

***Cool*Advantage**
New Jersey's Clean Energy Program
Residential Electric HVAC Initiative

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History of HVAC in New Jersey

- 1998 – Since the mid-80's, four individual electric company programs, different rebate levels and requirements
- 1999 – All programs aligned across the State and Manual J added as a requirement
- 2000- Alignment with CEE Tiers
- 2001- Program marketed jointly statewide as CoolAdvantage, adding proper airflow and charging as requirements

Consumer Perspectives

- All new systems *must* be efficient???
- 10 SEER still marketed as “High Efficiency”
- Lowest price gets most bids
- Ask any customer “Do you want me to install the least efficient system allowed by law?”

New Jersey Model: Comprehensiveness

High Efficiency Equipment

Energy savings (SEER)

Peak demand savings (EER)

Proper equipment sizing

Proper refrigerant charging and airflow

Extensive training and certification through
the Eastern Heating and Cooling Council

Key Program Elements

- Rebates available to offset portion of incremental cost
- Properly sized and installed
- Consumer education/marketing
- Training and contractor certification
 - > Via Eastern Heating and Cooling Council
 - > Proper equipment sizing (Manual J)
 - > Proper charge & airflow
 - > Sales skills to show investment value (Energy Star)
- Promotion of Quality Contractors

NATE Certification

- Backed by the industry including manufacturers, installers, ACCA
- 87% of consumers desire third party certified contractors
- Refresher course offered prior to testing
- Incentives to contractors for refresher class and testing
- Raises the level of efficiency of ALL installations

Rebate Structure

Minimum Efficiency Requirements

Central Air Conditioners

SEER 13.0, EER 11.0: \$200

SEER 14.0, EER 12.0: \$400

Air Source Heat Pumps

SEER 13.0, EER 11.0, HSPF 8.0: \$300

SEER 14.0, EER 12.0, HSPF 8.5: \$550

Geothermal Heat Pumps

EER 13.0; \$500 per ton

Rebate Structure - Cont'd

Documentation of proper sizing & installation required to get electric rebate

- > submission of Manual J load calculations
- > record measurements of charge/airflow

QA Inspections to ensure proper installation-10%

Rebates likely to change for 2006 due to new Federal standards

Program Results - Participants

14,000 rebates in 2000

1st year of proper
sizing/install
requirements

16,000 rebates in 2001

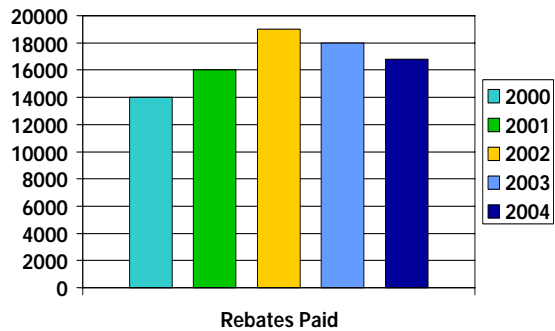
75% at SEER 14, EER
12 level

19,000 rebates in 2002

18,000 rebates in 2003

Consumer marketing and
rebates\$ dropped in '03 and
'04

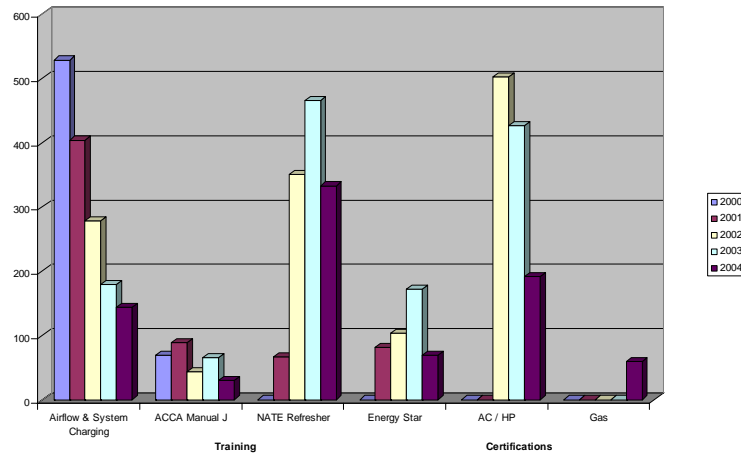
16,800 rebates in 2004



Training Results - 2000-2004

- Airflow and System Charging- 1535
- ACCA Manual J- 298
- NATE Refresher Course- 1217
- Energy Star Sales Training- 425
- NATE Testing and Certification- **1282**

Training Results 2000-2004



Why do we do it?

- Increase customer satisfaction through reduced energy bills
- Lower summer peak demand
- Increase capacity of existing infrastructure
- Affect market transformation of the NJ HVAC industry
- Develop a population of well trained techs

Program Results-Energy Savings

	2001	2002	2003	2004	Total
MWh Annual	12,224	15,703	14,621	15,499	58,047
MWh Lifetime	183,354	235,546	219,320	232,484	870,704
KW Annual Demand Reduction	10,761	13,825	12,254	14,869	51,709

Market Effects - NJ

- >27% of market at SEER 13 or higher
 - 75% of those rebated at SEER 14 or higher
- >Over-sizing down to avg of only 17%
- >All medium & large contractors (~42% of sales) now report using Manual J
- >All large contractors now claim to use Manual J
 - most say they changed due to utility programs
- >Still room for improvement on charging, airflow, duct leakage

Future Program Enhancements

Continued Sales Training

- >30% of sales are emergency replacements
- >61% of NJ consumers get only 1 quote

Promoting Contractor Certification

- >Working with NATE to ensure key energy efficiency issues addressed in testing procedures

Marketing the Benefits of Quality Installations to Contractors & Consumers

More Information

- www.njcleanenergy.com
- Eastern Heating and Cooling Council
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