

December 2022

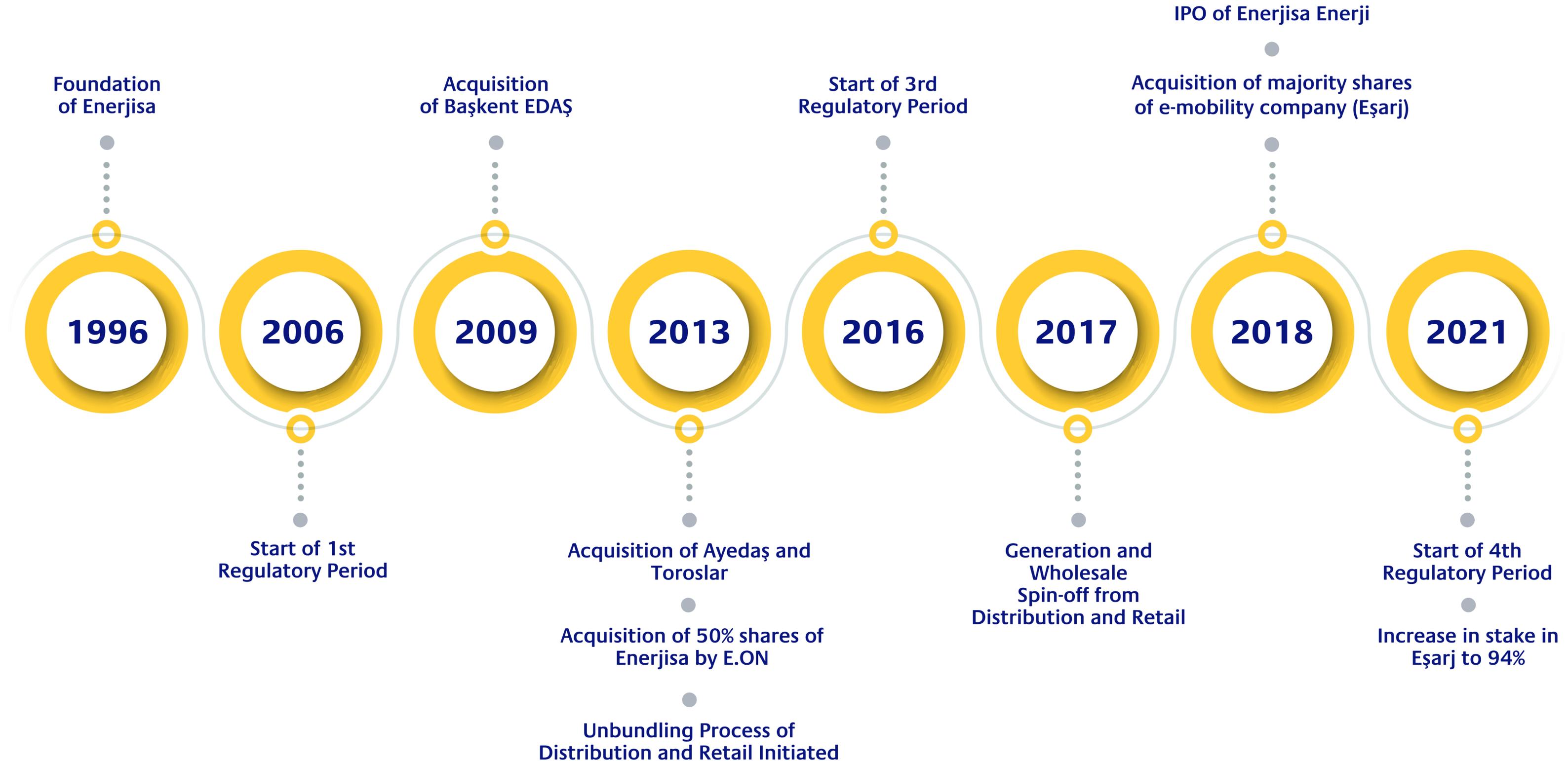
# Turkey's No.1 Electricity Distribution, Retail and Customer Solutions Company

WELL POSITIONED TO CAPTURE GROWTH & ATTRACTIVE DIVIDEND PAY-OUT



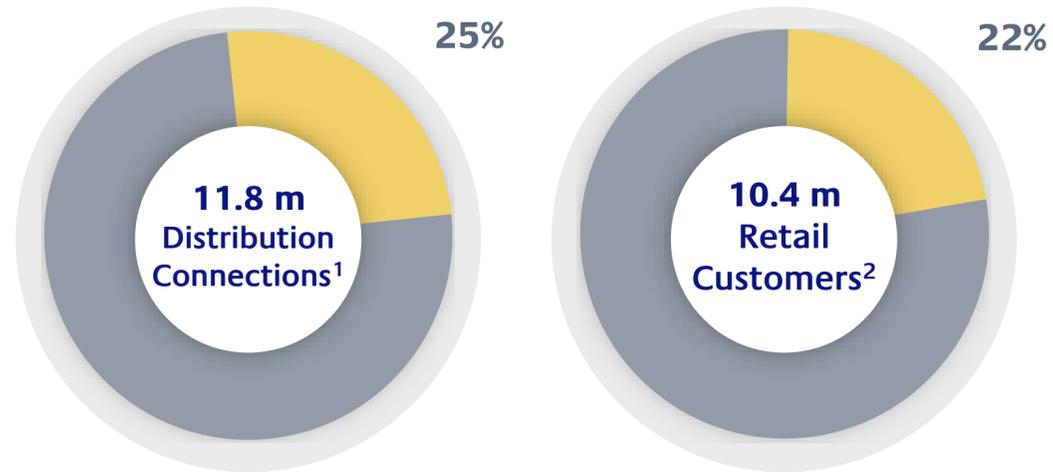
INVESTMENT THEME

# History



# Turkey's #1 Electricity Distribution, Retail and Customer Solutions Company

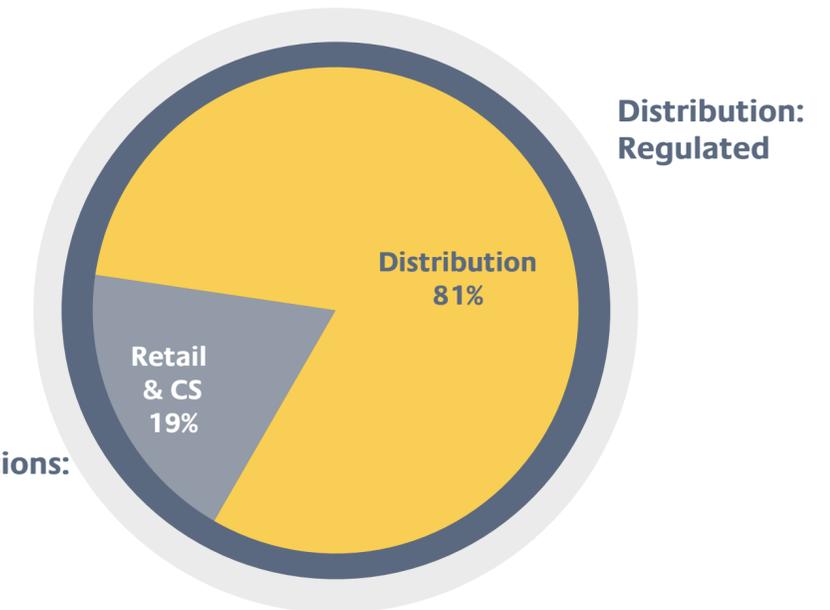
## Leader in an Attractive Market



## Supportive and Transparent Regulatory Framework

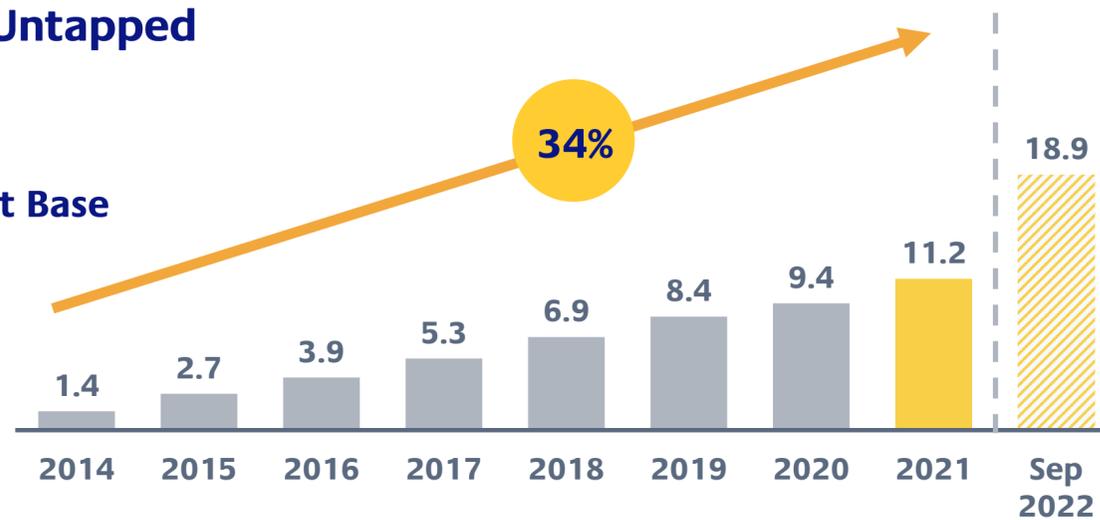
Retail & Customer Solutions: 76% Regulated

TL 10.5 bn Operational Earnings<sup>3</sup> (9M 2022)



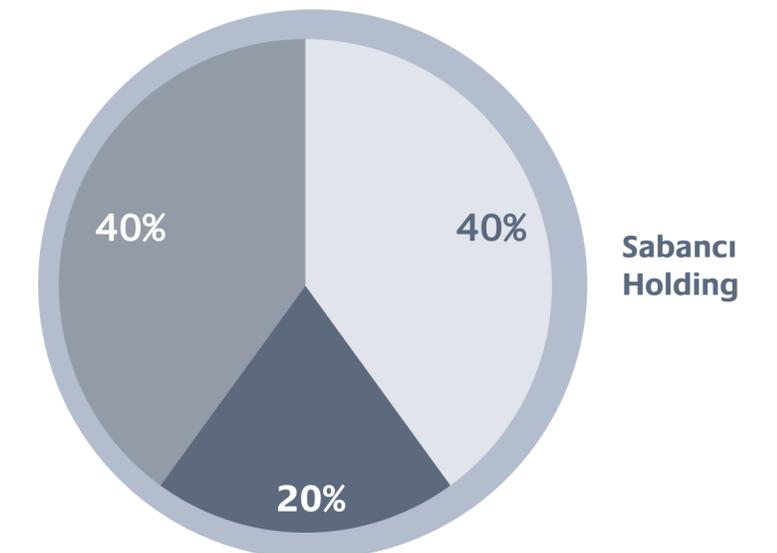
## Strong Historical Growth and Untapped Potential

### Regulated Asset Base (TLbn)



## Premium Sponsors and Superior Governance

E.ON (DD Turkey Holdings)



1) Market share by number of connections as of June 2022  
 2) Market share by number of retail customers as of June 2022  
 3) EBITDA + Capex Reimbursements excluding exceptional items

# Enerjisa at a Glance



## No.1 Electricity Distribution Retail and Customer Solutions Player in Turkey<sup>1</sup>

### Overview

- Turkey's leading electricity distribution, retail and customer solutions company with consolidated revenues of c. TL 31 bn in 2021.
- Listed since 2018 with 20% free float on the Istanbul stock exchange. Remaining shares owned by E.ON and Sabancı, through successful partnership since 2013<sup>2</sup>.
- Fundamental growth from incumbent regions (Başkent, Ayedaş and Toroslar).
- Successfully completed operational and financial improvement post privatizations.

### Distribution

**TL 11.2 billion**  
RAB (Regulated Asset Base)

**11.7 million**  
Network connections

**310 thousand km**  
Distribution network length

**TL 2.8 billion**  
Infrastructure investments

### Retail

**35.8 TWh**  
Sales volume

**10.3 million**  
Retail customers

### Customer Solutions

**22.6 MWp**  
Installed Solar Power capacity

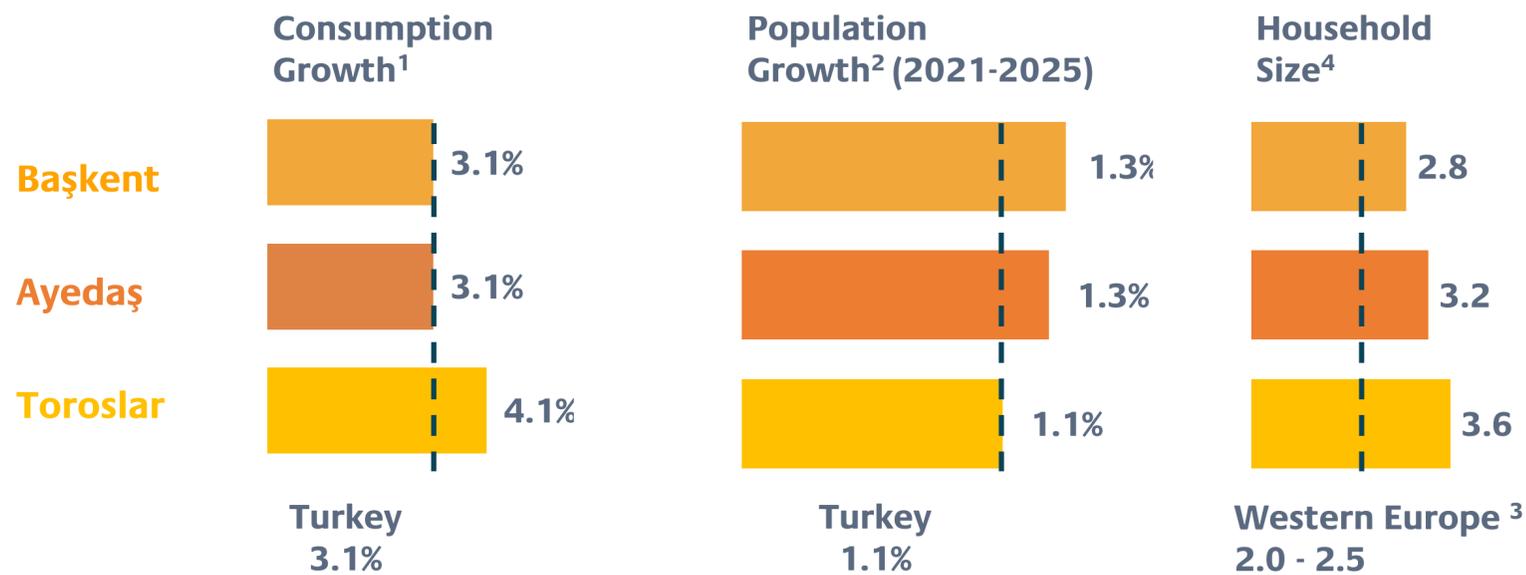
**494 EV charging plugs**  
263 Public charging locations

1) As of 2021YE

2) Post IPO, E.ON and Sabancı own 40% each

# Attractive Home Regions Enhance Growth Potential

## Enerjisa Geographic Footprint



1) EXIST Transparency Platform, Demand Forecast (2020-2027)

2) Turkstat Population of provinces by years, 2018-2025

3) Based on average household sizes in Germany (2.0), UK (2.4), France (2.2) and Spain (2.5). Eurostat Average household size, 2021

4) Ayedaş constitutes Istanbul household size (including European side). Turkstat (Average size of households by provinces, 2021)

### Başkent

- First Enerjisa region acquired in 2009
- Largest electricity distribution region in Turkey by grid size and geographic area
- Key urban centers: Ankara (Capital)
- Network length: 132,981 km
- License Expiry Date: Sep 2036
- Population: 7.6 million

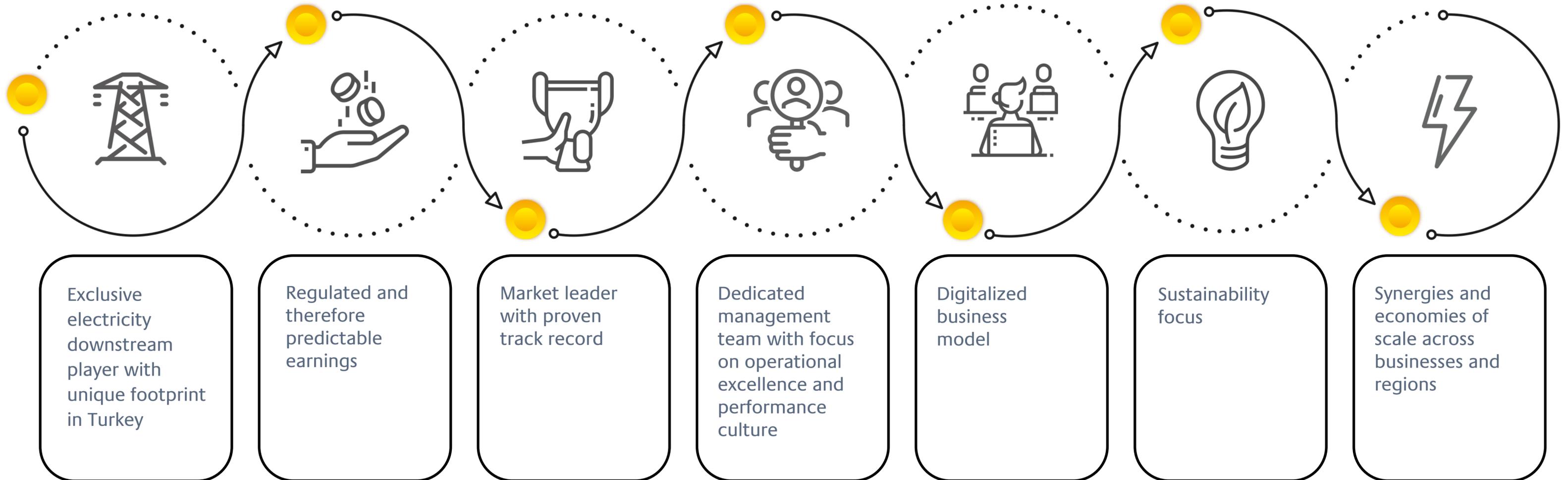
### Ayedaş

- Acquired in a privatisation tender in 2013
- Exposure to the Asian side of Istanbul (Turkey's largest city)
- Network length: 33,580 km
- License Expiry Date: Dec 2042
- Population: 5.6 million

### Toroslar

- Acquired in a privatisation tender in 2013
- 3 large metropolitan areas: Mersin, Adana and Gaziantep
- Network length: 143,346 km
- License Expiry Date: Dec 2042
- Population: 8.7 million (most populous of Enerjisa's regions)

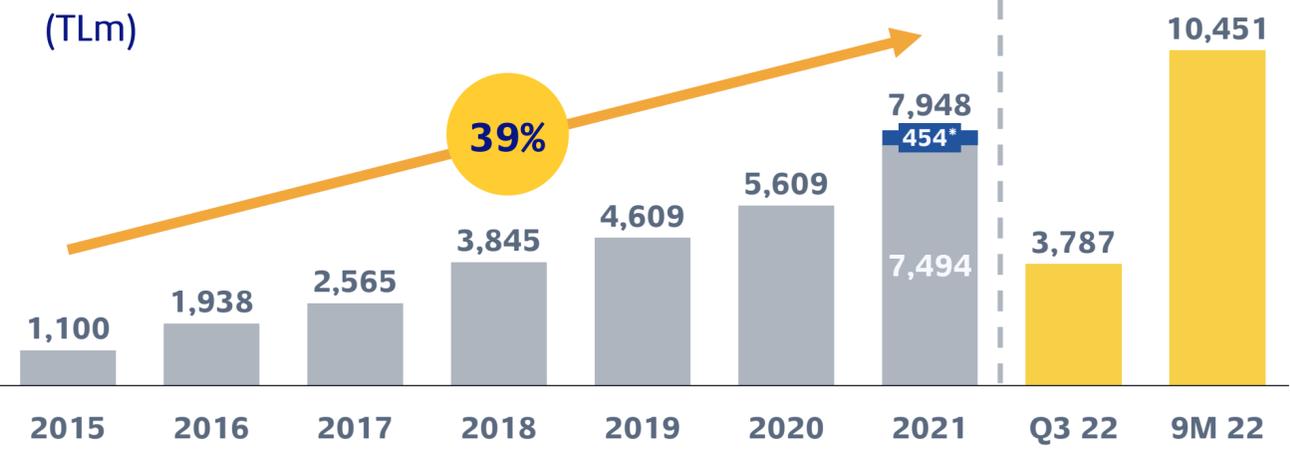
# Market Leader in Focused Business Lines



- Enerjisa Enerji is the leading energy company in Turkey, operating in electricity distribution, retail sales and customer solutions business segments.
- Enerjisa Enerji focuses on its main businesses to provide a predictable earnings model for its shareholders within the perimeters of a well defined regulatory system that has proved its reliability and functionality.

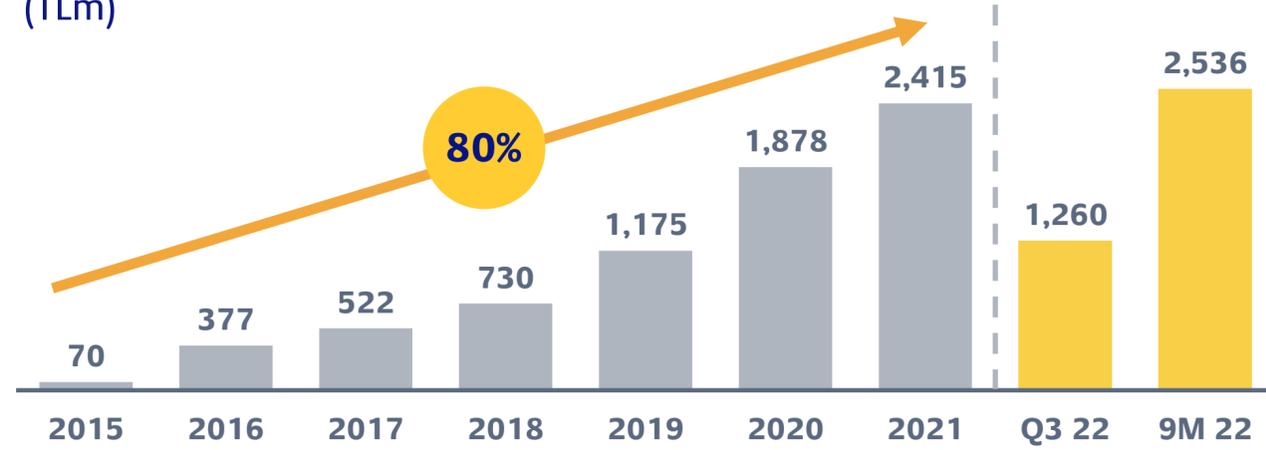
# Strong Historical Financial Performance

**Consolidated Operational Earnings (TLm)**

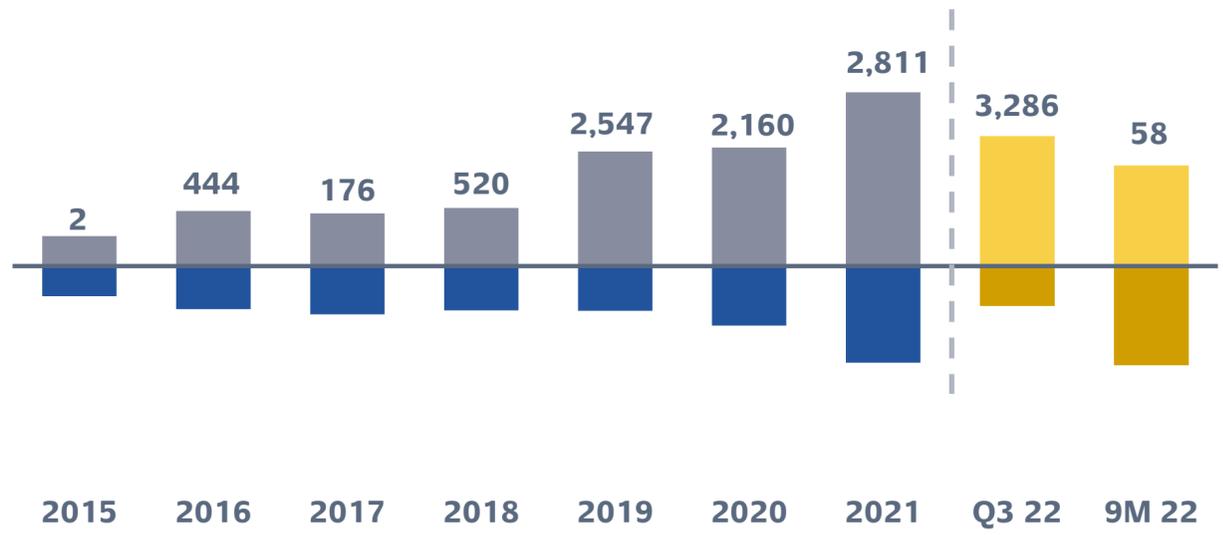


\* Exceptional Capex Reimbursements

**Consolidated Underlying Net Income (TLm)**

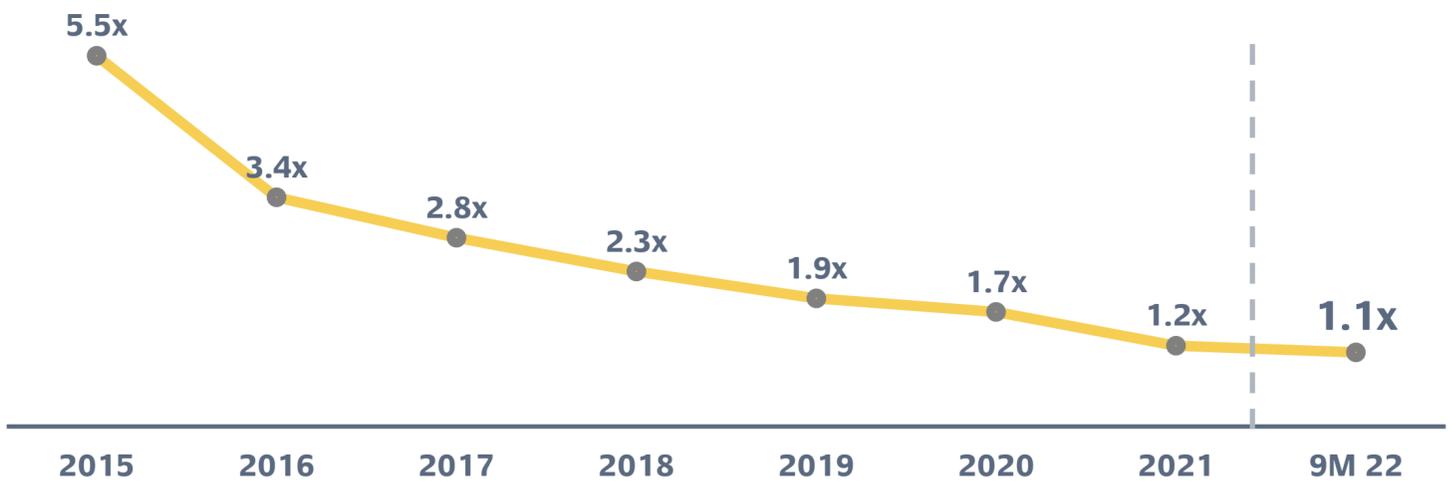


**Consolidated Free Cash Flow before Interest and Tax (TLm)**



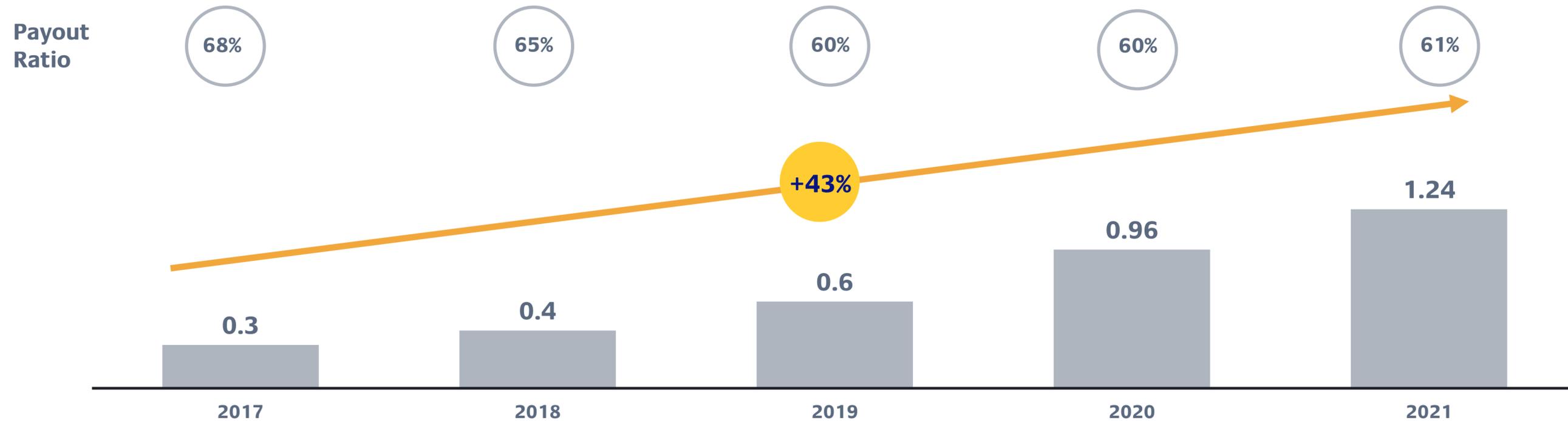
■ Operating Cash Flow (before interest & tax) ■ Capex

**Leverage (Financial Net Debt / Operational Earnings)**



# Attractive Dividend Pay Out

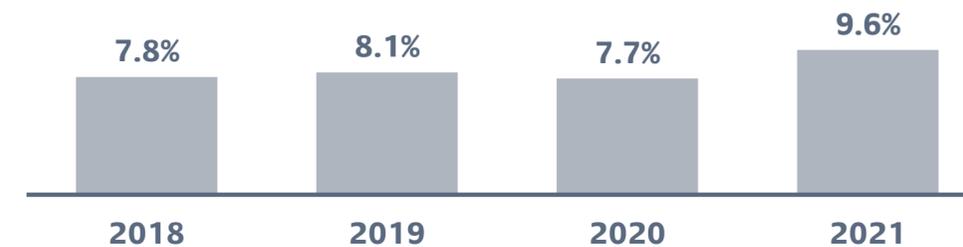
## Dividend per Share (TL)



## Dividend Policy

- Dividend Policy in place since IPO.
- The Company targets cash dividend distribution in an amount between 60% and 70% of the net profit recorded under the consolidated and audited annual financial statements which are prepared in accordance with International Financial Reporting Standards (IFRS), excluding any exceptional items.

## Dividend Yield<sup>1</sup>



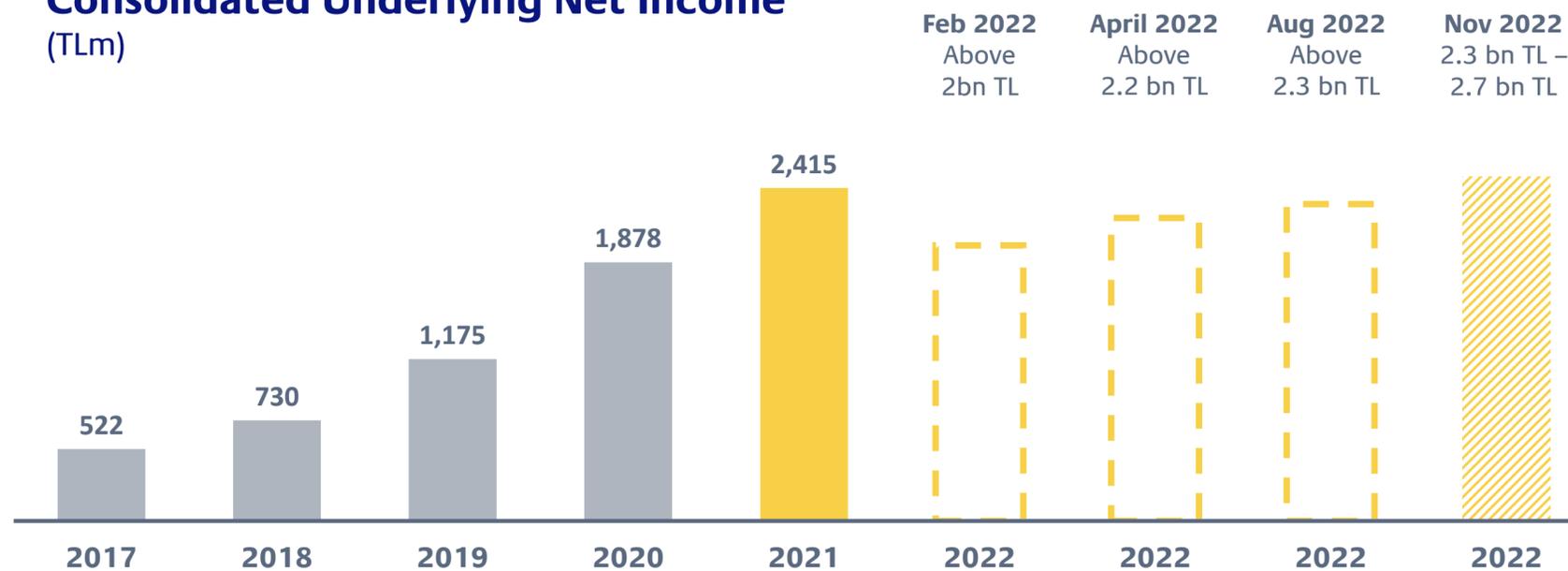
1) Dividend yield = Dividend paid / Closing price of previous year

# 2022 Guidance

## Consolidated Operational Earnings (TLbn)



## Consolidated Underlying Net Income (TLm)



### Guidance updated in November 2022

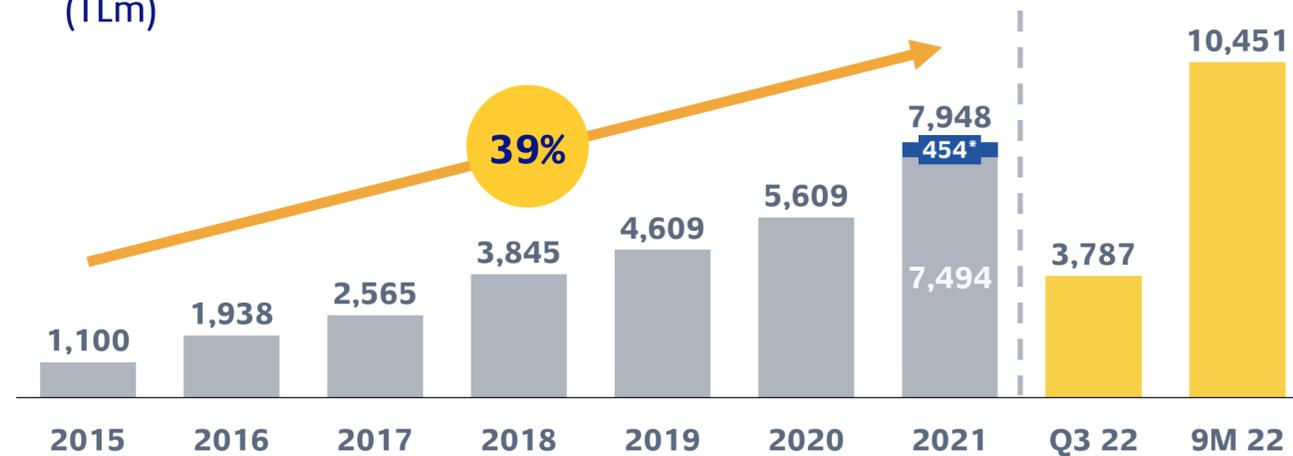
**Operational Earnings:** 75% - 90% yoy growth

**Underlying Net Income:** 2.3 bn TL – 2.7 bn TL

- Enerjisa Enerji’s dividend policy uses IFRS financials as a base for dividend pay out calculation.
- In Underlying Net Income guidance, IAS 29 inflationary accounting is included.
- IAS 29 adjustment on operational level is for representation purposes and has no impact on Underlying Net Income . Therefore, the impact of IAS 29 on Operational Earnings is not included in the Guidance.

# Operational Earnings and Underlying Net Income

## Consolidated Operational Earnings (TLm)



\* Exceptional Capex Reimbursements

## Key Drivers

### Distribution

- **Investments:** Higher financial income due to higher inflation assumptions and change in financial asset model implementation, leading to higher IRR in Q3 2022. (New IFRIC application had around 780 million TL positive impact on Operational Earnings in Q3 2022.)
- **Efficiency and quality parameters:** Increase in efficiency & quality parameters with higher Capex outperformance driven by efficiency gains and higher Capex, T&L outperformance by introduction of theft accrual & collection mechanism in 2016 and newly introduced quality bonus mechanism in 2018.

### Retail

- Focus on customer excellence and cost optimization.
- Focus on profitable volumes with a segment based approach and optimization of customer segments depending on market conditions.

## Consolidated Underlying Net Income (TLm)

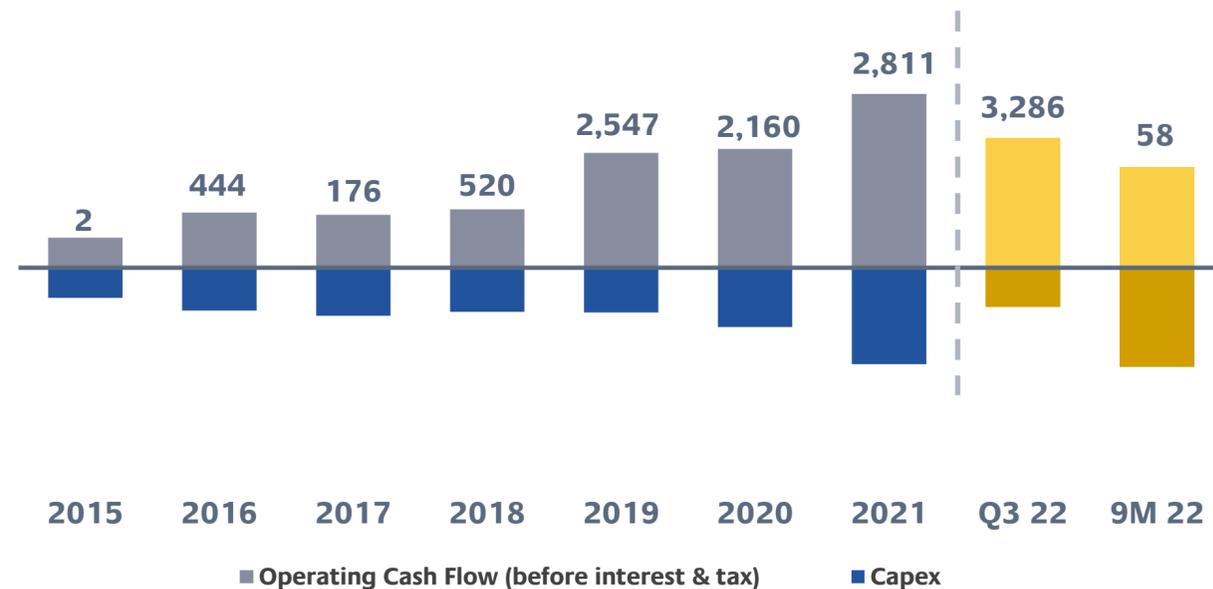


## Key Drivers

- Higher increase in Underlying Net Income compared to Operational Earnings growth due to deleveraging (lower Net Debt/Operational earnings ratio).
- Increase in financial expenses (net) due to Capex-related higher loan volume, while declining in 2020 due to lower average cost of financing.
- In 2021, financing expenses increased on an annual basis due to increase in weighted average loan financing costs and financing expenses linked to inflation.
- Weak performance in Q1 2022 due to the peak in inflation which effected financing expenses. Recovery started in the Q2 2022 on the back of higher inflation assumptions reflected in financial income retrospectively, together with strong performance in retail Operational Earnings. In Q3 2022, underlying net income increased significantly by 116% year over year on the back of higher inflation assumptions and new IFRIC application.

# Cash Flow Development

## Consolidated Free Cash Flow before Interest and Tax (TLm)



## Key Drivers

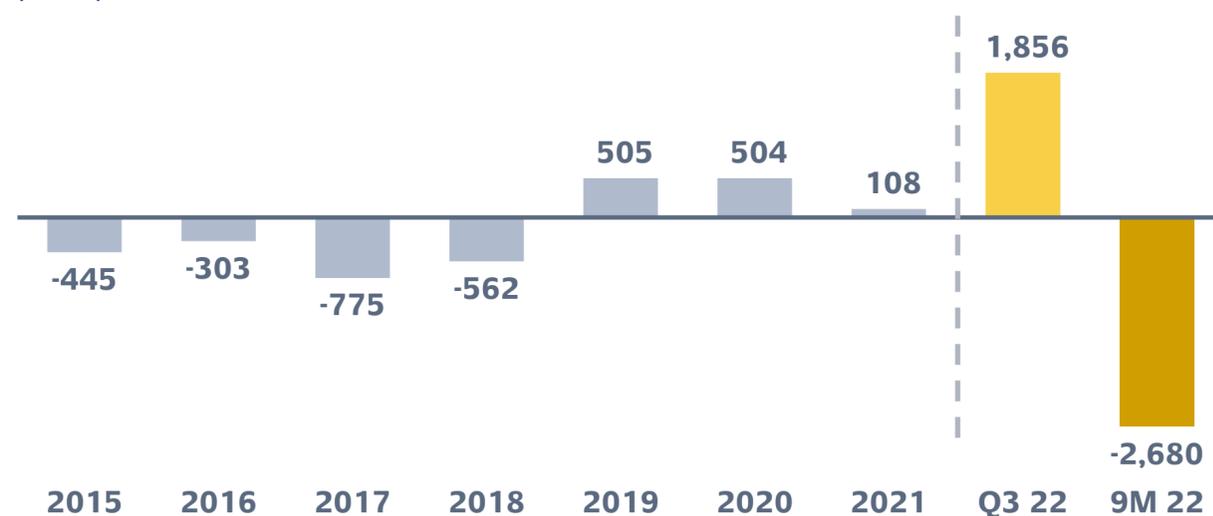
### Distribution

- Investments: Increasing trend even though realization of significant discretionary Capex (overspend Capex).
- Positive impact of start of compensation of overspend Capex (lagged payment) in fourth regulatory period supporting FCF in 2021 and 2022.

### Retail

- EBITDA generation, price equalization impacts and net deposit cash flow are main drivers with low Capex requirement.
- Temporary cash flow impact in case of discrepancy between regulated national tariffs and electricity procurement prices. This cash flow impact is corrected via price equalization mechanism with a time lag including a financial compensation.
- Increase in electricity procurement prices not supported with the national tariff levels led to negative cash flow in 2021.

## Consolidated Free Cash Flow after Interest and Tax (TLm)



## Key Drivers

- Positive operational development in 2015 to 2016 partially offset by higher interest payments as a result of higher net debt.
- 2017 burdened by discretionary front-loaded Capex of 2016 and 2017, resulting in higher interest payments without an immediate corresponding increase in OCF.
- Positive Free Cash Flow in 2019 and 2020, while there is a decline in 2021 due to weakness in retail due to mismatch in regulated tariffs and procurement prices. In the first 6 months of 2022, this trend led substantially negative FCF together with below current inflation indexation in tariffs.
- The cash flow in Q3 2022, recovered due to numerous measures introduced by the regulator to address the sustainability of the system including restart of supply from state owned EÜAŞ for regulated retail segment.

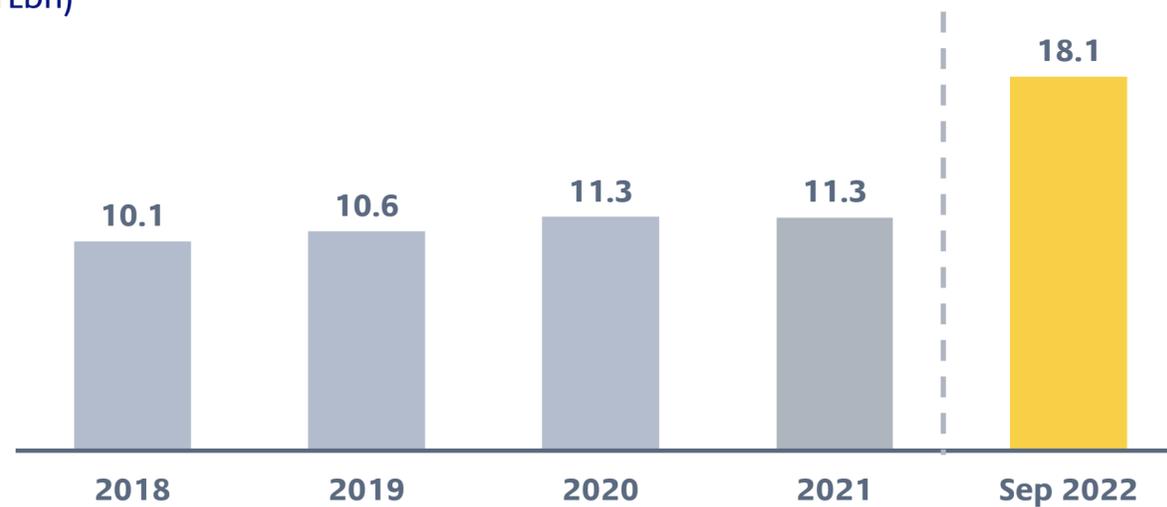
# Strong Balance Sheet Supports Investment Opportunities

## Financial Net Debt Development (TLbn)



- Significant decline in Financial Net Debt/Operational Earnings ratio due to strong growth in Operational Earnings.

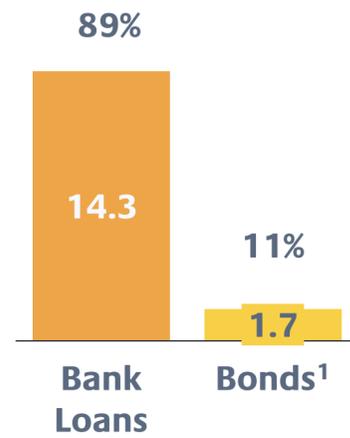
## Economic Net Debt Development (TLbn)



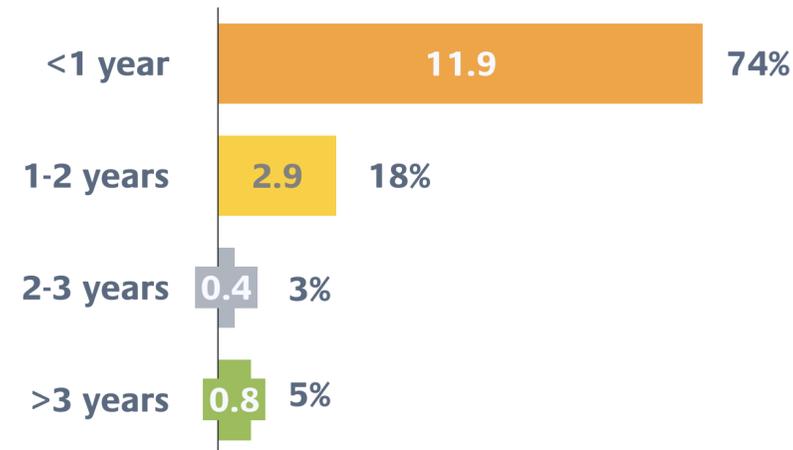
Rating Agency	Rating	Date
	National Long-Term Rating	AAA(Tr), with a Stable Outlook
		30.06.2022
JCR Eurasia Rating	International Long-Term Foreign Currency Rating	BBB+ with a Stable Outlook
		30.06.2022
	International Long-Term Local Currency Rating	BBB+ with a Stable Outlook
		30.06.2022
Fitch	National Long-Term Rating	AA+(tur)' with a Stable Outlook
		26.01.2022

# Diversified Financing Mix with Limited Risks

## Debt Instrument Split (billion TL, September 2022)

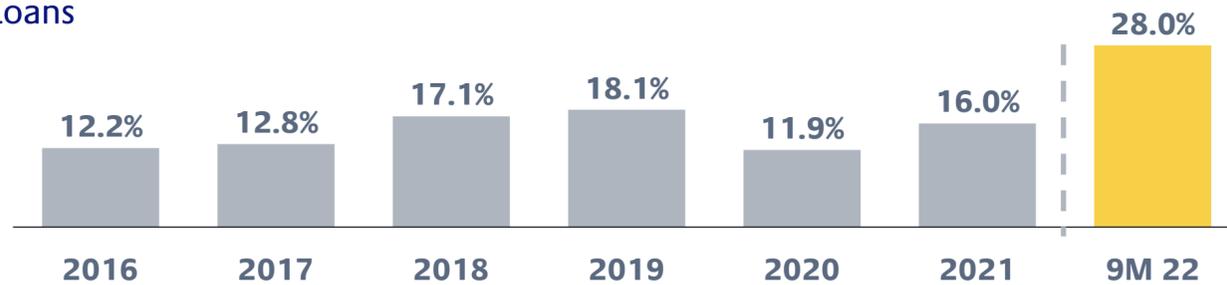


## Tenor Split (September 2022)

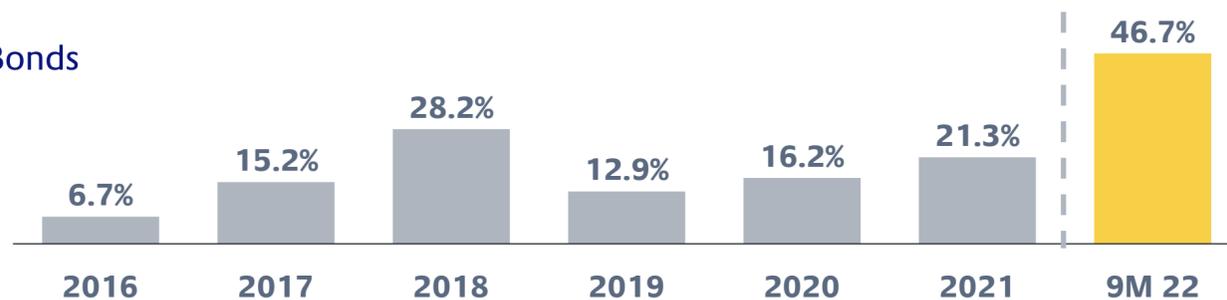


## Weighted Average Effective Cost of Financing (%)<sup>2</sup>

### Loans



### Bonds

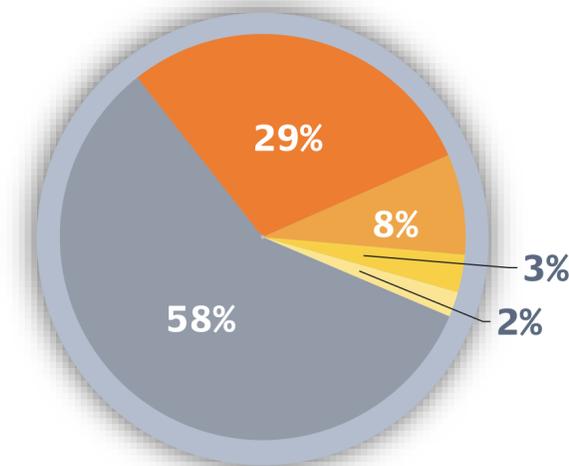


1) The amount of bonds is including inflation valuation over principals

2) Adjusted for operational FX losses

- 100% of the loans and bonds is in Turkish Lira.
- **Loans:** Bank loans are based on strong financials with minimal covenants.
- **Bonds:** A mix of CPI linkers and TLREF indexed bonds, where CPI linkers are in line with the inflation indexed income.
- **EBRD financing:** In addition to previously utilized 225 mUSD equivalent in Turkish Lira, 110m USD equivalent in Turkish Lira was utilized in 1Q2022.
- Highest rating among Turkish electricity companies (AA+ national) by Fitch.

## Financing Mix



Fixed bank loan  
CPI indexed bond

TLREF indexed bank loan  
Bank loans w/ overnight rates

TLREF indexed bond

# Key Investment Thesis

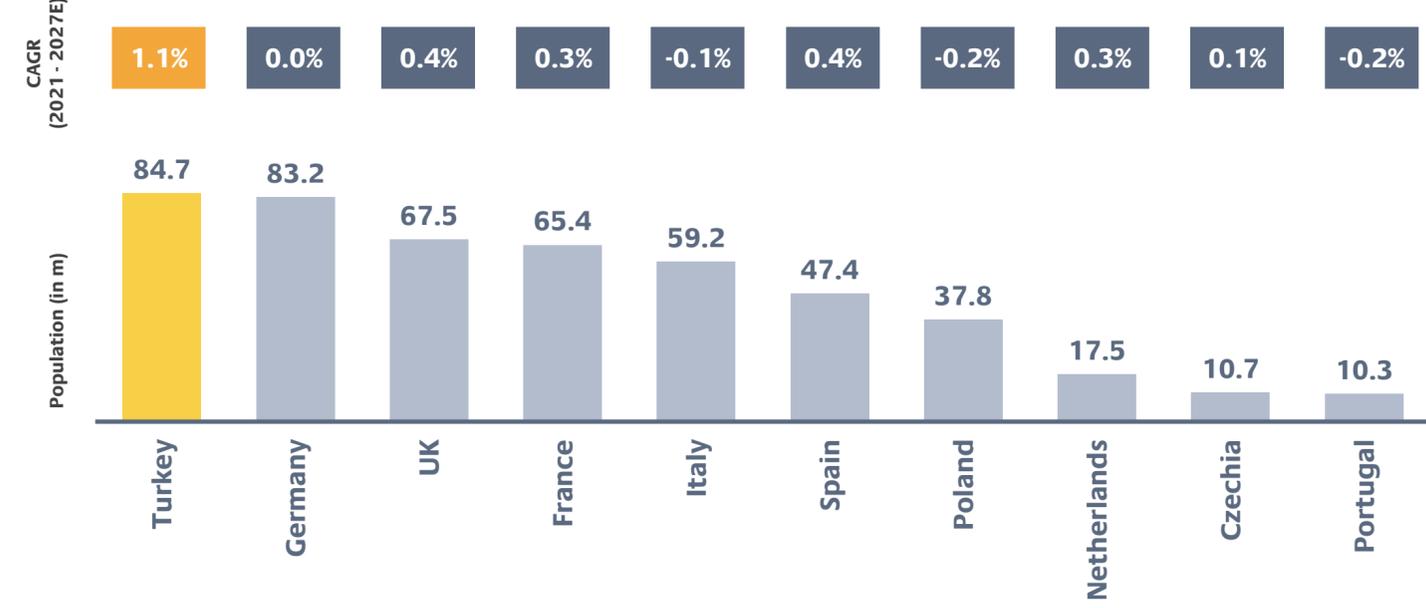


# Favorable Demographics Driving Demand Growth

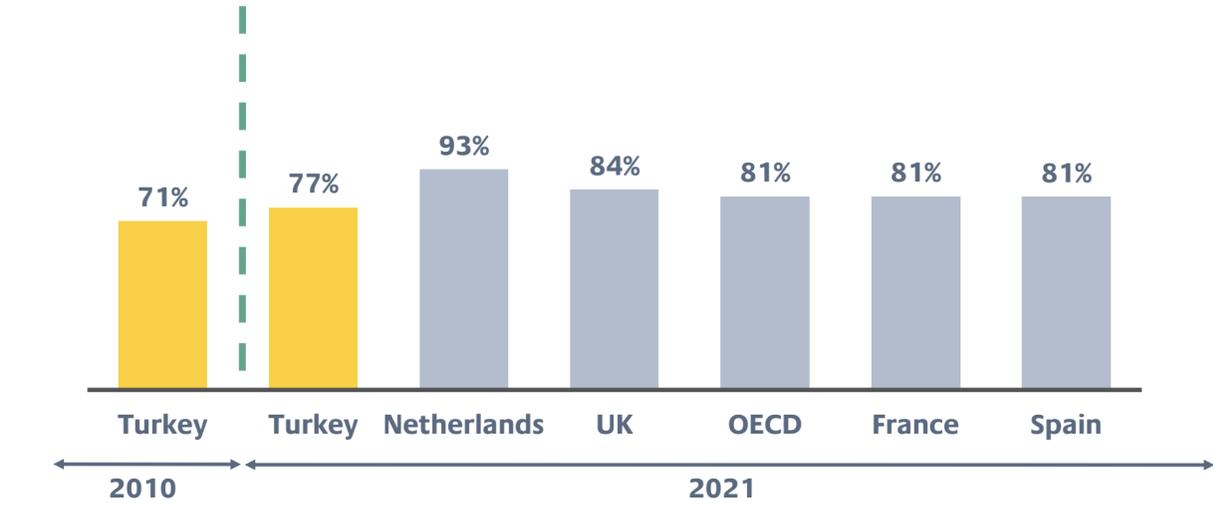
## One of the Fastest Growing European Countries<sup>1</sup> (Real GDP CAGR in %)



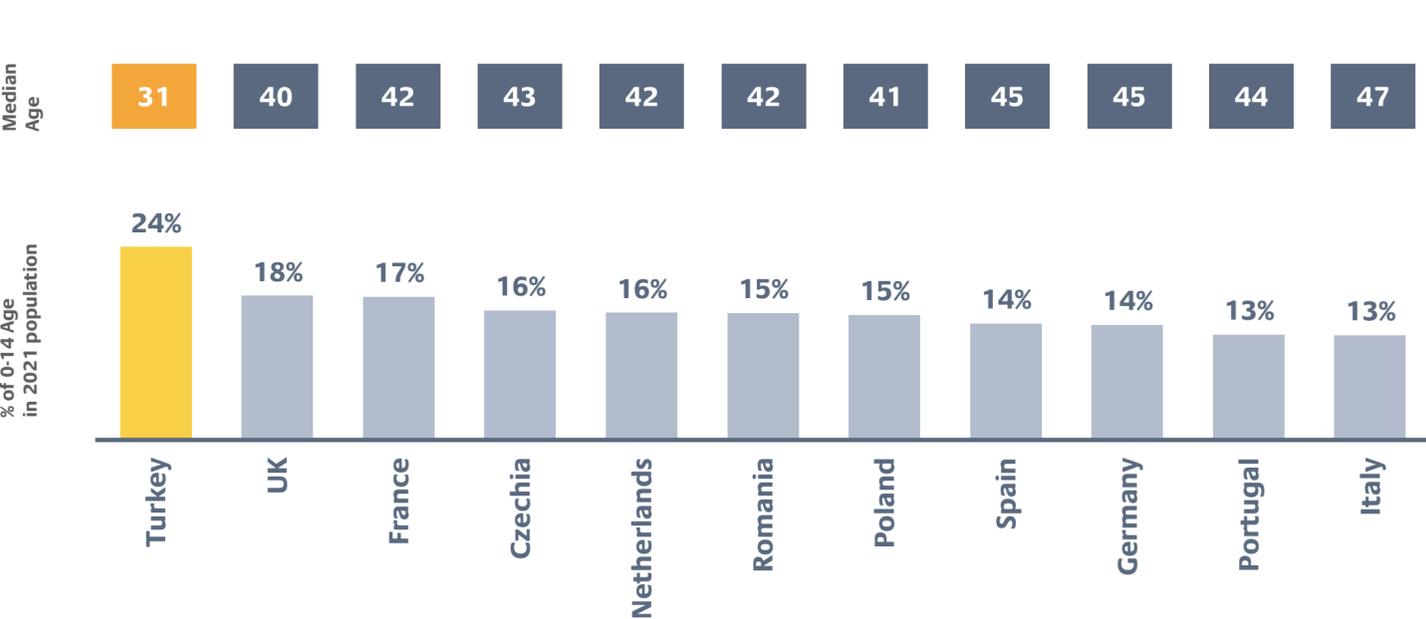
## One of the Largest and Still Growing Population in Europe<sup>2</sup> (2021 Population in Millions, CAGR 2021-2027E)



## Favorable Demographics with Increasing Urbanization<sup>3</sup> (% of Total Population)



## A Young Population (Percent of 0-14 Age in Total Population<sup>4</sup>, Median Age in 2021<sup>5</sup>)

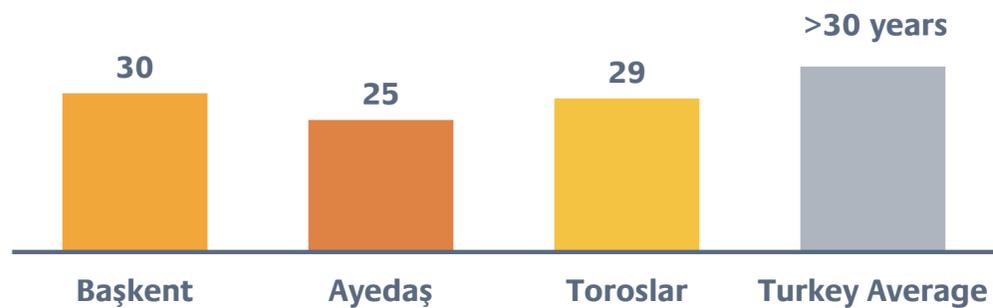


1) IMF World Economic Outlook Database, April 2022  
 2) IMF World Economic Outlook Database, April 2022  
 3) World Bank World Development Indicators, 2021  
 4) World Bank World Development Indicators, 2021  
 5) UN World Population Prospects, 2022

# Significant Investments Required for Quality Improvements of Grids and New Connections

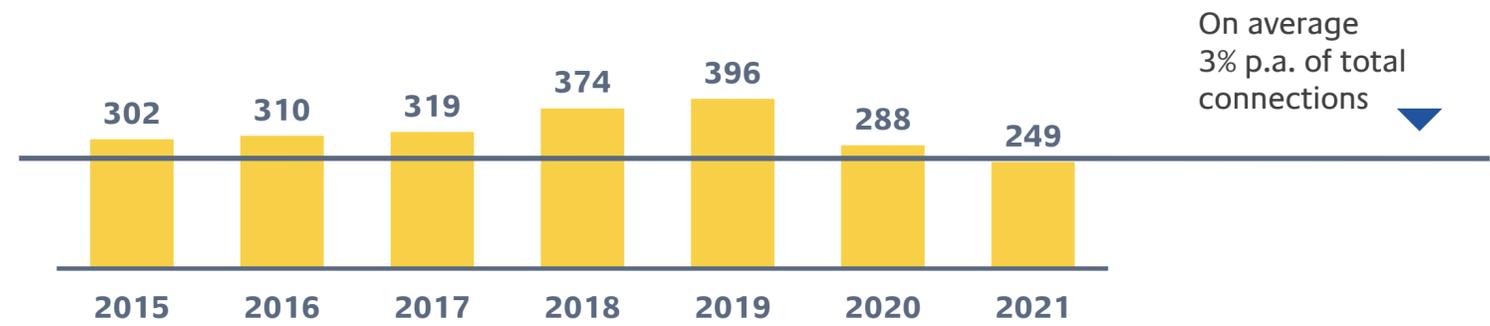
## Existing grid requires significant replacement investments

Average Age of Network (years)



## New Customer Connections in Enerjisa Regions

(000)



Average new connection costs ~TL2,500 (2021 Prices)

## Cost of Existing Enerjisa Network

Minimum investment

Maximum investment

Maintain status quo

Replace entire grid

~TL1bn p.a. (2021 Prices)

~TL55bn – TL65bn (2021 Prices)

## Turkey Distribution investments<sup>1</sup>

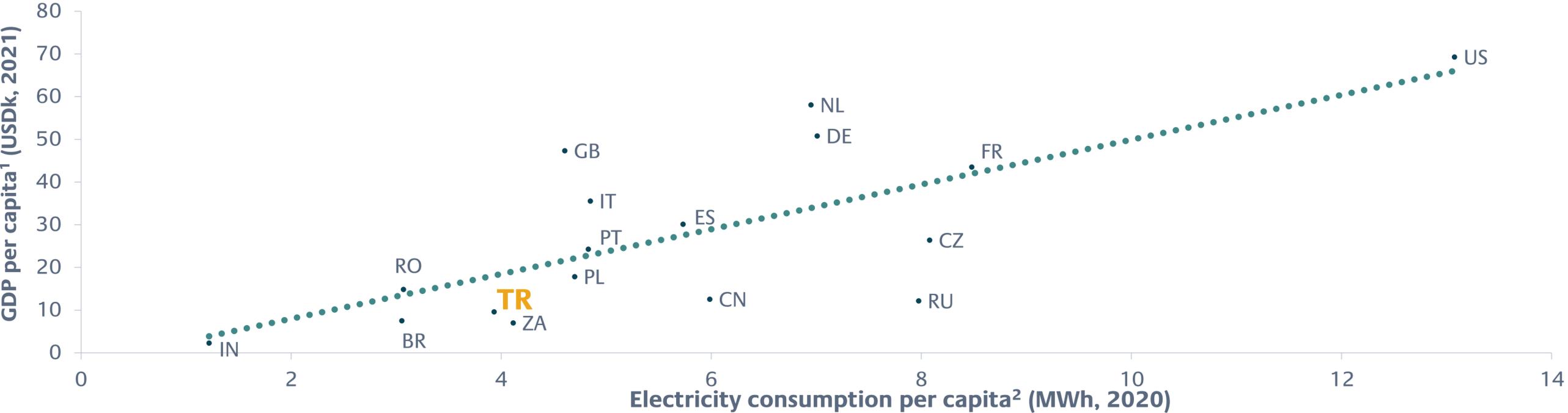
(TLm, 2021 June CPI: 547.48)



1) EMRA Annual Sector Report 2020

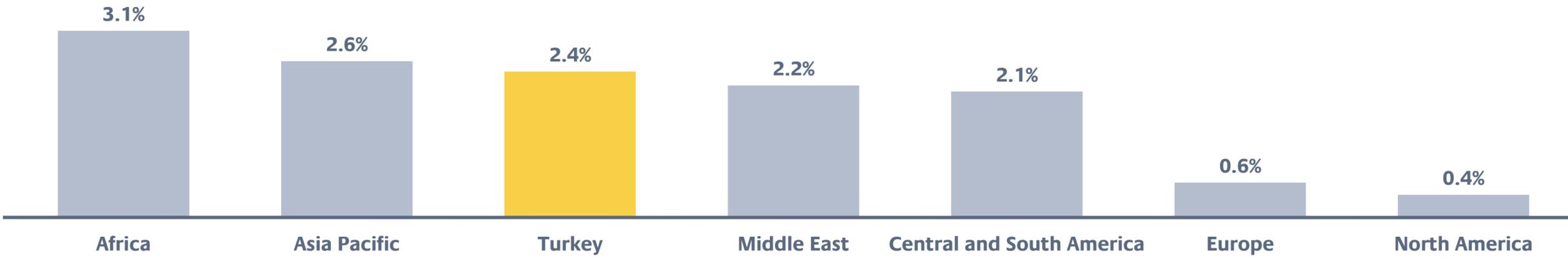
# Further Room for Growth in Electricity Consumption

## Electricity per Capita Consumption Significantly Below European Countries



## Electricity Consumption Growth Expected to Outpace Developed Regions<sup>3</sup>

(CAGR 2019-2030 in %)



1) World Bank national accounts data, and OECD national accounts data files  
 2) Ember Global Electricity Dashboard  
 3) IEA World Energy Outlook 2020 (Stated Policies), Turkey data from TEİAŞ 10-Year Demand Forecast Report (2020)

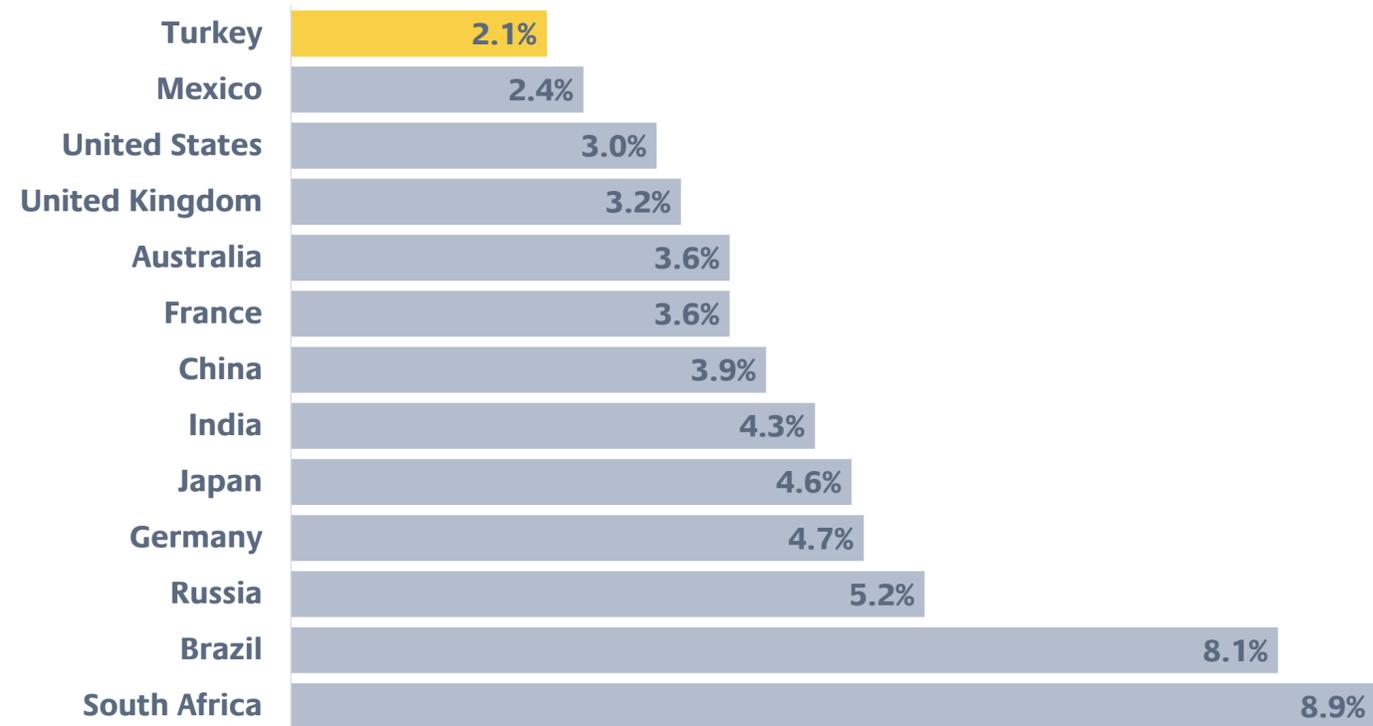
# Electricity Bill Accounts for a Relatively Low Share in Income

## Breakdown of Regulated Electricity Bill

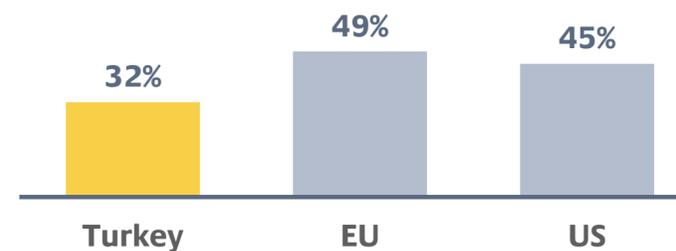
~420 TL/month<sup>1</sup>, ~23 USD/month<sup>3</sup>    ~485 TL/month<sup>2</sup>, ~27 USD/month<sup>3</sup>  
 ~ 2.9% of GDP<sup>4</sup>                                      ~ 3.4% of GDP<sup>4</sup>



## Affordability of Electricity by Country<sup>5</sup> (% of GDP per capita)



## Share of Grid Costs in Electricity Bill by Region<sup>6</sup> (% of transmission & distribution fee in total electricity cost excl. taxes)



1) Based on average household consumption of ~2,900 kWh/month – As of September 1, 2022  
 2) Based on average household consumption of ~3,200 kWh/month – As of September 1, 2022  
 3) Calculated on TCMB (The Central Bank of the Republic of Türkiye) Forex Selling rate, August 31, 2022  
 4) 2021: \$9,539, TÜİK-Turkish Statistical Institute.  
 5) Data compiled by; Statista – Electricity consumption per capita worldwide in 2021 by selected country & IMF World Economic Outlook Database, April 2022  
 6) Eurostat, 2018

# Potential Growth Areas

Growth



Organic and inorganic growth in Distribution



Benefit from Retail liberalisation



Ensure competitive financing cost and capital structure



Drive operational excellence



Digitize business model



Leverage customer base into new services



Expand sustainable products and services portfolio

# In the New Energy World, DSO is the Key Enabler of Energy Megatrends

## Urbanization & Customer Centricity

- Customer Satisfaction
- Uninterrupted Energy
- Smart City Solutions
- Smart Homes
- Rooftop PV Solutions
- Residential Demand Response
- Treatment of Vulnerable Customers

## Decentralization

- Distributed Generation
- Energy Storage
- Microgrids
- Cogeneration
- Reserve Capacity
- Demand Side Response

## Decarbonization

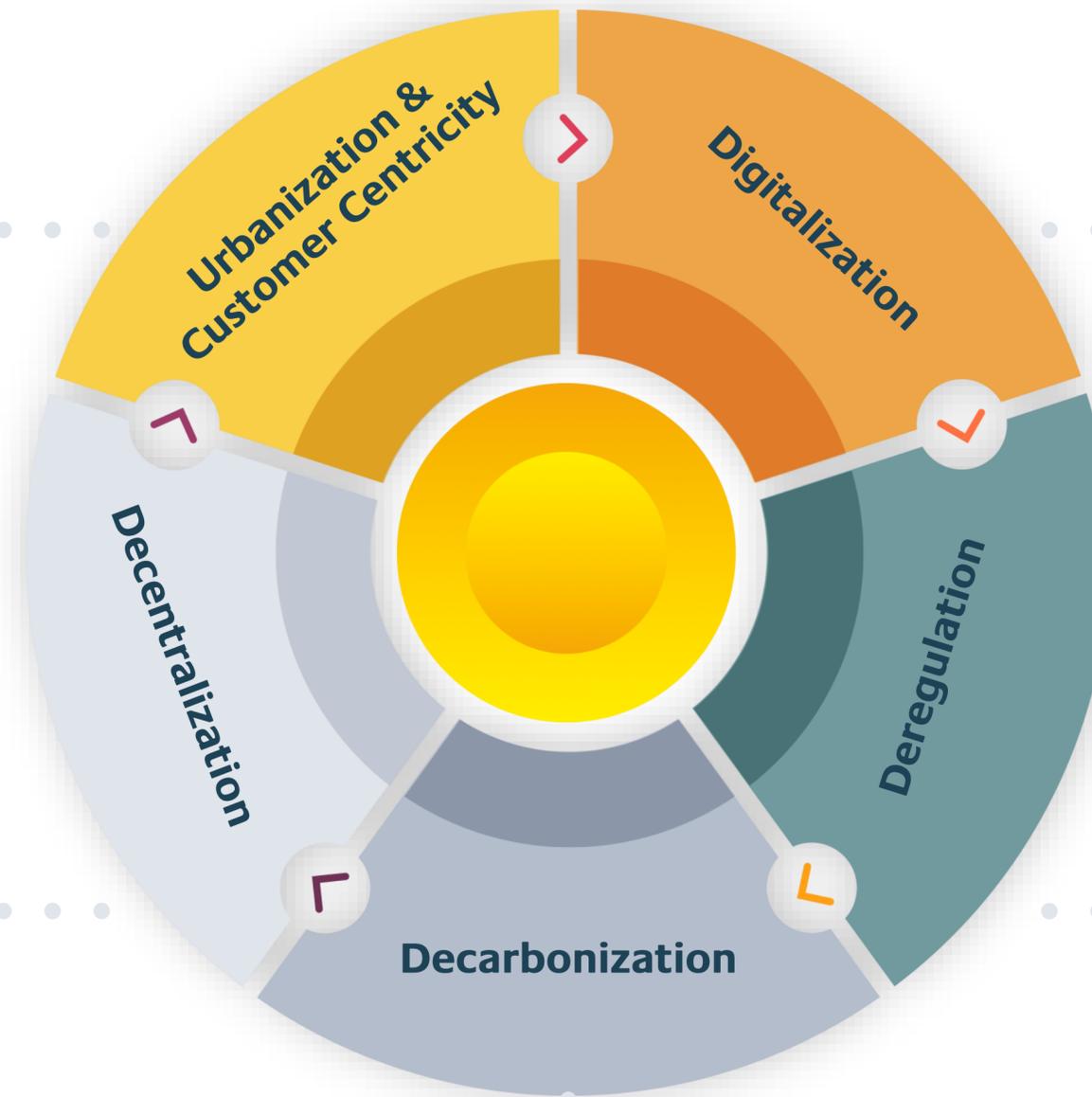
- Renewable Energy Integration
- Electrification Trends
- Energy Efficiency Solutions
- E-mobility Solutions (Eşarj)
- Green Energy Products
- Energy Storage

## Digitalization

- Big Data Analytics
- IoT Grid Solutions
- Cybersecurity
- Smart Grids
- Smart Homes
- Advanced Sensors
- Artificial Intelligence
- Smart City Solutions
- Blockchain Energy Trading

## Deregulation

- Demand Management
- Customer Satisfaction
- New Product Offerings
- Energy Storage
- Distributed Generation



# Key Investment Highlights

Significant growth realized & expected



Regulated and guaranteed income

Reliable regulatory framework



Solid balance sheet

Attractive dividend pay-out (ratio of 60-70% of Underlying Net Income)

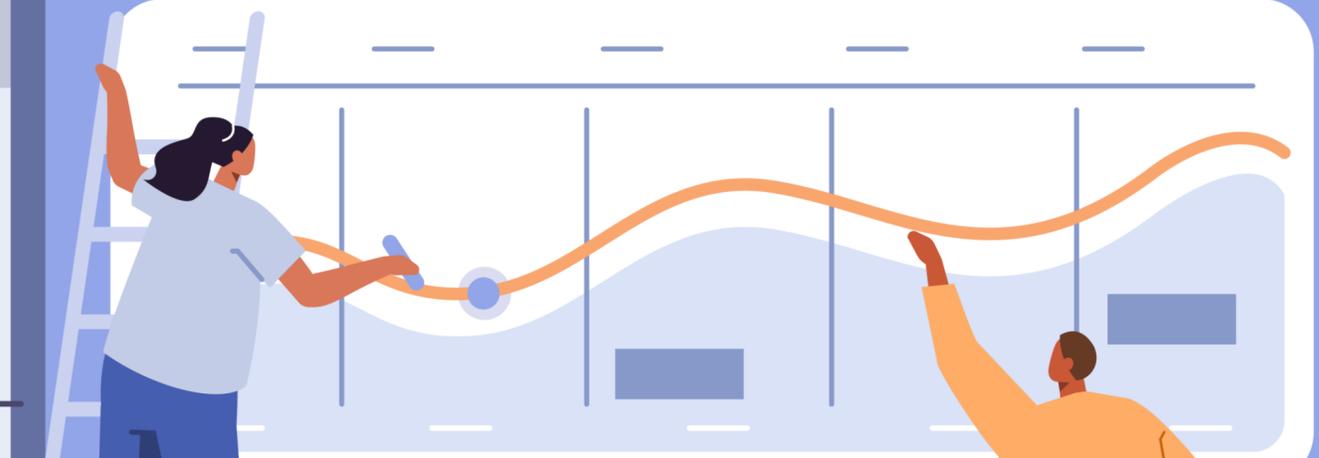
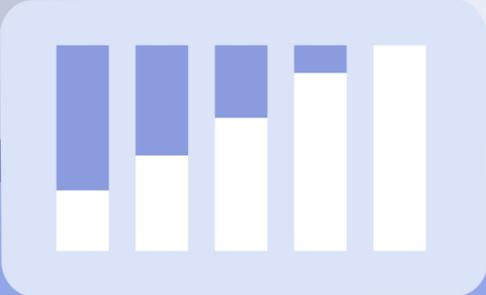


A responsible public service provider and a role model in the sector; shaping the transition to the New Energy World

# Distribution Business



\$



—	+3,45	—
—	+1,20	—
—	+2,40	—



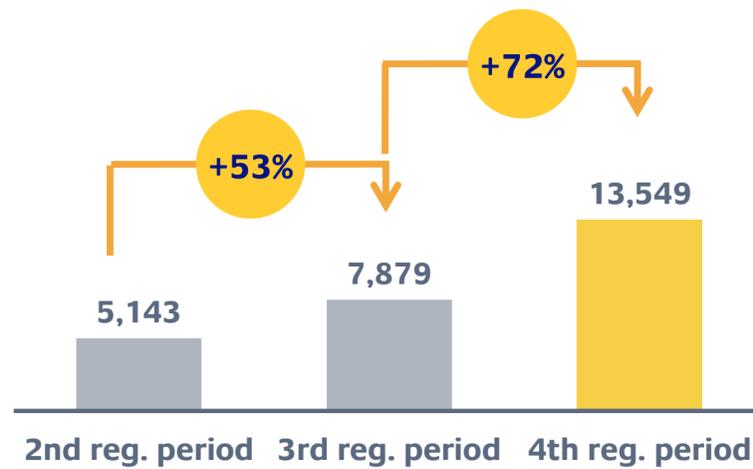
# Well-established Incentive-based Regulatory Framework

	First Regulatory Period (2006-2010)	Second Regulatory Period (2011-2015)	Third Regulatory Period (2016-2020)	Fourth Regulatory Period (2021-2025)
<b>Mid-year WACC (real, pre-tax)</b>	<b>9.35%</b>	<b>9.97%</b>	<b>11.91% - 13.61%</b>	<b>12.30%</b>
<b>Evolution</b>	<ul style="list-style-type: none"> <li>“Transition period” designed to provide smooth shift to a cost-based tariff structure post-2010.</li> <li>RAB-based tariff calculation methodology introduced with RAB set to zero in 2006.</li> <li>Private Operator Model (Transfer of Operating Rights - TOR) established for privatizations.</li> </ul>	<ul style="list-style-type: none"> <li>WACC revised up to 9.97%.</li> <li>Unbundling of distribution and retail operations.</li> </ul>	<ul style="list-style-type: none"> <li>WACC revised up to 11.91%, for 2016-2017 and 13.61% for 2018-2020.</li> <li>T&amp;L methodology revised.</li> <li>Significant increases in Opex and Capex allowances.</li> <li>Introduction of Quality Incentives.</li> <li>Increase in retention rate for theft usage detection accrual.</li> </ul>	<ul style="list-style-type: none"> <li>WACC revised to 12.30%.</li> <li>Enhanced quality incentives (bonus/malus mechanism with higher % bonus ceiling).</li> <li>Further increases in Opex and Capex allowance.</li> <li>For scheduled maintenance a new scope is defined and a new opex allowance is introduced to incentivize improvement in continuity of supply and customer satisfaction.</li> <li>New Quality Indicators introduced for in-house sourcing and listed companies.</li> </ul>
<b>Capex Reimbursement</b>	<b>5 Years</b>	<b>10 Years</b>		
<b>Revenue components and incentives</b>	<b>RAB-based framework with incentives given to outperformance</b>			
	<b>Regulated Revenue cap</b> <ul style="list-style-type: none"> <li>Real WACC return: Average RAB x Average WACC</li> <li>Capex reimbursement</li> <li>Opex allowance</li> <li>Tax correction mechanism on Capex</li> <li>No volume and inflation risk</li> </ul>		<b>Incentives</b> <ul style="list-style-type: none"> <li>Capex outperformance</li> <li>Opex outperformance</li> <li>Theft &amp; Loss margin</li> <li>Theft accrual &amp; collection</li> <li>Quality related incentives</li> <li>Other revenue (Advertisement, rent, lighting margin)</li> </ul>	

# Investments – 4th Tariff Period

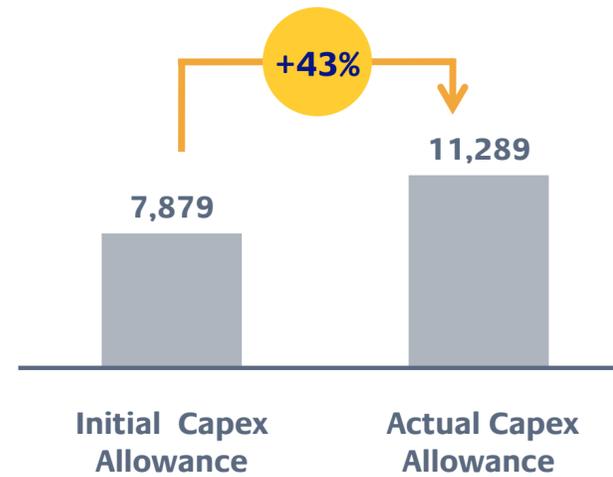
## Initial Capex Allowance

(Tlm, real Oct 2020, Index: 487.38)



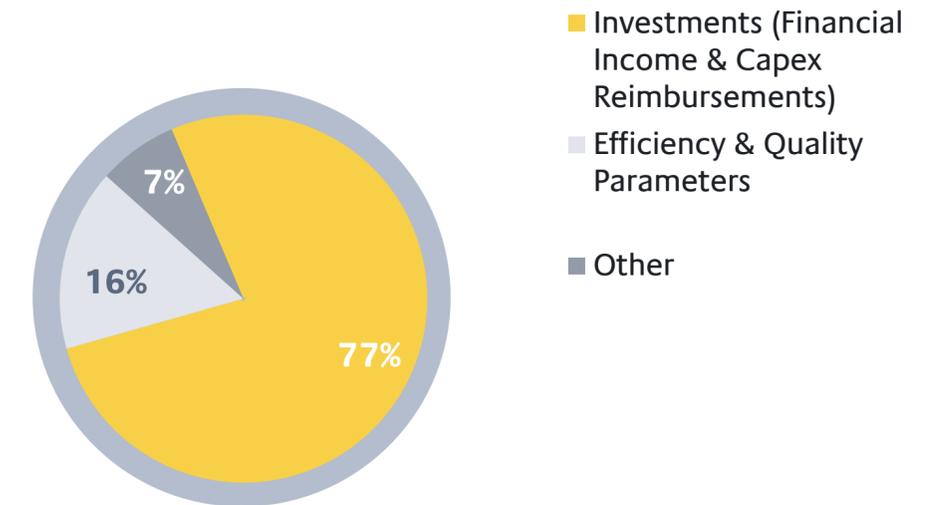
## 3<sup>rd</sup> Tariff Period Capex Allowance

(Tlm, real Oct 2020, Index: 487.38)



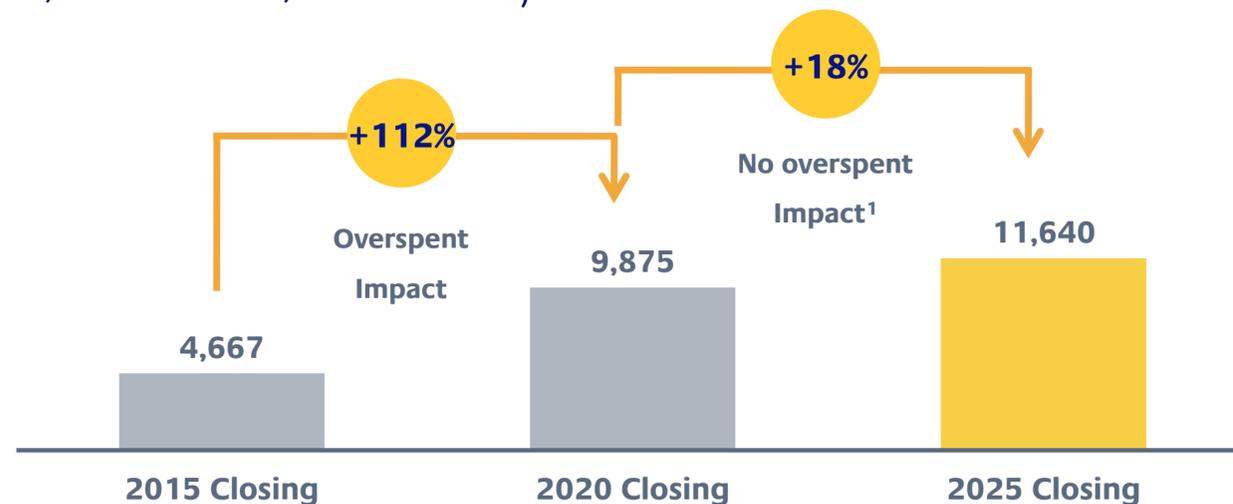
## Distribution Operational Earnings Breakdown<sup>2</sup>

(2021)



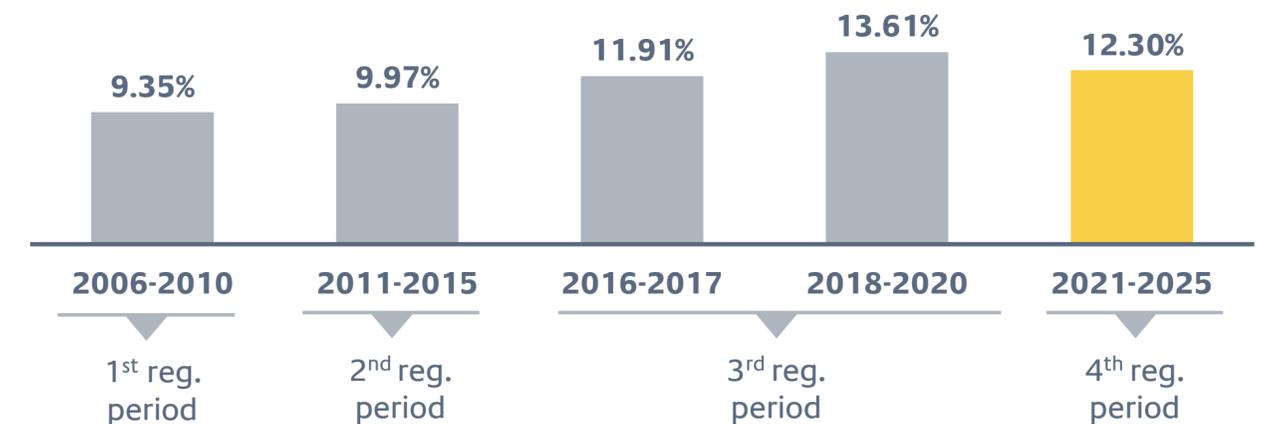
## Statutory RAB Development

(Tlm, real Oct 2020, Index: 487.38)



## Regulated WACC

(Real, pre-tax, mid-year adjusted)



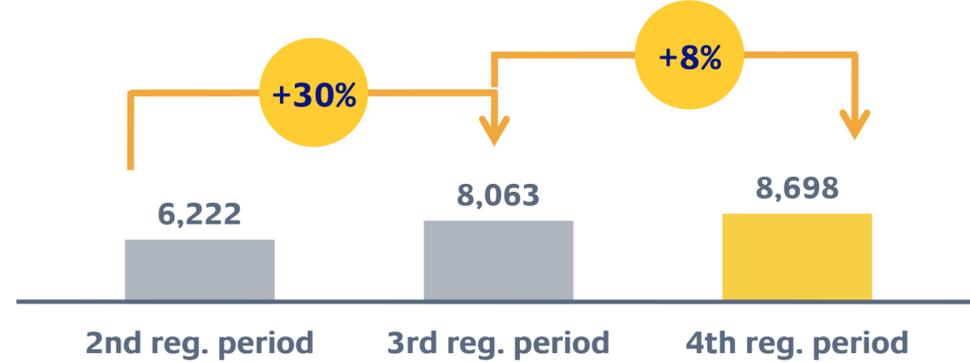
1) This is not a guidance. In line with regular implementation, EMRA calculation assumes no Capex overspend in the fourth regulatory period

2) Figures may not sum up to 100% due to rounding

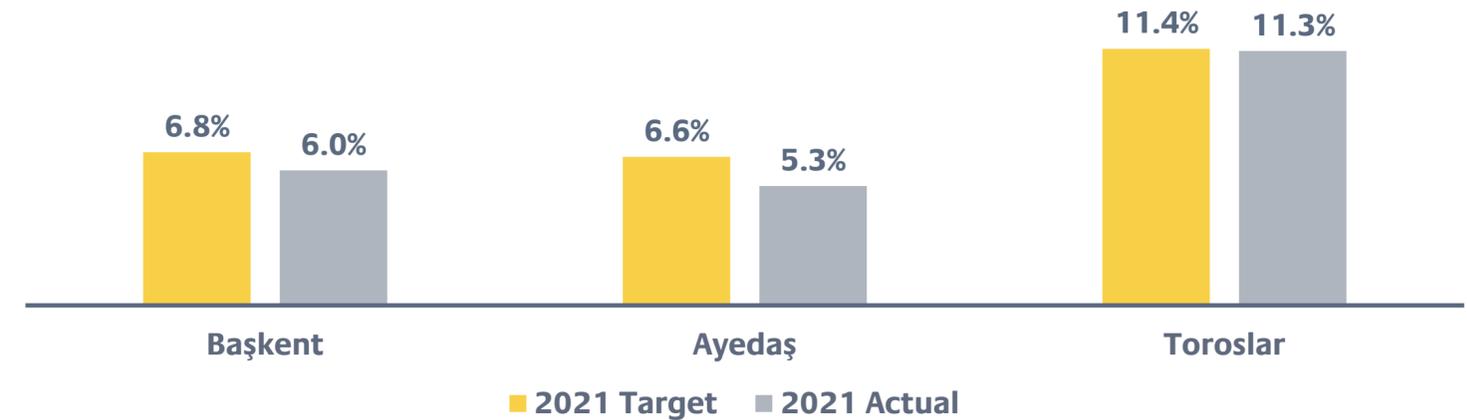
# Efficiency and Quality – 4th Tariff Period

## Initial Controllable Opex Allowance

Excluding scheduled maintenance  
(Tlm, real Oct 2020, Index: 487.38, 5 year total)

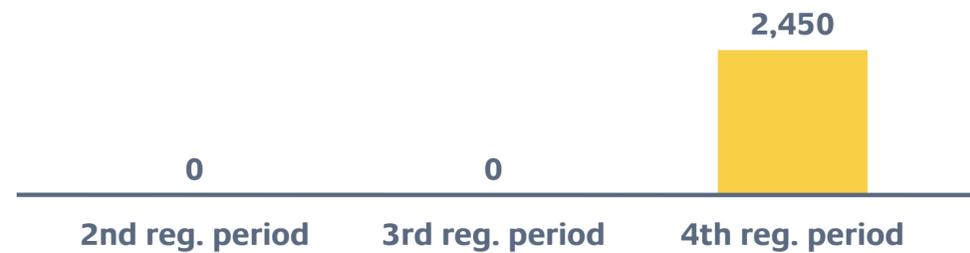


## Theft & Loss Targets and Realization



## Initial Scheduled Maintenance Opex Allowance

(Tlm, real Oct 2020, Index : 487.38, 5 year total)



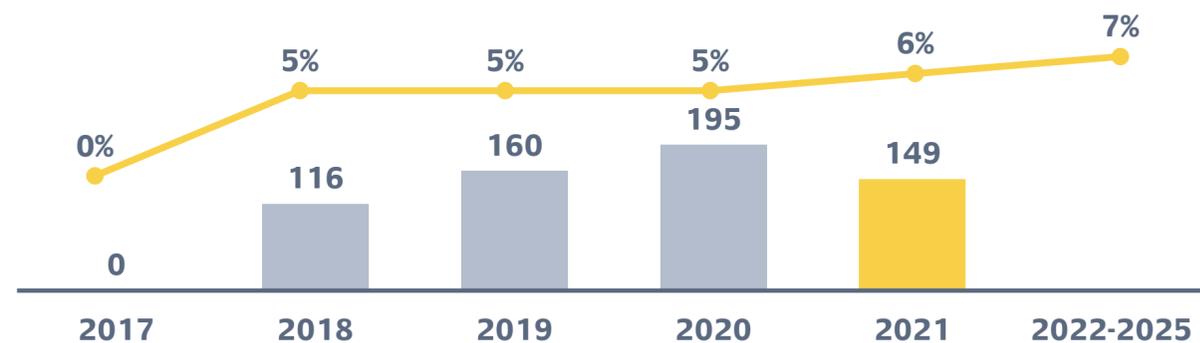
## Theft Usage Detection Accrual

(Tlm, Nominal)



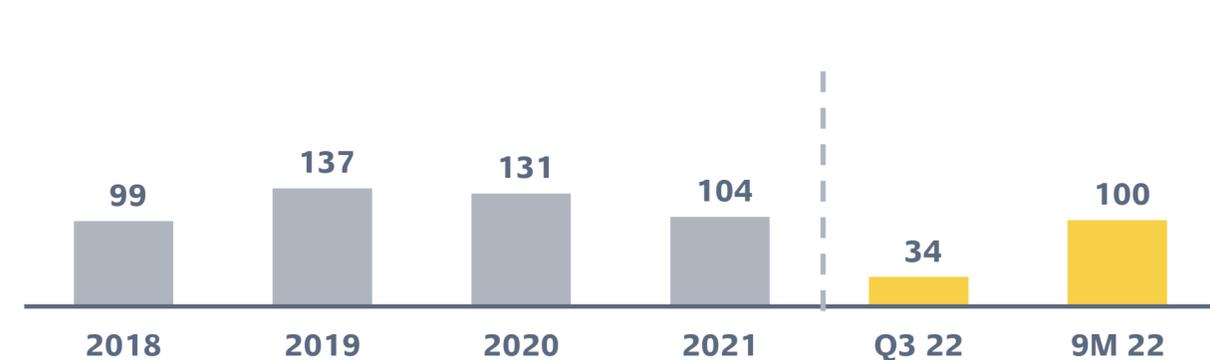
## Quality Parameter Realized and Quality Parameter Ceiling

(Tlm, Nominal & % of Regulated Revenue Requirement)



## Theft Usage Accrual Detection

(Tlm, Nominal)



# Efficiency and Quality – Quality Bonus Mechanism



- EMRA implements quality parameters to incentivize continuity of supply, technical quality, customer satisfaction, transparency, corporate governance and HS&E.
- **Start date:** 2018, new parameters in the fourth regulatory period
- In the fourth regulatory period, a bonus/malus mechanism for quality parameters is introduced. Under the quality factor and general quality indicator headings, total quality parameter bonus ceiling is set as 6% of regulated revenue requirement for 2021 and 7% of regulated revenue requirement for 2022-2025 and penalty ceiling is set at minus 2.05% for 2021 and minus 2.8% for 2022-2025.

## Quality Parameter Realized and Quality Parameter Ceiling (TLm, Nominal & % of Regulated Revenue Requirement)

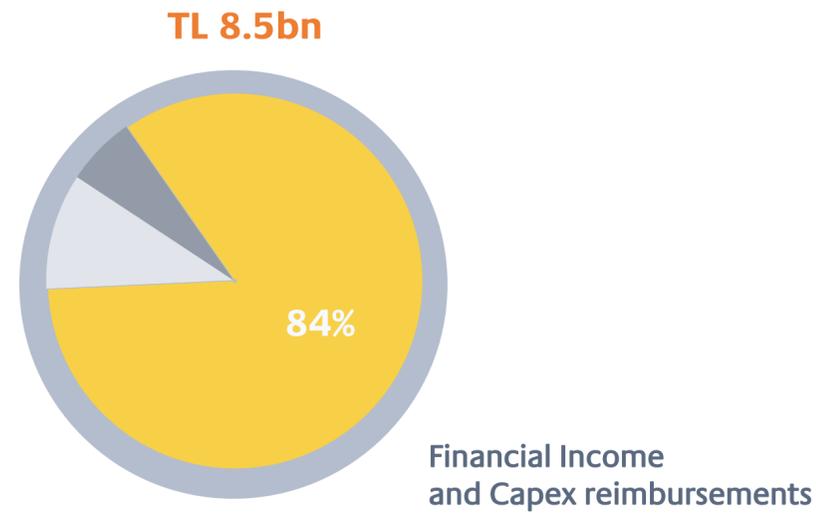


- The quality parameters are applied on revenue requirement (excluding non-controllable Opex, including scheduled maintenance Opex)<sup>1</sup>
- **New (within the ceiling):** In-house sourcing incentive. If the share of in-house sourcing is above 50%, there will be a general quality indicator equal to in-house sourcing share. Maximum incentive is set at 1% of revenue requirement for each year. All Enerjisa distribution companies has above 50% in-house sourcing share.
- **New (within the ceiling):** Incentive for public companies. Distribution companies with parents (direct shareholders) listed on Borsa İstanbul will be eligible for 0.3% of the revenue requirement.
- Continuity of Supply
- Technical Quality
- Customer Satisfaction
- HSE

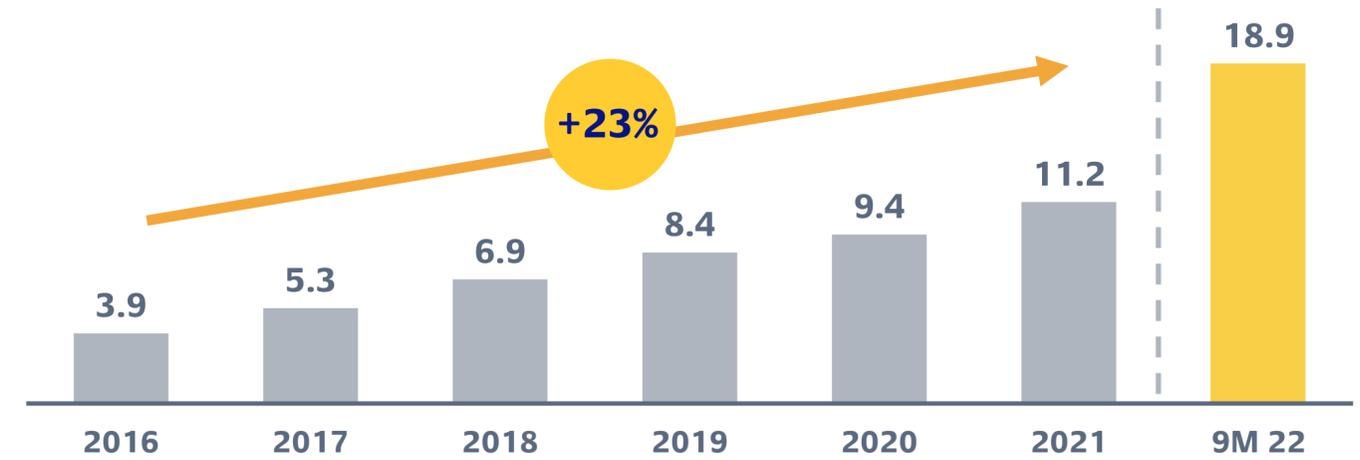
1) Exclusion of non-controllable Opex, inclusion of scheduled maintenance Opex starts with 4<sup>th</sup> regulatory period

# Operational Earnings Breakdown: Investments

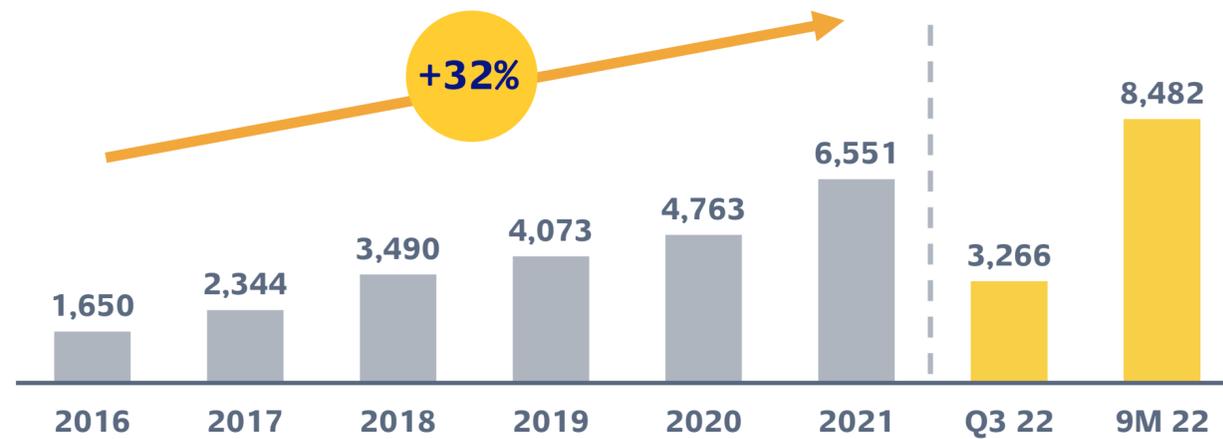
**Distribution Operational Earnings Breakdown**  
(9M 2022)



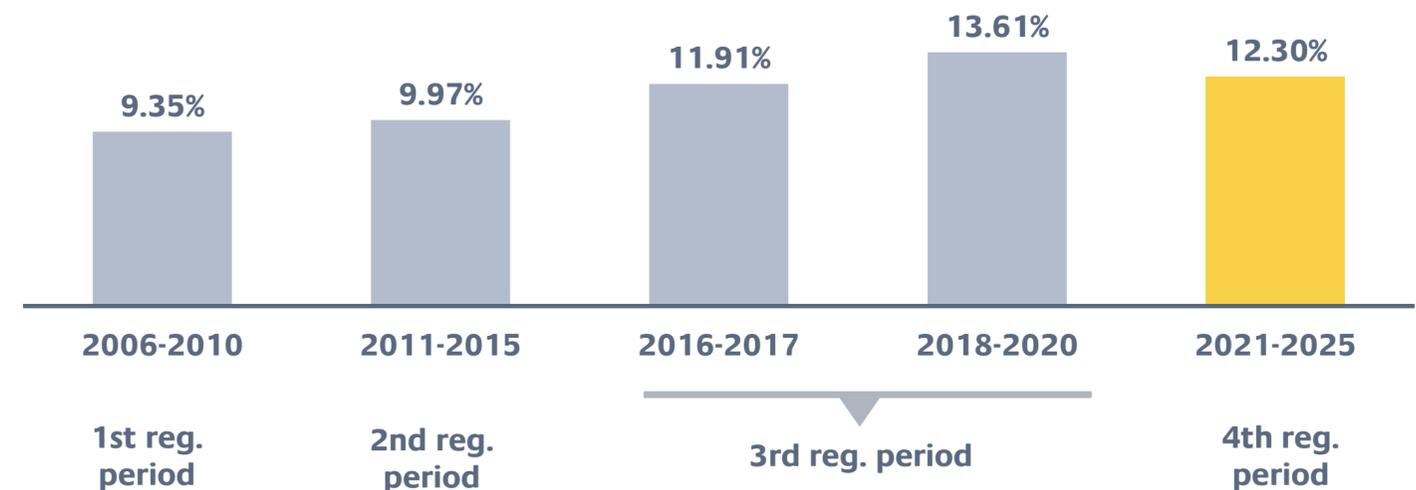
**Regulated Asset Base, IFRS**  
(TLbn)



**Distribution Operational Earnings**  
(TLm)

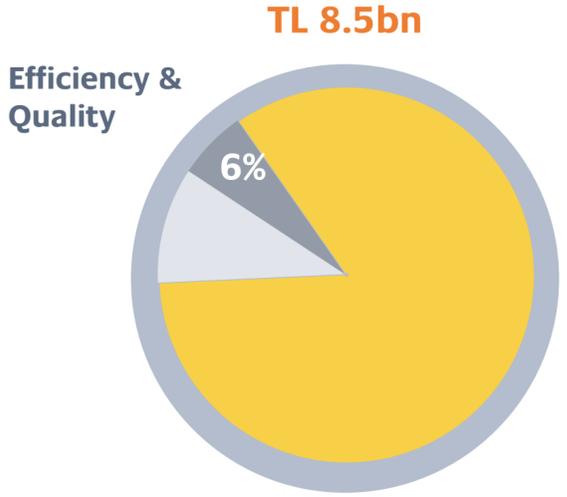


**Regulated WACC**  
(%, real)



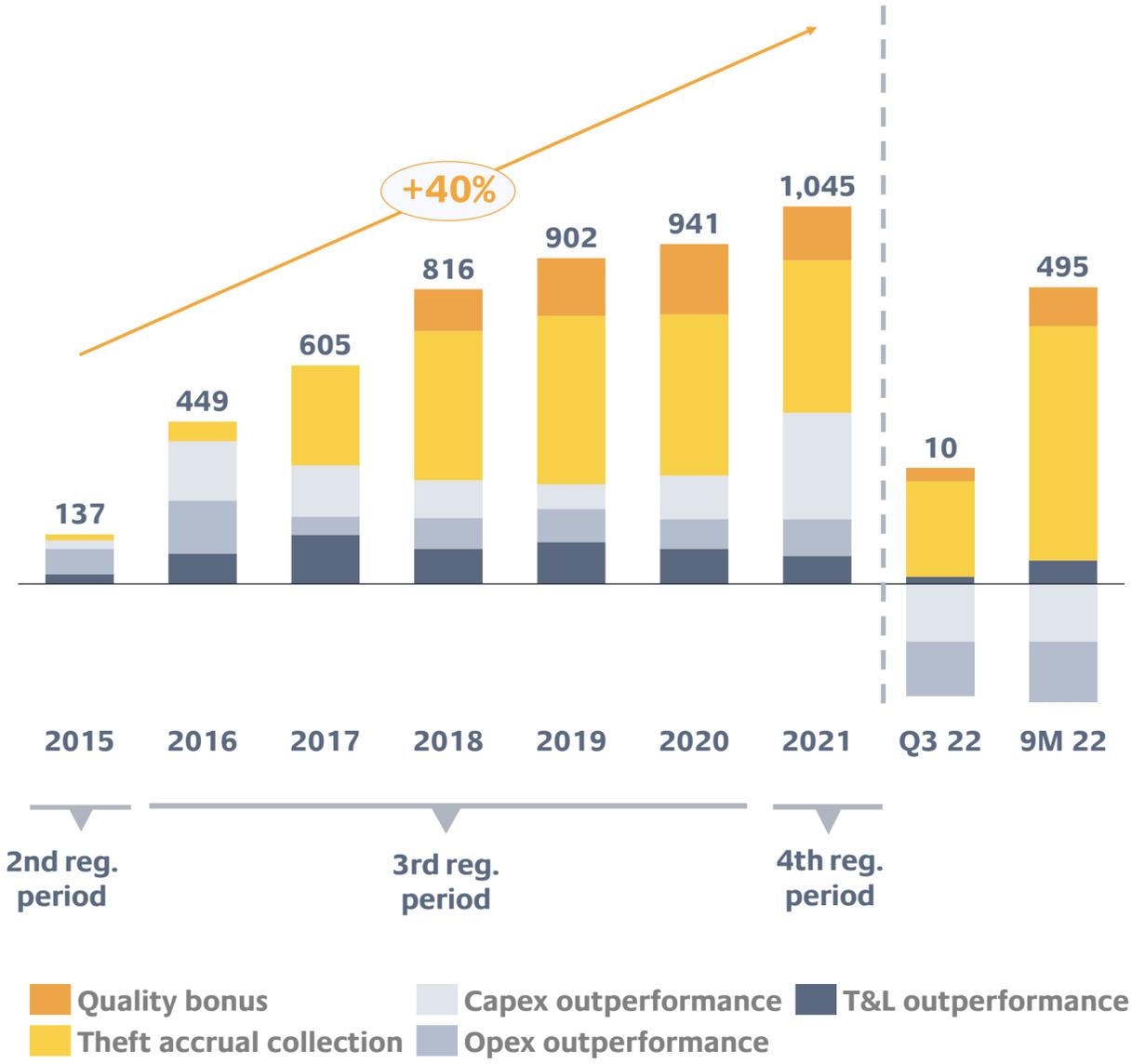
# Operational Earnings Breakdown: Efficiency & Quality

**Distribution Operational Earnings Breakdown**  
(9M 2022)



- Incentives to improve efficiency and quality, and reduction in distribution losses
- In the new regulatory period, additional incentives for in-house sourcing and transparency (being listed)

**Efficiency & Quality Progression 2015 – 9M 2022**  
(TLm)



# Retail Business



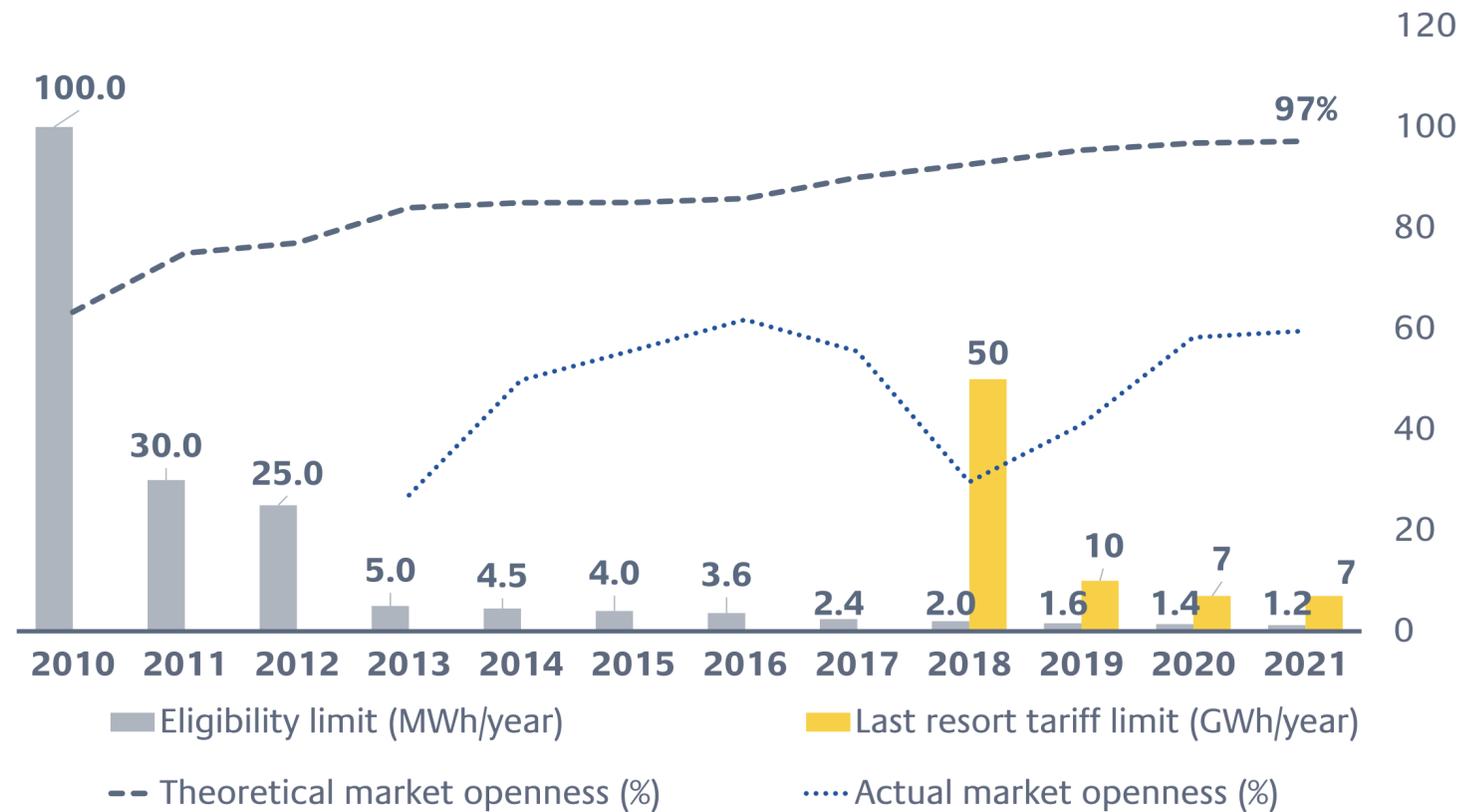
# Sales Market

Market Type	Customer Type (By Eligibility)	Consumption Volume (kWh/ year)	Purchase Conditions	Supplier
<b>Regulated Market</b>	<b>Non-eligible Customer</b> Can not Choose Procurement Company	0-1,100 kWh	National Tariff (Compulsory)	Incumbent Energy Retail Companies
	<b>Eligible Customer</b> Can Choose Procurement Company	<b>Residential, Agricultural Irrigation</b> ≥ 1,100 kWh and < 100 million kWh <sup>1</sup>	National Tariff (Optional)	Incumbent Energy Retail Companies
<b>Other (Commercial, Industrial, Lighting)</b> ≥ 1,100 kWh and < 1 million kWh <sup>2</sup>		In the Liberalised Market Retail Energy Sales Price	Incumbent Energy Retail Companies Other Energy Retail Companies	
<b>Last Resource Tariff Customer</b> Can Choose Procurement Company		<b>Residential, Agricultural Irrigation</b> ≥ 100 million kWh <sup>1</sup>	Energy Costs (Including Feed-in Tariff) x 1.0938% (If liberalised market procurement company is not chosen)	Incumbent Energy Retail Companies
	<b>Other (Commercial, Industrial, Lighting)</b> ≥ 1 million kWh <sup>2</sup>	In the Liberalised Market Retail Energy Sales Price	Incumbent Energy Retail Companies Other Energy Retail Companies	
<b>Liberalised Market</b>				

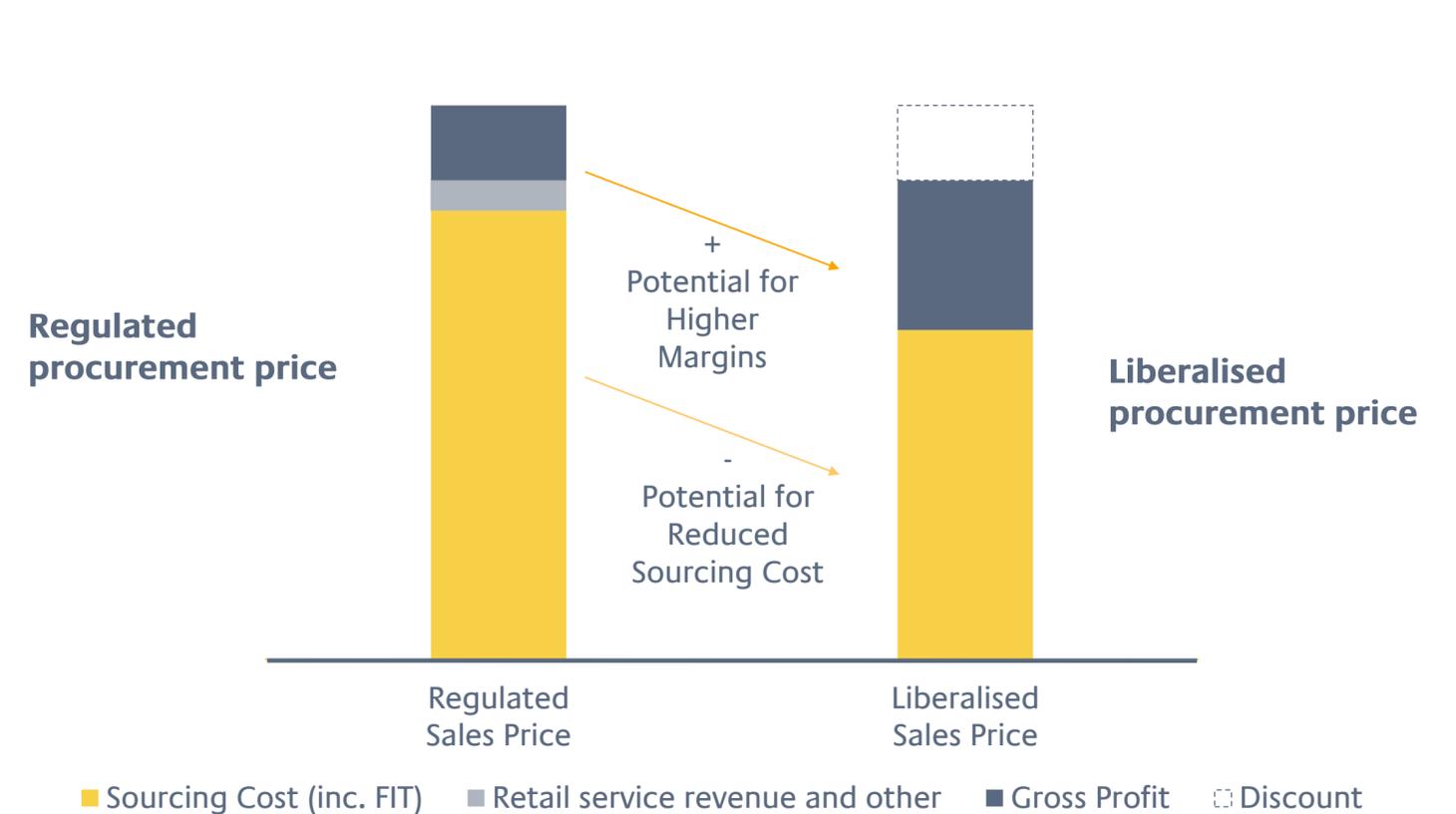
1) The limit effective as of August 1, 2022. 2) The limit effective as of July 1, 2022.

# Liberalisation as Potential Upside

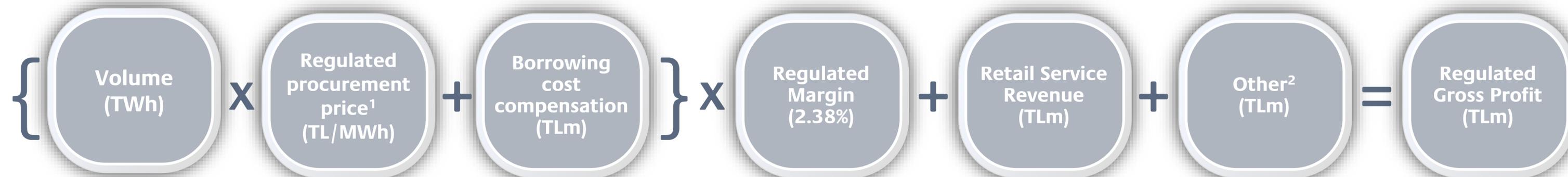
## Development of Liberalised Segment



## Illustrative and Simplified Profitability Structure



## Effective Total Regulated Gross Profit



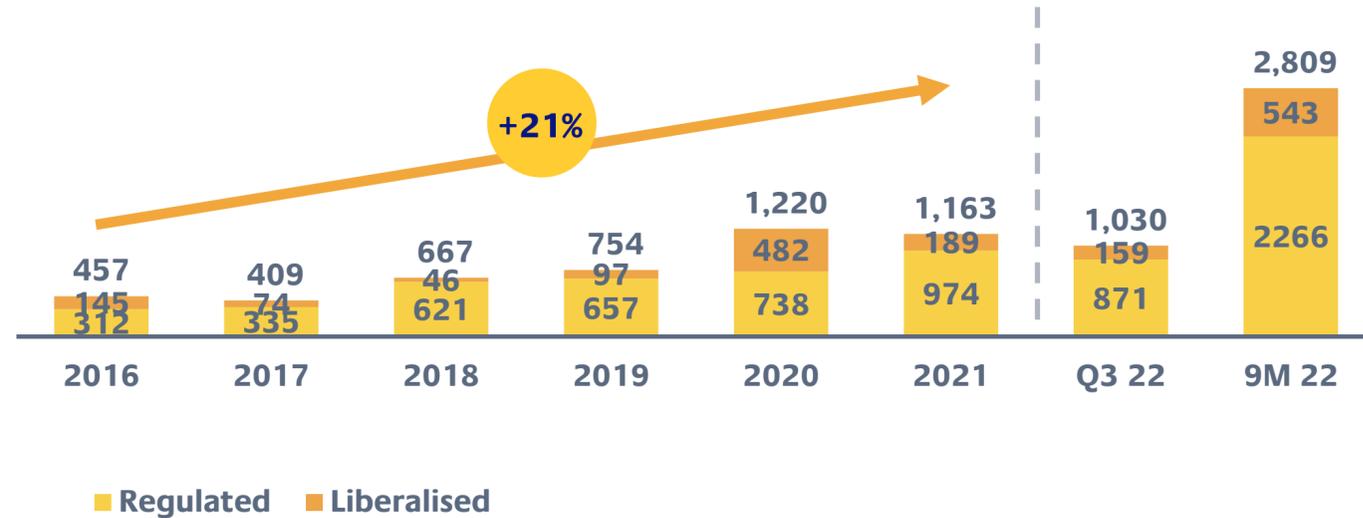
Source: Company and EMRA

1) Including YEKDEM

2) Includes doubtful compensation and quality parameters

# Retail Financial Overview

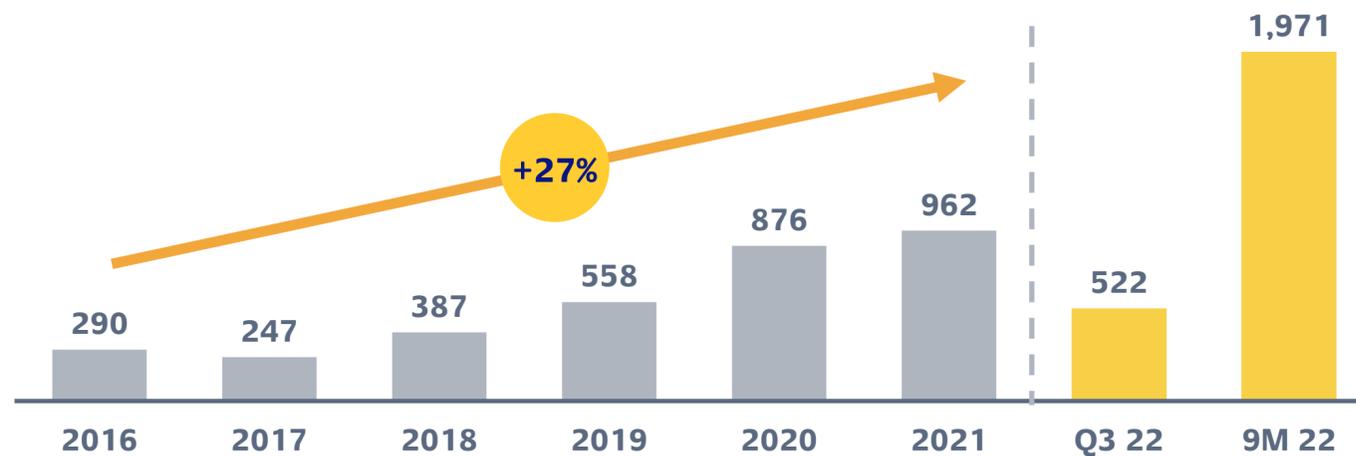
## Retail Gross Profit (TLm)



## Key Drivers

- In regulated retail segment, a regulatory fixed margin of 2.38% on electricity sourcing costs is implemented.
- In 2021, sourcing costs increased due to increase in global spot natural gas and coal prices, FX impact and weak hydrology. Regulated gross profit increased with the impact of higher electricity procurement costs and higher retail service revenue due to increase in opex allowance mainly driven by higher inflation.
- Liberalized gross profit declined year-over-year due to competitive activity early in the year, high base impact and volatility in electricity sourcing costs.

## Retail Operational Earnings (TLm)



## Key Drivers

- Growth in 2021 mainly driven by higher regulated gross profit, despite the increase in operational expenses.

# Mass Segment

## Regulated Mass

### Sales Volume (TWh)



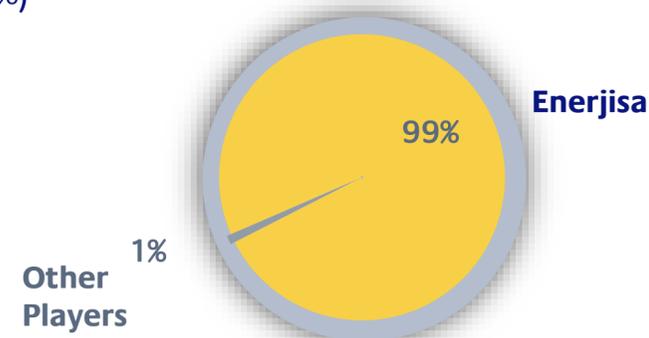
- Growth in customers numbers
- Growth in consumption per capita
- Eligible customers are switched to liberalised segment in times of higher profitability

### Gross Margin (%)



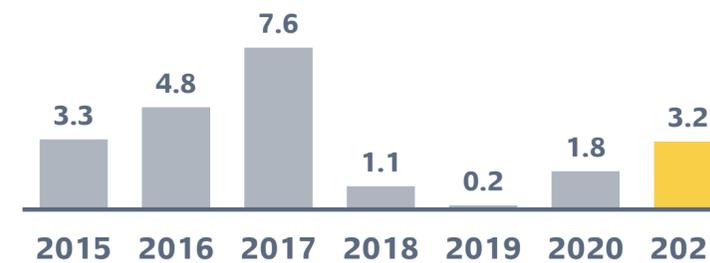
- Driver: Increase in electricity price level

### Market Share (Home regions) by volume 2021 (%)



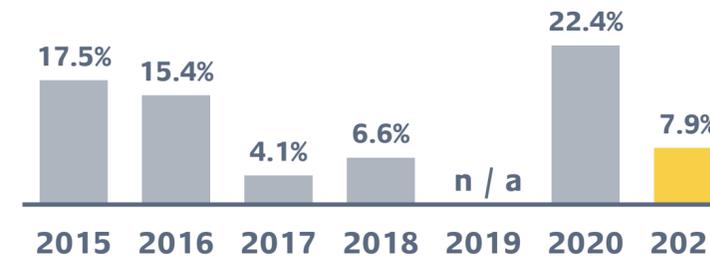
## Liberalised Mass

### Sales Volume (TWh)



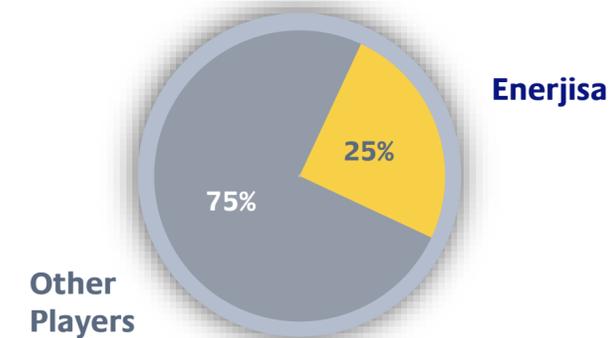
- Includes sales to SMEs mostly with fixed contracts
- Strategic focus in times of high profitability

### Gross Margin (%)



- Driver: National tariff levels (the extent they are cost reflective)

### Market Share (Turkey) by volume 2021 (%)



# Corporate Segment

## Regulated Mass

### Sales Volume (TWh)



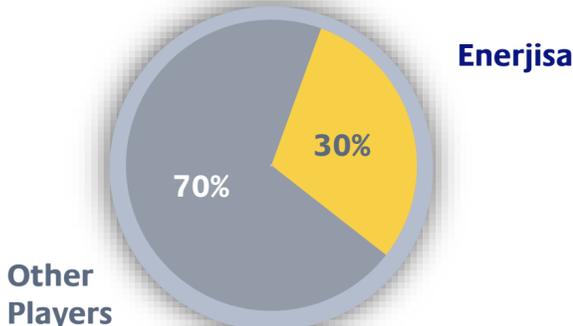
- Customers switch to liberalised market as soon as lower price offers are available

### Gross Margin (%)



- Driver: Increase in electricity price level

### Market Share (Home regions) by volume 2021 (%)



## Liberalised Mass

### Sales Volume (TWh)

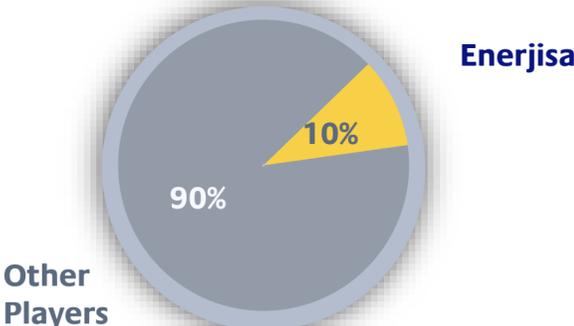


### Gross Margin (%)



- Priority is to focus on profitable customers only

### Market Share (Turkey) by volume 2021 (%)



# Customer Solutions & E-Mobility Business



# Customer Solutions

- Enerjisa Müşteri Çözümleri A.Ş (EMÇ) was established in 2017 to meet the customer needs with sustainable and innovative solutions.
- Enerjisa Müşteri Çözümleri offers end-to-end solutions to enhance energy efficiency and reduce the carbon emissions of corporate customers under the roof of **“The Energy of My Work” (İşimin Enerjisi)** since October 2020.

## Green Energy Solutions

- Green Energy Solutions
  - Renewable Energy Certificates
  - Carbon Reduction Certificates
  - Green Energy Tariffs

## Energy Efficiency Solutions

- Energy Efficiency Solutions in Industrial Facilities and Buildings
- Lightning Transformation Projects

## Distributed Generation Solutions

- Renewable Energy Solutions

## E-mobility

- Eşarj

# Green Energy and Energy Efficiency Solutions

## Green Energy Solutions

Enerjisa Enerji's customers may reduce or neutralize their greenhouse gas emissions resulting from electricity consumption with two types of certificates:

- **Renewable Energy Certificate (REC):** 284,000 MWh of Renewable Energy Certificates sold in 2021.
- **Carbon Reduction Certificate:** Carbon Reduction Certificates equivalent to 27,000 metric tons of CO<sub>2</sub> sold in 2021.



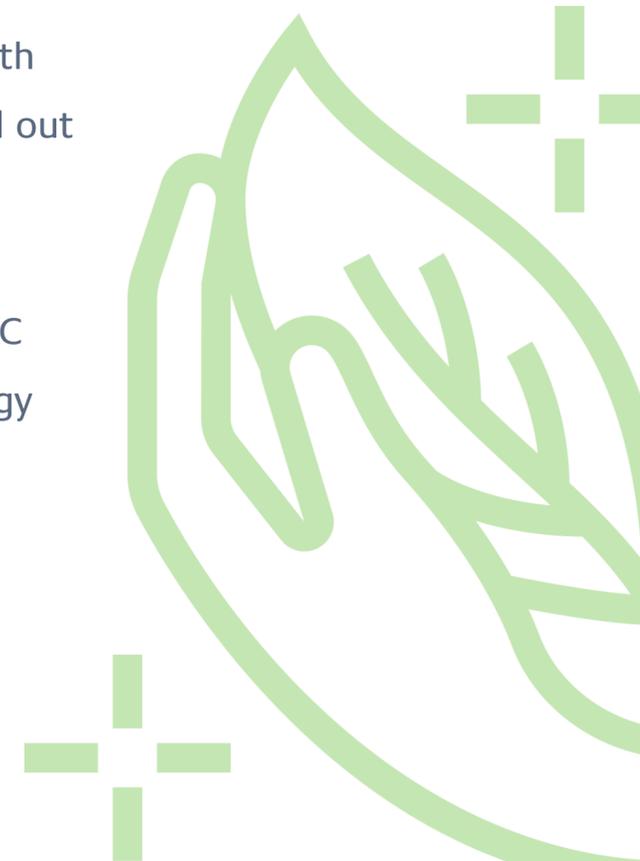
## Energy Efficiency Solutions

### Energy Efficiency Solutions in Industrial Facilities and Buildings

- With the ESCO model, turn-key energy efficiency solutions are offered for major domains such as waste heat recovery, HVAC, compressed air, lighting and electric motors.
- Cogeneration and Trigeneration solutions provided with a total installed capacity of 3.8 MWe at Sabancı University, Hilton Adana and Hilton Ankara locations. The efficiency achieved with these plants will prevent more than 30,000 tons of CO<sub>2</sub> emissions over the course of 10 years.

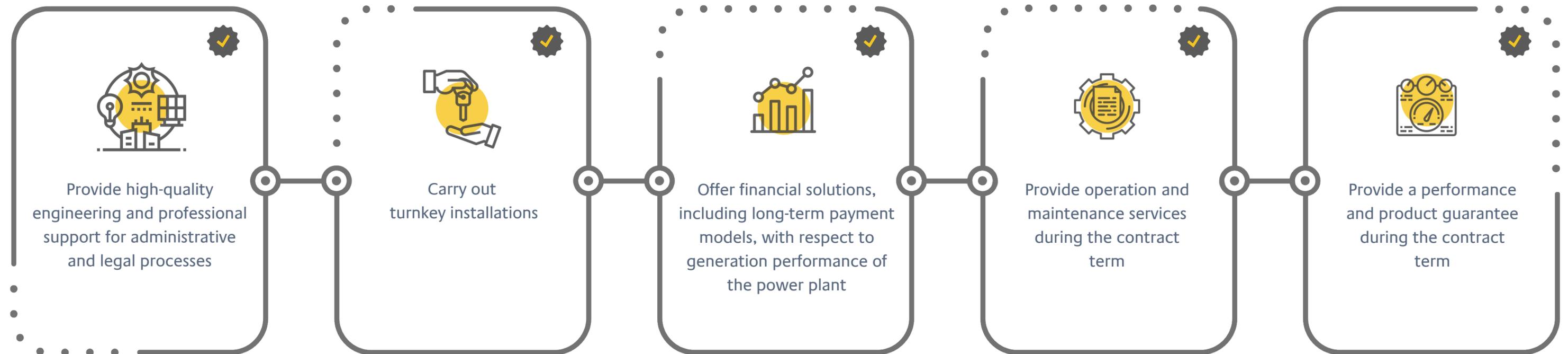
### Lightening Transformation Projects

- Implemented the LED conversion of 19,700 fixtures with 15 projects as of the end of 2021. The projects carried out delivered a total of c. 3,650 MWh in energy savings, reducing CO<sub>2</sub> emissions by c. 1,730 tons.
- Converted 11,000 fixtures to LED in 8 projects with EPC model. These projects delivered c. 1,230 MWh in energy savings, reducing CO<sub>2</sub> emissions by c. 580 tons.



# Renewable Energy Solutions

## Enerjisa Business Models



- The total installed capacity of the solar power plants reached 22.6 MWp, with 13.4 MWp of this capacity under the self-consumption model as of 2021 year end.
- The Company expects to increase the total solar capacity to c. 200MWp by the end of 2025.



# Technology of the New Energy World: Eşarj

## Eşarj Business Models

- Eşarj is the first and fastest electric vehicle charging station network in Turkey. Eşarj offers end-to-end solutions in the charging business with its vast station network.
- Enerjisa Müşteri Çözümleri A.Ş. (EMÇ) acquired majority shares (80%) of Eşarj in 2018, becoming its controlling shareholder. In 2021, EMÇ acquired additional 14% stake and its share increased from 80% to 94%.
- Eşarj aims to create a national network of stations and an operating system of charging stations in Turkey.
- The goal is to accelerate the transition to ultrafast charging in the coming period.
- Since July 2020, Eşarj's public stations fully operate with renewable energy, breaking new ground among charging operators.

## 2021 Highlights

- Operating 494 charging plugs at 263 public locations by the end of 2021, including 170 fast-plugs.
- OEM Collaborations: Eşarj was chosen as an e-mobility business/solution partner by passenger car brands such as Hyundai and MG, which started to put electric and hybrid vehicles on the market in 2021. In addition, cooperation with Mini, Stellantis, Volvo, Mercedes, Jaguar, Renault, Land Rover and BMW continues.

## 9M 2022 Highlights

- Eşarj has been entitled to establish 495 fast charging stations (min. 90 Kw and with min. 2 charging sockets) in 53 cities within 11 investment regions. Approximately TL 300 million (machinery, equipment, infrastructure etc) investment is planned by Eşarj within the scope of the tender.
- As of 22.09.2022, Eşarj has been entitled to benefit from the investment incentive mechanism.



# Customer Solutions

## Green Energy and Energy Efficiency Solutions (2021)

- 284 GWh Renewable Energy Certificates sold (2021)
- 3,650 MWh of energy conserved via Lighting Conversion Solutions
- 3.8 Mwe CHP and CCHP facility

## Distributed Generation (2021)

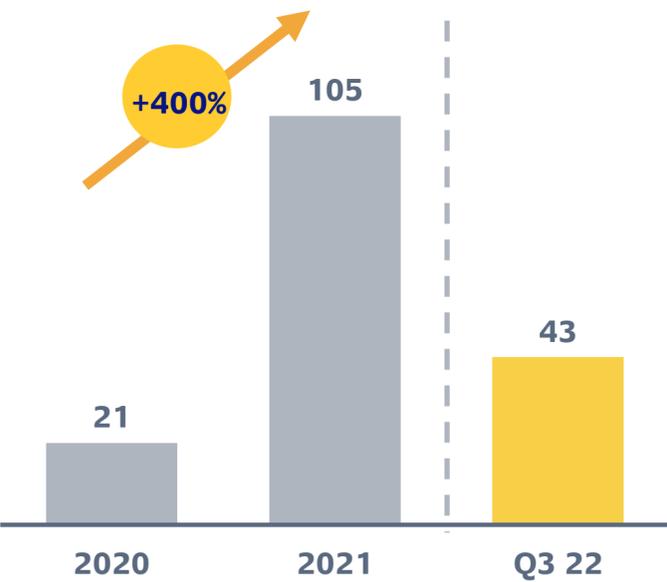
- 22.6 MWp Installed Solar Power Capacity

## E-Mobility (2021)

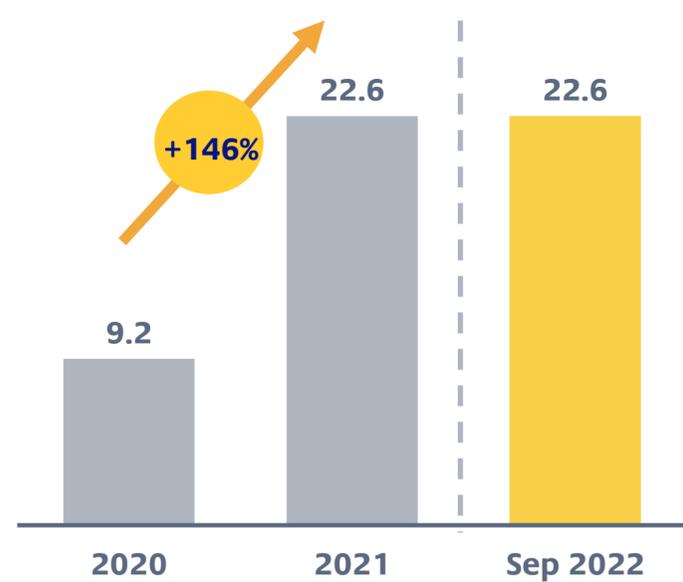
- 494 EV charging plugs
- 263 Public charging locations

## Key Performance Indicators

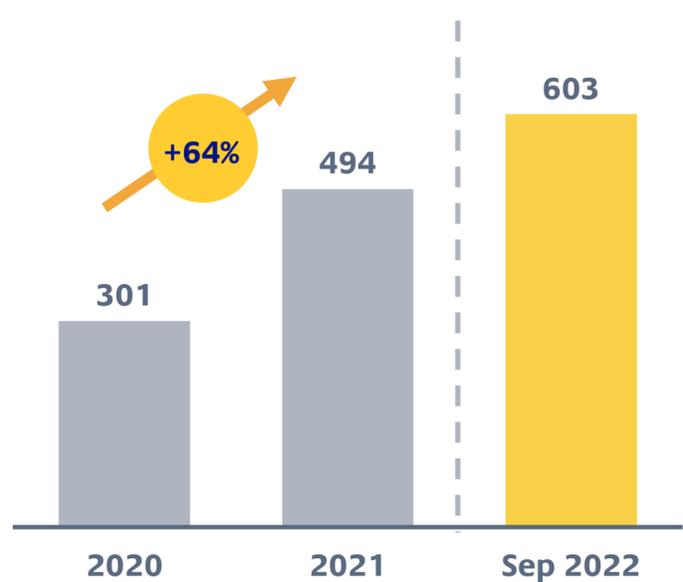
Gross Profit (TLm)



SPP Capacity (MWp)



EV Charging Plugs



- Gross profit increased 5-fold to TL 105 million in 2021 mainly due to new solar projects.
- Customer Solutions business accounted for 8% of retail gross profit in 2021 compared to 2% in 2020.

# Appendix



# Key Financial Concepts

- In Turkey, Distribution companies operate under a transfer of operating rights (TOR) agreement, which means no legal ownership of assets; legal and asset ownership remains with TEDAŞ (i.e. the state).
- As a consequence, accounting for all Turkish distribution companies falls under IFRIC 12 “service concession arrangements: government or other body grants contracts for supply of public services”.
- Therefore, networks are accounted as financial asset instead of fixed assets in IFRS which need to be recognized at amortized cost under IFRIC 12.
- IFRS P&L does not show any asset depreciation and accordingly no income from amortization allowance (reimbursement of capital).
- Enerjisa uses EBITDA + Capex reimbursement as its main operational financial KPI to capture the full regulatory, cash-effective RAB return and to increase comparability with international peers who generally do not have to apply IFRIC12.
- **As a result, Enerjisa defines the top financial, P&L-related KPIs as follows:**

**EBITDA**

**+ Capex Reimbursements**

**(-) Exceptional Items**

**= Operational Earnings**

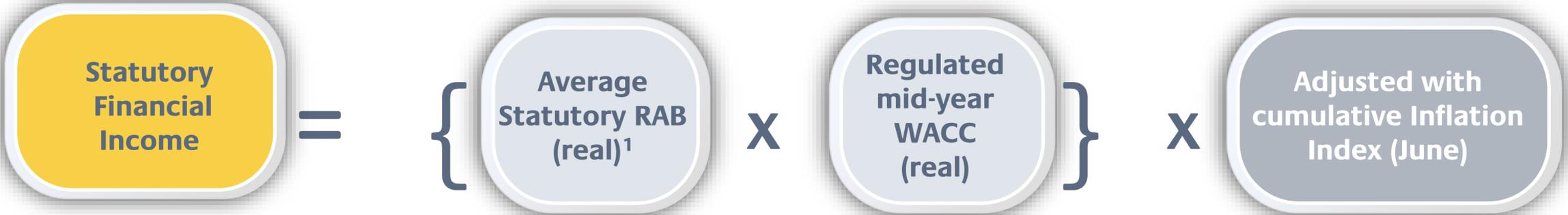
**Reported Net Income**

**(-) Exceptional Items**

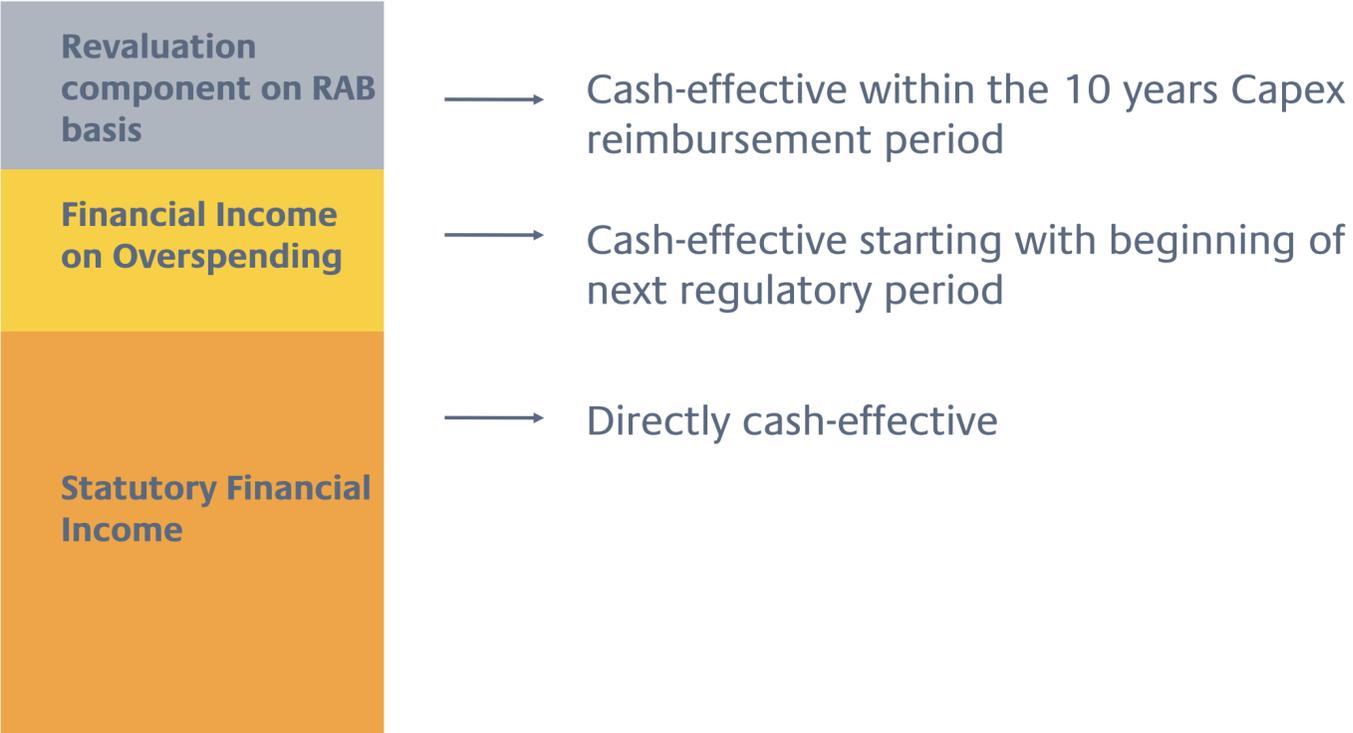
**= Underlying Net Income**

# Investments – Financial Income Mechanism

## Statutory Financial Income



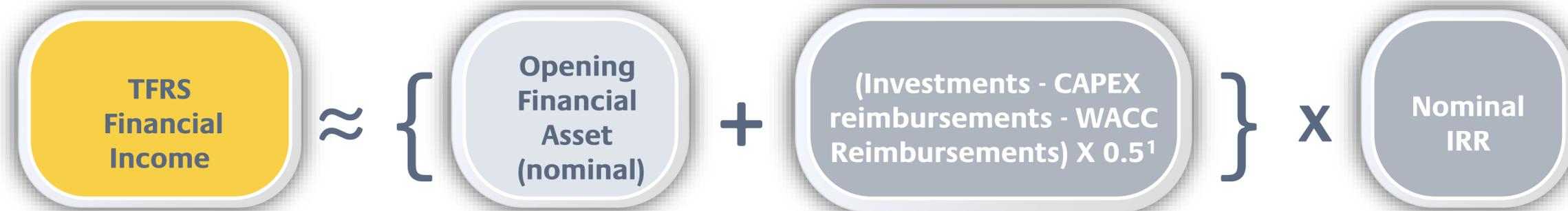
## Cash-effective Statutory Financial Income



Source: EMRA, Company  
 1) Adjusted for scrap sales + new connection fees

# Investments – TFRS Interpretation 12 mechanism

## Simplified & Illustrative Calculation Logic of TFRS Financial Income



- Our distribution companies are subject to the application of TFRS Interpretation 12 (TFRS interpretation that governs accounting for service concession arrangements). Accordingly, we account our license to operate and invest in the networks as a financial asset.
- The financial asset model is based on nominal IRR calculation across the forecast period.

### Previous Approach

- Forecast period: Capex and cash flow is forecasted across the concession period.
- IRR calculated over the concession period for all projected cash flows.
- High Mismatch between Regulated Asset Base and Financial Asset during times of high deviation between short-term and long-term inflation expectations.

### New Approach (as of 3Q 2022)

- Forecast period is 10 years (aligned with Capex reimbursement period) . Capex is forecasted only carried for the current year.
- IRR is calculated over 10 year period.
- Higher impact of short-term inflation assumptions on nominal IRR compared to previous approach
- Lower mismatch between Regulated Asset base and Financial Asset compared to previous approach

The models in this slide are simplified illustrative representations. The corresponding line items in Enerjisa Enerji financial statements may deviate significantly vs. the simplified models

Source: EMRA, Company

1) Assuming even spread within the year

# 4<sup>th</sup> Regulatory Period Overview

## Overall stable regulatory framework supporting investments, governance and quality

Key confirmations	Key changes	Quality & Transparency Focus
<p><b>Distribution</b></p> <ul style="list-style-type: none"> <li>WACC calculation methodology unchanged.</li> <li>Capex reimbursement period unchanged (10 years).</li> <li>Theft usage accrual retention rate at detection unchanged (55%).</li> <li>Efficiency incentives continue.</li> </ul> <p><b>Retail</b></p> <ul style="list-style-type: none"> <li>No change in retail margin (2.38%).</li> <li>Inclusion of Feed-in-tariff costs in retail margin continue.</li> </ul>	<p><b>Distribution</b></p> <ul style="list-style-type: none"> <li>Pretax real WACC changed from 13.61% to 12.30%.</li> <li>Increase in Initial Capex allowance (72% increase for Enerjisa in real terms vs. 3<sup>rd</sup> regulatory period).</li> <li>Increase in Opex allowance excluding scheduled maintenance (8% increase for Enerjisa in real terms vs. 3<sup>rd</sup> regulatory period).</li> <li>Theft usage accrual retention rate at collection reduced to 50% from 75%.</li> <li>Theft and Loss target threshold rate reduced from 8.0% to 7.5% for Cluster 1 (best performers).</li> </ul>	<p>Incentives to support <b>quality, in-house sourcing, transparency governance, and sustainability:</b></p> <ul style="list-style-type: none"> <li>Bonus/malus mechanism introduced for quality parameters and increase in % quality parameter ceiling.</li> <li>General Quality Indicators introduced for: <ul style="list-style-type: none"> <li>Public companies. Companies with direct shareholders listed on Borsa İstanbul, incentive equal to 0.3% of the revenue requirement (Distribution and Retail).</li> <li>In-house sourcing. If in-house sourcing is above 50%, incentive up to 1% of the revenue requirement (Distribution).</li> </ul> </li> <li>For scheduled maintenance a new scope is defined and a new opex allowance is introduced to incentivize improvement in continuity of supply and customer satisfaction (Distribution).</li> </ul>

# Comparison of 3<sup>rd</sup> and 4<sup>th</sup> Regulatory Period: Distribution

		3 <sup>rd</sup> Regulatory Period	4 <sup>th</sup> Regulatory Period
Quality Parameters	Calculation base	<ul style="list-style-type: none"> <li>Uncontrollable OPEX is included in revenue requirement for calculating base of quality parameters</li> </ul>	<ul style="list-style-type: none"> <li>Uncontrollable OPEX is excluded, while scheduled maintenance Opex is included to revenue requirement for calculating base of quality parameters</li> </ul>
	Quality parameter (Quality factor and general quality indicator) ceiling	<ul style="list-style-type: none"> <li>Bonus mechanism based on performance (bonus ceiling:5%, penalty ceiling:0%)</li> </ul>	<ul style="list-style-type: none"> <li>A bonus/malus mechanism is introduced. Under the quality factor and general quality indicator headings, total quality parameter bonus ceiling is set as 6% of regulated revenue requirement for 2021 and 7% of regulated revenue requirement for 2022-2025. Penalty ceiling is set at minus 2.05% for 2021 and minus 2.8% for 2022-2025</li> </ul>
	General quality indicator: In-house sourcing incentive		<ul style="list-style-type: none"> <li><b>New (within the ceiling):</b> Companies will be incentivized in case the share of in-house sourcing is above 50%. The maximum incentive is set at 1% of revenue requirement for each year, while bonus amount will depend on in-house sourcing share. All Enerjisa distribution companies have above 50% in-house sourcing share</li> </ul>
	General quality indicator: Incentive for public companies		<ul style="list-style-type: none"> <li><b>New(within the ceiling):</b> Electricity distribution and incumbent retail companies directly listed on Borsa İstanbul will be eligible for 1.0% of their revenue requirement as an incentive. If their parent companies (direct shareholders) are listed on Borsa İstanbul, there will be 0.3% incentive on the revenue requirement for the year</li> </ul>
Opex Allowance	Scheduled maintenance		<ul style="list-style-type: none"> <li>For scheduled maintenance a new scope is defined and a new opex allowance is introduced to incentivize improvement in continuity of supply and customer satisfaction</li> </ul>
	X-Factor (Opex efficiency)	<ul style="list-style-type: none"> <li>Regulated efficiency parameter implementation, reducing opex allowances. Annual efficiency parameter was 1.28% for Başkent Region, 0.61% for Toroslar region and 0% for Ayedaş region</li> </ul>	<ul style="list-style-type: none"> <li>No efficiency parameter in the fourth regulatory period</li> </ul>

# Comparison of 3<sup>rd</sup> and 4<sup>th</sup> Regulatory Period: Distribution

		3 <sup>rd</sup> Regulatory Period	4 <sup>th</sup> Regulatory Period
Theft and Loss	Theft and Loss (T&L) targets	<ul style="list-style-type: none"> <li>Target theft and Loss threshold rate 8% for the first cluster in target setting</li> </ul>	<ul style="list-style-type: none"> <li>Theft and Loss target threshold rate 7.5% for the first cluster (Başkent and Ayedaş is in the first cluster) as a part of dynamic T&amp;L targeting.</li> <li>T&amp;L target is based on previous 3 years performance.</li> <li>For the first cluster, the T&amp;L target formula is <math>((7.5\% + w.avg(Y-2, Y-3, Y-4)) / 2)</math></li> </ul>
	Theft accrual: Retention rate at detection	<ul style="list-style-type: none"> <li>55%</li> </ul>	<ul style="list-style-type: none"> <li>55%</li> </ul>
	Theft accrual: Retention rate at collection	<ul style="list-style-type: none"> <li>75%</li> </ul>	<ul style="list-style-type: none"> <li>50% in regions where T&amp;L rate <math>\leq</math> Turkey average (effecting all Enerjisa regions)</li> </ul>
Other Income	Retention rate for income items such as renting distribution network items	<ul style="list-style-type: none"> <li>75%</li> </ul>	<ul style="list-style-type: none"> <li>50%</li> </ul>
	Retention rate for case, court, advocacy, enforcement and conciliation income	<ul style="list-style-type: none"> <li>100%</li> </ul>	<ul style="list-style-type: none"> <li>50%</li> </ul>
	(t) correction mechanism of other income / theft accrual from revenue requirement	<ul style="list-style-type: none"> <li>Actual amount deducted at year (t+2)</li> </ul>	<ul style="list-style-type: none"> <li>Forecasted amount deducted at year (t). This will have cash flow impact at IFRS financials</li> </ul>

# Comparison of 3<sup>rd</sup> and 4<sup>th</sup> Regulatory Period: Retail

	3 <sup>rd</sup> Regulatory Period	4 <sup>th</sup> Regulatory Period
<b>Retail Margin</b> Regulated gross profit margin	<ul style="list-style-type: none"> <li>2.38%</li> </ul>	<ul style="list-style-type: none"> <li>2.38% (no change)</li> </ul>
<b>Retail Margin</b> FIT cost treatment	<ul style="list-style-type: none"> <li>Retail margin calculation base includes feed-in-tariff (FIT) costs (since 2018)</li> </ul>	<ul style="list-style-type: none"> <li>Retail margin calculation base includes FIT costs (no change)</li> </ul>
<b>Retail Margin base</b> Letter of Guarantee commission expenses Market Clearing Price- PTF (1+X) Mechanism	<ul style="list-style-type: none"> <li>No profit margin on PTF (1+X) mechanism used to cover the financing costs related to energy procurements</li> <li>Letter of Guarantee Commission Expenses through 2.38% profit margin</li> </ul>	<ul style="list-style-type: none"> <li>For PTF (1+X) mechanism used to cover the financing costs related to energy procurements, 2.38% profit margin is applied</li> <li>Letter of Guarantee Commission Expenses will be covered from the tariff as pass through</li> </ul>
<b>Retail Service Revenue</b> Doubtful risk compensation mechanism	<ul style="list-style-type: none"> <li>Bad debt provision costs are compensated via tariff to incentivize high collection rates. Higher collection will receive the maximum incentive</li> </ul>	<ul style="list-style-type: none"> <li>The collection risk mechanism related to doubtful receivables will remain unchanged</li> </ul>
<b>OPEX Requirement</b> Management and support service procurement expenses from same holding/group COs	<ul style="list-style-type: none"> <li>Management and support service procurement expenses not included in regulated OPEX requirement</li> </ul>	<ul style="list-style-type: none"> <li>Management and support service procurement expenses will be included in regulated OPEX requirement</li> </ul>
<b>Other Income</b> Retention rate for case, court, advocacy, enforcement and conciliation income	<ul style="list-style-type: none"> <li>100%</li> </ul>	<ul style="list-style-type: none"> <li>50%</li> </ul>
<b>Quality Parameters (Quality Factor and General Quality Indicator)</b>	<ul style="list-style-type: none"> <li>Uncontrollable OPEX included in revenue requirement for calculating base of quality parameters</li> <li>Bonus mechanism based on call center performance (ceiling:1%)</li> </ul>	<ul style="list-style-type: none"> <li>Uncontrollable OPEX excluded from revenue requirement for calculating quality parameter base</li> <li>Bonus/malus mechanism is introduced. Quality Factor bonus ceiling is set at 1.23% and penalty ceiling is set at minus 1.23%</li> <li><b>New (General Quality Indicator):</b> Electricity distribution and incumbent retail companies directly listed on Borsa İstanbul will be eligible for 1.0% of their revenue requirement as an incentive. If their parent companies (direct shareholders) are listed on Borsa İstanbul, there will be 0.3% incentive on the revenue requirement for the year</li> </ul>

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# Thank You

 <https://enerjisinvestorrelations.com>

 [investorrelations@enerjisa.com](mailto:investorrelations@enerjisa.com)

 +90 216 579 09 31