

Natural Gas Efficiency  
Programs Report

# Natural Gas Efficiency Program Characteristics

2019 PROGRAM YEAR

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# Executive Summary

Heightened attention has been given to the potential for energy efficiency to moderate consumer cost increases, reduce greenhouse gas emissions, and enhance energy system reliability and resilience. For natural gas utilities, investing in energy efficiency programs presents an opportunity to achieve these objectives and benefit the communities they serve. Many natural gas utilities across North America have long-performing natural gas efficiency programs. Increasingly, natural gas utilities working in collaboration with regulators are working to create new or expanded programs that will accelerate progress towards realizing a clean energy future while building sustainable value of natural gas for their customers.

The American Gas Association *Natural Gas Efficiency Programs Report - 2019 Program Year* presents a review of ratepayer-funded natural gas efficiency and conservation programs in North America. The report looks retrospectively at the status of the North American natural gas efficiency market in 2019, including data on aggregated expenditures, savings impacts, carbon dioxide emissions reductions, and budgets for 2020. It also explores regulatory approaches to advancing the natural gas efficiency market.

This study portrays the extent of this rapidly growing market in the United States and Canada and identifies practices and trends in program planning, funding, administration, and Evaluation. The findings illustrate how natural gas utilities have worked with their customers to reduce their greenhouse gas emissions footprint, increase cost savings, and improve delivered energy services.

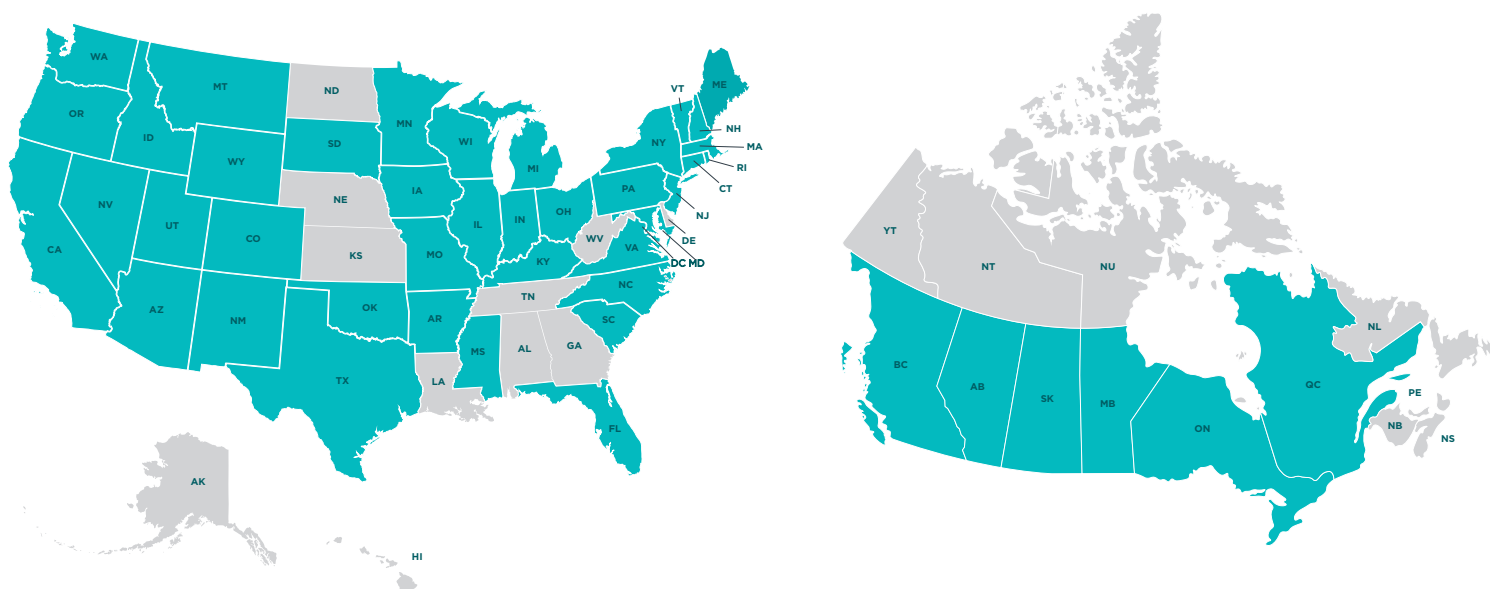
# Natural Gas Efficiency Program Characteristics

According to the 2019 program year data, there are at least 126 active natural gas utility ratepayer-funded efficiency programs in North America<sup>1</sup>—120 programs in 40 states in the U.S. and 6 programs in Canada.<sup>2</sup>

**There are at least 126 active natural gas utility ratepayer-funded efficiency programs in North America.**

Of the 120 U.S. programs, 9 of the programs included statewide program funds such as Energy Trust of Oregon, New Jersey Clean Energy Program, New York State Energy Research and Development Authority (NYSERDA), and Wisconsin Focus on Energy.

## Active Ratepayer-Funded Natural Gas Efficiency Programs in Canada and United States (2019 Data)



**This report describes the responses of a subset of ratepayer-funded natural gas efficiency programs for which the survey data was obtained.**

1. In this report, North America refers to the United States and Canada  
2. Additional state data available in the 2020 Appendix A - Natural Gas Efficiency Program Expenditures by Budgets by State.

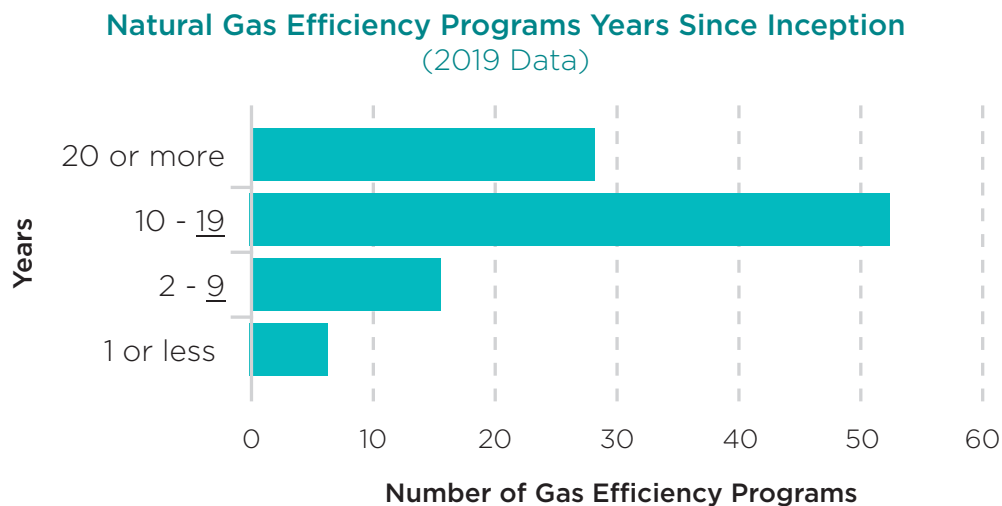
## Program Structure and Administration

While many natural gas efficiency programs have been in place for years, the breadth and depth of programs continue to grow. Programs range from the newly launched to mature programs that span 20 years or more.

- Seventy-nine percent of programs have been in place ten years or longer, and 1/3 of those have operated for at least 20 years.
- The other 21 percent were implemented within the last ten years.
- The median program age increased since 2018 from nine years to now 12 years.
- Six percent of programs were launched in 2019.<sup>3</sup>

**79% of natural gas efficiency programs have been in place ten years or longer.**

Natural Gas Efficiency Programs Since Inception (2019 Data)	
101 Programs	
Years in Service	Number of Programs
1 or less	6
2 - 9	15
10 - 19	53
20 or more	27



3. This report describes the responses of a subset of ratepayer-funded natural gas efficiency programs for which the survey data was obtained. The number of respondents for a particular question is included in the text and tables provided.

## Customer Segments and Participants

Participant counts were obtained for 103 natural gas efficiency programs in 2019. There are numerous differences in how programs track and report participation or the number of enrollments. For example, some programs provide estimates, as they don't actively monitor participants and others track the number of paid rebates or grants instead of participating customers. The numbers in the table below reflect these discrepancies, and thus participant figures should be considered as very rough estimates.

Program Participants by Customer Segment					
	Residential	Low Income	Multi-Family	Commercial	Separate Industrial
<b>2019 Programs</b>	91	70	26	79	9
<b>2019 Participants</b>	6,684,846	389,170	137,793	133,487	41,839
<b>2018 Programs</b>	97	78	49	91	15
<b>2018 Participants</b>	5,866,874	214,581	102,251	66,263	72,869

Respondents were asked to identify all customer segments in their efficiency programs. 88 percent (91 of 103) have residential efficiency programs, 77 percent have commercial, 68 percent have low income, 25 percent have multi-family programs, and 9 percent have separate industrial programs. Nine percent of programs include all five customer segments (9 of 105), 43 percent (44 of 105) of programs included three customer segments, and 17 percent (17 of 105) included four customer segments. Additionally, about 12 percent (12 of 105) of programs included only one customer segment. Moreover, 77 percent of the programs included two or more customer segments. Additionally, about 12 percent (12 of 105) of programs included only one customer segment. Moreover, 77 percent of the programs included two or more customer segments.

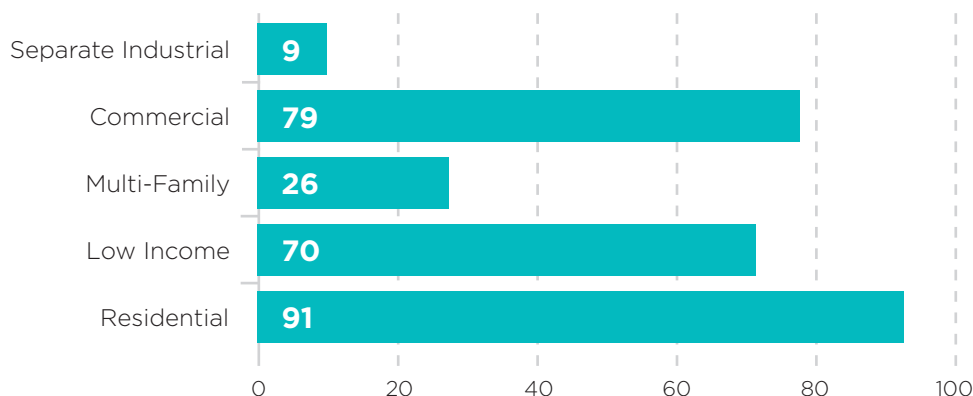
**During 2019, enrollments in natural gas efficiency programs reached more than 6.6 million residential customers and over 380,000 low-income customers.**

During 2019, enrollments in natural gas efficiency programs reached more than 6.6 million residential customers, over 380,000 low-income customers, about 137,000 multi-family customers, over 130,000 commercial customers, and 41,000 separate industrial program customers. In a few cases, programs had low to no participation in 2019 due to late program implementation and the ensuing ramp-up period. The table below shows participant counts for the most recent survey in 2019 and the previous year's numbers for comparison in 2018.

- According to reported counts the number of participants increased in all sectors but separate industrial.
  - An increase in low-income and commercial participants soared by 45% and 50%, respectively.
- Energy Efficiency Program Activities and Components

## 2019 Efficiency Programs by Customer Segment

108 Utility Participants



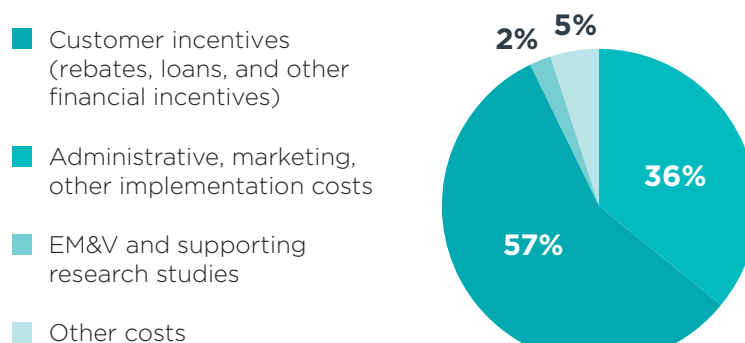
## Energy Efficiency Program Activities and Components

Survey participants were asked to provide a breakout of their 2019 expenditures into four activities, including<sup>4</sup>:

1. Administrative, marketing, other implementation costs
2. Customer incentives (rebates, loans, and other financial incentives)
3. Evaluation, measurement, and verification (EM&V) and supporting research studies<sup>5</sup>
4. Other costs

Participants indicated that a majority, 57 percent, of energy efficiency expenditures were allocated to customer incentives such as rebates, loans, and other financial incentives. Moreover, the survey results indicate utilities spent about 36 percent of their budgets on administration, marketing, and other implementation costs in 2019.

## 2019 Natural Gas Efficiency Program Expenditures by Activity in North America<sup>6</sup>



**57 percent of energy efficiency expenditures were allocated to customer incentives.**

4. Where data were not available by specific activity (such as EM&V), a slight percentage of respondents reported overall spending amounts in the "Other" category. Other costs include but are not limited to equipment, utility oversight, database utilization, education and awareness, performance incentive for sales, technical and training costs, industry dues, and ally incentives.

5. Evaluation, Measurement and Verification (EM&V) is the collection of methods and processes used to assess the performance of energy efficiency activities so that planned results can be achieved with greater certainty and future activities can be more effective. according to the U.S. Department of Energy. [https://www.energy.gov/sites/prod/files/2014/05/f16/what\\_is\\_emv.pdf](https://www.energy.gov/sites/prod/files/2014/05/f16/what_is_emv.pdf)

6. Additional data available in the 2020 Appendix D - Natural Gas Efficiency Program Expenditures by Activity and Region.

Survey respondents were also asked to identify the efficiency components they offered in each of the four customer segments.

According to 103 responses, one or more efficiency activity, as seen in the table below, is offered in 95 programs to the residential single-family segment, in 89 programs to the commercial and industrial (C&I) segment, in 80 programs to the residential low-income segment, and in 71 programs to the residential multi-family segment.

Based on these responses, when considering indirect impact activities, at least 86 percent of programs provide conservation and/or energy efficiency activities to low-income customers.

The table breaks down responses by customer segment and energy efficiency activity. Residential single-family efficiency programs enjoy the most comprehensive set of efficiency activities, followed by commercial/industrial, residential, low income, and residential multi-family programs as previous years.

<b>2019 Utility-Implemented Gas Efficiency Program Activities by Customer Segment</b> 103 Reporting Programs with One or More Efficiency Activity				
<b>Energy Efficiency Activities</b>	<b>Residential Single-Family 95 Programs</b>	<b>Residential Multi-Family 71 Programs</b>	<b>Residential Low Income 80 Programs</b>	<b>Commercial &amp; Industrial 89 Programs</b>
<b>Weatherization</b>	61	46	73	N/A
<b>Indirect Impact Programs</b>				
Certification	33	24	26	26
Education	87	61	69	74
Online tools	63	42	46	50
Technical assessment	65	45	54	56
Training	60	35	41	55
<b>Direct Impact Programs - Existing Buildings</b>	88	63	73	82
<b>Direct Impact Programs - New Construction/Expansions</b>	58	38	31	55
<b>Other</b>	5	4	3	2



A look at specific efficiency activities shows that of indirect impact programs, education outreach is most adopted across segments, particularly in the residential single-family and C&I segments, 92 percent, and 83 percent, respectively. Examples of such “indirect impact” activities include school education programs, brochures, and bill inserts.

Also, widely prevalent is direct impact activities in existing homes or buildings—in 93 percent of residential single-family, 92 percent of commercial/industrial, 91 percent of low income, and 89 percent of multi-family programs. These direct impact activities include equipment replacement and upgrades (e.g., appliances, doors, windows, and thermostats), building retrofits, commercial foodservice, process equipment, energy management systems, and custom process improvements.

### Education outreach is the most adopted program across segments.

Weatherization is the third most common component of natural gas efficiency programs—offered in 91 percent of low-income programs and 64 percent of residential single-family programs. These weatherization activities incorporate building shell insulation and air sealing of ducts and wall cracks.

While not as prevalent as existing building retrofit programs, the direct impact new home/building program was also implemented and encompasses energy-efficient homes, efficiency design assistance, and industrial efficiency.

Many programs also include other types of indirect impact activities, including online tools for energy usage/ savings calculators and technical assessments such as on-site energy audits.

Efficiency training and certification (of contractors, installers, and building operators) tend to lag compared to other programs.

A relatively small number, 2-6 percent of respondents, as seen in the table, selected “other” energy efficiency activities, which include school efficiency education (some of which include direct install efficiency kits), natural gas safety inspections, and behavioral change programs.

With energy efficiency programs, we're able to share tools and resources that energy users can use to improve their efficiency and help lower carbon emissions. As energy is used more efficiently there will be less emissions, which helps us provide cleaner energy for customers.