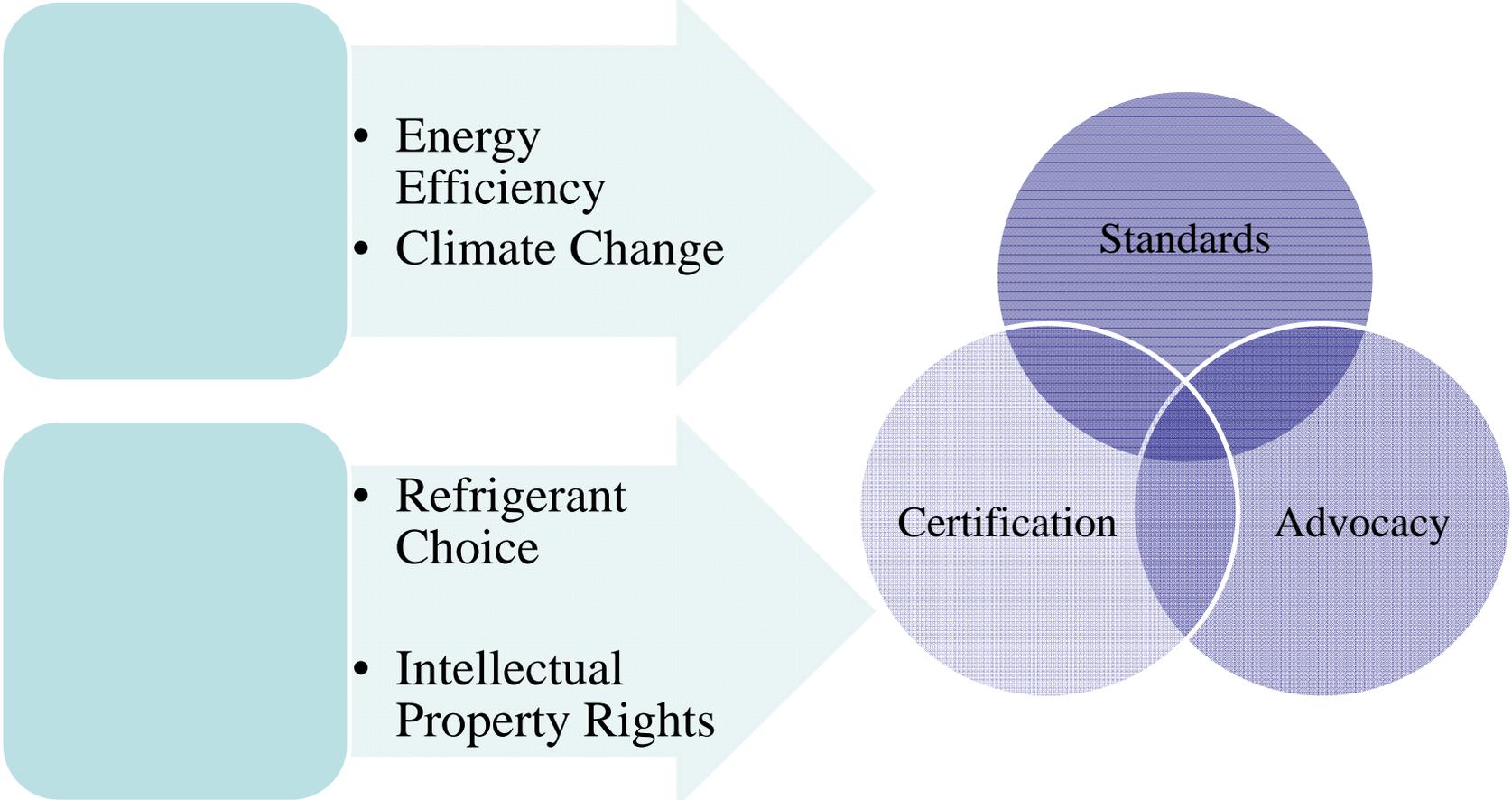
- ABRAVA                      Brazil
- AREMA                      Australia
- AHRI                         U.S.A.
- CRAA                        China
- EUROVENT                Europe
- HRAI                        Canada
- RAMA                        India
- JRAIA                        Japan
- KRAIA                        Korea



## Global Industry Issues/Drivers

- Energy Efficiency
- Climate Change
- Refrigerant Choice
- Intellectual Property Rights

## It's All Related – Major Issues/Drivers Impact All Sectors

- 
- Energy Efficiency  
• Climate Change

- Refrigerant Choice  
• Intellectual Property Rights

Standards

Certification

Advocacy

## AHRI – Third Party Performance Certification

- Performance certification is key to ensuring accurate manufacturers' data
- Global economy makes certification programs more important
- Certification enables fair product comparisons
- Vital part of Energy Efficiency Policy
  - Increasingly demanded by regulators, policy makers, and consumers concerned about performance



## Value of AHRI Certification

- Provide consumers' confidence
- Provide level playing field for manufacturers
- Provide integrity in industry's ratings
- Facilitate compliance to government efficiency standards
- Facilitate utility company's rebate programs
- Facilitate manufacturers' participation in ENERGY STAR programs
- Allows closer review of imported equipment

## Why do manufacturers participate?

- AHRI certification is not required by law, although some regulatory codes require some type of performance certification
- Manufacturers participate voluntarily
- They make this investment because consumers **DEMAND** the assurance offered by the AHRI Performance Certified™ mark
- **Your one assurance** that steps have been taken in the interest of **performance** and **energy efficiency**...



## Overview of AHRI Global Certification



- 36 Certification programs
- More than 500 licensees
- More than 3,000 tests per year
- Over \$10 million budget



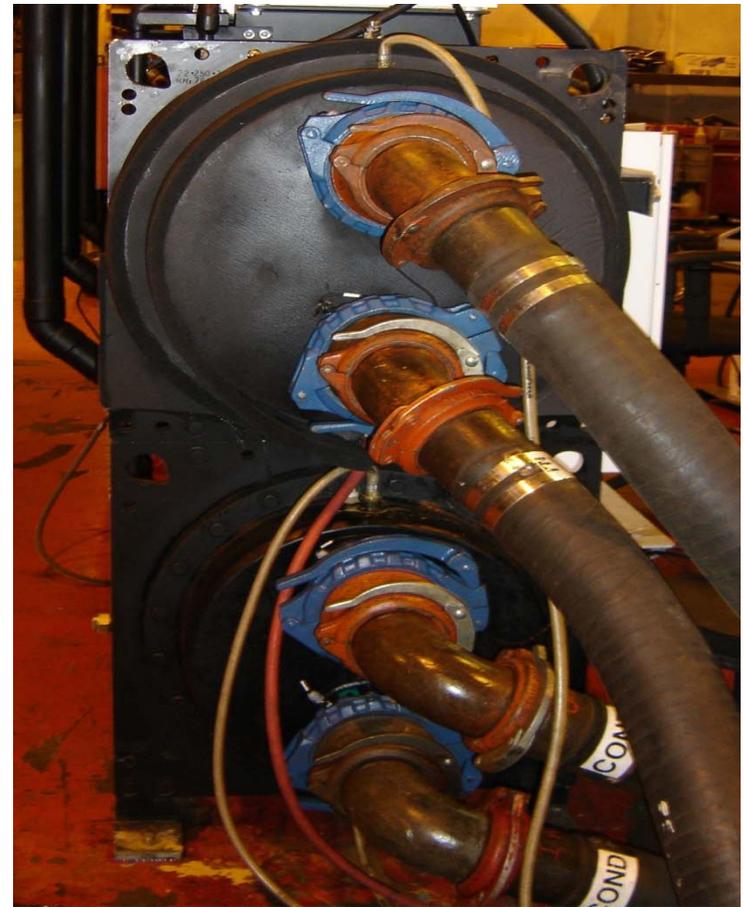
## Globally Recognized and Specified

- Over 60 international participants representing 19 countries
  - Saudi Arabia
  - Turkey
  - Italy
  - Netherlands
  - Canada
  - China
  - Malaysia
  - Korea
  - Mexico
  - France
  - UAE
  - Egypt
  - Jordan
  - Germany
  - India
  - Brazil
  - Japan
  - Australia
  - Sweden



## Certification: a Rigorous Process

- Companies submit certifiable ratings
- AHRI randomly selects units
- Certification tests performed by independent lab
- Results compared to submitted data
- Results Published in Directory
- [www.ahridirectory.org](http://www.ahridirectory.org)



## A Credible Certification Program...

...should encompass:

- Performance based testing
- The use of recognized industry test standards e.g. AHRI, CEN, ISO.
- Verification of manufacturers' performance ratings through extensive and continuous testing
- Available to all manufacturers
- Industry directed, but with governmental interaction (not mandate)
- International recognition

## Important Provisions of a Credible Program

- Independent Testing
- All Eligible Products Certified
- Basic Model Groups
- Random Selection Process
- Test Failures and Revised Ratings
- Challenge Testing
- Qualification Process

## Independent Testing

- Independent third party testing
  - Avoids conflict of interest
- Laboratory accredited to ISO Guide 17025 “*General Requirements of Testing and Calibration Laboratories*”

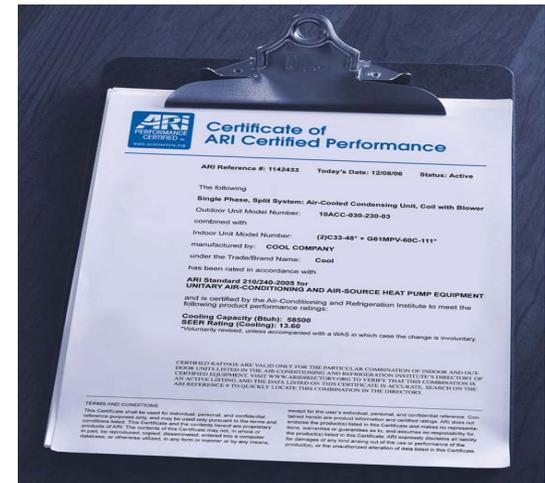
## Maintaining Program Integrity

- Certifying body accredited to ISO Guide 65 “*General Requirements for Bodies Operating Product Certification Systems*”
- Regular process improvement



# Certificates of Performance

- Proof of the performance of a product
- Assurance of compliance with building codes and LEED specifications
- Guarantee to building owners



# On-Line Directory



Air-Conditioning, Heating,  
and Refrigeration Institute



## Directory of Certified Product Performance

The trusted source of performance certified heating, ventilation, air-conditioning, and commercial refrigeration equipment and components.

### RESIDENTIAL

- > Air Conditioners and Air Conditioner Coils
- > Baseboard Radiation
- > Boilers
- > Direct Georexchange Heat Pumps
- > Direct Heaters

### COMMERCIAL

- > Air Cooled Chilling Packages
- > Air-to-Air Energy Recovery Ventilators
- > Automatic Commercial Ice-Cube Machines and Ice Storage Bins
- > Boilers
- > Central Station Air-Handling Units
- > Combo Systems
- > Comm. Refrigerated Display Merchandisers And Storage Cabinets
- > Finned Tube
- > Forced Circulation Air Cooling and Air Heating Coils

Are you a Manufacturer? | [Sign In](#)

Are you a CAFS User? | [Sign In](#)

### Resources

- [Verify Certificate](#)
- [Non-AHRI Certified Equipment Challenge Test Results](#)
- [AHRI Announces New Certification Mark; Implementation Schedule](#)
- [Find ENERGY STAR Qualified Air Conditioning and Heat Pump Systems](#)
- [Find Standards](#)
- [Learn more about Certification Programs](#)
- [Find NATE-certified HVACR contractors](#)
- [Help with this site](#)

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## Choices

- The one, indispensable tool to ensure sustainability is third party performance certification
- Performance certification programs must be credible to ensure choices are informed
- Together, we can leave the world a better place

