Why Zero

SAM RASHKIN
Chief Architect
Building Technologies Office
For More Information

Web Site:
www.buildings.energy.gov/zero/

e-mail Contact:
zero@newportpartnersllc.com
‘Why Zero’ Outline

• New Market Reality
• New Construction Reality
• Zero Manages Risk
• Zero Differentiates
• Zero Value Translates
• Zero Recognition
Zero Energy Ready Home

Prologue:
You Are Here
Housing is a System

Effective Sales
- Message [3]
- Process [3]
- Service [3]

Sustainable Development
- Community Spaces [3]
- Quality Features [3]
- Enduring Value [3]

Quality Construction
- Lean Construction [6]
- Quality Management [7]
- Innovation [3]

Good Design
- Fit to Site [4]
- Natural Comfort [5]
- Right-Size/Right-Way [10]
- Architectural Integrity [3]
- Integrated Systems [10]

You Are Here

High-Performance
- Building Science [4]
- Water Efficient [3]
- Efficient Components [5]
- Disaster Resistant [3]
- Indoor Air Quality [3]
Zero Energy Ready Home
New Market Reality
New Market Reality

- Next Generation of Buyers
- The Competition
- The Interest in Health
- Interest in Zero
- More Informed Homebuyers
Next Generation Homebuyers

78 Million Gen-Y’ers
Gen-Y Challenge

- Debt
- Sharing Economy
- Delayed Commitment
- Crash Experience
- Innovation Junkies (Willing to Pay More for a Better Experience)
Gen-Y Opportunity
The Competition

Median Age of Owner-Occupied Housing

Source: 2013 AHS, U.S. Census Bureau
Aging Housing Stock with:

- High Utility Bills
- Poor Comfort
- Health Risks
- Moisture Problem Risks
- Excessive Bugs/Pests
- Durability Issues
- Obsolete Technology

Meet 85% of Your Competition
Increasing Health Concerns

$40 Billion

$20 Billion
Indoor vs. Outdoor Air Pollutants:
On average **2-5 times greater**
Up to **100 times greater**
While Americans Spend
**90% of time indoors**

Source: EPA
Increasing Health Concerns

“If your child doesn’t use an inhaler, consider yourself a lucky parent because, 1 in 10 children in the U.S. suffers from asthma.”

Source: Remarks for Administrator McCarthy, Announcement of Clean Power Plan, Washington, DC, June 2, 2014
Zero Cost-Effectiveness

As Industry Scales, Prices Fall

Source: SEIA / GTM Research
More Informed Consumers

BY JANN SWANSON

Real Estate Web Searches Climb 253% in Four Years as 90% of Homebuyers Use Internet as Primary Research

Jan 7 2013, 3:50PM

Home-shopping consumers are not only exponentially increasing their reliance on the Internet but are also developing distinct patterns for using it in their housing searches. Google and the National Association of Realtors® are both realizing the value of the Internet.
More Informed Consumers

Internet Content Available
Transition to Truly Informed Buyers

SOURCE: National Association of Realtors® - Profile of Home Buyers and sellers 2010
More Informed Consumers

Information Asymmetry: Caveat Emptor

Information Parity: Caveat Venditor
What Car Buyers Know

- Design
- Performance
- Cost
- Durability
- Value

- Appearance
- Size
- Function

- Energy Efficiency (MPG)
- Acceleration/Handling
- Safety/Crash Test Ratings

- Invoice Price
- ‘Great/Good/Fair’ Price
- Resale Value
- Maintenance Cost

- Repair Record
- Recalls
- Warranty

- Awards/Special Recognition
- Professional Reviews
- Owner Reviews
What Home Buyers Will Know

- **Design**
- **Performance**
- **Cost**
- **Durability**
- **Value**

- Appearance
- Size
- Function
- Energy Efficiency (HERS)
- Comfort
- Health
- Sticker Price
- Ownership Cost (PITI + E)
- Resale Value
- Maintenance Cost
- Repair Record
- Disaster Resistance
- Warranty
- Awards/Special Recognition
- Professional Reviews
- Owner Reviews
With more informed buyers...

Rules*:

1. If it can be done, it **will** be done.

2. If you don’t do it, **someone else** will.

* Daniel Burrus, “*Flash Foresight*”
Innovation Graveyard

Disruption Ignoring New Business Model:

- Kodak
- Polaroid
- Motorola
- Palm
- Circuit City (and a host of other retailers)
- American Car Manufacturers
- TWA and other Legacy Airlines
- Converse Sneakers
- and the list goes on…
An air conditioner that anticipates your needs

PAGE 59

Solar panels that eliminate your energy bills

PAGE 76

A door that can sense your approach

PAGE 59

A sprinkler that tracks the weather

PAGE 80

Walls that can weather a hurricane

PAGE 66

A car that can power your house

PAGE 79

A garden that filters your air

PAGE 87
Zero Energy Ready Home

New Construction Reality
Energy Code Rigor


Goal

RISKS

Differentiation

New Reality
The Business Case for Zero

Zero Manages Risks
New Reality

More Rigorous Codes/HERS → Advanced Enclosure → + Insulation + Windows + Air Sealing
Risk #1: Moisture

New Reality: Advanced Enclosure

Outcome: Colder Surfaces Less Drying

Risk: More Wetting Potential
Risk #1 Management: Comprehensive Water Protection
Risk #2:
Ensured Comfort

New Reality: Advanced Enclosure
Outcome: Ultra-Low Loads
< Air Flow > Swing Seasons
Risks: < Mixing < RH Control
Risk #2 Management: Optimized Comfort System

- Right Sizing/Variable Speed
- Ducts in Conditioned Sp.
- Proper Installation
Risk #3: Ensured IAQ

New Reality: Advanced Enclosure

Outcome: Less Air Exchange

Risk: More Contaminants
Risk #3 Management: Complete IAQ System

Source Control

Fresh Air System

High-Capture Filtration
The Business Case for Zero

Zero Differentiates
Differentiation Opportunity 1: Future Ready

- Advanced Enclosure
- Optimized Enclosure
- <Obsolescence <Energy Costs
Differentiation Opportunity #2:
Assured Water Protection

- Optimized Enclosure
- Comprehensive Water Protection
- Peace-of-Mind
Differentiation Opportunity #3: Ultimate Comfort

- Optimized Enclosure
- Optimized Low-Load Comfort System
- MRT Air Flow Humidity
Differentiation Opportunity #4: Comprehensive Indoor Air Quality

- Optimized Enclosure
- Comprehensive IAQ System
- Health Ready
Differentiation Opportunity #5: Advanced Technology

- Optimized Enclosure
- Ultra-Low HVAC Loads
- Energy Efficient Components
- Quality+ Perform+ Controls+
Differentiation Opportunity #6: Zero Ready

Optimized Enclosure → Ultra-Low HVAC Loads → Energy Efficient Components → Solar Ready
Risk + Differentiation = ZERH Spec

Optimized Enclosure System  Water Protection System  Optimized Comfort System  Complete IAQ System  Efficient Comps System  Solar Ready System
High-performance home, so energy efficient, all or most annual energy consumption can be offset by renewable energy.
Zero Energy Ready Home

Zero Value Translates
How Do You Sell This

Annual Energy Use

Minimum Code Home

Zero Energy Ready Home

Zero Energy Home

Optimized Efficiency:
- Enclosure
- Components
- Solar Ready

Risk Management:
- Moisture Protection
- Optimized Comfort
- Comprehensive IAQ

Renewable Energy:
- On-Site
- Offsets
Zero Energy Ready Home: The Experts’ Choice

Making the Largest Purchase of a Lifetime Just Got Easier
You Have One Opportunity
During Construction to Get Your Home Right

Your enjoyment living in a new home will depend on a wide array of technologies and construction methods that are out-of-sight and often cost-prohibitive to add after the fact.
Leading experts polled would overwhelmingly choose a Zero Energy Ready Home knowing they include seven must-have systems that help ensure a better living experience.
Seven Must-Have Systems
Are Included in Every Zero Energy Ready Home
Leading experts know minimum code roofs, walls, windows, doors, and foundations quickly become outdated missing opportunities for superior savings, comfort and durability.
Leading experts know comprehensive water protection details inside and outside a home help eliminate moisture related risks.
Leading experts know true comfort goes well beyond a basic heating and cooling system in order to enjoy the entire home year-round.
Leading experts know advanced technology components are essential for significant energy savings and better performance.
Leading experts recommend a comprehensive package of air quality features knowing on average *indoor* air contains 2 to 5 times more contaminants than *outdoor* air.
Leading Experts recommend a package of simple, low-cost details in homes without a solar power system so one can easily be added in the future to offset most or all annual energy use.
Leading Experts know that the largest investment of a lifetime should be held accountable to industry-leading standards for excellence.
Lowest True Cost
Helps Ensure Your Home is a Great Investment

Leading Experts know that ‘True Cost’ of ownership includes both the monthly mortgage and utility expenses.

Example:
Leading Experts know superior performance from seven must-have systems can be locked in by simply looking for the Zero Energy Ready Home logo.
Zero Energy Ready Home:

For More Information:

www.buildings.energy.gov/zero/
Reading Assignment

![Book Cover]

AUTHOR OF THE NEW YORK TIMES-BESTSELLING
DRIVE AND A WHOLE NEW MIND

DANIEL H. PINK
TO SELL IS HUMAN
THE SURPRISING TRUTH ABOUT MOVING OTHERS
Clarity depends on contrast.

We often understand something better when we see it in comparison with something else than when we see it in isolation.
Translating ZERH Value with Clarity

Homes to the Power of ZERO

A Symbol of Excellence
- HEALTHFUL ENVIRONMENT
- COMFORT PLUS
- ADVANCED TECHNOLOGY
- ULTRA EFFICIENT
- QUALITY BUILT
- DURABILITY

What is the DOE Zero Energy Ready Home™ Label?
It is a Symbol of Excellence for energy savings, comfort, health, quality, and durability met by a select group of leading builders meeting U.S. Department of Energy Guidelines.

What is a Zero Energy Ready Home?
It is a high-performance home so energy efficient, all or most annual energy consumption can be offset with renewable energy. In other words, it is the Home of the Future.

KEY
- DOE Zero Energy Ready Home
- ENERGY STAR® Certified Home
- Existing Home

This graphic comparison chart demonstrates relative performance of this DOE Zero Energy Ready Home to existing homes (built between 1990 and 2010) and ENERGY STAR Certified Homes. Actual performance may vary.

NEW TOWN

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123 Main Street, Denver, CO 34567

U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

64 | INNOVATION & INTEGRATION: Transforming the Energy Efficiency Market
Translating ZERH Value with Clarity

Homes to the Power of ZERO

A Symbol of Excellence

HEALTHFUL ENVIRONMENT

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303-231-4687
NewTown@nie.gov
123 Main Street, Denver, CO 34567
HEALTHFUL ENVIRONMENT

KEY
- DOE Zero Energy Ready Home
- ENERGY STAR Home
- Existing Home

This label indicates relative performance of this DOE Zero Energy Ready Home to existing homes (built between 1990 and 2010) and ENERGY STAR qualified homes. Actual performance may vary.
Translating ZERH Value with Clarity

A Symbol of Excellence

Lives Better

HEALTHFUL ENVIRONMENT

Every DOE Zero Energy Ready Home has a comprehensive package of measures to minimize dangerous pollutants, provide continuous fresh air, and effectively filter the air you breathe.

COMFORT PLUS

Superior insulation, windows, air sealing and space conditioning systems included in every DOE Zero Energy Ready Home surround you with even temperatures, low-humidity, and quiet in every room on every floor.

KEY
- DOE Zero Energy Ready Home
- ENERGY STAR Certified Home
- Existing Home

Works Better

ADVANCED TECHNOLOGY

Every DOE Zero Energy Ready Home begins with sound building science specified by ENERGY STAR for Homes, and then adds advanced technologies and practices from DOE’s world-class research program, Building America.

ULTRA EFFICIENT

Compared to a typical home, an ultra efficient Zero Energy Ready Home is inoperable to own. In fact, every DOE Zero Energy Ready Home is so energy efficient, a small solar electric system can justly offset most, or all, of your annual energy consumption. We call this Zero Net-Energy Ready.

Lasts Better

QUALITY BUILT

Advanced construction practices and technologies are specified for every DOE Zero Energy Ready Home. They are enforced by independent verifiers with detailed checklists and prescribed diagnostics.

DURABILITY

The advanced levels of energy savings, comfort, health, durability, quality and future performance in every DOE Zero Energy Ready Home provide value that will stand the test of time, and will meet and exceed forthcoming code requirements.

Front Cover

Inside Spread

Flap

Back Cover

The Future of Housing—Today

Only a select group of the top builders in the country meet the extraordinary levels of excellence and quality specified by U.S. Department of Energy guidelines.

LEARN MORE AT: buildings.energy.gov/zero

Call us at:
303-231-4567
NewTown@net.com
Contrast Matters

My power bill is $5. What’s yours?
- Heather Robbins, Garbett Homeowner

garbettHOMES.com
Now you’re living.
Contrast Matters
Contrast Matters

"My Cool Mom’s August Electric Bill Was $–57.97! What Was Yours?"

- Ali Domino
Resident of a De Young Net Zero *EnergySmart™* Home

Ali and her mother Leah are enjoying the savings and comfort of their De Young Net Zero *EnergySmart™* home. De Young homes, a division of De Young Properties®.
“Our daughter couldn’t breathe without discomfort for years. Within two months of moving into our new Cobblestone home we threw away the inhaler. That was priceless!”

Charly and Mary Jones, Cobblestone Homeowner
“You feel like you’re wrapped in a 100 wool blankets. It’s so warm, you would never know it was below zero degrees the last two weeks here.”
Contrast Matters

You don’t need to imagine a home in the year 2020... it’s already here!
Contrast Matters

Deconstructed Homes

Technology Displays
Contrast Matters
Contrast Matters

Smart vs. Dumb Cooling
Zero Energy Ready Home

Zero Recognition
Lots of Recognition Choices…

You Are Here

You Are Here

You Are Here

You Are Here
Nearly 1 in 3 consumers indicated they do not trust home building and real estate companies.

Source: The business of Trust – The Most Trusted Builders in America, Lifestory Research, January 2013
Independent Voice of Authority vs. “Trust me.”
Recognition with ‘Brand’
Recognition with ‘Brands’
Recognition with Certificate

• Rater Prints Certificate directly from rating software

• Certificate Includes:
  – Rating Details
  – Graphic HERS Index
  – Optional Programs
Recognition with ZERH Locator

Links Buyers to Leading Edge Builders:
- Contact Information
- Optional Commitments
- # Labeled Homes
- Website link

For All Active Partners
## DOE Zero Energy Ready Home: Results

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Commitments</th>
<th>City</th>
<th>State</th>
<th># of DOE Zero Energy Ready Home Projects</th>
<th># of Builders Challenge Homes</th>
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<tr>
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Homes to the Power of ZERO

A Symbol of Excellence

HEALTHFUL ENVIRONMENT

COMFORT PLUS

ADVANCED TECHNOLOGY

ULTRA EFFICIENT

QUALITY BUILT

DURABILITY

KEY
- DOE Zero Energy Ready Home
- ENERGY STAR® Certified Home
- Existing Home

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Recognition with Value Message

A Symbol of Excellence

Lives Better

HEALTHFUL ENVIRONMENT

Every DOE Zero Energy Ready Home has a comprehensive package of measures to minimize dangerous pollutants, provide continuous fresh air, and effectively filter the air you breathe.

COMFORT PLUS

Superior insulation, windows, air sealing and space-conditioning systems included in every DOE Zero Energy Ready Home surround you with even temperature, low-humidity, and quiet in every room on every floor.

KEY

| DOE Zero Energy Ready Home | ENERGY STAR Certified Home | Existing home |

Works Better

ADVANCED TECHNOLOGY

Every DOE Zero Energy Ready Home begins with a deep building science specified by ENERGY STAR for Homes, and then adds advanced technologies and practices from DOE’s world-class research programs. Building America.

ULTRA EFFICIENT

Compared to a typical home, an ultra-efficient Zero Energy Ready Home is inexpensive to own. In fact, every DOE Zero Energy Ready Home is so energy efficient, a small solar electric system can easily offset most, or all, of your annual energy consumption. We call this Zero Net-Energy Ready.

KEY

| DOE Zero Energy Ready Home | ENERGY STAR Certified Home | Existing home |

Lasts Better

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DURABILITY

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KEY

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The Future of Housing—Today

Only a select group of the top builders in the country meet the extraordinary levels of excellence and quality specified by U.S. Department of Energy guidelines.

LEARN MORE AT: buildings.energy.gov/zero

Front Cover | Inside Spread | Flap | Back Cover
Recognition with Power Words
Recognition with Awards

Housing Innovation Award
Recognition with Awards

Michigan’s Most Respected Builder

CONTACTUS

Sales: (989) 692-0210
Office: (989) 692-0140
Fax: (989) 692-0142

Design Studio Address:
5474 Garfield Rd
Suite 2
Saginaw, MI 48603
MAP

Mailing Address:
P.O. Box 604
Freeland, MI 48623
EMAIL
Recognition with Awards

BrightLeaf Homes

Award Winning Construction

Zero Energy Ready Home

Recognition with Awards

Recognized with Awards

Energy Efficiency & Renewable Energy

BrightLeaf Homes

Award Winning Construction

Zero Energy Ready Home

Our Green Built, High-Performance, Energy-Efficient Homes Are:
- Less expensive to own and maintain
- More comfortable
- Healthier to live in
- Constructed with the environment in mind
- Built to last

Speak with Us Today About Building Your Dream...

630-254-9745

www.MyBrightLeafHome.com

Certified and Qualified by These Third Parties
Are you ready for a home that lives, works, and lasts better? The home of the future - a better home - is available today. Take a virtual tour of homes that are so energy-efficient a renewable energy system can offset all or most of their annual energy consumption. These award-winning homes are independently certified to meet DOE Zero Energy Ready Home guidelines and constructed by a select group of top builders. Zero Energy Ready Home is part of the U.S. Department of Energy's Better Buildings initiative. Better Buildings aims to make commercial, industrial, public, and residential buildings 20 percent more energy efficient over the next decade.
Cold/Very Cold

Zero Energy Ready Homes:

- **AquaZerphyr, LLC** – Jones Residence – Ithaca, NY
- **BPC Green Builders** – Zero Village – Wilton, CT
- **Brookside Development, LLC** – Storybrook Village – Woodbridge, CT
- **Caldwell & Johnson, Inc.** – Main Street – North Kingstown, RI
- **Cobblestone Homes, LLC** – Greenway – Saginaw, MI
- **Greenhill Contracting, Inc.** – Oakview – Esopus, NY
- **New Town Builders** – ArtiZEN Plan – Stapleton, CO
- **New Town Builders** – ZEN Plan – Stapleton, CO
- **Streetscape, LLC** – School Street – Libertyville, IL
- **Weiss Building & Development, LLC** – Oak Plan – Westbrook, MA
- **Transformation, Inc.** – Smith House – Boston, MA
Recognition with Tour of Zero
Recognition with Tour of Zero

POWER OF ZERO HOME TOUR
Recognition with Tour of Zero

New Town Builders
The ArtiZEN Plan
Denver, CO
303-707-4400
Newtownbuilders.com

"NOW THAT WE'VE LIVED IN A DOE ZERO ENERGY READY HOME, WE COULDN'T IMAGINE LIVING ANYWHERE ELSE. IT'S SO QUIET AND COMFORTABLE. WE LOVE OUR NEW HOME!"

- New Town homeowner

Key Stats

Click

Consumer Experience

ZERO ENERGY READY HOME
U.S. DEPARTMENT OF ENERGY

KEY FEATURES

- High-performance insulation system
- Enhanced quiet and comfort
- Comprehensive draft protection
- System for cleaner, healthier

HVAC, appliances, and lighting

Read more...

New Town Builders
The ArtiZEN Plan
Denver, CO

FEATURED HOME/DEVELOPMENT:

Project Data:
- Name: The ArtiZEN Plan
- Location: Denver, CO
- Layout: 3 bedrooms, 2 baths, 2 stories
- Conditioned Space: 2,380 sq ft
- Climate: Zone 5
- ICC: Yes, rated: 4.6, 2013
- Completion: September 2013
- Category: Production

Modeling Performance Data:
- HERS Index: without PV 58, with PV -3
- Projected Annual Utility Costs without PV $1,464, with PV $5
- Projected Annual Energy Cost Savings compared to a home built to the 2009 Code: without PV $480, with PV $980
- Builder's Added Cost Over 2009 ICC, without PV $220,000, with PV $640,000
- Annual Energy Savings: without PV $48,500, 20.35 kW, 205 months, with PV 8 MW, 14.47 kW, 205 months

The U.S. Department of Energy invites you to learn about extraordinary levels of excellence and quality specified in DOE Zero Energy Ready Home, every DOE Zero Energy Ready Home must be energy-efficient home built on a solid foundation designed to provide superior construction, high-performance HVAC, lighting, and appliances, and solar-ready controls. Contact your local DOE或其他エネルギー関連の機関で詳細を確認してください。
Recognition with Tour of Zero

Click

2,115 ft²
3 bedroom, 2 bath
2 floors
cold climate

HERS
-3
This home’s score

(100 = typical new code home
130 = average existing home)

~$0
avg. monthly energy bill

$1,902
 saved per year

$98,772
 saved over 30-yr mortgage
Recognition with Tour of Zero

Building Technologies Office

DOE Zero Energy Ready Home: Partner Profile
New Town Builders

Partner ID: 619
Organization Type: Builder
Main Contact: Bill Robinson
Address: 1613 Platte Street Denver, CO 80202
Primary Phone Number: (303) 707-4400
Certified DOE Zero Energy Ready Homes (PERC - Fremont)
Certified Builders Challenge Homes (2008 - 2013)
Website: www.newtownbuilders.com

Living Level
2,115 ft²
3 bedroom, 2 bath
2 floors
cold climate

HERS -3
This home’s score

33
(100 = typical new code home
130 = average existing home)

I want one!

Click

~$0
avg. monthly energy bill

$1,902
saved per year

$98,772
saved over 30-yr mortgage

More...
Recognition with Tour of Zero

National Campaign:

Call to Action:
Inspire American homebuyers and home owners to visit the future of housing available today with DOE Zero Energy Ready Certified Homes.

Campaign Partners:
- Manufacturers
- Associations
- NGO’s
- Financial Institutions
Drop-In Messaging

As a registered DOE Zero Energy Ready Home partner, enjoy access to the following pre-approved messages for insertion into your promotional materials. Simply insert your company name and use the message as it appears below.

- According to the U.S. Department of Energy, <Partner Name> is in a select group of top builders in the nation who have certified one or more homes that meet or exceed Zero Energy Ready Home guidelines for excellence in performance and energy efficiency.

- As a committed DOE partner who provides certified Zero Energy Ready Homes, <Partner Name> is in the top one percent of builders in the country meeting the extraordinary levels of excellence in energy and performance specified in the national program requirements.

- As a Zero Energy Ready Home Partner, <Partner Name> offers high performance homes that are so energy efficient, all or most of their annual energy consumption can be offset with renewable energy.

- <Partner Name> builds homes certified to rigorous DOE Zero Energy Ready Home National Guidelines that are at least 40%-50% more energy efficient than a typical new home.

- Healthful environment: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home has a comprehensive package of measures to help minimize dangerous pollutants, provide continuous fresh air, and effectively filter the air you breathe.

- Comfort Plus: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home features high-efficiency insulation, windows, air-sealing and space conditioning systems that help surround you with even temperatures, low-humidity, and quiet in every room on every floor.

- Advanced Technology: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home features advanced technologies and practices recommended by leading housing experts from DOE's world-class research program, Building America.

- Ultra efficient: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home is so energy efficient a small solar electric system can easily offset most, or all, of its annual energy consumption. This is why it is called as Zero Energy Ready Home.

- Quality Built: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home features high-efficiency appliances and equipment that are often associated with better quality construction. In addition, overall quality is enhanced with rigorous inspections, diagnostics, and checklists enforced by independent verifiers.

- Durability: According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home features advanced levels of energy savings, comfort, health, durability, quality and future performance that can be expected to stand the test of time and help enhance future value.

- Samuel Rashkin, Chief Architect for DOE Building Technologies Office, said “Zero Energy Ready Homes like those constructed by <Partner Name> are the homes of the future because they live, work, and last better with incredibly low or no energy costs. And what's exciting for American homebuyers, they are available today thanks to leading builders across the country.”

- “Housing Innovation Award winners such as <Partner Name who has won HIA> are leading a major housing industry transformation to zero energy ready homes. This level of performance is the home of the future because it improves the way Americans live by substantially reducing or eliminating utility bills, ensuring engineered comfort way beyond traditional homes, protecting health with a comprehensive package of indoor air quality measures, and helping maximize the largest investment of a lifetime,” said Sam Rashkin, Chief Architect at the U.S. Department of Energy's Building Technologies Office.
As a committed DOE partner who provides certified Zero Energy Ready Homes, <Partner name> is in the top one percent of builders in the country meeting the extraordinary levels of excellence in energy and performance specified in the national program requirements.

According to the U.S. Department of Energy (DOE), every certified Zero Energy Ready Home has a comprehensive package of measures to help minimize dangerous pollutants, provide continuous fresh air, and effectively filter the air you breathe.

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According to DOE, Zero Energy Ready Homes are the homes of the future because they meet or exceed next generation energy codes and include substantial innovations and best practices recommended by leading housing experts working with the DOE Building America program. Homebuyers can buy these visionary homes today, including Treseder, which is available for sale now with the model home opening on August 1, 2015. By meeting or exceeding DOE requirements, these homes provide levels of energy savings, comfort, health and durability.
Beyond Energy Star - Zero Energy Ready Certified Homes

"Zero Energy Ready homes are the future of US housing, and innovators like New Town Builders are leading the way for the entire industry. Zero Energy Ready homes provide a vastly superior homeowner experience at a lower ownership cost - and an experience that all Americans should want in their next home."

- Sam Rashkin, Chief Architect for the US Department of Energy Building Technologies Office

ENERGY STAR IS JUST A STARTING POINT.

All New Town homes receive the Energy Star Efficiency rating, but, New Town Builder homes are up to 70% more energy efficient than Energy Star Certified homes and up to 100% more energy efficient than other 'code-built' new homes which typically receive an index score of 100 if in compliance with HERS Reference Home standards.

The HERS Index is an independent scoring system established by the Residential Energy Services Network (RESNET). It's a measurement taken by independent energy raters. The HERS Score is kind of like a golf score - where lower is better. New Town homes average a HERS score of 0 for our Zero
Recognition After-Sale

Your Zero Energy Ready Home Story

BROUGHT TO YOU BY

New Town Builders
303-231-4567 • NewTown@net.com
Recognition After-Sale

Welcome to Your Zero Energy Ready Home

THIS IS YOUR STORY.
The story of your Zero Energy Ready Home and how it leverages advanced technology for a better homeowner experience.

IN THIS BROCHURE
you will learn about the following seven complete systems and why they make your home so special.

- High-Performance Thermal Enclosure
- Whole-House Water Protection
- High-Performance Comfort System
- High-Efficiency Components
- Whole-House Health Protection
- Solar-Ready Construction
- Enhanced Quality Assurance
High-Performance Thermal Enclosure

The roof, walls, windows, doors, and foundation combine to form your home’s enclosure. You’ve got one chance to get it right during construction before it’s locked in for the next few hundred years. That’s why your home includes the leading expert recommendations for advanced thermal protection that provide significant utility bill savings along with enhanced comfort and durability.

High-Performance Windows
use advanced technology to keep heat in during the winter and out during the summer while brightening your living space all year long.

High-Performance Insulation
provides a complete thermal blanket that snugly surrounds your home in comfort and quiet.

Comprehensive Draft Protection
is like wrapping your house in money with much lower heating and cooling bills while also blocking annoying dust, pollen, pests, noise, and moisture.

Tip
Any time work is being done on your home that involves wall penetrations or workers in your attic, make sure the contractor is required to maintain the insulation levels and air-tight construction.
Recognition with Trade Partners

Stapleton North
Denver, CO 80238
Built by: NewTown Builders

Your home cannot be built without the hard work, skill, and commitment to excellence by our XX tradespeople working together. We are proud of the homes we build and stand by each house like it was our own. The people below each play an integral role in delivering your zero energy ready home.

Framing: John Smith, with Paul, Ben, Diego, Megan and Phil.
Electrical: Marc Normal, with Frank, Sam, Steve, and Sarah.
Foundations: Manuel Doe, with Alex and Ben.
Insulation: John Smith, with Paul, Ben, Diego, Megan and Phil.
Roofing: Juan Thomas, with Tim, Tom, Todd, Toby, and Troy.
Interior finishes and painting: John Smith, with Paul, Ben, Diego, Megan and Phil.
Mechanical: John Smith, with Paul, Ben, Diego, Megan and Phil.
Landscaping: John Smith, with Paul, Ben, Diego, Megan and Phil.

The U.S. Department of Energy invites home builders across the country to meet the extraordinary levels of excellence and quality specified in DOE’s Zero Energy Ready Home program (formerly known as Challenge Home). Every DOE Zero Energy Ready Home starts with ENERGY STAR Certified Homes Version 3.0 for an energy-efficient home built on a solid foundation of building science research. Advanced technologies are designed in to give you superior construction, durability, and comfort. Healthy indoor air; high-performance HVAC; lighting; and appliances; and solar-ready components for low or no utility bills in a quality home that will last for generations to come.

8943 Northfield
Denver, CO 80238
Built by: NewTown Builders

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Partner to Be Recognized

- **Review**
  - Technical Guidelines
  - Partnership Agreement Terms

- **Register**
  - Electronically Sign Agreement

- **Builder Optional Commitments:**
  - 100% of homes meet DOE Zero Energy Ready Home Guidelines
  - Homes meet EPA’s WaterSense Guidelines
  - Homes meet IBHS’s Fortified Home Guidelines
  - Meet DOE ZERH Home Quality Management Program
Final Word

“The earth is not inherited from our fathers but borrowed from our children.”

Native Proverb
Thank You

For More Information:

www.buildings.energy.gov/zero/

Email Contact:

zero@newportpartnersllc.com