



The 2015 IECC and ERI National Energy Codes Conference March 23, 2016

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Who is SPEER

- REEO – Regional Energy Efficiency Organization
- Member-based, non-profit 501(c)3 organization
- 45 members from wide cross section of E.E. industries



SPEER Members



ENVIRONMENTS FOR





Learning Objectives

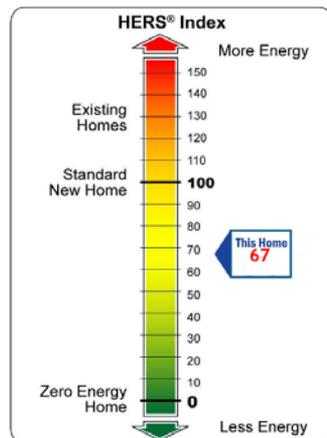
- Gain a high-level understanding of the difference between HERS and ERI.
- List items to consider when adopting the ERI Pathway in your state or jurisdiction.
- Learn best practices of enforcing the ERI Pathway from the code department perspective.
- Learn best practices of working with builders and code inspectors to meet the requirements of the ERI Pathway

2015 IECC ENERGY RATING INDEX REPORT

Property
, TX 78665

Organization
Green Zone Home
512-467-0005

HERS
Confirmed
11/25/15
Rating No: ~~XXXX~~
Rater ID: ~~XXXX~~



Annual Energy Consumption			
	HERS Reference Home (MBTU)	Rated Home nMUEL (MBTU)	Rated Home Cost (\$/yr)
Heating	24.6	15.8	256
Cooling	42.5	22.8	257
Water Heating	9.5	8.2	144
Lights & Appliances	25.5	21.7	604
Photovoltaics	0	-0.0	-0
Total	102.1	68.4	1494

Annual Estimates			
Electric(kWh):	8125	CO2 Emissions(Tons):	8
Natural gas(MCF):	45	Energy Savings (\$)**:	1077

*Based on standard operating conditions
**Based on U.S. DOE designation of a HERS Index of 130 as the 'Typical Existing Home'

TARGET INDEX: 52 **HERS INDEX: 67** **FAIL**

This home DOES NOT meet the RESNET Home Energy Rating Index requirements of Sections 406.3 and 406.4 of the 2015 International energy Conservation Code based on a climate zone of 2A.

Name	Signature
Organization Green Zone Home	Date 11 December 2015

Mandatory Requirements			
HERS Target	FAIL	Duct Insulation (Ducts outside R-6, inside is R-0)	PASS
2009 IECC UA	PASS	Maximum Fenestration U-factor (2012)	PASS
Duct Sealing (2012)	PASS	Maximum Fenestration SHGC (2012)	PASS
Mechanical Ventilation	PASS	Air Leakage (5 ACH50 for CZ1-2, 3 ACH50 for CZ3-8)	PASS
Mechanical Ventilation Efficacy	PASS		

Emissions Data		Provider Data and Seal	
Pollution Prevented			
Carbon Dioxide (CO2) - tons/year	3.0	Green Zone Home	
Sulfur Dioxide (SO2) - lbs/year	7.4	3005 S. Lamar D-109-396	
Nitrogen Oxides (NOx) - lbs/year	5.0	Austin, TX 78704	
		512-467-0005	
		512-279-0354	



It's Not Just a Number

- Verification by an *approved 3rd party*
- All Mandatory measures must be met
 - Envelope leakage rate is mandatory
 - Duct leakage rate is prescriptive
- Rated home inspection checklist
 - Results for both ERI reference design and rated design
 - All inputs necessary to reproduce the results



Maximum Energy Rating Index

Maximum ERI scores established to recognize that HVAC & appliances have a useful life of ~ 15 years while windows and insulation last much longer

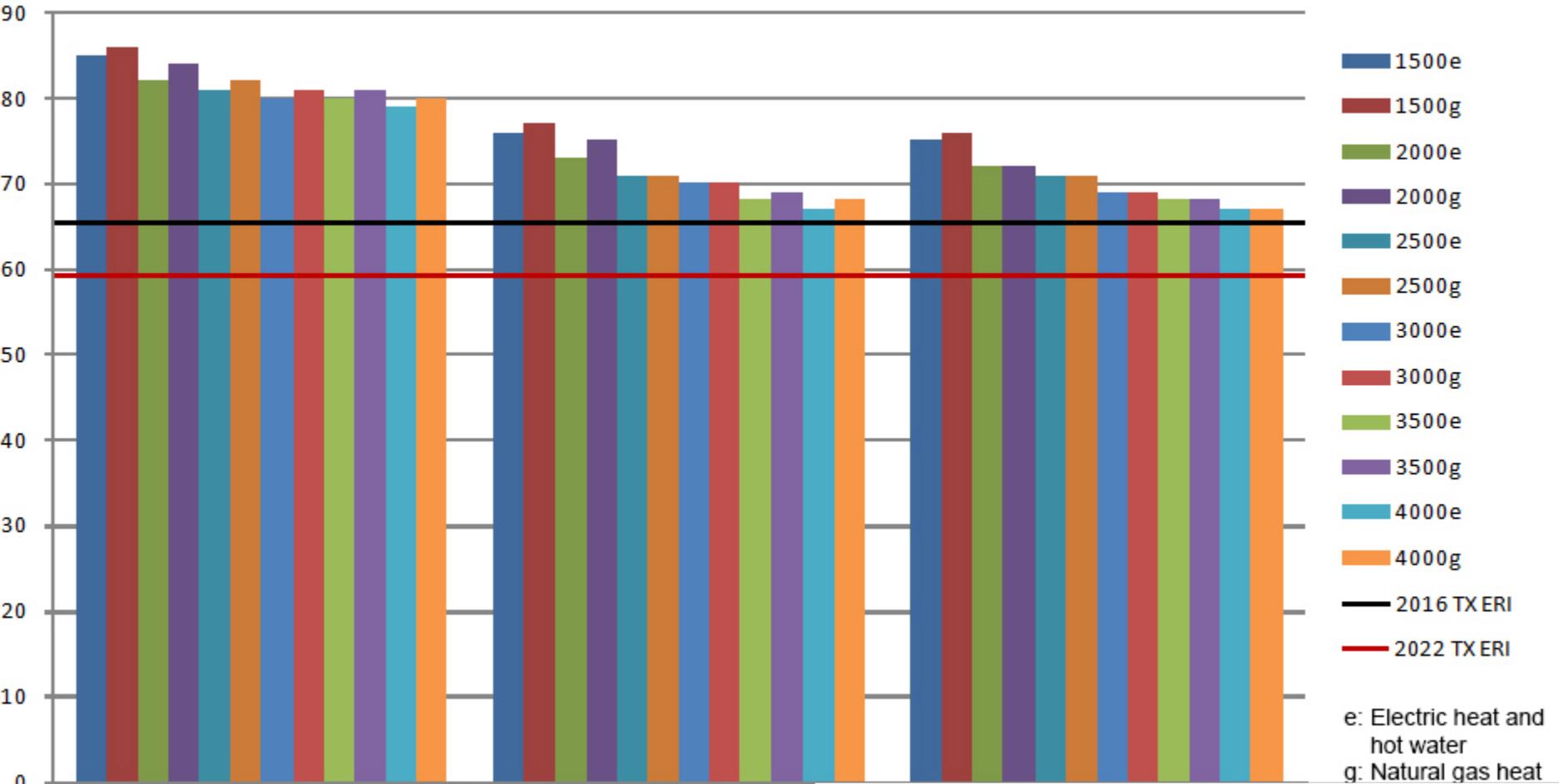
Larger houses also have an advantage in ERI

Table R406.4,
Maximum Energy Rating Index

Climate Zone	Max ERI
1	52
2	52
3	51
4	54
5	55
6	54
7	53
8	53

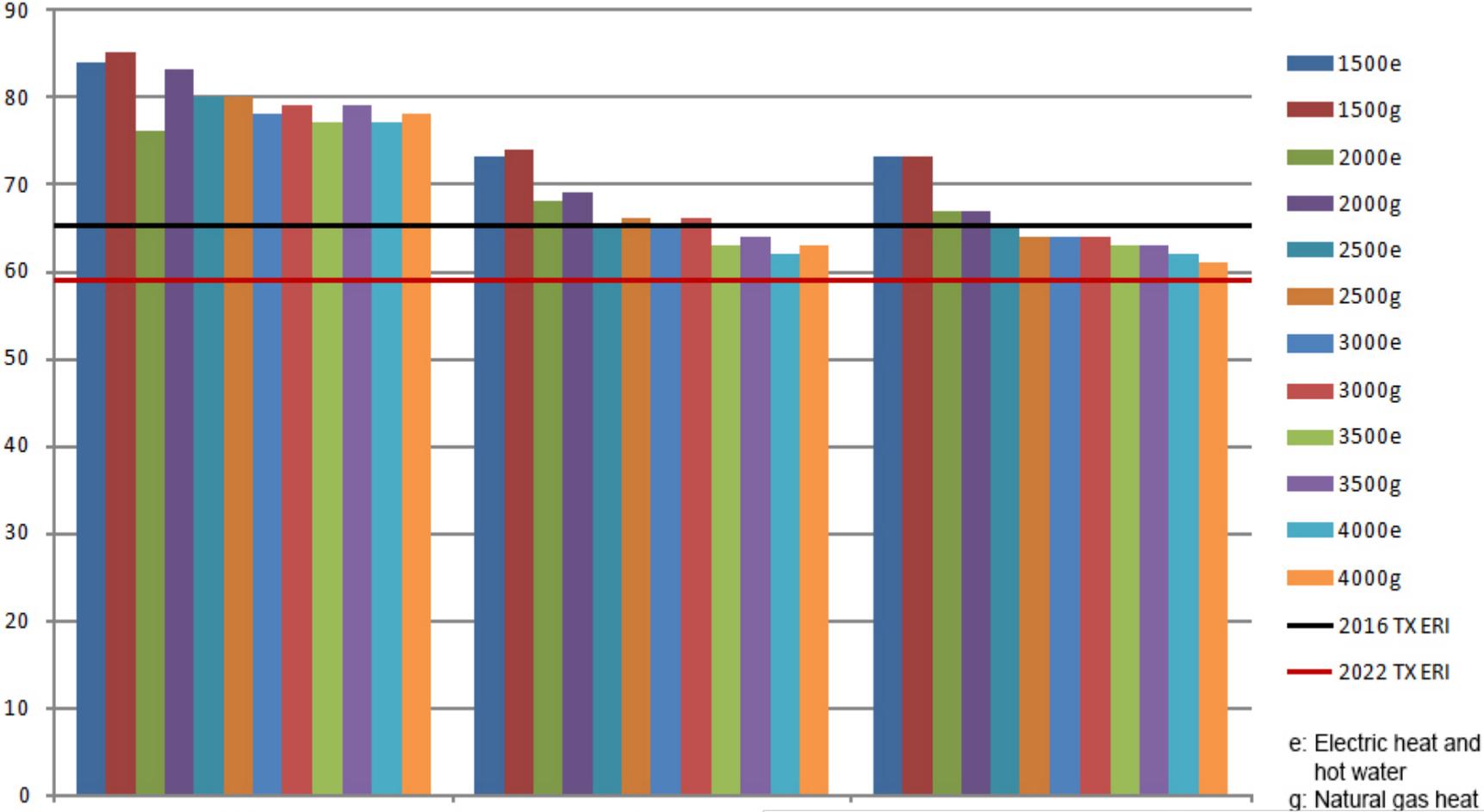


Austin ERI Score by Home Size and Code





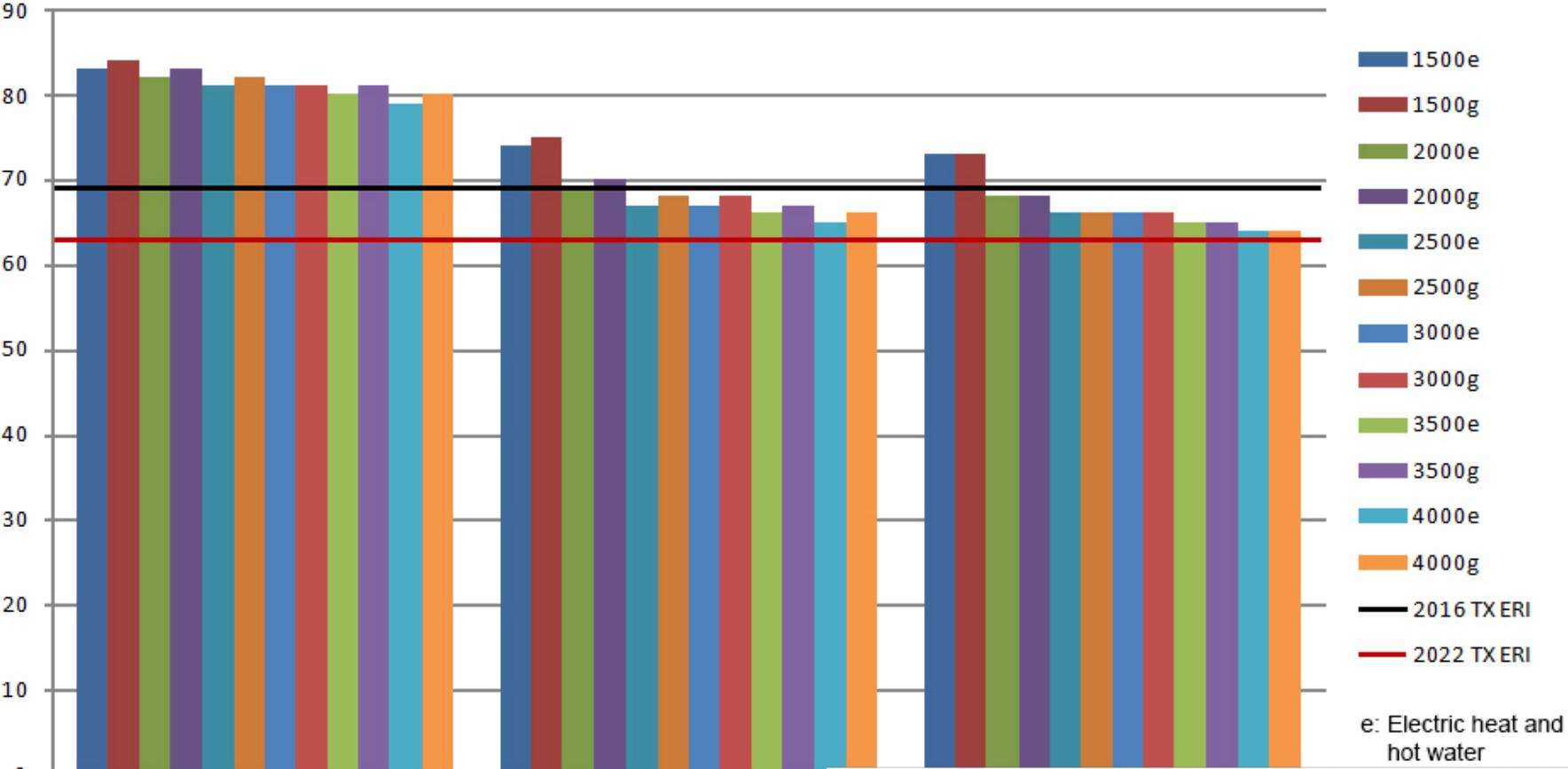
Dallas-Fort Worth ERI Score by Home Size and Code



e: Electric heat and hot water
g: Natural gas heat



Amarillo ERI Score by Home Size and Code



e: Electric heat and hot water





TX. 2015 Energy Code Adoption Toolkit

<https://eepartnership.org/program-areas/energy-codes/>

Questions?

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