

Northeast Gas Association 2016 Sales & Marketing Conference

The Energy Landscape: What a Difference a Year
Makes!

March 24, 2016

Topics

1. Energy Landscape

Tim Lyons

- What has changed since last year?

2. Oil Heat Consumers

Bill Wietecha

- How opinions changed in past year
- Implications

3. Initiatives

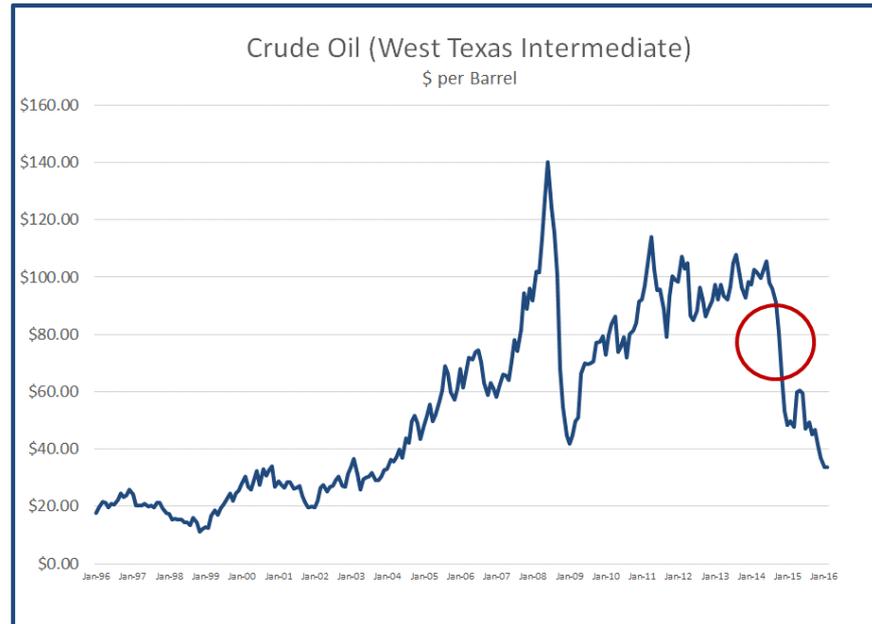
Tim Lyons

What a Difference a Year Makes!

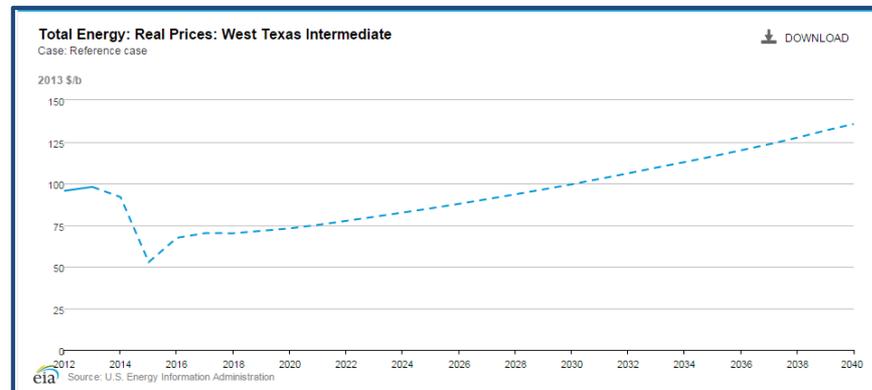
	THEN	NOW
Degree Days (Oct. 1 – Mar. 15)	4,730	3,636
Snow Fall	109"	26"
Michigan State 	Final Four	First Round Upset
Super Bowl Champs		
Gasoline	\$2.41	\$1.81

Sales and Marketing Conference: THEN

- ❖ Falling oil prices were a recent phenomenon
 - \$100 per barrel in Jul 2014
 - \$45 per barrel in Jan 2015
- ❖ Most consumers believed that low oil prices would not continue
 - 65% believed the price of oil will go up in the future
- ❖ EIA was projecting prices would go up (but not to levels seen in 2014)
 - \$75 per barrel in 2016
- ❖ Northeast gas utilities continued to hold a strong price advantage over heating oil



Source: Bloomberg; Sussex analysis.



Source: EIA

Sales and Marketing Conference: NOW

❖ Continued decline in oil prices

- Below \$30 per barrel

❖ Morgan Stanley:

- “In an oversupplied market, there is no intrinsic value for crude oil. \$20-to-\$25 oil price scenarios are possible simply due to currency (dollar appreciation)”

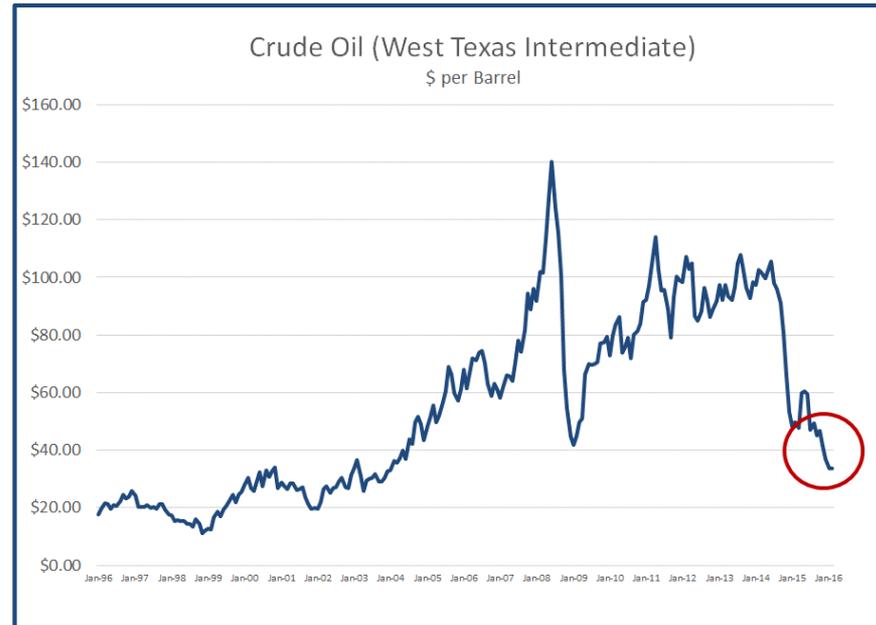
❖ Oil companies

- Cost cutting, layoffs

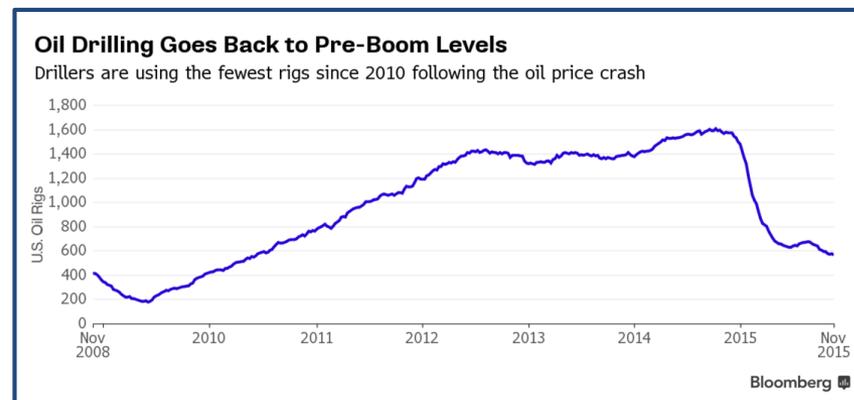
❖ Falling U.S. rig counts

❖ EIA's short-term outlook

- 2016 – \$34 per barrel
- 2017 – \$40 per barrel

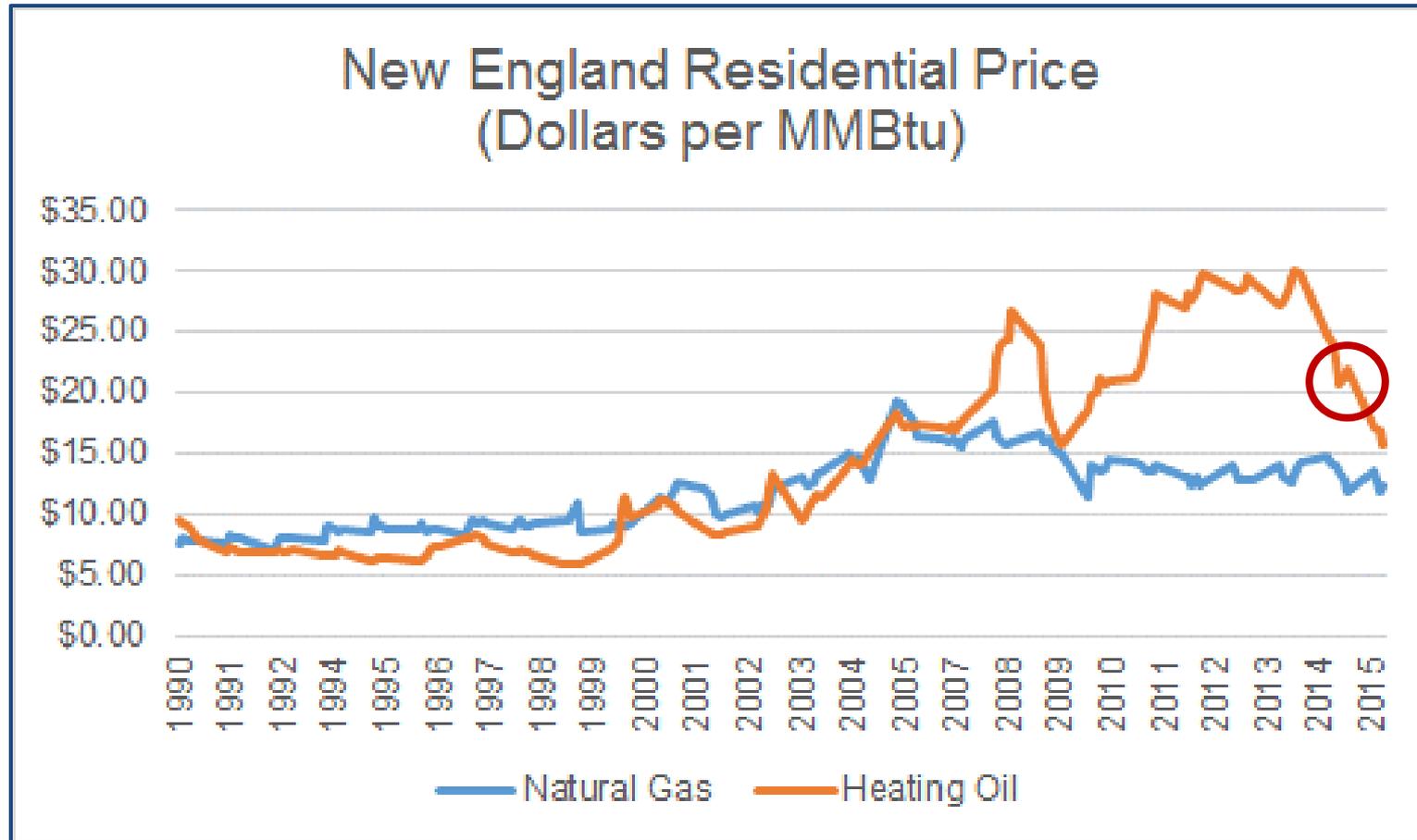


Source: Bloomberg; Sussex analysis.



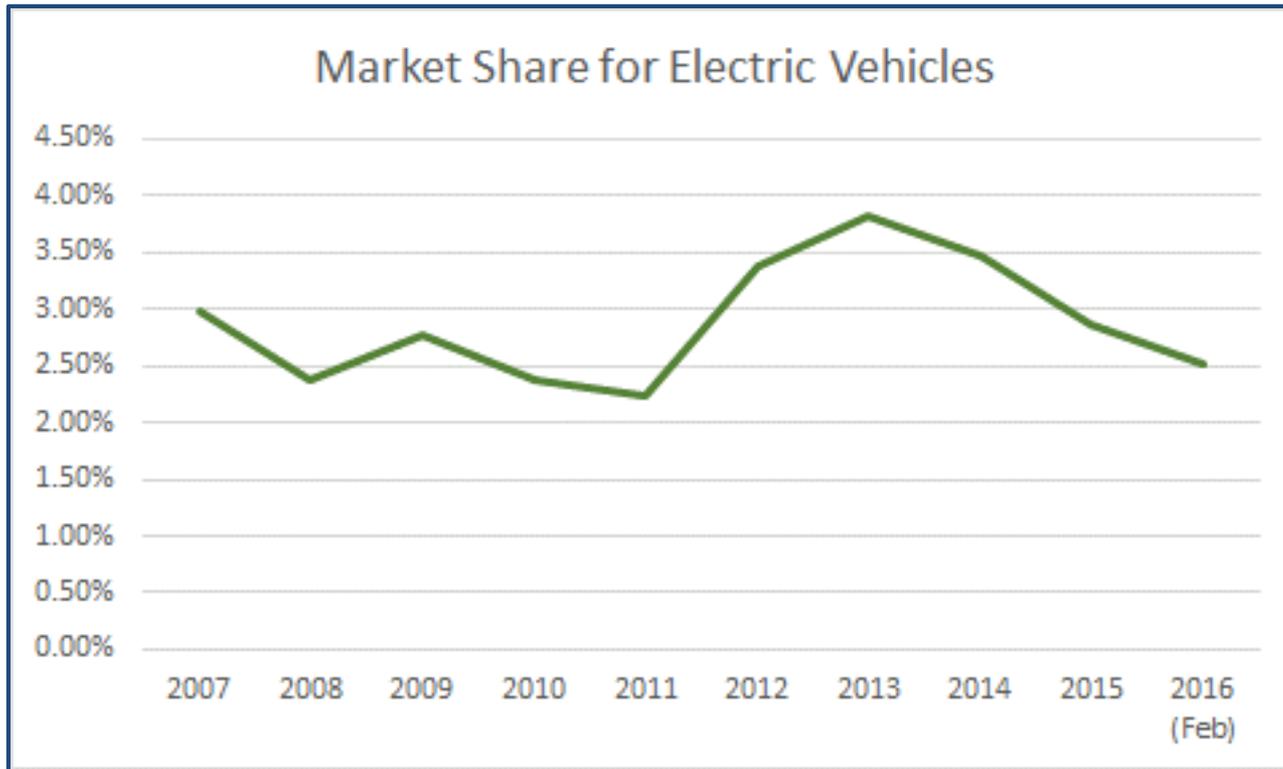
Source: Bloomberg; Sussex analysis.

Continued Decline in Retail Oil Prices



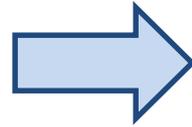
Source: U.S. Energy Information Administration (EIA), Sussex Analysis

Impact on Other Industries



“Plunging oil prices are set to hit the electric car industry hard, but Tesla vehicles won't be the worst affected.” —Tesla CEO Elon Musk

Declining Oil
Prices



Oil Industry
Response

Oil Industry Survey: What's Important to Oil Consumers?¹

❖ Lower fuel bills

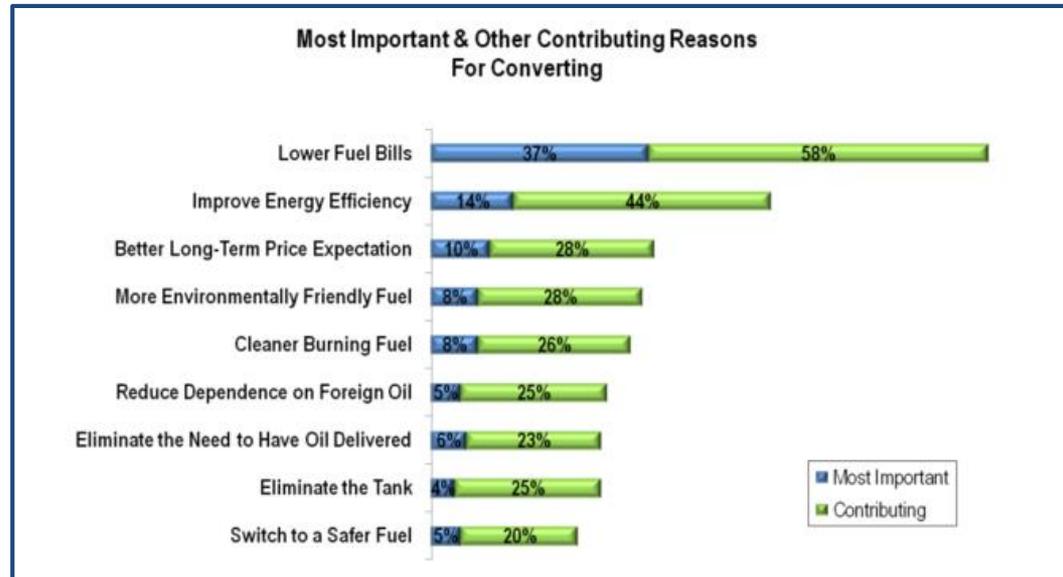
- 94% – as primary or secondary reason
- 38% – better long-term price expectation

❖ Improved energy efficiency

- 14% – as primary reason
- 44% – as secondary reason

❖ Environmentally friendly/ cleaner burning fuel

- 25% – as secondary reason
- Similar response for “reduce dependence on foreign oil”



Importance of Bioheat

“For those who are thinking of converting, this is a very big deal.”

Survey (Cont'd): What's Driving Them To Convert?¹

❖ 36% likely to convert

- 7% – extremely likely
- 29% – somewhat likely

❖ New homeowners

- Almost 20% say they are extremely likely to convert

❖ Price outlook driving interest

- 41% think their fuel costs will be higher than other options in five years
- Only 6% think oil will be less than other fuels

❖ Recent price drop not fully appreciated

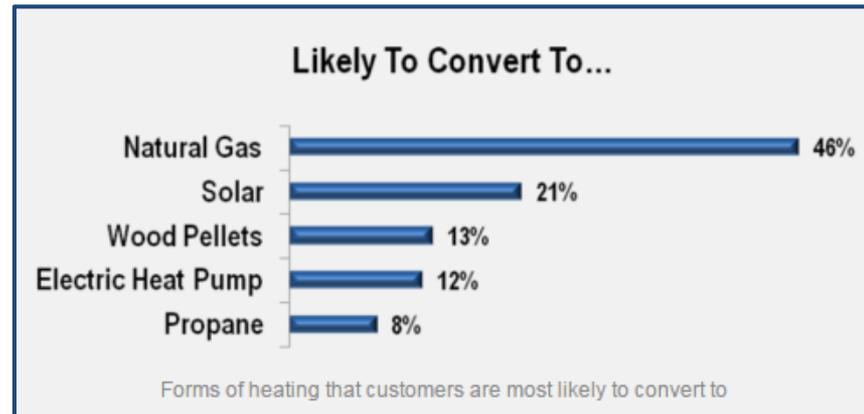
- “...it seems like consumers will need another year or two of lower oil prices to really rethink their calculations. If that happens, the playing field will certainly shift”

❖ Not strong positive about oil

- Of those that want to stay with oil, only 18% cite that they are happy with oil

By Homeowner Age	18 – 34	35 – 54	55+
Extremely Likely	19%	7%	2%
Somewhat Likely	50%	32%	18%
Somewhat Unlikely	24%	38%	37%
Extremely Unlikely	7%	23%	43%

Likelihood to convert, by age



¹ Goldberg, Rich, “Inside the mind of today’s home heating oil customer,” *Indoor Comfort Marketing*, September 2015.
Source: <http://www.indoorcomfortmarketing.com/inside-the-mind-of-todays-home-heating-oil-customer.html>

Survey (Cont'd): What's Holding Them Back?¹

❖ Upfront conversion costs

- 40% believe it will cost less than \$5,000 to convert

❖ Long payback

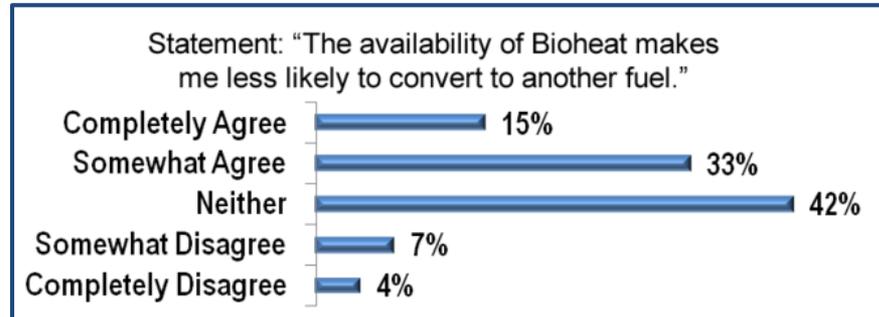
- 19% think it's less than two years
- 46% think it's two to five years, with little tolerance for a longer period

❖ Environmental concerns not a major factor...

- Only 1% identify environmental issues with natural gas or electricity as a reason to stay with oil

❖ ...Nor are safety concerns

- Only 3% say they are staying with oil principally because of safety concerns with other fuels



"Bioheat is a potential game changer for those thinking about converting."

However, less than 12% of oil customers know what Bioheat is.

¹ Goldberg, Rich, "Inside the mind of today's home heating oil customer," *Indoor Comfort Marketing*, September 2015.
Source: <http://www.indoorcomfortmarketing.com/inside-the-mind-of-todays-home-heating-oil-customer.html>

Oil Industry Messaging – Price

❖ Heating oil is not “more expensive” than natural gas

- “Statistics show that, depending on where you live, heating oil was less expensive than natural gas throughout most of the last 22 years”

❖ Heating oil is more efficient than gas

- “On average, heating oil burns about 16% more efficiently than gas”

❖ Conversions are an “expensive gamble”

- Consumer Energy Council of America (CECA) recently stated, “...it's financially unwise for consumers to convert from oil to gas heat”

❖ Customer anecdotes

- Some dealers have heard from customers who regret switching to natural gas

❖ Heating oil systems have a longer life

- “The average life expectancy of an oil heat appliance is 30 or more years if they are properly maintained. The average life expectancy of a natural gas furnace is only 11-14 years”

Heating Oil vs. Gas - The facts you need to know.

There are many reasons why choosing oil to heat your home is a better decision than converting to another fuel source. However, we also realize that when making that choice you have options, like heating oil vs. natural gas. Before making this important decision it pays to sort out the facts from the fiction about both fuel sources.



FACT: Heating oil supplies are plentiful.

Globally, oil and petroleum reserves remain higher than ever. Even if there is a shortage elsewhere, the US is not dependent on imports or any one source for supply, with 727 million barrels in the Strategic Petroleum Reserve and approximately 2 million barrels in the Northeast Heating Oil Reserve alone.¹ And, renewable biofuel options are adding to an already substantial and sustainable supply. Petro has also never run out of oil and our automatic delivery service ensures that you won't either. With natural gas consumption on the rise, there are concerns that domestic production will not be able to keep pace with demand. Since natural gas isn't renewable and most of the world's natural gas reserves are outside the US, relying on imports is a real possibility in the future.



FACT: Heating oil is not “more expensive” than natural gas.

Statistics show that, depending on where you live, heating oil was less expensive than natural gas throughout most of the last 22 years.¹ Unlike oil, natural gas is a non-renewable fossil fuel and growing global consumption of natural gas could lead to a competitive global supply and demand market, as well as rising prices. And, converting a heating oil system to natural gas is expensive, with tank removal, chimney, plumbing and duct work potentially costing over \$9,000!²

FACT: Heating oil is a clean fuel.

Today, oil produces almost zero emissions and the latest oil system technologies ‘reburn’ fuel, lowering emissions even further. Developing technologies are also embracing lower sulfur oil blends that, when mixed with biofuels, create an even cleaner heating oil option. And, if a heating oil system is properly maintained, it burns cleanly. Any soot that it creates remains only inside the tank. With a methane content of 95%, natural gas system losses account for 18% of total global methane emissions, a powerful contributor to global warming and climate change.¹

The average life expectancy of an oil heat appliance is 30 or more years if they are properly maintained. The average life expectancy of a natural gas furnace is only 11-14 years.

<http://www.petro.com/why-petro/resources/articles/the-facts-about-oil-vs-gas-heating>

Oil Industry Messaging (Cont'd) – Environmentally Friendly

❖ Is Cleaner than ever

- “Oil heat is 95% cleaner than it was in the 1970s”

❖ Is Green

- “Heating oil burns so cleanly that its emissions aren't regulated by the Federal Clean Air Act”

❖ Burns as Cleanly as Natural Gas

- “National Oilheat Research Alliance study concluded that Bioheat fuel blends using ultra-low-sulfur heating oil can match or exceed the performance of natural gas in terms of reducing GHG emissions”

❖ Is Renewable

- “Oil heat is moving toward new, environmentally friendly, plant-based biofuel blends”



<http://mybioheat.com/what-bioheat-is/>

Oil Industry Messaging (Cont'd) – From the Oil Dealers

❖ Price drop has been welcomed

- “Having heating oil remain competitive is essential to the survival of the industry.” (Falcon Oil in Blakely, PA)

❖ Prices are now low and have stabilized

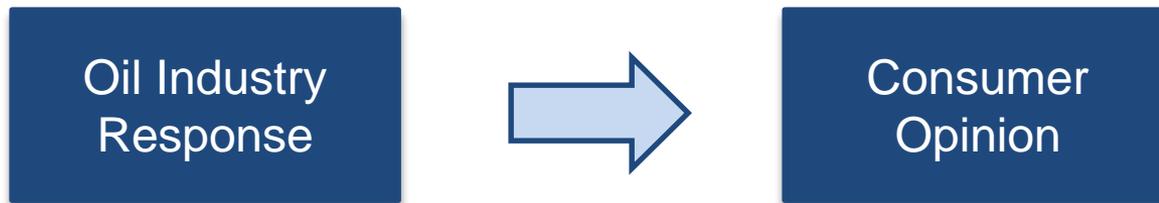
- “This is the lowest oil prices have been in 10 years and we expect them to go even lower”
- “Oil prices have stabilized and will stay here for a long time. If anything, they will go down even further”
- “We have programs where you can get a fixed low price and if it goes lower, you get the advantage”

❖ Environmental

- “Oil is as clean burning as natural gas and gas prices are going up. All the new technology is in oil and the government supports it”

❖ Other

- “It is a really exciting time for oil heating customers. Prices are low and the oil heating industry is transitioning to a superior fuel product. By adding biodiesel, a renewable, carbon-neutral fuel to low-sulfur heating oil, heating oil retailers are actually delivering a better product at a significantly lower price. What could be better?”



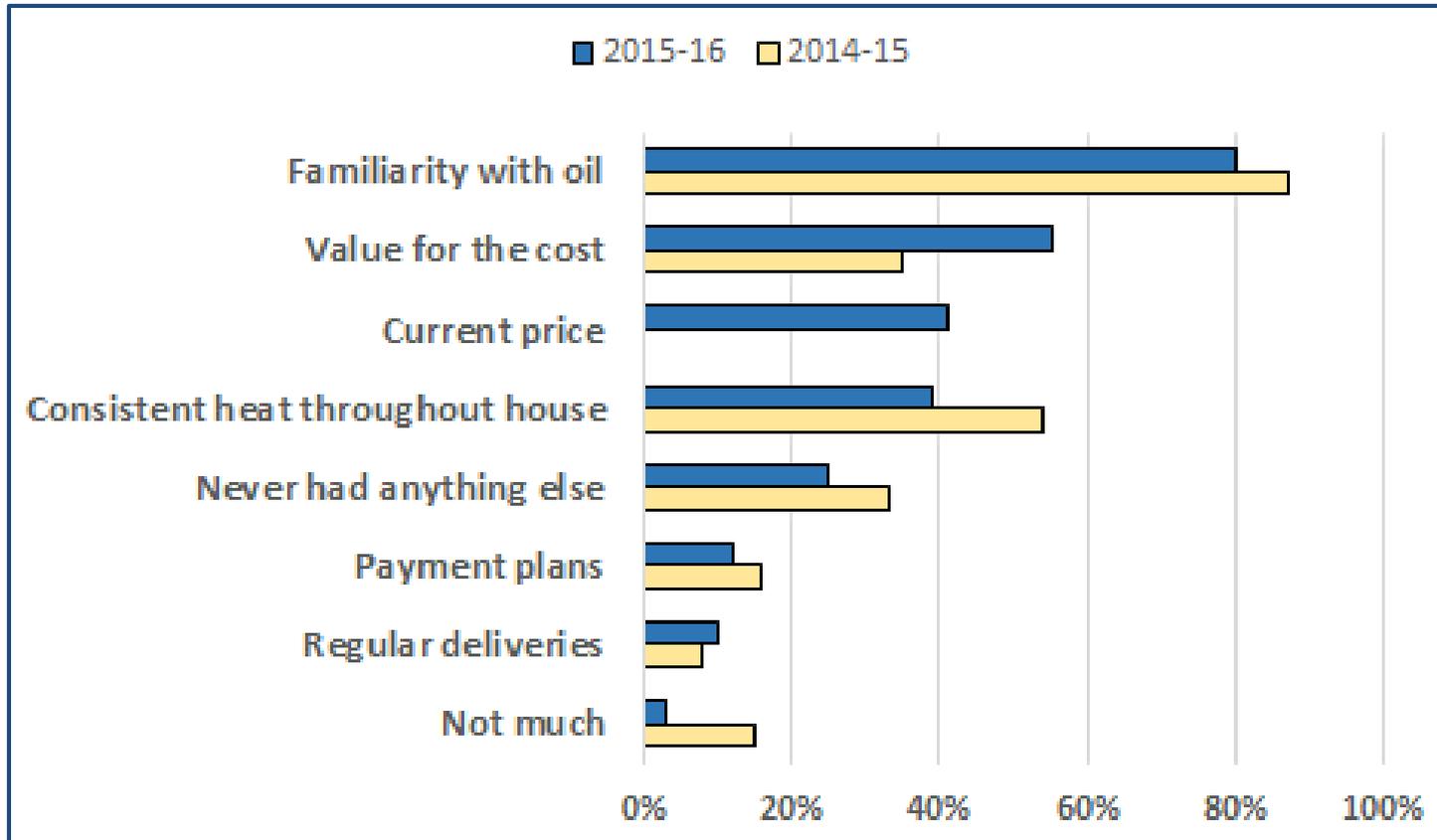
Opinion Survey: What's Changed Since Last Year?

- ❖ Phone interviews in December 2015 and January 2016 with Northeast homeowners
- ❖ Use oil as primary heating fuel
- ❖ Located in or near major cities and suburbs; excluded rural locations
- ❖ Spoke to person that makes decisions about heating fuels
- ❖ Conducted by research specialists with extensive energy experience
- ❖ Authored by Bill Wietecha

Current View of Oil Heat Consumers

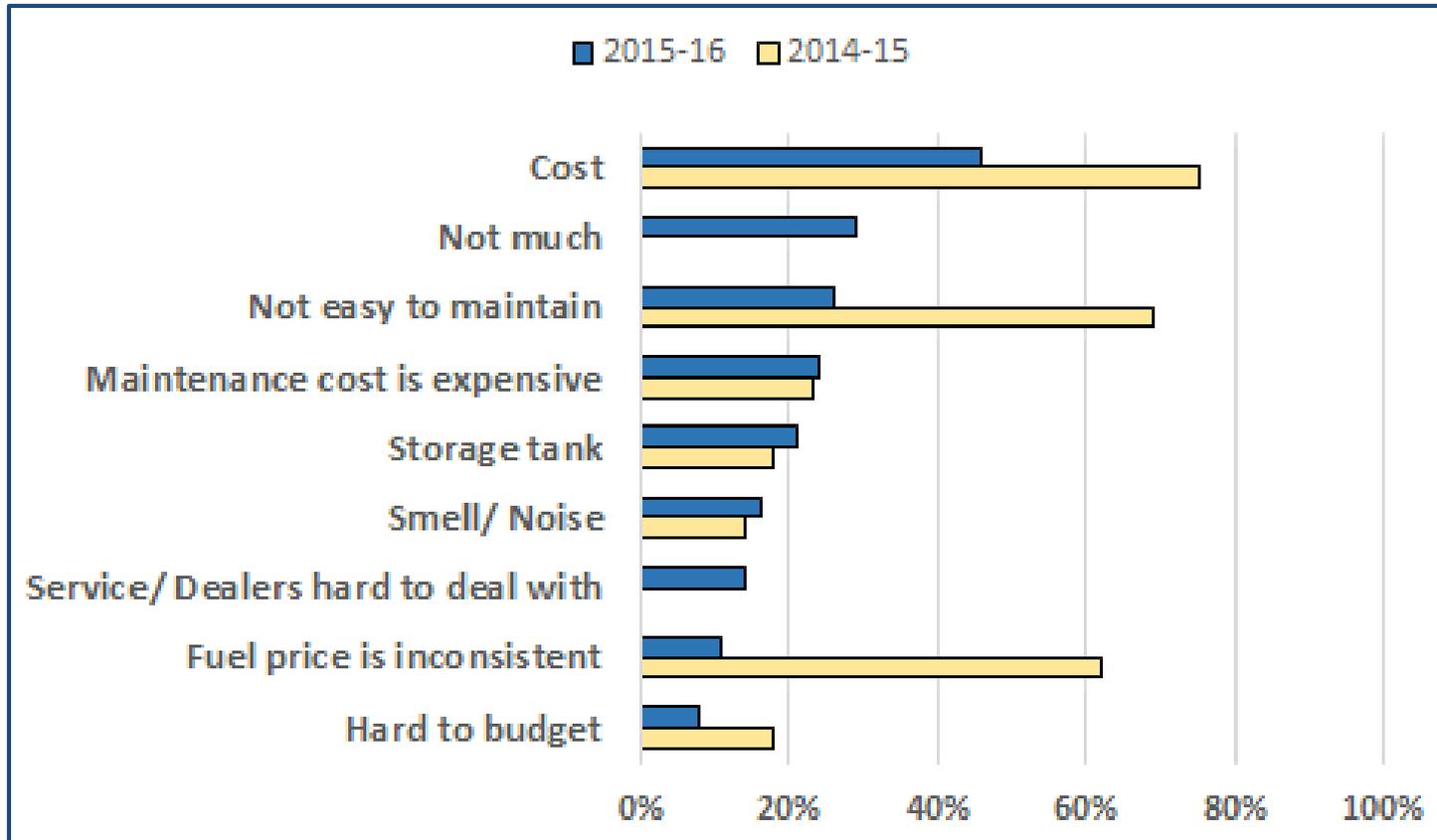
- ❖ Price decrease is now more apparent
 - In the news; from their neighbors; from the dealers
 - Of course, the warm winter has helped
- ❖ Less urgency to convert
 - Less “pain” in staying with oil
- ❖ Still issues with oil
 - Many dealers
 - Confusing price options
- ❖ However, more willingness to deal with it as price is right...or at least better

Findings: What Is Liked Best about Oil Heat?



Note: Multiple responses accepted.

Findings (Cont'd): What Is Liked Least about Oil Heat?



Note: Multiple responses accepted.

Key Takeaways

- ❖ Price drop is more apparent
 - 41% like oil for current price
 - 55% see value for the cost
- ❖ More neutral responses among dislikes
 - 29% have no real dislikes
- ❖ However, still issues being an oil heat customer
 - Pricing packages are confusing
 - Those who locked in prices months ago stand to pay more for oil

"You are taking a chance if you lock in to that price before the season comes around. You never know what you are going to get with oil. If I had my choice, I would rather go with gas or propane."

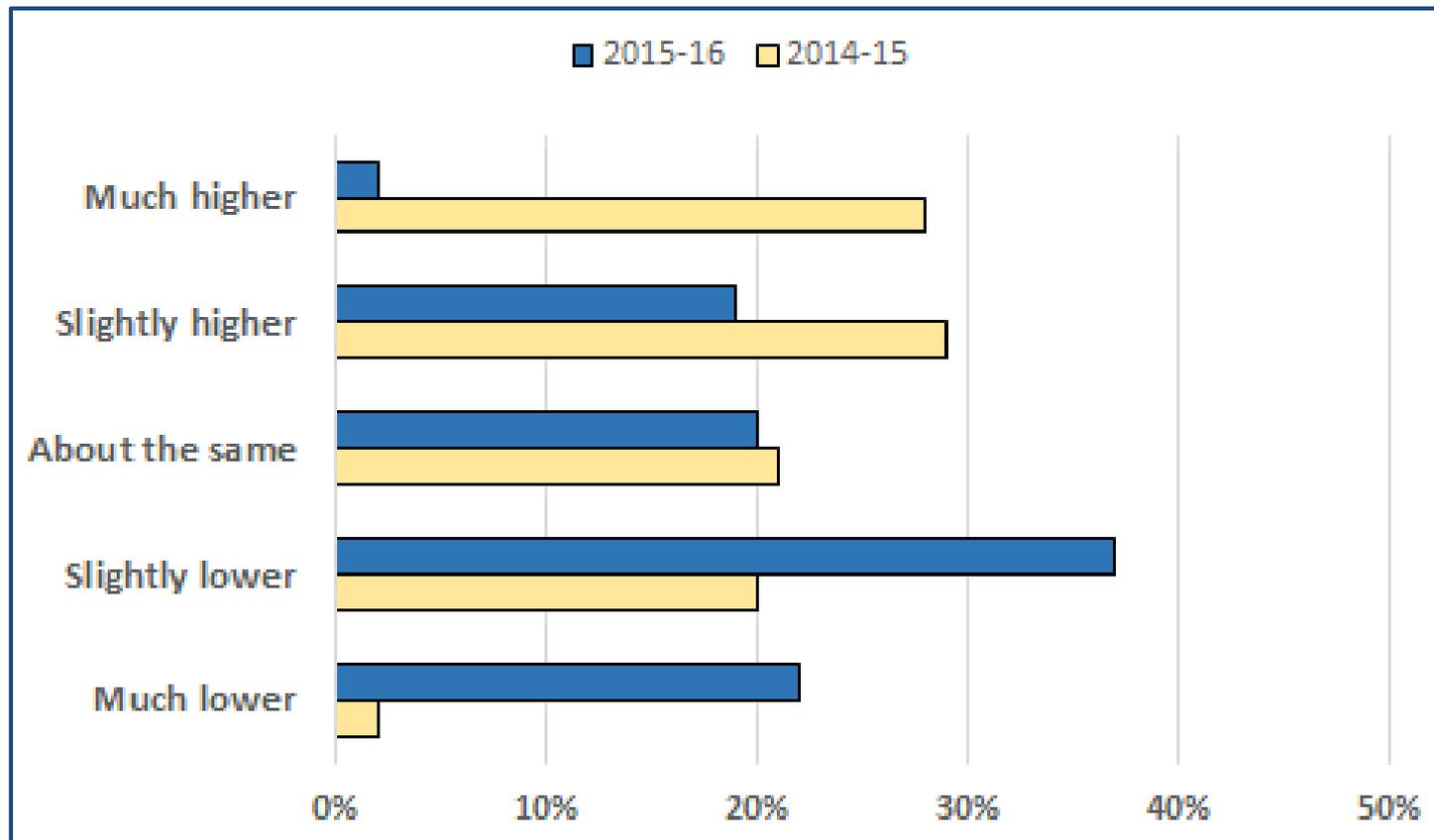
"It's very frustrating because you plan it, and years past it's always gone up, and now it doesn't, and now you go, 'Is this really worth doing?'"

"I still have to call five dealers to get the best price. Everyone has a story."

"Oil prices are so unpredictable."

Findings (Cont'd): Oil Price Today vs. Last Year?

Q: How has your oil price changed since last winter?



Today's Oil Prices (Cont'd): Key Takeaways

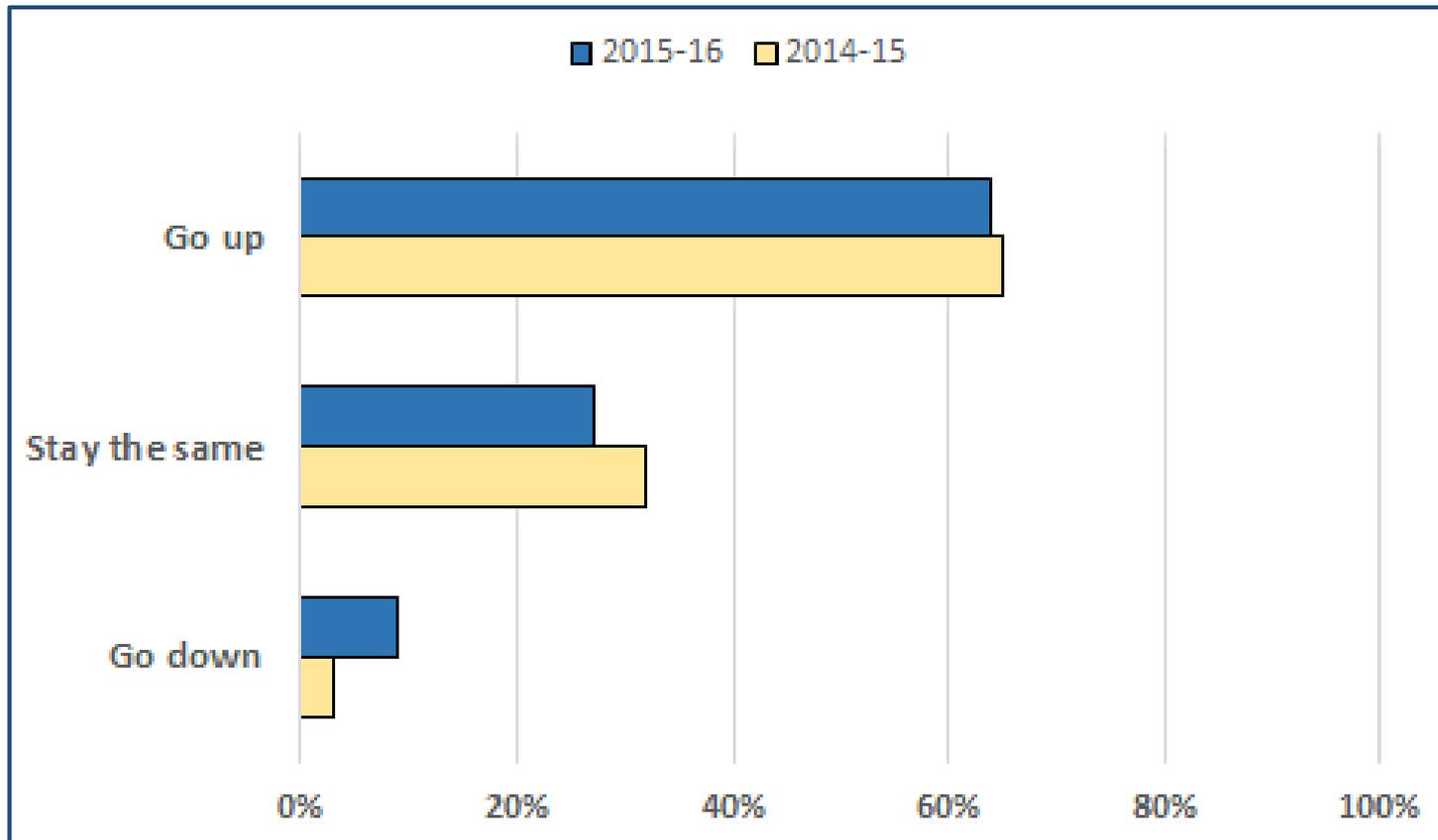
- ❖ Oil price decrease now readily apparent
- ❖ Warm temperatures have helped lower their bill

"I am thrilled that this winter has been so mild. Oil prices are a lot less than the past few years."

"It sure helps that the price of oil is down considerably."

Findings (Cont'd): Oil Price in Next 3 to 5 Years vs. Today?

Q: In the next 3 to 5 years, do you think the price of oil will: go up, stay the same, or go down?



Future Oil Prices (Cont'd): Key Takeaways

- ❖ Continued concern about future oil prices

“If I could only believe that these prices will hold...”

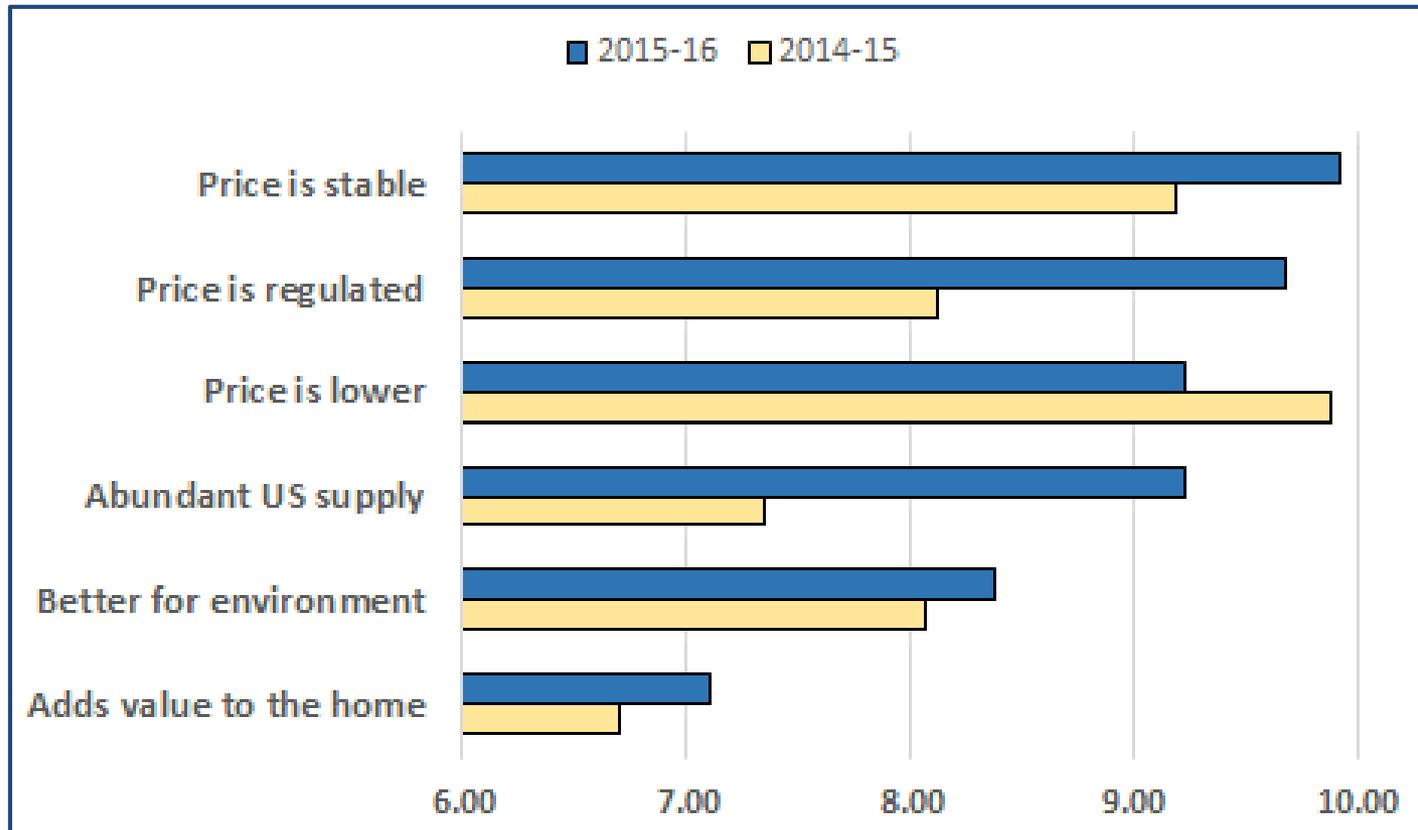
“Oil is like this. The price is low when there is a mild winter. It will be \$3 a gallon when we have a cold winter.”

“Oil prices are so inconsistent.”

“My dealer told me that oil is going to stay [low]. And if that is true, I will stick with oil and not switch to gas.”

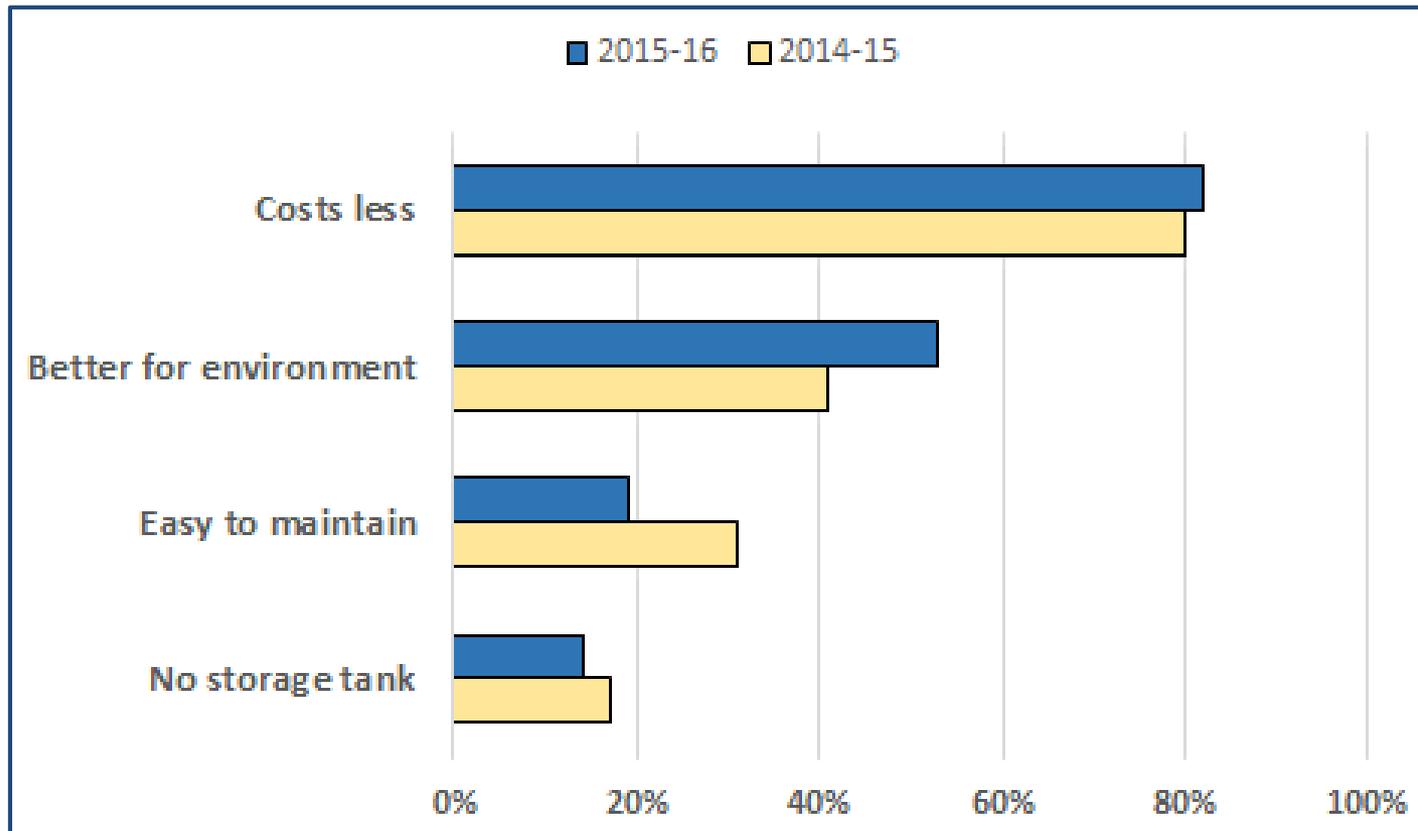
Findings (Cont'd): What Drives Heating Fuel Decisions?

Q: Here are some reasons that homeowners choose a heating fuel. Please score each of these on a scale of 1 to 10, with 1 being not important to your choice of heating fuel and 10 being extremely important to your choice of heating fuel.



Findings (Cont'd): Motivations for Switching

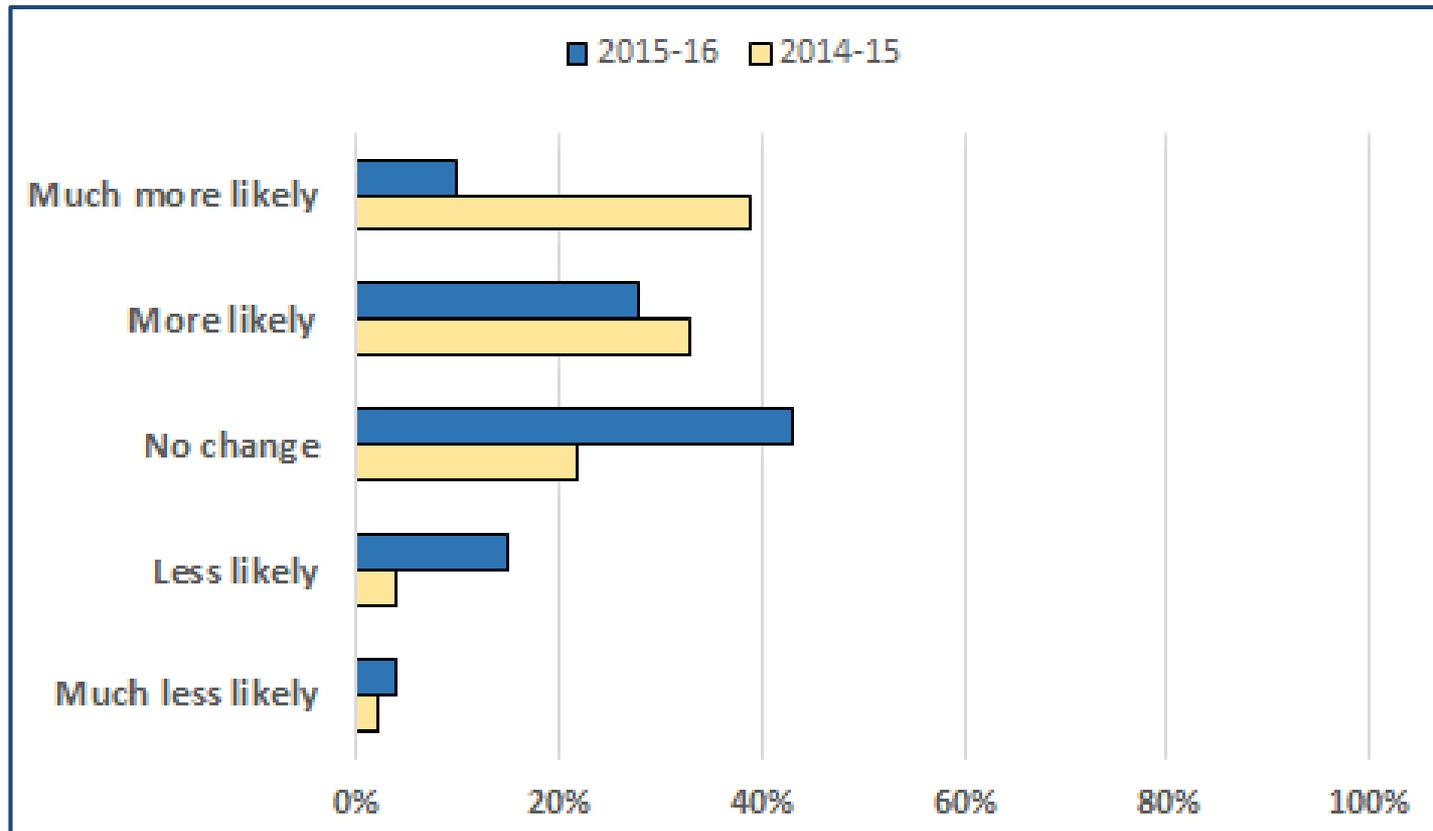
Q: What would make you switch to a new heating fuel?



Note: Multiple responses accepted.

Findings (Cont'd): Influence of This Year's Price in Switch to Gas?

Q: How has the price change since last winter influenced your likelihood of switching to natural gas?



Switching to Gas (Cont'd): Key Takeaways

- ❖ Declining oil prices have reduced interest in converting to natural gas
- ❖ Many are in a wait-and-see mode
 - Economics
 - Heating system
- ❖ Homeowners are now looking for deals to switch vs. standard offering

“I have been considering natural gas, but with oil prices what they are; they would have to offer a sweet deal on a new furnace.”

“I was ready to make the switch to gas...but I would have been at break even because of all the efficiencies in three years. I am holding off....”

“I was planning on switching to natural gas last winter, but with oil prices so low, I am going to wait....”

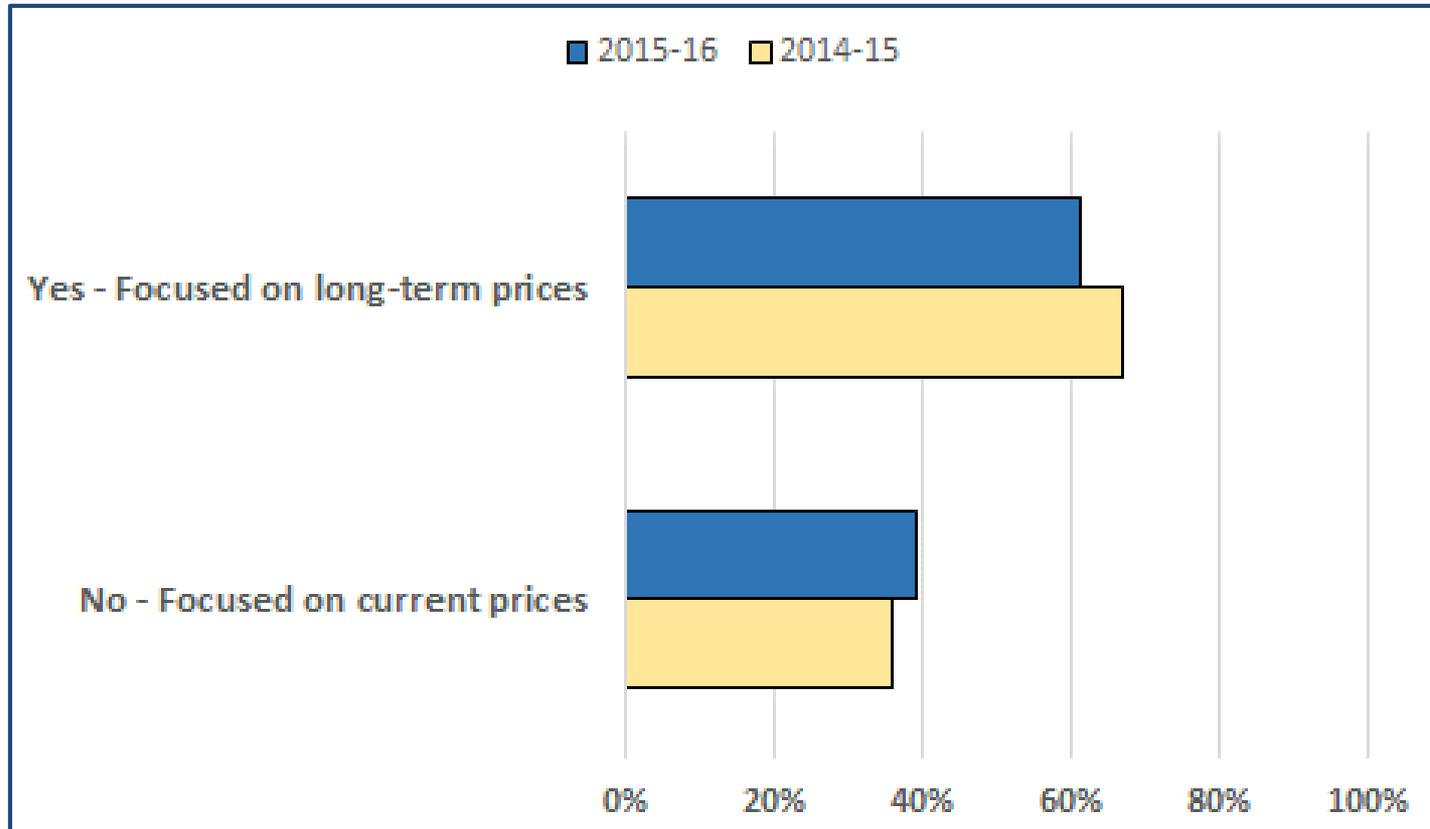
“They brought the gas line to my street two years ago, but it is just too much to make the switch. If oil was \$2.80 a gallon, it’s a different story, but right now, it’s [low].”

“If my furnace died, I would switch to gas. But oil prices are such that it just isn’t worth spending all that money.”

“I’m in a wait and see mode.”

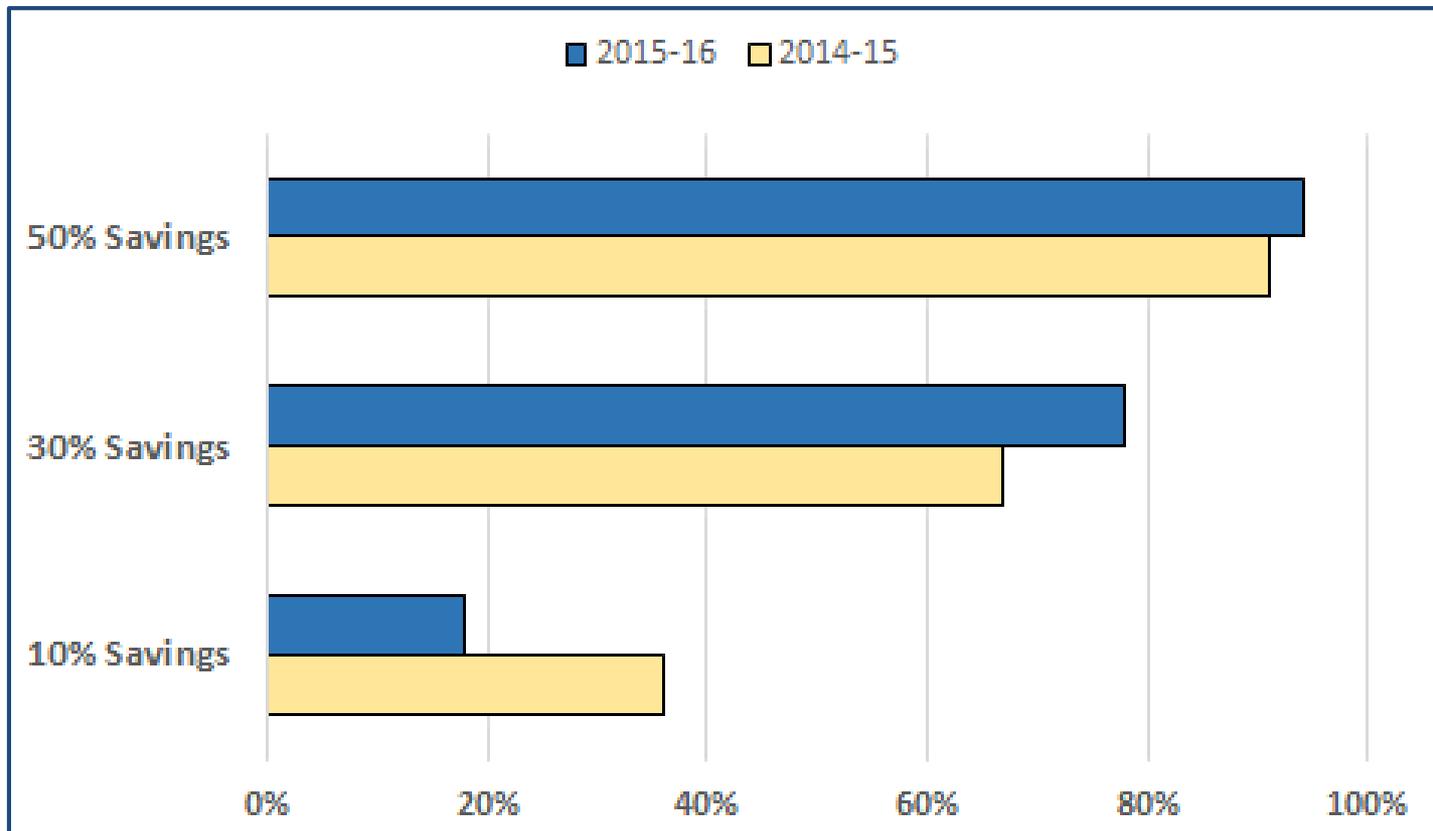
Findings (Cont'd): Consumers Take Long-Term View on Prices

Q: If I told you that over the past five years, the average price of natural gas has been between 25-35% less than oil, but right now it is only 15% less than oil, would that influence your decision to switch to natural gas?

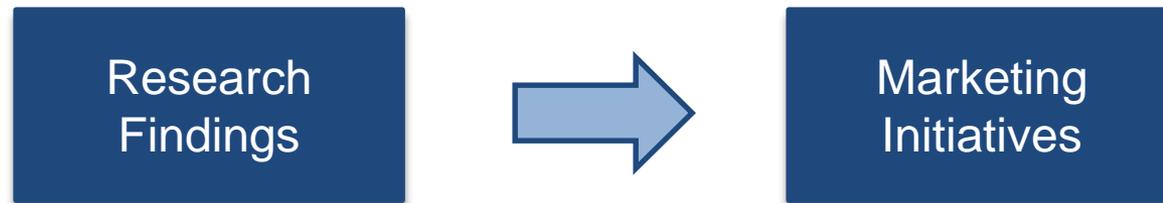


Findings (Cont'd): Likelihood of Switching at Various Savings

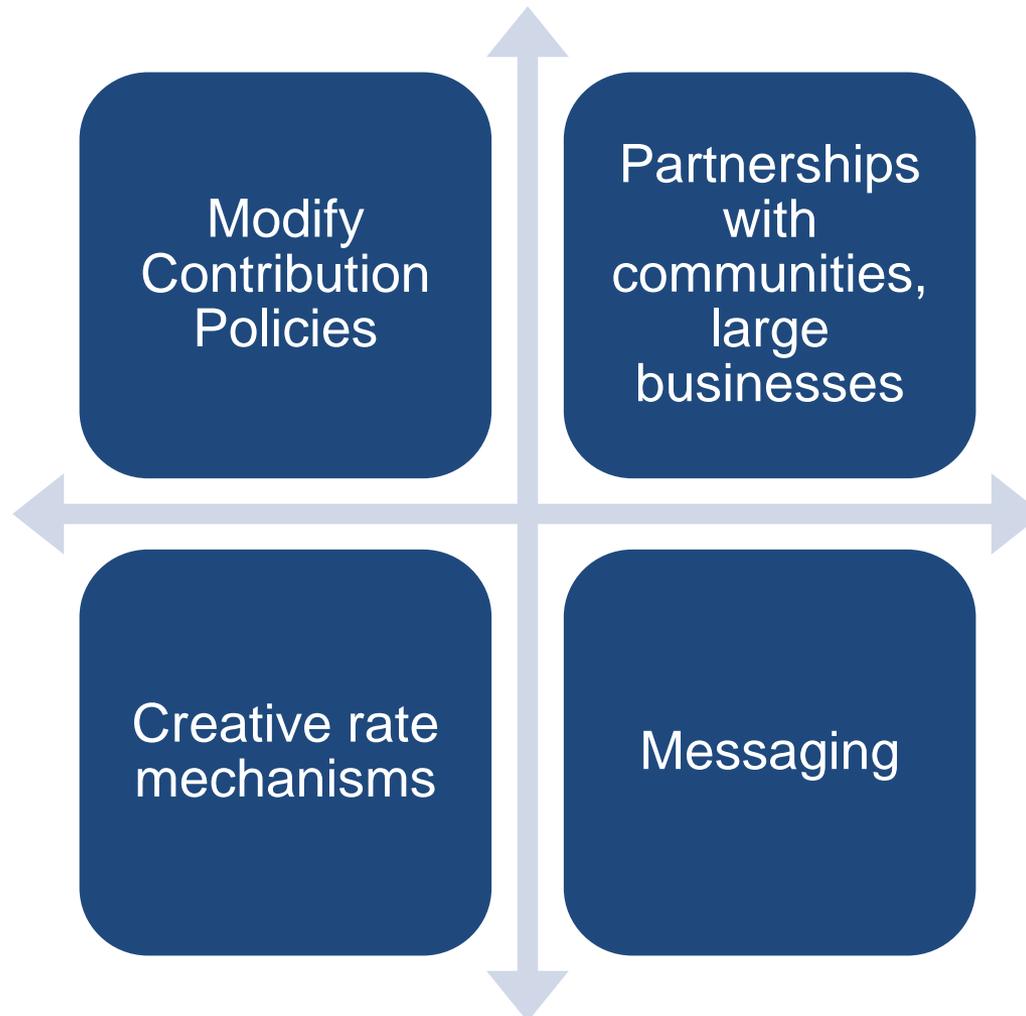
Q: What would you score your likelihood of switching to natural gas if the price of natural gas were [10%, 30%, 50%] less than the price of oil, with 1 being no interest and 10 being extremely interested?



Percentage reflects those scoring 7 or higher. Ratings do not factor in conversion costs.



Marketing Initiatives



Modify Contribution Policy – Avista (Washington)

❖ Purpose

- Opportunity to expand natural gas distribution system; promote economic development; address barriers to conversion

❖ Increase construction cost allowance through change in line extension method

- Residential heating customer: increases allowance to \$3,789 from \$1,920
- New method: Perpetual Net Present Value (“PNPV”) method
- $PNPV = \text{New Customer Margin} / \text{Rate of Return}$

❖ Apply excess construction cost allowance as a rebate for customer equipment

- Applies only to those customers converting to natural gas from another fuel source
- E.g., \$3,789 in allowance less \$2,345 in average construction cost = \$1,444 in excess allowance

Welcome to construction services

Blue Book now mobile
Learn more

We know that construction projects involve a great deal of coordination to complete on time and on budget. So we want to do our part by making it easier for you to get the information and help needed to install electric or natural gas service.

Construction requirements

- Residential building checklist
- Idaho residential requirements

Request a construction job

<https://www.avistautilities.com/business/builder/Pages/default.aspx>

Partnerships with Communities, Large Businesses – CT

❖ Connecticut Natural Gas: East Hampton expansion

- 11-mile, \$5.7 million expansion
- Agreement with town includes:
 - Convert nine schools and municipal buildings
 - Five-year, \$0.5 million tax break
 - Pay for repaving costs

❖ Southern Connecticut Natural Gas: Deep River expansion

- 4-mile expansion into a new community
- Municipal buildings
- Large businesses.

❖ Yankee Gas: Wilton expansion

- 3.5-mile expansion
- Downtown business district, municipal buildings



<https://www.flickr.com/photos/yankeegas/14906049836/in/photostream/>

PURA Order:

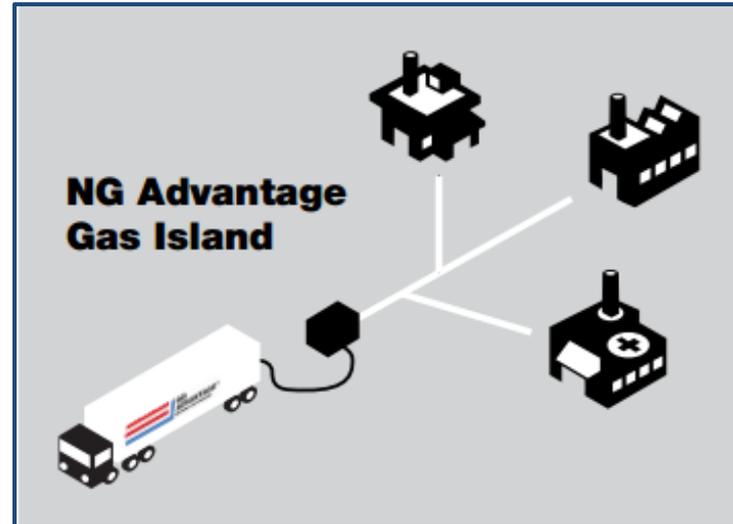
“...it is reasonable to approve the LDCs’ purchase of the capacity contracts, so that they can compete with a lower home heating oil price by accessing the lower cost Marcellus Shale gas.”

Public Utilities Regulatory Authority (PURA),
Docket No. 13-06-02RE02, at 11.

Partnerships with Large Businesses (Cont'd)

❖ Vermont Gas and NG Advantage partnership

- Developed “Gas Island” in Middlebury, VT
- Isolated network in advance of gas expansion project
- Serves Cabot Cheese, Middlebury College
- Plans to connect to renewable natural gas plant on nearby farm



http://www.ngadvantage.com/sites/default/files/media/white_papers/gas_island.pdf

❖ NG Advantage

- Serves International Paper's mill in Ticonderoga, NY
- 14-20 trucks per day



Deploy Creative Rate Mechanisms – Unitil (Maine)

- ❖ Target Area Build-Out (TAB) program
 - Designed to build out distribution system incrementally into target areas
- ❖ Replace upfront customer contribution (CIAC) with monthly surcharge for a 10-year period
 - Applied to all customers within the TAB area
 - Residential heating surcharge is \$95 per year, or 7% of annual bill
- ❖ Approved by Maine Public Utilities Commission in December 2015
- ❖ First expansion into Saco
- ❖ Planned construction in Spring 2016

Gas Expansion Project in Saco

We're expanding natural gas service in Saco, Maine!

Thanks to an innovative new program we're launching this year, approximately 1,000 new homes and businesses in Saco will soon have access to natural gas for the first time. This first of its kind program in the state, called a Targeted Area Build-out initiative or "TAB" initiative, is specifically designed to make natural gas service more available and affordable to residences and businesses in Maine.



What Makes the TAB Initiative unique?

Historically, when the installation of a natural gas main (infrastructure) is required to reach new areas, customers along the new gas main may be required to pay an up-front cost that represents their share of the project's cost before we can extend the gas main and install a new service for the customer. That additional up-front cost can sometimes create an additional barrier to completing the conversion. Our TAB program is designed to eliminate that up-front cost, paving the way to a cleaner, cheaper heating alternative.

"Unitil has been great to work with throughout this process... We are excited about the opportunity to give our residents and businesses natural gas as a heating option, and to make Saco a more desirable destination for new businesses to develop," said **Saco City Administrator Kevin Sutherland**.

<http://unitil.com/energy-for-residents/gas-information/gas-expansion-project-saco>

Gas Industry Messaging – Savings

For Pennsylvania Customers: Saving Money With Natural Gas Equipment

Below is valuable information on the many ways natural gas appliances can save you money while providing the ultimate in comfort, convenience and reliability. Natural gas delivers the best energy value while providing a low-carbon environmental solution. Don't forget to check out the equipment selection guidelines and our community directories to locate contractors, builders and equipment vendors serving your area.

If you currently do not have piping for natural gas appliances, whether indoor or outdoor, it's simple to do so. Contact a licensed plumber to install the piping for you. Although there is a charge to hire a plumber, you will save money in operating costs with natural gas appliances.

<p>SAVE \$1,970 <i>per year</i> HEATING with Natural Gas</p> 	<p>SAVE \$120 <i>per year</i> DRYING with Natural Gas</p> 
<p>SAVE \$390 <i>per year</i> HEATING WATER with Natural Gas</p> 	<p>SAVE \$250 <i>per year</i> COOKING with Natural Gas</p> 

<http://www.nationalfuelgas.com/forhome/PA/SaveMoney.aspx>



<http://www.nationalfuelgas.com/forhome/NaturalLivingMagazine.aspx>

Messaging (Cont'd) – New Programs



Natural Gas Service

Related Links

- [Is Natural Gas Available?](#)
- [Installing Gas Lines & Meters](#)
- [Fuel Cost Calculator](#)

Tap & Save™

Natural gas prices are the lowest and most stable in nearly a decade. Based on recent pricing, Pennsylvania residents using another energy source to heat their homes could save up to 40 percent or more per year when they convert to natural gas heat. It's a great time for homeowners using another energy source to convert to natural gas.

To help make natural gas service more accessible to Pennsylvanians not currently served by natural gas energy, Columbia Gas has introduced its **Tap & Save™** new area service program.

Tap & Save™ is a pilot program approved by the Pennsylvania Public Utility Commission (PUC) to provide a new option for residential customers who are not currently receiving natural gas service but who want natural gas service. As a result of this approval, many potential customers will have an option to pay for their line extension over a period of 20 years rather than the upfront payment that Columbia Gas has historically been required to charge.

<https://www.columbiagaspa.com/natural-gas-service/tap-and-save>



Switch today, save tomorrow.

Order your Home Energy Audit - you may qualify for up to \$19,000 in SAVEGREEN incentives.

Switching to clean, affordable natural gas today will make your home more energy-efficient and save you money.

If you're using electricity, fuel oil or propane to heat your home, you can save money when you make the switch to natural gas. Heating with electricity or propane could cost two to three times more than natural gas heat. Compared to oil, natural gas is the right choice for maintaining a clean and healthy environment.

<http://www.njng.com/my-home/convert-gas/rebate-info.asp>

Financing Offer

South Jersey Gas is now offering 0% interest financing with \$0 down.

These special financing terms are offered only to qualified households switching to natural gas from an alternate fuel, such as propane, oil or electricity. Work must be performed by an [SJG Participating Contractor](#). Interest-free financing is offered to a maximum of \$8,000 financed over a period not to exceed 60 months. This offer may be rescinded at any time at the discretion of South Jersey Gas.

For more information, call your area's energy efficiency consultant or [email us today](#).



<http://www.southjerseygas.com/become-a-customer/switch-natural-gas-finance-offer.html>

Messaging (Cont'd) – Initiatives

Gas Main Expansion Projects



Natural gas is in very high demand in New Hampshire. It's the #1 choice for heating, cooking, manufacturing and many other uses. Liberty Utilities is working hard to expand the availability of natural gas. There are several projects currently underway in our service area. Although we do our best to minimize disruption during construction, our projects can sometimes cause traffic delays. We apologize for the inconvenience.

Laconia, Provencial Road - Bringing natural gas to 96 unit apartment complex - Expected completion - October.

http://www.libertyutilities.com/east/gas/about/news_07-06-15.html

GAS EXPANSION

We are currently expanding our natural gas infrastructure to new cities and towns in Connecticut.



FREQUENTLY ASKED QUESTIONS

Answers to common questions about natural gas expansion.



WILTON EXPANSION PROJECT

Our first large-scale expansion project under Connecticut's recently enacted Comprehensive Energy Strategy.



FRANKLIN - BOZRAH EXPANSION PROJECT

A new pipeline will be installed in the two Connecticut towns.

<https://www.eversource.com/Content/ct-c/residential/switch-to-gas/gas-expansion>

Three Takeaways



- ❖ Market segmentation
- ❖ Customers
- ❖ Offerings and value proposition
- ❖ Key competitors

- ❖ New offerings
- ❖ New markets
- ❖ New business partnerships

- ❖ Commercial vs. residential
- ❖ On-system vs. off-system
- ❖ Equipment replacement vs. conversion

Thank You!

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Mr. Lyons has 30 years of experience in the energy industry and has held a number of senior positions at several natural gas utilities and energy consulting firms. His utility experience includes managing marketing and sales, rates and regulatory affairs, and customer service departments. Mr. Lyons consulting experience includes rate and regulatory support, marketing and competitive intelligence for utilities and energy companies. Mr. Lyons assignments include: LDC distribution expansion, natural gas marketing and sales programs; customer service programs; new rate structures and designs; retail access programs; and creative gas purchase strategies. He has testified before public utilities commissions in Connecticut, Maine, Massachusetts, Rhode Island and Vermont. Mr. Lyons is published in American Gas Association, Public Utilities Fortnightly and Power and Gas Marketing and has presented before a number of industry groups. Prior to joining Sussex, he served as Vice President of Sales and Marketing for Vermont Gas, Vice President of Marketing and Regulatory Affairs for Providence Gas (now part of National Grid), Director of Rates at Boston Gas (also part of National Grid), and Project Director at Quantec Management Consulting. Mr. Lyons holds a B.A. in Mathematics and Economics from St. Anselm College, an M.A. in Economics from the Pennsylvania State University, and an M.B.A. with a concentration in Finance from Babson College.

Bill Wietecha, Marketing Specialist

Bill is a marketing specialist with over 35 years of experience as an account director at major, national advertising agencies until 1994, when he opened his own marketing firm, The BRW Group. Bill has worked with numerous Fortune 100 brands including Sears, Starbucks, McDonald's, General Mills, The Hartford, IBM and scores of others across numerous industries. In the past 10 years, Bill has focused on the energy industry. Working with a number of Northeast gas utilities on strategic, research based projects. Bill has been at the forefront of consumer attitudes towards home heating fuels. Bill's team has performed phone interviews with over one hundred thousand New England homeowners and have uncovered key strategic opportunities that have helped guide critical decisions about gas expansion. Bill's unique approach has helped his clients get below the surface to understand not only the functional aspects of homeowner decision making, but the emotions behind the decision that play an integral role in maximizing conversion strategies.

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