

# 2021 NATURAL GAS DISTRIBUTION SECTOR REPORT



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GAZBİR-GAZMER  
Activities

# About Us

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Natural Gas Distribution Companies Association of Turkey (GAZBİR) is a non-governmental organisation functioning as an umbrella organisation for natural gas distribution companies operating across Turkey. Carrying the word “Turkey” in its title, GAZBİR has been operating as a public benefit association since 2004.

While GAZBİR aspires to contribute to the advancement and development of our country by facilitating the improvement of the natural gas market, its fundamental functions include surveying the developments in the intra-city natural gas distribution sector; facilitating coordination between distribution companies; and acting with public and private sectors to enhance service quality for natural gas users.

As the commercial enterprise and technical centre of the Natural Gas Distribution Companies Association of Turkey, GAZBİR-GAZMER Natural Gas and Energy Training Certification Inspection and Technological Service Co, Ltd. is accredited by the Vocational Qualifications Authority (VQA) and Turkish Accreditation Agency (TÜRKAK) and operates to meet the demands in training, research and development, laboratory requirements, and common technological needs. GAZBİR-GAZMER continues its works on hydrogen and other renewable resources at its R&D Centre in Konya.

Natural Gas Distribution Companies Association of Turkey is a member of the International Gas Association (IGU), which operates in the field of natural gas, both globally and in Europe, as well as the Union of Chambers and Commodity Exchanges of Turkey (TOBB).

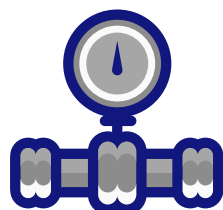


# Overview of 2021

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81 Provinces  
644  
Residential  
Areas



167,752 km  
Length of Distribution  
Network



18.5 Million  
Number of Natural Gas  
Subscribers



58.8 Billion m<sup>3</sup>  
Consumption



15 Thousand  
Employment

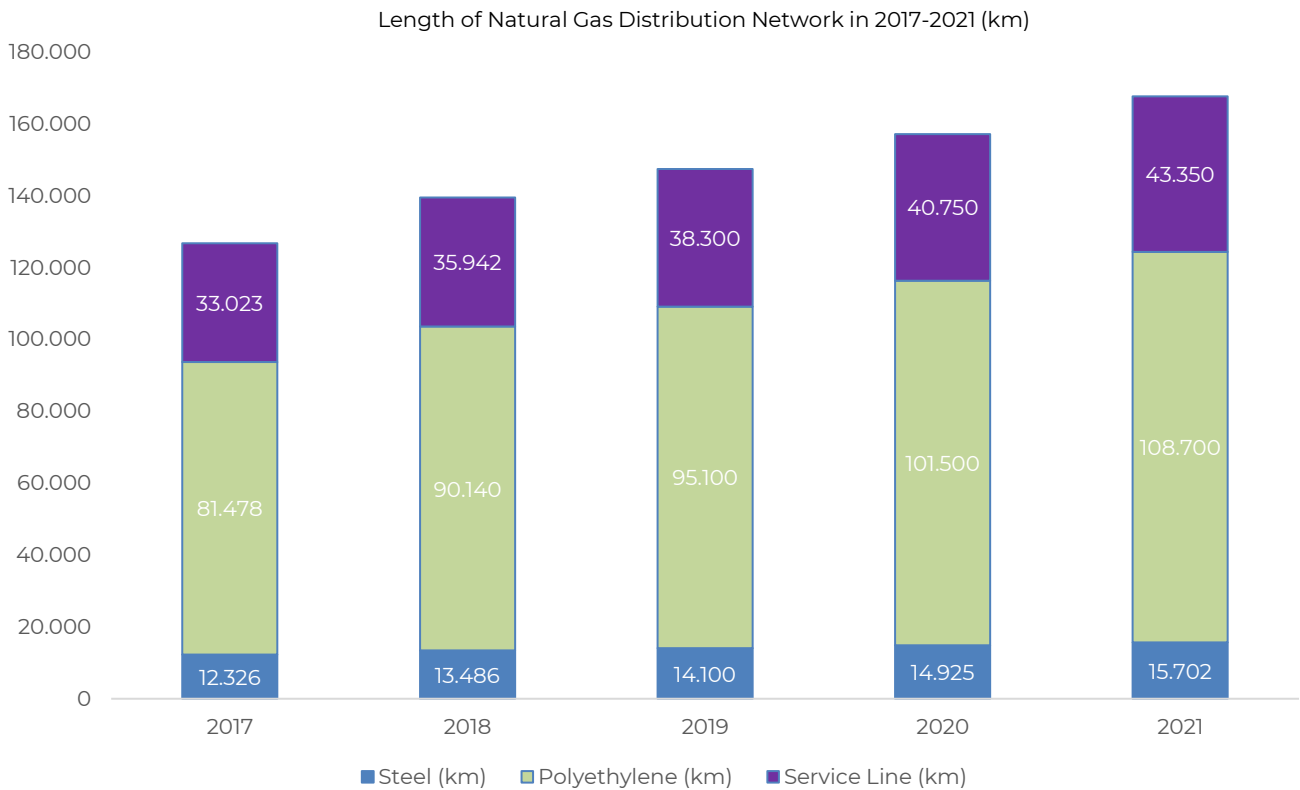


# Investments

In 2021, natural gas distribution companies invested a total of 2.7 billion Turkish Liras (TRY). Because of the fluctuations in macroeconomic indicators and investments in the expansion regions, approximately TRY 900 million more than the average investment between 2017 and 2020 was invested in 2021.

It is planned that distribution companies will invest TRY 50 billion in the five years between 2022 and 2026. With 320 new districts where it is planned to provide natural gas, 94% of the districts in our country will have a natural gas supply.

The length of the natural gas distribution network reached 167,752 km by the end of 2021. Between 2016 and 2020, the distribution network grew by an average of 8% per year. In 2021, the distribution network grew by 7% compared to the previous year. A total of 10,597 km network was built in 2021. This year, 377 km more of the average annual network investment (10,220 km) built in the last 5 years has been invested in the network.



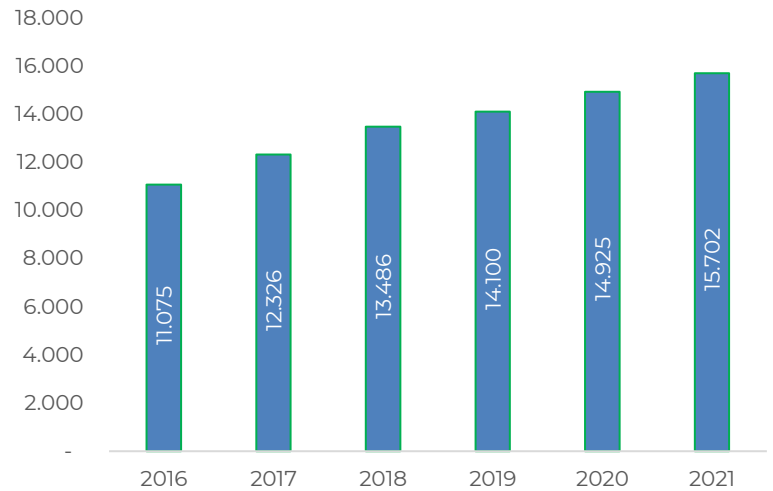
# Investments

In 2017 and following years, when expansion investments increased compared to previous years, an average of 1,100 km of steel line investments were made by distribution companies annually. In 2021, 777 km of steel network investments were made. The length of the steel line has grown by 5% with the investments made in 2021. It is foreseen that the length of the steel line will reach 20 thousand km with new investments to be made in the next five years.

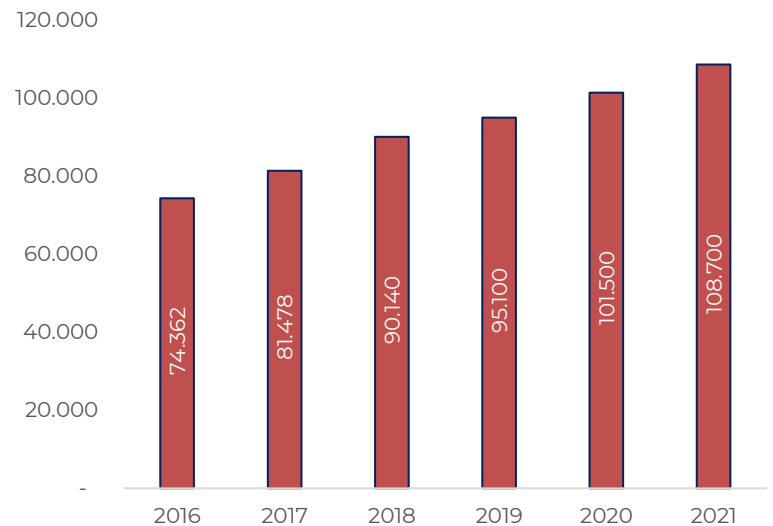
In 2021, the length of the polyethylene pipelines reached 108,700 km. Building 7,200 km of polyethylene pipeline in 2021, the growth rate was 7% compared to the previous year. In 2016-2020, a growth rate of 8% was achieved with an average annual investment of 6,660 km in polyethylene pipelines.

The length of the service line has reached 43,350 km, with an investment of 2,450 km made in 2021. The length of the service line has grown by 6% compared to the previous year with the investment made in 2021. In 2021, approximately 400 km more of the average annual service line length made between 2016 and 2020 was manufactured.

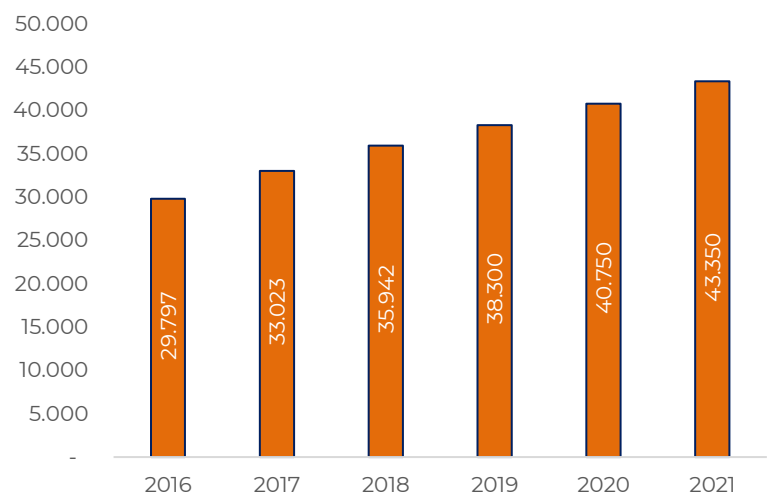
Length of Steel Line in 2016-2021



Length of Polyethylene Pipeline in 2016-2021



Length of Service Line in 2016-2021

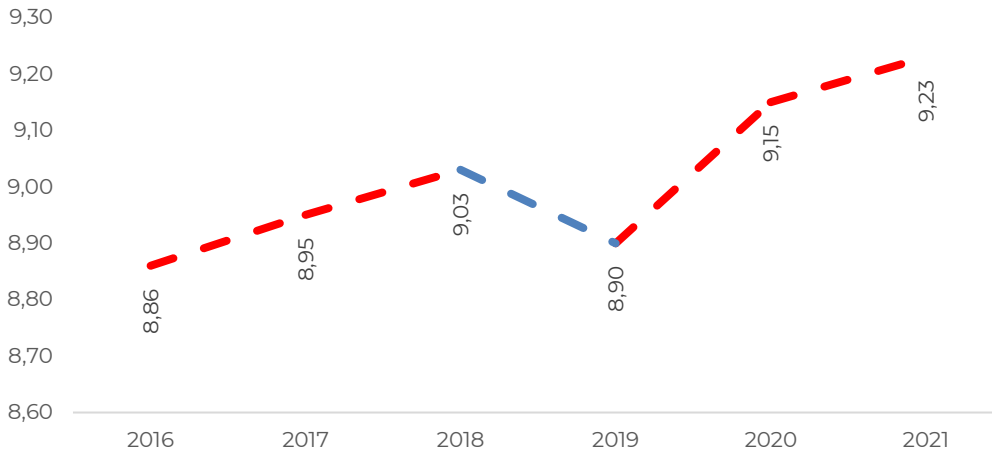


# Investments

Thanks to the ongoing investments in the natural gas distribution network throughout Turkey, the number of residential areas reached out, people using natural gas, and subscribers continue to increase yearly. In the last 2-3 years, network investment per subscriber (meter) has also increased in 2021, as the network investment has shifted to relatively low population residential areas, and therefore subscriber penetration has remained low compared to investments.

At the end of 2021, the length of the network built per subscriber is 9.23 meters. Between 2016 and 2021 (except for 2019), the length of the network built per subscriber increased every year. It is estimated that the length will increase to over 10 meters due to the relatively low population in the new residential areas where a gas supply is planned in the coming years.

Length of Network Built Per Subscriber in 2016-2021



Seventy-two natural gas distribution companies provide services in 81 provinces of Turkey. As of the end of 2021, the natural gas supply has been available in 644 residential areas, including 594 districts and 50 towns. In the planning made at the end of 2020, 35 new residential areas were planned to be supplied natural gas in 2021. However, due to the demand for natural gas from the districts, distribution companies expanded their investment planning and provided natural gas supply to 55 new residential areas in 2021.



# Investments

As of the end of 2021, the natural gas supply has been available in 594 of 922 districts in our country. Between 2003 and 2020, natural gas was supplied to an average of 30 new residential areas every year, and in 2021, the comfort of natural gas was offered to residential areas approximately 2 times this average.

As part of the efforts to expand natural gas throughout the country, natural gas was supplied to a total of 312 residential areas between 2017 and 2021. Natural gas was delivered to an average of 65 new residential areas annually between 2017 and 2020.

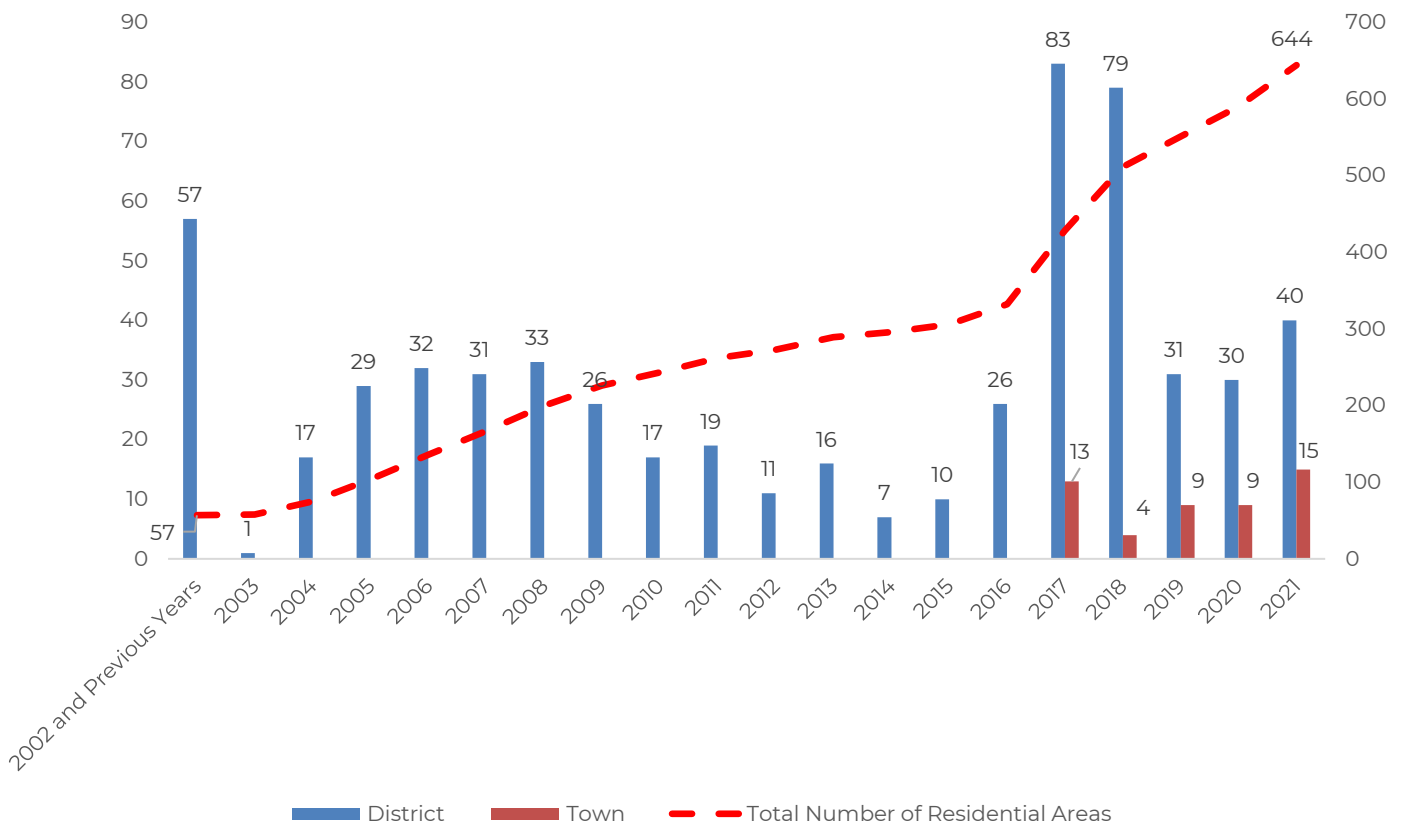
64%

Percentage of Districts With Supply

12%

Percentage of Town With Supply

Turkey-Wide Residential Supply Status





# Population and Number of Subscribers

According to TURKSTAT figures, the population of Turkey increased by 1 million 65 thousand compared to the previous year, reaching 84.6 million as of the end of 2021. The annual population growth rate was 5.5 per thousand in 2020, while 12.7 per thousand in 2021. The percentage of people living in cities was 93.2% as of the end of 2021.

In 2021, the population to whom natural gas was delivered throughout Turkey was 68.5 million. By the end of 2021, natural gas distribution companies have provided natural gas to 80% of the Turkish population.

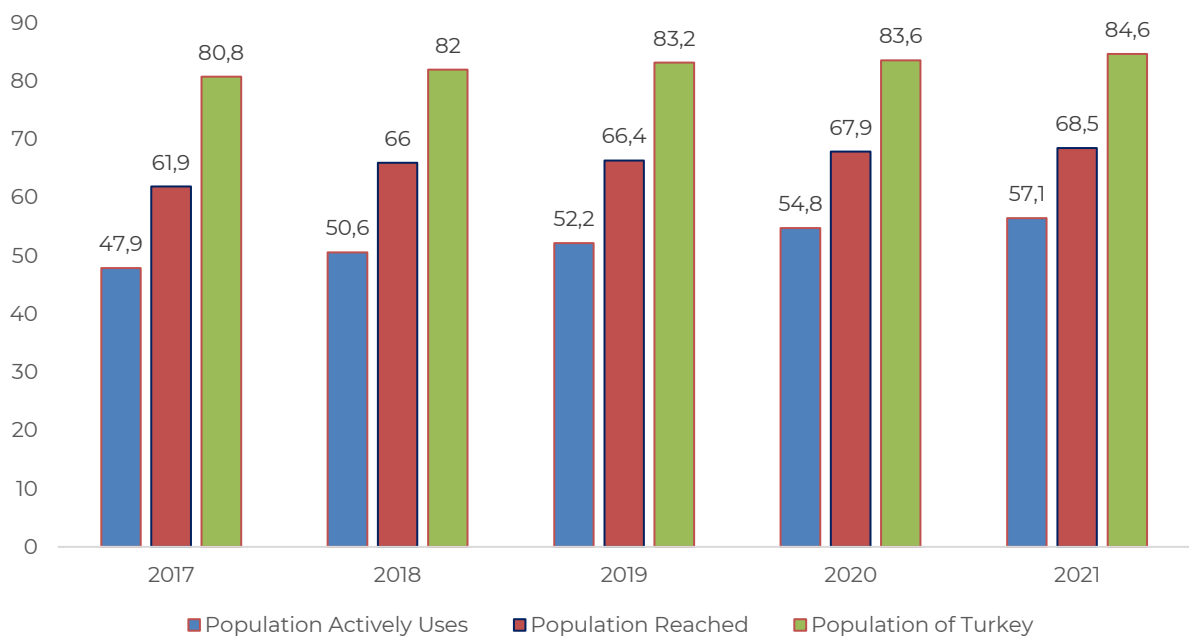
2017  
76%      ----->      2021  
81%

The Percentage of the Population Reached in the Last 5 Years

The population using natural gas actively in Turkey has increased by 4% to 57.1 million compared to the previous year. Over the last five years, the population using natural gas has increased by about 9.2 million. While 61% of the population of Turkey was an active natural gas user in 2017, this percentage increased to 67% by the end of 2021.

The province with the most significant number of active users is İstanbul (15.7 million), while Ankara (5.6 million) is in second place, and Bursa (3 million) is in third place.

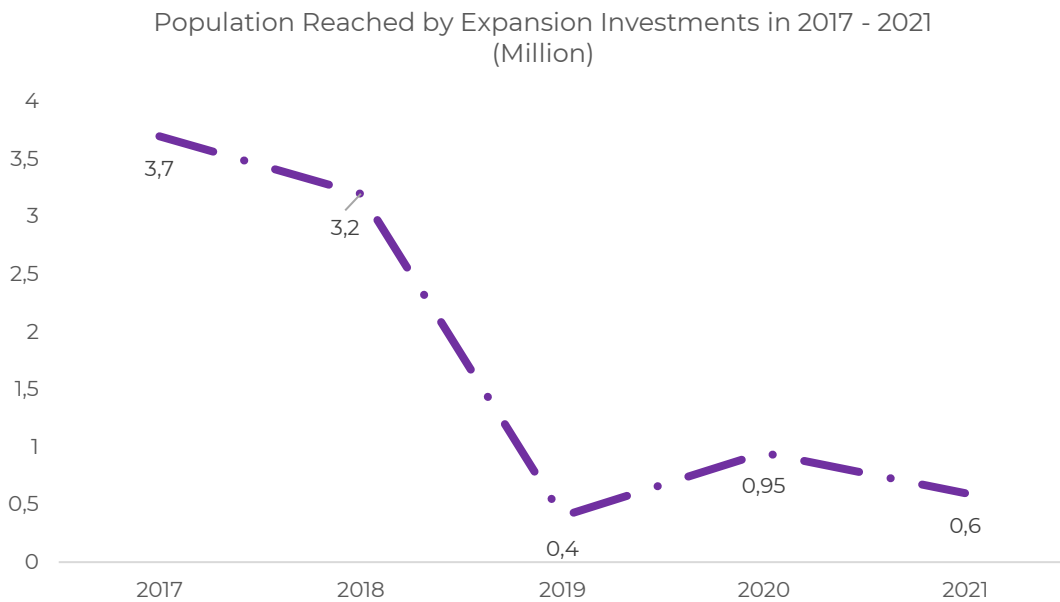
Population Reached and Using Natural Gas Actively in 2017-2021 (Million)





# Population and Number of Subscribers

In 2021, natural gas was delivered to 600 thousand inhabitants in the residential areas to which natural gas was supplied as part of expansion investments. A total of 8.9 million inhabitants were reached by distribution companies in 312 residential areas which natural gas was supplied to as a part of the investments made between 2017 and 2021. The population reached in the regions where natural gas is supplied accounts for 12% of the population to which natural gas is supplied throughout Turkey. In the last five years, natural gas was delivered to an average population of 1.8 million/year; expansion investments began in 2017 when the largest number of inhabitants was reached.



As of the end of 2021, Turkey is the third in the ranking of the countries with the most natural gas subscribers in Europe, with its 18.5 million natural gas users. Due to the ongoing increase in the number of subscribers year by year in Turkey, the gap in the number of subscribers between Turkey and Italy, which is the first in the ranking, and between Turkey and Germany, which ranks the second, has decreased to about 5 million and to 2.5 million, respectively. Because the number of natural gas subscribers in European countries has reached saturation, potential subscribers will become active subscribers in our country in the coming years, and network investments will continue, Turkey is expected to rise to the 2nd place in the number of subscribers ranking in 2025, outstripping Germany.



# Population and Number of Subscribers

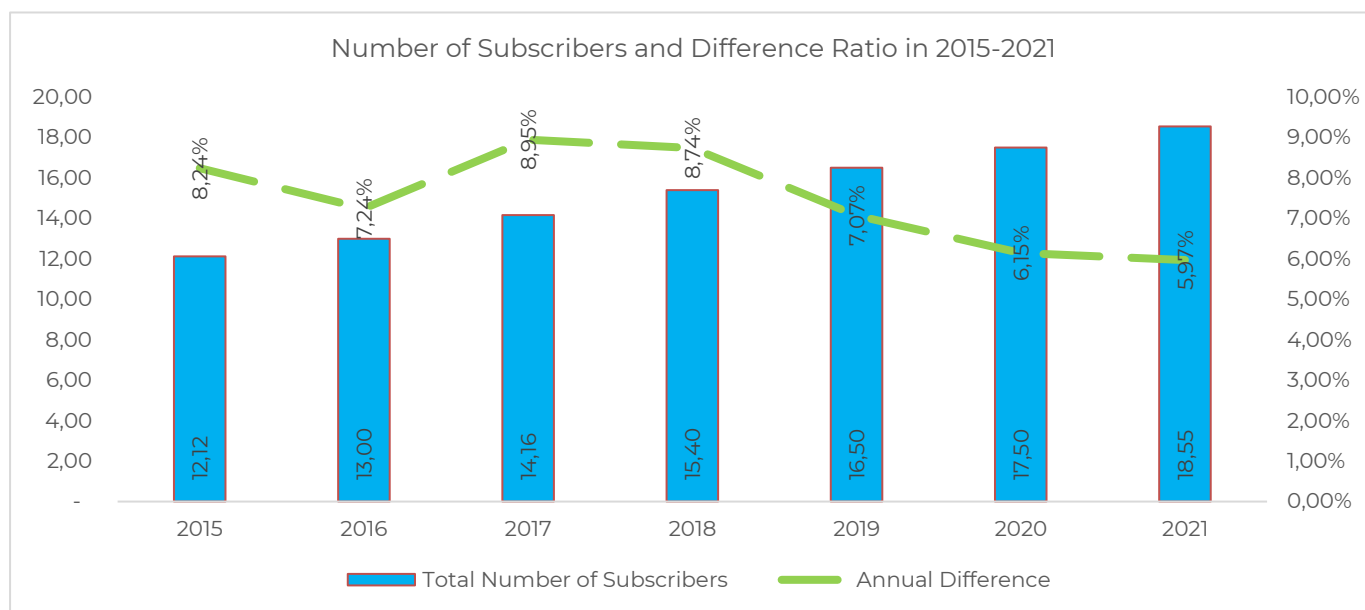
In 2021, the number of natural gas subscribers increased by 1 million 44 thousand compared to the previous year. About 1 million new subscribers have been included in the system every year over the past 10 years. In 2021, new subscription rate was 4% higher than the average of the last 10 years. The increase in the number of subscribers between 2016 and 2020 was an average of 7.6%, while in 2021, the number of subscribers increased by 6% compared to the previous year. With new investments and potential subscribers becoming active subscribers in the next 5 years, it is expected that the number of subscribers will exceed 22 million by the end of 2025.

7.6%

Growth Rate of  
Subscribers in 2016-2020

6%

Growth Rate of  
Subscribers in 2021



Last year, the number of residential subscribers increased by 1 million 33 thousand. While an average of 1 million 40 thousand/year residential subscribers were included in the system in the last 5 years, this average has almost been achieved in 2021. As the number of eligible consumers increased by 11,411 in 2021, new eligible consumers were included in the system as much as 1/3 of the increase in the number of eligible consumers (34,620 units/year) in the last 5 years.



# Population and Number of Subscribers

As of the end of 2021, the province with the largest number of subscribers was İstanbul (5.49 million). Last year, approximately 33 thousand new subscriptions were made in İstanbul, and the number of subscribers increased by 1%. The number of subscribers in Ankara increased by 2% reaching 1.95 million as of the end of 2021. In Bursa, the total number of subscribers exceeded 1 million, with 44 thousand new subscribers included in the system in 2021. Bursa became the third city in Turkey with more than 1 million subscribers.

In 2021, the province with the highest number of the subscribers was İzmir (79,546). Konya followed İzmir with 46,730 new subscribers, while Ankara was the third province with the highest number of new subscribers (44,784) last year.

In 2021, an average of 28,400 new subscribers were included in the system in the 20 provinces with the highest number of subscribers. The number of new subscribers was higher than the average in 8 cities and lower than the average in the remaining 12 cities.

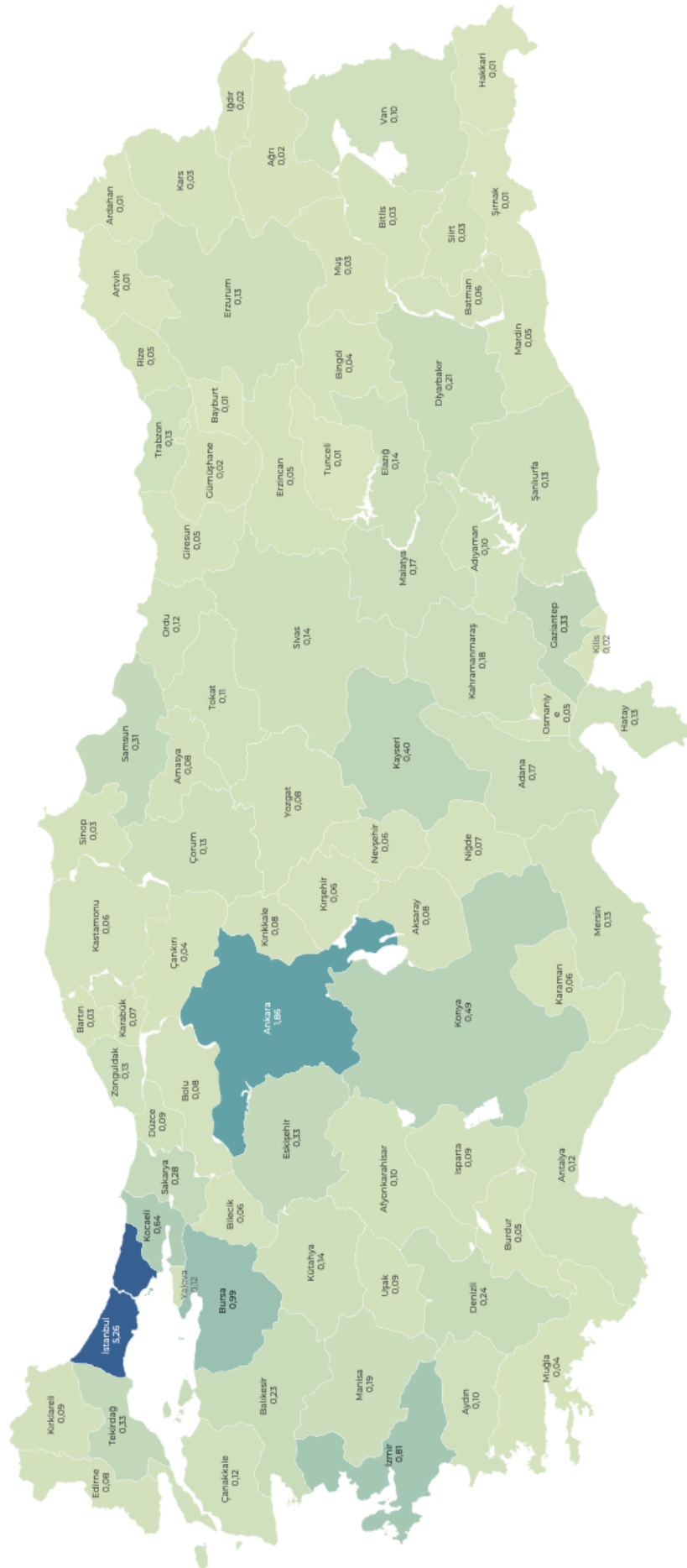
Top 20 Provinces with the Highest Number of Subscribers in 2021

Province	2020			2021			Total Subscription Difference (%) in 2021	Total Subscription Difference (number) in 2021
	Number of Subscribers	Number of Eligible Consumers	Total	Number of Subscribers	Number of Eligible Consumers	Total		
1 İstanbul	5,205,567	252,262	5,457,829	5,260,920	230,534	5,491,454	1%	33,625
2 Ankara	1,820,994	86,638	1,907,632	1,862,945	89,607	1,952,552	2%	44,920
3 Bursa	944,040	28,861	972,901	987,359	30,326	1,017,685	5%	44,784
4 İzmir	736,282	9,992	746,274	814,926	10,894	825,820	11%	79,546
5 Kocaeli	611,932	18,369	630,301	642,106	19,370	661,476	5%	31,175
6 Konya	450,442	18,872	469,314	494,288	21,756	516,044	10%	46,730
7 Kayseri	382,121	14,717	396,838	398,073	15,820	413,893	4%	17,055
8 Eskişehir	324,950	11,909	336,859	334,764	12,764	347,528	3%	10,669
9 Tekirdağ	302,544	9,284	311,828	331,941	10,202	342,143	10%	30,315
10 Gaziantep	299,440	5,946	305,386	330,584	6,553	337,137	10%	31,751
11 Samsun	287,513	7,869	295,382	312,106	8,535	320,641	9%	25,259
12 Sakarya	259,389	8,200	267,589	282,828	9,174	292,002	9%	24,413
13 Denizli	216,549	6,388	222,937	238,328	7,076	245,404	10%	22,467
14 Balıkesir	203,027	7,529	210,556	226,101	8,037	234,138	11%	23,582
15 Diyarbakır	194,370	4,215	198,585	209,698	4,365	214,063	8%	15,478
16 Manisa	169,730	3,618	173,348	194,061	3,919	197,980	14%	24,632
17 Kahramanmaraş	164,130	3,072	167,202	184,732	4,050	188,782	13%	21,580
18 Malatya	167,238	6,743	173,981	172,603	7,199	179,802	3%	5,821
19 Adana	154,177	2,041	156,218	171,969	2,242	174,211	12%	17,993
20 Elazığ	129,279	6,067	135,346	144,869	6,588	151,457	12%	16,111

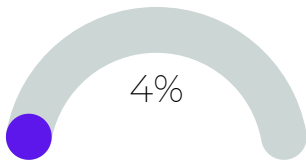


# Population and Number of Subscribers

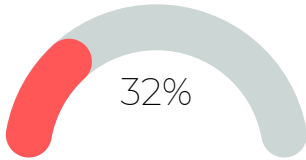
Total Number of Residential Subscriptions in 2021 As Per Provinces (Million)



# Population and Number of Subscribers



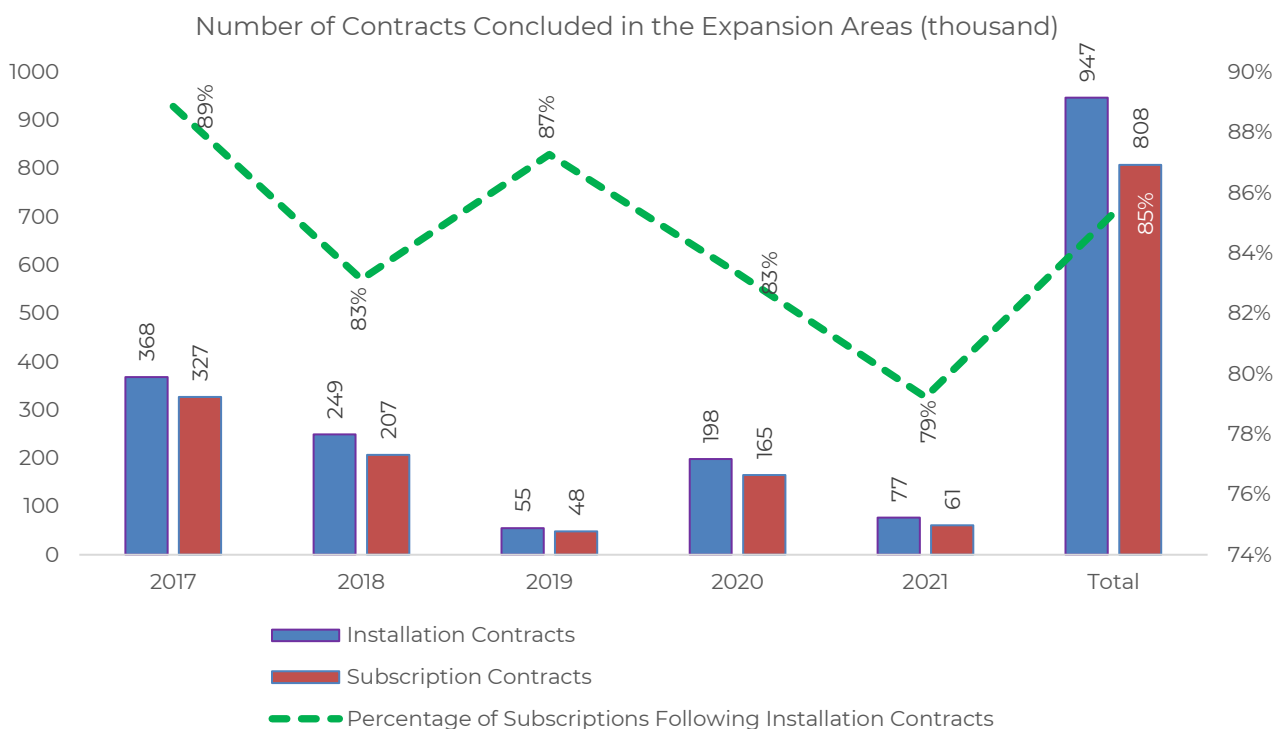
Share of the Subscribers in the Expansion Areas in the Total Number of Subscribers



Subscription Rate in the Expansion Areas (Active Subscriber / Potential Subscriber Ratio)

While there are about 2.5 million potential subscribers in the residential areas which have been reached as a result of the expansion investments, a total of 808 thousand subscriptions were made between 2017 and 2021. 4% of subscribers nationwide are residing in the expanding regions.

As of the end of 2021, a total of 947 thousand installation contracts have been concluded in the expansion areas. 85% of consumers who have signed an installation contract have also signed a subscription contract and started using natural gas. In new investment zones, the number of contracts and the subscription ratio may be low in the regions where natural gas has recently been supplied since subscriptions are activated within next year. In 2021, a total of 77 thousand installations and 61 thousand subscription contracts were concluded in the new investment zones.



# Population and Number of Subscribers

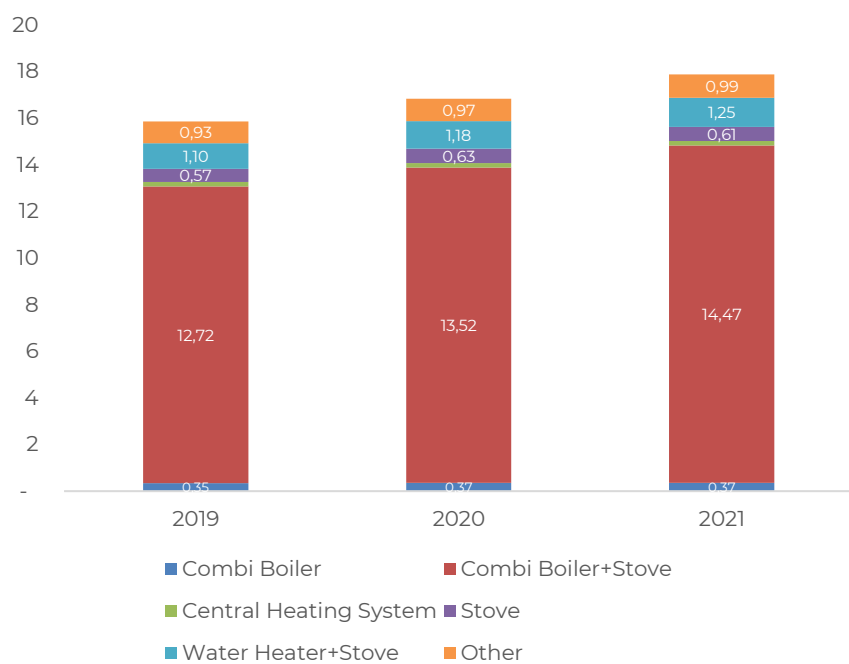
As of the end of 2021, 14.6 million out of the 17.8 million residential subscribers are combi boiler+stove type subscriptions. In 2021, the number of combi boiler+stove type subscriptions has increased by 947 thousand (7%). While only combi boiler type subscribers are 2% (365 thousand) of the total number of subscribers, the number of subscribers who prefer only combi boiler has increased by about 16 thousand in the last two years.

Last year, the number of water heater+stove type subscribers has increased by about 78 thousand (7%) to 1.25 million.

Since electricity is preferred over natural gas in stoves, especially in urban transformation areas and new buildings, there has been a decrease in stove-type subscriptions in 2021. Compared to the previous year, the number of stove-type subscribers decreased by 21,500 to 605 thousand. As was the case in previous periods, the central heating system subscription accounts for 1% of residential subscribers in 2021.

The share of subscription services provided by natural gas distribution companies through E-Government and online channels has been increasing each year. In 2021, about 3 million subscription applications were submitted to natural gas distribution companies. 19% of the applications were made online. In 2020, the online subscription application rate was around 7.2%. The average monthly online subscription application was 47 thousand in 2021, while the average monthly number of online subscription applications increased by about 14 thousand (42%) compared to the previous year.

Subscription Types in 2019-2021 (million)



47 Thousand

Monthly Average Online  
Subscription Application in  
2021

33 Thousand

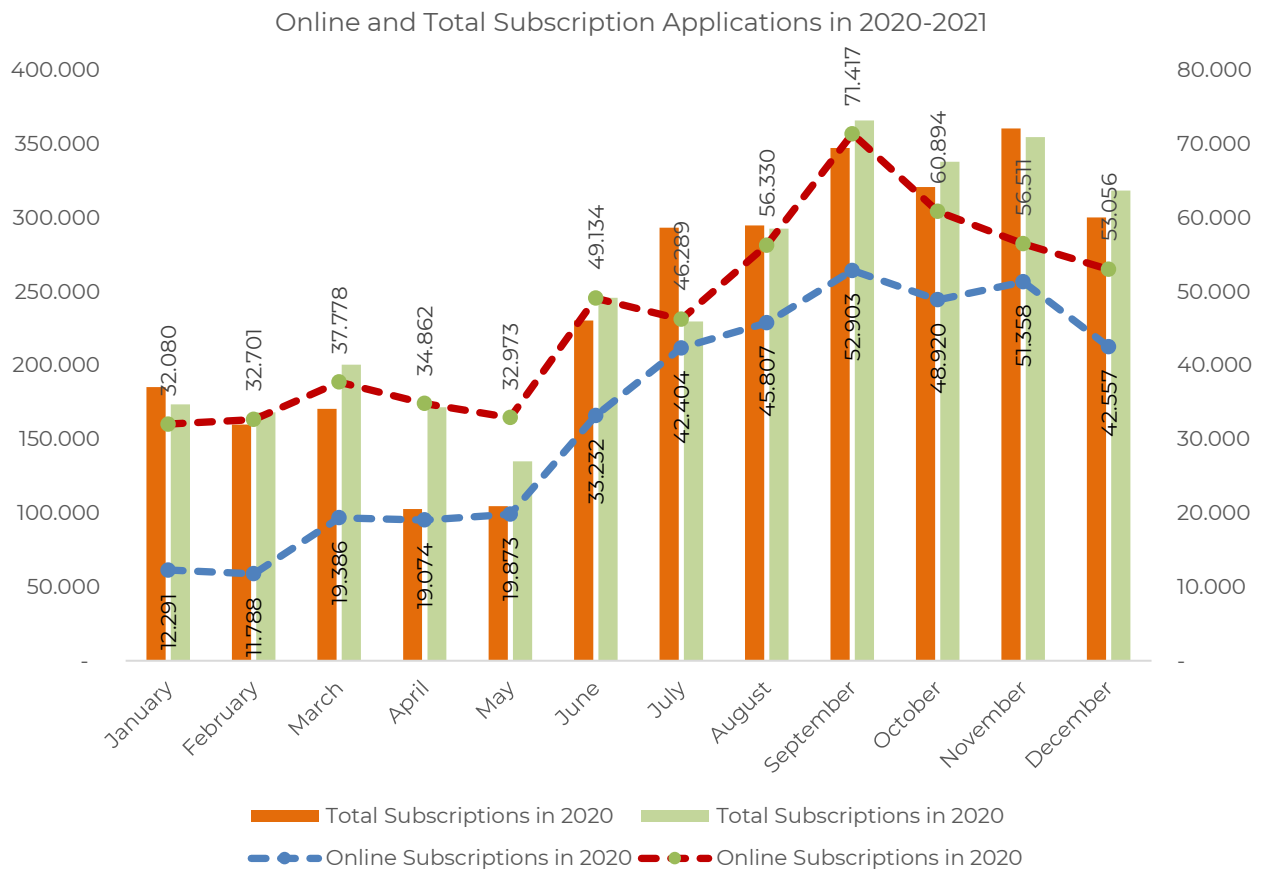
Monthly Average Online  
Subscription Application in  
2020





# Population and Number of Subscribers

The month when the highest number of online subscription applications were made was September (71,417), while the month when the fewest online applications were made was January (32,080) in 2021.



A total of 1.9 million termination applications were filed in 2021. About 725 thousand of the termination applications were made online, while the ratio of online termination applications in the total number of termination applications was 38%. Compared to the previous year, the number of online termination applications has increased by about 200 thousand. September was the month when the highest number of termination applications were made.

61 Thousand

Average of Monthly Number  
of Online Termination  
Applications in 2021

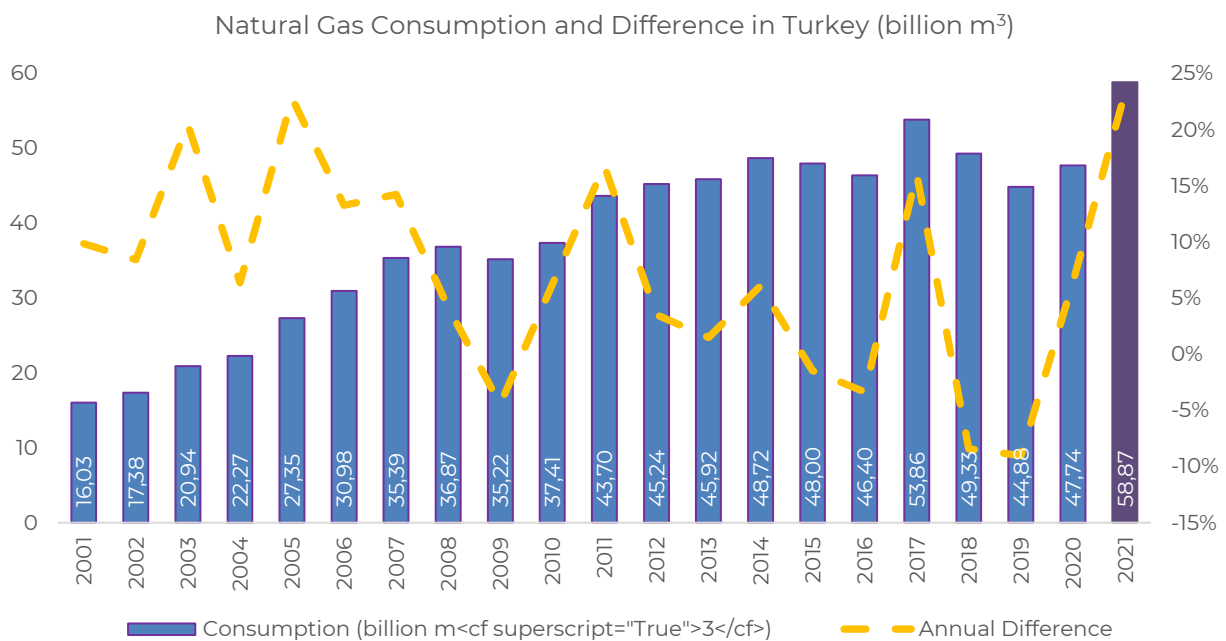
46 Thousand

Average of Monthly Number  
of Online Termination  
Applications in 2020



# Consumption

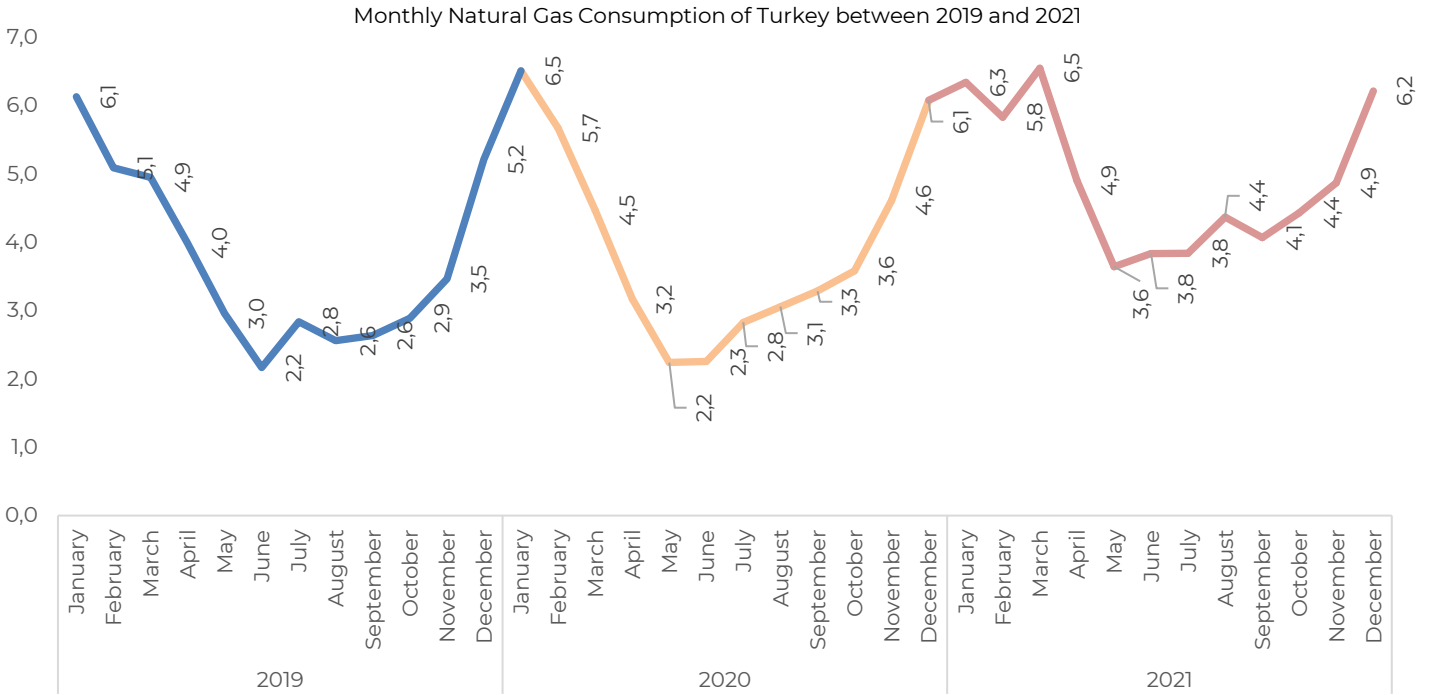
In 2021, Turkey's natural gas consumption increased by 23.3% compared to 2020 and amounted to 58.8 billion m<sup>3</sup>. Last year, 5 billion m<sup>3</sup> (9.3%) more natural gas was consumed than the record consumption in 2017. 53% increase compared to 2020 in the consumption of power plants producing electricity with natural gas and the increase in residential consumption as a result of the inclusion of 1 million new subscribers in the system in 2021, as in previous years, are among the main reasons for the increase in consumption.



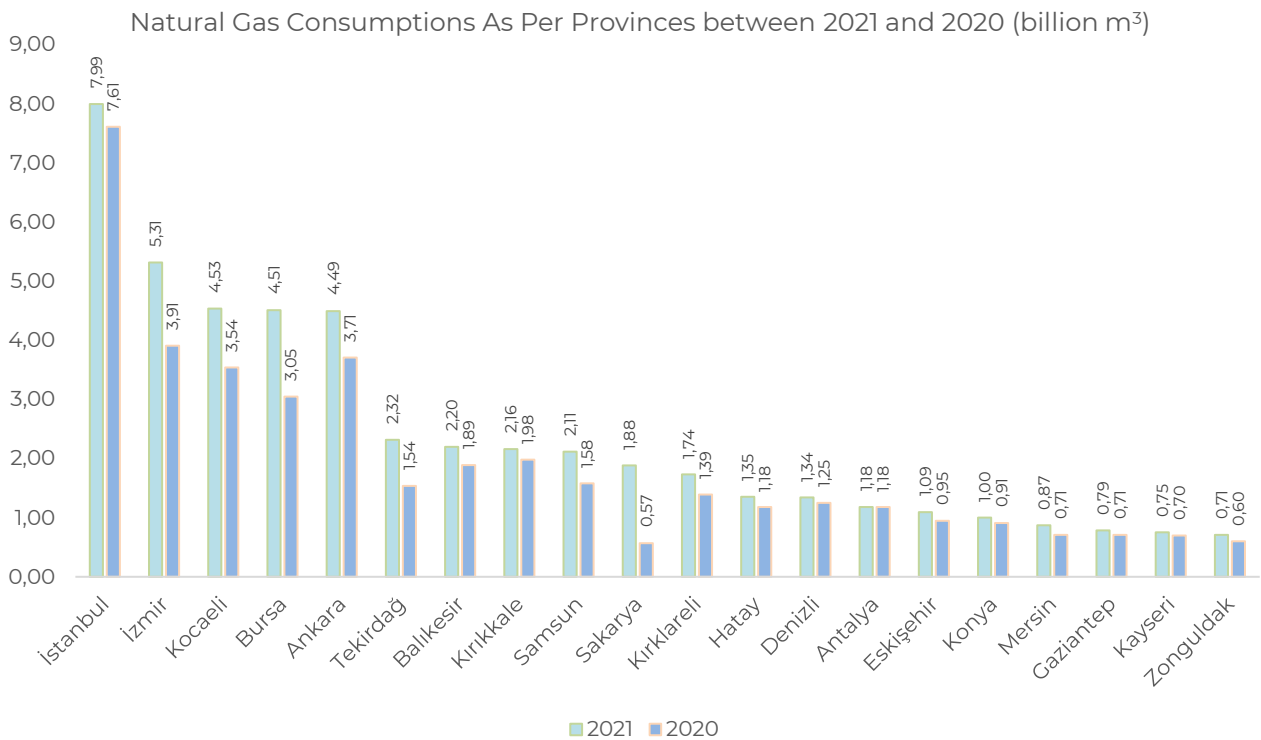
March 2021 was the month with the highest amount of consumption, while 2.1 billion m<sup>3</sup> more natural gas was consumed compared to March in the previous year and about 1.5 billion m<sup>3</sup> compared to March 2019. In April, when temperatures were lower throughout the country compared to previous years, 1 billion m<sup>3</sup> and 1.8 billion m<sup>3</sup> more natural gas were consumed compared to the same period of 2019 and 2020, respectively. May, June, and July were the months when consumption was the least in 2021. An average of 3.7 billion m<sup>3</sup> of natural gas was consumed in Turkey in the three-month period.



# Consumption



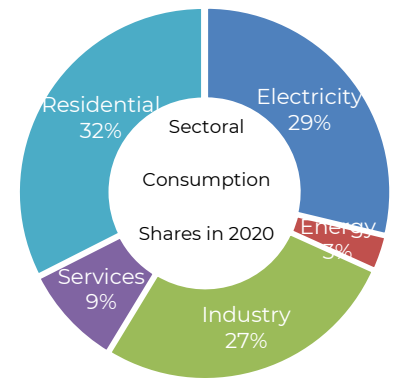
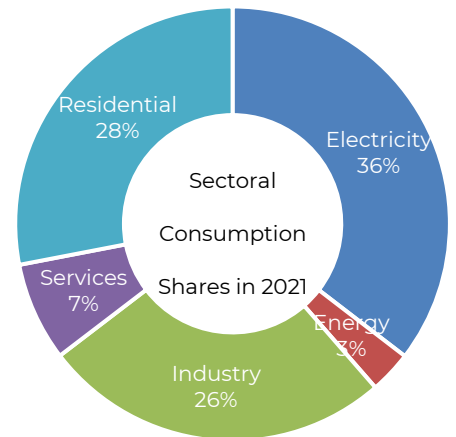
In 2021, İstanbul (7.99 billion m<sup>3</sup>) ranked first among the provinces with the highest natural gas consumption in all sectors (residential, industrial, power plant, and other sectors). İzmir ranked second in the province-based consumption ranking due to the impact of natural gas use by large consumers. Compared to the previous year, the total consumption of natural gas in İzmir increased by 36%. In Kocaeli, which ranked third, the total consumption of natural gas increased by 28% to 4.53 billion m<sup>3</sup>.





# Consumption

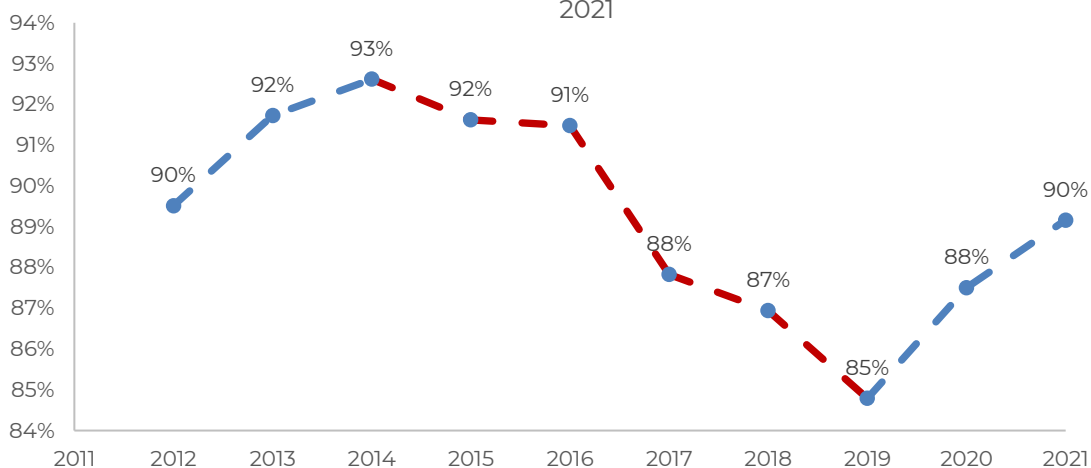
In 2021, the sector with the highest share in the total consumption of natural gas was power plants with 36%. The share of the power plants in total consumption decreased every year between 2009 and 2019, increasing their share in total consumption by 7% in 2021 after 2020, mainly due to the impact of drought. As was the case in 2020, the sector whose share increased the most in total consumption was power plants. The share of residential buildings in total consumption was 28% in 2021, while the upward trend that has been continuing since 2014 lagged behind the amount of natural gas used for electricity generation purposes due to the significant increase in the consumption of power plants over the past year. The share of the industrial sector in total consumption was 26%. The share of the service sector including official departments and commercial establishments was calculated as 7%.



■ Electricity ■ Energy ■ Industry ■ Services ■ Residential

The share of residential, industrial, and power plants, the three sectors where the consumption is the highest, was 90% in 2021 in total. In addition, the total share of the three sectors in 2021 was higher than the average of the last five years (88%).

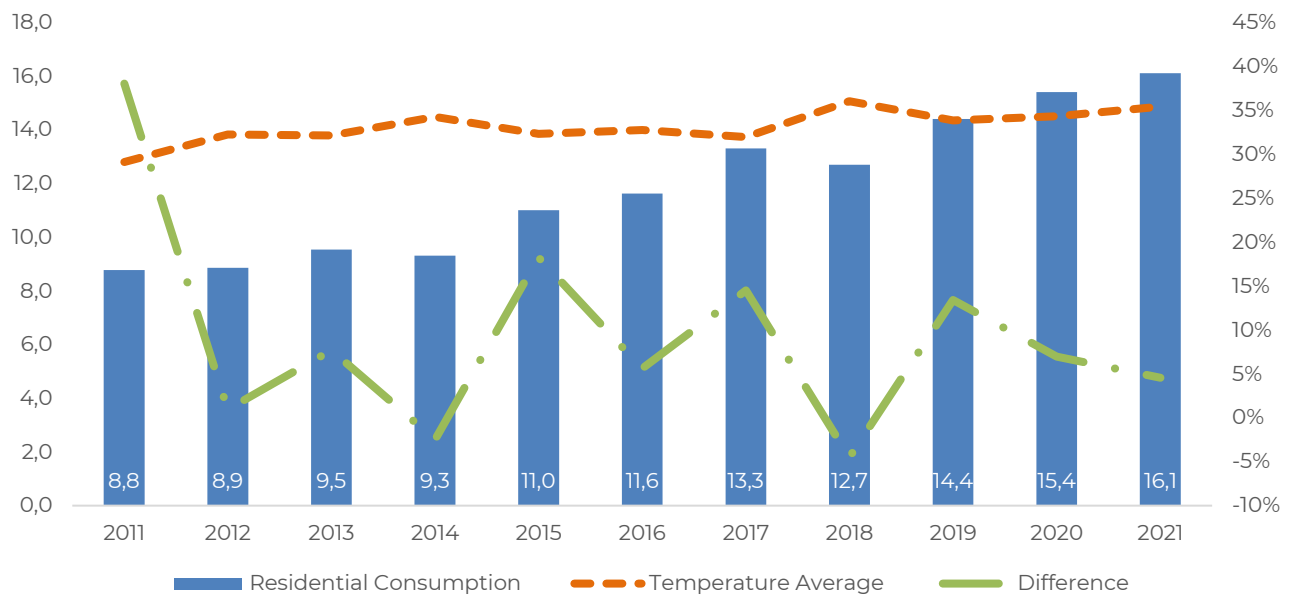
Total Consumption Share in Three Main Sectors between 2012 and 2021



# Consumption

In 2021, the total natural gas consumption increased by 4% compared to 2020, with 16.1 billion m<sup>3</sup>. Between 2010 and 2021, natural gas consumption in residential buildings increased every year, except for 2014 and 2018. Between 2015 and 2021, natural gas consumption increased by an average of 1 billion m<sup>3</sup> per year.

Natural Gas Consumption in Residential Buildings (billion m<sup>3</sup>) in 2011-2021, Difference and Temperature



The month with the highest residential consumption was March in 2021. Compared to the same period in the previous year, the total residential consumption increased by 29% and amounted to 2.8 billion m<sup>3</sup> in March 2021. The average temperature in Turkey was measured as 7°C in March 2021, while it was 9.5°C in March 2020. Since temperatures were higher in the winter months of 2021 compared to the previous year, consumption decreased in January, February, and December compared to the same period in 2020.

Monthly Natural Gas Consumption in 2021 (billion m<sup>3</sup>)

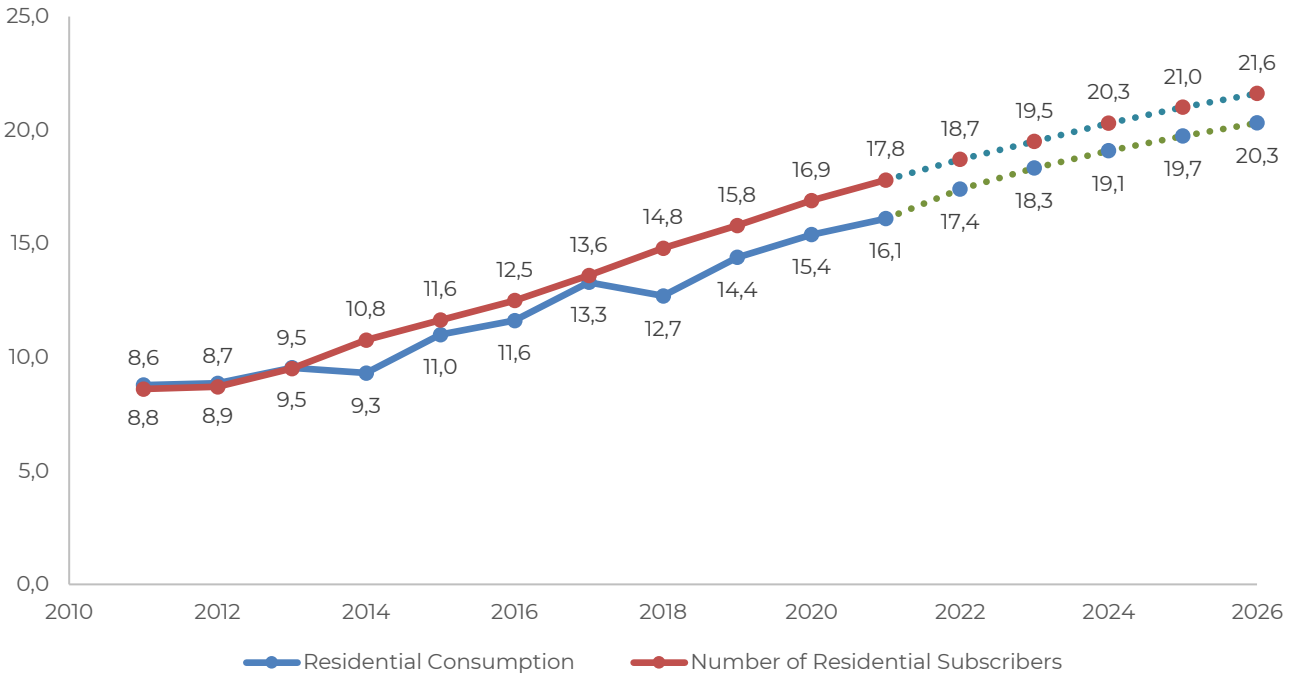
	2020	2021	Difference
JANUARY	2.98	2.72	-9%
FEBRUARY	2.78	2.69	-3%
MARCH	2.20	2.83	29%
APRIL	1.68	1.92	14%
MAY	0.83	0.73	-12%
JUNE	0.38	0.36	-5%
JULY	0.23	0.24	4%
AUGUST	0.27	0.31	15%
SEPTEMBER	0.25	0.30	20%
OCTOBER	0.39	0.50	28%
NOVEMBER	1.15	1.25	9%
DECEMBER	2.30	2.25	-2%
<b>TOTAL</b>	<b>15.44</b>	<b>16.10</b>	<b>4%</b>



# Consumption

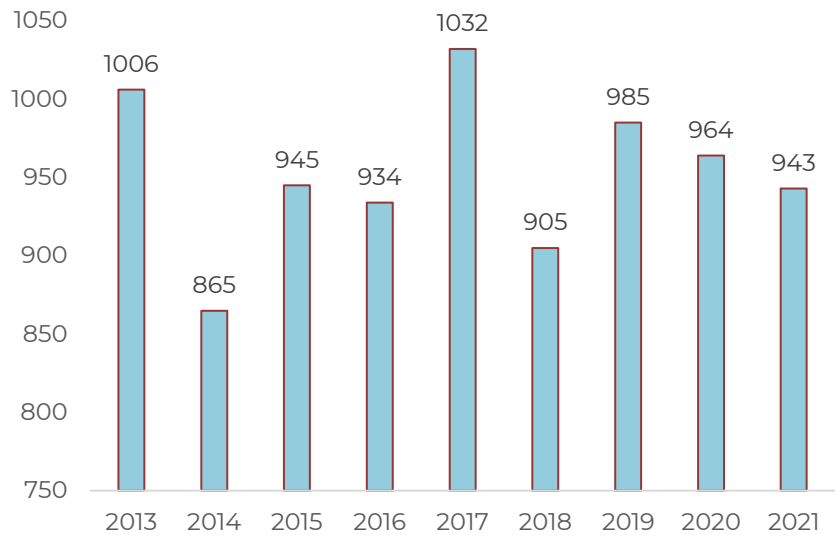
It is estimated that the natural gas consumption in residential buildings in Turkey will be approximately 17.4 billion m<sup>3</sup> in 2022. It is calculated that the total household consumption will exceed 20 billion m<sup>3</sup> by the end of 2026 by the help of investments to be made between 2022 and 2026 and the conversion of potential subscribers into active subscribers.

Residential Natural Gas Consumption (billion m<sup>3</sup>) and Residential Subscribers (Million) in 2011-2026



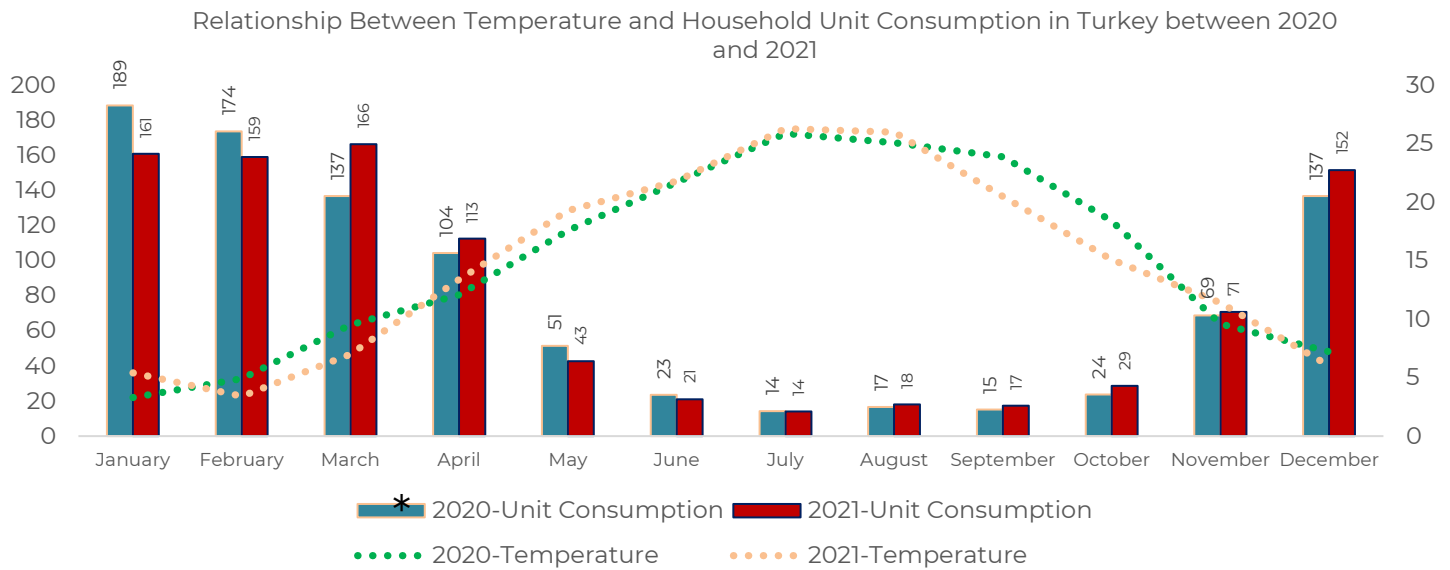
In 2021, the average consumption per household in residential buildings in Turkey was 943 m<sup>3</sup>. The average consumption per household decreased by 21 m<sup>3</sup> (3%) compared to 2020. The average consumption per household was 955 m<sup>3</sup> between 2013 and 2020, while consumption was 12 m<sup>3</sup> (2%) below the average of the corresponding period in 2021.

Unit Consumption per Household (m<sup>3</sup>)



# Consumption

In 2021, the average consumption in households was the highest in March (166 m<sup>3</sup>). Consumption per household in March increased by 22% compared to the same period of the previous year. While natural gas consumption in households is over 100 m<sup>3</sup> on average in April as in previous years (April 2021: 113 m<sup>3</sup>), the lowest consumption per household was in July, when there was only hot water and stove usage.



An average of 138 m<sup>3</sup> natural gas was consumed per month in households in the winter of 2020-2021\*. In the last five years, the winter of 2020-2021 has been the second in which consumption per household is the lowest. The average monthly consumption per household for the last five winters has been calculated as 147 m<sup>3</sup>.

Unit Consumption in Turkey for the Winters of the Last Five Years (m<sup>3</sup>)

Consumption per Household-m <sup>3</sup>	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
<b>November</b>	89	89	75	48	69
<b>December</b>	180	135	159	127	137
<b>January</b>	240	183	203	189	161
<b>February</b>	188	159	177	174	159
<b>March</b>	147	135	156	137	166
<b>Winter Average</b>	<b>169</b>	<b>140</b>	<b>154</b>	<b>135</b>	<b>138</b>
<b>Difference</b>		<b>-17%</b>	<b>10%</b>	<b>-12%</b>	<b>3%</b>



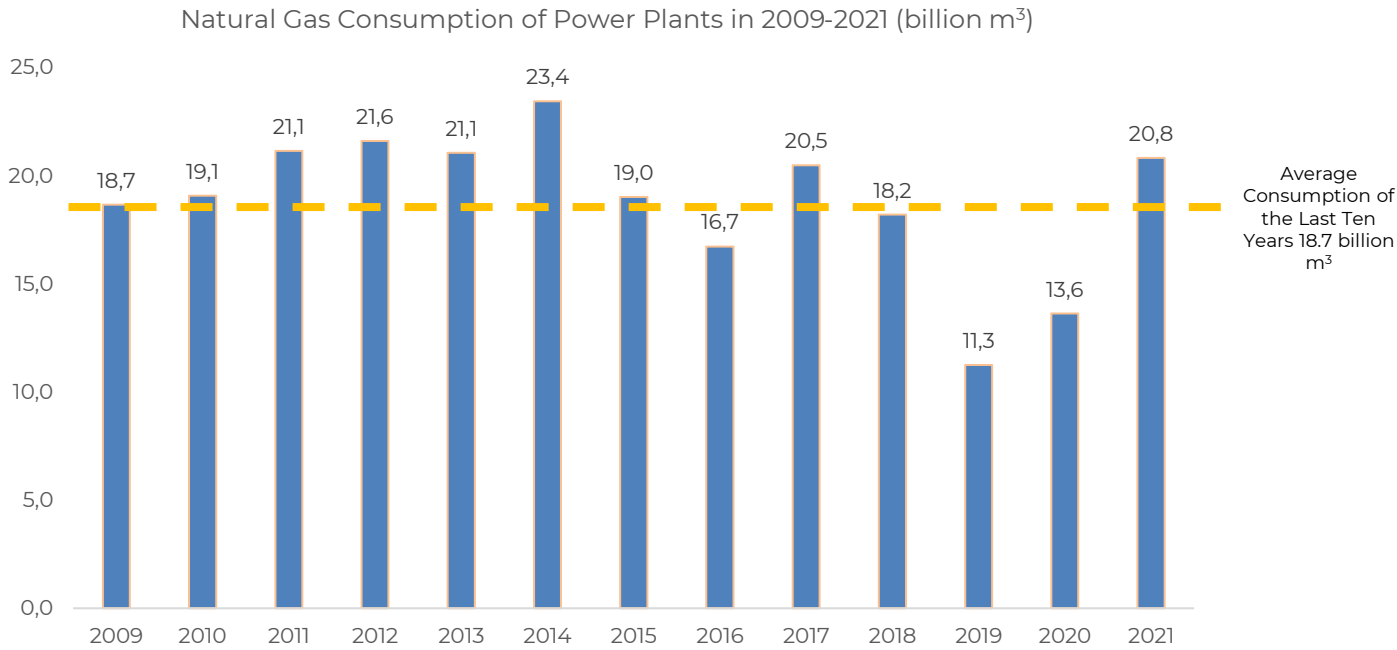




# Consumption

In 2021, the province with the highest average consumption per household was Hakkari (1,369 m<sup>3</sup>). The other provinces with the highest average consumption per household are Ardahan, Erzurum, Kars, and Ağrı, respectively. While all of the top 5 ranked provinces are located in the Eastern Anatolia Region, the average consumption values per household in the provinces located in the Aegean and Mediterranean Regions remained below the average of Turkey, as was the case in the past years. The provinces where the average consumption per household is the lowest are Artvin, Antalya, Mersin, Adana, and Osmaniye, respectively. İstanbul, the province with the largest number of subscribers, was 67<sup>th</sup> in the ranking, Ankara was 13<sup>th</sup>, and Bursa was 59<sup>th</sup>.

In 2021, the consumption of natural gas at power plants increased by 52% compared to the previous year and amounted to 20.8 billion m<sup>3</sup>. While 18.7 billion m<sup>3</sup> of natural gas was consumed at power plants in the last ten years, 2.1 billion m<sup>3</sup> (11%) more natural gas than this average was consumed in 2021.



# Consumption

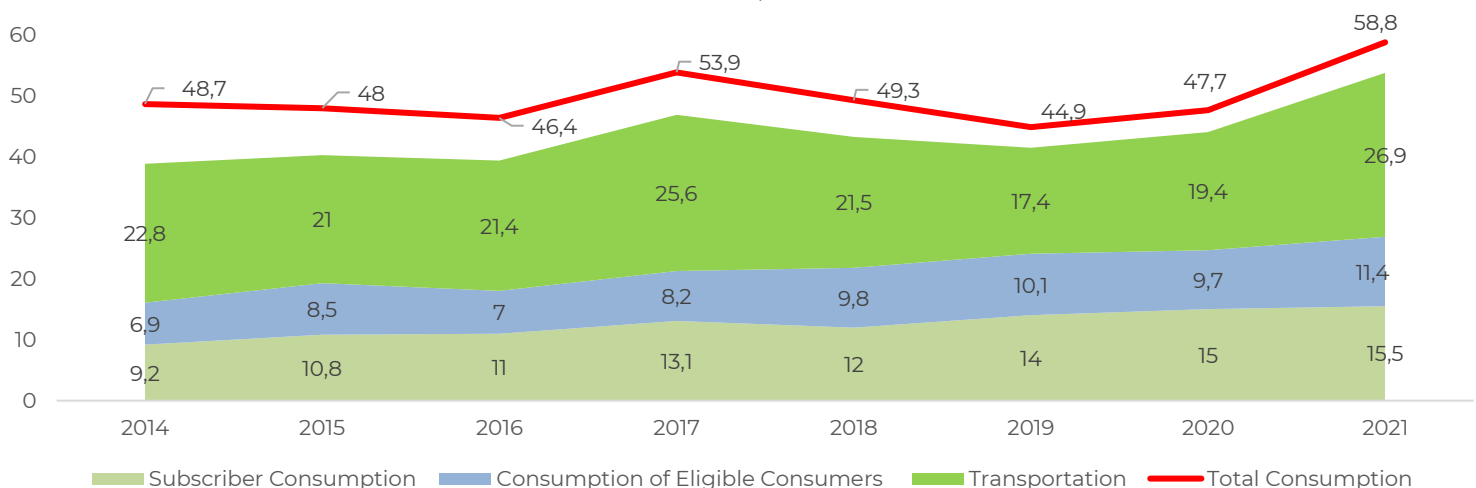
In 2021, total natural gas consumption of the industrial sector increased by 19% compared to the previous year and amounted to 15.3 billion m<sup>3</sup>. In 2021, when the highest consumption occurred in the industrial sector between 2009 and 2021, consumption was 3 billion m<sup>3</sup> higher than the average of the last ten years.

Industrial Sector Consumption between 2009 and 2021 (billion m<sup>3</sup>)



The amount of natural gas delivered to final consumers by natural gas distribution companies in 2021 has been 53.8 billion m<sup>3</sup>. 91% of the natural gas consumed last year was delivered to consumers by natural gas distribution companies. Compared to the previous year, the amount of natural gas delivered to consumers increased by 22%.

Total Amount of Natural Gas Provided by Distribution Companies to Final Consumers between 2014 and 2021 (Billion m<sup>3</sup>)



# Pricing

The annual energy requirement of a house in Turkey for heating, hot water, and cooking is calculated as 9,116,250 kcal on average. About 7.1 million kcal is spent annually on heating houses, and about 2 million kcal is spent on hot water and cooking.

In 2021, the total natural gas consumption of a house was calculated as TRY 2,600 on average. An average of TRY 2,055 was spent on heating, and an average of TRY 545 was spent on hot water and cooking. The monthly average cost of heating, hot water, and cooking for households is TRY 214.

In order to meet the exact annual energy needs compared to natural gas, the average annual expense is around TRY 7,345 when using domestic coal for heating purposes, LPG-Gas Cylinder for hot water and cooking. When domestic coal and LPG are used, the average monthly cost in households is around TRY 612. If imported coal is preferred instead of domestic coal for heating purposes, the average annual cost of heating, hot water, and cooking increases by 35% to TRY 9,964.

78%

Rate of Using Natural Gas

Consumed in Households for

Heating Purposes

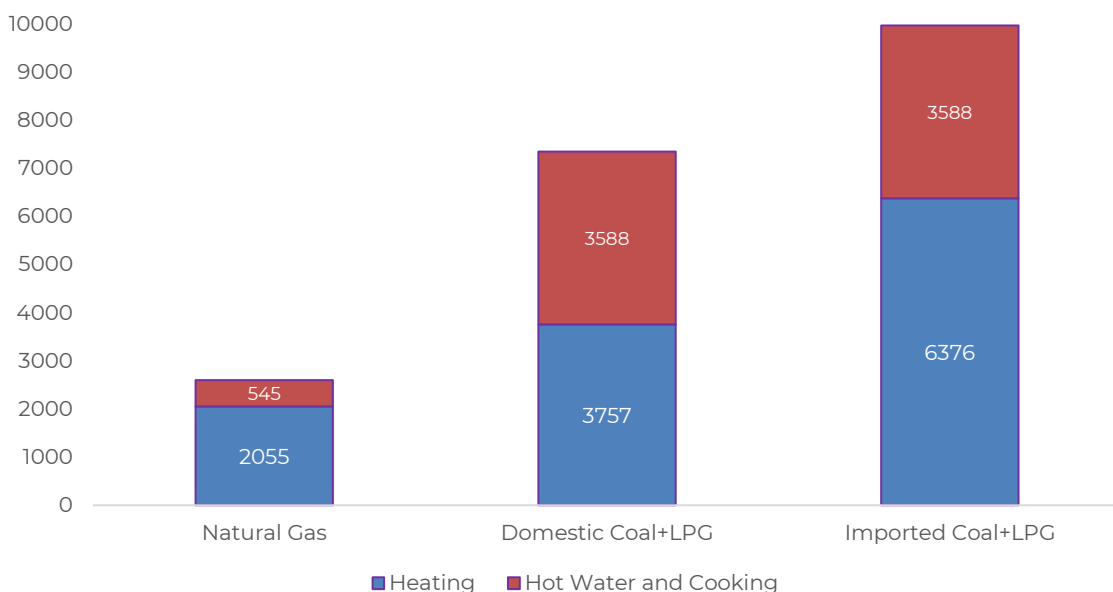
22%

Rate of Using Natural Gas

Consumed in Households for Hot

Water and Cooking Purposes

Average Fuel Cost Comparison



# Pricing

Approximately TRY 1,700 and TRY 4,320 can be saved in households that use natural gas for heating instead of domestic coal and imported coal, respectively. Approximately TRY 3,040 can be saved compared to LPG in households that prefer natural gas for hot water and cooking.

## Natural Gas

1.8  
Times

More Economical Compared  
to Domestic Coal for Heating  
Purposes

3  
Times

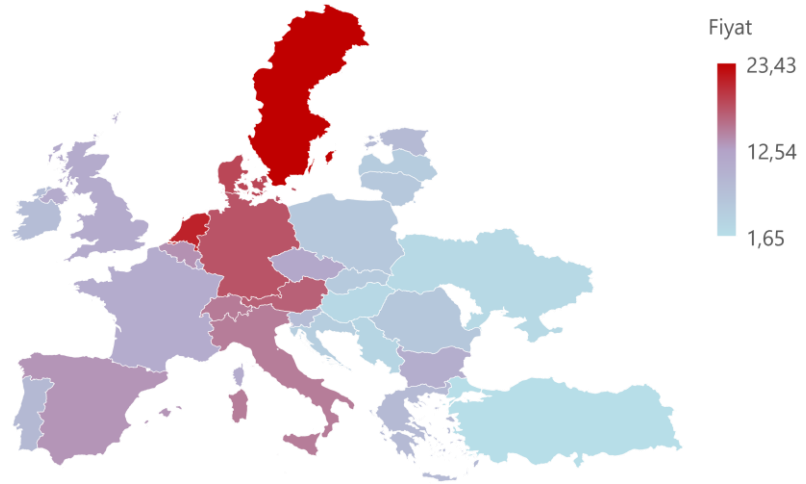
More Economical Compared  
to Imported Coal for Heating  
Purposes

6.5  
Times

More Economical Compared  
to LPG When Used for Hot  
Water and Cooking Purposes

Natural gas prices have reached historic highs in global and local markets due to supply disruptions and supply-demand imbalance after the pandemic. In 2021, the sales price of residential natural gas in European countries increased by 79% from an average of 6.19 Euro/kWh to around 11.07 Euro/kWh. Over the past year, the sales price of residential natural gas has increased by 200% in countries such as Germany, Austria, Belgium, the Netherlands, and the United Kingdom.

Avrupa Mesken Doğal Gaz Satış Fiyatı

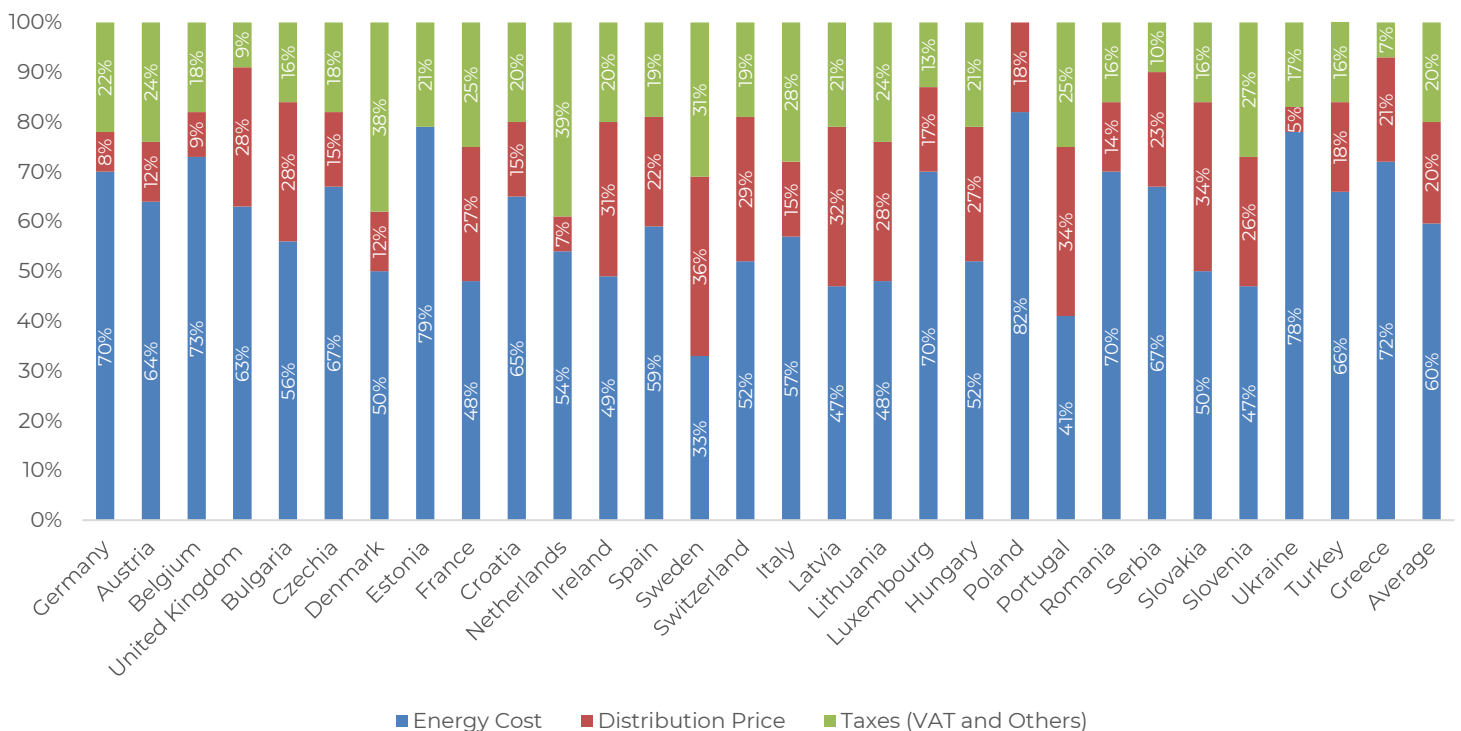


# Pricing

Examining the sales prices of residential natural gas in 29 countries, including Turkey, as of the end of 2021, the energy cost (gas purchase cost) has the highest share in the sales prices. Throughout Europe, the share of the energy price in the residential natural gas sales prices was calculated as 60% on average, the share of the distribution price as 20%, and the share of taxes as 20%.

The country with the highest share of the energy price in the sales price is Poland (82%), and the country with the lowest is Sweden (33%). Turkey ranks 11th among 29 countries with a 66% energy cost share in the sales price. Considering the share of distribution prices in the sales price, the country with the highest distribution price share is Sweden (36%). While there is no distribution price practice in Estonia, the country with the least distribution price share is Ukraine (5%). Turkey ranks 17th among 29 countries with an 18% distribution price share in the sales price. While there is no tax practice for residential natural gas sales in Poland, the country with the lowest tax share in the sales price among 29 countries is Greece (7%), and the country with the highest is the Netherlands (39%).

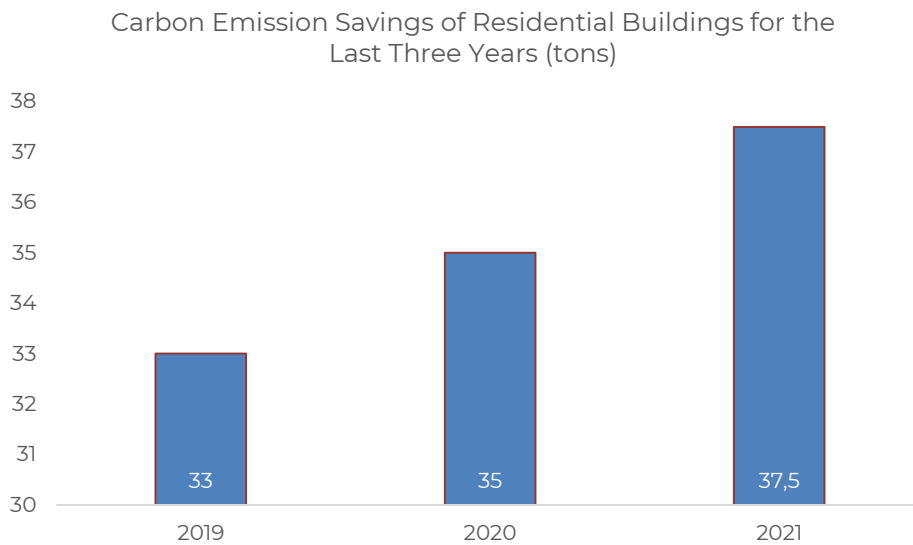
Distribution of Natural Gas Residential Sales Price



# Environment

Thanks to the spread of natural gas throughout the country and the increase in the population using natural gas, the air quality has increased compared to previous years, especially in metropolitan cities. In 2021, carbon emission resulting from heating and other fuel use in residential buildings was about 81 million tons.

In 2021, the total carbon emission of households using natural gas was around 35.5 million, while the carbon emission of households using coal and other fuels was around 45.5 million. Last year, 17.8 million residential subscribers saved 37.5 million tons of carbon emission with the use of natural gas. Over the last three years, the total emission saved on residential buildings has been about 105.5 million.

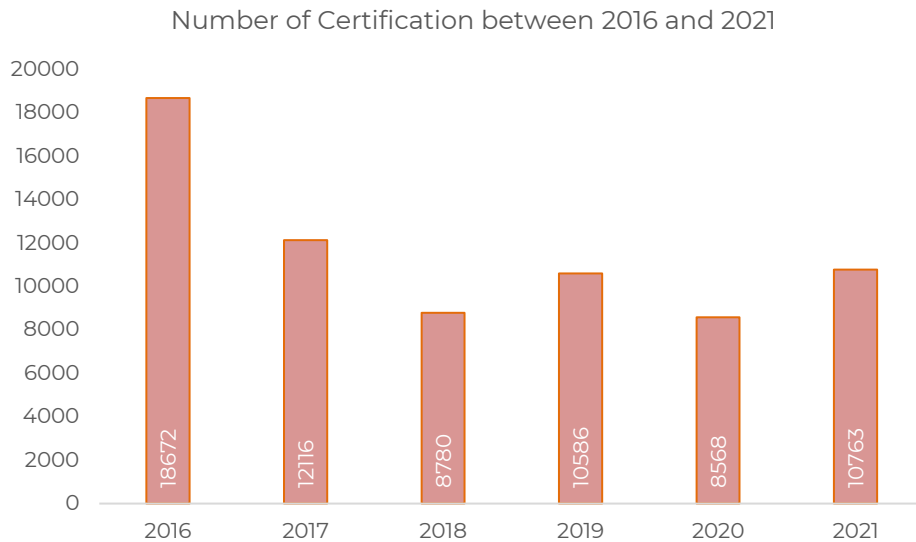


A total of 17 million tons of carbon emission was saved in İstanbul, Ankara, and Bursa, the first three provinces with the highest number of subscribers in 2021. Approximately 45% of the total saving was made in these cities.



# GAZBİR-GAZMER Activities

GAZBİR-GAZMER continues its personnel certification, calibration, and R&D projects throughout Turkey. In addition to the projects that are currently underway, six new R&D projects have been received in the last three years. Approximately 69,500 certificates were issued between 2016 and 2021 and an average of 11,500 certificates were issued annually in the corresponding period.



In 2021, 346,295 meters were received at the Calibration Centre, and in 2021, as in previous years, GAZBİR-GAZMER was preferred for the calibration of more than 100 thousand meters. Distribution companies sent a total of 788,144 meters for calibration between 2018 and 2021.

Number of Meters Received for Calibration Between 2018 and 2021

TYPE	2018	2019	2020	2021
G4	90,143	137,775	203,624	337,843
G6-G25	1,270	2,753	3,508	6,572
G40-G1600	227	874	1,675	1,880
<b>TOTAL</b>	<b>91,640</b>	<b>141,402</b>	<b>208,807</b>	<b>346,295</b>







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