



New Jersey's Clean Energy Program™ NJ ENERGY STAR Homes

What's New in 2009?

NJ Climate Choice Home Pilot

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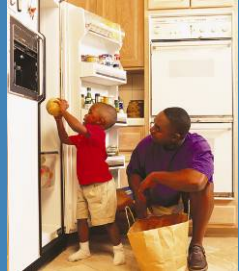
About us

New Jersey's Clean Energy Program™

- Statewide clean energy initiative, administered by the NJ Board of Public Utilities, provides information and financial incentives to help New Jersey residents, businesses, and communities reduce their energy use, lower costs, and protect the environment.
- Provides approximately \$140 million a year in financial incentives and rebates for energy efficient and renewable energy technologies.

www.njcleanenergy.com





NEW JERSEY



The Symbol For Energy Efficiency in New Jersey

35,000 ENERGY STAR Qualified Homes Strong!



Relationship of Green to Energy Efficiency

- The Foundation of all Green/ Sustainable Construction (and programs like LEED and NAHB Green, and those sponsored by the NJHMFA) is... ***Energy Efficiency***
- *Put another way...*

***GREEN BEGINS WITH
ENERGY STAR BLUE***



What types of housing are eligible for NJ ENERGY STAR Homes?

New and gut rehab residential construction; including...

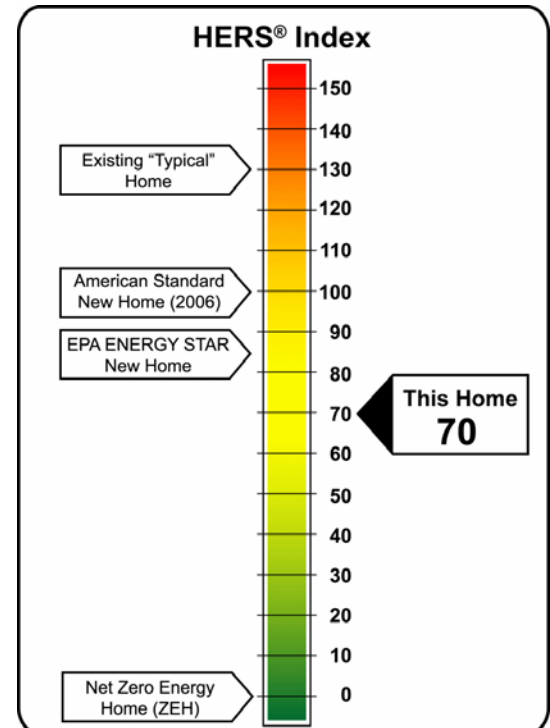
- Custom homes
- Single-family production homes
- Townhouses
- Multi-family apartments
- Active adult single-family and low/mid-rise senior housing
- State* / Federal funded affordable housing

Note: NJ DCA & NJHMFA funded projects require ENERGY STAR certification



What is an ENERGY STAR Home?

- Energy efficient performance
 - 15% more energy efficient than IECC 2006;
 - scores 85 or less on the Home Energy Rating System (HERS) Index
- Third-party verified
- Credible: government backed label





Benefits for Consumers

An ENERGY STAR Home can deliver...

- Lower monthly operating costs
- Improved comfort
- A quieter home
- Improved indoor air quality
- Increased durability
- Quality assurance





New For 2009...Performance Tiers

- **Builders now have *choices*:**

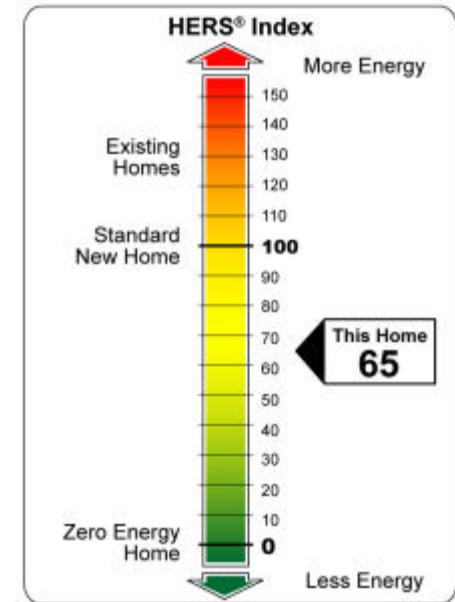
The Introduction of Tiers...

Tier 1- ENERGY STAR (the current performance level, HERS Index of 85 or less, plus all mandatory requirements); or an alternative prescriptive EPA National Builder Option Package (climate zone specific BOP)

Tier 2- ENERGY STAR with a HERS Index of 65 or less (approximately equivalent to the current Federal Energy Tax Credit level);

Tier 3- “NJ Climate Choice Home”- *Proposed*

(a customized high performance level at or approaching Net-Zero Energy).





New For 2009...Performance Tiers (continued)

Tier 3/ NJ Climate Choice

- Aggressive efficiency requirements
- Substantial incentives for builders
- Maximum HERS index of 50 before renewables
- Rating score is used as an entry point to participation, not the final determination of efficiency



Why Tier 3?

- Supports Action Item 2 of the Energy Master Plan:
“Work with the Legislature to authorize the development of statewide building codes to result in new construction being at least 30% more energy efficient than current state code by July 2009 and develop a strategy to achieve net zero carbon emitting buildings.”





Objective

- To encourage adoption of techniques and technology that will result in new residential construction that is substantially more energy efficient than current state code, and eventually lead to net carbon-neutral homes through advanced construction practices, top tier efficient products, innovative design approaches, and the use of on-site renewable energy.





Long Term Goal

- Transform the State's new construction market such that net carbon-neutral building practices become the norm by 2020, and innovative building designs and construction strategies gain full acceptance of builders, code officials, lending institutions, and home buyers.



TIER 3- NJ Climate Choice Home (Proposed)

- Microload Energy Use Pilot
- Limited Enrollment
- Limited Funding
- Integrated Design Team Approach
- Homebuyer Participation
- Post Occupancy Monitoring
- Intended to Foster *Innovation*





Tier 3-NJ Climate Choice Home: Minimum Requirements

- **Less than HERS Index 50 Rating**
- **Maximum Size 3000 SF**
- **Orientation for Passive Solar**
- **Minimum Air Leakage**
 - House: ≤ 2 ACH 50
 - Ducts: $\leq 3\%$ Leakage
- **Renewables**
 - 50% of Electric Load
- **90% ENERGY STAR Fixtures or Bulbs**
- **High Efficiency Appliances (if supplied)**
 - Refrigerator
 - Dishwasher
 - Clothes Washer
- **Moisture Managed Construction**



Your Power to Save

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Office of Clean Energy

NJ Climate Choice Home-Incentives

- Up to \$18,000. Base Incentive
- Eligibility for Federal Energy Tax Credit of \$2,000.
- Core Incentives from Renewables Program
- Training in Advanced Building Techniques
- Support from MaGrann Associates Team
- PR and Marketing Support from New Jersey's **Clean Energy Program™**
- Homebuyer Incentives
 - Power Watch monitor
 - Energy Manual/Monitoring
 - Peak Load Transmitter

PLUS...

- \$10,000 Innovative Design Award for Lowest Modeled Energy Footprint

Note: Rollout date: April, 2009





How will we achieve the objective?

- Aggressive efficiency standards
- House Size Restriction
- Requirement for renewables
- Substantial incentive structure
- Builder training
- Performance monitoring
- Cost analysis
- Integrated Design Team approach to communication and problem solving





What is a NJ Climate Choice Home?

- Requirement for renewables
 - Solar electric
 - Solar hot water
- Moisture management
- Passive solar orientation
- Enrolled in Clean Power Choice
- Energy performance monitoring





Technical Standards

- Prescriptive Builder Option Package
 - “must do” list
 - Based on EPA’s Advanced New Home Construction Program
 - NJ CCH will receive EPA CCH label
 - Yet to be designed
- Verified Performance
 - Must meet all current NJESH requirements
 - Additional more stringent requirements





Resource Allocation

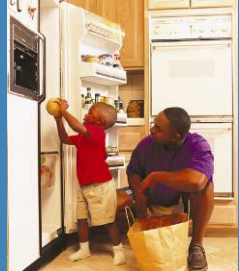
- MaGrann Associates
 - Staffing and resources for implementation, rater training, marketing, and sales
- Conservation Services Group (CSG)
 - Marketing materials
- VEIC
 - Program design and support up to implementation
- EPA
 - Additional marketing support is expected from EPA as we pilot their Climate Choice Home program
- NJIT
 - Builder training in advanced building techniques
 - Data collection and compilation
- The Rutgers Center for Green Building, Bloustein School
 - Research assistance relating to improvement costs and Life Cycle Cost Analysis



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Any Questions?????

Thank you for your attention!

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