

OCTOBER, 2023

# ENERGY & CLIMATE TECHNOLOGIES INVESTOR PRESENTATION



## Expansion to new adjacencies & abroad by leveraging the pioneer position in Türkiye

**Growth & High Investment**  
2006-2013



**Turnaround**  
2013-2017



**Capital Recycling**  
2017-2022



**Expansion to New Adjacencies & Abroad**  
2022 Onwards

**2006**  
Energy SBU  
Founded

**2013**

Partnership with E.ON  
Acquisition of AYEDAŞ and Toroslar  
Regions Unbundling of Distribution and  
Retail

**2016**  
Start of 3rd Regulatory Period  
2016-20

**2021**

Start of 4rd Regulatory Period 2021-25  
March 2021  
Enerjisa Europe Obtained Trading Licence

**2022**

October 2022  
Enerjisa Üretim's 1,000 MW  
Wind Plant Investment with  
the collaboration of Enercon

**2023**

October 2023  
Acquisition of Oriana Solar LLC:  
232 MW solar power plant and a  
60 MW energy storage facility  
investments in Texas, USA.

**2007**  
Partnership with  
Verbund

**2009**  
Acquisition  
of Başkent Region

**2014**  
Decision to defer new generation  
investments

**2017**  
FOCUS STRATEGY  
Separation of Business Lines

**2018**  
March 2018  
Enerjisa Üretim final capital increase  
February 2018  
Enerjisa Enerji IPO valued at ~2 bn USD

June 2022  
Sabancı Climate Technologies Founded

October 2022  
Renewable Energy Investments in the U.S:  
Safar Partner VC investments & Solar Plant  
Investment -Outlast II Project - (272 MW)

## Strategic Direction from “Traditional” to “Disruptive” ...



Sustainability is our guiding principle in each and every business decision we take.

We aim to benefit & develop our strong human capital and competencies to expand our operations abroad.



We position ourselves in the center of the global innovation ecosystem.

We are committed to staying at the center of the technologies that will shape the future energy world.



...with our subsidiaries present in many steps of the energy value chain...



**ENERJİSA**  
Energy of Turkey



*Distribution & Retail*

40% Sabancı Holding

40% E.ON

20% Free Float

**ENERJİSA ÜRETİM**



*Generation & Trade*

50% Sabancı Holding

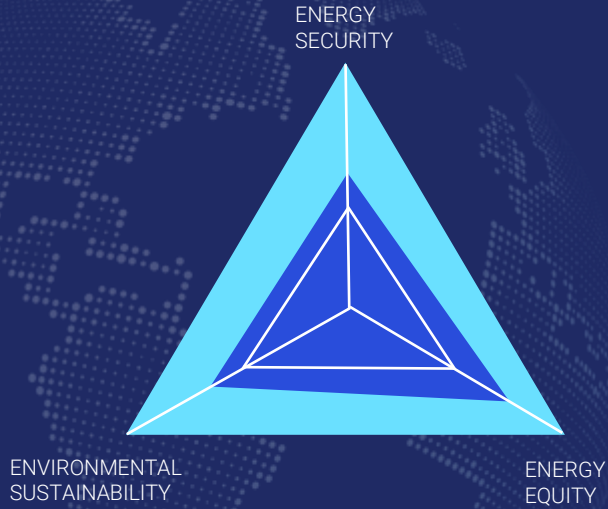
50% E.ON

**SABANCI CLIMATE**  
TECHNOLOGIES  
*Energy & Climate Tech.*

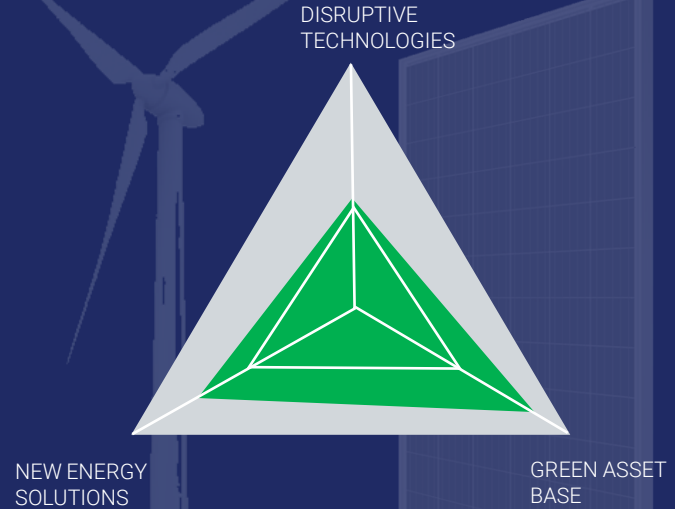


100% Sabancı Holding

# ...in order to achieve the impossible in the “Energy Trilemma”



**ENERGY TRILEMMA**  
WORLD ENERGY COUNCIL



**PROPOSED SOLUTION**  
SABANCI ENERGY & CLIMATE TECHNOLOGIES

## Diversified energy portfolio throughout the value chain



### Distribution & Retail

**14**

Cities

**6**

Metropolises

**22 mn**

Population

**10.4 mn**

Customers

**321,332 km**

Network

**TL 28.0 bn**

Regulated Asset Base

**39.2 TWh**

Sales (2022)

**12.1 mn**

Connections

**668 / 512**

Stations in Eşarj / DC Stations

**66**

Cities with Eşarj Stations



### Generation & Trade

**24**

Power Plants

**5**

Technologies

**3.7 GW**

Installed Capacity

**14.6 TWh**

Generation (2022)

**45.5%**

Renewables (59%  
renewables in 2026\*)

**28.5 TWh**

Trading (2022)



### Energy & Climate Tech.

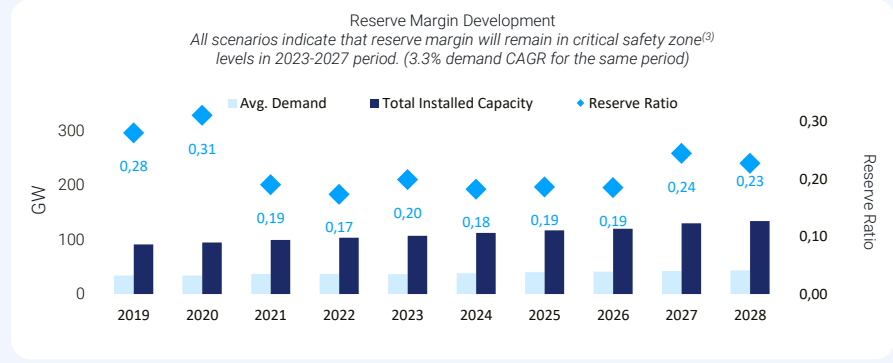
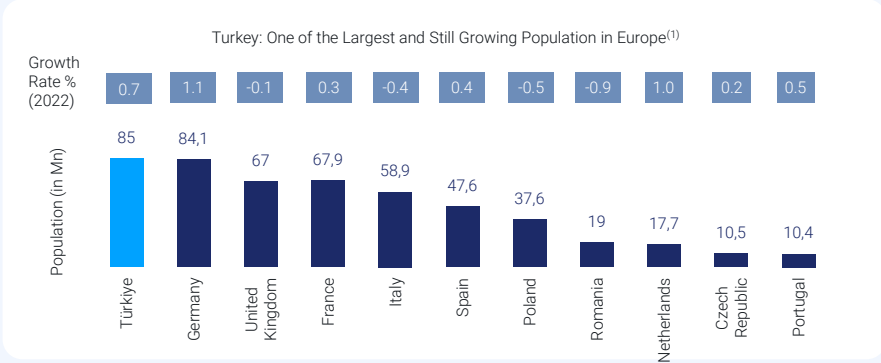
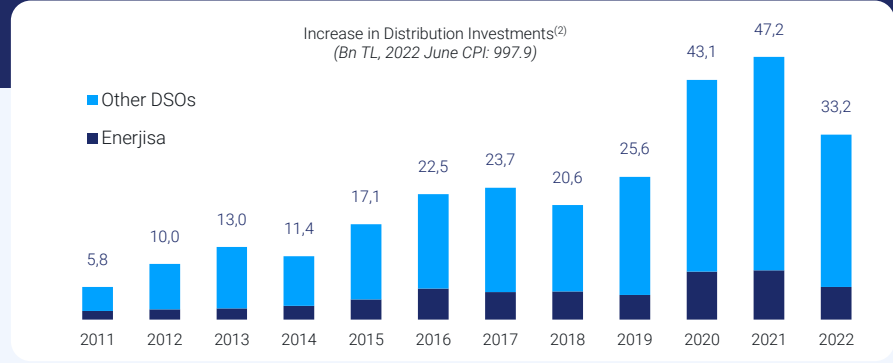
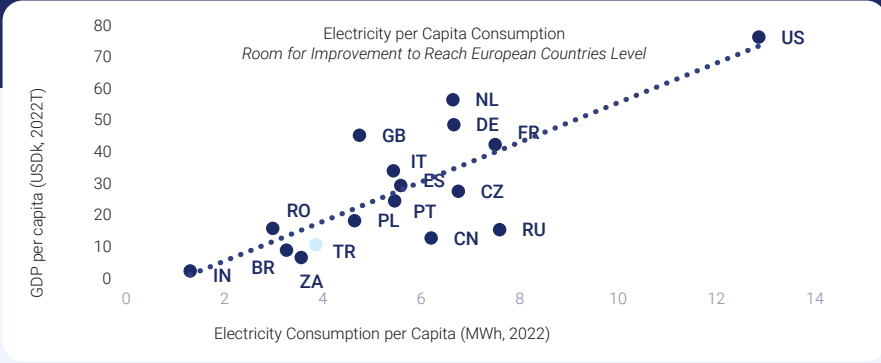


Renewable Energy  
Generation in U.S



Investments in Climate Technologies  
Through Energy and Climate VC

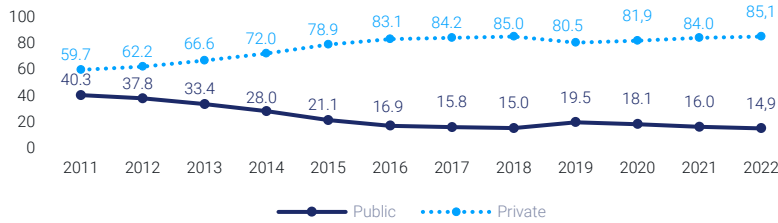
# Strong fundamentals for continued growth in Türkiye



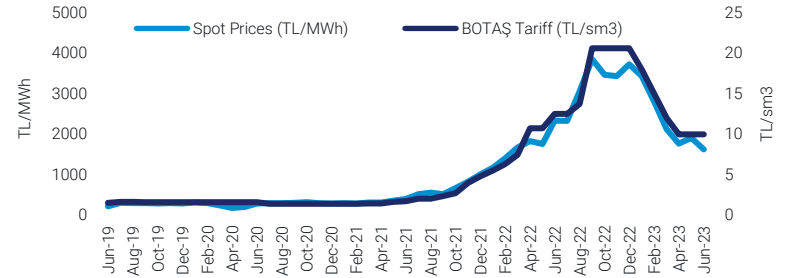
(1) Sources: World Bank, Statista, (2) EMRA Sector Report 2022, (3) Safety zone is determined as 15% in PJM market. However, in Turkish market, due to nature of hydroelectric power plants and hydro volatility 20% to 25% is considered as safety zone.

# Liberalized market mechanism in Türkiye

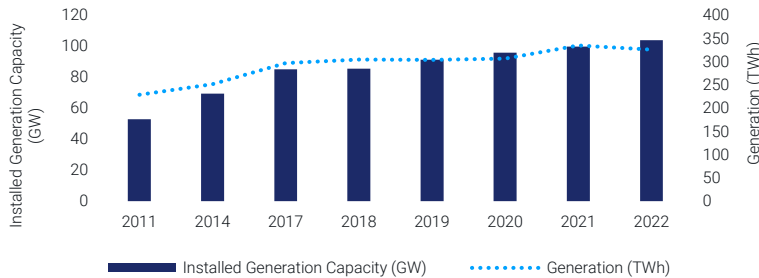
Change of Licensed Electricity Generation as Public-Private by Years<sup>(1)</sup> (%)



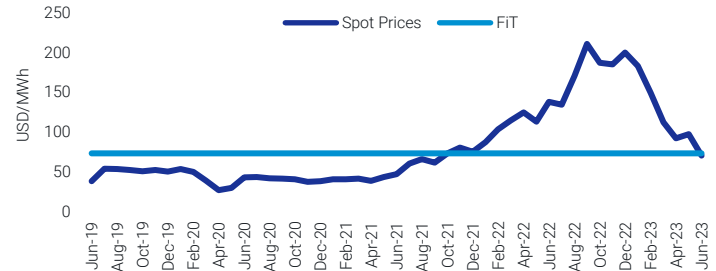
Spot Electricity Prices (TL/MWh, LHS) vs Natural Gas Prices(TL/sm<sup>3</sup>)<sup>(2)</sup>



Development of Installed Generation Capacity & Generation<sup>(1)</sup>



Spot prices vs Feed-in-tariff (USD/MWh)<sup>(2)</sup>

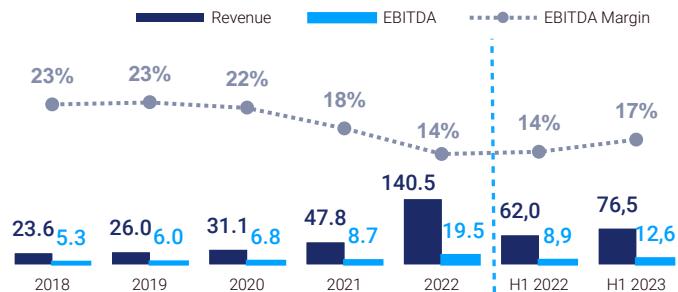


(1) Source: TEIAS (2) EPIAS, BOTAS

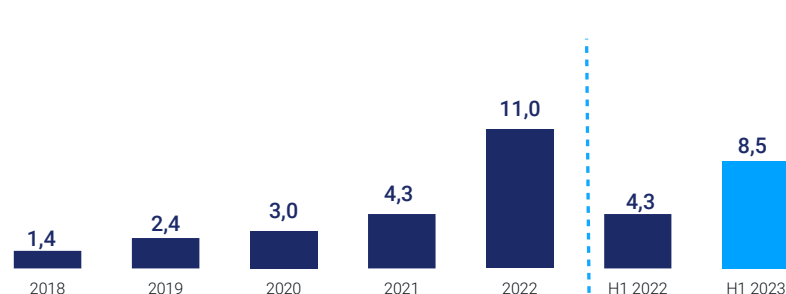


## Exceptionally strong performance driven by stronger returns in Türkiye

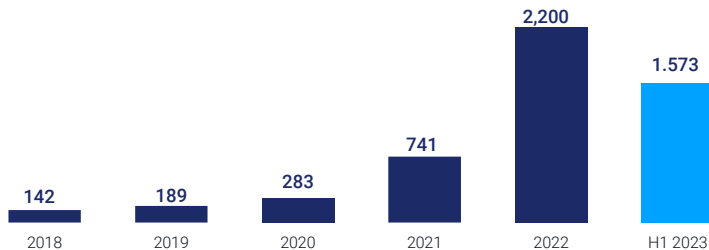
Combined Revenue & EBITDA<sup>(1)</sup> (Bn TL)



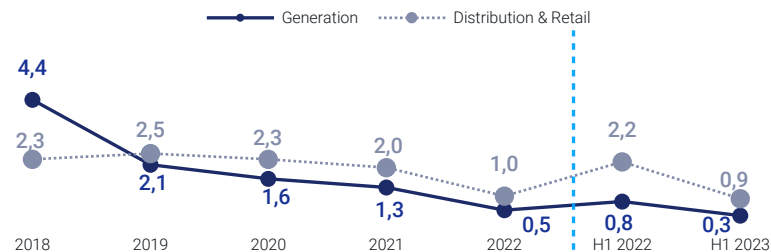
Combined Net Income<sup>(1)</sup> (Bn TL)



Dividends<sup>(2)</sup> Paid to Sabancı Holding (Mn TL)



Net Debt / EBITDA<sup>(1)</sup> Ratio



(1) Excludes non-operational and non-recurring one off items

(2) 2022 and H1 2023 dividend figures include advance dividend of the following year.

## Enerjisa Üretim, with its clear roadmap, would continue to grow continuously by utilizing its own resources...

Protect &  
Grow the Core

④ Growth in Renewable Generation Capacity

④ Trade Business Expansion (Power, Gas and Carbon) Globally

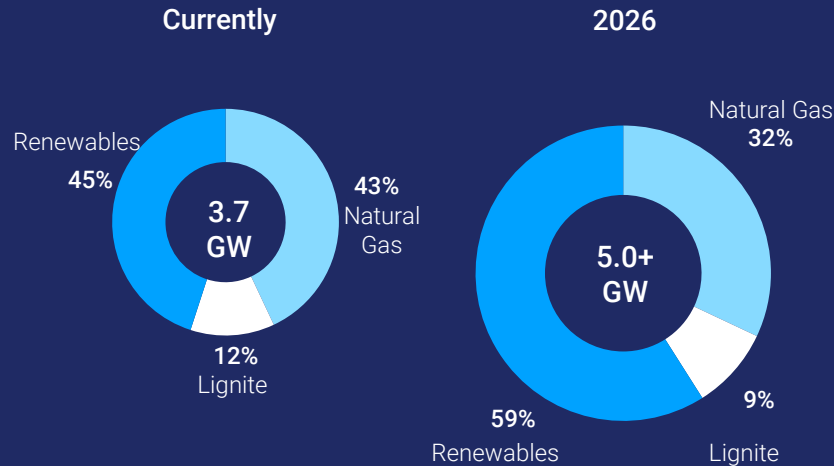
④ Expand Digital & Energy Services

Adjacencies &  
Transform

④ Explore Green Hydrogen

...consequently, a significant step towards +5,000 MW installed capacity target has been taken

Installed **Generation** Capacity Mix<sup>(1)</sup>



1000 MW **YEKA-2** Wind Power Plant Investment (USD 1.2 bn)

ÇANAKKALE  
250 MW

BALIKESİR  
250 MW

AYDIN  
250 MW

MUĞLA  
250 MW



FX Guaranteed Revenue Stream for 15 Years

Additional Capacity Growth Projects

01

Capacity increase in existing renewable power plants

02

M&A activities for additional renewable power plants

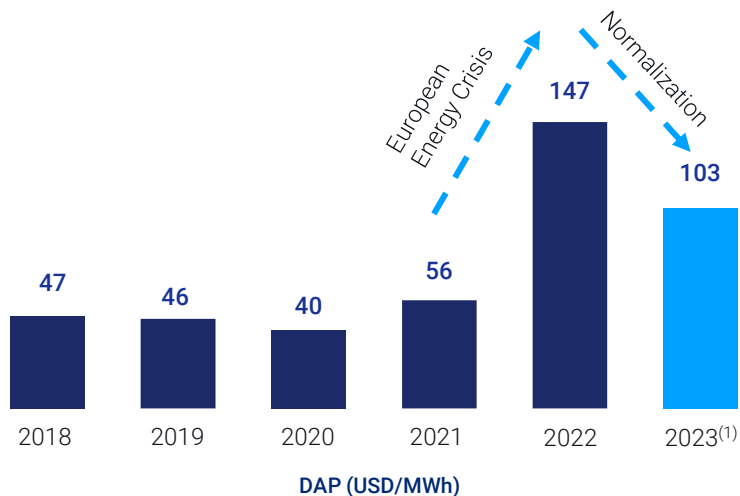
03

Generation licenses with energy storage

(1) Carbon intensity in line with Europe

# USD-based fixed price to continue after gradually replacing FiT renewable power plants with 1GW YEKA project for 15 years contract period

## Turkish Electricity Spot Market Day Ahead Price (DAP)



(1) YTD Average

Enerjisa Üretim Natural Gas (1.6 GW) & Lignite (0.4 GW) Generation are priced as follows;

### Price Caps & Limits

Enerjisa Üretim is bound by market price after removal of technology based maximum settlement price as of Oct. 2023.

Enerjisa Üretim Renewable Generation (1.7 GW) is priced as follows;

### FiT & Spot Market

✓ Wind: 73 USD/MWh	<b>Enerjisa Üretim</b> ~1000MW
✓ Hydro: 73 USD/MWh	
✓ Spot Price (DAP)	<b>Enerjisa Üretim</b> ~700MW
✓ Licence tender fixed price	

## Exploring next generation capabilities in power generation & trading

### ASSET LIGHT GROWTH



#### Trading Globally

- ▶ Establishment of **Enerjisa Commodities BV** in 2023.
- ▶ Trading in 8 different countries and having activities for environmental commodities for 25 countries.
- ▶ Reached a trading volume of +10 TWh in CWE<sup>(1)</sup> and CESEE<sup>(2)</sup> in 2023.



#### Energy & Digital Services

- ▶ Establishment of **Senkron Energy Digital Services BV** in 2023.
- ▶ Commercializing technological know-how and digital services with low market entry cost while sustaining the competitive advantage
- ▶ Providing plant management, data services, cyber security solutions and digital energy platform for training and green energy solutions.



(1) CWE: Central-Western Europe

(2) CESEE: Central-Eastern and Southeastern Europe

### GREEN HYDROGEN

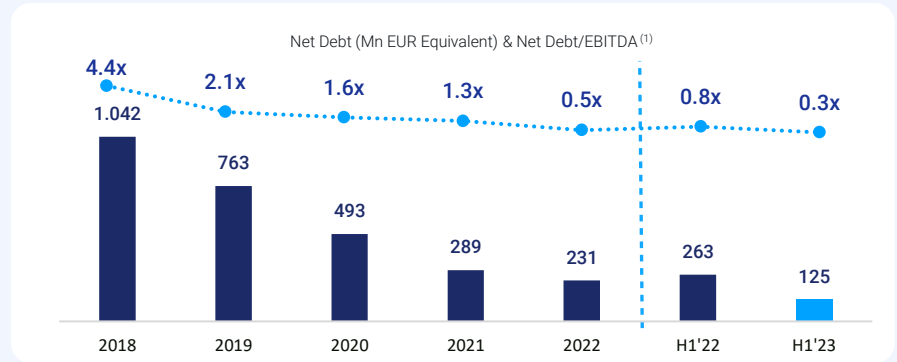
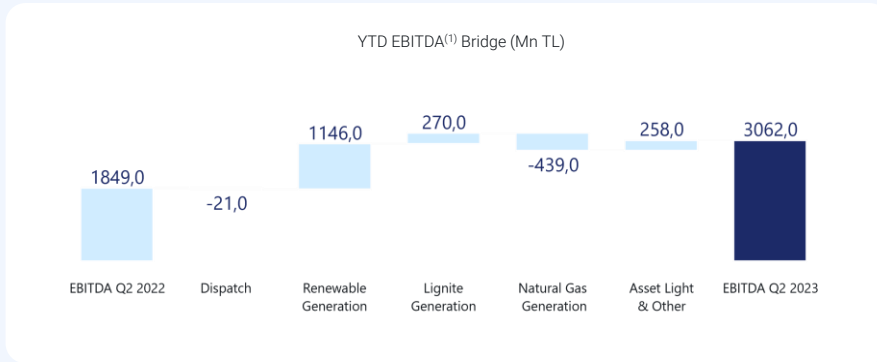
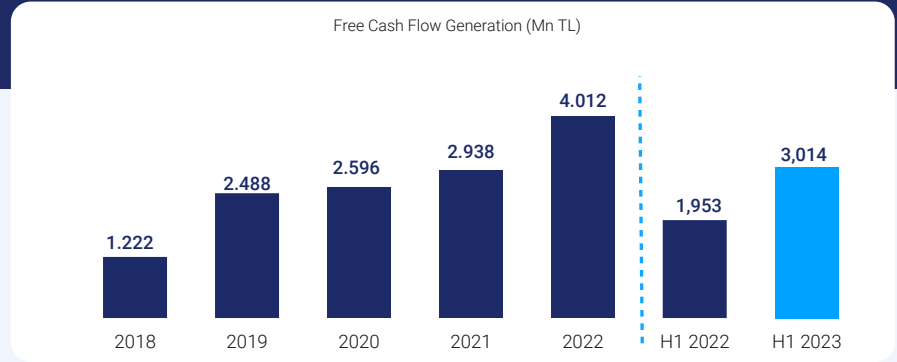
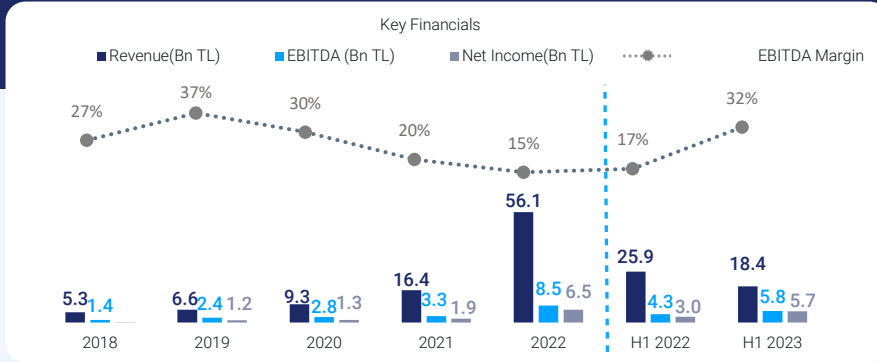


- ▶ Started to produce & store green hydrogen in the pilot project to use in generator cooling – as the first private sector player in Türkiye.
- ▶ Joined a 16-member consortium for the “**HY South Marmara Project,**” which aims to establish **Türkiye’s first Green Hydrogen Valley.**
- ▶ Planned to install electrolyzers, in line with the expected domestic and international demand.

### ENERGY STORAGE LICENSES

- ▶ Energy storage prelicenses were distributed by the regulatory authority which covers utility scale electricity storage facilities coupled with same capacity wind or solar power plants.
- ▶ Enerjisa Üretim received **500 MW** capacity for 3 locations, all of which are also wind power plants.

## Solid balance sheet structure & strong financial performance



(1) Excludes non-operational and non-recurring one off items

## Enerjisa Enerji, in regulated and free market operations, would continue to grow and lead energy transition of Türkiye

**Protect &  
Grow the Core**

- ① **Maximize Grid Investments (RAB)**
- ① **Optimize Retail Operations**

**Adjacencies &  
Transform**

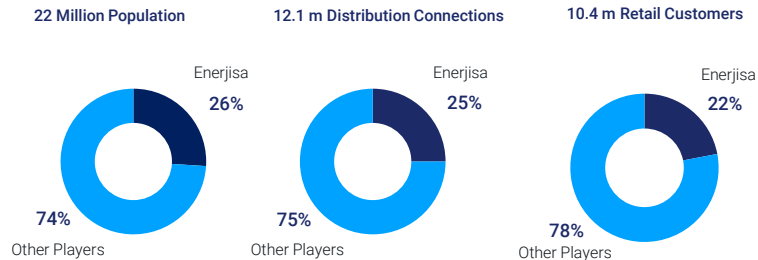
- ① **Growth in Customer Solutions**
  - Distributed Generation / Solar
  - Energy Efficiency & Decarbonization
  - E-mobility / E-charging Platform

## Strong position in distribution & retail and an inflation-linked business with real return

### Competitive Advantages

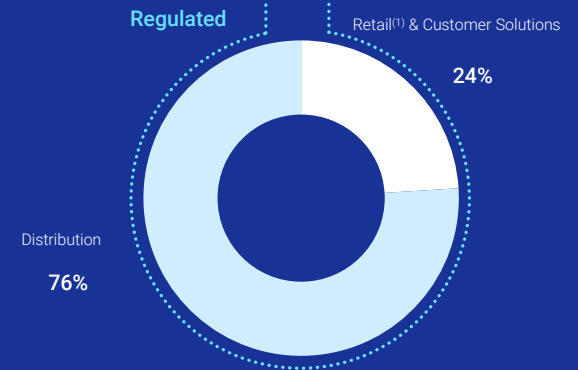
- ▶ Türkiye's leading electricity distribution and retail company – economies of scale
- ▶ TL and inflation linked long-term borrowing to match revenue stream – access to competitive financing with Sabancı brand
- ▶ Fundamental growth from incumbent regions (Başkent, Ayedaş and Toroslar)
- ▶ Large retail customer base of more than 10 million (representing 22% market share) with high proportion of regulated sales
- ▶ Premium sponsors and superior governance (Sabancı & E.ON)
- ▶ Well positioned to capture growth & attractive dividend pay-out

Türkiye's  
**no.1**  
electricity  
distribution and  
retail company



(1) 2/3 of retail sales volume is regulated.

### Supportive and Transparent Regulatory Framework Operational Earnings (H1 2023)

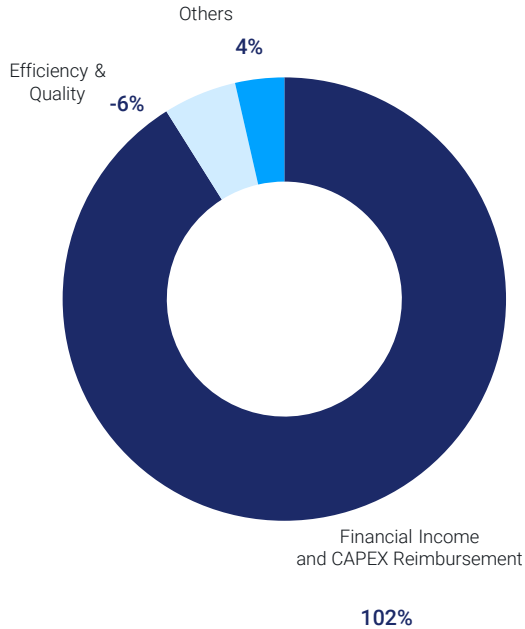


- ▶ Regulated Investment Returns with a supportive WACC (12.3%)
- ▶ Regulated Efficiency & Quality Parameters
- ▶ Regulated Retail Margin (2.38% on reference procurement price + retail service revenues resulting in 6.1% gross margin in H1 2023)

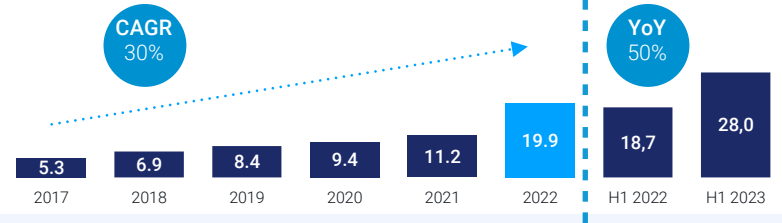


# Heavily concentrated on network investments but also an important efficiency game

Distribution Operational Earnings<sup>(1)</sup>  
Breakdown (H1 2023)



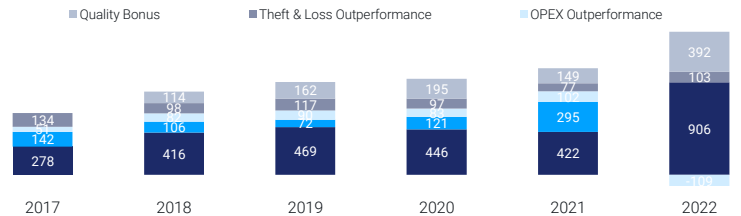
Strong Historical Growth and Untapped Potential  
Regulated Asset Base (TL bn)



Regulation Incentivizes Investments  
Regulated WACC (real)



High Support for Efficiency Improvements  
Efficiency & Quality Split (TL mn)



(1) Operational Earnings include Capex Reimbursement

## Acting as a solution partner with technological competencies by leveraging extensive customer network



### Customer Solutions

**27.9 MWp**  
Installed Solar Power Capacity

**3.8 MW**  
Installed Combined Heat & Power

### Distributed Generation, Energy Efficiency, Decarbonization & Storage

- ▶ Creating a sustainable and service-based business model through Energy Performance Contracts (EPCs)
- ▶ Offering our customers environmentally-friendly energy solutions with a focus on distributed generation, decarbonization, and efficiency.
- ▶ Developing and executing sizeable-scale projects, with an upside potential highlighted by the Medium Term Program (2024-2026) of Türkiye.
- ▶ 205 MW of solar power plant prelicenses with electricity storage



### E-mobility / E-charging Platform

- ▶ In July 2023, Enerjisa Enerji reached %100 ownership of Eşarj

#### As of the end of September

**668**

Stations in

**66**

Cities

**156**

AC Stations

**512**

DC Stations

#### As of 2023 YE

**1,000**

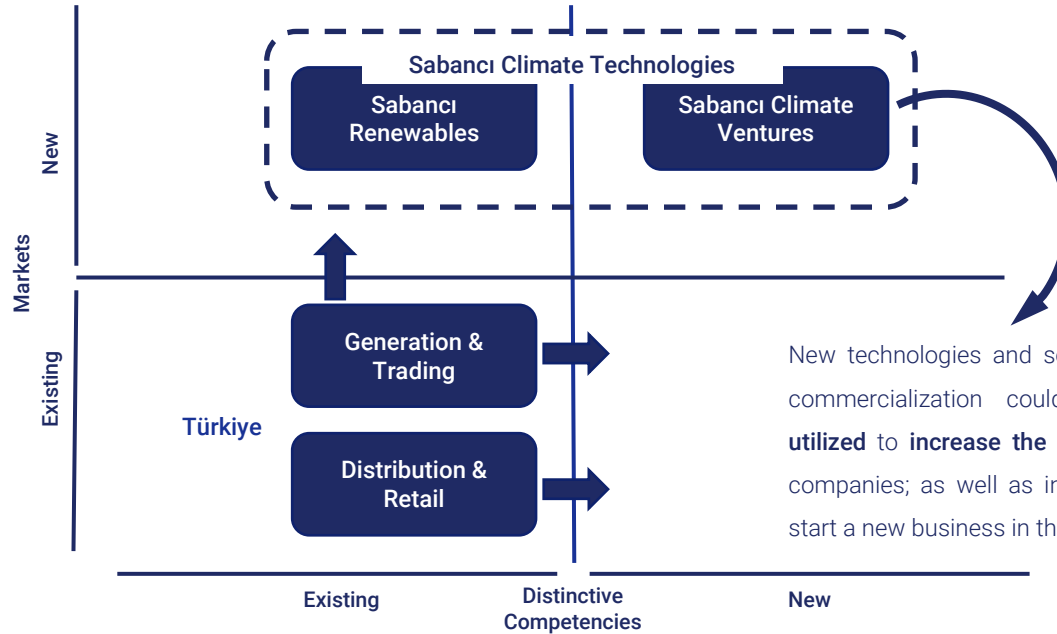
Stations in

**81**

Cities



## Transforming the energy business to pursue opportunities in “disruption & expansion abroad”



New technologies and solutions on their way to commercialization could be **transferred** and **utilized** to **increase the value** of existing energy companies; as well as initiate the opportunity to start a new business in the Eurasian region

# It is time to leverage core capabilities in the Energy SBU & expand the business to create higher value for all stakeholders

We lead energy and climate transition by bridging the gap between emerging and developed markets



**Sabancı Climate Technologies**, wholly owned subsidiary of Sabancı Holding, will undertake renewable energy power plant investments and strategic investments in various venture capital funds and start-ups, primarily in the USA and Europe.

## Sabancı Renewables

### Focus Investment Areas

- ▶ On-shore wind
- ▶ Utility scale solar
- ▶ Battery storage

### Focus Geographies

- ▶ ERCOT
- ▶ PJM
- ▶ MISO

### Distinctive Competency

- ▶ Execution and digital asset management capabilities in renewables

## Sabancı Climate Venture Investments

### Focus Investment Areas

- ▶ Early-stage Energy and Climate solutions

### Focus Geographies

- ▶ Predominantly the USA, and Europe as peripheral location

### Distinctive Competency

- ▶ Early market penetration of startups in emerging markets

# US came to the fore with the attraction of being world's 2<sup>nd</sup> largest renewable energy market & the largest corporate venture ecosystem



## Solar Resource Potential

**170 TW**

potential capacity



## Wind Resource Potential

**10.6 TW**

potential capacity



Academia and Start-up Ecosystems

## Facts on Renewable Energy Investments

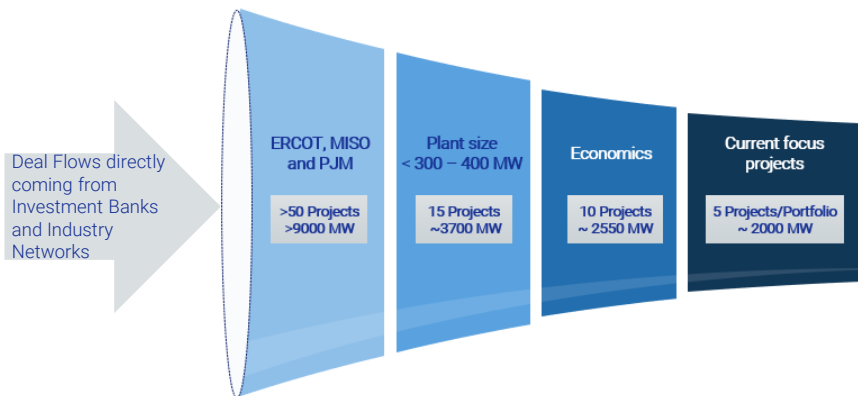
- ✓ US is the 2nd largest renewable energy market following China. Around 100 GW of renewable capacity was installed in the US for the last 3 years
- ✓ US companies have committed to source 80% of their consumption from renewable sources by 2045, which is around 4,050 TWh
- ✓ Extended and enhanced Renewable Energy Incentives (IRA – Inflation Reduction Act)
- ✓ The most developed & least-regulated power market and long-term stable base revenue streams in USD terms
- ✓ The most liquid financial market with the lowest cost of funding

## Facts on Start-up Investments

- ✓ North America set an annual record in capital commitments and captured 66.4% of the funds closed (168 bn USD) in 2022
- ✓ More than 50% of global unicorns emerge in the US

## Further investments are ongoing in on-shore wind and utility-scale solar projects to exceed 1,000 MW

### Sabancı Renewables Deal Flow in the Last 6-Months



### Focused Investment Approach

#### Target Technologies

- ✓ On-shore wind
- ✓ Utility-scale solar
- ✓ Battery storage

#### Target Geographies

- ✓ ERCOT
- ✓ PJM
- ✓ MISO

### Solid Business Model for the Execution

- ✓ EPC contract with a pioneer company
- ✓ Highly credible PPA contracts
- ✓ Financing partnerships with global banks
- ✓ Tax equity partnership as incentive model of the USA

## After detailed research & studies, first solar project in Texas has initiated that offers a variety of opportunities for the future growth



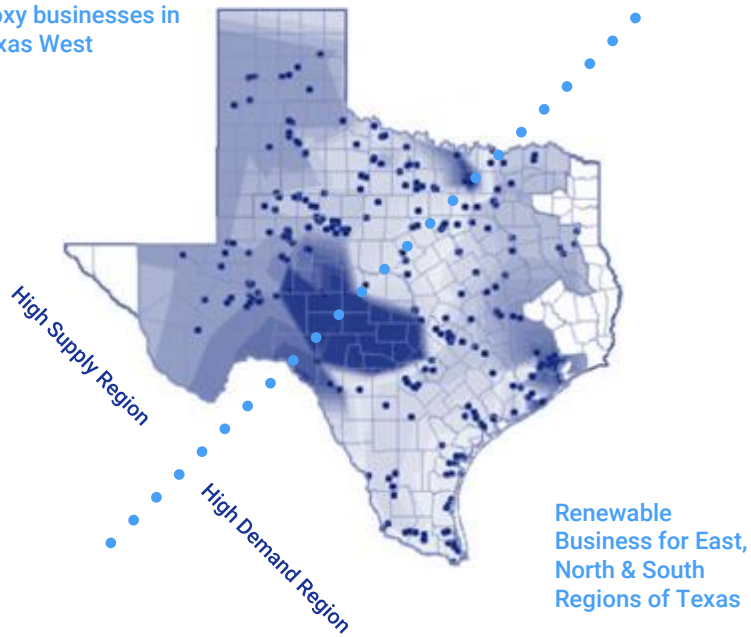
### 272 MW Cutlass II Solar Power Plant Project

- ✔ Project Acquisition: October'22
- ✔ EPC Agreement with Bechtel: October'22
- ✔ Construction Start (FNTF<sup>(1)</sup> to Bechtel): January'23
- ✔ Power Purchase Agreement with a Reputable Off-Taker: January'23
- ✔ Project Finance with Reputable Banks: January'23
- ✔ Tax Equity Closing: October'23
- ✔ Commercial Operation Date: Mid-April'24

(1) Final Notice to Proceed

## Sabancı Group's generation capacity to reach 500 MW in the US once the 2nd project "Oriana Solar Power Plant" completed

Market potential for proxy businesses in Texas West



**232 MW**  
Solar Power Plant Project  
With **60 MW**  
Battery Storage

- ✔ Close to the major load centers of Houston and Corpus Christi, anticipated centers of future green fuel investment, as well as the increasing LNG related load
- ✔ Shovel-ready project with low execution risk; developed by an experienced and reputable Project Firm

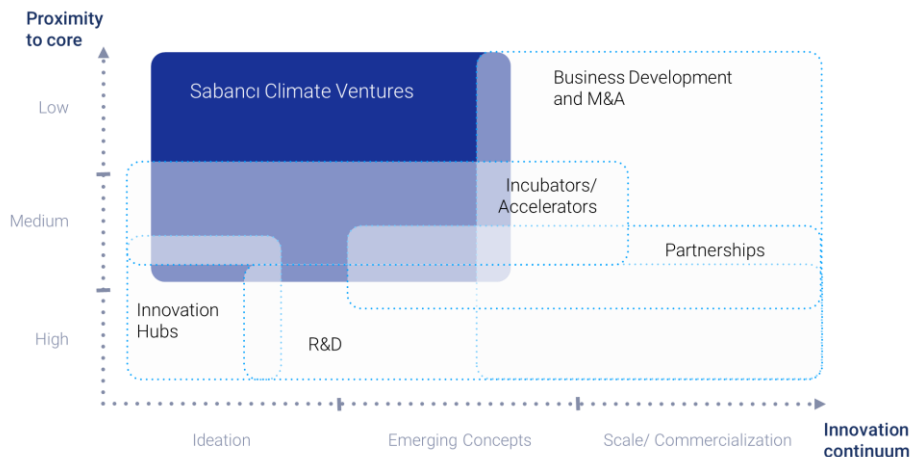
**Solid Business Model for the Execution**

- ✔ Project Acquisition: October'23
- ✔ EPC Agreement: October'23
- ✔ Construction Start (FNTP): Q1'24
- ✔ Commercial Operation Date: Q2'25
- ✔ Opportunity to invest in battery storage project in the future



## Sabancı Climate Ventures will create extended innovation ecosystem & enable early access to disrupting technologies...

**Sabancı Climate Ventures is a necessity to position for the future and not competing with other activities while generating attractive financial returns over the full fund cycle**



### Value Proposition to Start-Ups

- ① Acceleration, piloting, and commercialization partner in a vibrant emerging market
- ① Access to multiple generation technologies and +10Mn user-base in the electricity value chain
- ① Relationship building and expertise gaining opportunity from leaders of Türkiye's largest private utility player

### Value Extraction

- ① Strong collaboration with Sabancı Group companies through dedicated platform teams to pilot and scale start-up concepts/products
- ① Pursue board observer seat in investments to increase collaboration opportunities and learnings

## ....via the investments in climate technologies fund & investments directly to start-up companies



- ✔ Invested in a venture fund with a portfolio of start-ups from seed to growth stage
- ✔ Portfolio with a focus on innovative energy and climate technologies, advanced material technologies, artificial intelligence and robotics technologies
- ✔ Deal flow of start-ups originated from within and around MIT, Harvard, and Rochester University



- ✔ Coming out of MIT's Plasma Science and Fusion Center and reached a valuation of \$5 billion in September 2021
- ✔ Having the potential to enable clean nuclear energy production in the future to remove the limits on energy
- ✔ Breakthrough Energy, founded by Bill Gates, is among the major investors of the company



- ✔ Coming out of MIT and reached a valuation of over 100 million USD in June 2022
- ✔ Planning to provide access to deep geothermal energy resources economically with its revolutionary drilling technology
- ✔ Especially important for Türkiye as the 1st country in Europe to the geothermal potential
- ✔ Initiating a joint task force to search for cooperation opportunities in Tufanbeyli PP



- ✔ Founded in San Francisco in 2021
- ✔ Developed compliance tracking and insight software to manage and improve ESG footprint in various sectors
- ✔ Providing deep analytics that can be integrated with ESG systems of companies
- ✔ Enabling customization of the platform by companies to define its own framework from a collection of existing standards

## While contributing to Türkiye's green energy transition, we stay committed to sound management of ESG risks and investing in communities that we operate in



### Key Player in Energy Security

- ✓ Providing uninterrupted, continuous, accessible energy to one out of every 4 people in Türkiye
- ✓ A Leading player in the industry with 3,727 MW with the most diverse generation composition



### Largest contributor to electrification

- ✓ One of the largest investors in grid expansion, upgrading, and modernization
- ✓ Pioneer in the Digitization of all processes in the electricity value chain
- ✓ Operating the largest, fastest, and green Charging Station Network in Türkiye



### Commitment to 100% Low Carbon Generation

- ✓ 1 out of every 3 solar and wind power plants will be realized by Enerjisa Üretim in the next 5 years
- ✓ %15 decrease in GHG intensity in 3 years with the ultimate aim to reach net zero before 2050



### Shaping the New Energy World

- ✓ Türkiye's first green hydrogen manufacturing plant in a bid to address energy security and green energy transition simultaneously
- ✓ With a potential of green hydrogen export capacity to Europe



### Helping Customers to Decarbonize

- ✓ Improving the efficiency of customers and helping them to decarbonize through our innovative and sustainable products under the umbrella of The Energy of My Business
- ✓ Trading 3rd parties' carbon and green power certificates
- ✓ 30% share in Sabancı Group's SDG-linked net sales revenues

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## INVESTOR RELATIONS CONTACTS

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