

Combating Climate Change and Our Energy Management



Performance Indicator	Target Year	Target	Performance of 2020	Status by Target	Base Year / Status
Store Electricity Consumption (kWh/m ² day)	2024	18,5% ↓	24,2% ↓	Completed	2013 / 1,186kWh
	2025	12% ↓	9,8% ↓	New	2019 / 0,992 kWh
	2030	22% ↓	9,8% ↓		
Store Greenhouse Gas Emissions (tCO ₂ e/m ² day)	2025	12% ↓	5,1% ↓	In progress	2019 / 0,945 kg CO ₂ e
	2030	22% ↓			
Greenhouse Gas Emissions Per Unit Carried in Transport (kg CO ₂ e)	2025	5% ↓	4% ↓	In progress	2018/0,0373 kg CO ₂ e

We ranked among the **CDP Turkish Climate Leaders 3** times with our plan to combat climate change.

We commit and continue to combat climate change, which is included in our **Migros Better Future Plan**, within the framework of our approach to a low-carbon economy and sustainability, international norms, national legal obligations, **Sustainable Development Goals** and **Consumer Goods Forum** (CGF) principles. In this context, we set our environmental goals to reduce carbon emissions in accordance with our business strategy in line with global initiatives and national targets, especially the Paris Agreement, and in the long term, we manage our operations within this framework. Besides, we have been reporting our plan to combat climate change and our annual performance to the **Carbon Disclosure Project** (CDP) since 2015. In this context, we have been among the **Turkish Climate Leaders 3 times** in 2016, 2017, 2019 through our CDP reports.



RISK ASSESSMENT

Our team, consisting of department representatives within our Sustainability Committee, annually identifies and evaluates risks and opportunities related to climate change. In these assessments, risks arising as a result of changes in legislation and physical climate parameters and risks arising as a result of changes in consumer behavior and corporate image are identified. These identified risks are reported to senior management in order to evaluate their possible and current financial results and to develop solutions in this direction. It is also among the topics covered by global initiatives such as the **Task Force on Climate-related Financial Disclosures** (TCFD).

The energy planning of our company, ensuring electricity savings, preventing gas leaks, using new generation technologies from cooling systems, and including renewable energy sources in the processes are the responsibility of our **Chief Construction Officer and Group Manager of Repair and Energy Management**. Due to its great impact on our work to combat climate change, the **“reduction of energy consumption and gas leakages” target** – which has a 10-20% weight within all the relevant targets – directly affects the annual performance premiums.

At the forefront of the risks posed by climate change to our company are precipitation changes. We **included precipitation changes** in our next **5 and 10 years risk assessments** due to storms in 2020 which cause significant loss. In this context, we anticipate that the destruction caused by snow, storms, and floods will increase, and, consequently, the loss that may occur only in our stores may be about TRY 700.000 within 5 years and TRY 2.1 million in 10 years. As a precaution against floods and other natural disasters, we insure our stores. In addition, in 2020, we invested **TRY 11.54 million** within the scope of environmental management and combatting climate change.

OUR CARBON FOOTPRINT

We actively manage our carbon footprint reduction work and take care to act responsibly towards people and our world throughout our value chain. Within the scope of our “Migros Better Future Plan”, our efforts to combat climate change and carbon management are first among the sustainability issues that we deal with at the senior management level. We set our **short-, medium-, and long-term goals within the framework of our company’s strategy** and act in this direction.

We do not have a production facility that causes air pollutants such as dust, heavy metals, combustion gases, volatile organic compounds, fluorine, or chlorine.

We identify the factors that cause greenhouse gases in all our stores, distribution centers, regional directorates, fruit and vegetable regional warehouses and MIGET, which is a meat processing plant and breeding farm. According to our 2020 data, **47% of our carbon emissions are caused by electricity and 52% by cooling.**

Our 2020 Scope 1, Scope 2, and Scope 3 release values, consisting of our direct release sources, have been verified and documented by the BSI (British Standards Institution) **as a result of checks based on the ISO 14064-3 standard and the GHG protocol.**

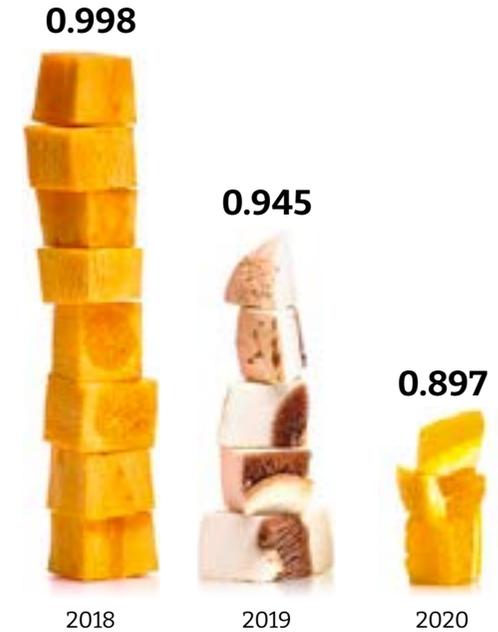
You can review the details of the verification statement in the **‘Appendix’** section of our report.

OUR PERFORMANCE AND TARGETS

We track, calculate and report our goal of reducing our carbon footprint in terms of “daily carbon emission equivalent per square meter of sales area (kgCO₂e)”. In 2019, compared to 2015, we exceeded our target of a 23% reduction by 26.6% until 2023. Accordingly, we have updated our target to take 2019 as a base year to reduce it by 1% in 2020 (annual) and by 7% in 2024 (five-year).

In 2020, we achieved a **5.1%** reduction in our daily carbon emissions per square meter of sales. We have updated our short-term target to **2021 (annual) by 2%**. We have raised our medium-term target to a **12% reduction by 2025** compared to our 2019 base year. We have added a long-term **22% reduction target by 2030 to our targets.**

Carbon Emission Per Sales Area Square Meter (kg CO₂e)



** CO₂ savings of previous years have been updated by normalizing with 2020 Defra coefficients.*

CORPORATE GREENHOUSE GAS EMISSIONS OF TURKEY OPERATIONS BY YEAR *

Source	2018	2019	2020
Scope 1 (mt CO ₂ e)	225,129	265,117	268,001
Scope 2 (mt CO ₂ e)	228,853	244,463	236,014
Scope 3** (mt CO ₂ e)	84,727	103,923	98,561
Total (mt CO₂e)	538,974	613,568	602,576

**Emissions of previous years have been updated by normalizing with the 2020 Defra coefficients.*

*** Scope 3 emissions include emissions from Flights, Wastes, Transport, Sanal Market Operations, Personnel Services, Customer Service and energy consumption out of scope.*

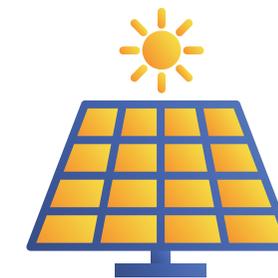
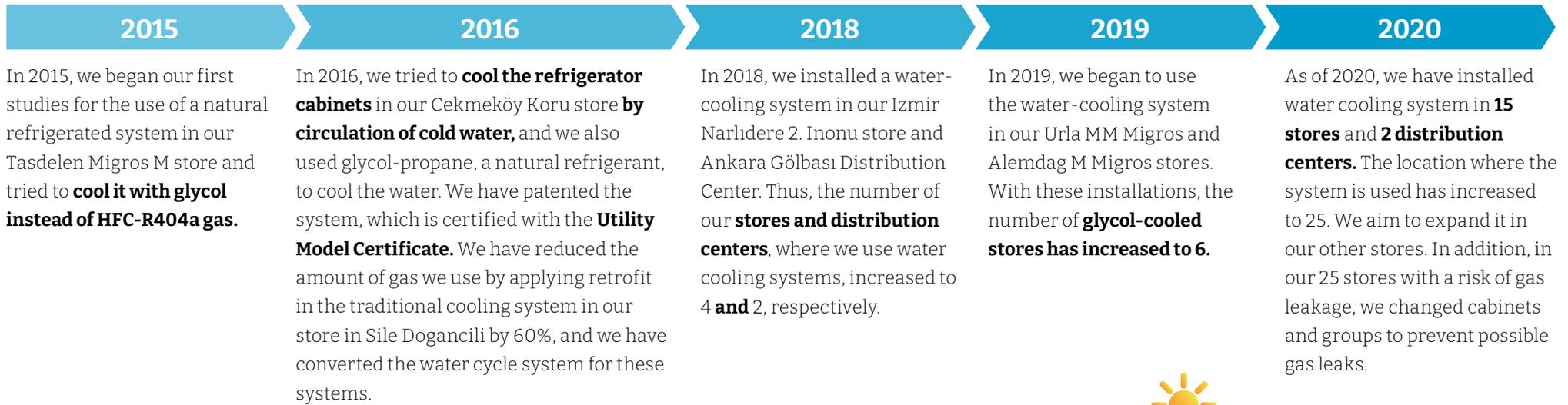
ECO-FRIENDLY COOLING SYSTEMS

Most of the greenhouse gas emissions in the retail sector are due to cooling systems. Accordingly, to reduce our greenhouse gas emissions, we attach importance to the choice of efficient natural coolers and new generation systems. As a company that is aware of our role in combatting climate change, we do

not use hydrofluorocarbon (HFC) in cooling systems located in our distribution centers and stores. In our cooling systems, we implement innovative applications for the use of natural coolers and environmental systems that can work in accordance with the “climate in which our country is located”.

Associated with this:

- We use ammonia as a natural refrigerant instead of HFC in the refrigeration systems at our MIGET, which is meat processing plant.



In addition, we have achieved **6,630 MWh energy savings** and prevented **3.090 tCO₂e emissions** annually with our energy-saving applications in 2020, the details of which are included in the title of our **Energy Management and Efficiency Studies**.

OUR SUSTAINABLE DISTRIBUTION SYSTEMS

Within the scope of our energy consumption from our distribution and logistics activities, we carry out efficiency studies in line with our goal of saving and reducing our greenhouse gas emissions from these activities.

In this context:

- We measure the route covered between our distribution centers and stores every year and open our **new distribution centers to strategic points** by making route optimizations to prevent extra travel.



- In parallel with our central distribution strategy, we transport **80%** of our products **to our stores via fully loaded trucks.**



- We direct products that will be sold in our stores to their distribution centers and reduce truck traffic by up to 30 times.



- Migros has 14 electric vehicles and 41 electric bicycles available within the Sanal Market (our e-commerce channel) vehicle fleet.



- With our route optimization study in 2020 we reduced the **ratio of our transportation costs to sales by 10 basis points** compared to the previous year.



- We use multi-use and collapsible crates in our distribution centers and in our fruit, vegetable and meat shipments.
 - Thanks to our cooperation with **Palex**, pallets collected from our distribution centers have saved **1,488 tons of CO₂e emissions.**
 - We **saved 780 tons of CO₂e** as a result of our work with **Chep**, and **7,875 tons of CO₂e** as a result of our cooperation with **IFCO.**

We aim to obtain at least a Level B Energy identification certificate for our three distribution centers, which we will open by 2025.

OUR PERFORMANCE AND TARGETS

To reduce our environmental impact as a result of our distribution center shipments, **“our goal is to reduce our CO₂ emissions per unit carried in transport”**. We were aiming for a 0.3% reduction in 2020 compared to 2019, but there was a 2.2% increase. This has the effect of pulling the dramatic 6% drop from the previous year to normal levels in 2019. Our medium- / long-term goal was to achieve a 7% reduction by 2024 compared to 2018. In 2020, we have realized a 4% decrease compared to 2018. We aim to reduce our CO₂ emissions per unit carried in transport by 0.2% in 2021. We have updated our target to maintain our 2018 base year and medium- / long-term reduction of 5% by 2025.

CO₂ emissions per transported unit from Distribution Center shipments * (kg CO₂e)



* Emission values of previous years were recalculated based on the current emission factor.

OUR ENERGY MANAGEMENT AND EFFICIENCY STUDIES

We are combating climate change while increasing our operational efficiency through energy conservation efforts. In this context, we prefer “**varied current-control**” and “**high automation efficiency**” systems for air conditioning and industrial cooling systems in our newly opened and renovated stores.

Our energy monitoring system allows us to measure our energy consumption daily, weekly, and monthly, and accordingly, we take the necessary measures to reduce our energy consumption and greenhouse gas emissions. With the **automation system** we set up to control our energy consumption, **our cooling, air conditioning, and lighting systems** are monitored centrally.

You can find the number of stores with an automation system installed in the ‘**Appendix**’ section of our report.

Our Energy Consumption by Source (MWh)

SOURCE	2018	2019	2020
Electricity	490,994	565,249	506,359
Natural Gas	7,182	7,956	14,890
Diesel	15,459	15,025	11,050
Gasoline	43,6	788	3,129
Total	513,679	589,018	535,428

Where applicable, we get maximum benefit from sunlight by making use of daylight lighting systems in our stores where convenient. We prevent formation of heat islands by preferring paints enabling heat insulation and reflecting the sun rays on the roofs of our stores. We employ lighting units with motion sensors in our warehouses.

In 2020, our total **energy consumption** was **535,428 MWh**, and **94.6%** of this is due to **electricity use**. We did not consume or sell heating, cooling, and steam as secondary energy sources. We sourced the **40,000 MWh of electricity** we consume from **renewable sources** and received the **I-REC International Renewable Energy Certificate**, which was developed by the Netherlands-based International Renewable Energy Certificate Standard (IRECS) to promote renewable energy investment and use among businesses and consumers.



Our Energy Efficiency Projects in 2020	Energy Conservation (MWh)
Monitoring was installed in 69 of our stores.	136.5
Rooftop automation infrastructure installation and revision were made in 32 of our stores.	68.5
In our 60 Migros stores, the cabinets have been made plug-in.	2,073
Group changes were made in 22 of our stores and 50 mt/tulle cabinet renovations were carried out in three of our stores.	154
In 29 stores, the old lighting system was converted to a led system.	3.117
Cold cabinet door application was made in 49 Macrocenter stores.	993
The revision of the air conditioning systems has been completed. (Maintenance and electricity saving)	88

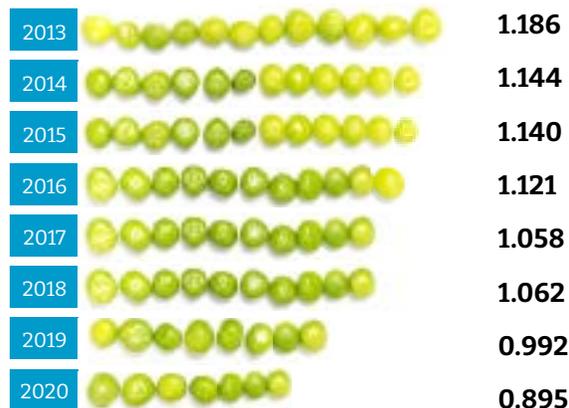
OUR PERFORMANCE AND TARGETS

We follow, calculate and report our energy efficiency and electricity saving target in terms of “daily electricity consumption per square meter of sales area”. In this context, we have **exceeded** our medium- and long-term **goal of reducing our electricity consumption by 18.5% by 2024 compared to 2013 by 24.2% in 2020**. In 2020, we achieved a 9.5% reduction compared to the previous year.

In addition to our work in the field of energy efficiency, this reduction has the effect of **reorganized working hours and conditions due to the Covid-19 pandemic**. In line with the reduction of working hours during working days and the restrictions imposed on the use of air conditioning, our electricity consumption experienced a total consumption decrease of 28 million kWh. When **we take out this effect**, which we expect to continue in 2021, we see that our electricity consumption per square meter of sales for 2020 is 0.95, and **compared to our 2013 data, the reduction is again above our target with 19.7%**.

We have set our new target based on our 2019 results, where the impact of the Covid-19 pandemic is not visible. Our 2021 target (annual) to reduce our electricity consumption per square meter of sales was set to decrease by 2%, our medium-term target of 2025 by 12%, and our long-term target of 2030 by 22%.

Daily Electricity Consumption per Sales Area m² (kWh)



We recycled **27.5 tons** of electronic devices that were out of use.

OUR GREEN IT PRACTICES

In line with our Green Information Technologies (IT) approach, we purchased **331** energy-efficient new generation monitors for our newly opened stores in 2020. We replaced 232 new generation monitors in our existing stores, 119 of which were new purchases, due to reasons such as malfunctions and replacements. These devices provide an average of 80% energy savings per year.

- We achieve 80% annual energy savings by replacing 80% of our traditional server infrastructure with new generation hyper-integrated servers **making them virtual and transferring them to cloud systems**.
- By configuring our critical data and applications to run through our Disaster Data Center (Felaket Veri Merkezi) and with the contribution of 7x24 monitoring/response teams, we aim to increase our IT continuity level to **99.99%**.
- With our configured **7x24 Security Systems** monitoring and response center, we increase it continually and minimize cyber risks.
- We were reducing our travel-related carbon emissions by using video conference for half of our business meetings and intercity meetings as part of our operations across Turkey. During the pandemic and travel restrictions in 2020, **all job interviews and meetings in the last 10 months were conducted over online systems**.
- Systems were set up to enable our head office and administrative unit employees to carry out their business processes remotely. A total of **245,116 minutes of video and 392,363 minutes of voice calls** were made online.