



Building the Value of Natural Gas

A Fact Base

May 2020

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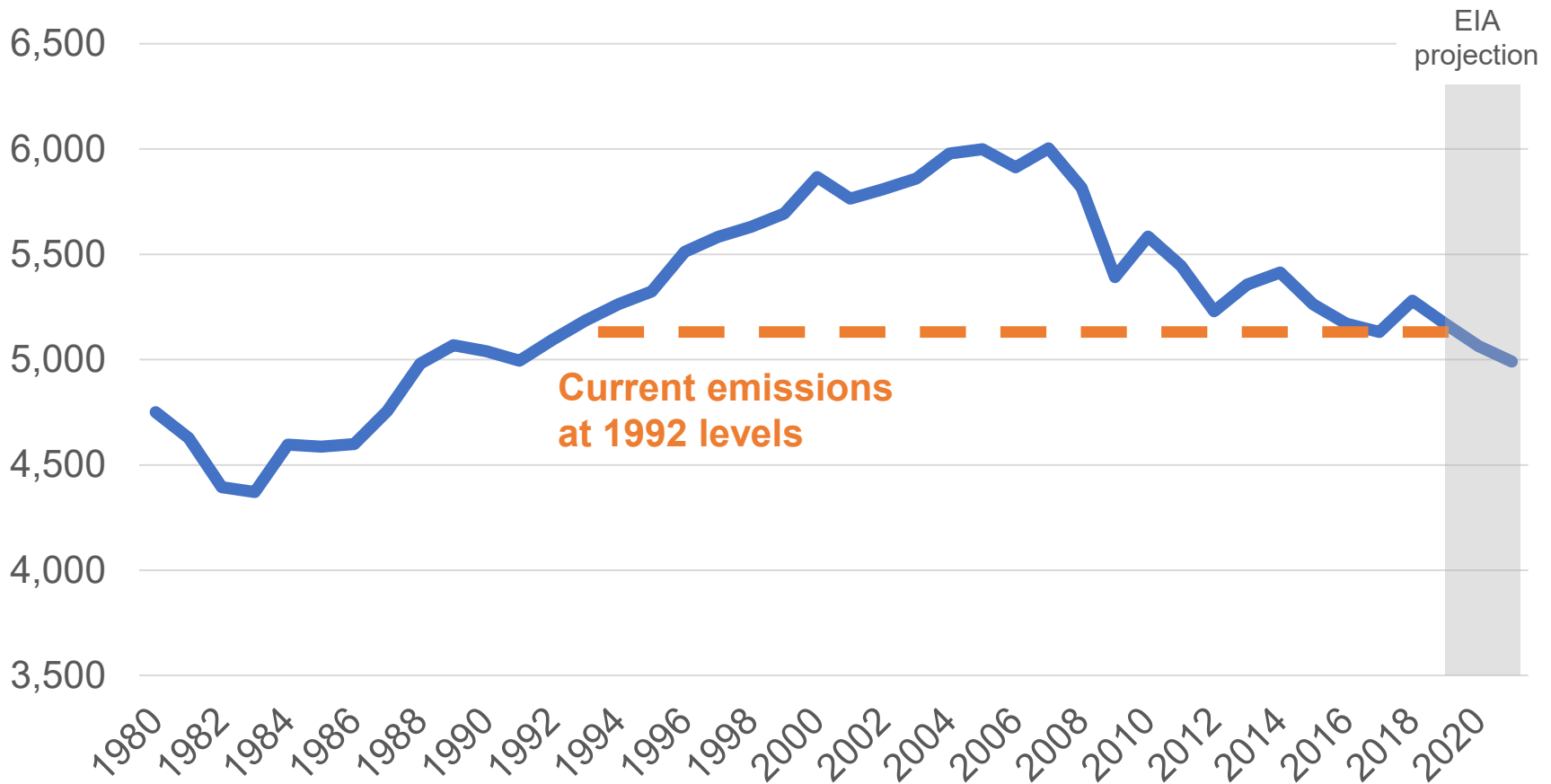
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Natural gas has led reductions in US CO₂ emissions to 27-year lows, and is projected to continue to decline

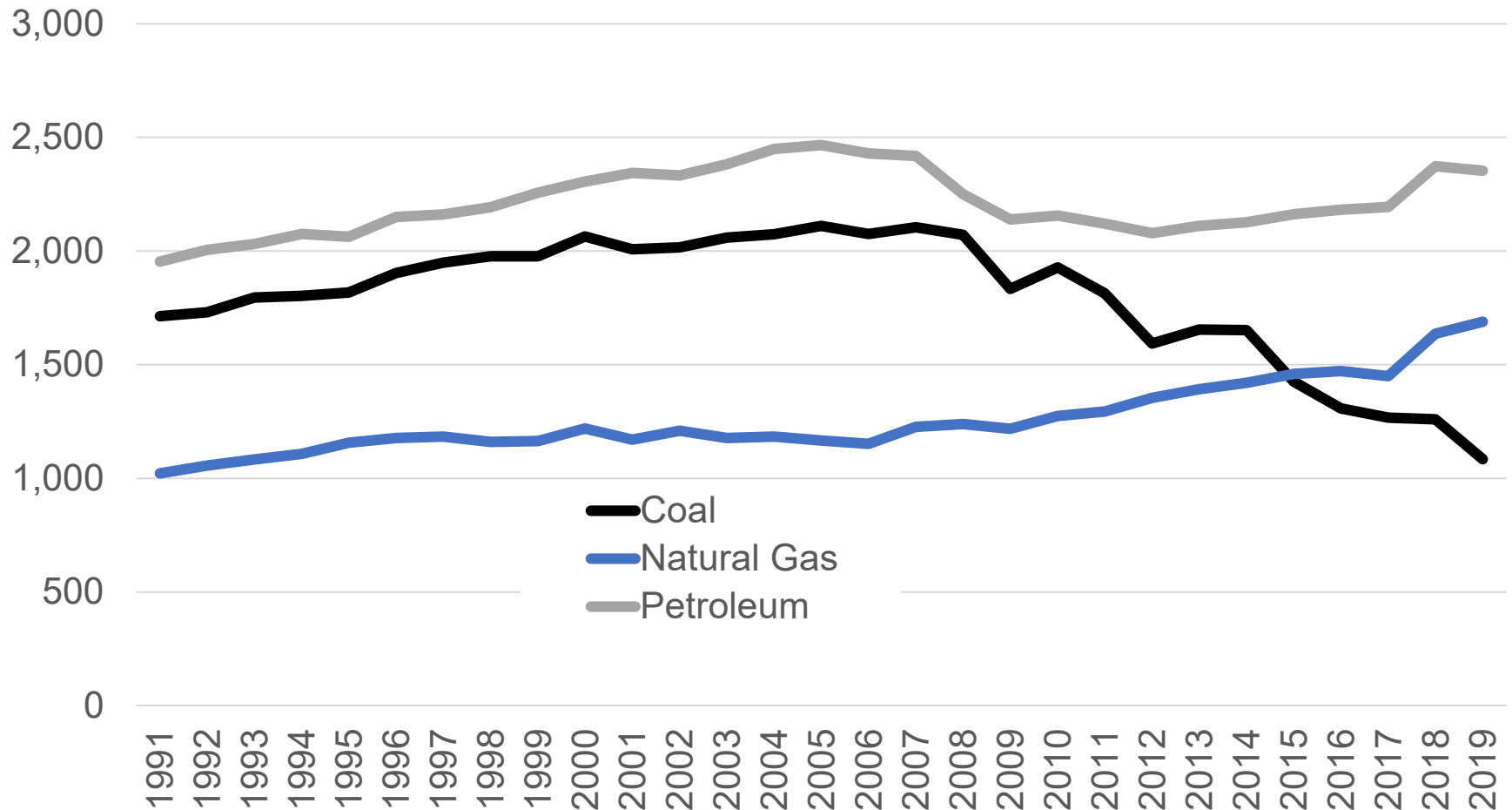
US Carbon Dioxide Emissions from Energy Consumption,
Million Metric Tons CO₂



Source: US Energy Information Administration.
Projection from EIA Short-Term Energy Outlook January 2020

Natural gas substitution for coal has led to a sharp decline in CO2 emissions

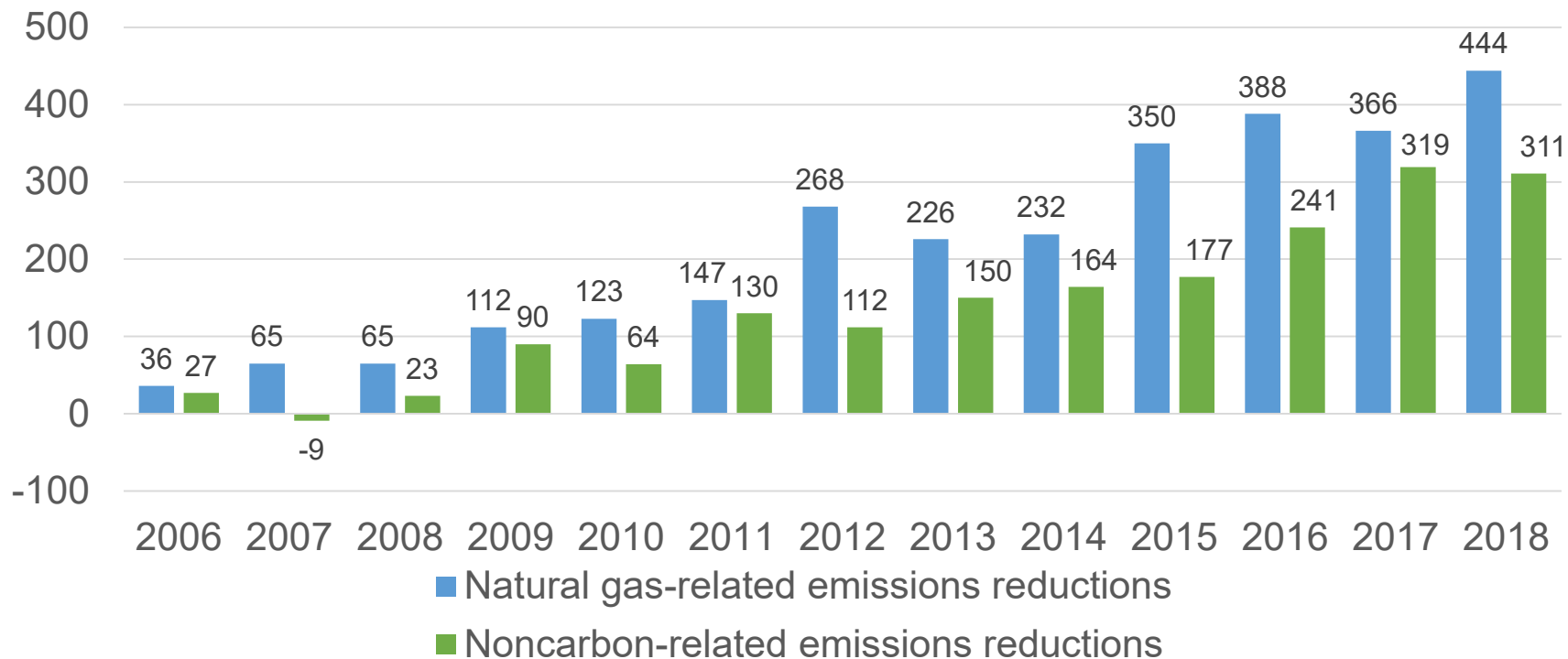
US Energy-Related Carbon Dioxide Emissions by Fuel
Million Metric Tons CO2-Eq



Source: US Energy Information Administration.

Natural gas is responsible for 61 percent of cumulative carbon dioxide emissions savings due to changes in the electricity generation fuel mix.

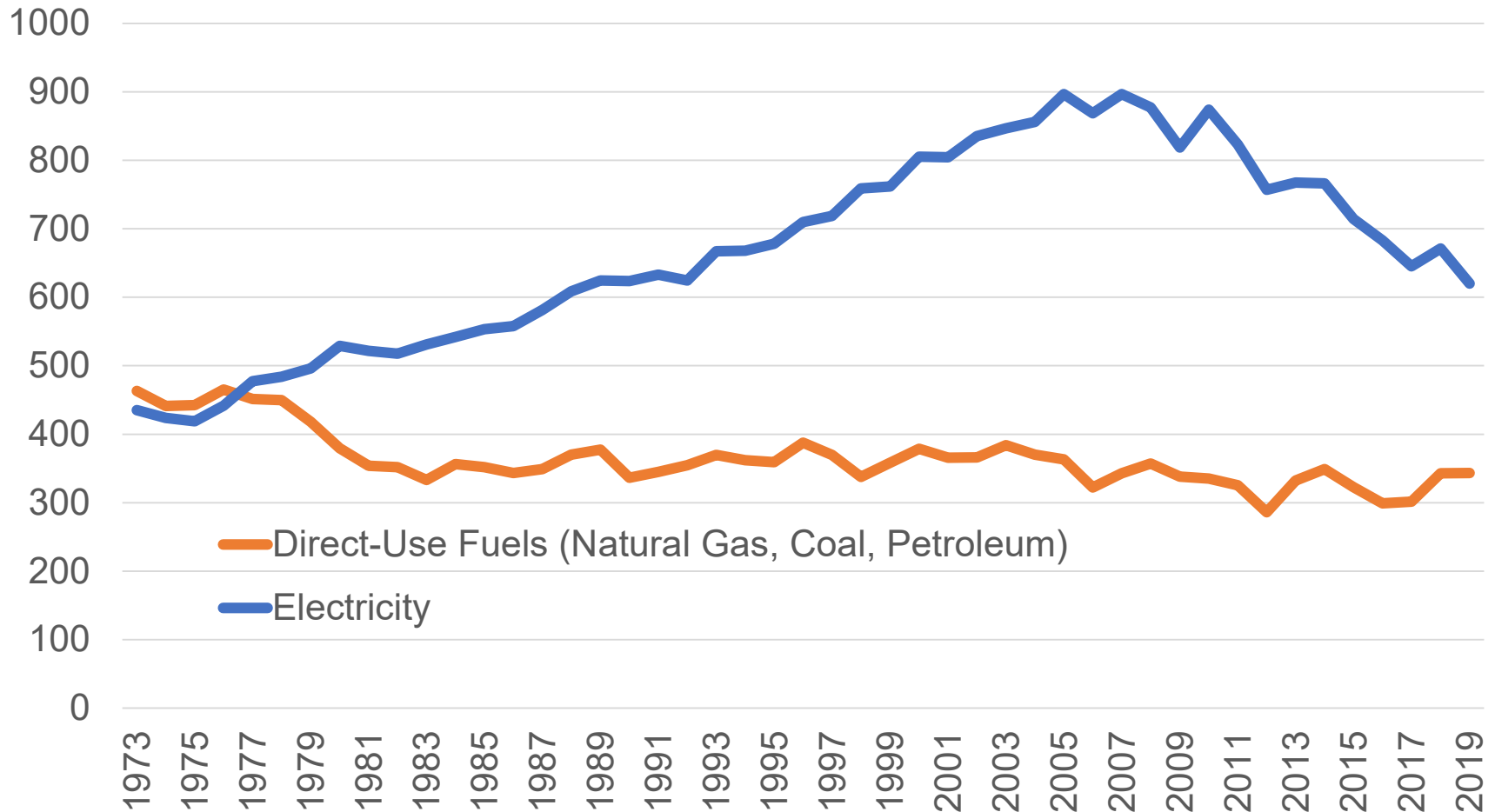
Electricity generation CO₂ savings from changes in the fuel mix since 2005
Million Metric Tons CO₂



Source: US Energy Information Administration.

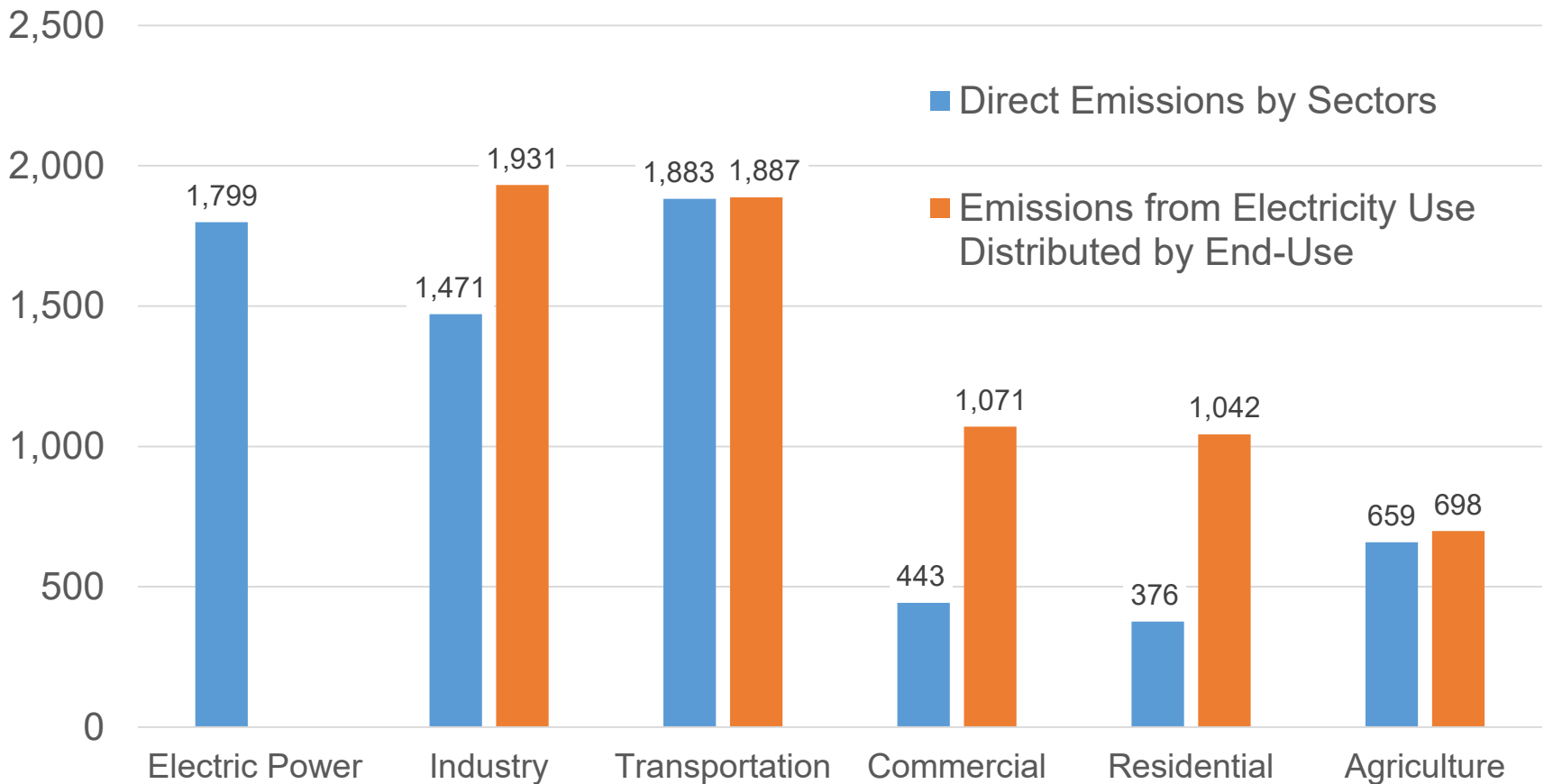
Residential electricity CO₂ emissions declined as the power generation sector moved to natural gas and renewables. And direct-use emissions have declined due to efficiency and switching to natural gas.

US Residential Carbon Dioxide Emissions, MMT CO₂



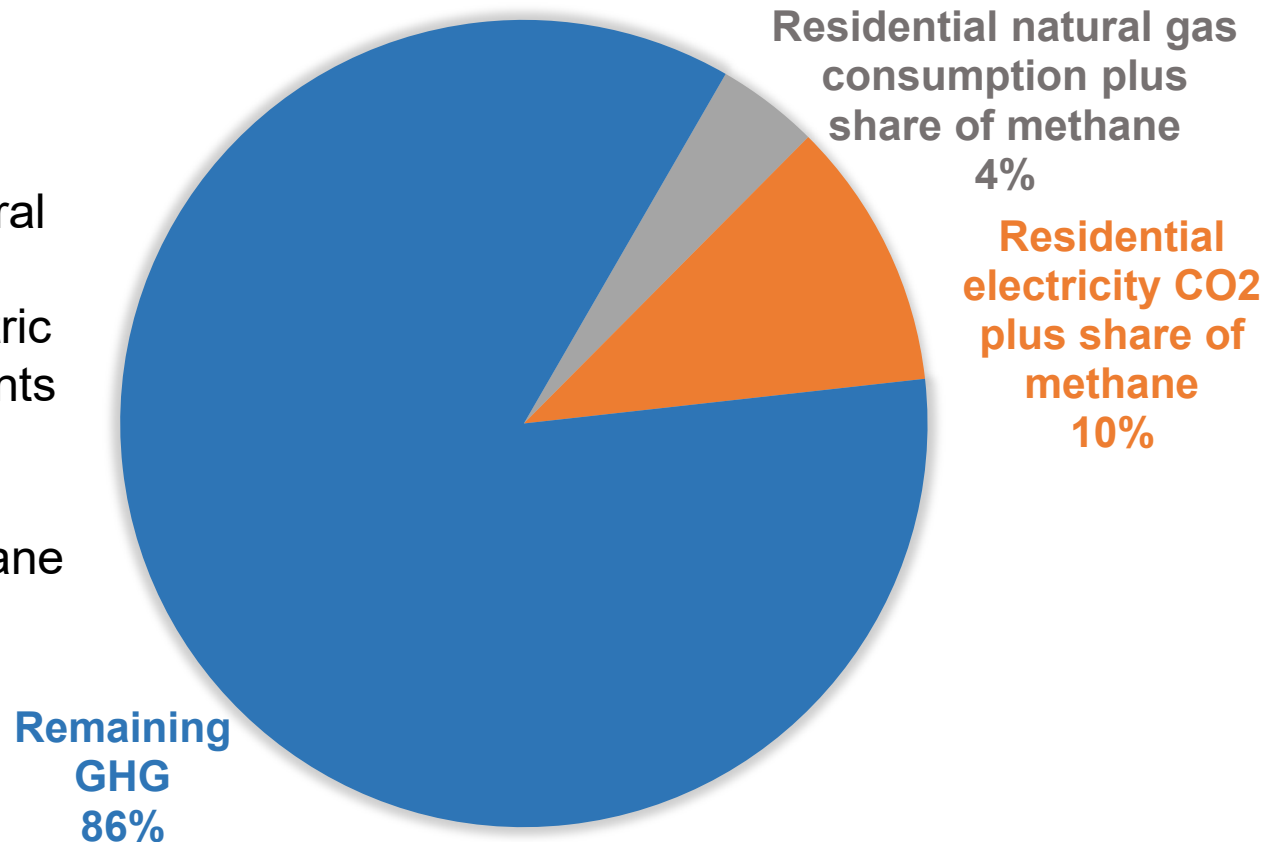
Direct emissions from residential and commercial buildings are a small but still important part of overall annual U.S. greenhouse gas emissions.

Comparison of 2018 U.S. Greenhouse Gas Emissions by Sector
MMT CO₂-Eq



Residential natural gas use accounts for 4% of total US greenhouse gas emissions

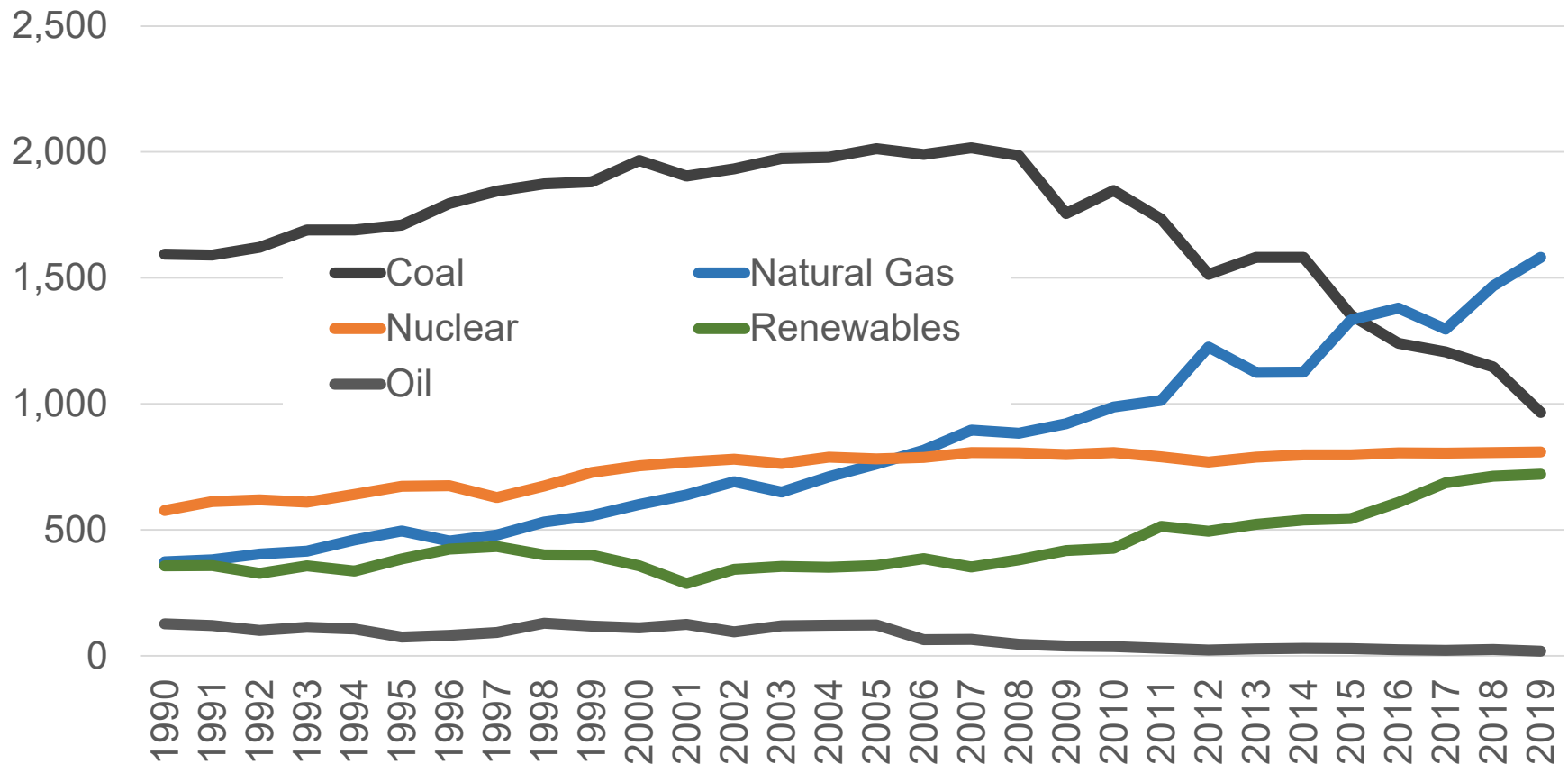
- Commercial natural gas use is 3%
- Commercial electric power use accounts for 9%
- Residential and commercial propane and oil use is 3%



Source: EPA, Residential gas methane share based on gas consumption, Residential electricity methane share based on gas for electricity consumption & residential electricity sales, EIA

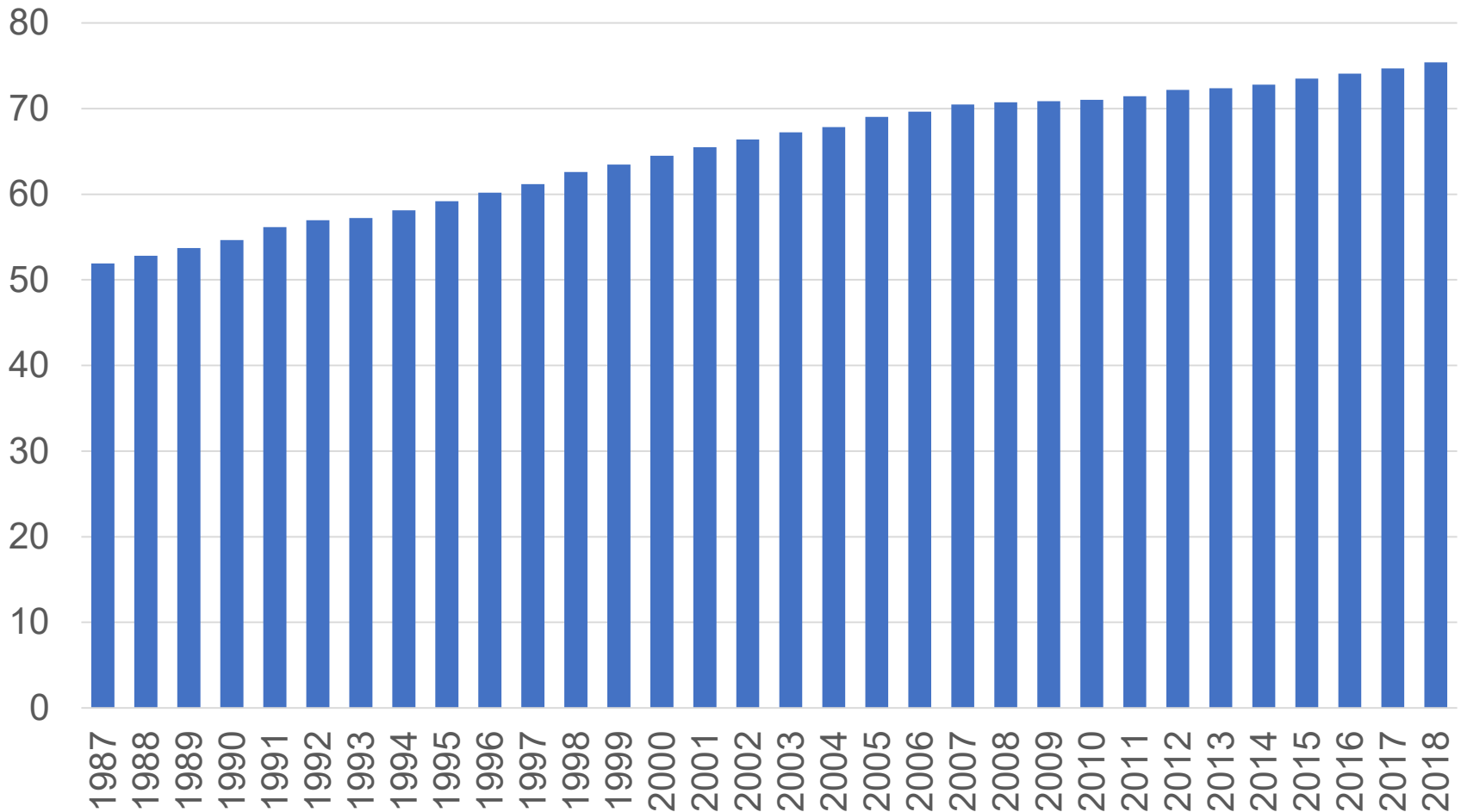
Natural gas and renewables are a larger share of the electric power fuel mix as coal has declined

US Electricity Net Generation by Source
TWh/year

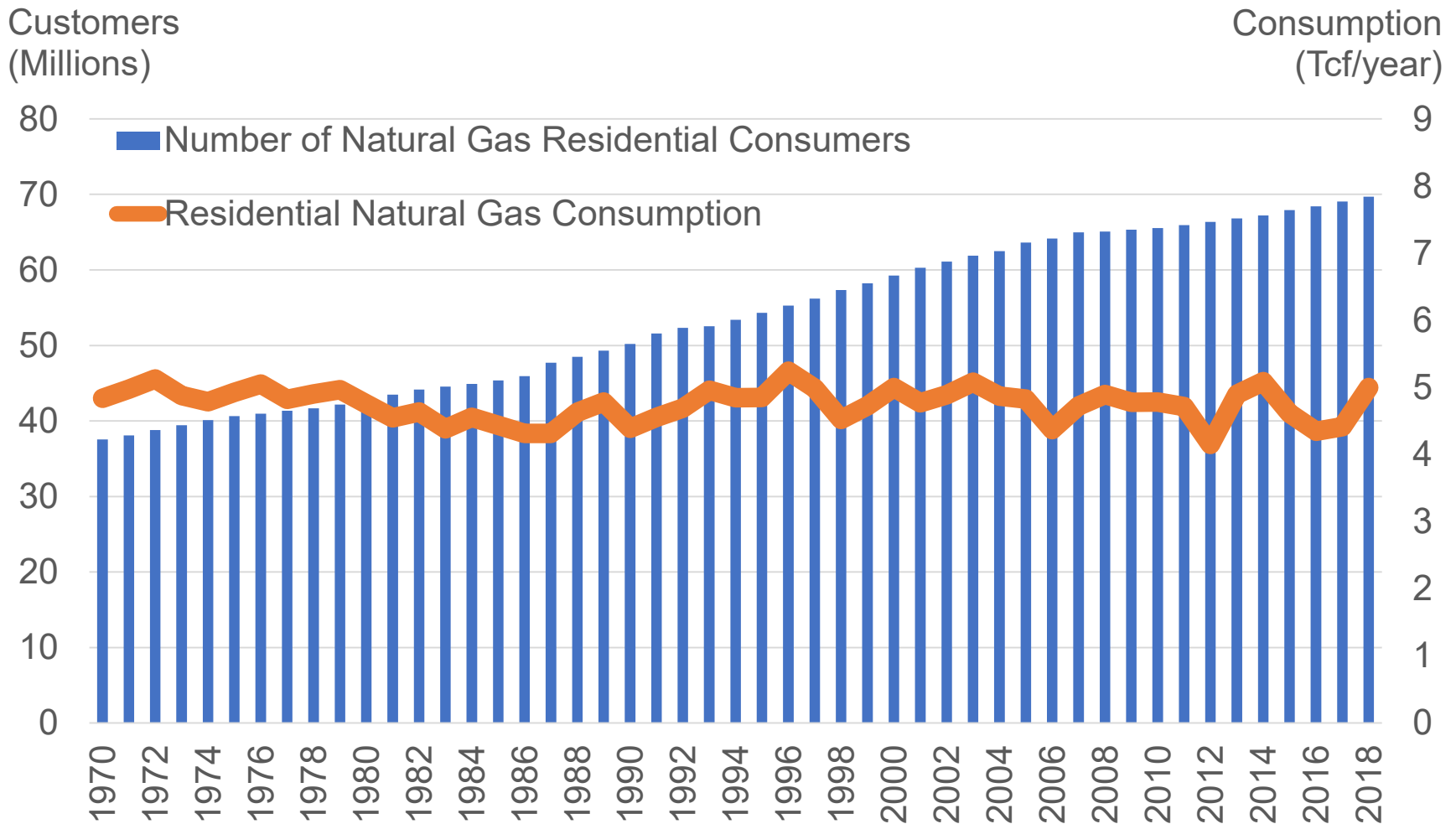


The number of natural gas customers has increased 45 percent since 1987

Total Gas Customers, Millions of Customers

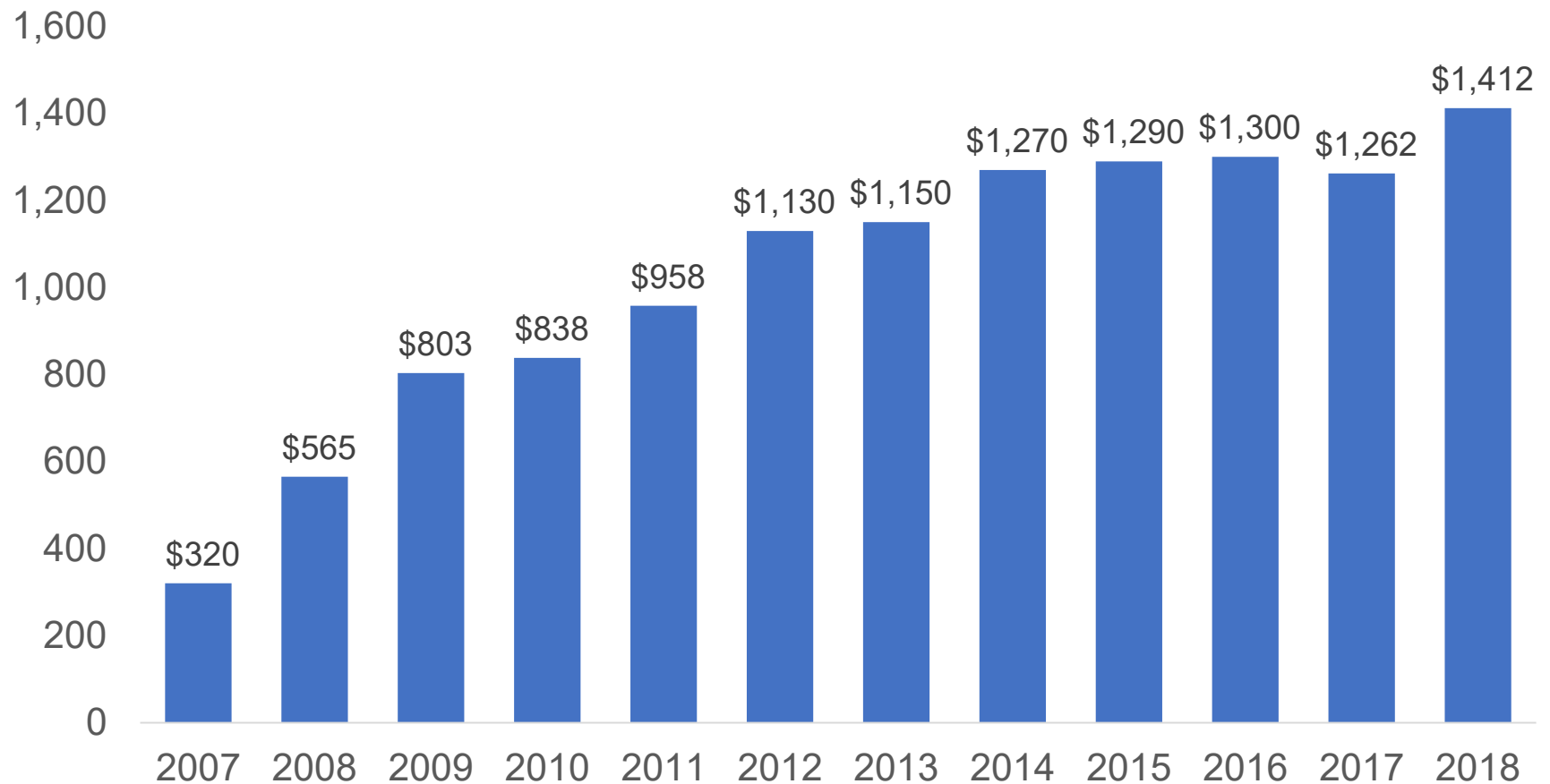


Natural gas use in homes has remained flat since 1970 while the number of customers served increased by 86%



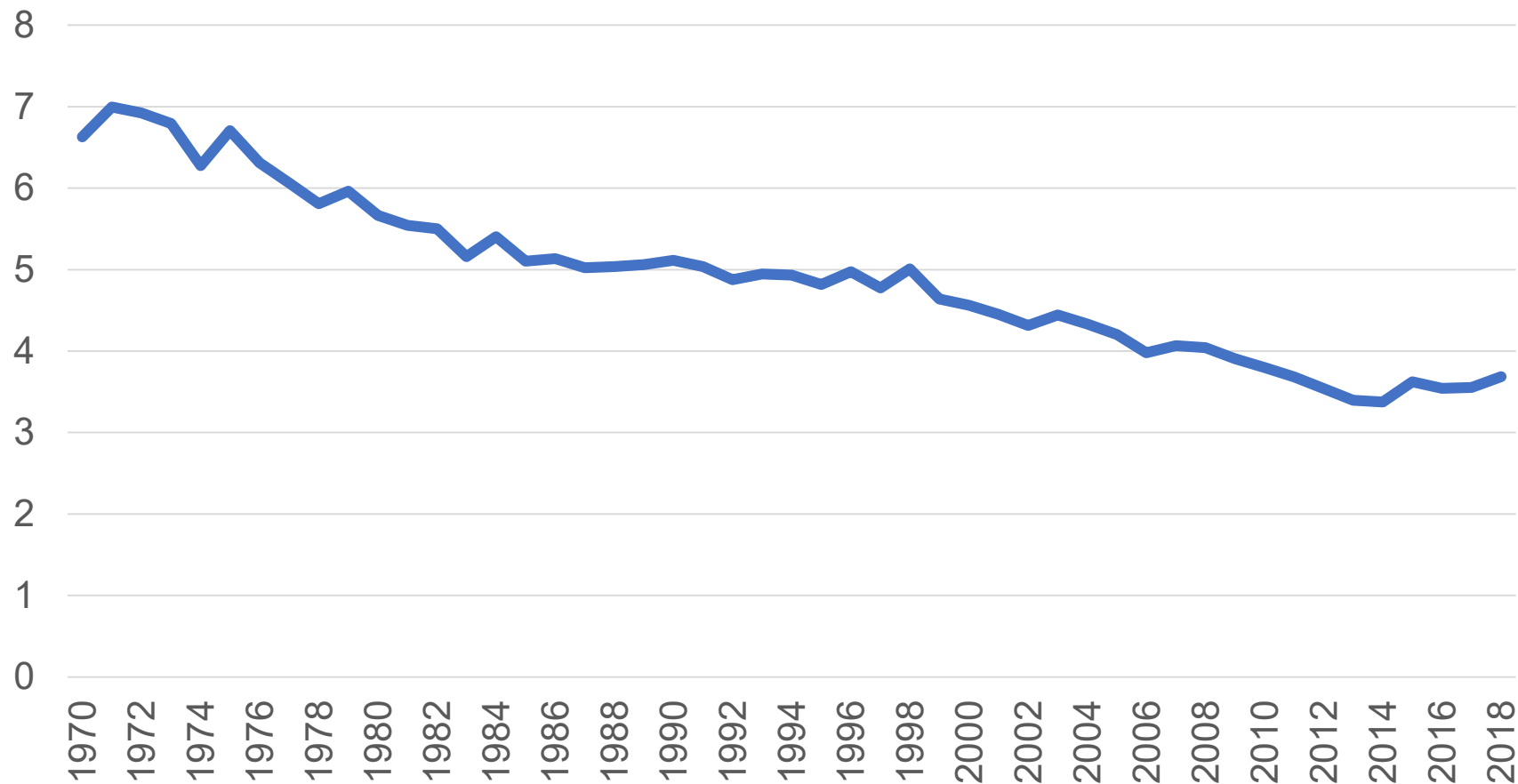
Natural gas utility spending on energy efficiency programs increased steadily

United States Natural Gas Efficiency Program Investments
Million Dollars



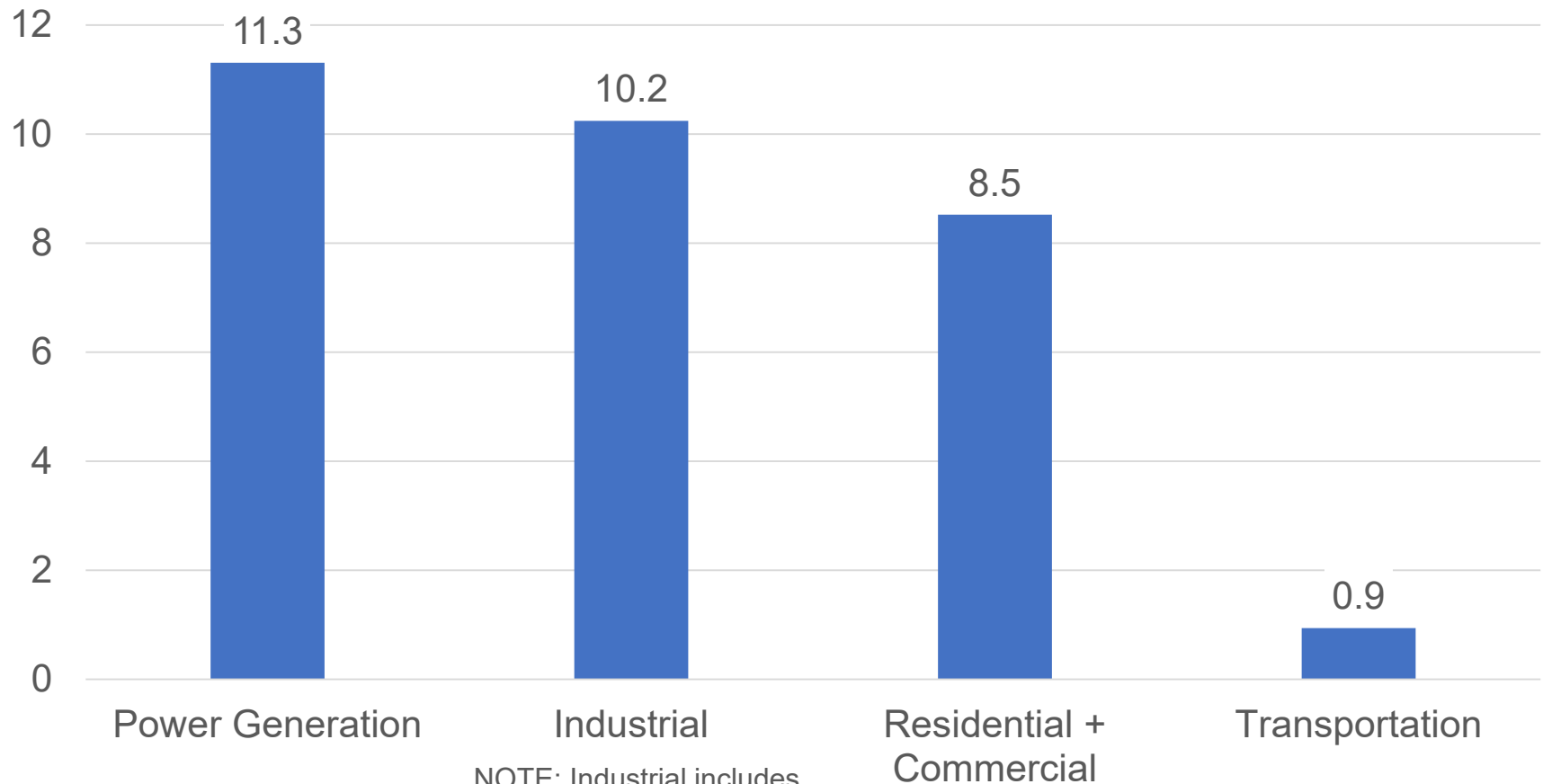
Continued improvements in gas efficiency have reduced residential emissions per customer by 50%

CO2 Emissions per Residential Natural Gas Customer
Metric Tons CO2/year



Power generation is the major user of gas in the United States, followed by industry and then buildings

US Gas Consumption by Sector, 2019
Trillion Cubic Feet



NOTE: Industrial includes
lease and plant fuel

Domestic consumption of natural gas at a record level

US Natural Gas Total Consumption, 1950-2019
Trillion Cubic Feet

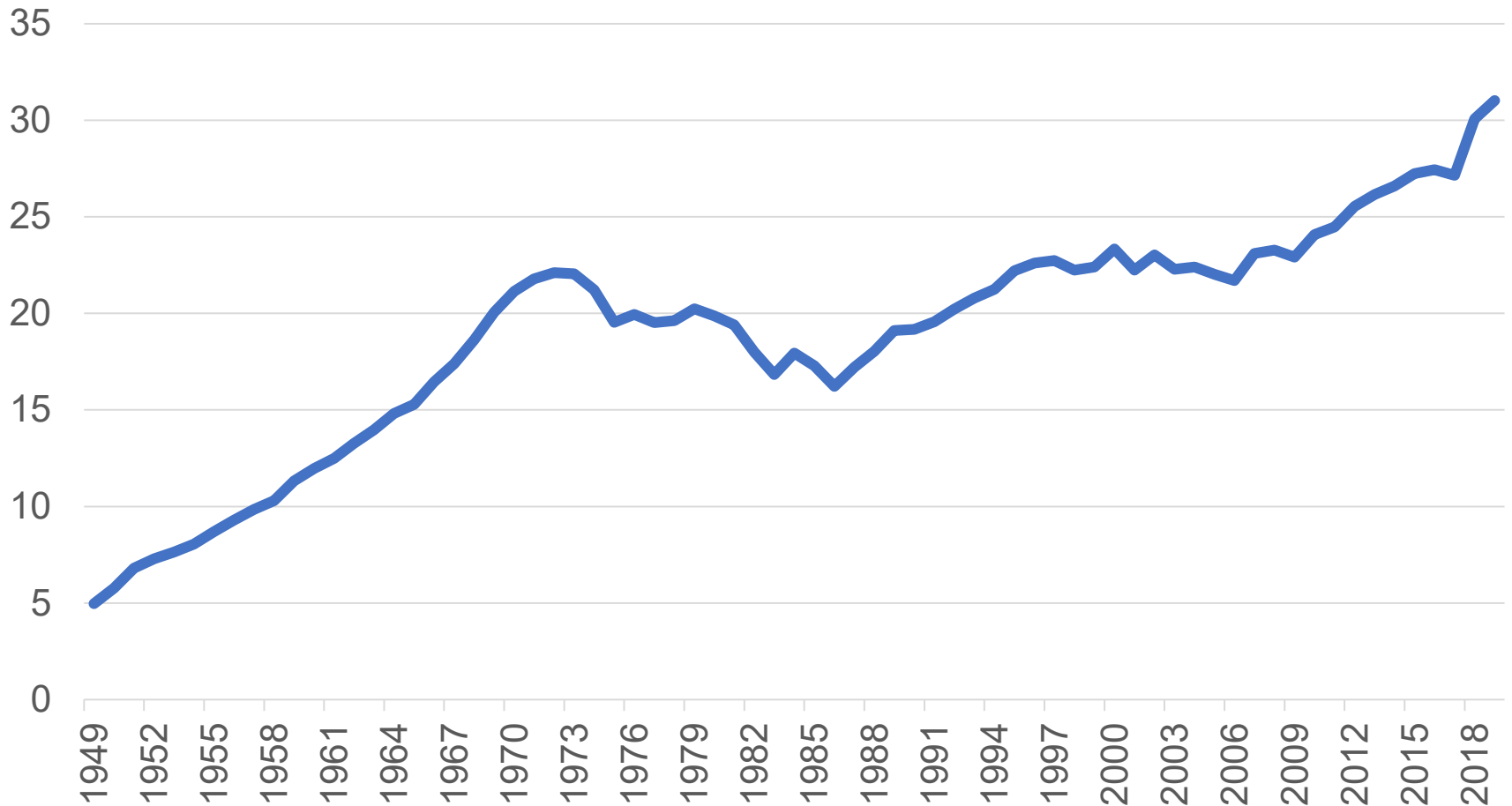
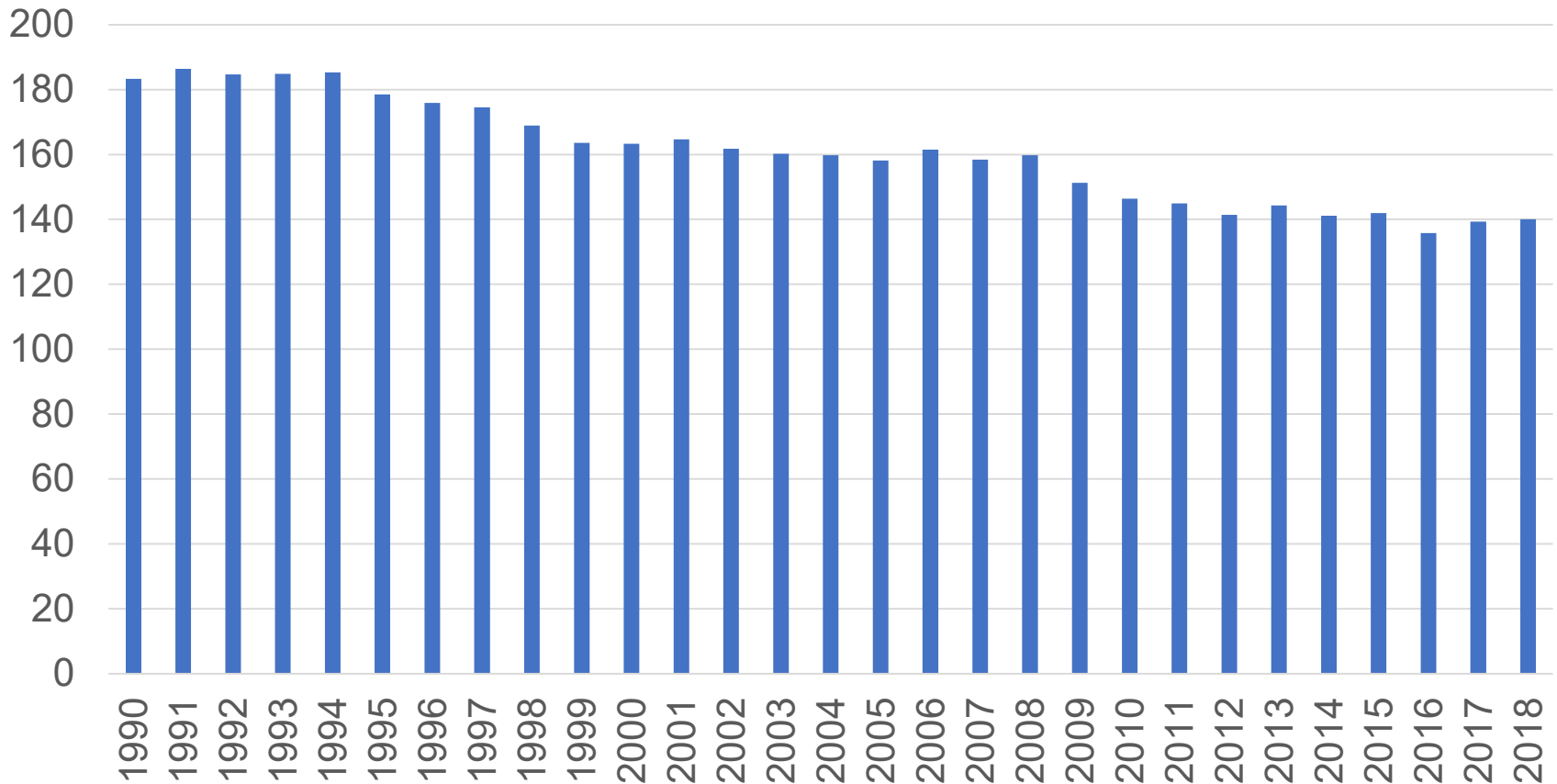


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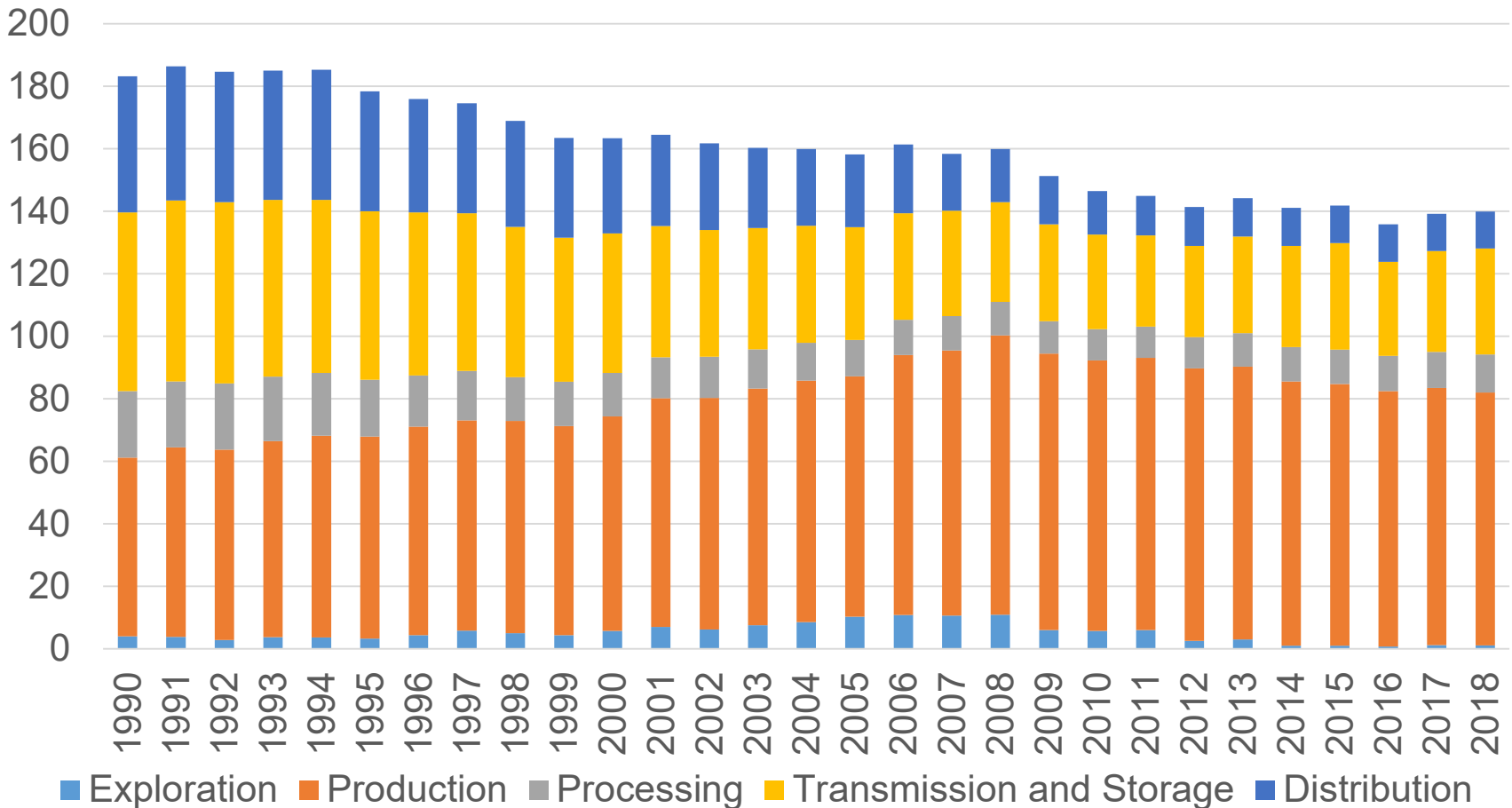
Methane emissions from natural gas systems have declined 24 percent from 1990 levels

Total Natural Gas Industry Methane Emissions
Million Metric Tons CO₂-equivalent

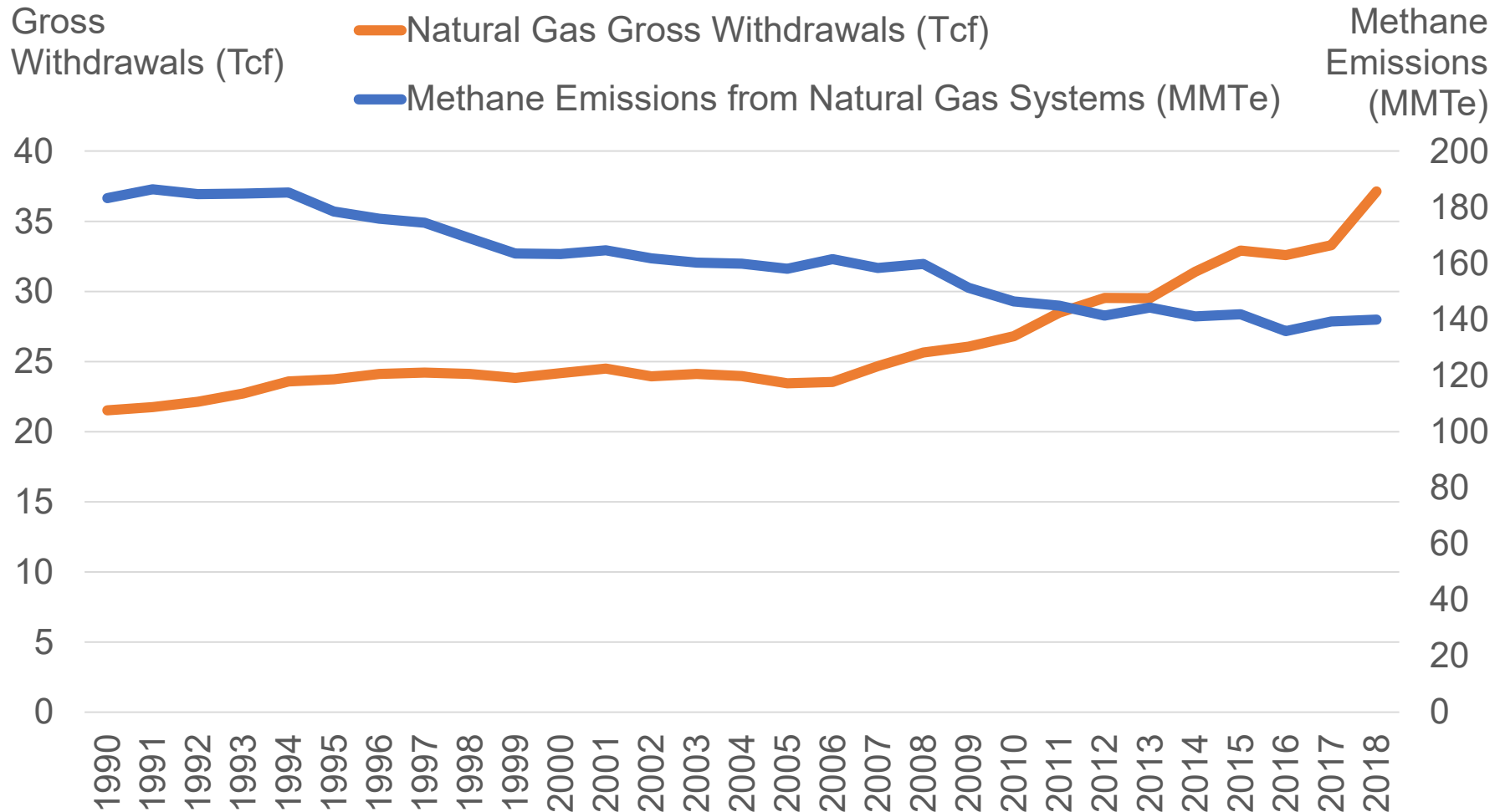


Natural gas distribution share of methane emissions has consistently decreased since 1990

Natural Gas System Methane by Stage 1990 – 2018, MMT CO2 Eq

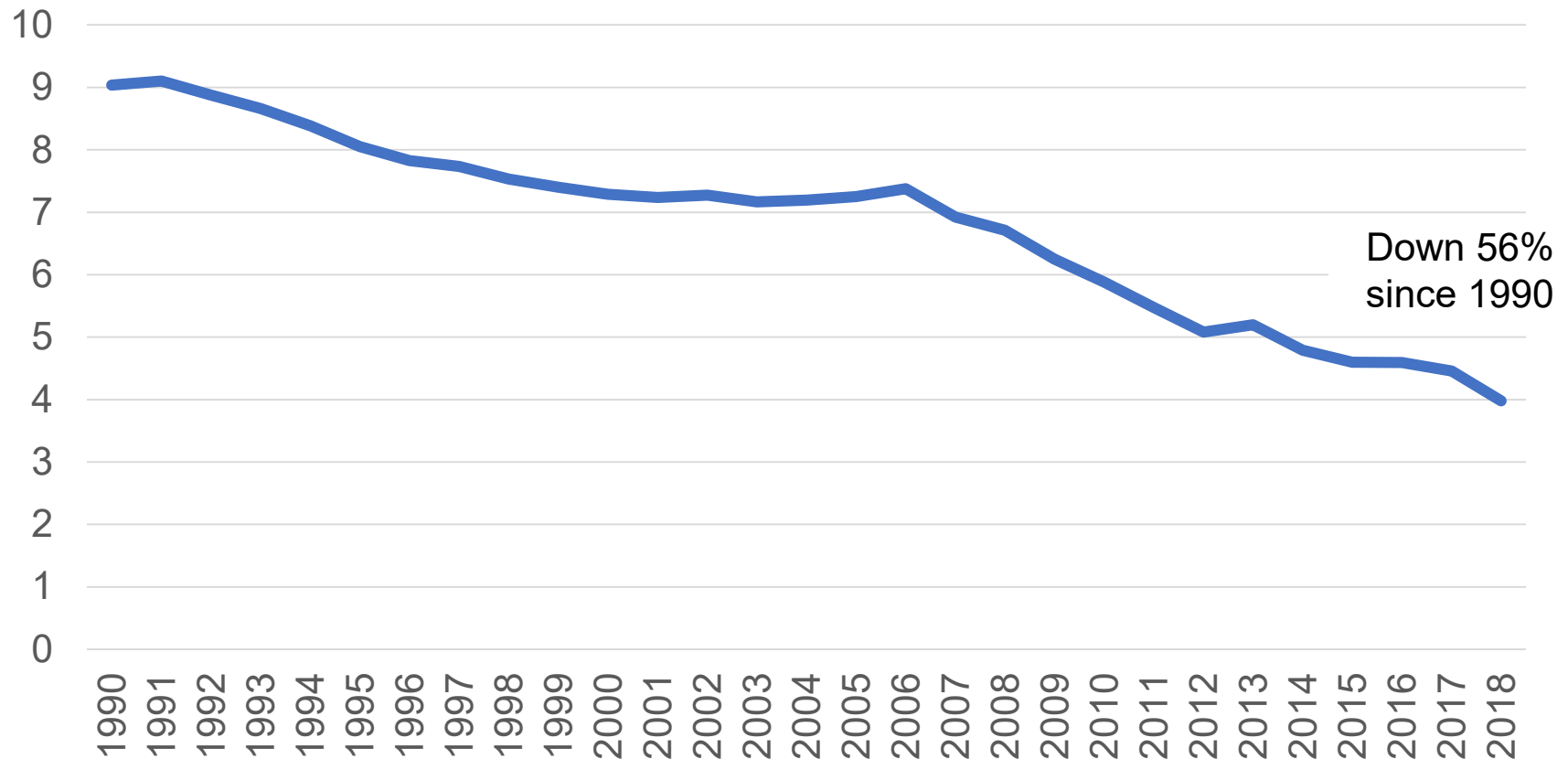


Methane emissions have declined since 1990 even as gross natural gas withdrawals climbed 73 percent.



Methane emissions per unit of natural gas produced have declined steadily since 1990

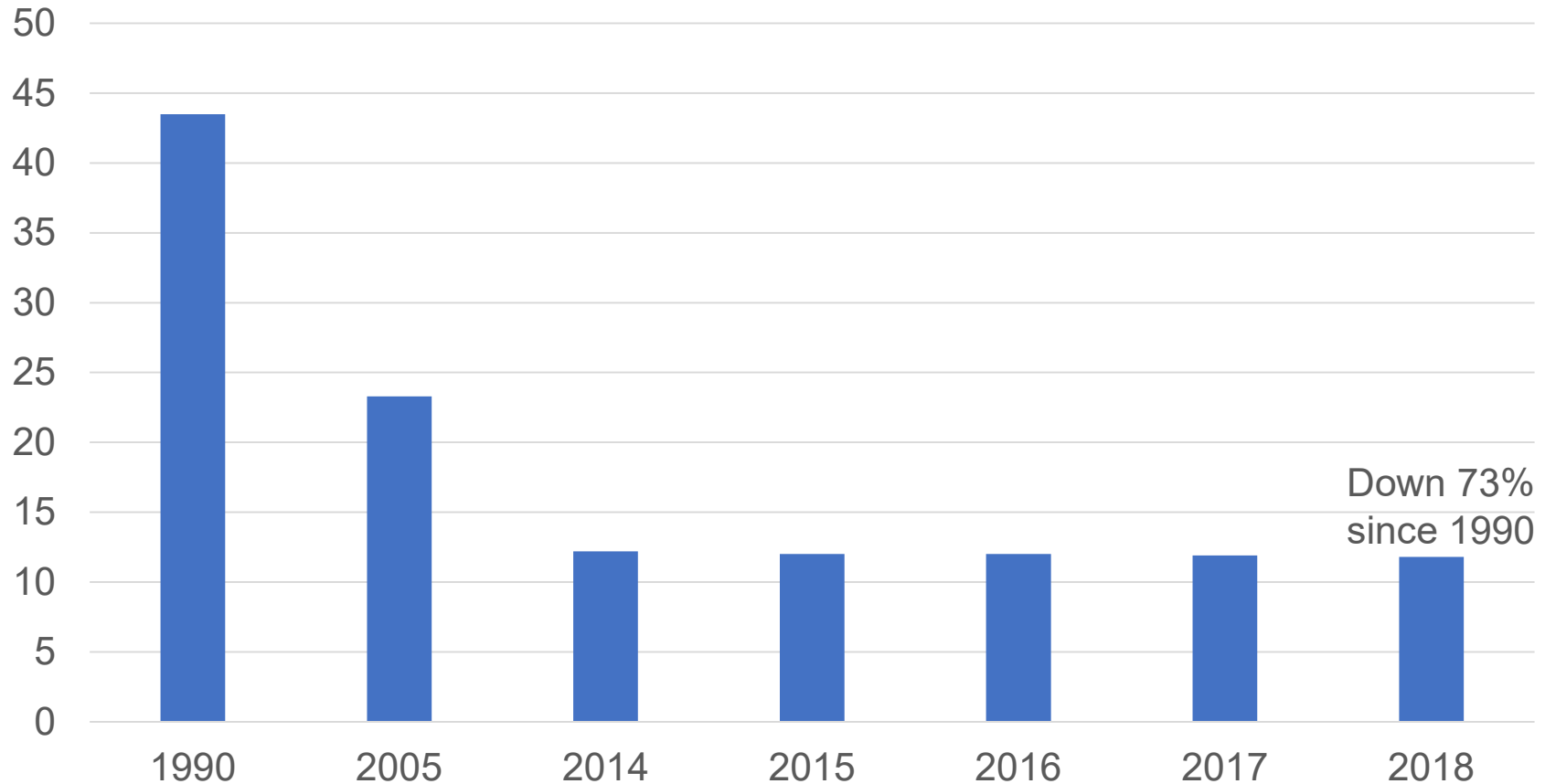
Ratio of Methane Emissions per Mcf of Gas Produced
MMT CO₂-Eq. per Mcf



Includes methane emissions from petroleum production based on the natural gas fraction of total energy content produced from oil wells.

Methane emissions from natural gas distribution systems are small and shaped by a declining trend

Methane Emissions from Natural Gas Distribution Systems
MMT CO₂-Eq.



Methane emissions from natural gas distribution systems are decreasing as the number of customers increase.

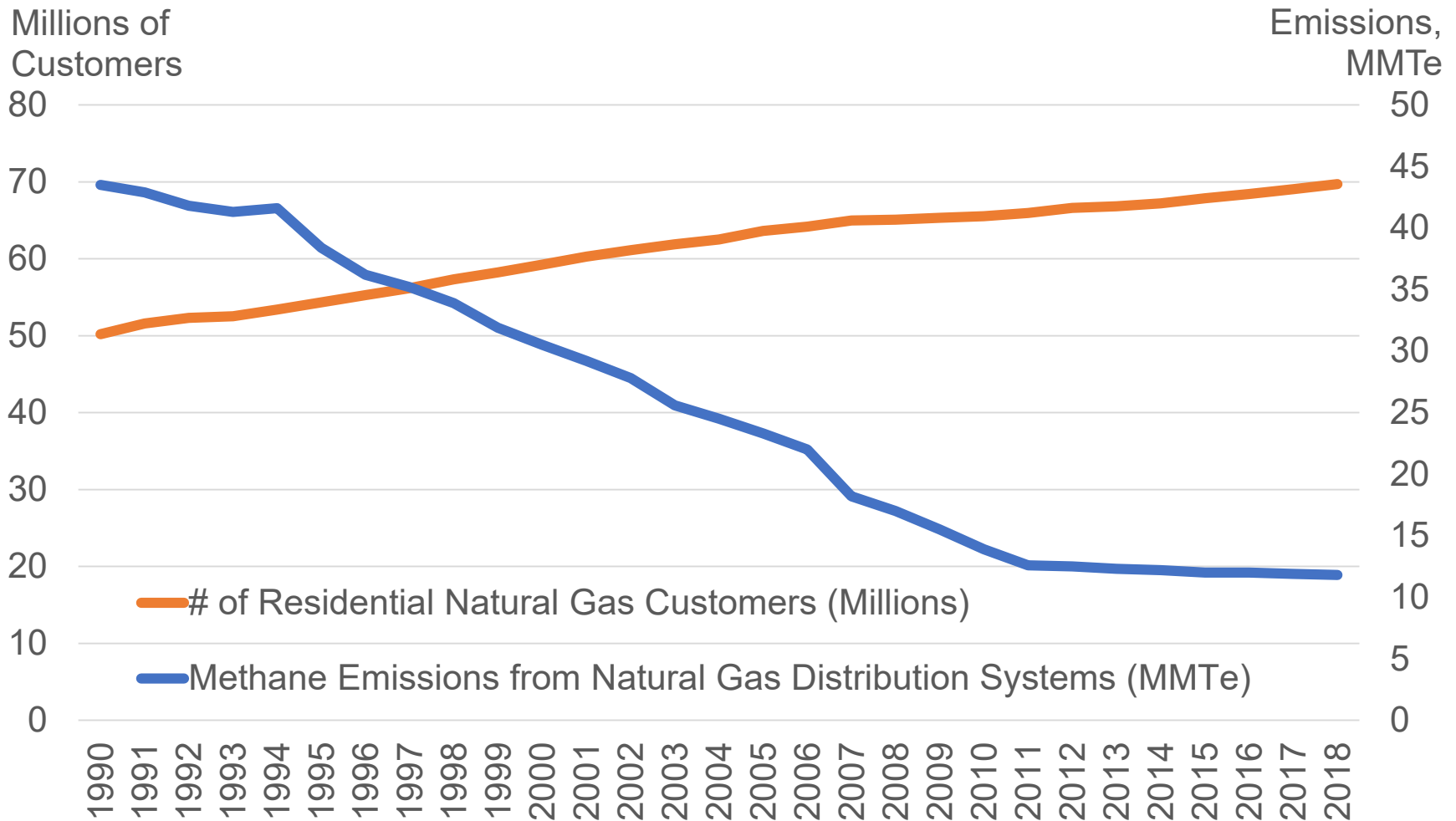
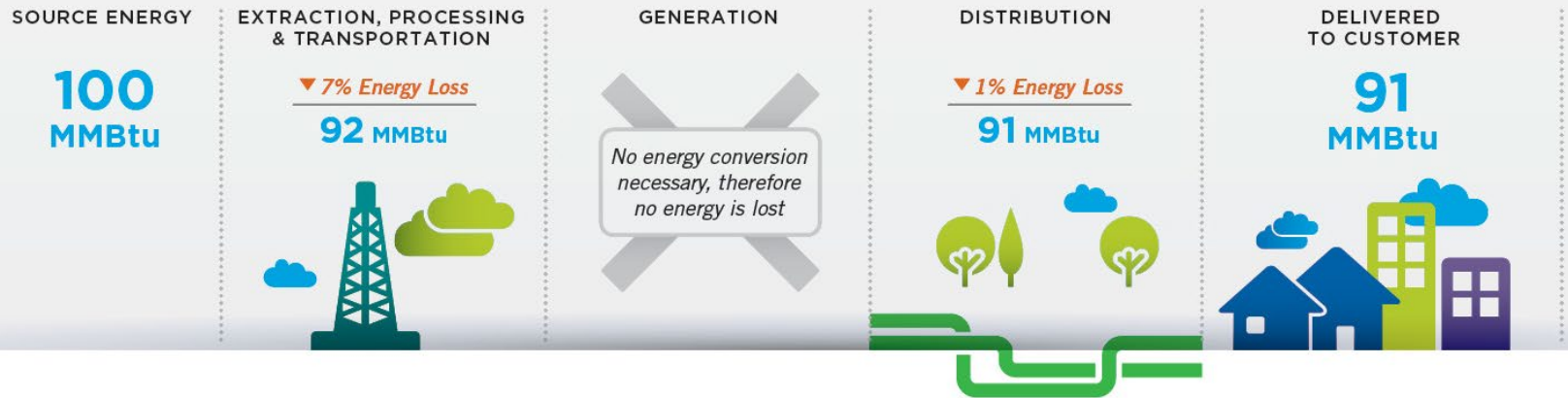


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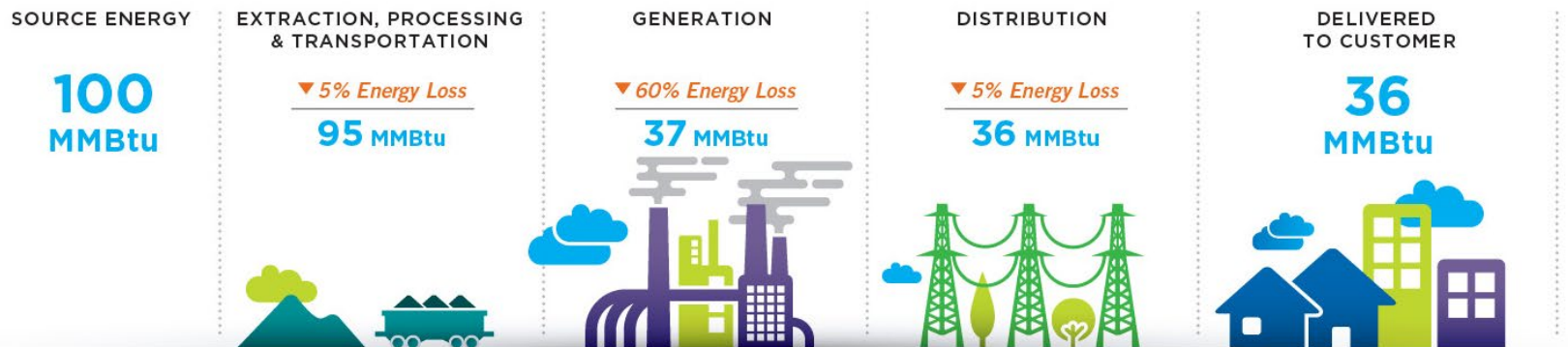
The natural gas delivery system is 91% efficient from production to customer.

Direct Use of Natural Gas



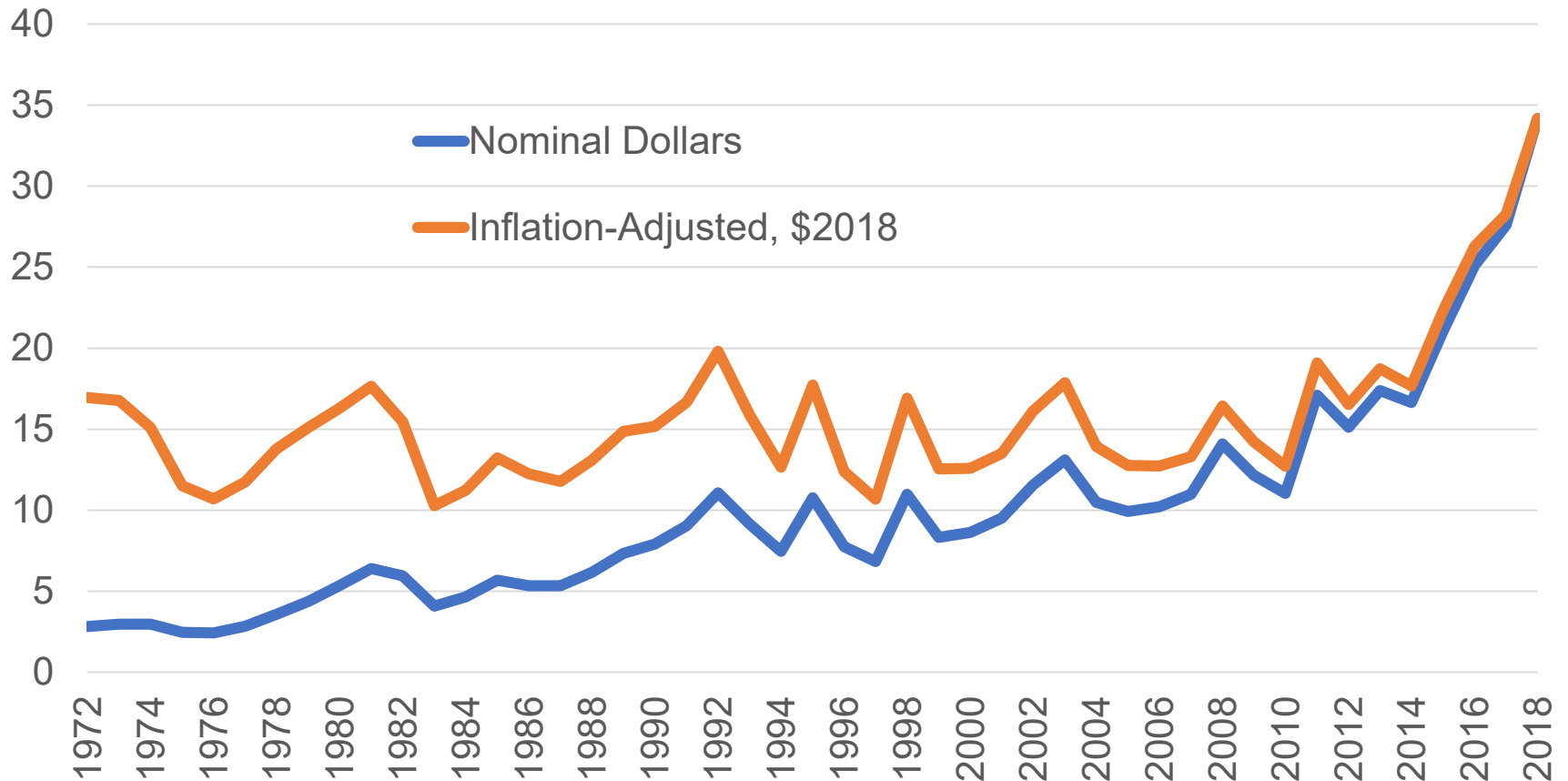
Converting to Electricity

Converting natural gas into electricity only maintains 36% of usable energy on the journey from production to customer.



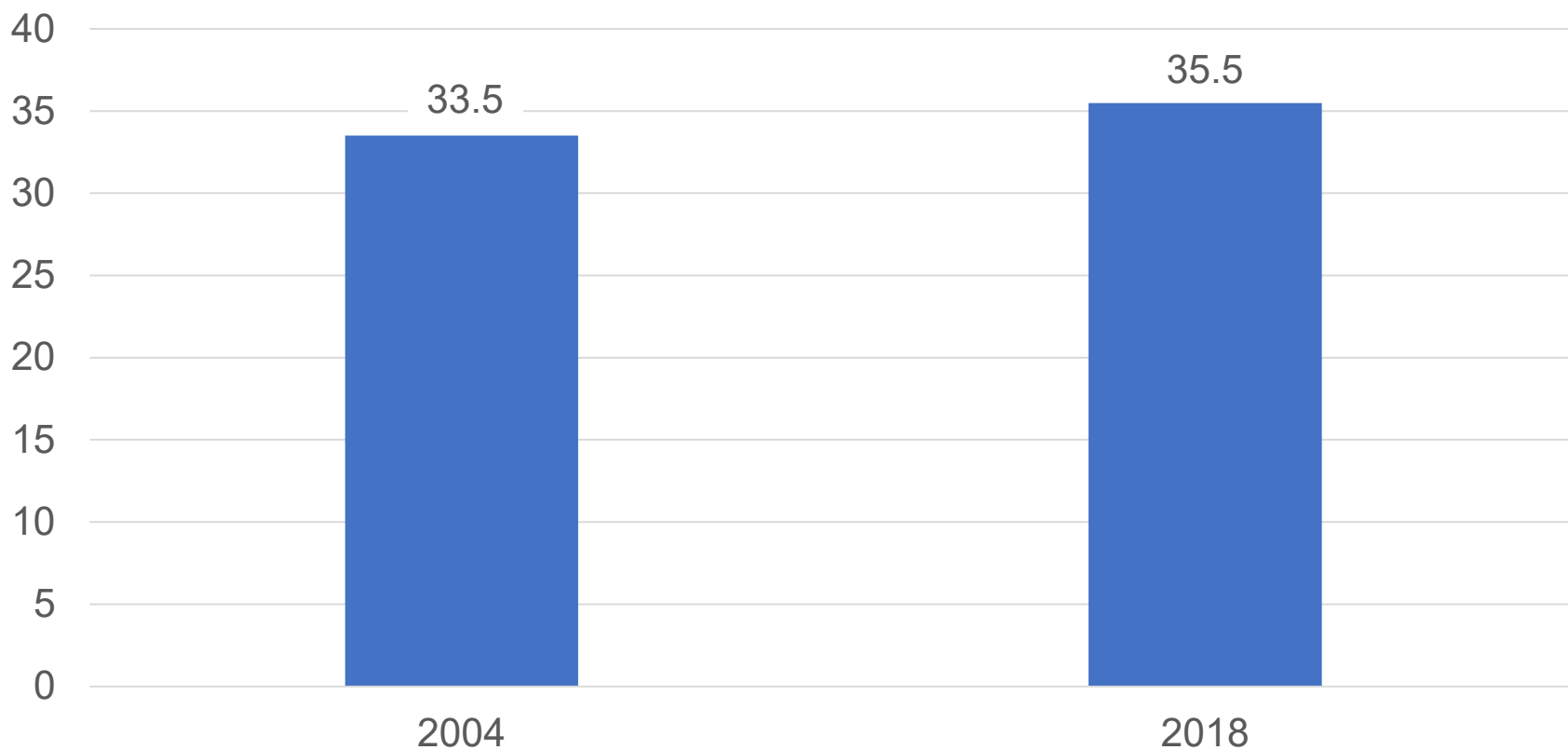
Gas utility construction expenditures have increased in recent years due to greater state adoption of pipeline replacement and expansion programs to improve safety and extend service to new customers.

Gas Utility Construction Expenditures 1972-2018, \$ Billion



Due to replacement and new construction the average age of gas distribution main pipelines increased by only two years since 2004

Average age of US gas mains in service, years



Forty-two states including the District of Columbia have a program or policy in place to accelerate replacement of distribution pipelines

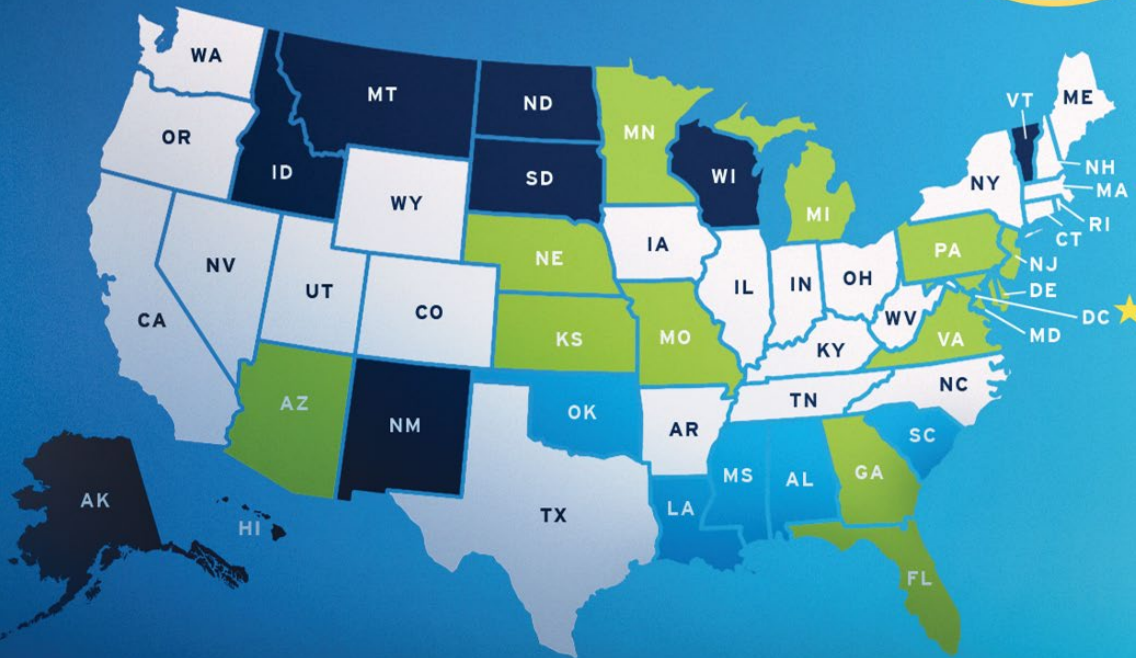
All natural gas utilities replace pipelines that may no longer be fit for service.

Forty-two states, including the District of Columbia, have specific rate mechanisms that foster accelerated replacement of pipelines.

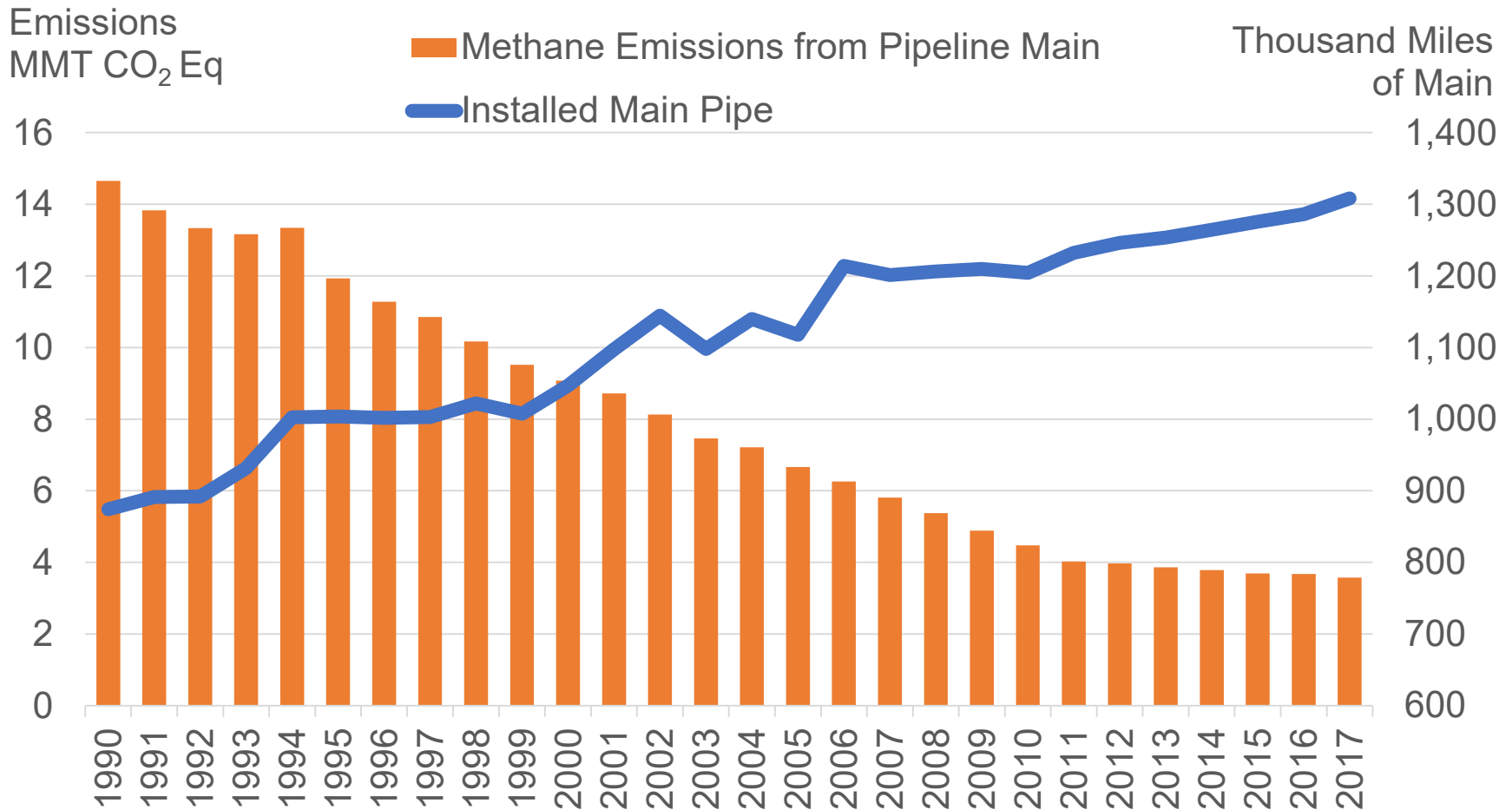
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States

- Cost Recovery Tracker
- Rate Stabilization Mechanism
- Limited to No Cast Iron or Bare Street Inventory
- Surcharge

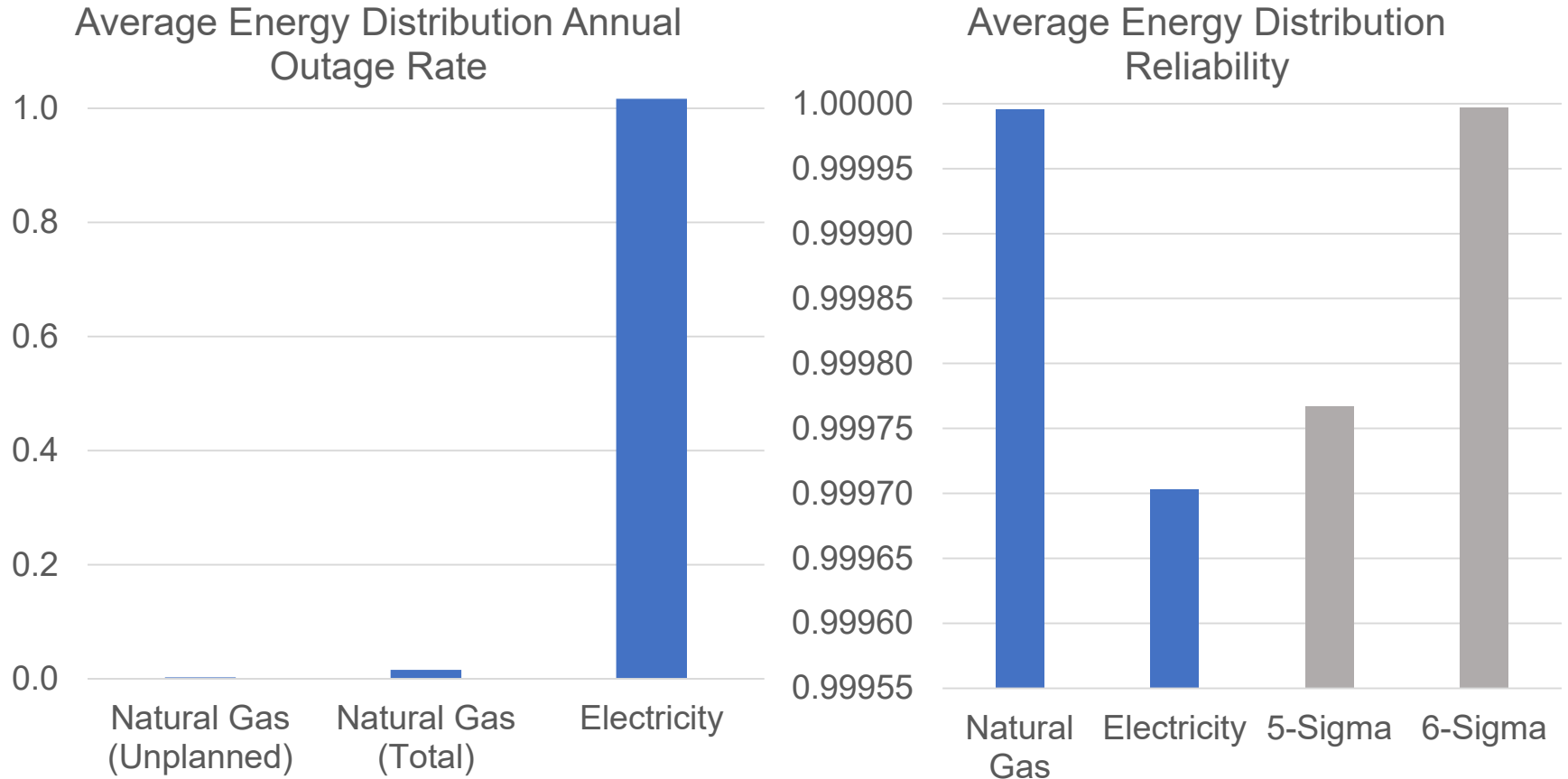
*As of
December 2018



Pipeline and other infrastructure replacement has reduced methane emissions from gas utility systems



Natural gas service is reliable. Unplanned outages affect about 1 in 800 natural gas customers per year. By comparison, electric distribution systems have an average of one outage per year per customer.



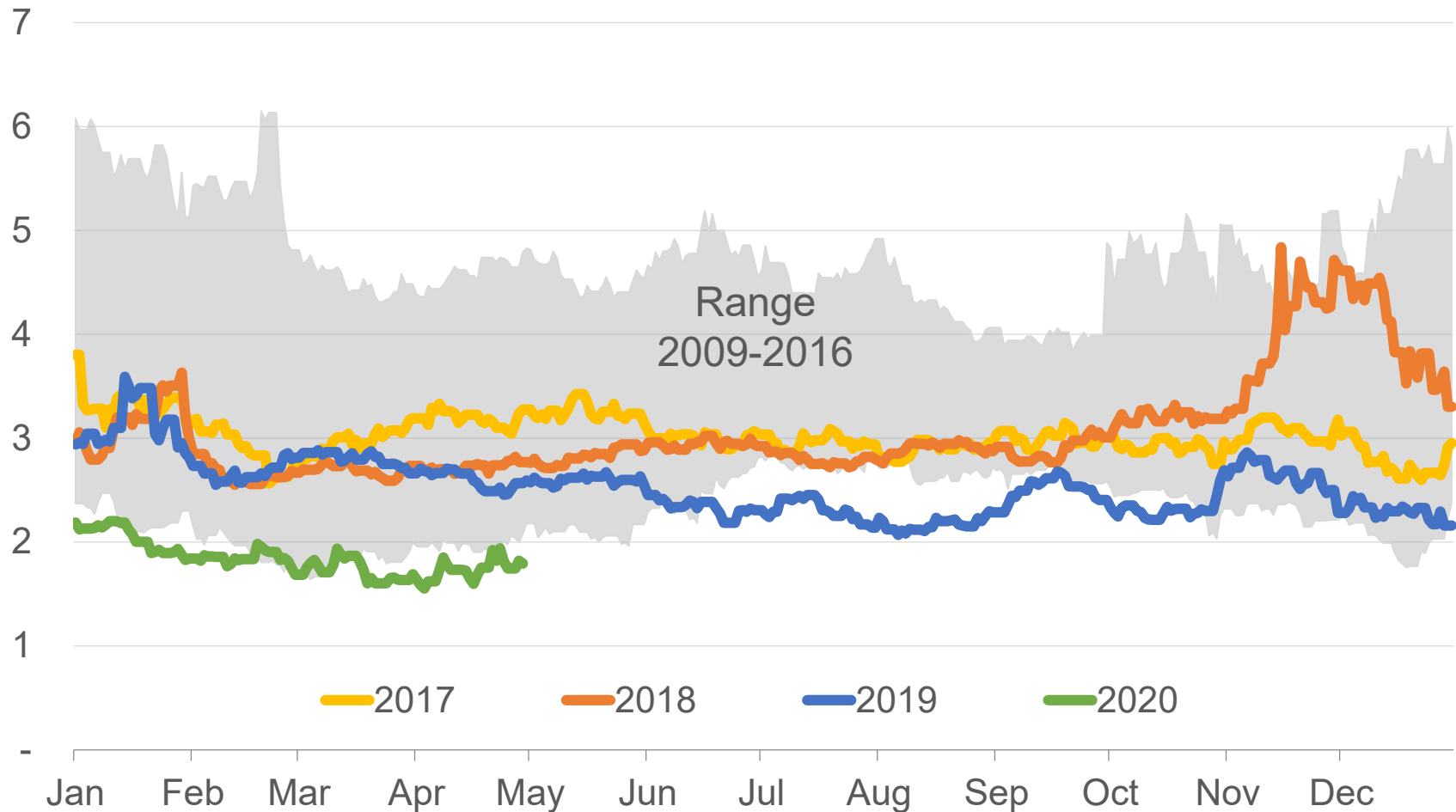
Source: Gas Technology Institute. *Assessment of Natural Gas and Electric Distribution Service Reliability*. 2018.

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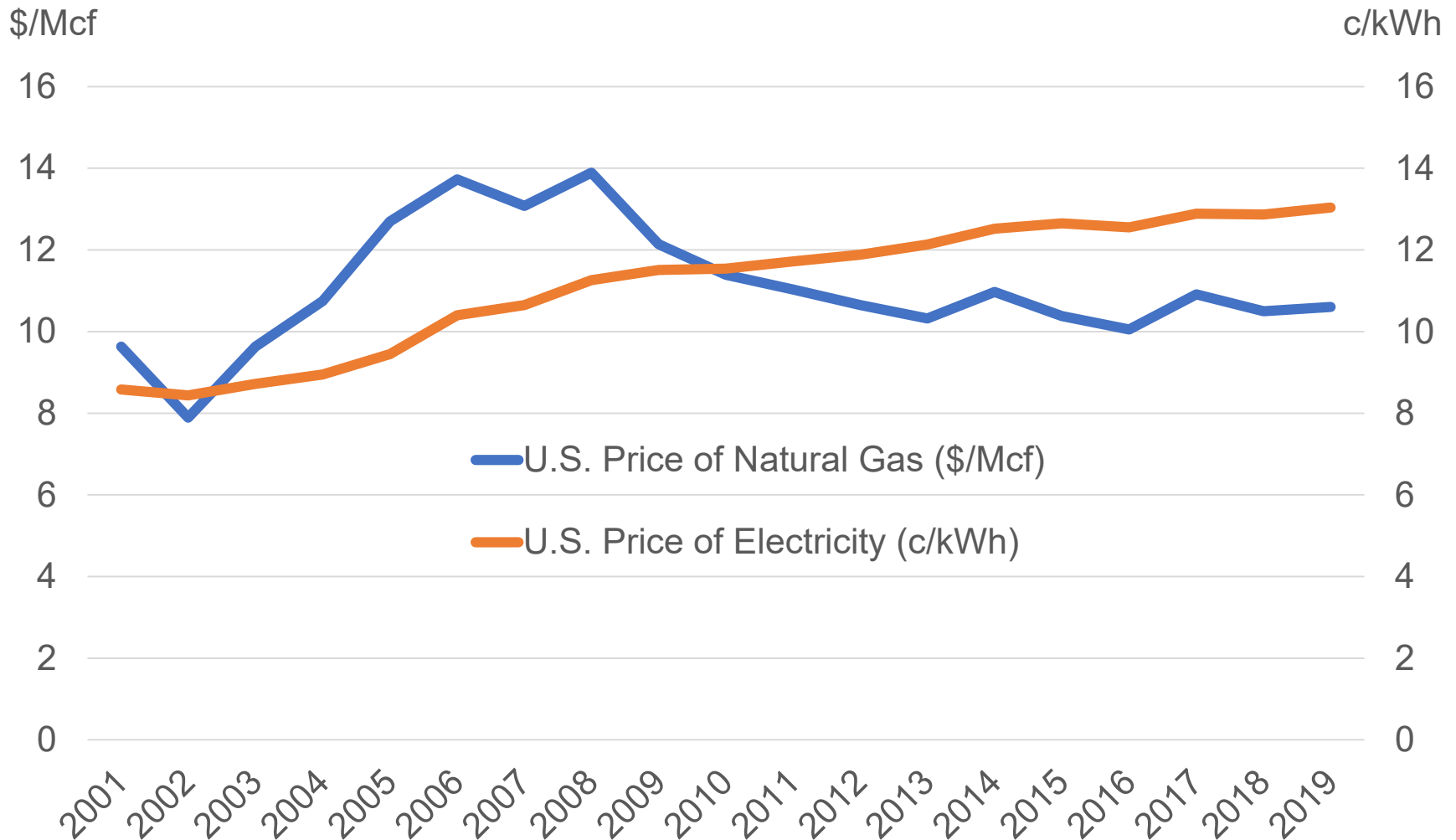
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Natural gas prices still trading at low-end of historical range

Natural Gas Prices Prompt-Month Futures at Henry Hub
\$/MMBtu

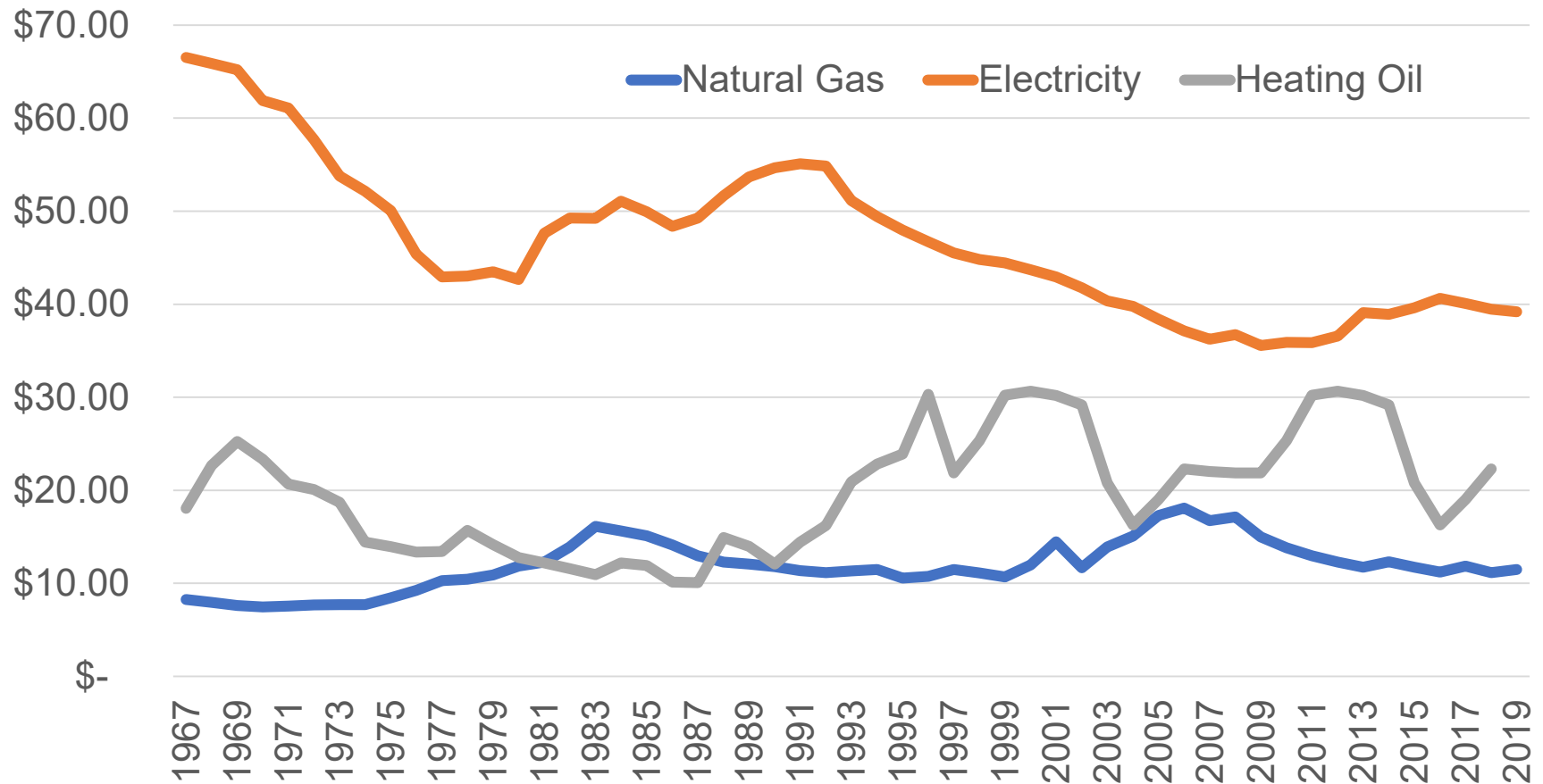


Delivered natural gas price has remained low compared with electricity



On an energy-equivalent basis, natural gas rates are 67% less than electricity

Residential Price for Natural Gas, Electricity, and Heating Oil
Inflation-adjusted, December 2019 dollars (\$/MMBtu)



Natural gas appliances save money and benefit the environment

Hot Water at a Lower Cost

Comparing Residential Water Heater Efficiency

Tankless Natural Gas



Full-Fuel-Cycle Energy Consumption*

18.6 MMBtu
(annually)

CO₂ Emissions*

1.1 tons
(annually)

*on average

Natural Gas



Full-Fuel-Cycle Energy Consumption*

26.64 MMBtu
(annually)

CO₂ Emissions*

1.5 tons
(annually)

Electric Resistance



Full-Fuel-Cycle Energy Consumption*

40.3 MMBtu
(annually)

CO₂ Emissions*

2.5 tons
(annually)

Overall, a typical new home can save nearly \$900 per year in energy costs by installing natural gas compared with electricity for water heating, cooking, and clothes drying.

Estimated Annual Residential Energy Bills for Typical New Home

	Natural Gas	Electricity	Oil	Propane
Space Heating	\$666	\$1,096	\$1,258	\$1,321
Other ¹	\$325	\$773	\$1,656	\$635
Total	\$991	\$1,869	\$1,914	\$1,956

¹ Includes water heating, cooking, and clothes drying

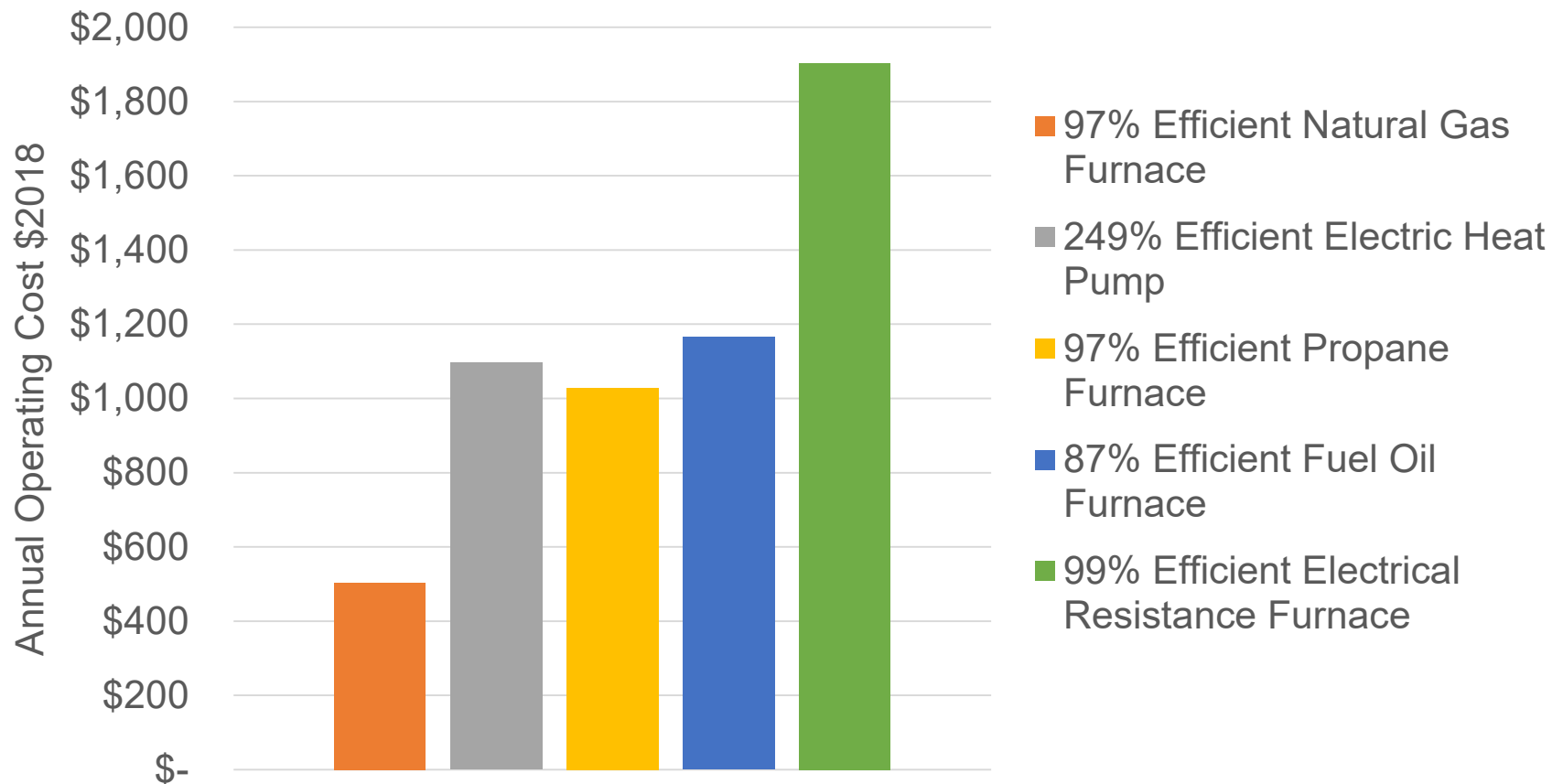
Total efficiency advantage of natural gas results in significantly lower emissions for natural gas

**Full-Fuel-Cycle Carbon Dioxide Equivalent Emissions for New Homes
(Metric Tons of CO₂e per Average Household Energy Use)**

Natural Gas	5.9
Electricity	7.6
Oil	7.1
Propane	7.0

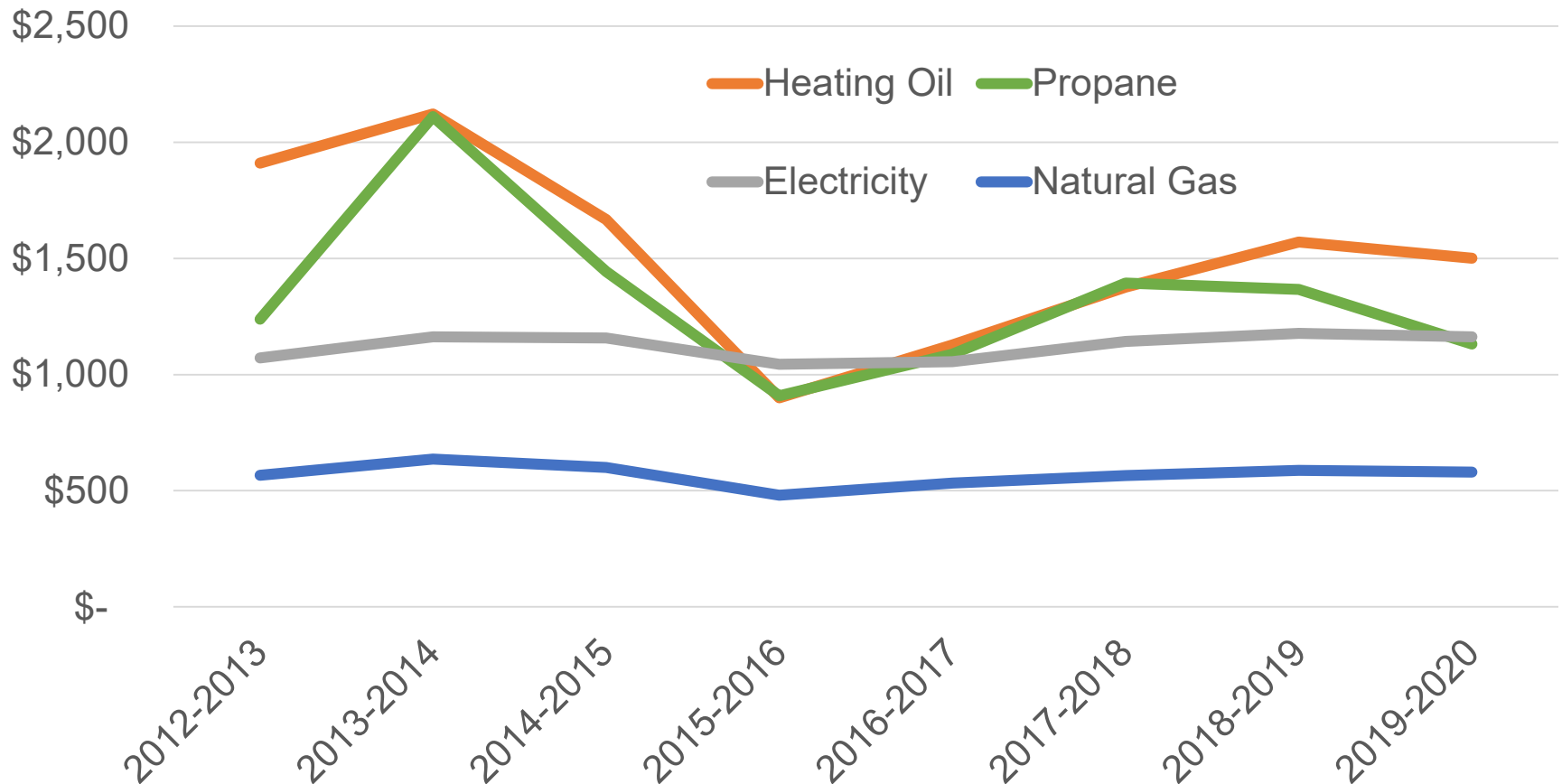
Energy efficiency is a critical component of reducing home heating costs, and efficient natural gas remains among the lowest-cost ways to heat a home.

Heating Value Compared to Other Energy Sources



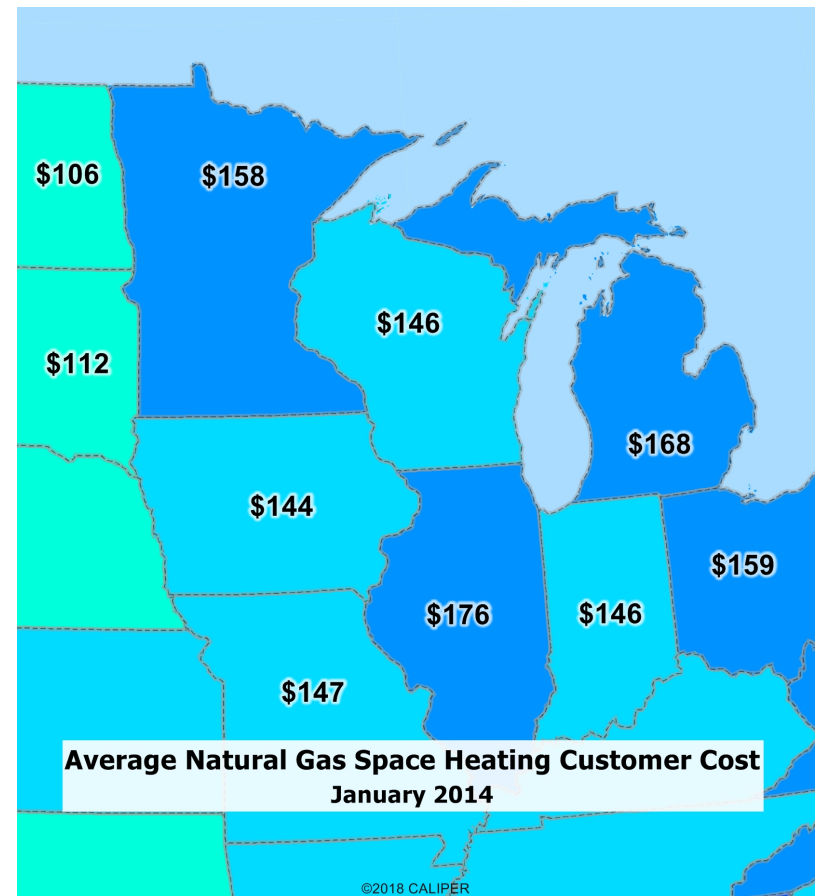
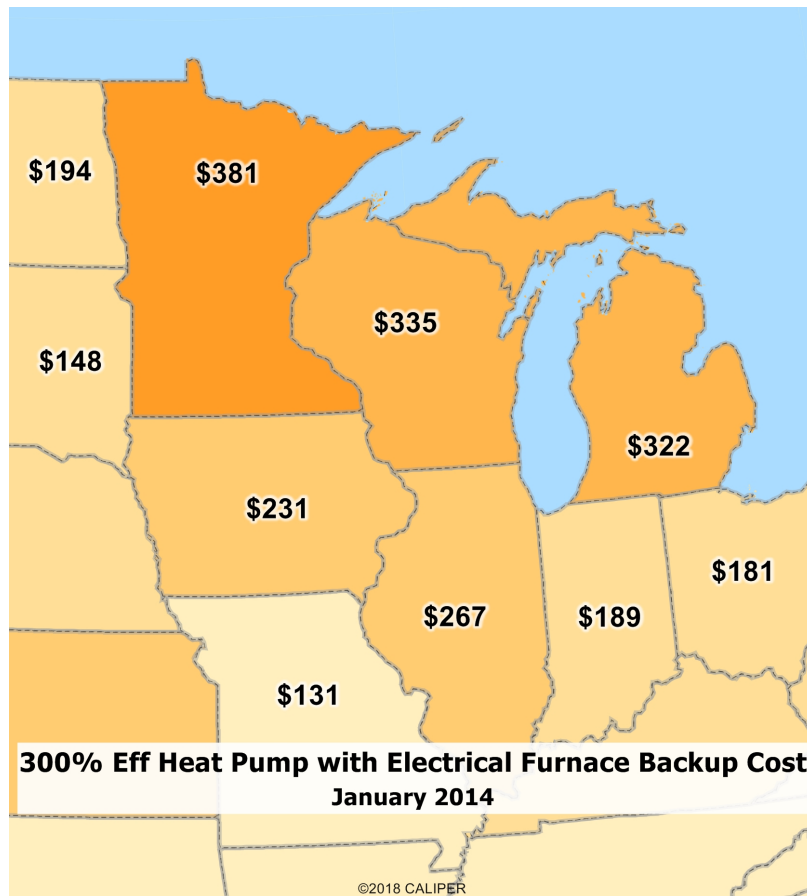
Households using natural gas for heat during the winter save twice as much as those using electricity

US Average Consumer Expenditures for Heating Fuels During the Winter (Dollars)



Regional Comparison of Average Natural Gas and Electric Operating Costs for Space Heating

Conventional natural gas furnaces on average have an operational cost advantage over other heating sources, including advanced heat pumps, particularly on the coldest days when space heating requirements are the highest and electric heat pump efficiency and heating capacity is the lowest.



Source: A Comparison of Space Heating Appliance Costs During Extreme Cold Weather Events, EA 2019-01, American Gas Association

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The natural gas industry supports more than 4.1 million jobs, delivers \$269 billion in personal income, and contributes \$550 billion in national GDP

Direct, Indirect, and Induced Economic Impacts

	Employment (Number of Workers)	Labor Income (Millions)	Value Added (Million)
End-Use	\$1,788,207	\$106,941	\$271,663
Infrastructure	\$1,282,306	\$84,341	\$167,624
Production	\$1,033,510	\$78,204	\$111,390
All Segments	\$4,104,023	\$269,486	\$550,667

The direct use of natural gas and its underlying pipeline and distribution infrastructure accounts for the majority of natural gas industry jobs and economic contributions.

US Jobs, Wages, and Valued Added by Natural Gas Value Chain Segment for 2015

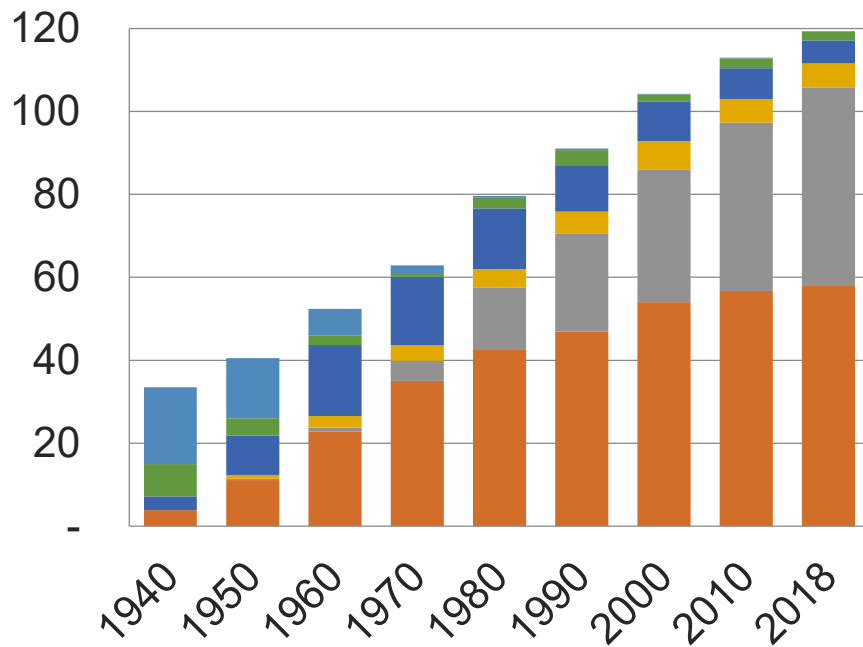
		Employment (# of workers)			Labor Income (\$ million)			Value Added (\$ million)		
Segment	Category	Direct & Indirect	Induced	Total	Direct & Indirect	Induced	Total	Direct & Indirect	Induced	Total
End-Use	Power Generation	147,857	258,596	406,453	11,419	12,891	24,311	42,395	22,735	65,130
	Industrial	297,763	563,432	861,195	23,354	28,228	51,582	83,885	49,717	133,602
	Residential/Commercial	163,499	211,665	375,165	10,934	10,946	21,880	38,907	19,123	58,029
	Export	81,532	60,548	142,080	5,965	3,075	9,040	9,076	5,396	14,471
	Transportation	1,751	1,564	3,315	82	81	130	284	146	430
Infrastructure	Processing	86,951	102,342	189,293	7,211	5,296	12,508	17,856	9,327	27,183
	Pipelines	268,373	257,754	526,128	21,702	13,409	35,111	43,793	23,637	67,430
	Distribution	287,063	264,488	551,552	21,992	13,693	35,717	47,079	23,962	71,041
	Wholesalers, Marketers, Other	7,920	7,414	15,333	619	385	1,005	1,296	675	1,971
Production	Natural Gas/NGLs	609,382	424,129	1,033,510	56,667	21,537	78,204	73,596	37,794	111,390
All Segments	Grand Total	1,952,091	2,151,932	4,104,023	159,946	109,541	269,486	358,167	192,510	550,677

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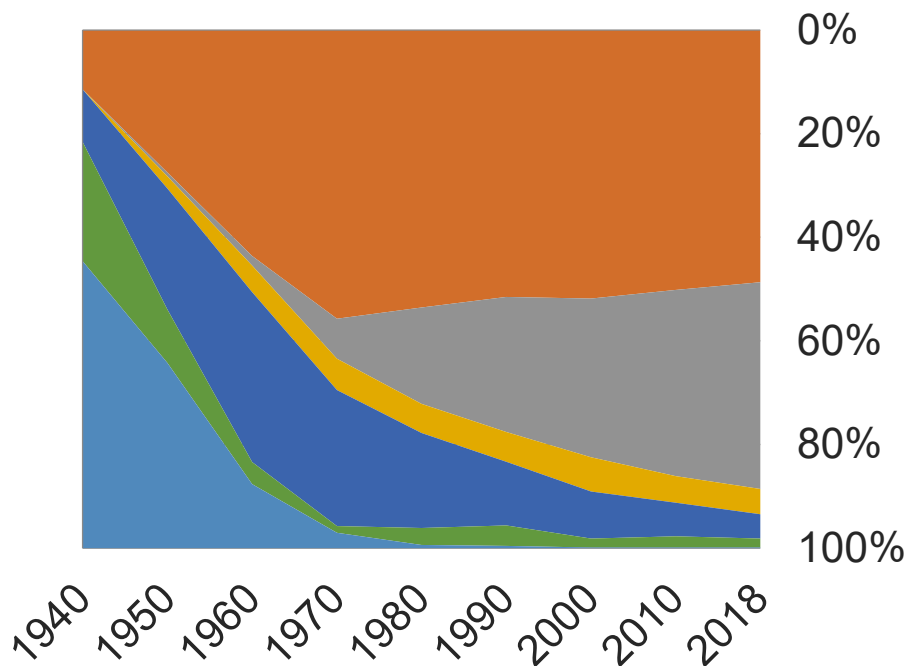
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Natural gas and electricity as primary heating energy sources have grown during the past five decades.

US Households by Heating Fuel
(Millions)



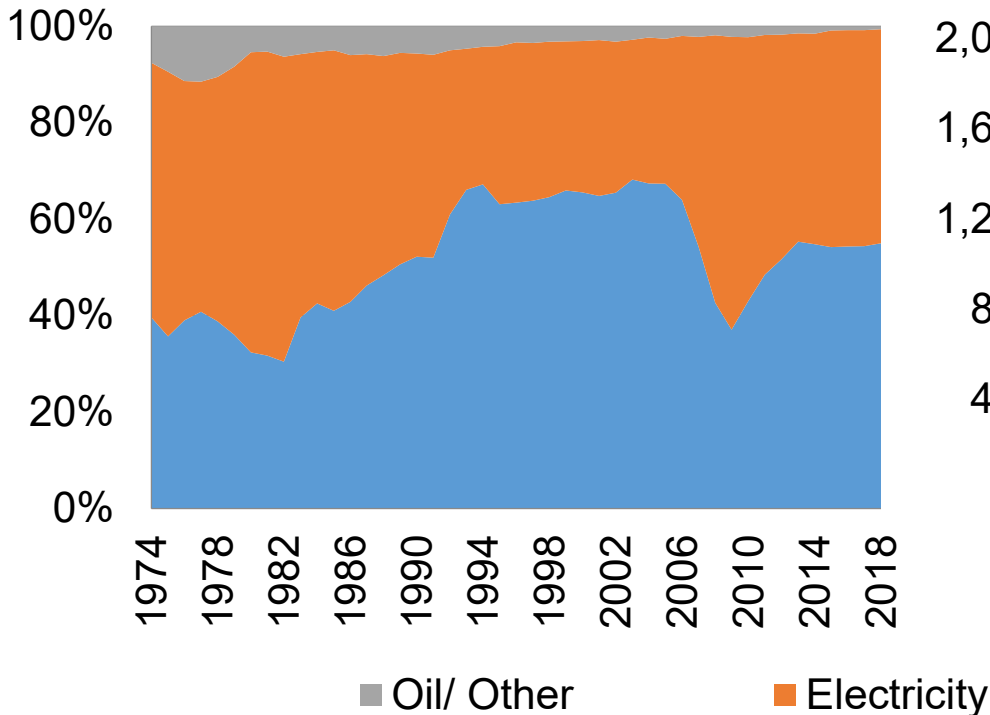
Residential Primary Heating Fuel
Market Share



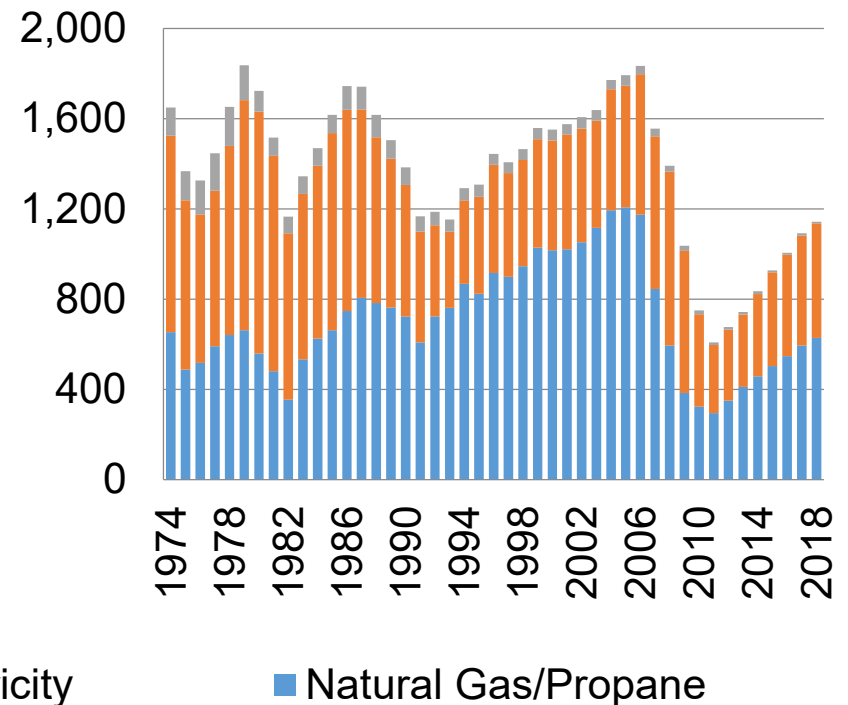
■ Coal ■ Wood ■ Fuel Oil ■ Propane ■ Electricity ■ Natural Gas

The residential new construction is currently split between gas and electric appliances.

Residential New Construction Market Share by Heating Fuel

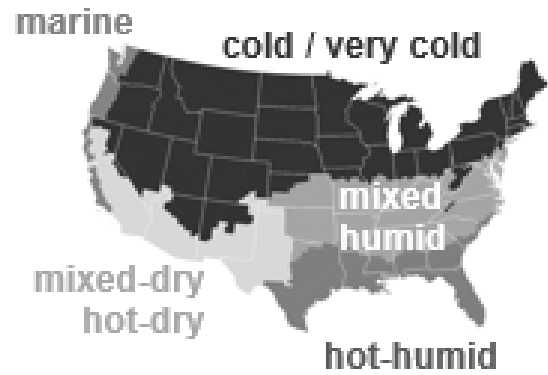
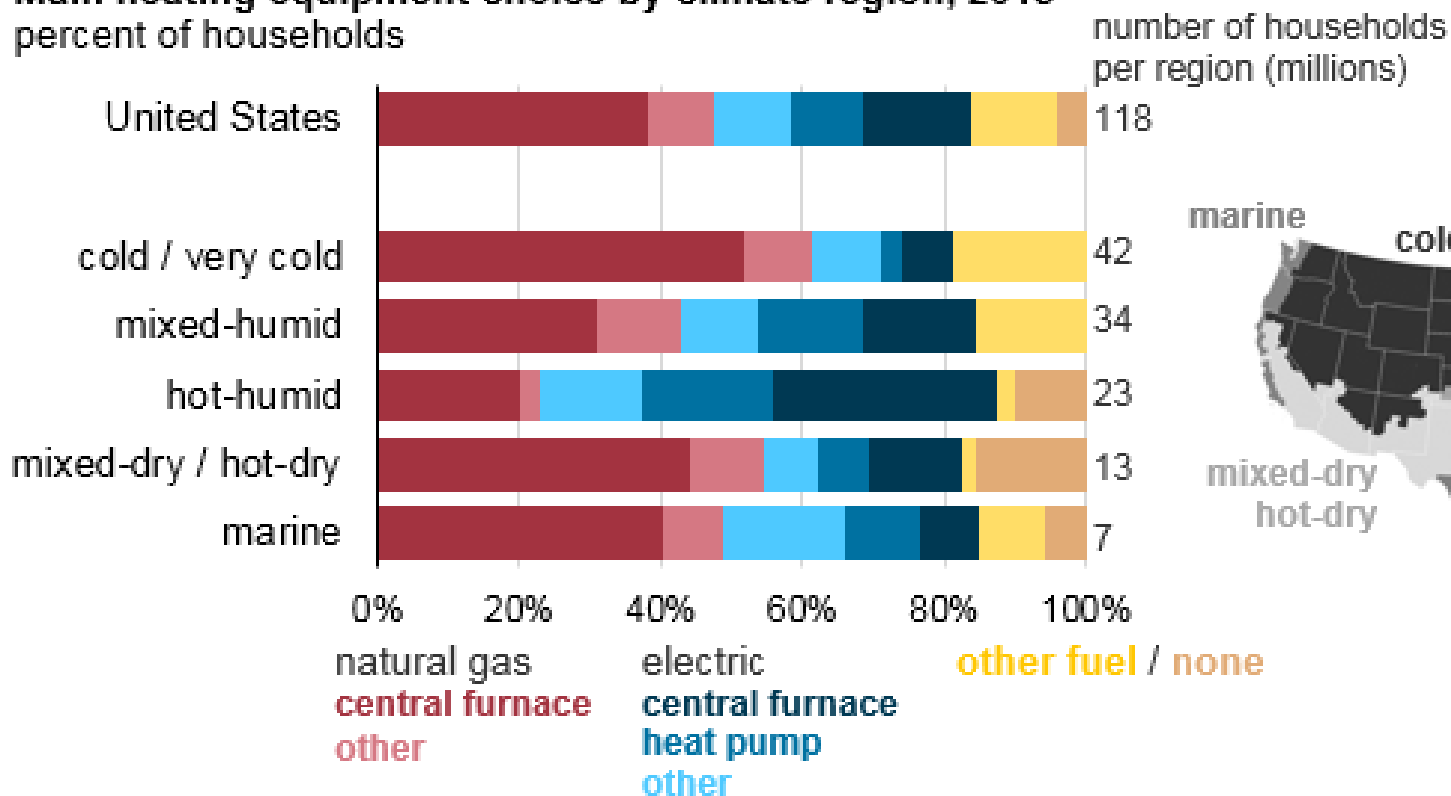


Annual Residential New Housing Completions by Heating Fuel
(Thousands of Housing Units Completed by Year)



Natural gas is the main heating fuel choice for residential homes in most regions, though electric equipment is more predominant in warmer climates. The most widely installed electric equipment used for space heating are central furnaces and other units that use inefficient resistance elements. The efficient direct use of natural gas is a key energy efficiency solution for these households.

Main heating equipment choice by climate region, 2015
percent of households



There are 13.3 million households in the United States indicate that natural gas service is available in the neighborhood but instead use another fuel source for their primary space heat.

**Space Heating Market for Households with Natural Gas Service
(Millions of Households)**

	With Natural Gas Service		Not Using Natural Gas Service*					Total
	Using Natural Gas	Using Natural Gas	Electric Central Air	Heat Pump	Propane	Fuel Oil	Other	
New England	3.0	2.5	0.1	-	0.1	0.3	0.1	0.5
Middle Atlantic	12.5	10.9	0.2	0.2	0.1	0.7	0.3	1.5
East North Central	15.5	13.8	0.7	0.2	0.1	-	0.6	1.6
West North Central	6.3	5.8	0.2	0.1	0.0	-	0.2	0.5
South Atlantic	10.5	7.8	0.9	0.6	0.2	0.1	0.8	2.7
East South Central	4.3	2.5	0.7	0.5	0.2	0.0	0.3	1.8
West South Central	8.7	6.4	1.3	0.3	0.0	-	0.7	2.3
Mountain	6.8	6.0	0.4	0.1	0.1	-	0.2	0.8
Pacific	14.5	12.9	0.3	0.2	-	0.1	1.0	1.6
Grand Total	81.9	68.6	4.7	2.1	0.9	1.3	4.3	13.3

*Number of Households indicating natural gas service but use an alternative primary heating source

These households represent a large base for potential opportunities today to achieve consumer cost savings, efficiency improvements, and emissions reductions.

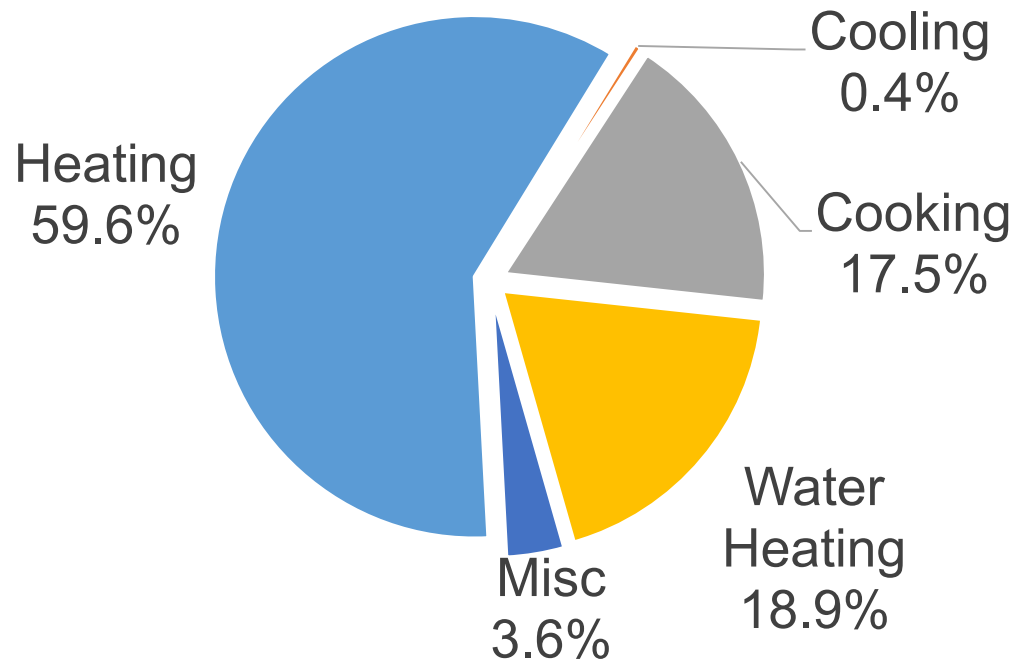
Natural gas is used by 68% of commercial buildings by floorspace.

US Commercial Sector All Buildings & Floorspace, Natural Gas Share, by Region

	Total Buildings (Thousands)	Natural Gas Used, Share of Total Buildings	Total Floorspace (Billion Sq. Ft.)	Natural Gas Used, Share of Floorspace
New England	302	32%	4.4	53%
Middle Atlantic	504	67%	11.7	78%
East North Central	735	78%	13.0	85%
West North Central	502	53%	6.4	70%
South Atlantic	1,091	35%	18.0	55%
East South Central	370	52%	4.9	70%
West South Central	786	47%	11.5	57%
Mountain	338	64%	4.9	75%
Pacific	929	53%	13.5	67%
Grand Total	5,557	53%	88.2	68%

Natural gas consumption in commercial buildings is used for space heat, cooking, and hot water.

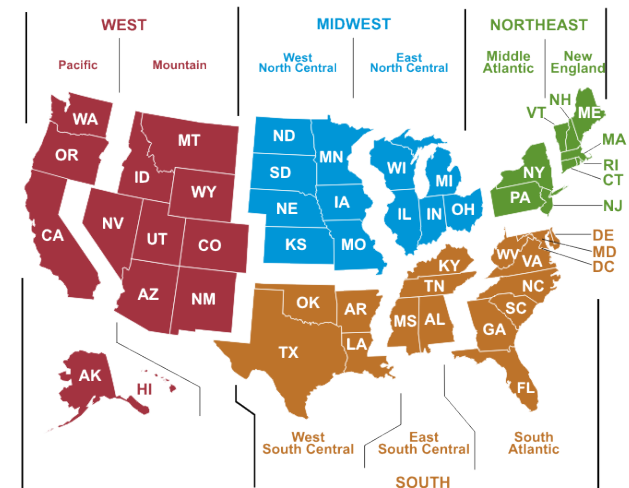
How Natural Gas is Consumed in Commercial Buildings (2012)



There are more commercial buildings in the South, but Midwest retains the highest natural gas share.

US Commercial Sector All Buildings & Floorspace, Natural Gas Share, by Region

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Mountain	338	64%	4.9	75%
Pacific	929	53%	13.5	67%
Grand Total	5,557	53%	88.2	68%



There are good opportunities to expand natural gas service to residential and commercial customers

- Leverage natural gas as a tool for economic growth.
- Promote new technologies to improve energy services, lower costs, and reduce emissions.
- Replace heating oil with natural gas, especially in the northeastern US.
- Leverage existing efficiency programs to meet economic or environmental policy goals.

Thirty-nine states have an active expansion program or policy being considered

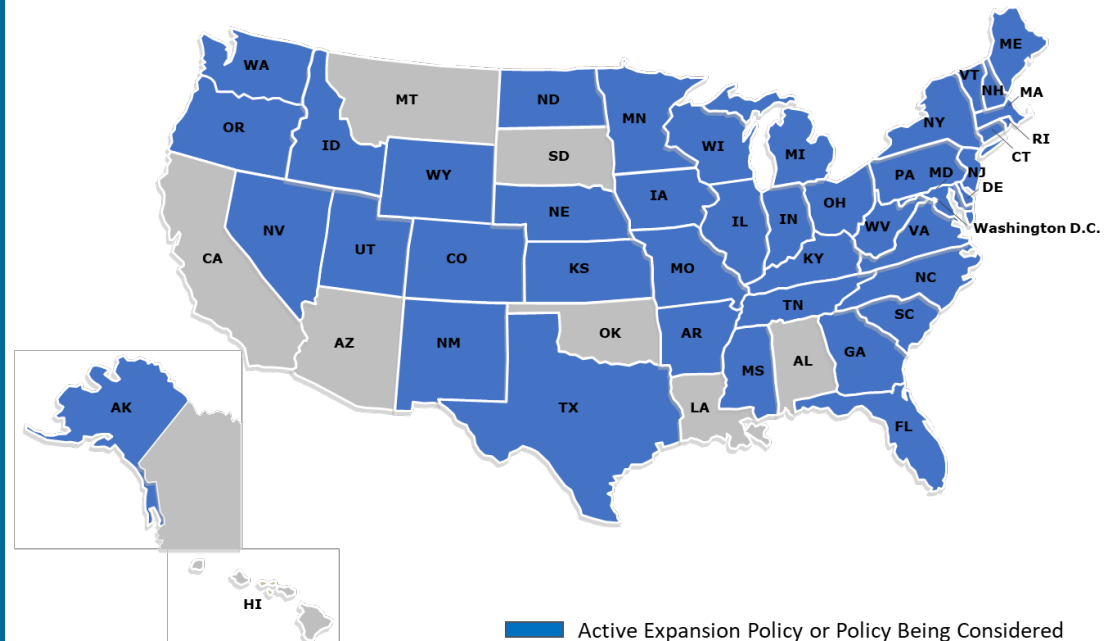


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8. Thoughtful Pathways for Reducing Emissions

There are more than 42 million natural gas and propane household gas ranges, ovens, and cooktops in the United States.

- These appliances have excellent safety records. The natural gas utility industry continues to work to develop information and provide education for consumers, employees, and regulators about the safety of gas cooking appliances and ways to reduce cooking process emissions from impacting indoor air quality.
- Indoor air quality studies have consistently found that emissions from the cooking process—not from the burner or heat source operation—represent the chief source of concern with respect to indoor air quality.¹
- Neither the U.S. Environmental Protection Agency (EPA) nor the U.S. Consumer Product Safety Commission (CPSC) identifies any significant health issues associated with operation of natural gas-fired cooking appliances for air quality concerns, and other public information from national health authorities on asthma development does not identify gas cooking appliances as a source.²

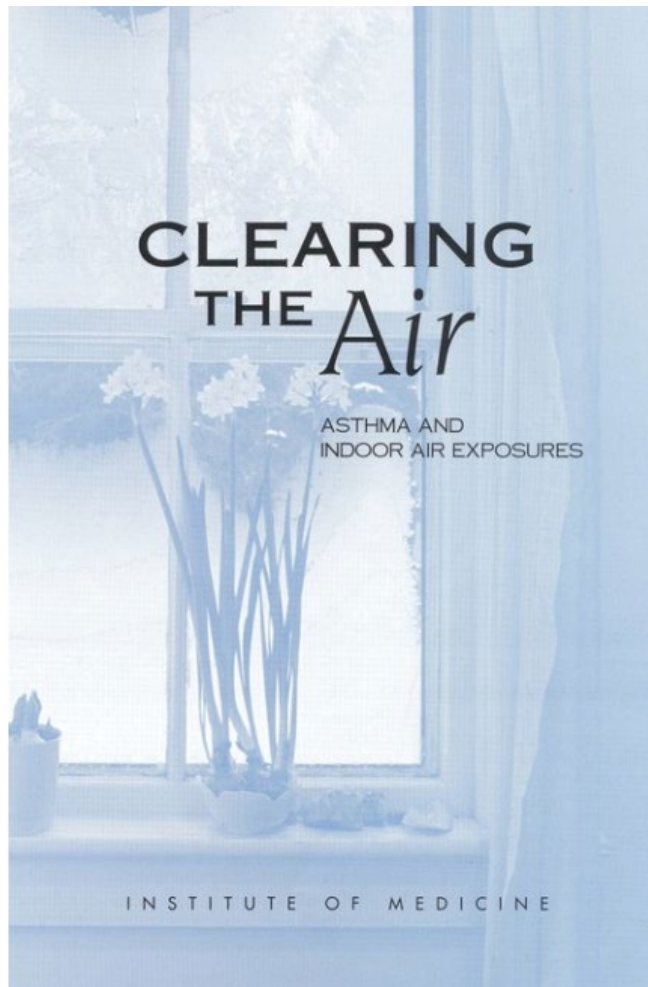
¹ Abdullahi, L., Delgado S., Juana M., Harrison, R., "Emissions and Indoor Concentrations of Particulate Matter and Its Specific Chemical Components from Cooking: A Review," Atmospheric Environment, vol. 41, pp. 260-294, June 2013.

² American Lung Association, Environmental Protection Agency, Consumer Products Safety Commission, American Medical Association, "Indoor Air Pollution: An Introduction to Health Professionals," (undated).

Residential natural gas cooking appliances have a long history of assessment and standardization related to emissions

- The first consideration of combustion appliance emissions was undertaken in 1921 for cooking appliances and carbon monoxide (CO) emissions.
- A 1996 review of the basis for those limits, reviewed by CPSC and backed up by CPSC appliance testing, found that the 1923 limits were still protective of health and safety.
- CPSC continues to be the lead federal authority on review consumer health and safety associated with unvented natural gas combustion appliances and at present has expressed no concerns over these appliances as a risk to consumers

The natural gas industry continues to be active in addressing indoor air quality concerns



- The safety of customers and communities is the top priority for America's natural gas utilities.
- The natural gas industry is actively engaged in science-based analysis of combustion emissions and the benefits of natural gas to the economy and the environment.
- AGA supports and is engaged in testing emissions of combustion products, analyzing data, and assessing emissions contributions to indoor air quality in consumers' homes
- AGA continually reviews indoor air quality exposure and health effects literature from peer-reviewed sources, federal agency policies, and health organization consensus documents, including the National Institute of Medicine study of asthma, "Clearing the Air".

Table of Contents:

1. Emissions and Fuel Consumption
2. Methane Emissions
3. Gas Infrastructure
4. Gas Bills and Rates
5. Jobs and the Economy
6. Building Characteristics
7. Natural Gas Appliances and Indoor Air Quality
8. Thoughtful Pathways for Reducing Emissions

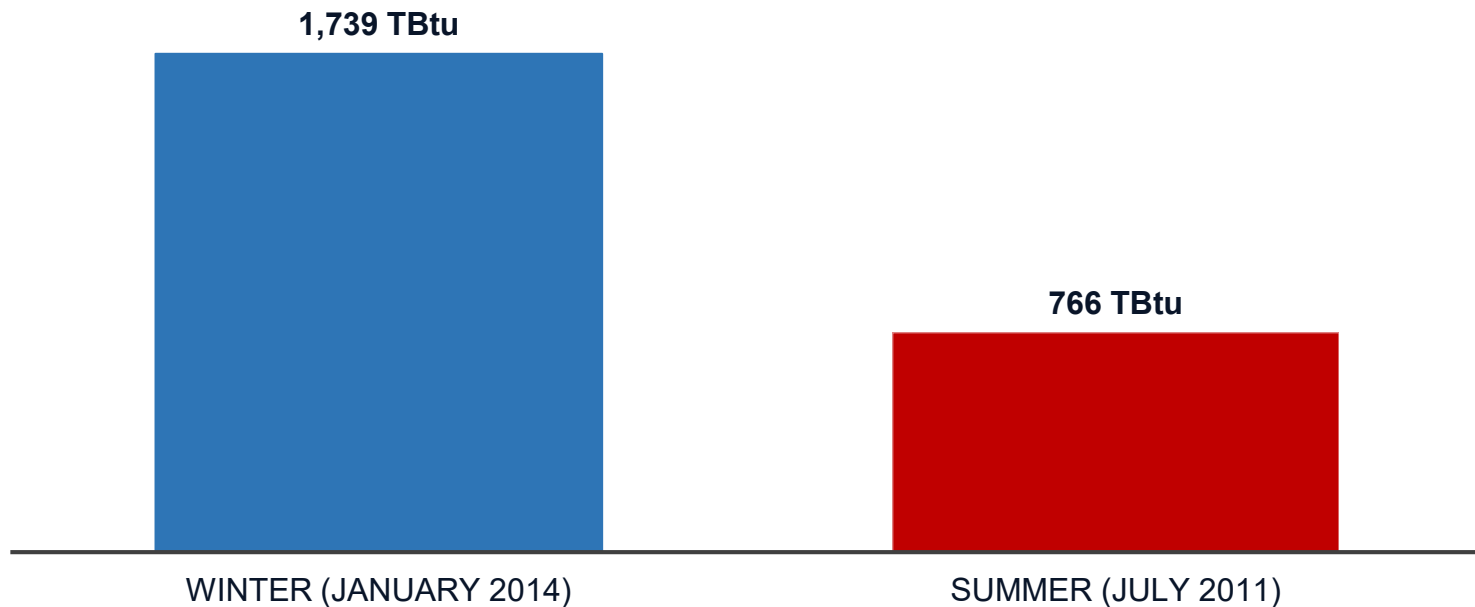
Key questions on the impacts of policy-driven residential electrification

- Will policy-driven residential electrification actually reduce greenhouse gas emissions?
- How will policy-driven residential electrification impact natural gas utility customers?
- What would be the impacts on the power sector and on electric transmission infrastructure requirements?
- What would be the overall cost of policy-driven residential electrification?
- How do the costs of policy-driven residential electrification compare to other approaches to reduce emissions?

Foundational elements that shape the impacts of policy-driven residential electrification.

- Winter generally requires much more energy than summer
- Therefore, analysis must evaluate peak requirements

US Residential Monthly Winter & Summer Energy Consumption, Top Months 2010-2016

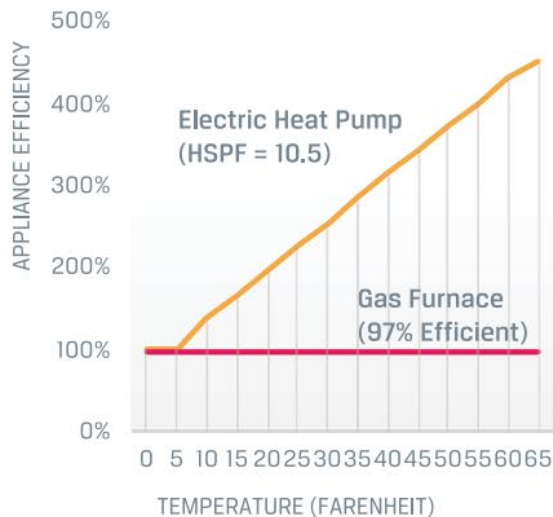


Source: EIA Monthly Energy Review

Illustration of Energy Delivery of an Electric Heat Pump and Natural Gas Furnace

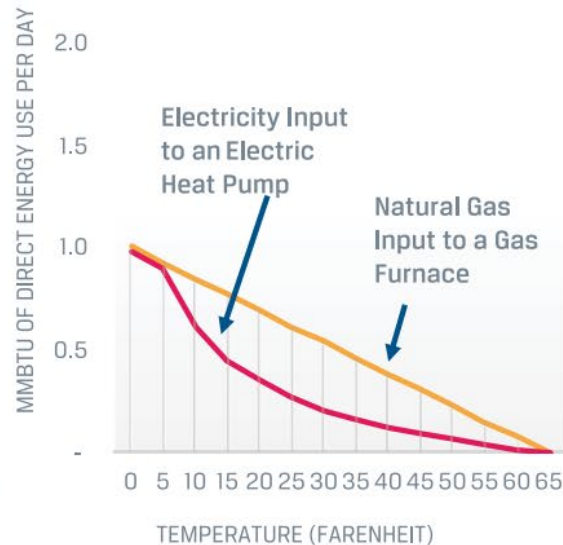
1 Heat Pump efficiency declines with temperature

Heat Pump and Gas Furnace End Use Efficiency by Temperature



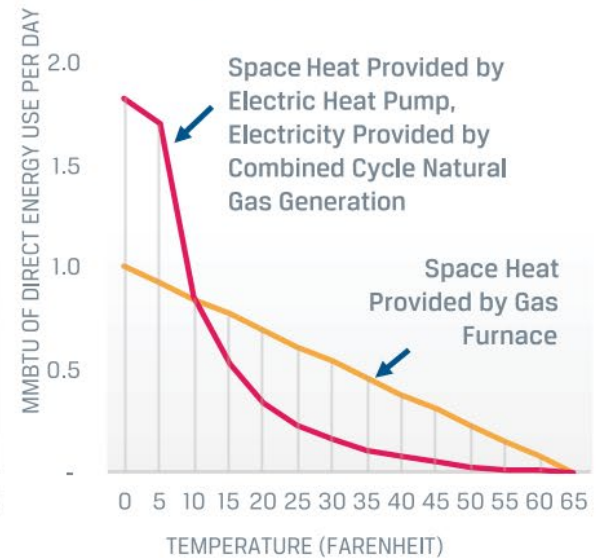
2 Accelerating the increase in kWh requirements as temperatures decline

Household Delivered Energy Requirements for Space Heating

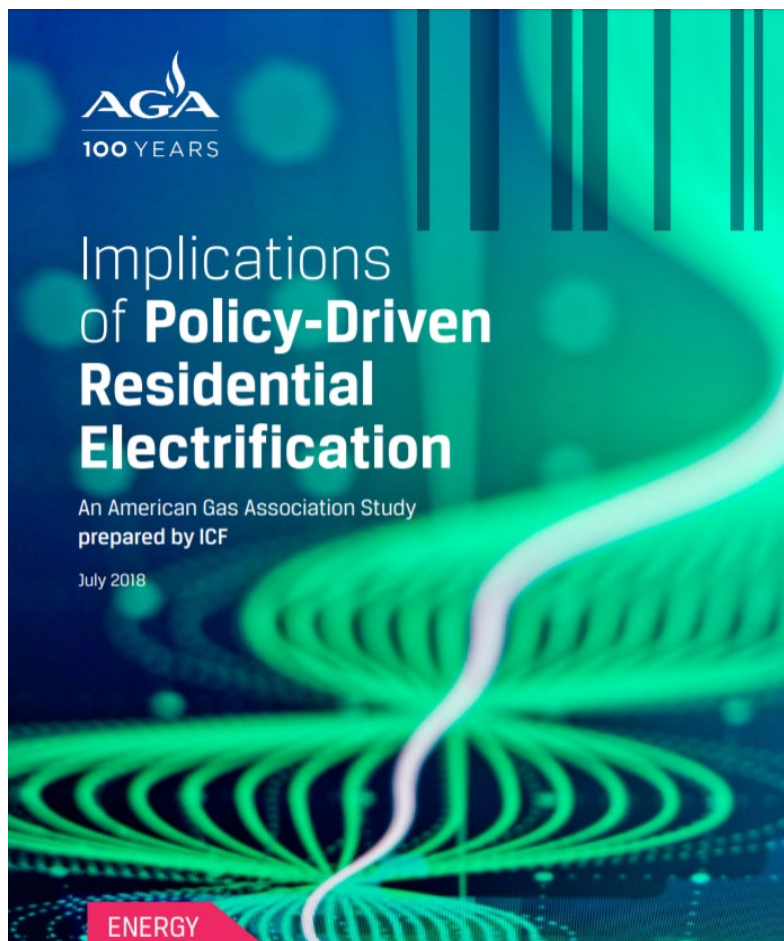


3 Increasing the "peakiness" of the electric grid during the winter

Natural Gas Required to Meet Typical Household Space Heating Requirements



Key findings from an AGA study of the impacts of policy-driven residential electrification

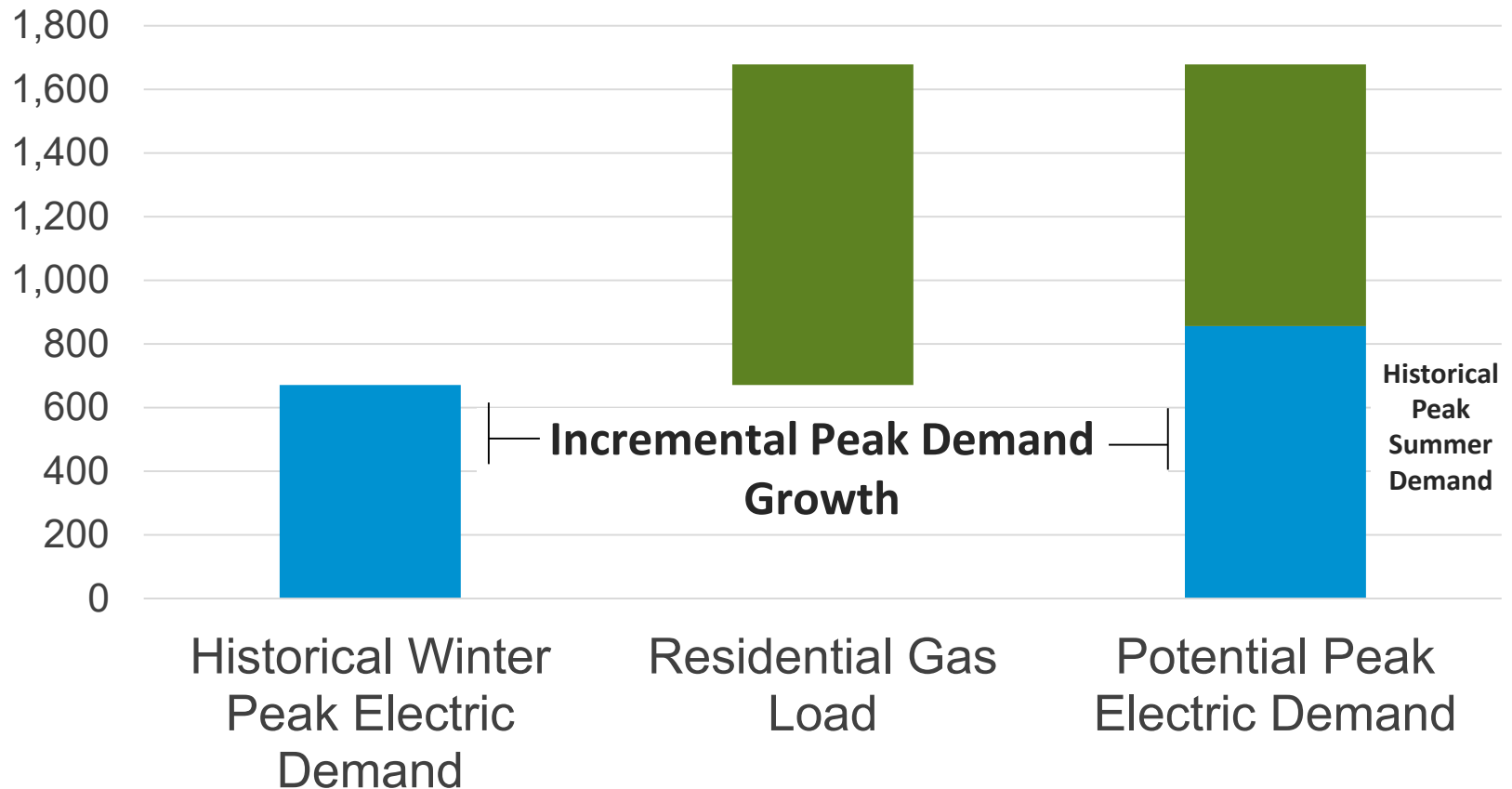


- Incremental generation capacity requirements and transmission system upgrade costs
\$155 to \$426 billion
- Overall US GHG emissions reduced by
1% to 1.5%
- Total cost of policy-driven residential electrification
\$1,060 to \$1,420 per year per converted household increase in energy costs
- Cost of carbon dioxide emissions reductions:
\$572 to \$806 per ton

<https://www.aga.org/research/reports/implications-of-policy-driven-residential-electrification/>

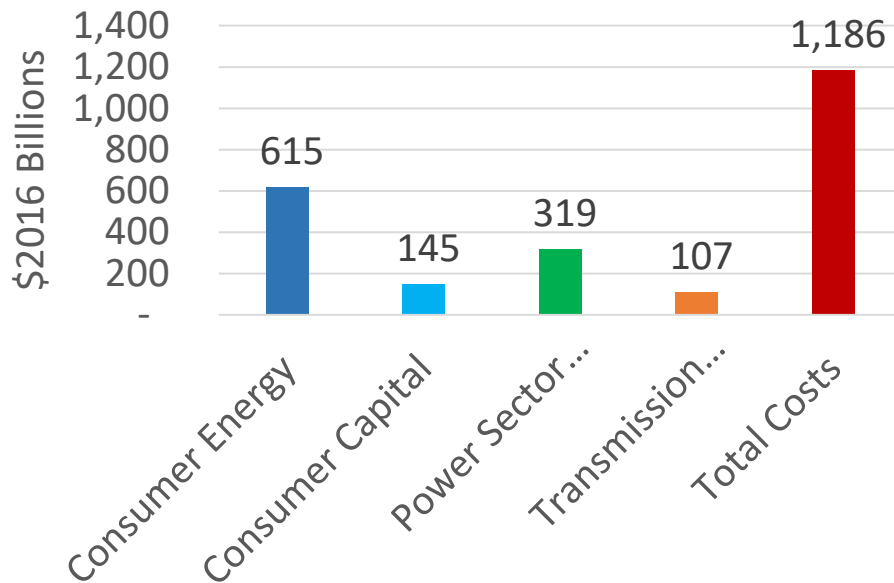
Electrifying the entire residential sector could nearly double the US electric grid's peak hourly demand

Impact of 100% Electrification of Residential Natural Gas
Peak Winter Hourly Demand (GW)

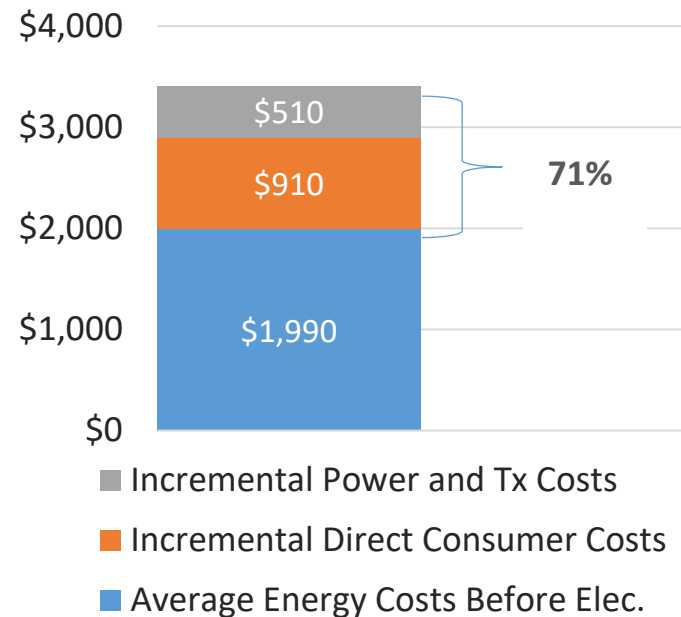


Costs associated with a widespread policy-driven approach to electrifying residential space & water heat

Total Cost of Renewables-Only Case by Sector



Average U.S. Annual Costs Per Converted Customer

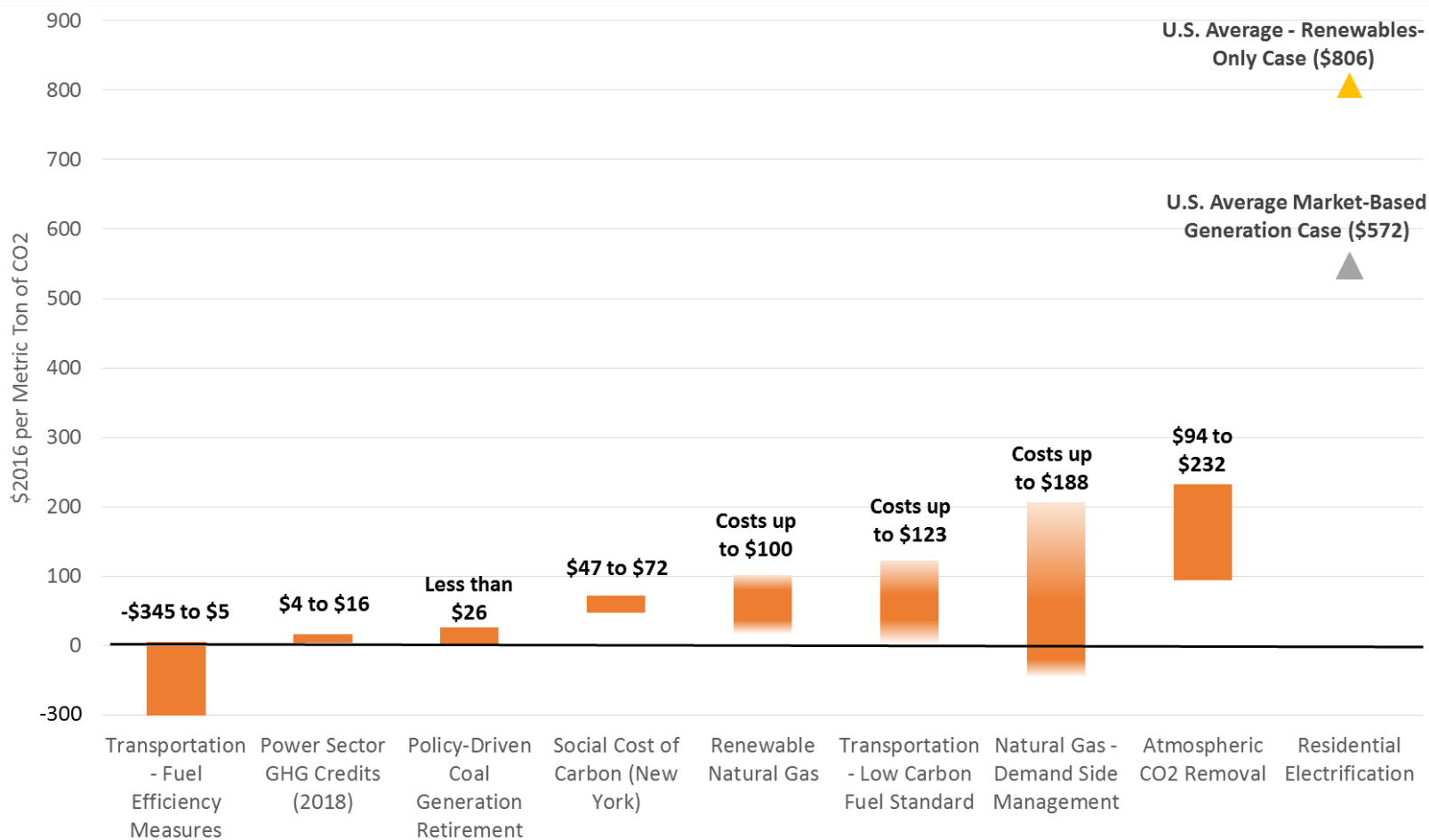


Costs do not include

- Local electricity distribution upgrades
- Impact to electric or gas rates
- Fixed costs shifted to gas distribution customers remaining on the system.

Policy-driven residential electrification would be a more expensive approach to greenhouse gas reduction relative to many of the other pathways.

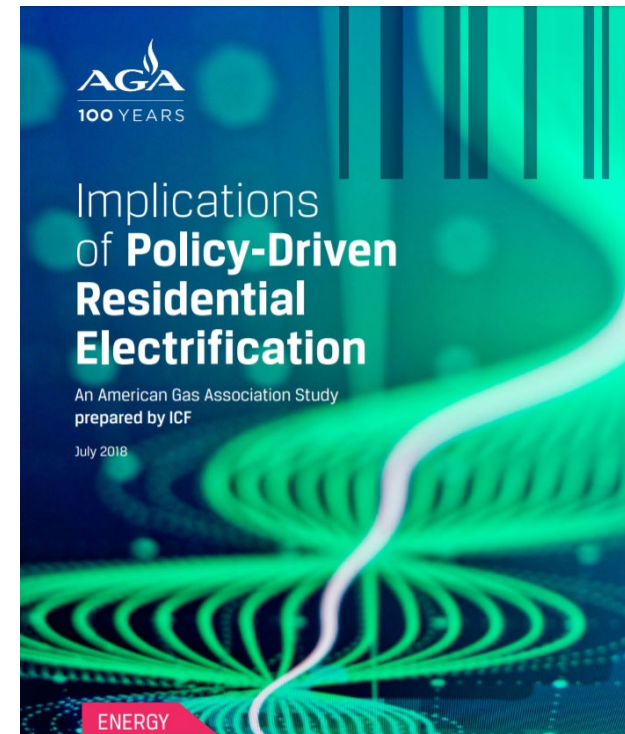
Comparison of Cost Ranges for Greenhouse Gas Emissions by Reduction Mechanism



Source: Implications of Policy-Driven Electrification of Residential Gas Use, American Gas Association

Conclusions from AGA study of the impacts of policy-driven residential electrification

- Policy-driven residential electrification could be burdensome to the economy and consumers
- The effect of electrification on peak electric demand is one of the key drivers of impact on the electricity sector
- Electrifying the entire residential sector would nearly double the US electric grid's peak hourly demand
- Power sector natural gas consumption increases in both cases, resulting in higher power sector emissions than the Reference Case
- Total greenhouse gas reduction potential from policy-driven residential electrification is small



Two recent studies examine the opportunities for natural gas to deliver meaningful emissions reductions



1. *Renewable Sources of Natural Gas: Supply and Emissions Reduction Assessment Study*
2. *Opportunities for Reducing Greenhouse Gas Emissions through Emerging Natural Gas Direct-Use Technologies*

<http://www.gasfoundation.org>

Opportunities for Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct Use Technologies



- How much could US GHG emissions be reduced with next generation residential generation residential direct-use gas technologies?
- What is the expected unit cost (\$/Metric Ton) of achieving the emissions reductions?
- What benefits would customers see?
- What type and level of support would utilities and/or regulators need to provide in order to realize the full benefits of these technologies?

Emerging technologies selected and evaluated



- **Low-cost residential gas absorption heat pump (GAHP)**
- Condensing furnace
- Transport Membrane Humidifier (TMH)



- Ozone and cold-water washing
- **Energy star rated clothes dryer**



- **IoT thermostats (i.e. Nest, Honeywell)**
- Building envelope (insulation, windows, building materials)
- Demand controls for HW systems
- Thermostatically controlled low flow shower head



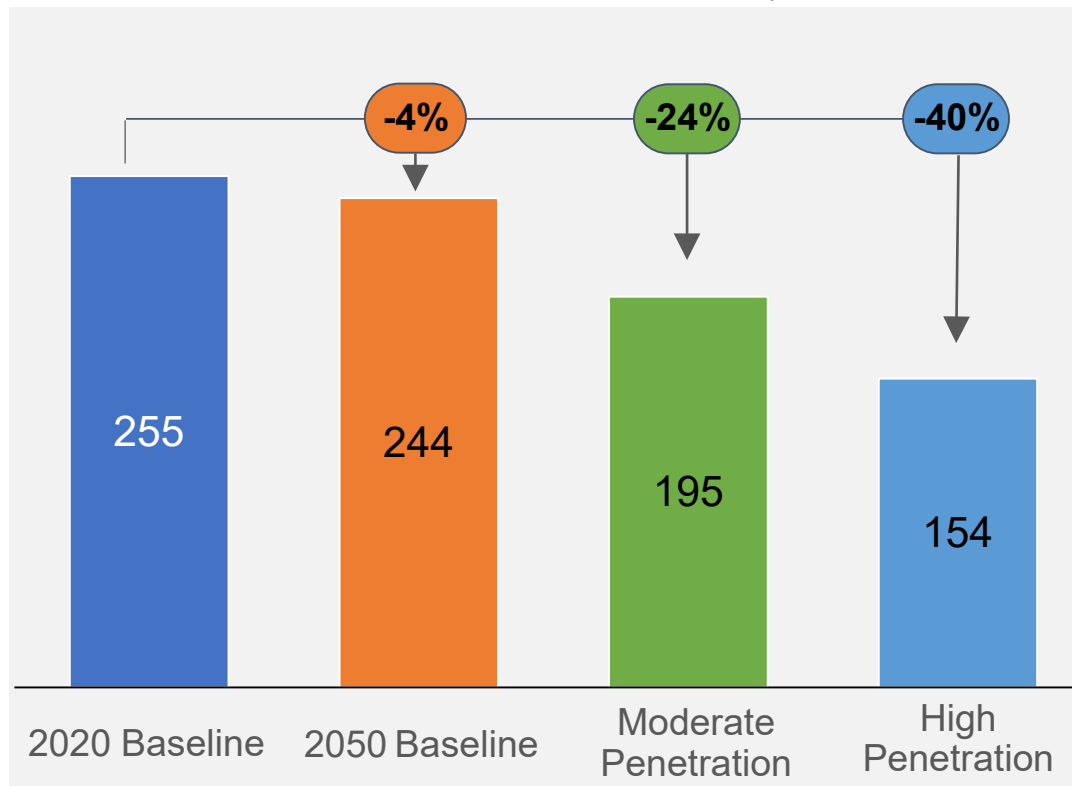
- Tankless water heater - Maintenance-free approaches for tankless water heaters
- Solar-assisted heating - PV assisted domestic hot water heater (potable)
- **Gas heat pump water heater**
- Combined Space and Water Heating Systems*



- Solid oxide fuel cells*
- Micro CHP – natural gas reciprocating, sterling engine

Emerging direct use technologies could reduce natural gas CO2 emissions 40% in the residential sector by 2050

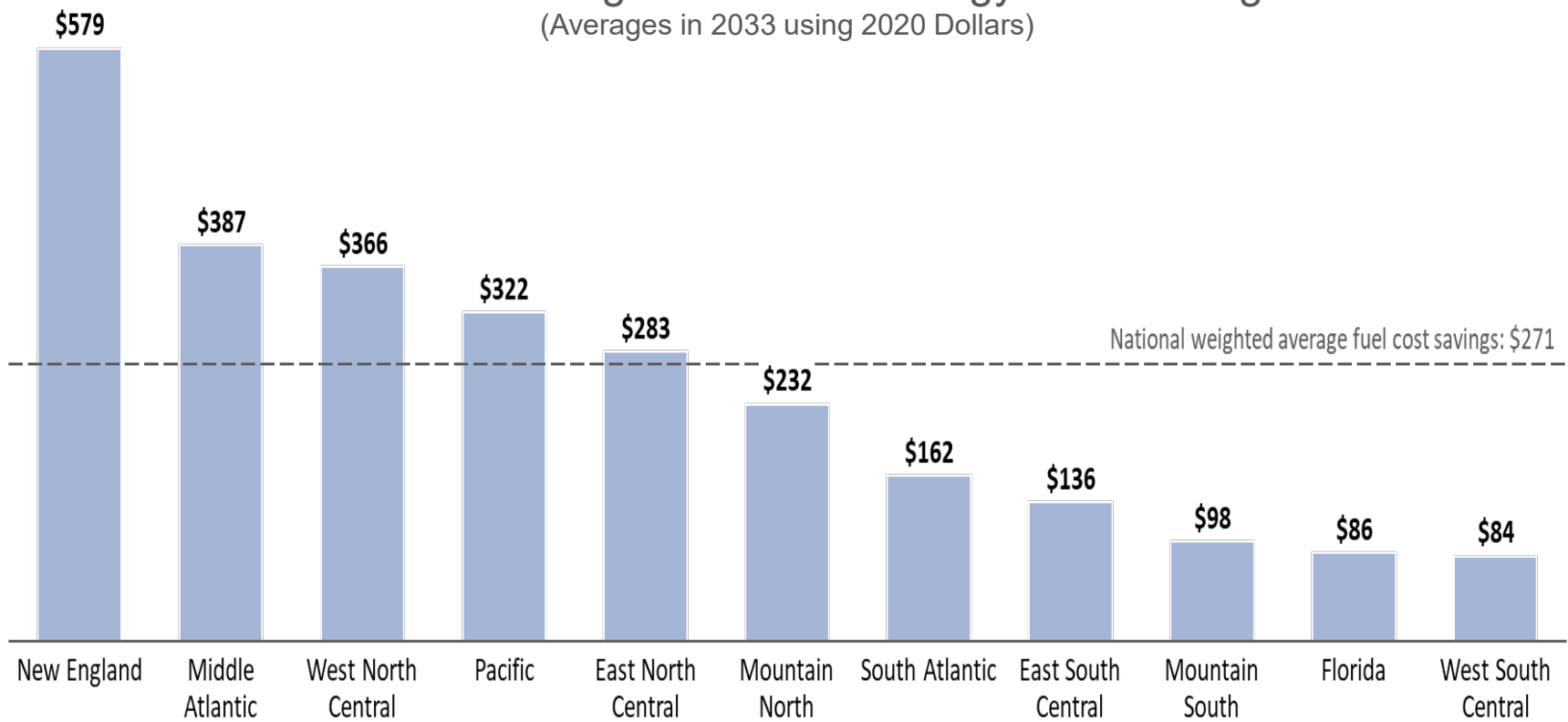
Residential Natural Gas Emissions, MMT CO2



- In the Moderate and High Penetration scenarios, 60 and 101 million metric tons of CO2 respectively are reduced
- Complementary technologies (e.g. insulation) created 2% efficiency improvement
- Achieve a decrease in emissions in spite of the growth in the number of installed units by ~36%

Consumers using the emerging technologies modeled could achieve considerable energy savings

National and Regional Annual Energy Cost Savings
(Averages in 2033 using 2020 Dollars)



Source: Opportunities For Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct-use Technologies, American Gas Foundation

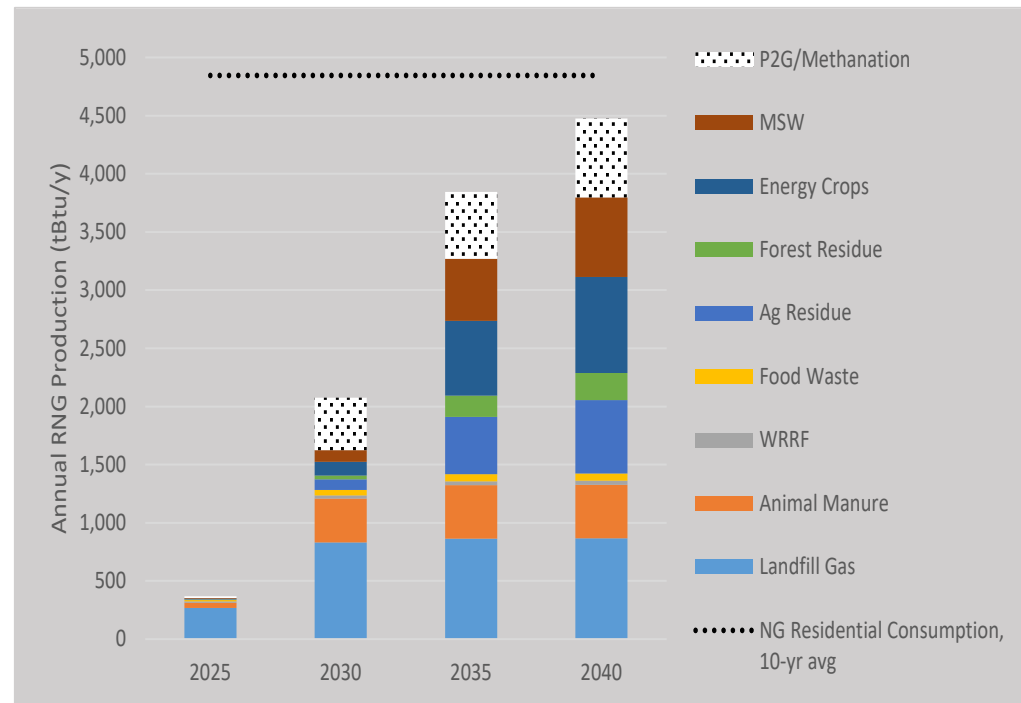
Renewable Sources of Natural Gas: Supply and Emissions Reduction Assessment Study



- To conduct a thorough assessment of renewable natural gas resource potential, associated costs of production, and associated emission reduction. Additionally, to educate policy-makers and the general public about the ability to reduce greenhouse gas emissions by leverage the existing natural gas infrastructure to deliver renewable natural gas.
- How much RNG could be produced?
- What is the GHG emissions reduction potential?
- How much is it going to cost? And what is the cost-effectiveness?

ICF modeled two scenarios to estimate a low and high resource potential of renewable sources of natural gas

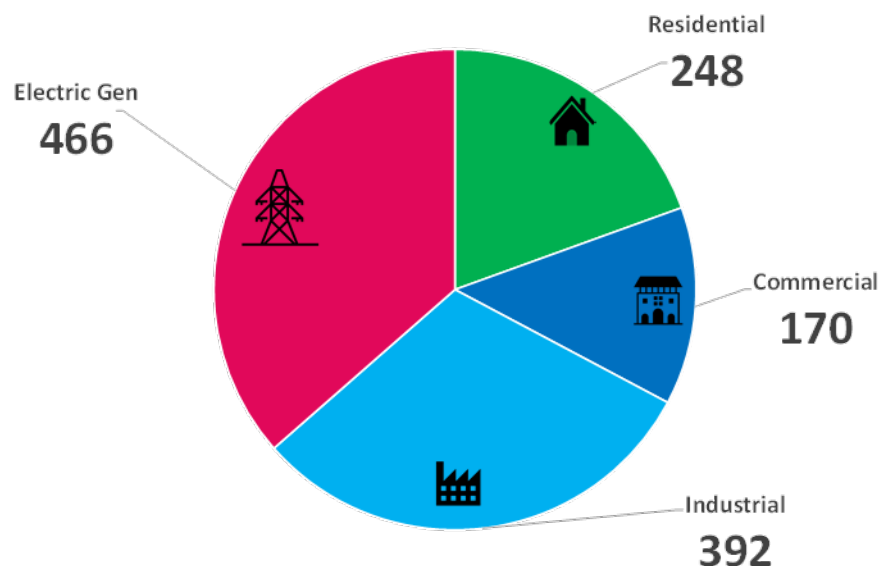
- High resource potential scenario: 4,450 tBtu of RNG by 2040
- Reference point, residential demand for natural gas: 4,846 tBtu (avg. 2009-2018)
- Critical factors: utilization of feedstocks, technology adoption rate, and policy levers
- Diversity of RNG potential:
 - 9 feedstocks considered
 - 3 production technologies



Emissions reduction potential from renewable sources of natural gas

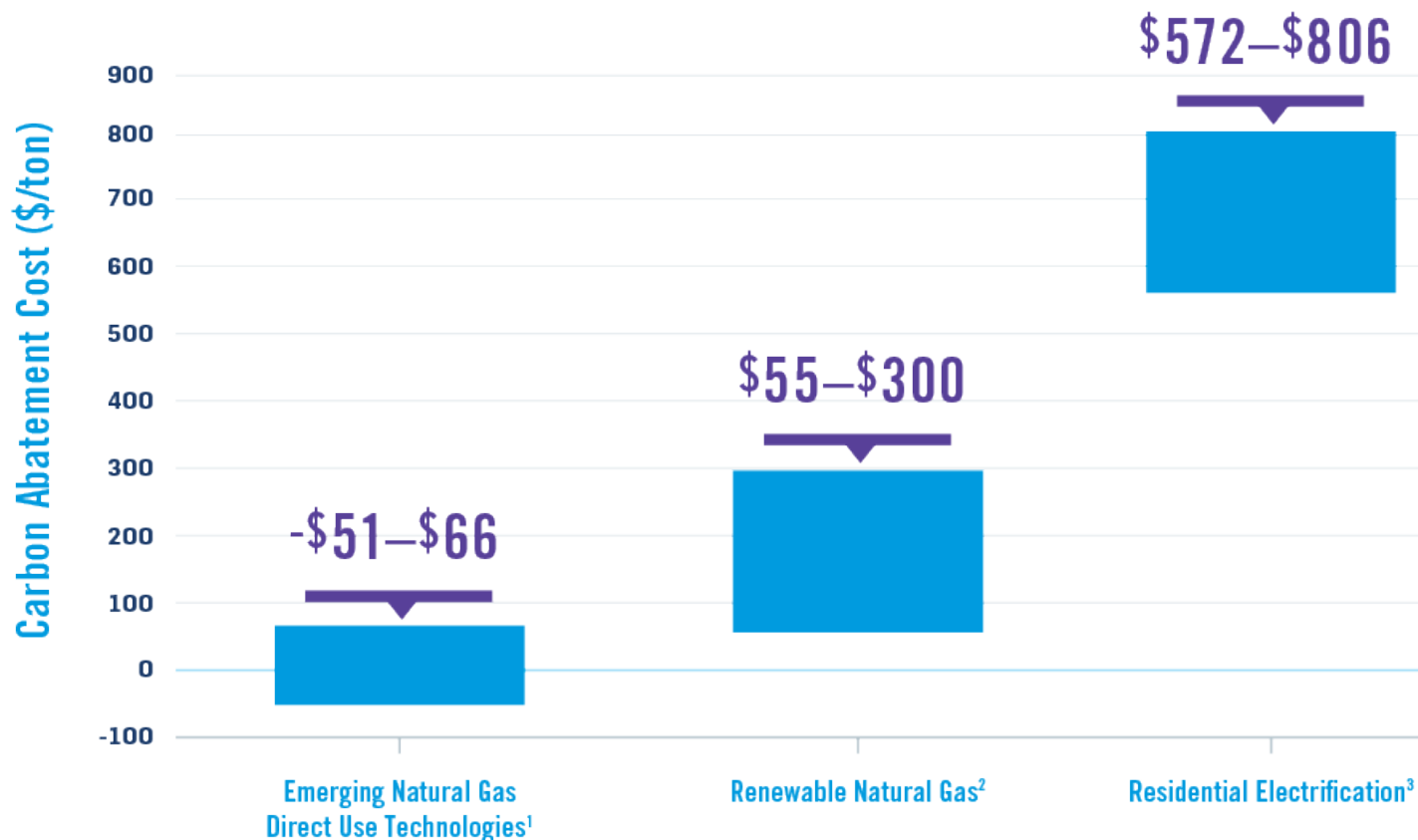
- RNG deployment alone based on the resources evaluated in this study could achieve 101 to 235 MMT of greenhouse gas emission reductions by 2040
- This represents up to a 95% reduction in residential greenhouse gas emissions from natural gas
- The GHG emission reductions were calculated using IPCC guidelines stating that emissions from biogenic fuel sources should not be included when accounting for emissions in combustion.
- The opportunity of RNG from power-to-gas systems (and paired with methanation units) warrants further consideration. However, ICF's analysis demonstrates that the combination of production potential and potential cost reductions for power-to-gas systems is promising.

Average Annual Carbon Dioxide Emissions (MMT) from Natural Gas Consumption in the US (2009-2018)



Deployment of advanced natural gas technologies and renewable natural gas resources provide additional cost-effective pathways to emissions reduction.

Cost Comparison of GHG Reduction Pathways



¹Renewable Sources of Natural Gas Supply and Emissions Reduction Assessment, American Gas Foundation

²Opportunities For Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct-use Technologies, American Gas Foundation

³Implications of Policy-Driven Electrification of Residential Gas Use, American Gas Association



Climate Change Position Statement

The American Gas Association is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers.

www.aga.org/climate



TrueBlueNaturalGas.org

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The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 74 million residential, commercial and industrial natural gas customers in the US, of which 95 percent — more than 71 million customers — receive their gas from AGA members. Today, natural gas meets more than one-fourth of the United States' energy needs.

www.aga.org