

EEBA 2017 | Atlanta

MANDALAY HOMES

The Future of Energy Efficient Homes



Presented by

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Chief Technology Officer

bit.ly/MandalayEE

ALIFORNI

Chino Valley • Clarkdale
Prescott • Prescott Valley

ARIZONA

• Wickenburg

Glendale • Phoenix



COMPANY MILESTONES

Built our first homes to a 52 HERS index and awarded U.S. DOE Grand Award for Innovation

2013

1999

Mandalay Homes is founded by Dave Everson

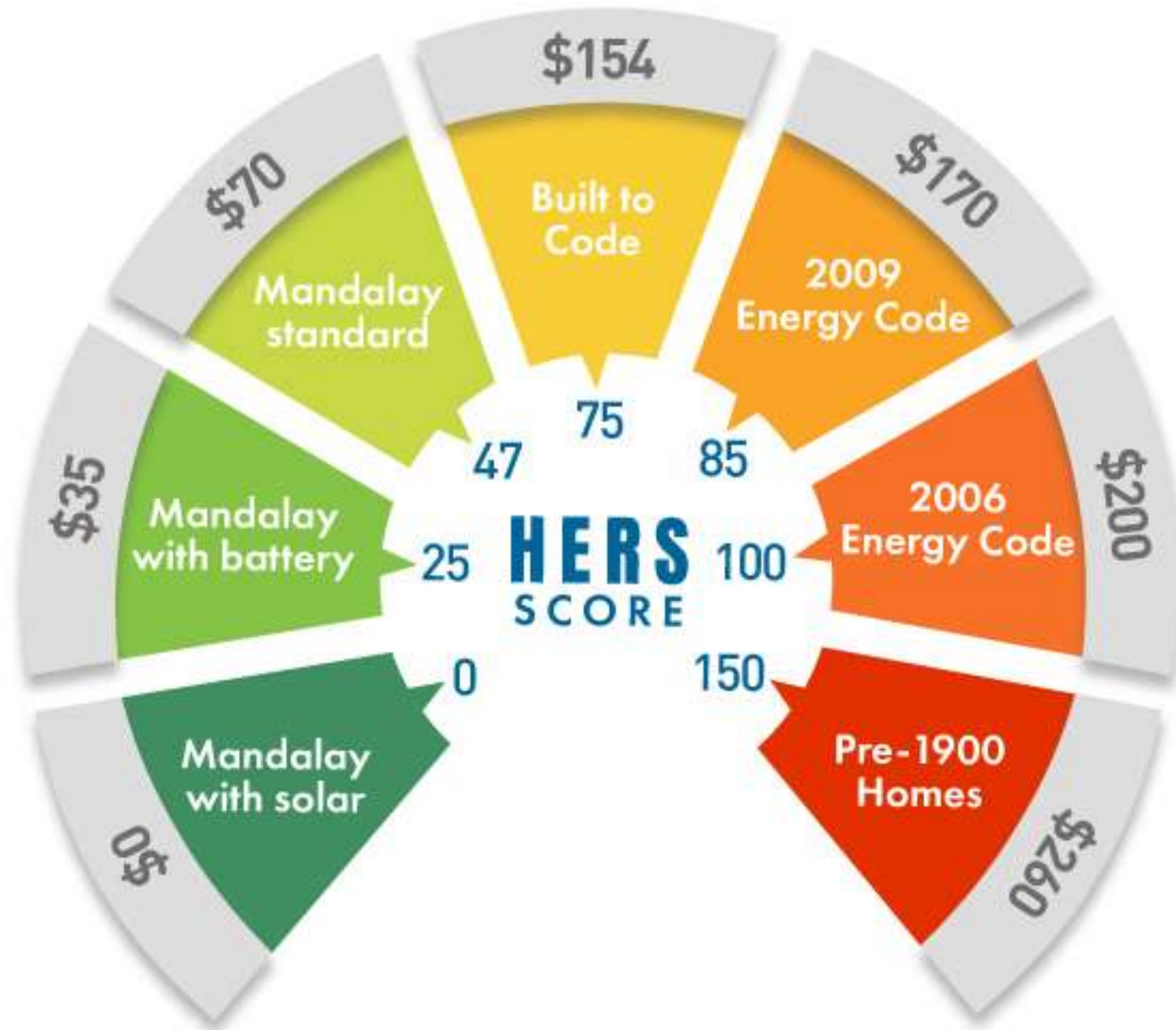
ENERGY STAR partner of the Year
Arizona Forward Award of Merit: Innovation
U.S. DOE Housing Innovations Award:

2017

2016

U.S. DOE Housing Innovations Award - Grand Winner: Production Builders
U.S. DOE Housing Innovations Award - Grand Winner: Most Homes Certified
ENERGY STAR Certified Home Market Leader Award
EPA Indoor airPLUS Leader Award





Homes Built

	2014	2015	2016	2017	2018
Prescott	2	3	27	P	P
Prescott Valley	34	49	36	R	R
Phoenix	10	2	7	O	O
Flagstaff				J	J
Wickenburg				E	E
Clarkdale				C	C
Chino Valley	5	7	15	T	T
Glendale			19	E	E
Payson		4	1	D	D
TOTAL	51	65	105	200	250

Awards

2017

ENERGY STAR Partner of the Year
Arizona Forward Award of Merit: Innovation
U.S. DOE Housing Innovation Award
EPA Indoor airPLUS Leader Award

2016

U.S. DOE Housing Innovation Award - **Grand Winner**: Production Builders
U.S. DOE Housing Innovation Award - **Grand Winner**: Most Homes Certified
ENERGY STAR Certified Homes Market Leader Award
EPA Indoor airPLUS Leader Award

2015

U.S. DOE Housing Innovation Award - **Grand Winner**: Production Builders
U.S. DOE Housing Innovation Award - **Grand Winner**: Most Homes Certified
EPA Indoor airPLUS Leader Award

2014

U.S. DOE Housing Innovation Award: Production Builder
ENERGY STAR Certified Homes Market Leader Award

2013

Arizona Forward -**1st Place** Sustainable Communities Award
U.S. DOE Housing Innovation Award - **Grand Winner**: Affordable Builders

Ratings Used at Mandalay



ENERGY STAR COMPARISON

	ES	Mandalay
Seal Envelope	5 ACH	.6 ACH
HERS	68	47
Windows	.3 U-factor	.27 U-factor
HVAC	SEER 13	SEER 18
Slab	insulate	insulate
Duct leakage	12 cfm	0

Company Goals

✓	Validate Premium Sales Price
✓	Gain Market Share
✓	Attract New Opportunities
✓	Purchasing Power

Obstacles To Our Goals

Constantly Evolving



- ① Getting trades on board
- ② Labor Shortage
- ③ Overcoming the cost myth
- ④ Keeping up to date on latest product innovations
- ⑤ Staff Education
- ⑥ Constant innovative solutions to trading dollars

Trading Dollars

- For our climate zone, full depth insulation in the wall cavity does not provide proportionate thermal value, so we negotiated to purchase spray foam insulation by the inch.
- At 3.5" of thickness we maximize performance and value as opposed to 5.5".
- This savings gets traded into a higher performing HVAC.

- 3 years ago, ERV cost over \$1500
- Today, the cost is \$495.
- This \$1000 in savings gets traded into new technologies such as sealing and windows.

- We adopted a shear product with weatherization layer built into it.
- Nearly \$3500 in labor and materials got traded into a better performing weatherization layer and continuous exterior insulation.

Only 10 solar panel
to achieve near-zero

Envelope to achieve a
47 HERS Index

With the use of
Aero-Barrier, ACH.6



Sonnen battery
storage



ERV standard

Homerun
system

Control4

Remote
thermostat



Wired
for car-charging



Trading Dollars

Product Innovation



What's Next

Education is Key



Education

Mandalay's Marketing Revamp



- ① Sales Agent Training
- ② Sales Office Signage
- ③ Email Campaigns

Let's Not Forget Other Impact Areas

Constant Evolution



- Homeowner Controls: Water, Air, Energy
- Product Durability
- Living Homes
- Social Sustainability

PRESCOTT, AZ



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