



Track: Residential Natural Gas
Unit # 12: Influencing Home Builders and Realtors®
Ideas and Strategies to Overcome Hurdles
Eric Burgis, Energy Solutions Center

1

Topics

Builders

- Natural Gas Industry Challenges
- Consumer Preference
- HERS scores
- Home Affordability
- ∘ Tools
- Misc Items to Influence Builders

Realtors®

- Creating Partnerships & Educating Realtors
- Incremental Cost Example



© Energy Solutions Center Inc. – All Rights Reserved

2





Appliances in New Construction Housing

Natural Gas

Electric

Furnace: \$3,800 - \$10,000

Furnace: \$2,000 - \$7,000

Water Heater: \$700-\$2,670

Water Heater: \$620 - \$1,177

Total: \$4,500 - \$12,670

Total: \$2,620 - \$8,177



2025 Furnace Cost Estimates according to Carrier, include installation Water heater costs include installation, pricing according to AO Smith.

© Energy Solutions Center Inc. – All Rights Reserved



Δ

© Energy Solutions Center Inc.



Appliances in New Construction Housing

But we know:

- •Gas is 3x more efficient on a source vs site basis
- Gas appliances have much lower operating costs
- oGas heats homes up faster and is more comfortable than a heat pump
- Gas water heaters have larger First Hour Ratings
- oGas water heating has a faster recovery rate
- Gas is better for the environment



© Energy Solutions Center Inc. – All Rights Reserved

5

Gas Heat & Electric Water Heaters in New Homes

- Most builders install a condensing furnace
 - oThis furnace has PVC venting
 - ∘No B-vent or chimney is required
- An atmospheric gas tank water heater would be tied into the vent for the atmospheric furnace





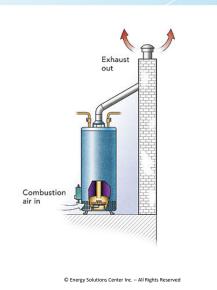
D Energy Solutions Center Inc. – All Rights Reserved

6



Gas Heat & Electric Water Heaters in New Homes

- oThe new furnace uses PVC venting
- No chimney or existing B-vent for the atmospheric water heater
- Builder considers a Power Vent water heater
- Builder saves \$600 \$1,100 by installing an electric tank model versus a natural gas water heater

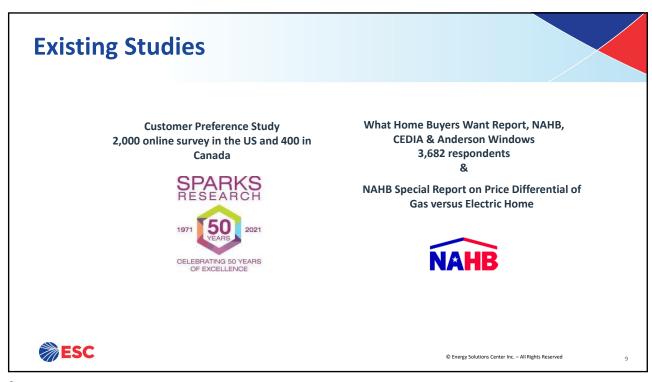




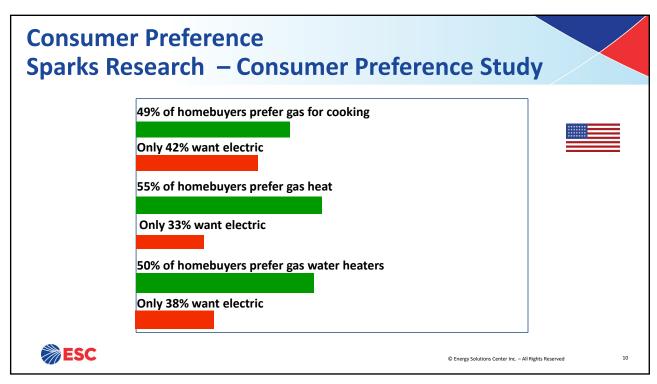
7

Consumer Preference





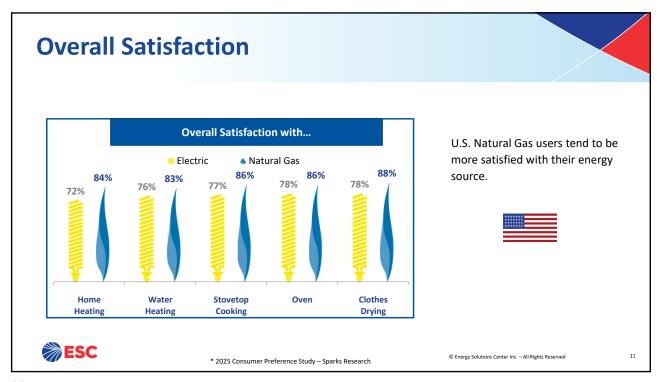
9



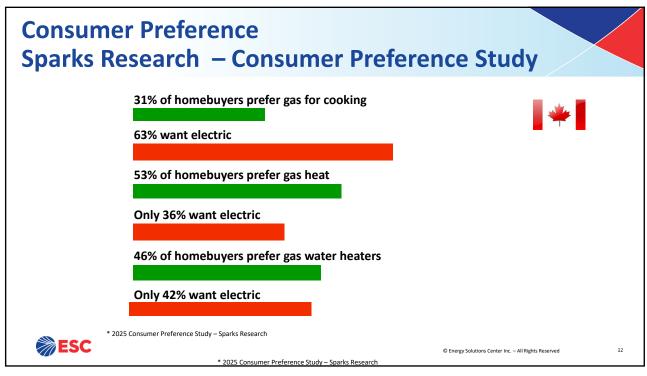
10

© Energy Solutions Center Inc.



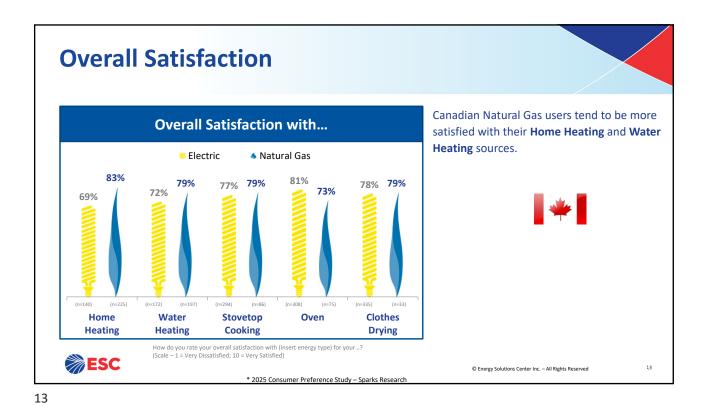


11



12





Consumer Preference: NAHB - Special Report on Price Differential of Gas versus Electric Home

- oHomes built with natural gas sell for at a 6% premium
- •Highly likely that a prospective home buyer will request natural gas appliances





© Energy Solutions Center Inc. – All Rights Reserved

14

14



Consumer Preference NAHB - What Home Buyers Want Study

- °89% would select an Energy Efficient home
- ∘94% want Energy Star appliances
- 91% would like the entire home Energy Star rated
- Energy Efficient Features influence purchase decision



© Energy Solutions Center Inc. - All Rights Reserved

15

Consumer Preference - Summary

- Homeowners / Homebuyers prefer natural gas appliances
- °Cost prevails in the builder decision making process.
- °Gas Utility sales reps need to re-enforcing that consumers want natural gas appliances in the home they are considering purchasing



© Energy Solutions Center Inc. – All Rights Reserved

16

16



Home Energy Rating System (HERS)

A lower HERS rating can be used to help customers obtain a mortgage, or help qualify as an ENERGY STAR home or achieve LEED certification

17

17

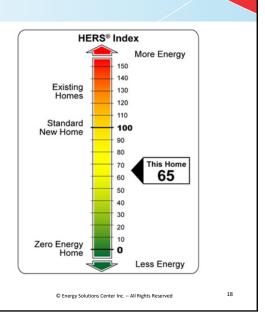
What is The HERS Index?

- ∘ HERS Home Energy Rating System
- Created and maintained by RESNET to rate homes for Mortgage Industry
- ∘ A home built to 2006 IECC standards = 100



- Lower score is better
- Every number = 1% savings
- HERS score of 0 means the home isZero Net Energy

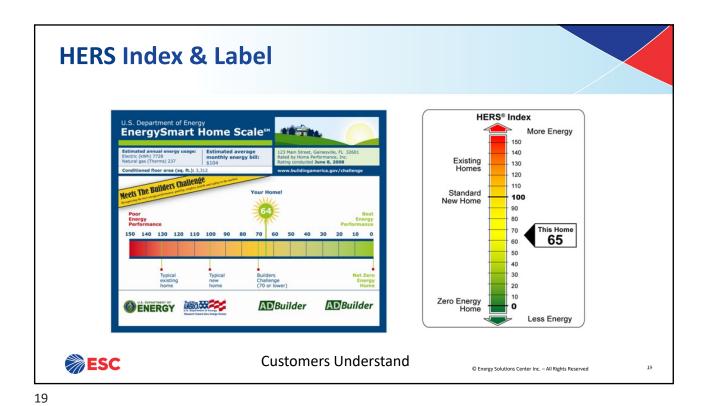




18

© Energy Solutions Center Inc.





Benefits of a HERS Rated Home

- °Lower home ownership costs
- °Can qualify for a larger mortgage due to lower energy costs
- Healthier indoor air
- Better home comfort
- •Peace of mind
- Higher resale value
- Better for the environment
- Boost the economy



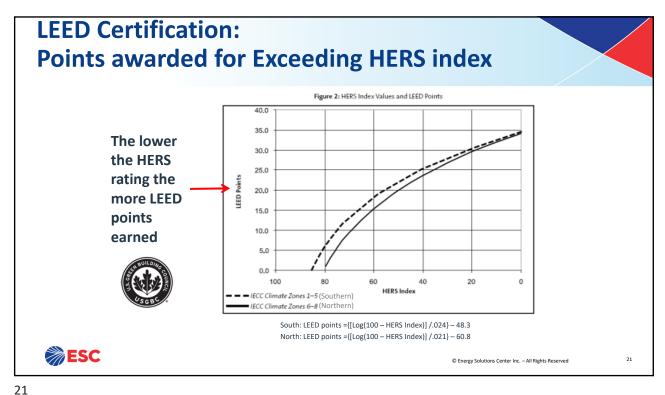
© Energy Solutions Center Inc. – All Rights Reserved

ESC

20

© Energy Solutions Center Inc.





ENERGY STAR

- oA joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE)
- oThe objective: "helping us all save money and protect the environment through energy efficient products and practices"



© Energy Solutions Center Inc.

ESC



Facts about ENERGY STAR Qualified Homes

- o Homes built to ENERGY STAR standards are at least 10% more energy efficient than homes built to the minimum code
- ENERGY STAR qualified homes achieve a 20% improvement on average
- oThe ENERGY STAR program does not include levels like other programs. If a home is qualified it earns the **ENERGY STAR label.**





© Energy Solutions Center Inc. - All Rights Reserved

23

ENERGY STAR Certification Process ≎EPA ESC

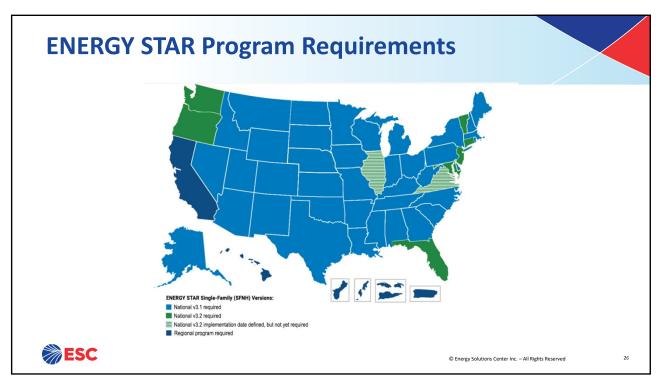


ENERGY STAR Certification Process

- oProvides flexibility to select a custom combination of measures for each home that is equivalent in performance to the minimum requirements of the ENERGY STAR Reference Design Home (Exhibit #1)
- •The Mandatory Requirements for All Certified Homes (Exhibit #2) are also required and impose certain constraints on the efficiency measures selected (e.g., insulation levels, insulation installation quality, window performance, duct leakage).



25



© Energy Solutions Center Inc.



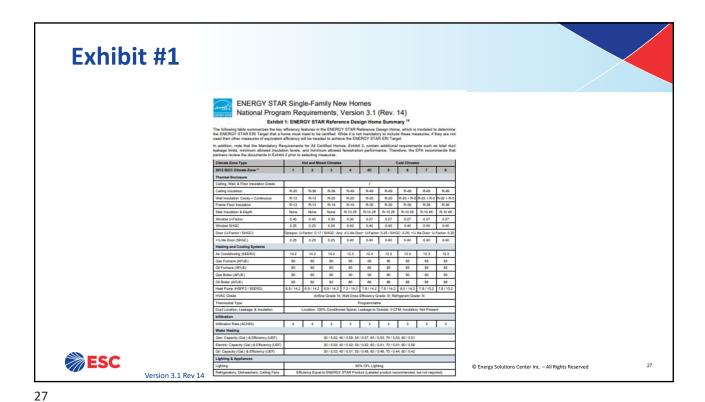


Exhibit #2

Exhibit 2: Mandatory Requirements for All Certified Homes

Party Responsible	Mandatory Requirements				
Requirements Applicable to Track A & B					
Rater	Completion of SFNH National Rater Design Review Checklist, Version 3.1 / 3.2 / 3.3 Completion of SFNH National Rater Field Checklist, Version 3.1 / 3.2 / 3.3				
Requirements Only Applicable to Track A - HVAC Grading 12					
HVAC System Designer	 Completion of an HVAC design report compliant with ANSI / RESNET / ACCA / ICC 310, pl the SFNH / MFNC National HVAC Design Supplement to Std. 310 for Dwellings & Units, Al Versions. 				
HVAC Installing Contractor	While the HVAC contractor plays a critical role in properly installing and commissioning a system, the Rater is the party responsible for assessing its installation quality, per ANSI / RESNET / ACCA / ICC 310. However, the installing contractor may be required to provide documentation to support the Rater's assessment (e.g., regarding the refrigerant system).				
Requirements Only Applicable to Track B - HVAC Credential					
HVAC System Designer	Completion of SFNH National HVAC Design Report, Version 3.1 / 3.2 / 3.3				
HVAC Installing Contractor	Completion of SFNH National HVAC Commissioning Checklist, Version 3.1 / 3.2 / 3.3				



Version 3.1 Rev 14

© Energy Solutions Center Inc. – All Rights Reserved

28

© Energy Solutions Center Inc.





What is an Energy Efficient Mortgage (EEM)

- °Accounts for the energy efficiency of the home
- •The more efficient the home the lower the monthly utility bills
- Can allow for better debt to income ratios
- •That means more money can be spent on the purchase of the home!



© Energy Solutions Center Inc. – All Rights Reserved

30

30

© Energy Solutions Center Inc.

ESC



Types of Energy Mortgages

°Energy Efficient Mortgage:

Finances energy upgrades in a newly constructed home

•Energy Improvement Mortgage:

Finances energy upgrades to an existing home

Both types of mortgage increase buying power



© Energy Solutions Center Inc. – All Rights Reserved

31

31

How an Energy Improvement Mortgage Works

- °Covers 100% of the cost of energy efficient improvements, up to 15% of the home's value once improvements have been made
- °Can be rolled into the mortgage
- Paid over the life of the mortgage
- Home's value is increased by the value of the improvements



© Energy Solutions Center Inc. – All Rights Reserved

32

32



What Homes Qualify?

- Single family, owner-occupied residences
- ∘PUD's
- **o**Condominiums











D Energy Solutions Center Inc. – All Rights Reserved

33

Who Benefits from an EEM? (Energy Efficient Mortgage)

Buyers

- $^{\circ}\mbox{Higher debt}$ to income ratio
- Larger loan amount
- $\circ \textbf{Lower utility bills}$
- olncreased potential resale value





© Energy Solutions Center Inc. – All Rights Reserved

34

34



More Buying Power

Standard Home Purchase:

Buyer monthly income \$5,000

Max monthly payment with 29%

debt-to-income ratio \$1,450

◦ Maximum mortgage allowed \$201,410

Energy Efficient Home Purchase:

Buyer monthly income \$5,000

Max monthly payment with 36%

debt-to-income ratio \$1,800

o Maximum mortgage allowed \$258,957

An increase of over \$57,000!



Energy Solutions Center Inc. – All Rights Reserved

35

Who Benefits from an EEM?

Builders Benefit Also!

- oMakes homes affordable
- Allows them to stand out among the competition
- Sells homes faster
- Attract more buyers
- olncreases market value of homes





© Energy Solutions Center Inc. – All Rights Reserved

36

36



Increase Home Value

Reduction in energy cost: \$1,000/Yr

Additional amount buyer is willing to pay for the home: \$9,292







D Energy Solutions Center Inc. – All Rights Reserved

37

What Builders Need to Understand

- How to sell higher efficiency upgrades
- •The home buyer can afford a higher monthly payment if their energy costs are lower
- •The buyer may be able to handle a larger mortgage payment based on these lower energy costs

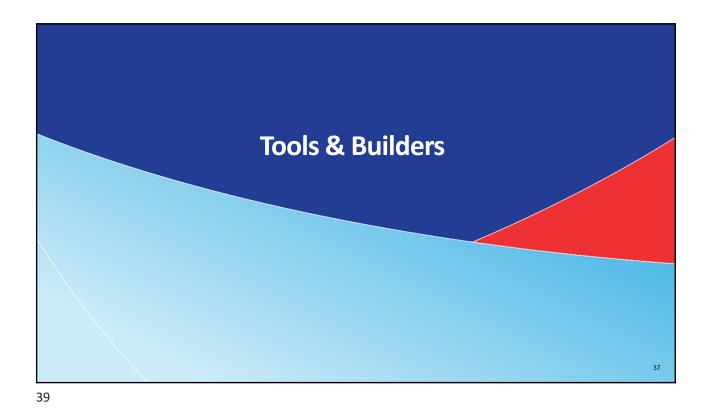


D Energy Solutions Center Inc. – All Rights Reserved

38

38





Natural Gas Industry Tools for Builders

ESC's Residential Consortium

- Energy & Emissions Calculator
- Information sheets & Tip sheets
- Other shared tools by various utilities

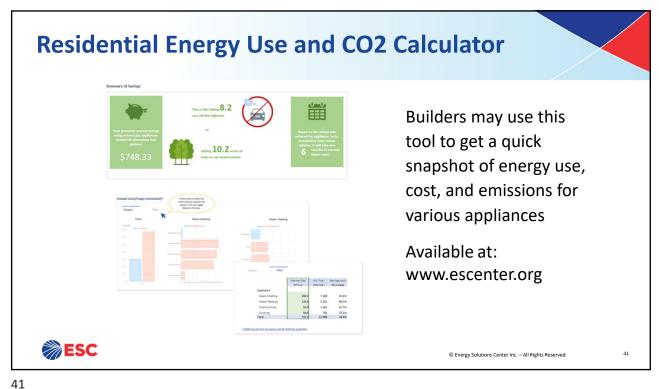


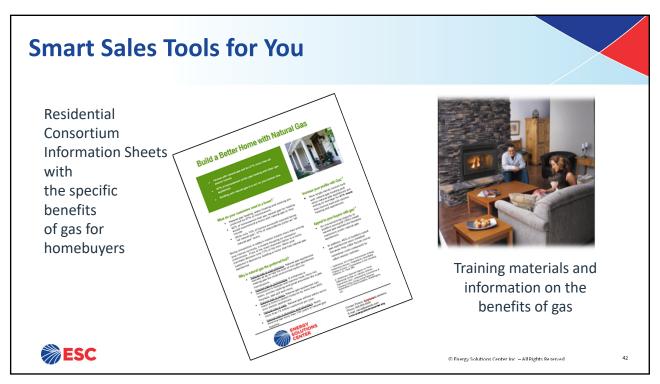


© Energy Solutions Center Inc. – All Rights Reserved

40

40





© Energy Solutions Center Inc.





Gas Homes are Green

Natural Gas:

- ✓ Instrumental in meeting green building certification guidelines
- ✓ Lowers a home's carbon footprint and overall energy use
- ✓ Efficient, dependable, comfortable, abundant, and domestically available

Incentives for Building Green

- Potential local, state, & federal rebates
- Green Home Loans
- Tax Credits
- Your Local Utility

Appliances that can be used to meet green building guidelines:

- High-efficiency gas furnaces and boilers
- High-efficiency gas tank water heaters
- Gas tankless water heaters

© Energy Solutions Center Inc. – All Rights Reserved

4

44

© Energy Solutions Center Inc.

ESC



Green Building Certifications

- Builders have seen trends come and go
- •There are several Green Building Certification programs available
- oToday's homebuyer is more educated





© Energy Solutions Center Inc. - All Rights Reserved

45

Green Building Certifications

- Help builders navigate the "Green Building" maze
- Show them how natural gas can help to differentiate them in the marketplace
- Explain how natural gas helps sell homes more quickly
- Have HERS raters as part of your list of contacts



© Energy Solutions Center Inc. – All Rights Reserved

46



46



Green Building Certifications

OU.S. or Canada Green Building Council



 Leadership in Energy and Environmental Design (LEED™)



National Association of Home Builders (NAHB)



National Green Building Program



ENERGY STAR®



∘Canada R-2000



EnerGuide





© Energy Solutions Center Inc. - All Rights Reserved

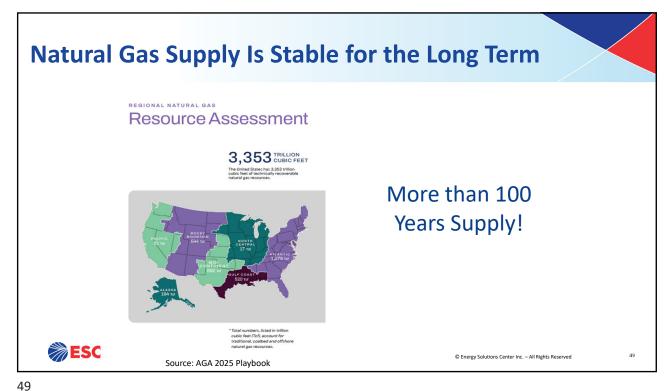
47

Your Carbon Footprint is Lower with Gas Appliances Average Home CO2 in #/Year **Assumptions:** 40,000 2,000 Sq Ft Home 4 Occupants 30,000 8 loads of laundry/week eGRID 2024 emissions 10,000 All sources of power generation ■ Electric (All Sources) ■ Electric (Fossil Mix) ■ Natural Gas **ESC** © Energy Solutions Center Inc. – All Rights Reserved

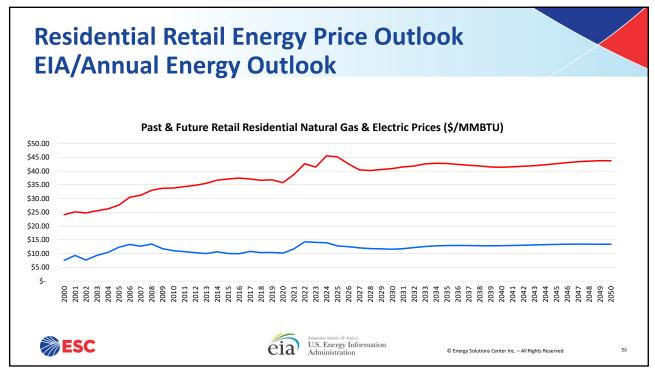
48

© Energy Solutions Center Inc.





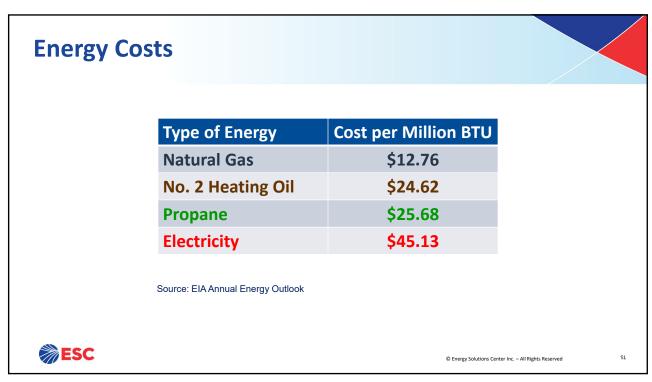
49



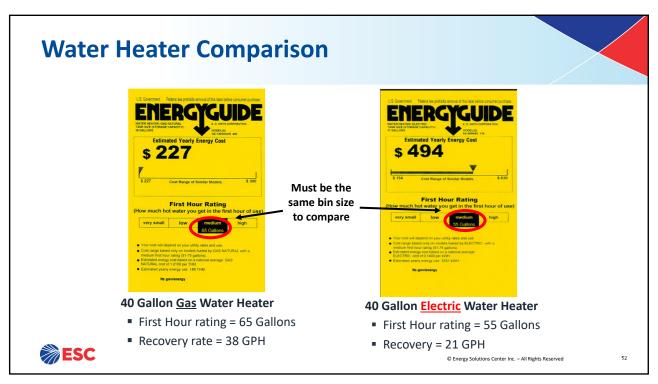
50

© Energy Solutions Center Inc.





51



52

© Energy Solutions Center Inc.



What does this mean?

- •Gas Hot water heaters versus electric water heaters:
 - Provide more hot water
 - Recover faster
 - Less expensive to operate

It means homebuyers are happy with their gas water heater – especially those w/soaker tubs

It means they will talk positively about the builder to friends and family



© Energy Solutions Center Inc. – All Rights Reserved

53

53

Working with Realtors Creating Partnerships and Educating Realtors

54



Creating a Partnership with Realtors®

- •NAR reports almost 1,600,000 members in the U.S.
- •The Canadian Real Estate Association represents members in excess of 160,000
- Realtors® look to differentiate themselves among the competition
- Help Realtors® by providing information that makes their job easier
- Realtors® help you by sharing the benefits of natural gas with buyers and sellers









55

ESC

55

Realtors® are Still a Key Component

The Internet has **NOT** changed how involved Realtors® are in the home buying and selling process.

- °88% of home buyers purchased their home through a Realtor®
- ∘5% of buyers purchased directly from a builder or builder agent
- ∘5% of buyers purchased directly from the previous owner





Source: 2024 NAR Profile of Home Buyers and Sellers

© Energy Solutions Center Inc. – All Rights Reserved

56

56

© Energy Solutions Center Inc.



The Home Search Process

- •43% of buyers stated the first step in the home buying process was to look for a home on the internet
- °21% of buyers contacted a real estate agent as step one in the process
- •86% of all buyers used the services of a real estate agents



Source: 2024 NAR Profile of Home Buyers and Sellers

 $\ensuremath{\mathbb{G}}$ Energy Solutions Center Inc. – All Rights Reserved

57

57

The Goals of a Realtor®

- Appear knowledgeable on a number of topics, anything from school systems to heating systems
- Explain the home selling process to sellers
- oUnderstand what the potential buyer wants in their home





© Energy Solutions Center Inc. – All Rights Reserved

58

58



How Can You Help?

- Become an information source for Realtors® on the topic you know best – the benefits of natural gas
- Offer to provide handouts that can be shared with Realtors'® clients showing why natural gas is the preferred fuel
- Remember, a picture is worth 1,000 words; charts and graphs will go a long way to explain the benefits





© Energy Solutions Center Inc. – All Rights Reserved

50

59

How Can You Help?

- °24% of buyers are first-time buyers
 - othey will request a ton of information
- •The typical seller has lived in their home for 10 years
 - •They may not have sold a home before and will also need to be educated on the process
- oln return, Realtors® will help you sell the natural gas!





Source: 2024 NAR Profile of Home Buyers and Sellers

© Energy Solutions Center Inc. – All Rights Reserved

60

60

© Energy Solutions Center Inc.



Key Facts to Share with Realtors®

Based on a special report completed by the NAHB, Realtors® will want to know that:

- Homes built with natural gas sell, on average, about 21% more than a comparable electric home
- The average sales price of a home with gas was higher across all regions of the country
- Homes built with natural gas cost less to operate and have fewer maintenance calls

That leads to more money in a Realtor's® pocket in less time!





© Energy Solutions Center Inc. - All Rights Reserved

61

Real Estate and Sustainability

- •The NAR (National Association of Realtors®) conducted a survey of its members in March 2023
- •The goal was to explore sustainability issues within the Residential Real Estate industry





© Energy Solutions Center Inc. – All Rights Reserved

62

62



MLS Green Data Fields

- °32% of respondents report using green data fields in their MLS listings
- Highlights a property's eco-friendly features and energy information
- •Allows Real estate professionals to empower their buyers



© Energy Solutions Center Inc. – All Rights Reserved

63

Energy Efficiency is a Selling Point!

- o63% if respondents felt there was a value in promoting energy efficiency in property listings
- As a buyer's awareness of environmental issues increases their priority of energy efficient features also increases
- Buyers prioritize features that can reduce their carbon footprint and also lead to cost savings





© Energy Solutions Center Inc. – All Rights Reserved

64

64



Interest in Sustainability

- °48% of respondents commented that their clients have expressed varied levels of interest in sustainability
- oThis is a major shift in consumer preference
- oA larger number of buyers are expressing an interest in ecoconscious properties





D Energy Solutions Center Inc. – All Rights Reserved

65

65

Green Features

- °34% of Realtors reported that solar panels had a positive impact on property value; renewable energy sources are important to buyers
- •Essential green features include windows, doors, siding, proximity to frequented places, and comfortable living spaces
- °50% of respondents have been involved with properties that had green features on both the buying and selling sides.



© Energy Solutions Center Inc. – All Rights Reserved

66

66



Home Buyers Prefer Gas

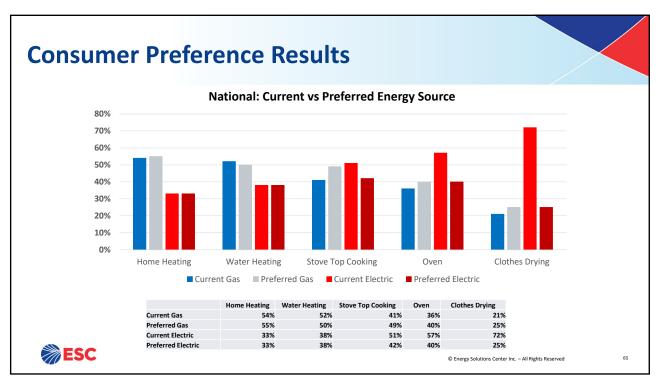
- ∘2,000 online surveys
- •Included both the US (1,600) and Canada (400)
- oThe US surveys were split evenly between the Northeast, Southeast, Central and West areas
- Surveys were conducted betweenMarch 19 April 10, 2025



D Energy Solutions Center Inc. – All Rights Reserved



67



68

© Energy Solutions Center Inc.



Encourage Relationship Building

Encourage Realtors® to get to know their clients before they start an in-depth home search

- o They shouldn't assume clients prefer what they have at home
- They should ask the clients to list their preferences, and rank them according to "must have"

If a buyer is insistent on a particular school district, all logic goes out the window – Realtors® need to share the facts about natural gas early in the home buying process



© Energy Solutions Center Inc. – All Rights Reserved

69

The Advantages of Natural Gas and Natural Gas Appliances

- You know that choosing natural gas appliances makes sense
- Realtors® also need to understand the benefits of natural gas and gas appliances, and how these benefits can improve the lives of their clients



Remember:

Happy Clients = Customer Referrals = Happy Realtor®!



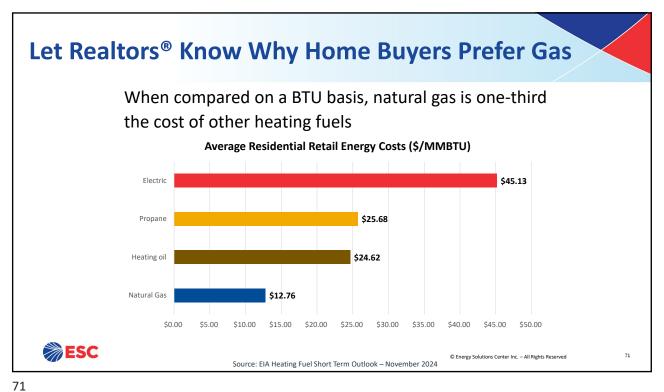
© Energy Solutions Center Inc. – All Rights Reserved

70

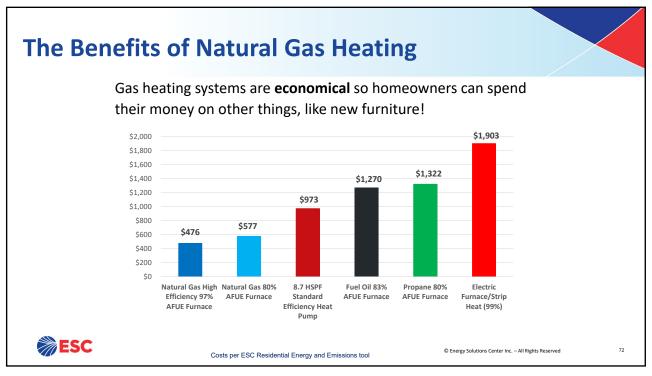
70

© Energy Solutions Center Inc.









© Energy Solutions Center Inc.



Natural Gas Heating is also...

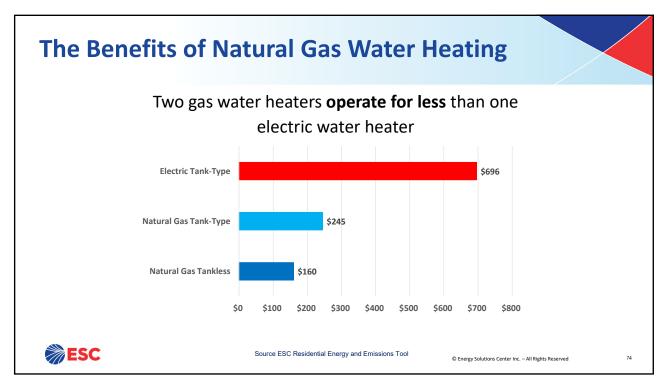
- Efficient: Gas furnaces are up to 97% efficient Oil heating systems can reach maximum efficiency levels of only 87%
- Comfortable: Heat from a gas furnace is delivered at around 130°F (54.4°C) which is 25°F (3.9°C) warmer than the air delivered by an electric heat pump
- Reliable: Natural gas furnaces last longer than any other type of heating system
 - On average, a natural gas furnace will last about six years longer than an electric heat pump and about five years longer than an oil furnace



© Energy Solutions Center Inc. – All Rights Reserved

73

73



74

© Energy Solutions Center Inc.



Tankless Gas Water Heaters

- Provide an endless supply of hot water
- Don't heat water that sits in a tank
- Saves about 25% compared to a conventional gas tank-type unit
- Units are wall-mounted, freeing up floor space. Since there is no tank the units are smaller.
- Tankless units can last up to 20 years



Note: Realtors® may not be familiar with this technology



© Energy Solutions Center Inc. - All Rights Reserved

75

75

The Benefits of Natural Gas Cooking

According to a recent survey of professional chefs conducted by Fryette Consulting Group, almost 90% of respondents preferred natural gas for cooking. Why? The top 4 reasons are:

- ° Consistent and even control of heat
- Faster than electric
- ° Better cooking results
- ° More efficient than electric

And, since natural gas is less expensive than electric, homebuyers can enjoy savings of **50% or more**





© Energy Solutions Center Inc. – All Rights Reserved

76

76

© Energy Solutions Center Inc.



The Benefits of Natural Gas Clothes Drying

- °For the same amount of money, you can dry more than two loads of laundry with a natural gas dryer compared to one load with an electric dryer
- A natural gas dryer will heat up and dry clothes faster which will save time
- •The reduced drying time is also gentler on fabrics







© Energy Solutions Center Inc. - All Rights Reserved

77

What About the Premium for Gas Appliances?

- oNatural gas appliances are economical but sell at a premium
- A Realtor® needs to show homebuyers that this cost does not have a large impact on monthly mortgage payments
- oln fact, because gas appliances are so economical, the net payments are lower for the gas home!





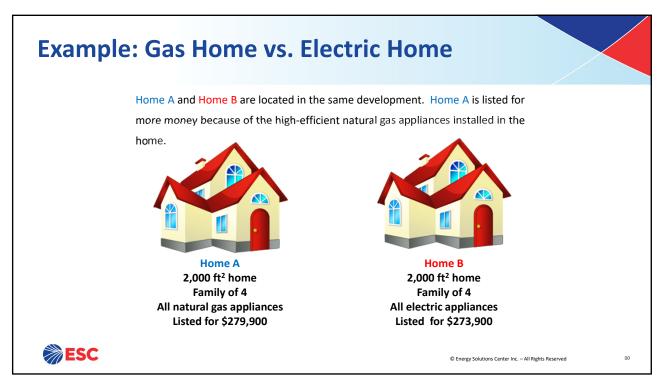
© Energy Solutions Center Inc. – All Rights Reserved

78

78







80

© Energy Solutions Center Inc.



Incremental Cost

How much does the premium associated with Home A affect mortgage payments?

	Additional Mortgage Payment Per Month				
	Interest Rate				
Additional \$ Financed	4%	5%	6%	7%	
\$2,000	\$9.55	\$10.74	\$11.99	\$13.31	
\$4,000	\$19.10	\$21.48	\$23.98	\$26.62	
\$6,000	\$28.65	\$32.21	\$35.97	\$39.92	
\$8,000	\$38.20	\$42.95	\$47.96	\$53.23	
\$10,000	\$47.74	\$53.68	\$59.95	\$66.53	
\$12,000	\$57.29	\$64.42	\$71.94	\$79.84	



© Energy Solutions Center Inc. - All Rights Reserved

81

Do the Math!

Home A

Additional Cost to Buy: \$6,000

Additional Monthly Mortgage Payment*: \$39.92 Additional Annual Mortgage Payment*: \$479.04

- But, according to the American Gas Association, a home that uses natural gas for heat, cooking and clothes drying saves, on average, \$1,132 per year compared to a home using electricity for those appliances
- Home A is a much better deal savings with natural gas pay for the increase in mortgage payments, with money left over Plus, the homeowner gets to enjoy all the benefits associated with natural gas and natural gas appliances!



*based on current rates of approximately 7%



© Energy Solutions Center Inc. – All Rights Reserved

82

82

© Energy Solutions Center Inc.



More Fun with Gas!

Realtors® will want to entice their buyers by sharing with them the array of natural gas products that are available today

Natural gas products can be trendy and fun while still saving clients money!





D Energy Solutions Center Inc. – All Rights Reserved

83

Natural Gas Hearth Products

- °Deliver comfort and ambiance
- °Burn very efficiently and are clean
- Are safe no creosote build-up or sparks and embers
- Can be enjoyed either by flicking a switch or by touching a button using a remote





© Energy Solutions Center Inc. – All Rights Reserved

84

84



Natural Gas Generators

- Are a desired feature for homes
- Allow homeowners to stay in their home during power outages
- Are preferred for safety and reliability-no worries about refueling or running out of fuel





© Energy Solutions Center Inc. - All Rights Reserved

95

85

Other Natural Gas Products

Outdoor fun products include:

- onatural gas grills
- opatio heaters
- opool and spa heaters
- ogas lights
- otiki torches
- outdoor hearth products



© Energy Solutions Center Inc. – All Rights Reserved

86

86

© Energy Solutions Center Inc.

ESC



Natural Gas is Good for the Planet

- olt is the cleanest burning fossil fuel
- olt has virtually no emissions of sulfur dioxide or particulate matter and far lower levels of "greenhouse" gases when burned
- olt produces virtually no solid waste
- •Almost 100% of natural gas is produced in North America
- Delivered to the customer with around 92% efficiency





© Energy Solutions Center Inc. - All Rights Reserved

87

Natural Gas is Safe

According to the American Gas Association:

- More than 189 million Americans and 5.8 million businesses use natural gas because it is affordable, safe, reliable andcustomers per year
- oThe nation's most critical buildings all rely on natural gas
- Many natural gas utilities have been delivering natural gas for decades, some for more than a century – they are the experts!
- Natural gas pipelines have an outstanding safety record





© Energy Solutions Center Inc. – All Rights Reserved

88

88



Resources

- ∘NAHB www.nahb.org
- °Canadian HBA www.chba.ca
- ∘NAR www.realtor.org
- oCREA www.crea.ca
- ∘RESNET/HERS www.resnet.us
- ∘ESC www.ESCenter.org



© Energy Solutions Center Inc. – All Rights Reserved

89



90

© Energy Solutions Center Inc.