

# YAPI KREDİ'S NET-ZERO ROADMAP FOR FINANCED EMISSIONS

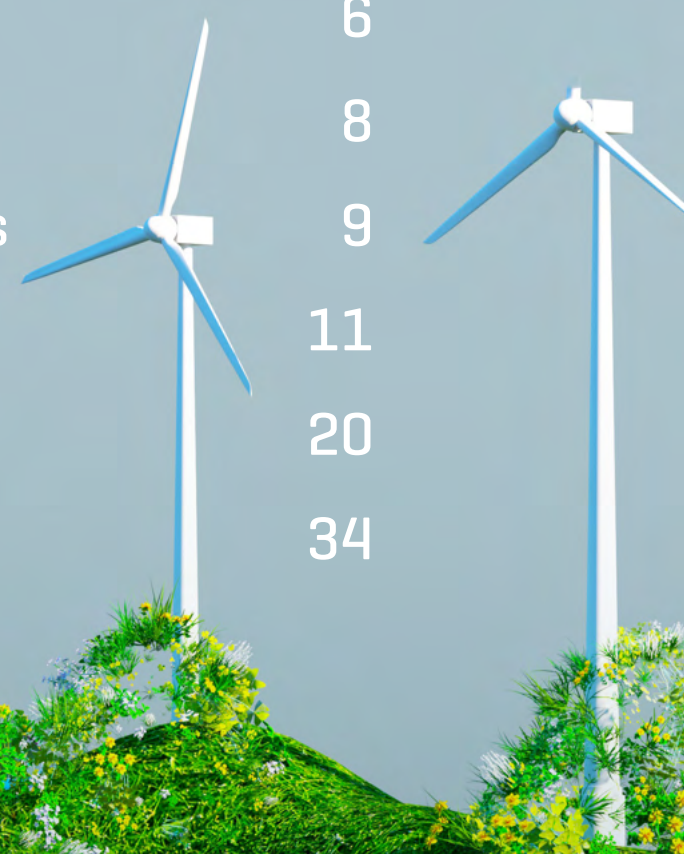
one step ahead





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## Approach to Net Zero

Climate change poses a major threat to nature, society and the global economy. According to the Global Risks Report 2024, the greatest global risk over the next decade is the extreme weather events, including those exacerbated by climate change. To avoid the dire consequences of the climate crisis, global economy must act now to achieve net-zero emissions by 2050, with the collaboration of governments, policymakers and businesses. Given the economic impact of evolving climate-related risks across sectors, building resilience to climate risk requires companies to undertake ambitious mitigation efforts to ensure business continuity. In these efforts towards green transition, the financial sector plays an important role considering its role as a financier in scaling new technologies that will decarbonize other sectors.





Yapı ve Kredi Bankası A.Ş. (henceforth, Yapı Kredi or the Bank), one of the key players of the Turkish banking sector, ensures that its net-zero commitment drive the green transition and puts the impact creation front and centre of its sustainability strategy. With the aim of playing a leading role in this transition, Yapı Kredi continues to monitor climate-related indicators that are likely to affect the greening of its loan portfolio and its customers. In view of all these possible effects, Yapı Kredi has so far taken many important steps towards the financing of green investments in the real sector. To this end, the Bank has committed to many leading international initiatives, demonstrating its commitment to a net-zero transition.

As a first step, the Bank became one of the founding signatories of the UN PRB in 2019. Then, in line with the climate risk action plan set out in the Paris Climate Agreement, the Bank has committed to the SBTi in 2021 to reduce its emissions. Moreover, Yapı Kredi became the first and only institution in Turkey to commit to setting emission reduction targets within the framework of the “Business Ambition for 1.5°C”. To strengthen its role in the transition to a net-zero economy, the Bank took a further step by becoming a member of the NZBA in 2023. To disclose clear and consistent information about the risks and opportunities presented by climate change, Yapı Kredi also became one of the supporters of the TCFD.



In order to meet its commitments, Yapı Kredi has launched a new project in 2021 as part of the Carbon Transition Programme initiated by its main shareholder Koç Holding. Within the scope of the project, the measurement and analysis of financed emissions, which constitutes almost all of the banking sector's greenhouse gas emissions, was completed by using PCAF methodology for the first time in 2022. In 2023, a modelling study of the interim net-zero emission reduction targets was completed within the framework of SBTi guidance. In the same year, a financial and technical feasibility study was conducted to achieve the targets set. During this study, decarbonisation plans were developed for prioritized sectors and set of actions were determined to achieve those plans. The targets modelled on the said feasibility and decarbonisation study were submitted to the SBTi for verification and the Bank received verification in 2024 for the submitted targets in Figure 3. Thus, Yapı Kredi achieved to be the first private Tier-I bank in Turkey to receive SBTi verification. Additionally, the Bank has become to have the most comprehensive coverage of loan portfolio targets in the Turkish banking sector and the only Turkish bank to set targets for its entire portfolio of mandatory targets.

Meanwhile, at the beginning of 2024, the work initiated to improve the data quality and methodology for calculating financed emissions, which is of paramount importance for the implementation of the decarbonisation plans, was successfully completed. In this regard, Yapı Kredi aims to continue its determined efforts to reduce its financed emissions and to guide its customers in their journey to net zero, not only as a financier but also as an advisor and partner.





# Milestones







- Joined the SBTi and became the first Turkish bank to commit to "Business Ambition for 1.5°C"
- Launched the project under Carbon Transition Programme
- Launched the EV/hybrid auto loan product
- Announced no financing for new coal-fired power plants and new coal mining projects
- Became the TCFD supporter
- Being granted for Zero-Waste Certificate for selected locations

- Became the first Turkish Bank signing the Finance for Biodiversity Pledge (FfB)
- Joined the NZBA to boost the Bank's net-zero commitment
- Developed a decarbonisation plan for the loan portfolio in line with SBTi targets
- Modelled SBTi aligned targets for Scope 1&2 and financed emissions (Scope 3 cat.15)
- Launched the Sustainable Preferences Program [Step], which aims to encourage the Bank's customers to make sustainable choices
- Issued the first Sustainable Eurobond
- Increased its score to the A- (Leadership) level in the CDP 2022 CC Programme

2020

2021

2022

2023

2024

- Published the first Integrated Annual Report
- Issued the first Green Bond
- Launched nature-friendly mortgage loan product
- Became the first financial institution in Turkey to be granted for the ISO 14046 Certification
- Expanded the scope of the ISO 14064-1 certification to all the Bank's premises and including subsidiaries

- Calculated financed emissions by PCAF methodology
- Became the only financial institution in Turkey to receive "AA" rating from MSCI ESG Ratings
- Listed in the "The Sustainability Yearbook 2022, issued under S&P Global's CSA
- Selected as Turkey's Water Leader in the financial sector under the CDP 2021 WS Programme

- Obtained the LEED Platinum Certification for Yapı Kredi Banking Base building
- Signed the first Sustainable Syndicated Loan
- Updated the Sustainable Finance Framework by adding new green and social financing themes
- Extended ISO 14001 and ISO 14046 certifications to all Yapı Kredi's locations
- Obtained SBTi verification for interim net-zero emission reduction targets
- Achieved to be the first and only financial institution in Turkey to be included in the Global A List both for CDP 2023 CC and WS Programmes
- Outlined the roles and goals of newly-created Net-Zero Working Group
- Became the only Tier-I bank in Turkey to be included in Sustainalytics' Top-Rated Companies 2024 List





## Governance

At Yapı Kredi, the management of climate-related risks and opportunities is carried out under the supervision of the Sustainability Committee, chaired by an independent of the Board member and composed of all relevant senior management of the Bank. The decisions taken and the work carried out by the Committee are regularly reported to the Executive Committee and the Board. Moreover, in order to bring dynamism to

its work in the field of sustainable banking and execute the strategy, the Bank established the working groups of “Management of Climate-related Risks”, “Net-Zero”, “Sustainable Finance”, “Sustainable Operations” and “Human and Society”, which directly report to the Committee. To implement the decarbonisation plan developed in 2023, the objectives and working method of those working groups were outlined in 2024.



# Measuring Financed Emissions

For the first time in 2022, the Bank calculated the 2021 emissions arising from the loan portfolio corresponding to Scope 3 Category 15, using the PCAF methodology, which includes only on-balance exposure. For financed emissions, corporate loans, business loans (commercial and SME loans), project loans, mortgage and vehicle loans within the scope of PCAF were the segments included in the calculation while Yapı Kredi, Yapı Kredi Bank Nederland N.V., Yapı Kredi Bank Azerbaijan are the group companies included in the scope of consolidation for emission measurements. According to the calculations, total financed emissions of Yapı Kredi amounted to roughly 18.5 million tCO<sub>2</sub>e as of 2021 YE, accounting for almost 99.9% of the Bank's total emissions.

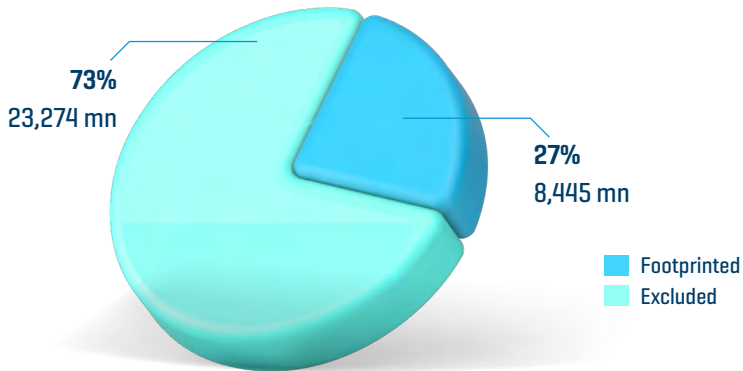
**Figure 1: Overview of financed emissions and scope (2021)**

| Loan Segment                       | Outstanding Portfolio Value (mn USD) | Financed Emissions (tCO <sub>2</sub> e) | Share of Financed Emission (%) |
|------------------------------------|--------------------------------------|---|--------------------------------|
| Business Loans and Unlisted Equity | 14,796                               | 12,071,286                              | 65.1                           |
| Project Finance                    | 5,974                                | 6,167,014                               | 33.3                           |
| Commercial Real Estate*            | 1,208                                | 40,900                                  | 0.2                            |
| Mortgages                          | 1,047                                | 221,601                                 | 1.2                            |
| Motor Vehicle Loans                | 249                                  | 37,345                                  | 0.2                            |
| <b>Total</b>                       | <b>23,274</b>                        | <b>18,538,146</b>                       | <b>100</b>                     |

\*Real Estate loans under project finance and commercial mortgage are included in the Commercial Real Estate category



**Figure 2: Total outstanding portfolio amount footprinted in USD [2021]\***



\*All the mandatory lending categories under PCAF are included in the emission calculation



## Improvement in data quality

There are various challenges and uncertainties regarding data and methodologies in measuring financed emissions. Today, there are no comprehensive and globally-standardized climate-related data. It is estimated that there will be an increase in the works related to the standards to be developed by regulators for climate-related disclosures. Therefore, like other banks in the sector, 2021 emission calculations were largely based on assumptions and revenue-based calculations. Considering these limitations, from 2022 onwards, Yapı Kredi has begun to engage with its customers operating in high emitting sectors under NZBA and collected specific data used in emission calculations through surveys, thereby improving the PCAF score. System infrastructure projects for emission automation are planned to be implemented in the coming periods.



# Net-Zero Target Modelling

## SBTi Aligned Reduction Targets

After measuring its emissions, Yapı Kredi, following SBTi's guidelines for the financial sector, set interim emission reduction targets for its loan portfolio. For this purpose, the Bank took 2021 as the target baseline year and modelled the interim targets for 2026 and 2030 according to the selected target methodology. The targets set were submitted to the SBTi verification to confirm that the methodologies used are based on the latest scientific research. In July 2024, Yapı Kredi has received SBTi's verification for the targets in Figure 3. According to SBTi's assessment, Yapı Kredi's target portfolio covers 29% of its total lending by total assets as of 2021, and this target covers all the required activities, which is also 29% of the total asset book. Thus, in the Turkish banking sector, Yapı Kredi achieved to set targets with the highest coverage ratio and became the first bank to cover the entire required lending portfolio in its target coverage.

SBTi defines three methods that financial institutions can use to set targets for their Scope 3 category 15. For Yapı Kredi, the SDA and Temperature Rating methods were used. To determine its net-zero pathways, Yapı Kredi used the IEA's net-zero scenario [NZE] as a benchmark to be consistent with the NZBA guidelines and the global goal of limiting global warming to no more than 1.5°C above pre-industrial levels by 2100. In line with the SBTi guidance for the SDA approach, the Bank set a target for physical intensity [emissions per economic output, e.g. kgCO<sub>2</sub>/MWh] rather than an absolute emissions metric. As this approach takes into account the different pace of decarbonisation of different sectors, the Bank aims to ensure homogeneity across sectors and focus on the impact on the real economy.

**Figure 3: Emission intensity reduction targets verified by the SBTi**

| Target segment                           | Modelling methodology | Scope included | Target base year | Target year | Metric                             | Base year figure | Target year figure | Target |
|--|-----------------------|----------------|------------------|-------------|------------------------------------|------------------|--------------------|--------|
| Electricity Generation Project Finance   | SDA                   | Scope 1        | 2021             | 2030        | tCO <sub>2</sub> e/MWh             | 0.500            | 0.131              | 73.7%  |
| Corporate Loans: Real Estate             | SDA                   | Scope 1&2      | 2021             | 2030        | kgCO <sub>2</sub> e/m <sup>2</sup> | 109.78           | 35.77              | 67.4%  |
| Corporate Loans: Electricity Generation  | SDA                   | Scope 1        | 2021             | 2030        | tCO <sub>2</sub> e/MWh             | 0.001176         | 0.000685           | 41.7%  |
| Corporate Loans: Other Long-term Lending | Temperature Rating    | Scope 1&2      | 2021             | 2026        | °C                                 | 3.05             | 2.64               | 2.64°C |
| Corporate Loans: Other Long-term Lending | Temperature Rating    | Scope 1&2&3    | 2021             | 2026        | °C                                 | 3.20             | 2.75               | 2.75°C |

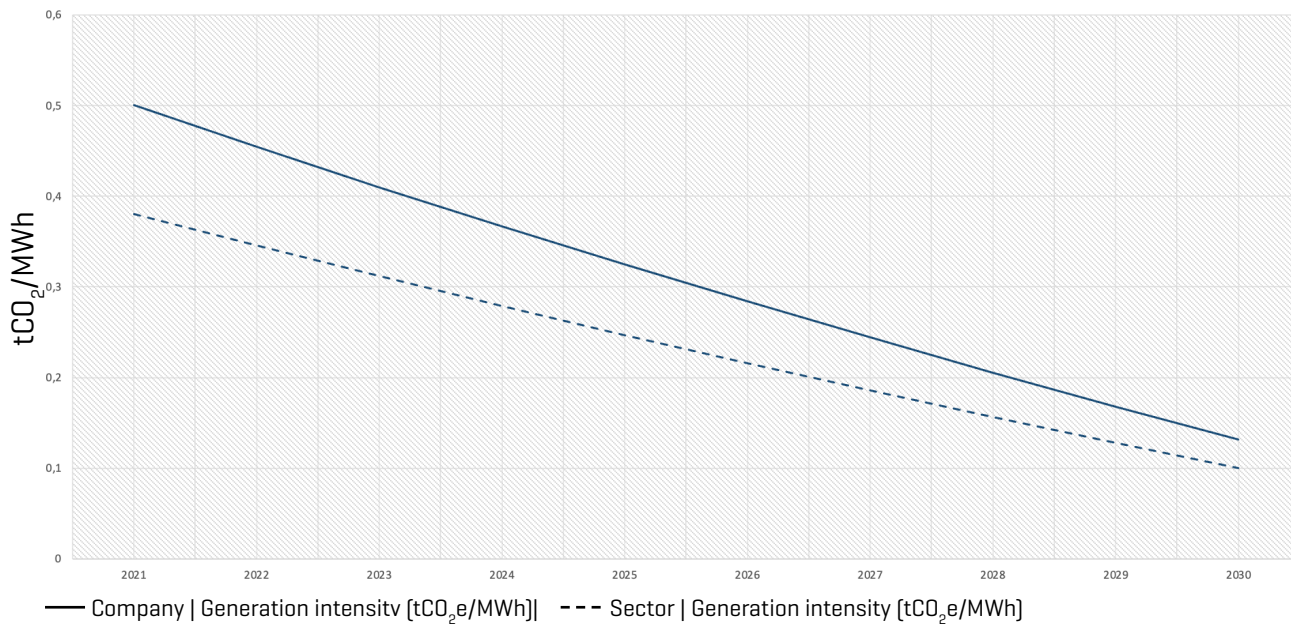


## Electricity generation project finance

Yapı Kredi's Scope 1&2 financed emissions were calculated for electricity generation project finance category in line with the SBTi guidelines. For this target category, GICS sectors under Electric Utilities and Independent Power were considered. The financed activity output was determined by applying an attribution factor to the total electricity generation. Hundred percent of emissions from electricity generation PF are attributable to Yapı Kredi main bank, coming primarily from coal and natural gas. The reduction target was modelled using the SDA tool of the SBTi considering a 1.5°C pathway. To align with this, Yapı Kredi commits to reduce its electricity generation project finance portfolio emissions by 73.7% per MWh by 2030 from a baseline year of 2021.



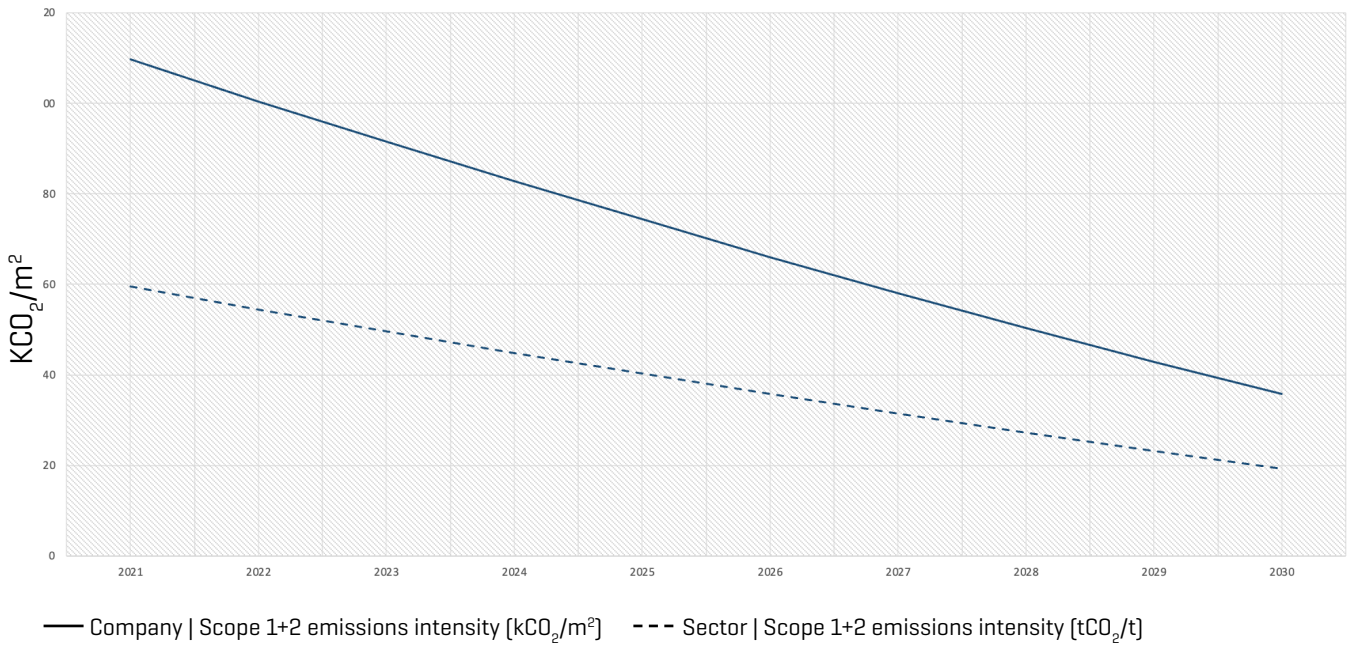
**Figure 4: SBTi verified reduction target for electricity generation PF**



## Corporate Loans: Real Estate

Real estate loans within Yapi Kredi's portfolio fall under its project finance asset class. Since corporate loans of real estate companies are working capital loans rather than real asset loan, they are modelled under Corporate Loans: Other Long-term Lending. For this target category, GICS sectors under Real Estate Management & Development were considered. Target modelling used the SBTi's SDA tool for Services-Buildings under a 1.5°C pathway. Yapi Kredi commits to reduce GHG emissions from the commercial real estate sector within its corporate loan portfolio 67.4% per square meter by 2030 from a 2021 base year.

**Figure 5: SBTi verified reduction target for real estate**

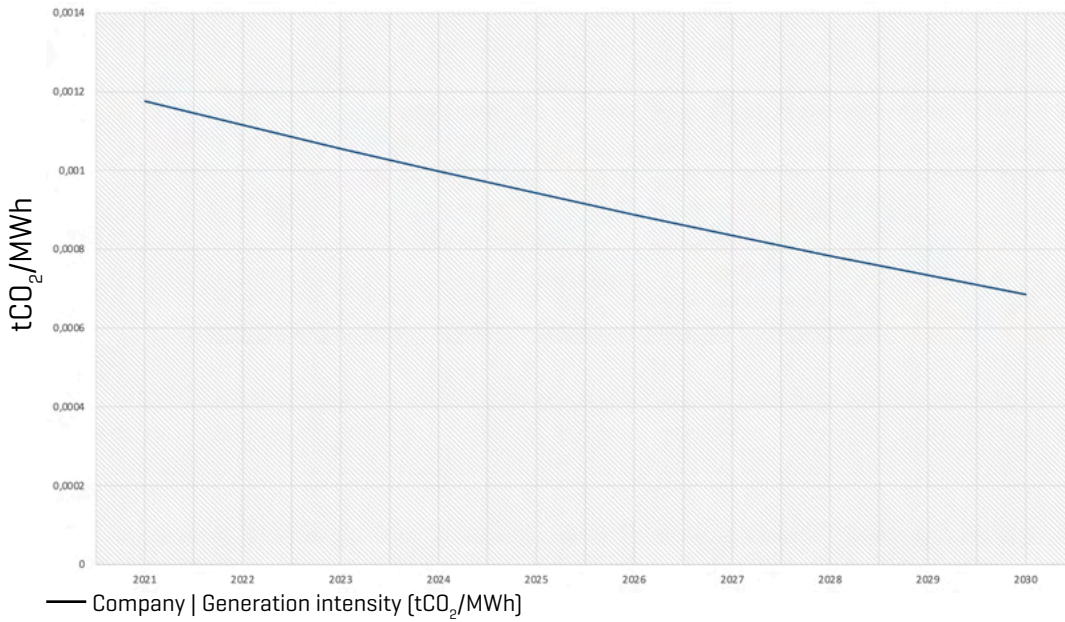


## Corporate Loans: Electricity Generation

Financed base year activity output and Scope 1&2 emissions were calculated using generation and energy source data for electricity generation loans under corporate loans. Electricity generation portfolio of the Bank is strongly linked to renewable energy [71% by outstanding amount\* and 96% by financed kWh]. This results in a very low 2021 carbon intensity [0.001176 tCO<sub>2</sub>e/MWh] compared to that of the PF electricity generation portfolio [0.500 tCO<sub>2</sub>e/MWh]. To align with a 1.5°C pathway, Yapı Kredi commits to reduce GHG emissions from the electricity generation sector within its corporate loan portfolio 41.7% per MWh by 2030 from a 2021 base year.



**Figure 6: SBTi verified reduction target for electricity generation under corporate loans**



## Corporate Loans: Other Long-term Lending

For the long-term corporate loans portfolio, which includes all the remaining sectors, temperature rating method was used with a baseline of 2021 and target year of 2026. The temperature rating pathway was modelled to align with a 1.5°C target trajectory for Scope 1&2 and Scope 1&2&3, in 2040. Based on this, Yapı Kredi commits to align its scope 1 + 2 portfolio temperature score of its other long-term corporate loans portfolio from 3.05°C in 2021 to 2.64°C by 2026 while for scope 1 + 2 + 3 portfolio temperature score of its other long-term corporate loans portfolio from 3.2°C in 2021 to 2.75°C by 2026.



Figure 7: Scope 1&2 target trajectory 1.5°C aligned

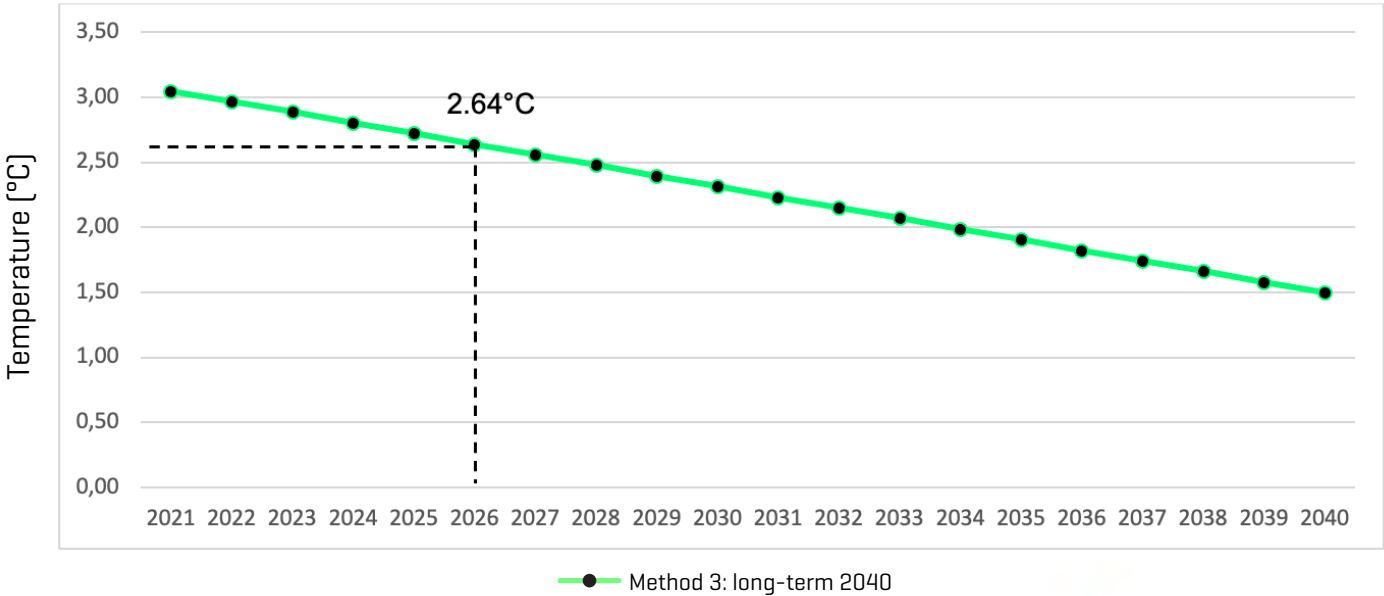
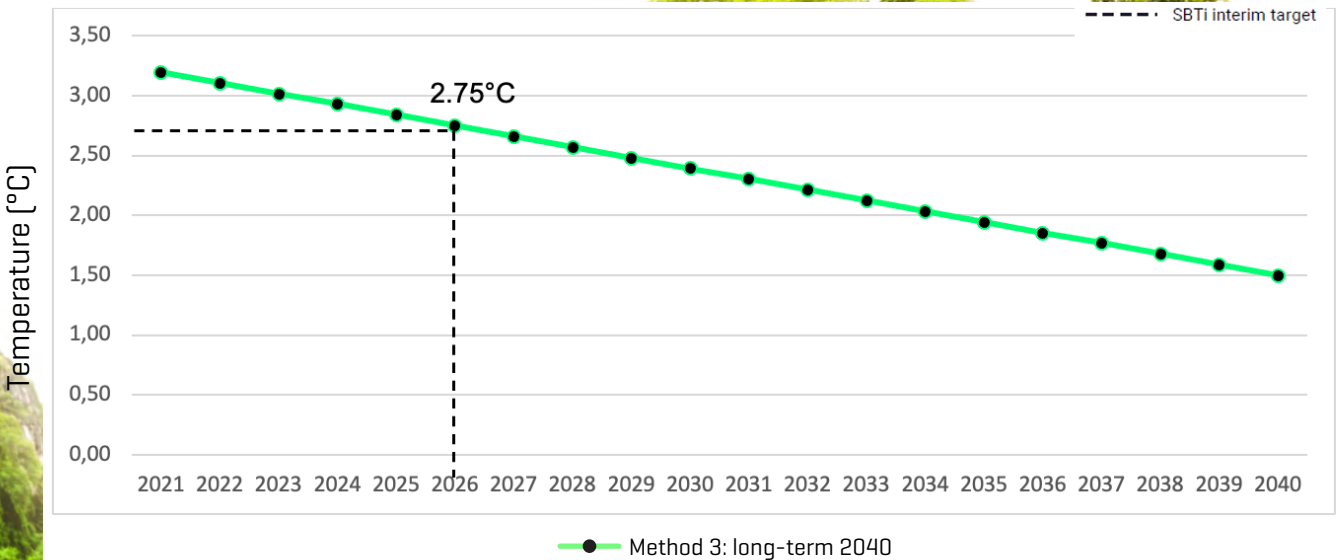


Figure 8: Scope 1,2&3 target trajectory 1.5°C aligned





## NZBA Aligned Reduction Targets

In order to fulfil its commitment to NZBA, in addition to SBTi-aligned targets, Yapı Kredi also developed sector specific emission reduction targets based on the recommendations of NZBA guidelines. For the base year of the targets,

in line with the SBTi verified targets of the Bank, the year 2021 was been used for NZBA aligned targets to track reduction targets with the same base year and to implement the same decarbonisation plan for both SBTi and NZBA targets.



# Sector Selection

To prioritise sectors, the Bank used six basic criteria to identify priority sectors. While the first two criteria formed the first step of prioritisation, the remaining four criteria constituted the second step. Although there is no requirement to meet all the criteria in this process, Yapı Kredi showed ultimate attention to ensure that the prioritized sectors meet as many criteria as possible. Those criteria as follows:

- 1- To be within the sector requirements of international rule-making organizations: The sectors specified to be prioritised for banks are agriculture, aluminium, cement, coal, real estate, iron & steel, oil & gas, electricity generation and transportation.
  - 2- To have high weight in the Bank's corporate cash loan portfolio and sectoral distribution of financed emissions
  - 3- To be among the sector targets announced by international and local banks
  - 4- To be among the sectors determined within the scope of CBAM: Iron & steel, aluminium, cement, fertilizer, electricity generation and hydrogen
  - 5- Readiness of technologies for sectoral transition and financially profitable to implement
  - 6- To have a high priority in terms of climate risk
- Based on these six criteria, the lending portfolio of Yapı Kredi was analysed and priority sectors were determined as follows: iron & steel, electricity generation, real estate, oil & gas and road transportation.







## Prioritised Sectors and Coverage

Prioritised sectors correspond to roughly 29% of loan book exposure and 65% of financed emissions. Financed emissions from prioritised industries covers 66% of all loan portfolio and 98% of NZBA sectors.

|  | Prioritised sector     | Of loan book  |                         | Of NZBA sectors book |                         |
|--|------------------------|---------------|-------------------------|----------------------|-------------------------|
|  |                        | % of exposure | % of financed emissions | % exposure           | % of financed emissions |
|  | Electricity generation | 13.4%         | 27.0%                   | 34.9%                | 39.4%                   |
|  | Oil & Gas              | 1.3%          | 27.8%                   | 3.4%                 | 30.6%                   |
|  | Real Estate            | 10.3%         | 4.8%                    | 26.9%                | 7.2%                    |
|  | Iron & Steel           | 2.3%          | 12.2%                   | 6.1%                 | 18.3%                   |
|  | Road Transportation    | 2.3%          | 1.7%                    | 3.2%                 | 2.5%                    |

## Emission Reduction Targets for Prioritised Sectors

|  | Target segment          | Modelling Methodology | Scope included | Metric   | Target base year | Target year | Base year intensity figure       | Targeted intensity figure        | Reduction Target             |
|--|-------------------------|-----------------------|----------------|--|------------------|-------------|----------------------------------|----------------------------------|------------------------------|
|  | Iron & Steel            | SDA                   | 1+2            | tCO <sub>2</sub> /ton steel                        | 2021             | 2030        | 2.57 BOF<br>0.67 EAF             | 2.55 BOF<br>0.54 EAF             | 1% BOF<br>19% EAF            |
|  | Electricity Generation  | SDA                   | 1              | tCO <sub>2</sub> /MWh                              | 2021             | 2030        | 0.413                            | 0.109                            | 74%                          |
|  | Real Estate             | SDA                   | 1+2            | kgCO <sub>2</sub> e/m <sup>2</sup>                 | 2021             | 2030        | 50.4                             | 10.9                             | 78%                          |
|  | Oil & Gas [down-stream] | SDA                   | 1+2+3          | gCO <sub>2</sub> e/MJ                              | 2021             | 2030        | 70.24                            | 67.70                            | 4%                           |
|  | Road Transportation     | SDA                   | 1+2            | kgCO <sub>2</sub> e/tkm<br>kgCO <sub>2</sub> e/pkm | 2021             | 2030        | 0.143 Freight<br>0.094 Passenger | 0.109 Freight<br>0.017 Passenger | 24% Freight<br>81% Passenger |

## Decarbonisation Plan

Yapı Kredi's decarbonisation plan is anchored in the aim of revealing the transformation potential of the real sector by using the power of finance for the transition to a low-carbon economy. In that vein, in 2023, Yapı Kredi developed decarbonisation plan in order to achieve its targets determined in line with the SBTi and NZBA guidelines. Under this plan, certain sectors have been prioritised, baselining & financial impact in those sectors were assessed, sectoral decarbonisation strategies and action sets were identified and net-zero roadmap of the Bank was defined. While developing the plan, an interactive process was carried out with the participation of the Steering Committee, consisting of senior management, and the Working Group members, which included relevant teams. All the works were carried out in line with the Bank's lending policies and strategies.





## Decarbonisation Levers

Yapı Kredi wants to be a leading financial partner when it comes to helping its customers succeed in their green transition. The net-zero transition requires major amounts of financing for companies to invest in new technologies and solutions, transform business operations and achieve net-zero supply chains.

The basis of the decarbonisation strategy developed by Yapı Kredi for these sectors is to support the transformation needs of its customers. The financing needs that will arise for the most important transformation actions for the sector in investment loans form the basis of the sector lending strategy. With the increase in capacity utilization rates in response to increasing demand, extending loans for technologies that reduce emission intensities for capacity increase investments in companies is one of the most basic investment loan opportunities. The strategy also covers meeting the financing needs that will arise for the transformation of existing capacities in line with the commitments of companies to reducing their emission intensity. There are four distinct categories of portfolio levers for decarbonisation. Yapı Kredi's primary goal is to foster transition of customers.



## Support transition of customers

- Financing investments in emissions reduction technology [i.e. energy efficiency improvements]
  - Build ESG advisory arm
- Relevant Sectors: Iron & Steel, Oil & Gas, Real Estate, Road Transport

01

## Shift portfolio to green

02

- Increase exposure in greener companies
  - Finance new green investments,
- Relevant Sectors: Electricity Generation [Renewable], Iron & Steel, Oil & Gas, Real Estate, Road Transport

## Avoid / exit brown assets

- Reject certain new lending categorically
  - Exit from high emitting low profit customers
  - Introduce carbon pricing: Detractive pricing for brown lending
- Relevant Sectors: Electricity Generation [Thermic]

03

## Offset where reduction is not possible

04

- Establish own carbon bank
  - Procure / intermediate access to carbon for customers
- Relevant Sectors: Not accepted by global standard setters as part of a portfolio strategy



# Decarbonisation Scenario

## Iron & Steel

Emissions reductions from steel and aluminium production are challenging due to a heavy reliance on fossil fuels today, process emissions from incumbent routes and high trade exposure. Increased scrap recycling and mass deployment of innovative technologies are key levers for reducing emissions. The steel sector is responsible for ~7% of global CO<sub>2</sub> emissions, putting it increasingly in the spotlight of decarbonisation discussions. According to IEA, to achieve net-zero emissions by 2050 (NZE) scenario, efforts in the iron & steel sector need to be significantly accelerated. In the NZE Scenario, new near zero-emission steel production processes will account for 8% of primary production in 2030. Given the limited emissions reduction potential of conventional process routes, innovation will be crucial to commercialise this decade.

Within the scope of international rule-makers [SBTi, NZBA] that create guidance in the field of climate change and decarbonisation, the iron and steel sector includes the following sub-sectors classified under the NACE C.24 code. The emission release in the sector is mainly due to energy consumption in the crude steel production process. For this reason, transformation strategies in the sector were developed through crude steel producers. There are different technologies available for crude steel production: Basic Oxygen Furnace (BOF), Electric Arc Furnace (EAF), Direct Reduced Iron (DRI). Among these technologies, BOF is the most polluting.

In Yapı Kredi, the portfolio of iron & steel sector portfolio accounts for approximately 2.3 million tCO<sub>2</sub>e in financed emissions as of 2021 YE with a volume of approximately USD 538 million. While the emission intensity was calculated as 2.57 tCO<sub>2</sub>/ton of steel in companies producing with the BOF method, it is calculated as 0.67 tCO<sub>2</sub>/ton of steel in companies producing with the EAF method. Therefore, Yapı Kredi aims to reduce the emission intensity by 1% in companies using BOF and 19% in companies using EAF by 2030.

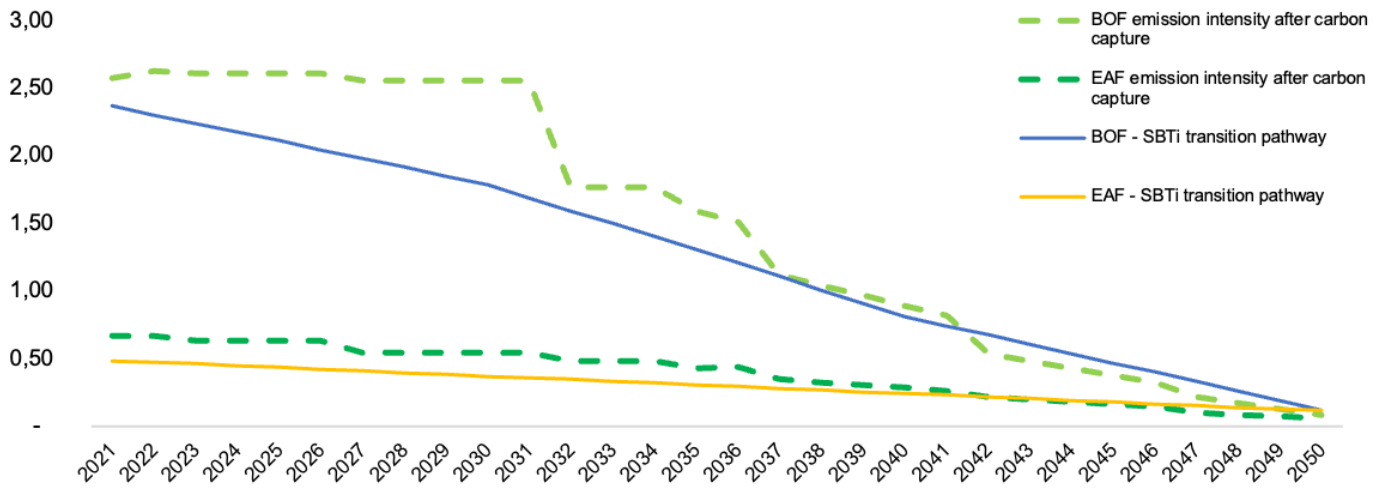
The basic strategy is to support the transformation needs of its customers in line with the portfolio decarbonisation targets in the iron & steel sector. The financing needs that will arise for the transformation actions that come to the forefront for the sector in investment loans form the basis of the sector credit strategy. Decarbonisation actions in the Iron & Steel sector can be gathered under three main axes. Which are to finance:

- Transition of production methods from BOF to EAF processes, to finance
- Decarbonisation of electricity sources used through integrated renewable energy facility investment or green energy certification
- Integration of developing carbon capture and storage technologies with production facilities





**Figure 9: Decarbonisation pathway - Iron & Steel (tCO<sub>2</sub>e/ton steel)**





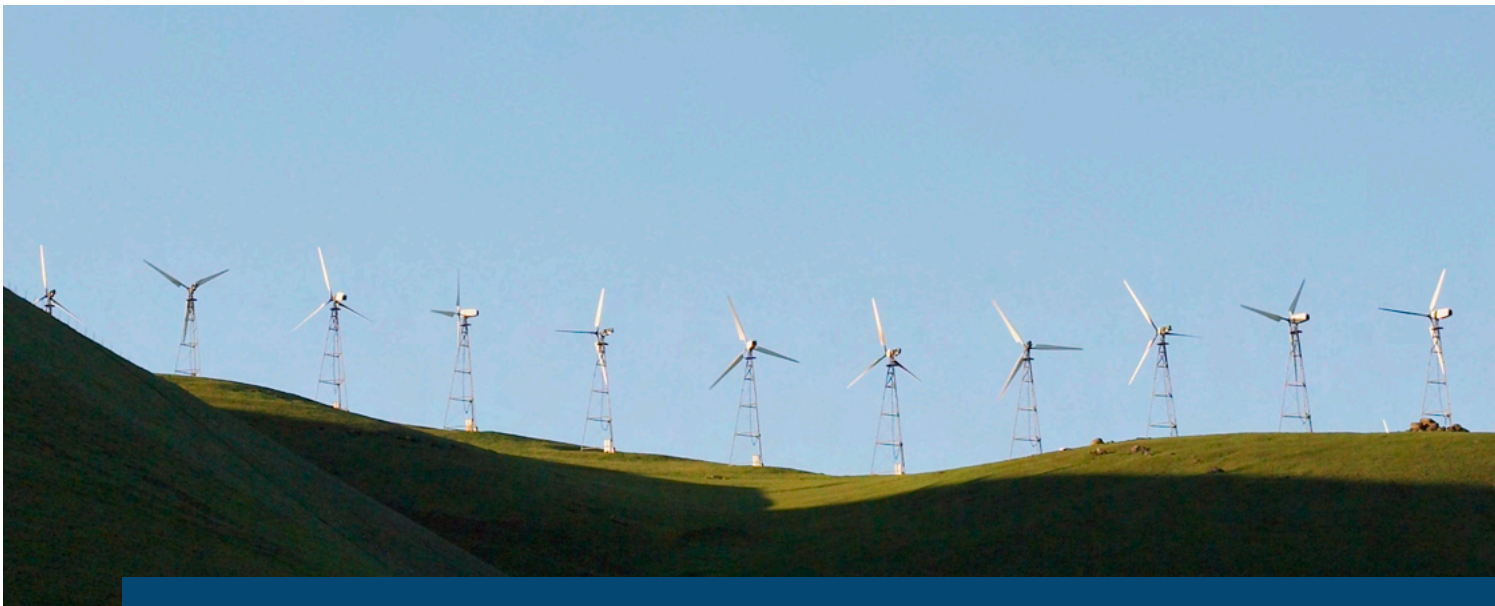
# Electricity Generation

Electricity and heat generation accounts for approximately 35% of global greenhouse gas emissions. The combustion of coal, oil and natural gas is the largest single source of this share. Given the increasing economic activity and electrification, the NZE scenario foresees that energy needs will significantly increase. Based on the importance of decarbonisation for this sector, EU recently published EU 2040 climate target, stating that electricity generation will need to reach net zero emissions globally in 2040 and be on track to account for almost half of total energy consumption. In IEA's projection, renewables capacity is projected to triple by 2030 led by solar PV and wind, complemented by other sources, thus raising the share of low-emissions sources in electricity generation from 39% in 2022 to 71% in 2030 and 100% in 2050. This will also require major increases in electricity system flexibility such as batteries, demand response, hydrogen-based fuels, hydropower and more to ensure reliable supplies.

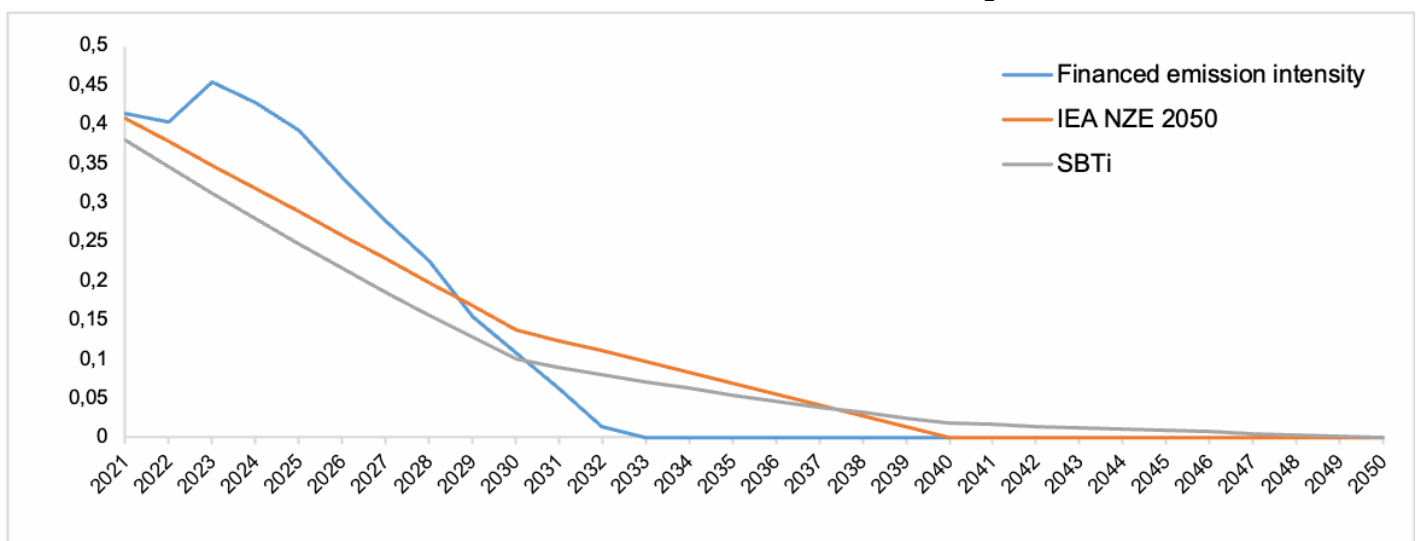
In Yapı Kredi, the portfolio of electricity generation amounted to roughly 4.9 million tCO<sub>2</sub>e in financed emissions as of 2021 YE with a volume of approximately USD 3,076 million. The emission intensity stood at 0.439 MWh/CO<sub>2</sub>e. With the projection of Yapı Kredi allocates USD 480 million annually in new investment loans and the portfolio share of this sector increase from 10% to 16% by 2050, Yapı Kredi aims to reduce the emission intensity by 74% by 2030. The emission release in the sector is mainly due to energy production process. Therefore, given the guidance by SBTi and NZBA, the electricity generation sector is classified under the NACE 3511. To achieve the necessary reductions in emissions from the electricity generation sector, the Bank determined the following actions:

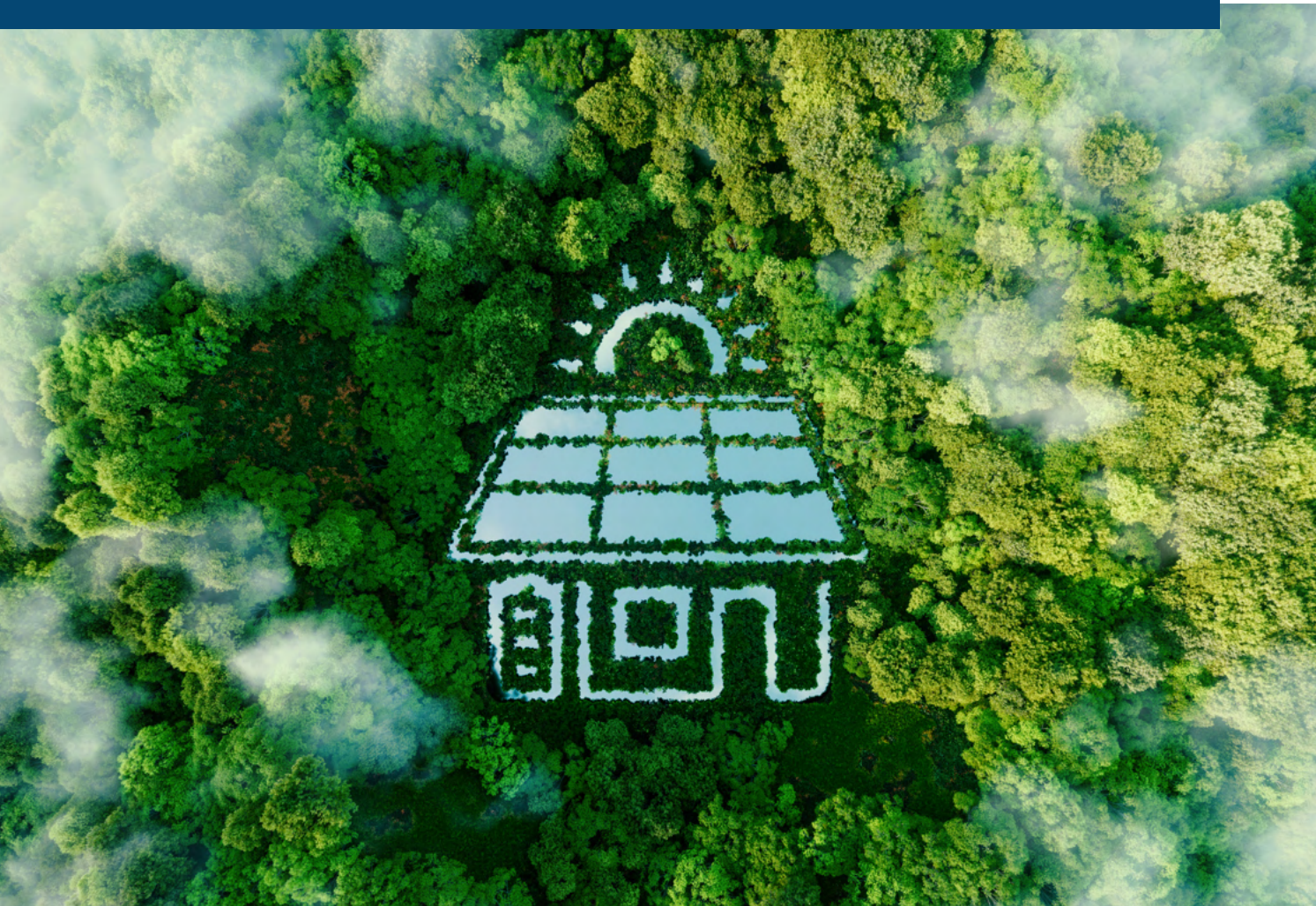


- Prioritise financing corporates within the renewable energy sector and deprioritise companies generating electricity from fossil fuels
- Enhance its due diligence process by considering the production mix of companies it may finance, ensuring this is renewable based
- Steer investments in electricity generation through actively supporting clients' low carbon transition
- No financing for new coal mining projects and new coal fired thermal power plant projects and set the full phase-out date
- Introduce carbon pricing: Detractive pricing for brown lending



**Figure 10: Decarbonisation pathway – Electricity Generation (tCO<sub>2</sub>e/MWh)**





## Real Estate

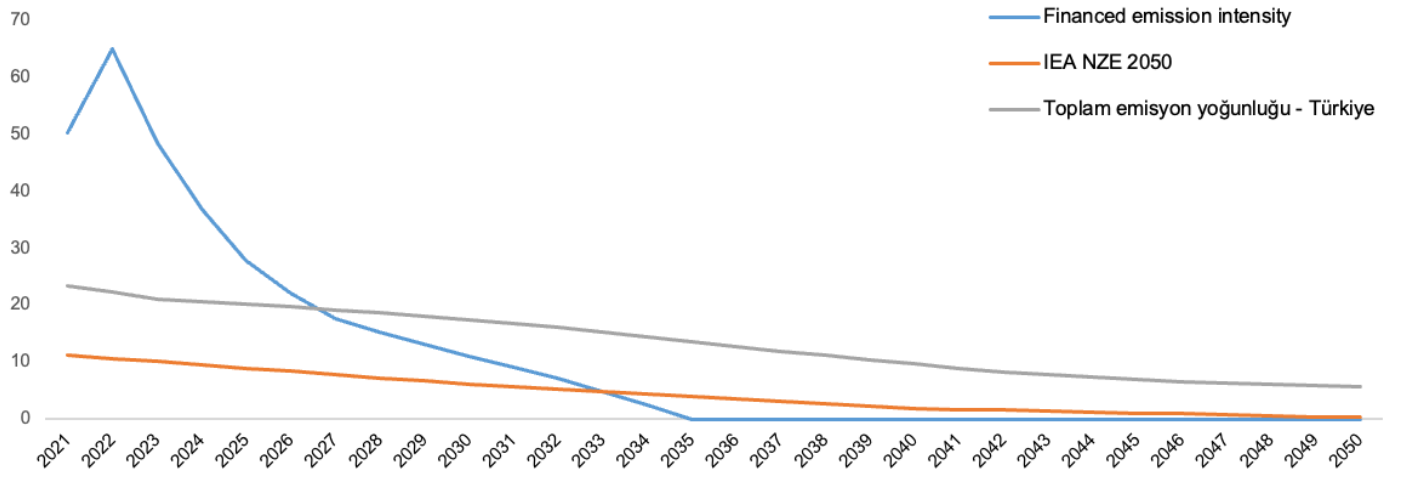
Nearly 40% of global carbon dioxide emissions come from the real estate sector. Of these emissions, approximately 70% are produced by building operations, while the remaining 30% comes from construction. Global and national climate goals demand sharp emissions reductions in both operations and construction, which can only be achieved through significant changes within the real estate sector. Yapı Kredi is heavily skewed towards Malls in its real estate portfolio, which drives baseline emission intensity to be higher than the national average. Perimeter for target setting includes developers and property managers, EPC companies are not part of the decarbonization targets.

Yapı Kredi set a target to reduce its emission intensity 78% from 50.4 kgCO<sub>2</sub>e/m<sup>2</sup> by 2030. In order to achieve this target, YKB's decarbonization strategy in buildings sector is built upon transition advisory and green financing. For this, levers were determined as follows:

- Financing heat pump investments for electricity-based heating and rooftop solar panels investments for lower carbon emitting electricity consumption
- Shifting portfolio to buildings with green construction certifications (e.g., LEED)



**Figure 11: Decarbonisation pathway – Real Estate (gCO<sub>2</sub>e/m<sup>2</sup>)**



# Oil and Gas

Today, the oil and gas industry is responsible for around 15% of total global energy-related emissions, equivalent to 5.1 billion tonnes of greenhouse gas emissions, primarily from the extraction and combustion of fossil fuels. The emissions intensity of these activities would fall by 50% by the end of the decade under the IEA's Net Zero Emissions by 2050 scenario. This would result in a 60% reduction in emissions from oil and gas operations by 2030, combined with the reductions in oil and gas consumption in this scenario. The oil and gas sector consists of upstream (exploration and production) and downstream (refining and distribution of oil products) activities. Scope 3 emissions are the main source in oil & gas industry emissions, specifically caused by the combustion of the fuel by the end user.

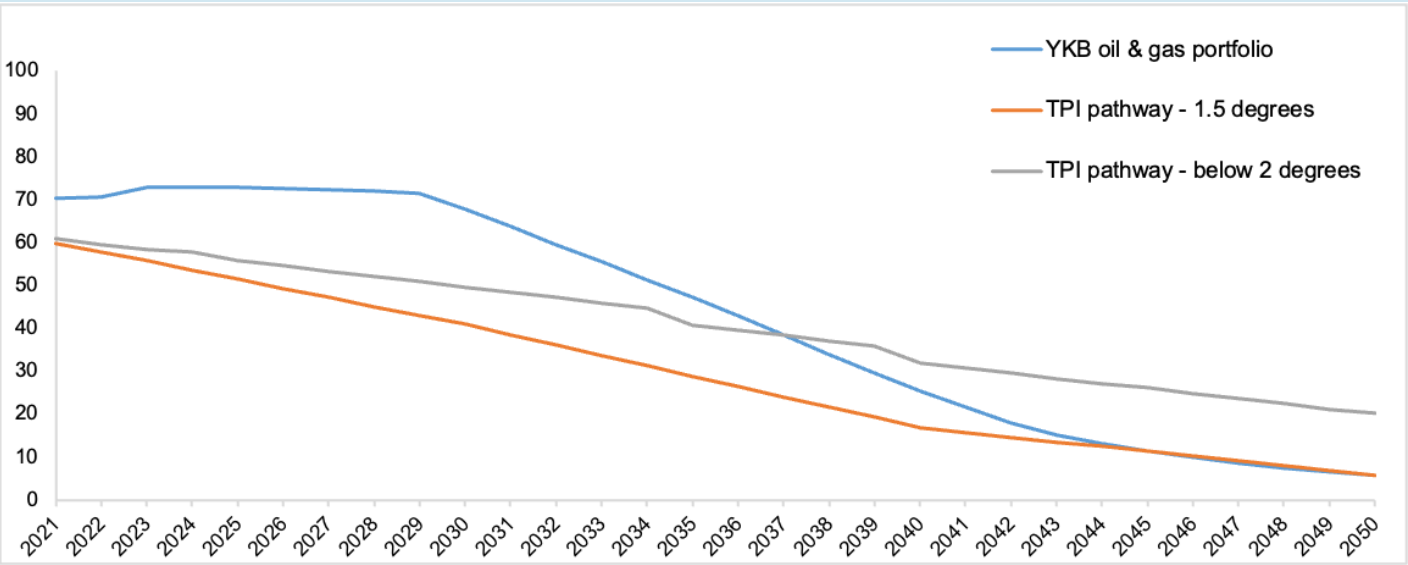
In Yapı Kredi, oil distributors and retailers correspond to almost 95% of overall loan portfolio in the oil & gas sector. To achieve 1.5°C alignment in this industry, some specific levers were determined which are:

- Financing the carbon capture and storage investments and expanding the use of low carbon energy (hydrogen, biofuel, renewable electricity)
- Financing electric based mobility investments (i.e. electric-car charging station)
- Decreasing existing balance with existing payments.
- No offsets were used to achieve the reductions in emissions in the NZE Scenario.



In this scenario, Yapı Kredi set a target to reduce its emission intensity 4% from 70.24 gCO<sub>2</sub>e/MJ by 2030. According to this reduction pathway, Yapı Kredi projects to catch global transition pathway in 2035 when green energy transition technologies become more available after 2030. Moreover, Yapı Kredi expects a change in nature of lending in the oil and gas industry as the nature of lending is expected to shift from working capital loans to new clean technology investments

**Figure 12: Decarbonisation pathway – Oil & Gas (gCO<sub>2</sub>e/MJ)**



# Road Transportation

Direct CO<sub>2</sub> emissions from fossil fuel combustion in the road sector have risen by 200 Mt since 2015. According to NZE scenario, emissions need to fall by nearly one-third by 2030 to align with the IEA Net Zero Emissions by 2050. Road transportation market in Turkey has been growing steadily since 2001 in terms of tonne-km and passenger-km except for Covid impact in 2020. Share of 15+ years old vehicles are in 35-55% range in each type indicating significant potential for replacement in every vehicle type in the market. There is a constant shift from fossil fuel to less carbon emitting types of vehicles.

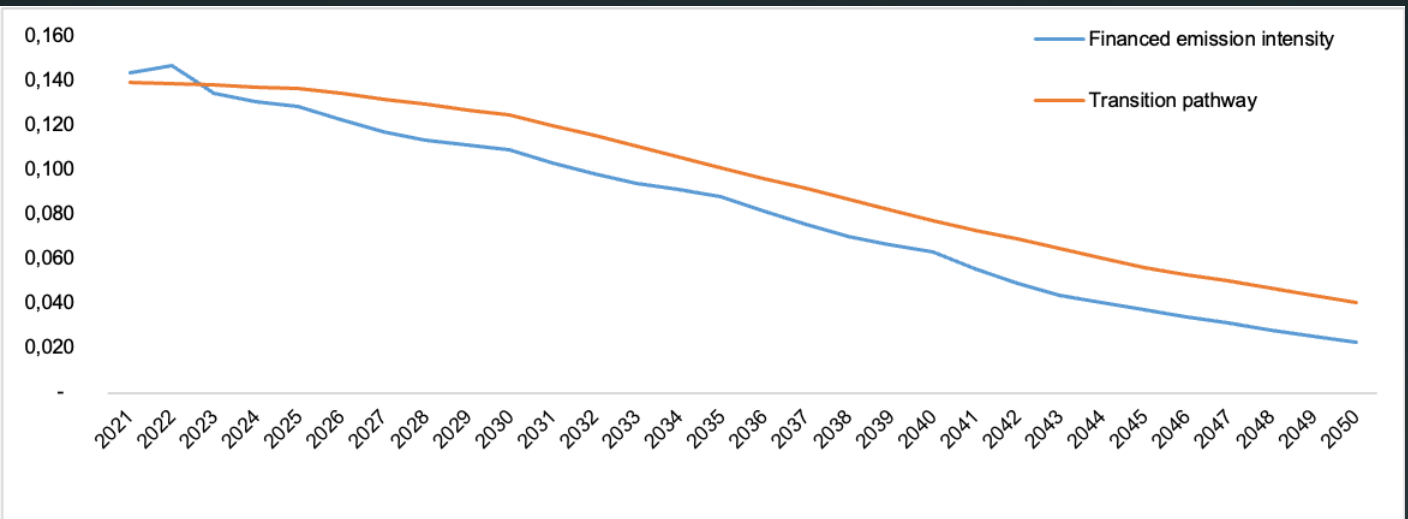
In Yapı Kredi, freight transport accounts for ~71% of loan balance and ~89% of financed emissions in the road transport sector. To achieve its targets, supporting transition to net zero through technology improvements provides important levers to reach target. Yapı Kredi determined its levers as follows:

- Financing upgrade to more efficient machinery [e.g., new optimized ICE vehicles]
- Financing switch to more sustainable fuel [e.g., hybrid, biofuel]
- Financing switch to zero emissions vehicles [e.g., electric, hydrogen]
- Change portfolio mix to less carbon intensive sub-sectors [e.g., intercity transportation instead of intracity transportation]

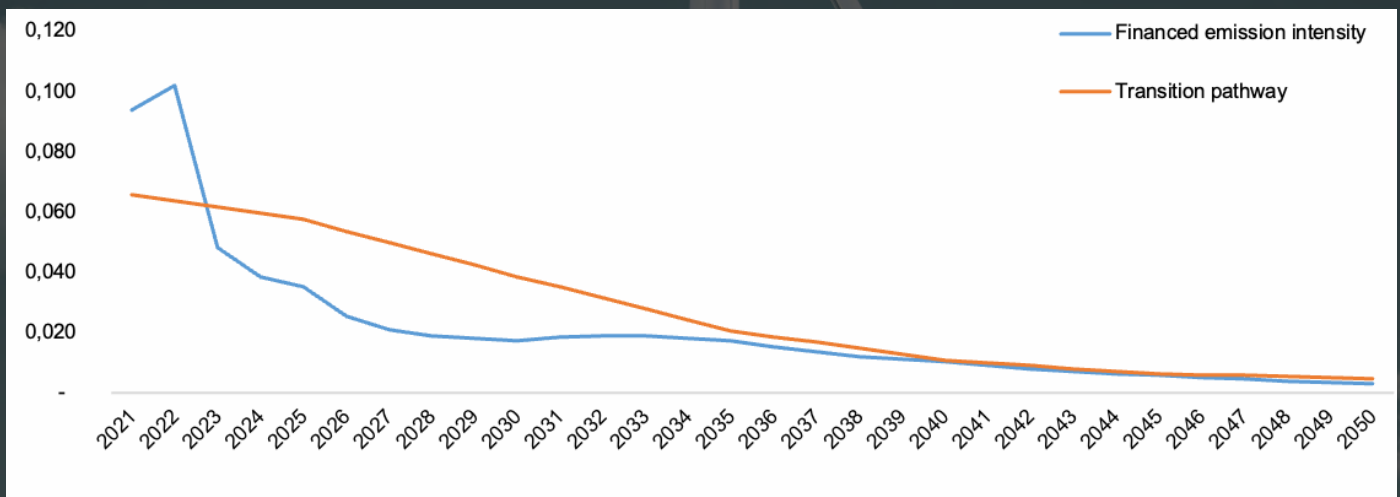




**Figure 13: Decarbonisation pathway – Road Transportation, Freight (kgCO<sub>2</sub>e/tkm)**



**Figure 14: Decarbonisation pathway – Road Transportation, Passenger (kgCO<sub>2</sub>e/pkm)**



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