## **Meritage Homes**































## **Sustainable Sustainability**

- Creating Value to Consumers
- Creating Value to Utilities
- Creating value to the US
- Extracting Value
  - Builders
  - Buyers
  - Banks
  - Utilities
  - Economy















# Establishing Meritage as a Leader in Energy-Efficient Homebuilding

#### 2009

- Committed to take the lead in sustainable building practices by implementing a strong, unified sustainability platform across all divisions
- Established a new vice president of environmental affairs position to lead our sustainability platform

#### 2010

- Exceeded ENERGY STAR® requirements on all new homes built
- Began advocating for sustainability regulations in the homebuilding industry
- Started providing 'Learning Centers' at community model home complexes to educate prospective homeowners about the benefits of sustainable living

#### 2011

- First builder to reduce energy and water use by 50% as a standard feature of our home designs
- First builder to have a national renewable energy program that cost effectively achieves
   Net Zero energy consumption

#### 2012

- National Association of Home Builders' National Green Building Awards Project of the Year for Single Family Production
- Began triple certifying homes to EPA ENERGY STAR®, WaterSense®, and Indoor airPLUS









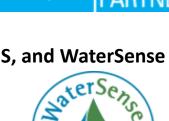






## **Award-Winner at National and Local Levels**

- National Best by Authoritative Source
  - 2013 U.S. EPA Energy Star Sustained Excellence Award
  - 201 & 2011 U.S. EPA Energy Star Partner of the Year
  - 2012 Project of the Year Single Family Production, NAHB's National Green Building Award
  - 2011 Energy Value Housing Award (EVHA), NAHB
  - 2011 Peoples' Choice Award, NAHB Research Center
- Meritage Best Standard Proofs
  - 1st NET ZERO Production Builder
  - 1<sup>st</sup> Full EPA Triple-Certified Home: Energy Star, Indoor airPLUS, and WaterSense
  - 1<sup>st</sup> 100% Energy Star Production Builder
  - 1<sup>st</sup> HERS<40 Community Builder</li>
  - DOE Building America Partner
- National Best by Media
  - 2011 Builder of the Year, Builder and Developer Magazine
  - 2010 Community of the Year, Green Home Builder Magazine
  - 2012 CEO of the Year, Hanley Wood
- Local Best
  - 2011 Crescordia Award ("To Grow in Harmony"), Valley Forward
  - 2011 Best Green Building Program, McSAM People's Choice Awards
  - 2011 MAME "Best Energy Efficiency", North State BIA
  - 2012 MAME Green Builder of the Year, BIA Bay Area
  - 2011 Green Pioneer, Phoenix Business Journal



















## What are our jobs?

















## How do typical customers buy a home?

















## **Customer Priorities**





- Floor Plan
- Price
- ?











## **BE HEALTHY**







## **LIVE BETTER**























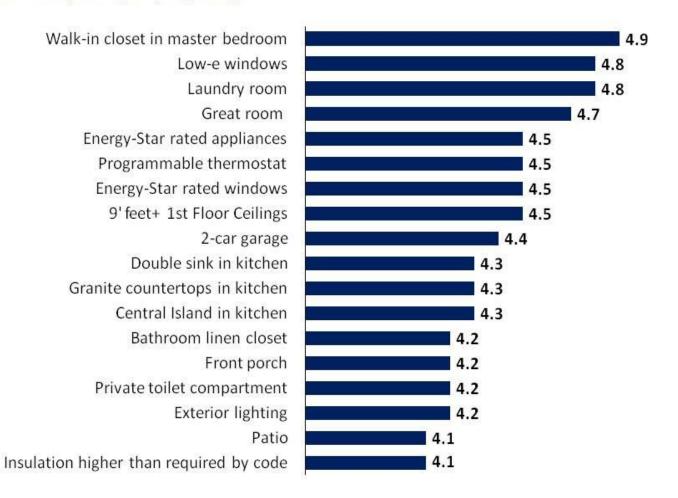




## Progressing along the scale

#### MOST LIKELY Features in Typical Single-family Home in 2014

(1=Not at all likely, 5=very likely; avg. rating)









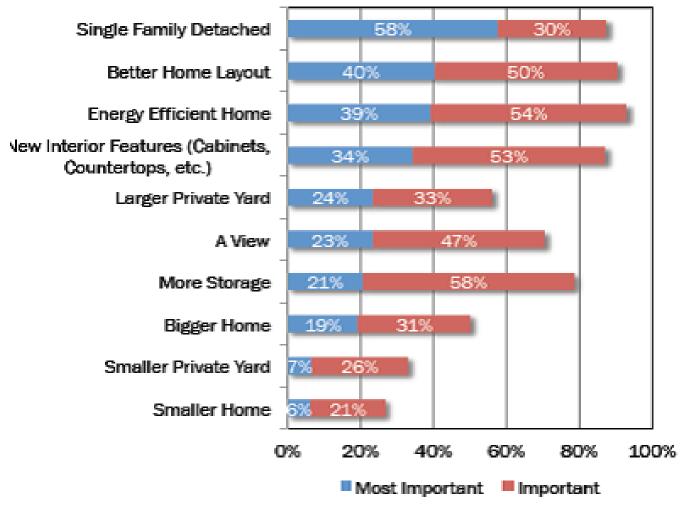






## **Consumer Choice drives change**

### Rate the importance of the following when purchasing your next home:





## TOP 5 REASONS TO BUY GREEN HOME / MAKE GREEN IMPROVEMENTS TO HOME

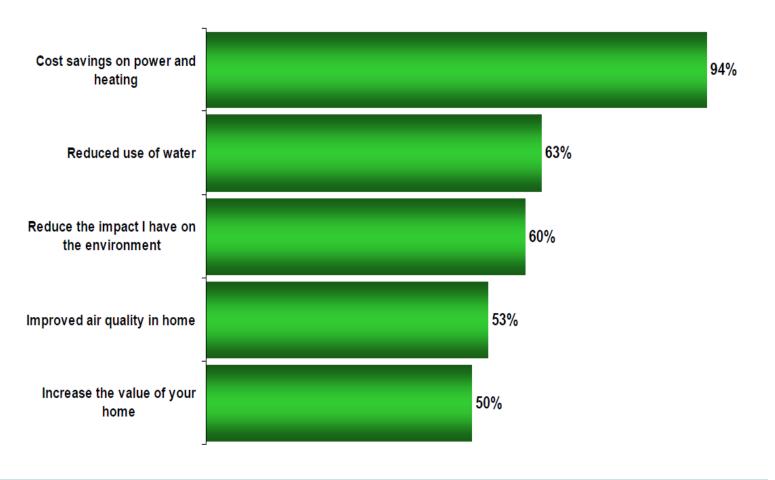


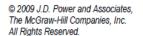






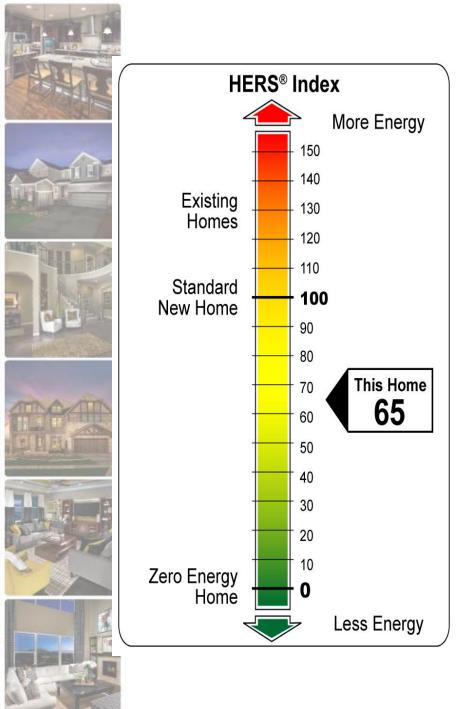








**Consumer Focus** 



A home with a HERS Index of 65 is 50% more energy efficient than the average home in the US and 35% more energy efficient than the **HERS** Reference Home.













## WHAT IS POSSIBLE?

## Physics, Behavior, and New technology









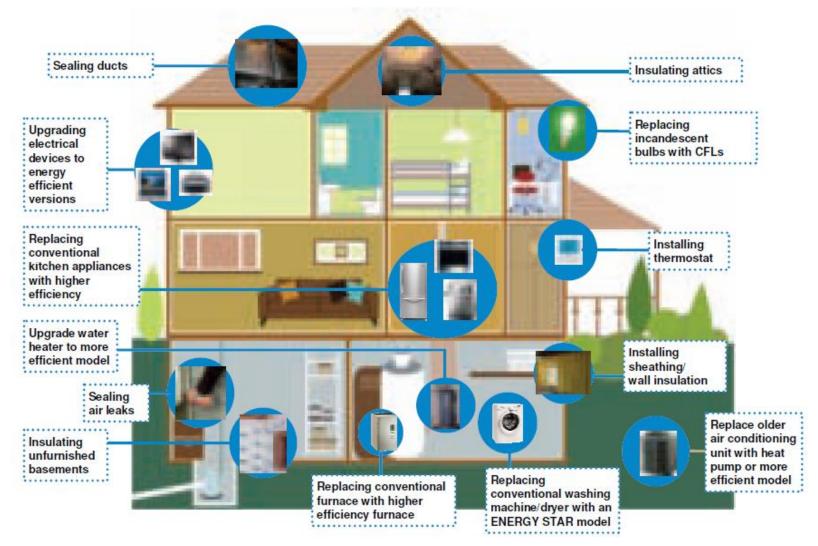








## **Reducing the Current Reality: 50% Waste**





# **Moving Forward – Building Science** 130 F 90













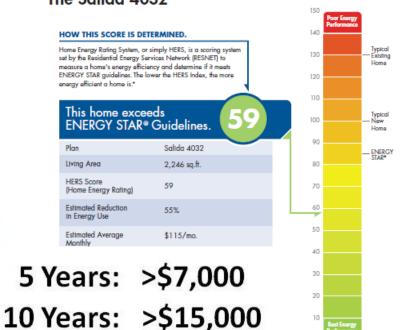
## Valuing E(nergy)

## **ENERGY PERFORMANCE RATING**

#### The Salida 4032

20 Years: >\$37,000

30 Years: >\$65,000



#### **ENERGY SAVING FEATURES**

More Solar: We use a better solar platform that produces over four-times more energy, and advanced features that heat your water, heat and cool your air, manage fresh air, and allow remote energy management from anywhere in the world through a computer or smart phone.

More Health: We include EPA Indoor Air plus features such as low VOC paints and finishes, better home air filtration and circulation, a fresh air management system, and advanced thermostats. The result is reduced pollution, allergens, and dirt which make your home more comfortable, cleaner and better for the

More Comfort: We use industry leading spray foam insulation which seals the building twenty-five times better than standard insulation, reducing leaks, drafts, and wasted energy. It will also make the home quieter, more comfortable, and cleaner.

More Sustainability: We include EPA WaterSense faucets, showers, toilets, irrigation controllers, and ENERGY STAR Appliances, reducing your water consumption by 50%, with no sacrifice in lifestyle

More Savings: With an unprecedented level of energy efficiency throughout our homes, our total HERS score in this community is as low as XX, reducing home energy consumption by up to XX% in

#### Energy performance for The Salida 4032.

This Meritage home performs at a HERS score of 59. This equates to a 55% energy use reduction compared to a typical new home.

Save \$115/mo. in home energy bills."

**ENERGY SAVINGS\*** 

Scan this code with your smart phone to see how Meritage is changing the way homes are built









#### ENERGY STAR® complete thermal enclosure system

- 1. Minimum Low-82 windows
- 2. Advanced froming, Hermol breaks and engineered lumber
- 2. SPP (para) Adjunctions From Insulation in walls
- 4. Conditioned affice sealed with SPF

#### ENERGY STAR complete water management system

- 5. Danp-proof barrier on below-grade concrete per descine with
- 5. Orain slope on exterior of home
- Sloped grading for superior drainage
- 9. Moldsreredstort roof underloyment
- 9. Window Southing
- 10. Moldere-resistant material behind tubu and showers

#### ENERGY STAR complete beating and cooking system

- 11. Minimum SEER 14 HVAC
- 12. Sealed insulated ducts
- 13. Jeno deda
- 14. ANS/AS-RAC 62.2 mechanical fresholt management system
- 15. Minimum MERV 9 HVAC filtration

#### Additional energy-efficient and standard features

- 16. Independent inspections and testing
- 17. ENERGY STAR opplionals
- 19. Cft lighting
- 19. Advanced programable themsold
- 25. Water efficient forcets and shower heads
- 21. Dupl-actioned toilets
- 22. Weather sensing impation controller
- 23. Irrigation weather sensor
- 24. PEX plumbing
- 25. Low-to-zero VOC materials, paints, stains and adhesives
- 26. Hernichtets familiärene wild
- 27. ACCA moneol engineered duct and register systems
- 29. Optional UED lighting
- 29. Reinforced concrete slob

#### Optional Nexta home energy monitoring and control

- 35. Home bridge
- 21. Home keypool and deadboll
- 22. Indoor/ortdoor wireless comes
- 33. Appliance modele
- 34. Renote monitoring control on loptup, tablet or smort phone
- 25. Home energy incorporate hermostal

#### Optional Edic® solar system

- 36. Solar roof panels for energy production
- 17. Sobrwaler healer
- 39. Sobricontrol center
- 39. Renote montoring control on loptup, tablet or smort phone

## **Standard Features Included** at Competitive Prices

Looking for a good reason to buy a Meritage home? Here are several.



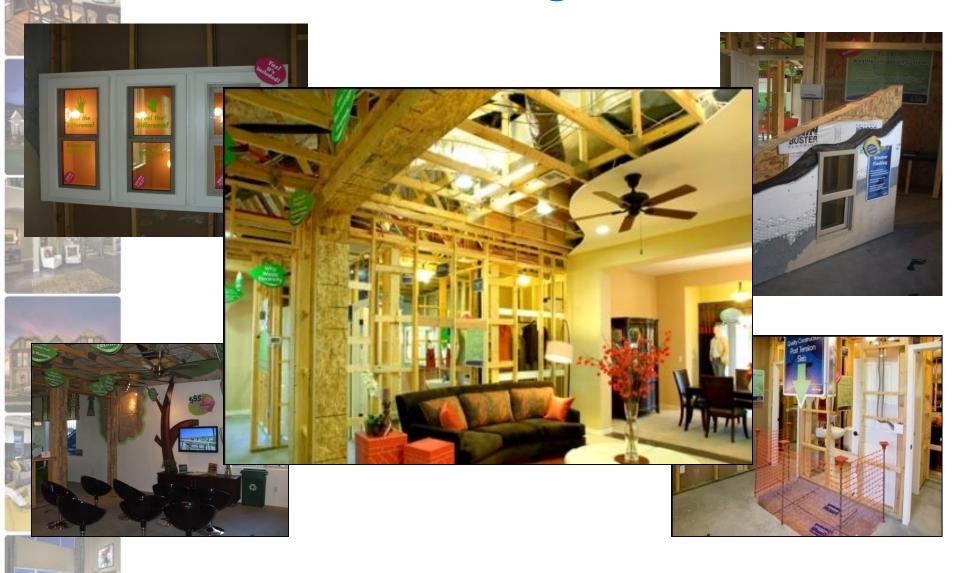


Setting the standard for energy-efficient homes"

Energy-efficient features are standard in every home; Meritage Homes entire system designed to maximize energy efficiency



## **Green Learning Centers**













Get the best energy value possible in energy-efficient SRP PowerWise Homes™, as featured by Meritage Homes.

#### **General Information:**

Conditioned Area: 1640 sq.ft

House Type: Single Family Detached

Bedrooms: 3

#### **Annual Estimated Energy Use**

	Lyon's Gate	New to Code	Average Resale
Heating	\$ 49	\$ 101	\$ 194
Cooling	\$ 320	\$ 645	\$ 987
Hot Water	\$ 2	\$ 254	\$ 266
Lights / Appliances	\$ 517	\$ 599	\$608
Photovoltaics	(\$ 347)	(\$ 0)	(\$ 0)
Service Charge	\$ 180	\$180	\$180
Total	\$ 720	\$1,779	\$2,235

Your actual costs may be higher or lower than those illustrated, depending on individual lifestyle, number of persons living in the house and SRP's fuel cost adjustment factor. SRP reviews the adjustment factor every six months, with any change made effective on July  $1^{st}$  and/or November 1st



# Residential Green and Energy Efficient Addendum

	<b>^</b>
4	









i i	Client File #:		Appraisal File #:				
dh.	Residential Green and Energy Efficient						
. <b></b>	Addendum						
AI Reports®							
At Reports	Subject Property:						
Form 820.03*	City:	State:		Zip:			
Additional resources to aid in the valuation of green properties and the completion of this form can be found at							

ENERGY EFFICIENT ITEMS										
The following items are	considered within th	e appraised value	of the subject prop	erty:						
Insulation	☐ Fiberglass Blown-In ☐ Foam Insulation ☐ Cellulose			ellulose	☐ Fiberglass Batt Insulation				R-Value:	
misulación .	☐ Other (Describe):									Walls
	☐ Basement Insulation (Describe):					□ Ceiling				
	☐ Floor Insulation (Describe):						☐ Floor			
Water Efficiency	☐ Reclaimed Water System (Explain):		☐ Cistern - Size:		e: Gallor	ons Locati		ion:		
	□ Rain Barrels - #:			☐ Rain Ba	amels	arrels Provide Irrigation				
Windows	☐ ENERGY STAR®	□ Low E	☐ High Impact	□ Storm	☐ Double Pane ☐ Triple Pane			☐ Solar Shades		
Day Lighting	☐ Skylights - #:	☐ Solar Tubes - #:	☐ ENERGY STAR Light Fixtures			es 🗆 Other (Explain):				
Appliances	ENERGY STAR Appliances:  ☐ Range/Top ☐ Dishwasher ☐ Refrigerator ☐ Other:		Water Heater:  Solar Tankless (On Demand) Size: Gal.		Appliance Energy Source:  Propane Electric Other (Describe):					
HVAC (Describe	☐ High Efficiency HVAC - SEER:		☐ Heat Pump		☐ Thermostat/Controllers				Passive Solar	
in Comments Area)	☐ Programmable Thermostat ☐ Wind		☐ Wind	Wind		☐ Radiant Floor Heat			☐ Geothermal	
Energy Rating   ENERGY STAR Home  HPWES (Home Performance with EN			NERGY STAR)		☐ Indoor Air PLUS Package ☐ Energy Recovery Ventilator Unit					
	,					Certification At	tach	be		







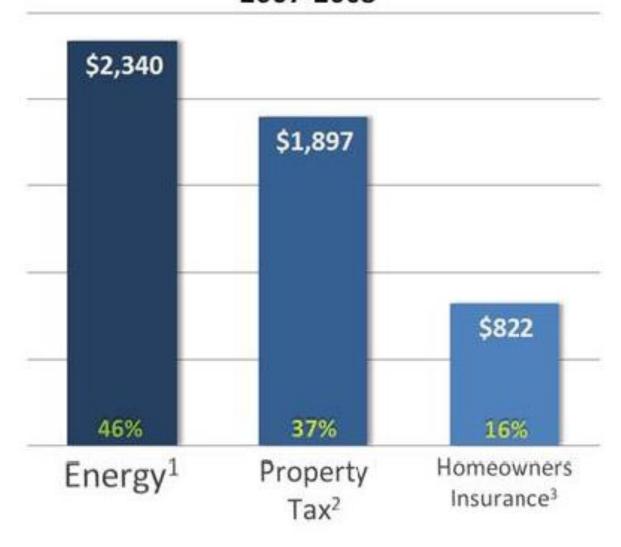








# Average U.S. Homeowner Costs 2007-2008







## **Benefits to Customer**



- Reduced Cost to Operate
- Included / Integrated into Every Home



- EPA/DOE Rated and Validated













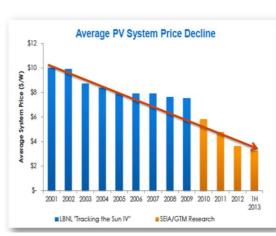






## **Renewables Strategy**

- Maintain Value
- Create Awareness
  - Drive Consumer value perception
  - Installed Cost per Watt
  - Unique Value Positions
- Augment our Innovation Brand
  - 'Zero Ready Homes'
  - 'Making the Best Homes even better'
- Maintain aesthetics and first cost competitiveness













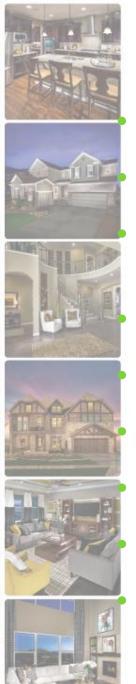




## **Better Re-Sale Potential**

- Easier Resale
  - Advanced Included Features
  - Better Quality, Safer, Quieter
  - More Comfortable, Healthier
  - Lower Monthly Cost
- Better Investment
  - Impending Green Appraisal Standards
  - Cost of Rehab / Upgrading
- Better Homes = More Referrals





## **Better is Better**

## **Low Utility Costs (Energy Label)**

Healthier (VOCs, Merv 8, SPF, Sealed attic ...)

**More Comfortable** (Low e2 windows, SPF, Conditioned attic, TStat...)

Cleaner (Merv 8, SPF, sealed attic...)

Quieter (Low e2 Windows, SPF, sealed attic ...)

Safer (SPF, sealed attic, water management, Low Vocs)

Not Economically Reproducible in Resale

Municipal Partnerships (Development Time)

Appraisal Value / Underwriting Value / Resale Value

Without Changing Lifestyle













## **Lessons Learned**

## Builder Sophistication

- Cost / Benefit
- Assured directs / Unsure returns
- Business Strategies / Rebates
- Warranty

## Buyer Sophistication

- Temporal Discount
- Total Cost of Ownership
- "Nothing is wrong"

## Industry Sophistication

- Appraisal
- Underwriting







## **GET MORE**

















## **BE HEALTHY**















## **LIVE BETTER**



























## Thank you!

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CR.Herro@MeritageHomes.com

