




Energy To the future

 **Tüpraş**

 **Koc** | March 2024

Investor Presentation

Disclaimer

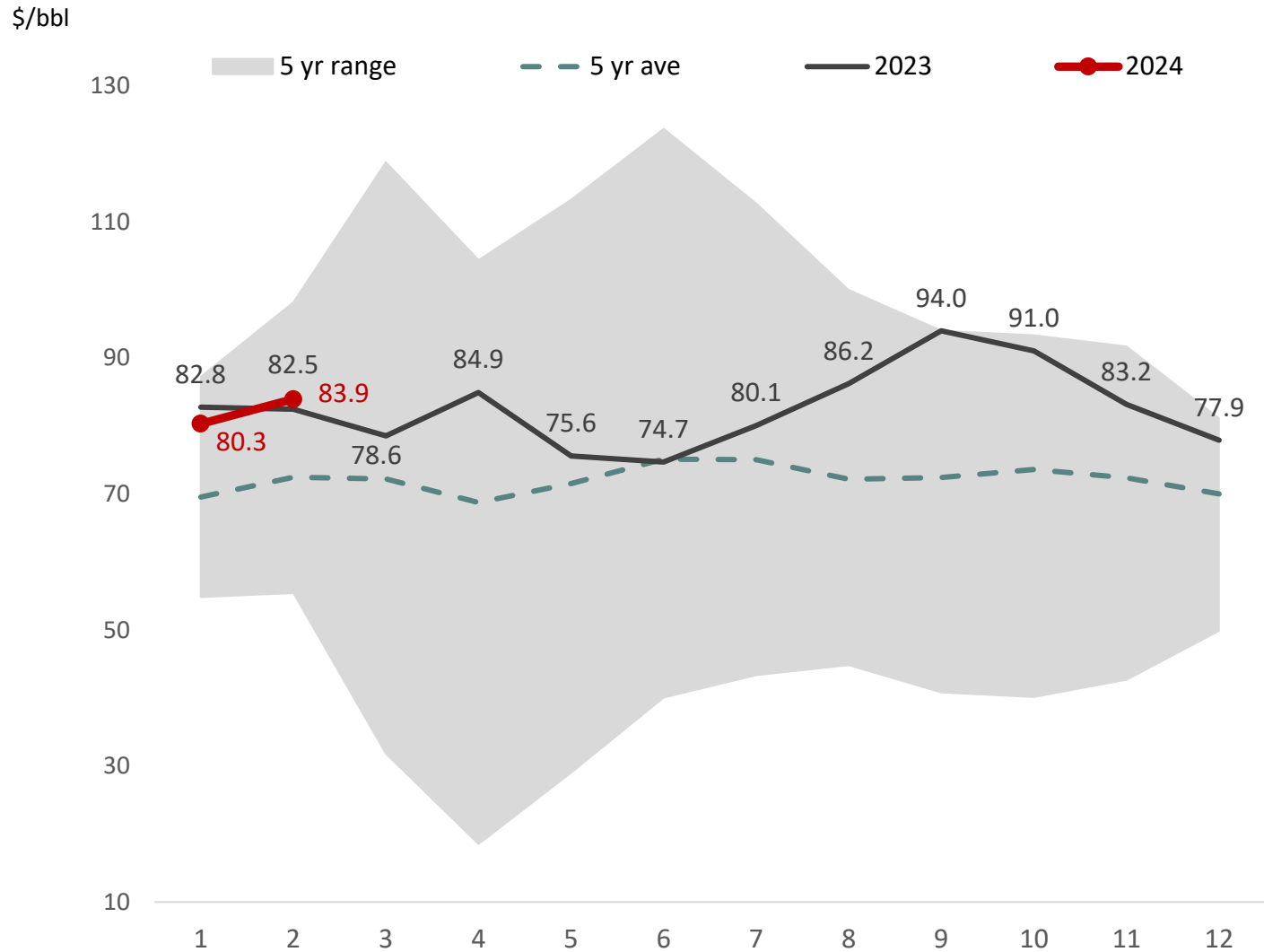
This presentation contains forward-looking statements that reflect the Company management's current views with respect to certain future events. Although it is believed that the expectations reflected in these statements are reasonable, they may be affected by variables and changes in underlying assumptions that could cause actual results to differ materially.

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Refining Market

Brent Crude Prices



- + Russian-Ukraine war
- + Impact of sanctions
- + Post-pandemic demand recovery
- + OPEC+ cut decisions
- + New trade dynamics

- Continued Non OPEC supply
- Geopolitical tensions
- Concerns over economic slowdown

Year	Average Brent Prices (\$/bbl)
2019	64.3
2020	41.7
2021	70.7
2022	101.2
2023	82.6

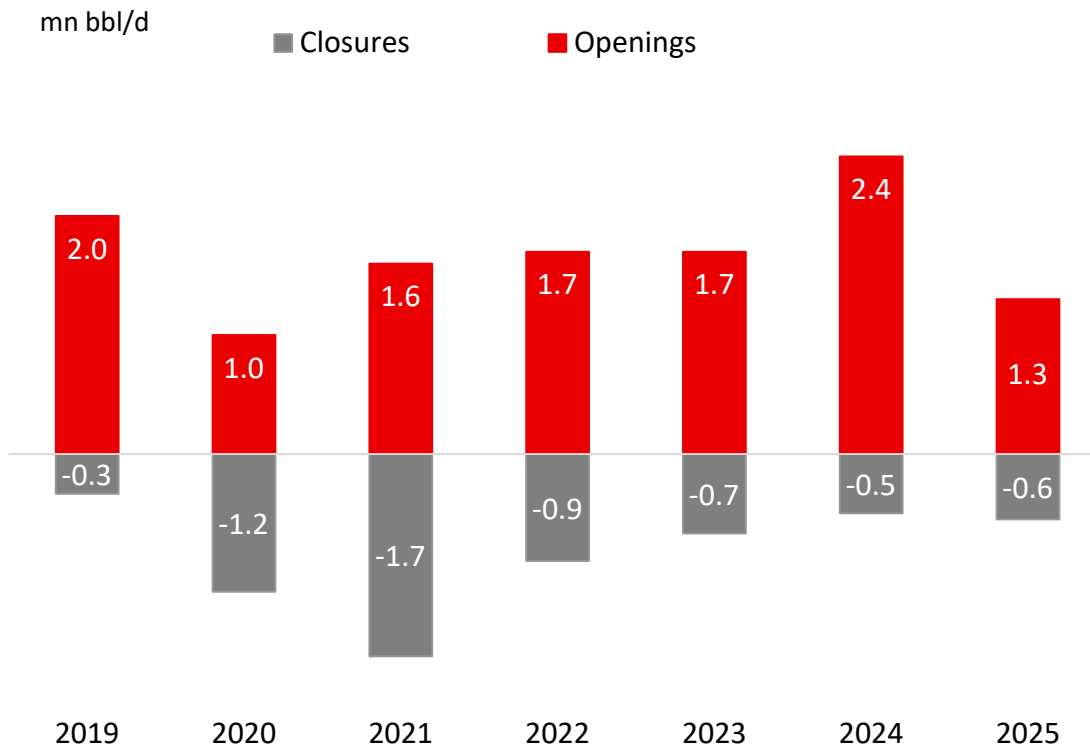
Data as of 29 February, 5 year range shows 2019-2023

Global Refinery Capacity Changes

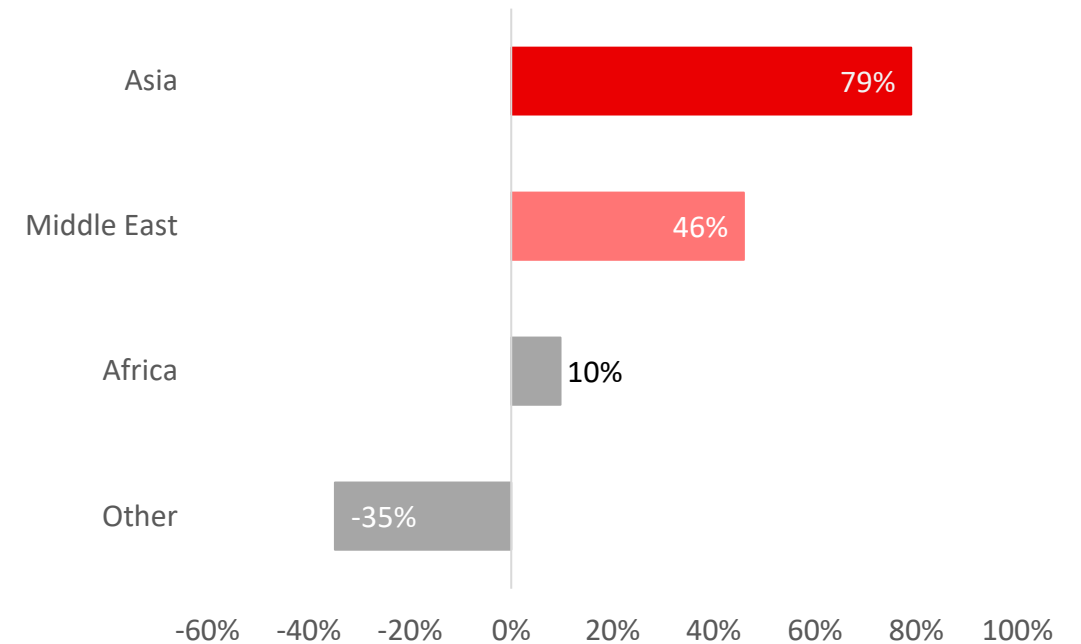
Expectations until 2025:

- In the 2019-2025 period, 79% of the net capacity increase comes from Asia and 46 % from the Middle East Region.
- 63 % of the closures intensified after the pandemic come from the OECD region.

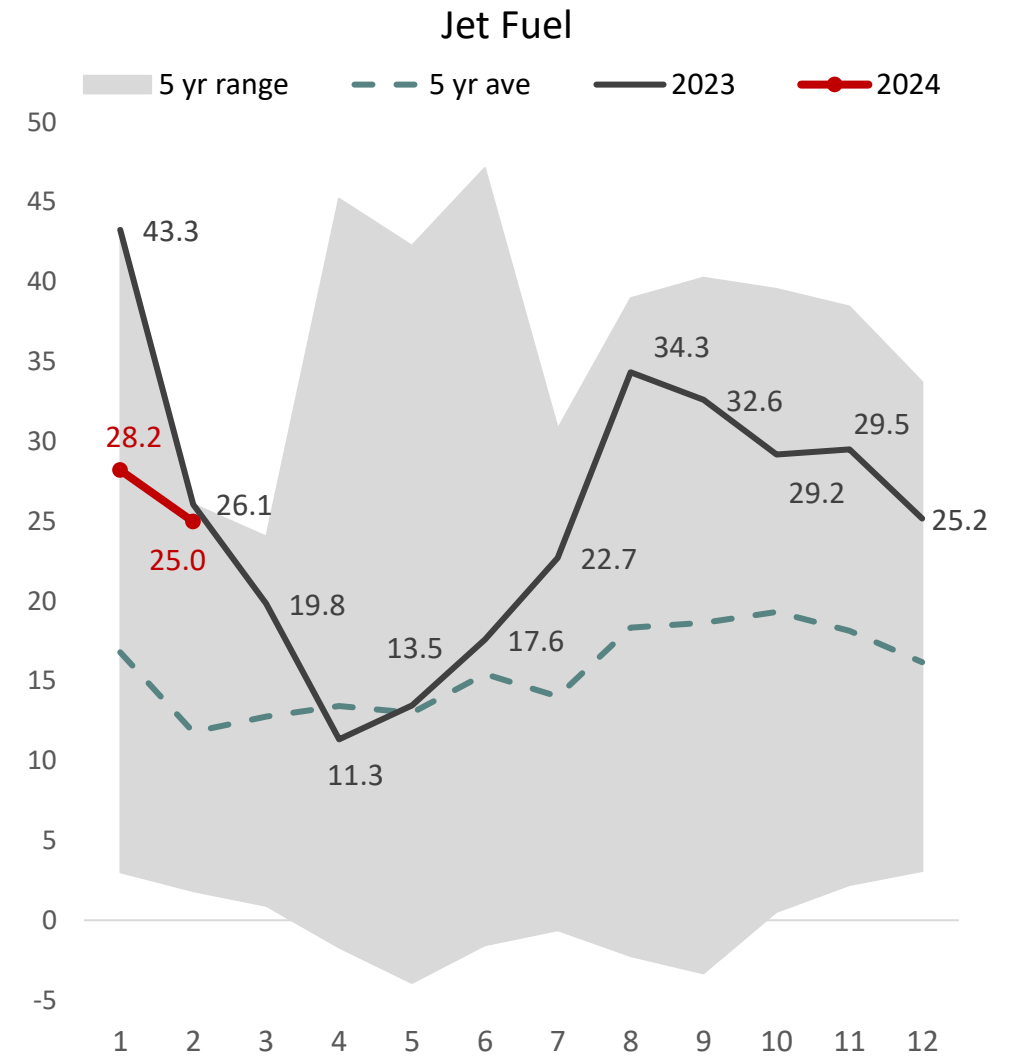
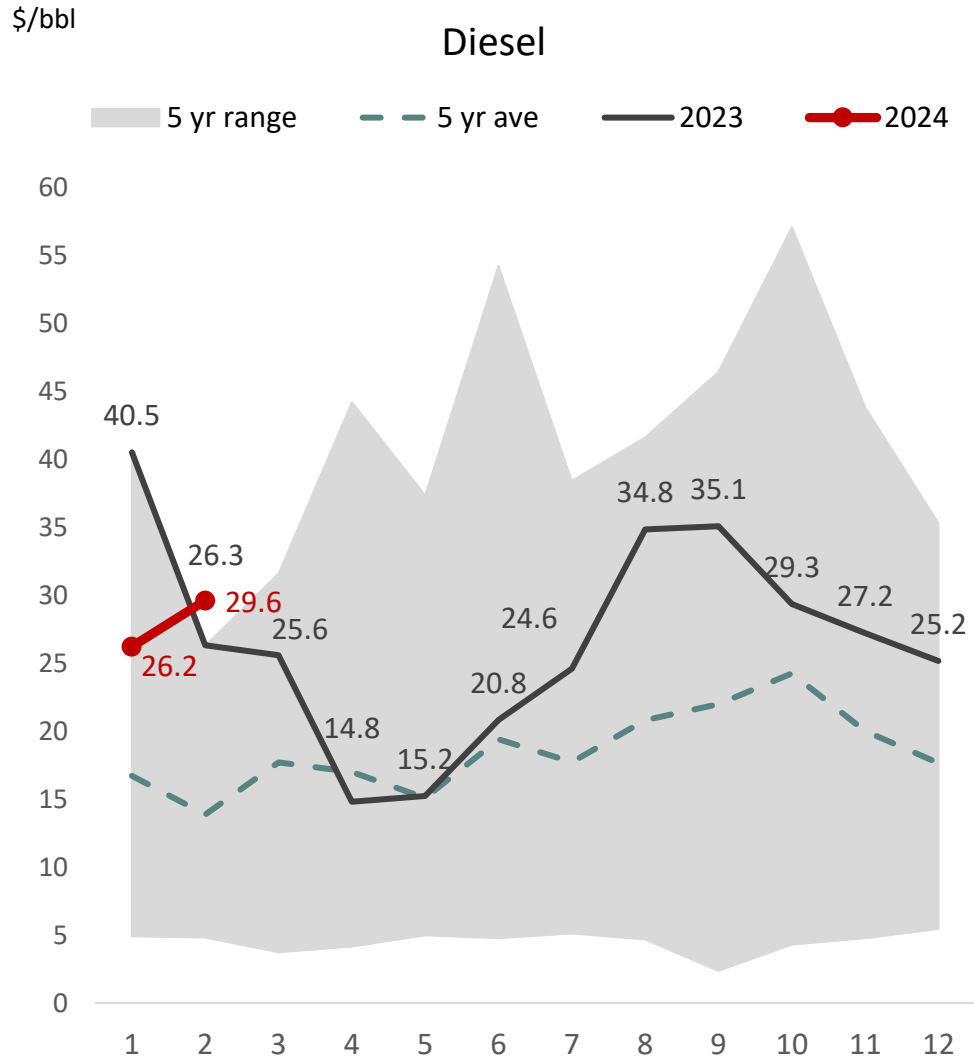
2019-2025 Net Capacity Additions



Capacity Additions by Region

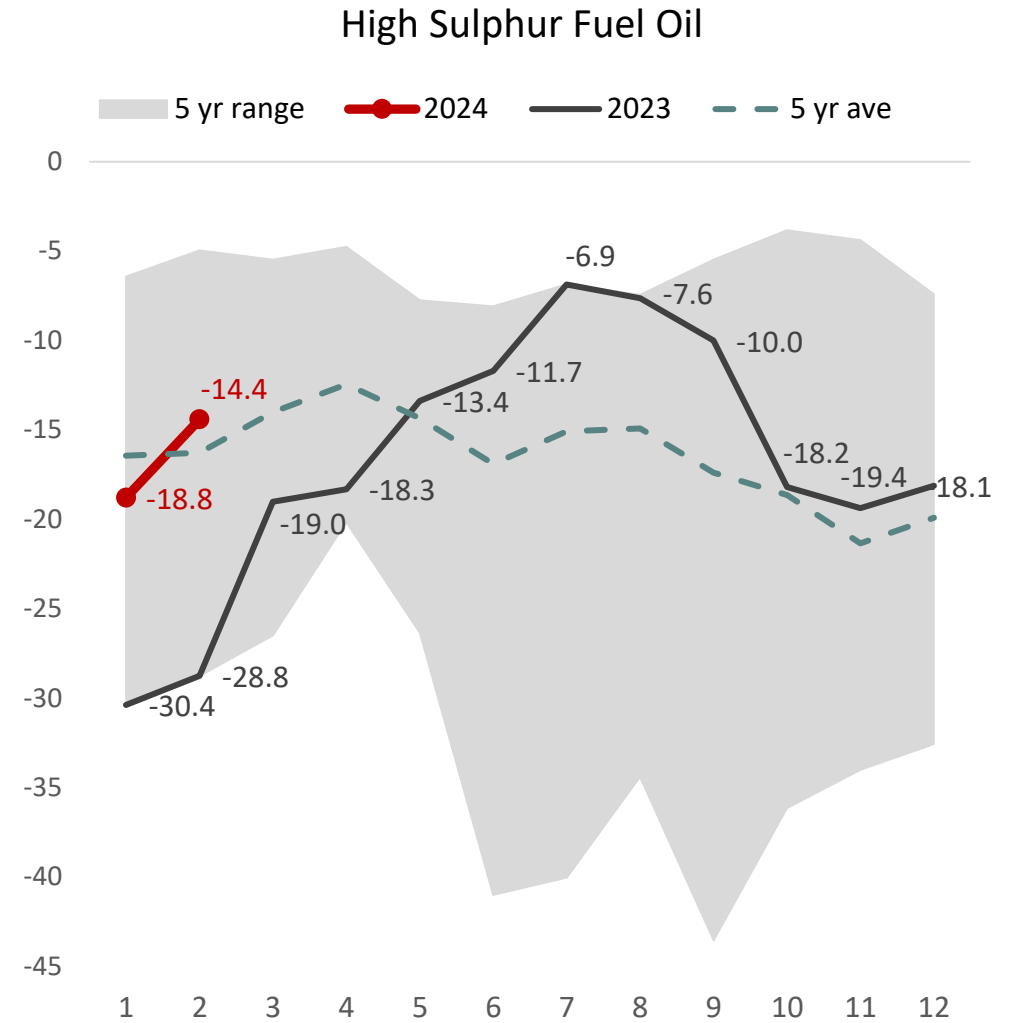
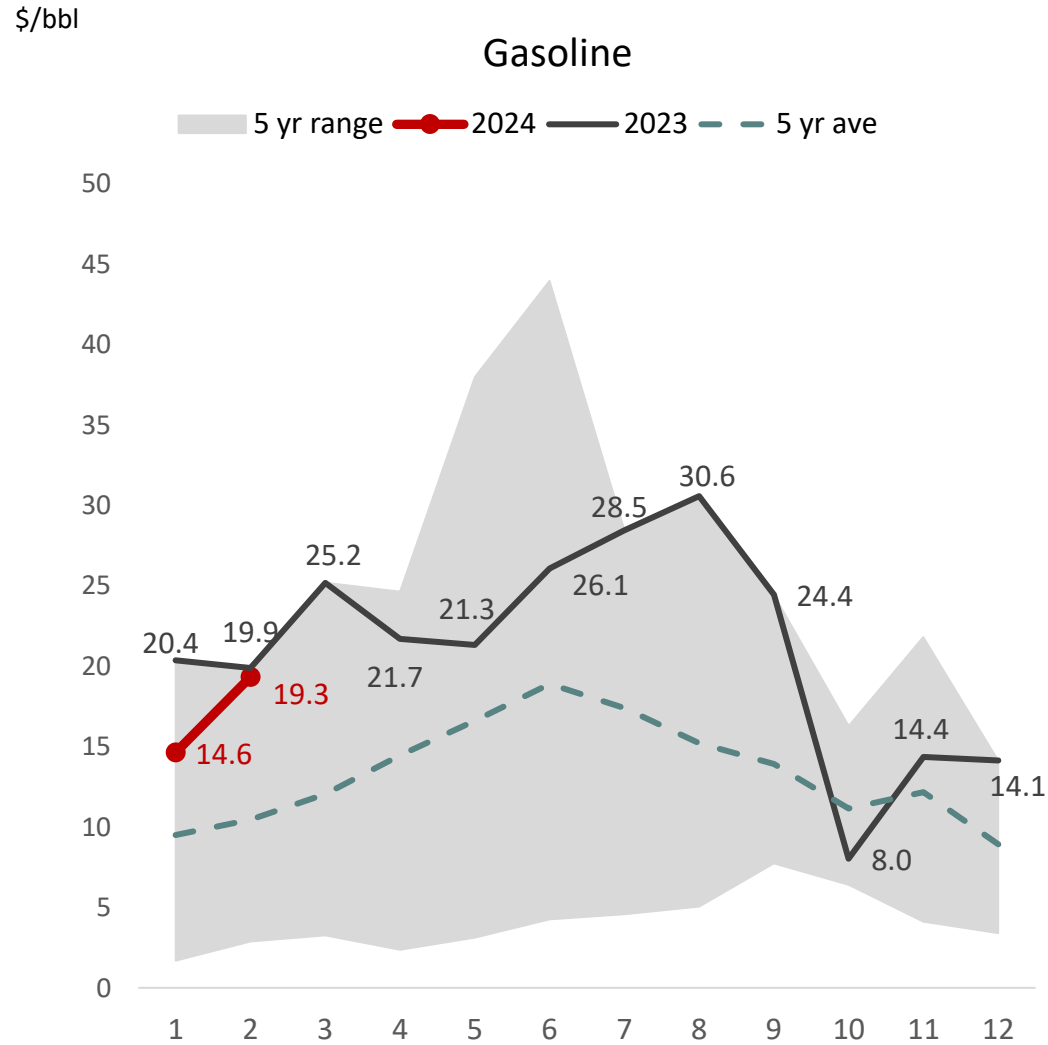


Middle Distillate Cracks



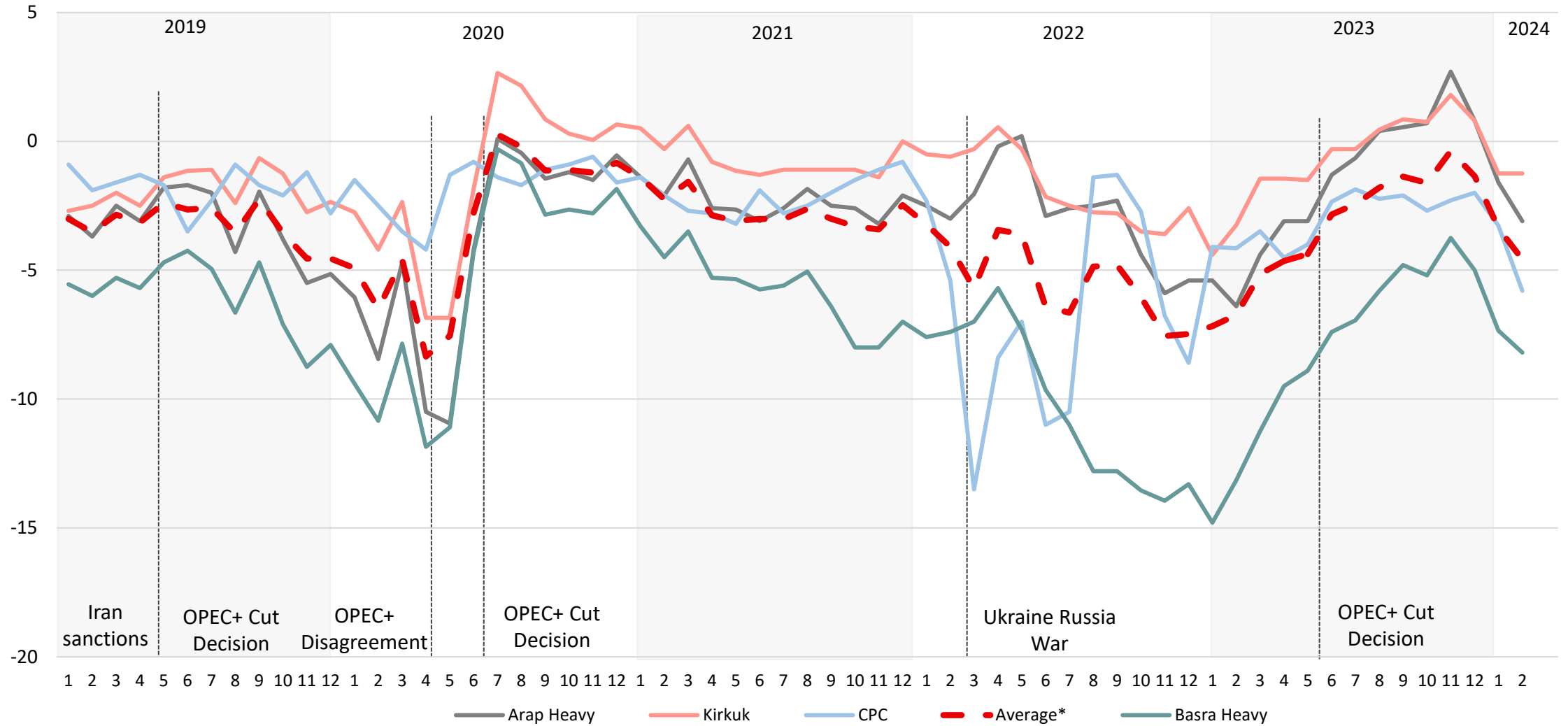
Data as of 29 February, 5 year range shows 2019-2023

Gasoline and High Sulphur Fuel Oil Cracks



Data as of 29 February, 5 year range shows 2019-2023

Heavy Crude Differentials to Brent (\$/bbl)

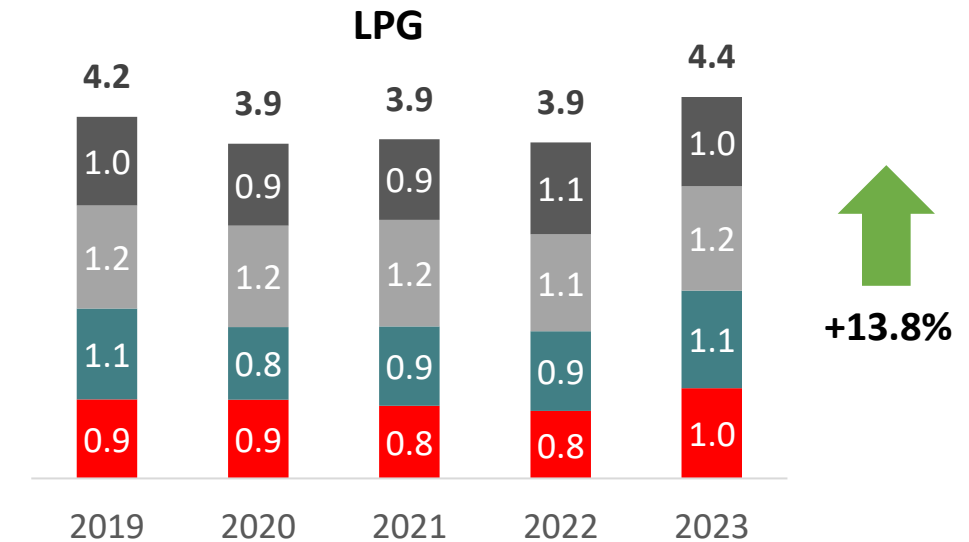
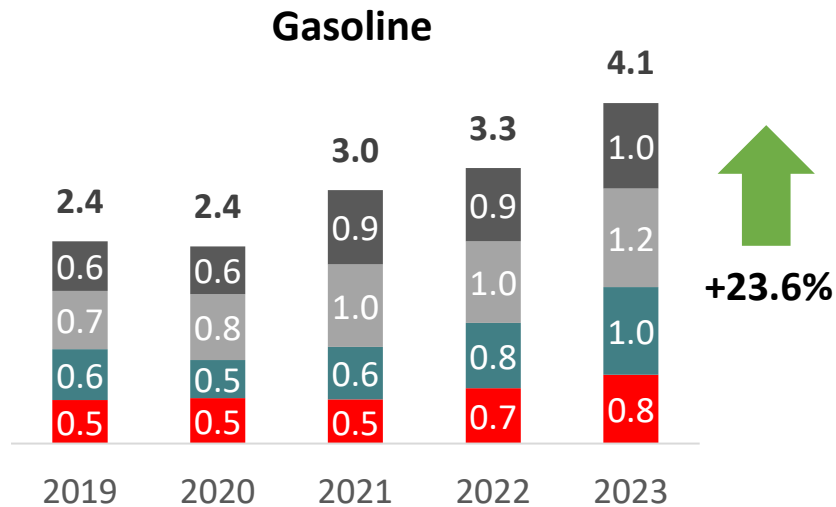
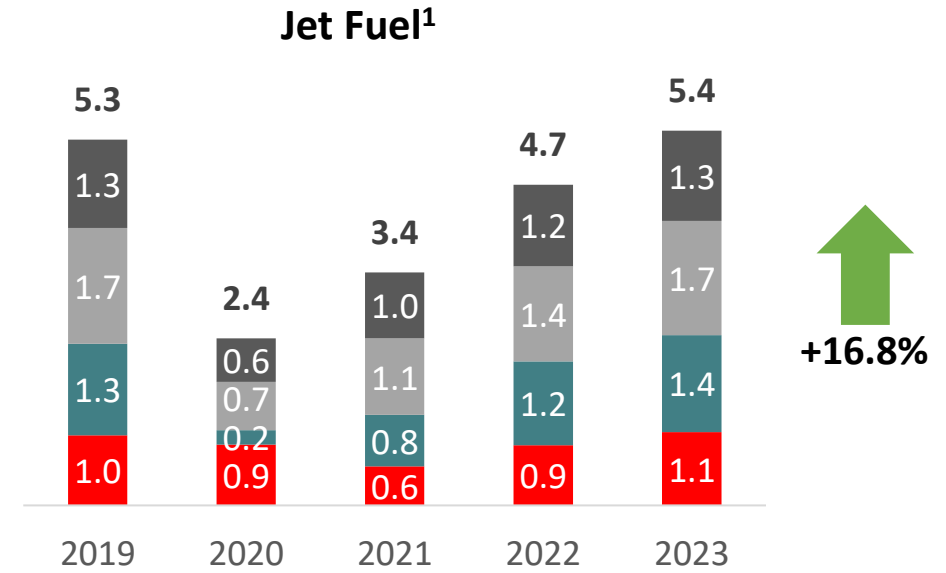
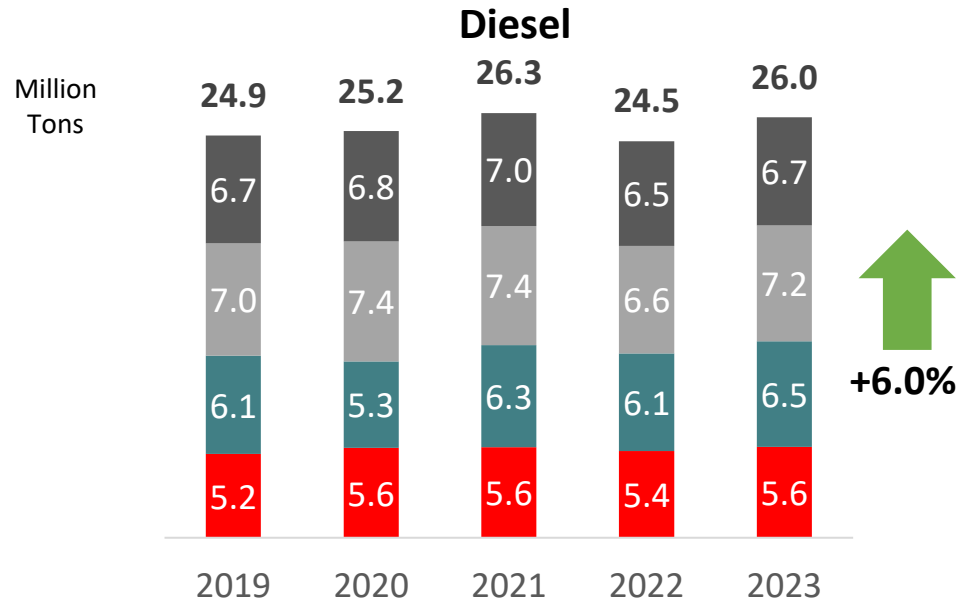


Data as of 29 February

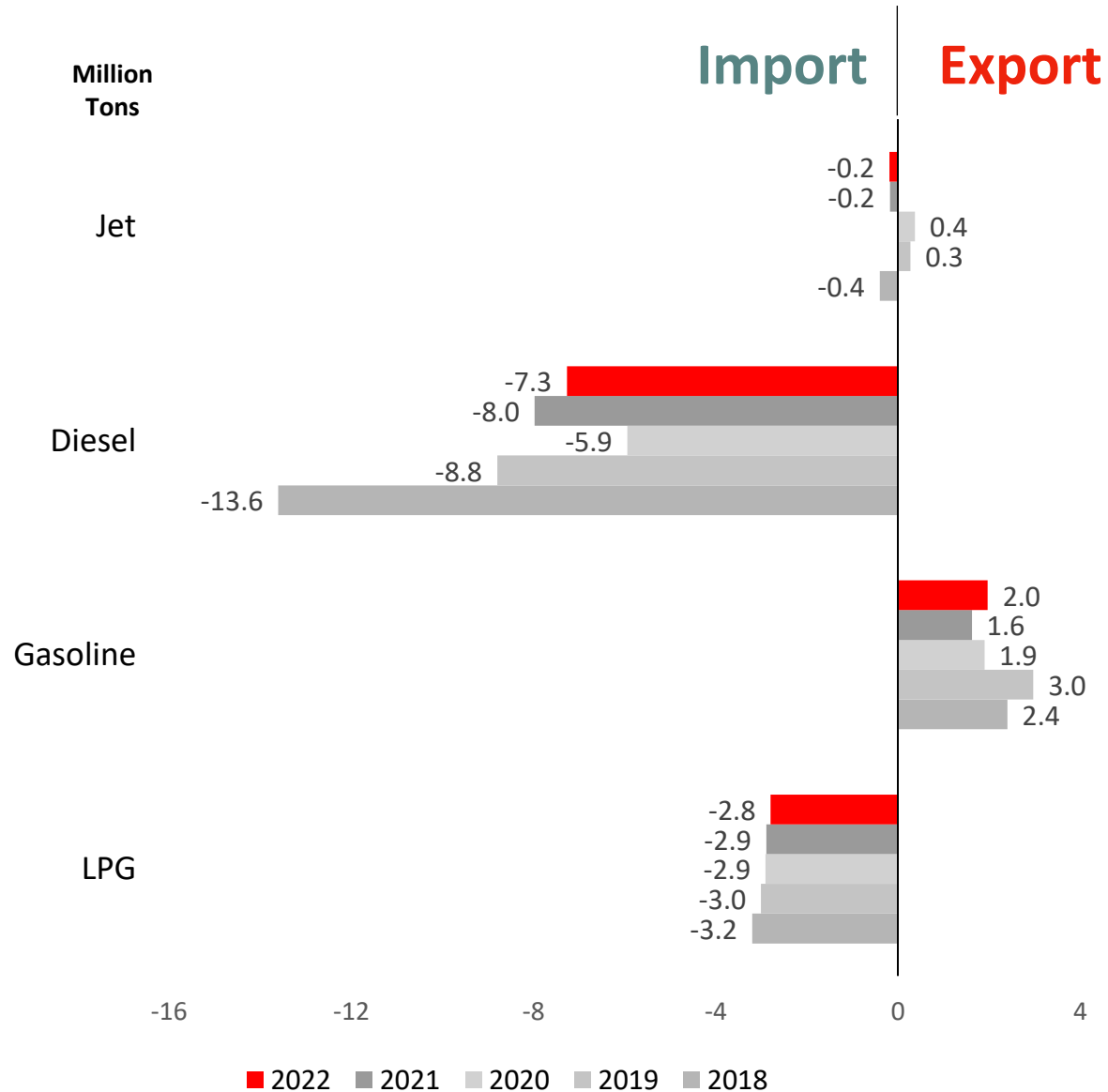
*Simple average of listed differentials

Turkish Market, 12M 2023

Q1 Q2 Q3 Q4

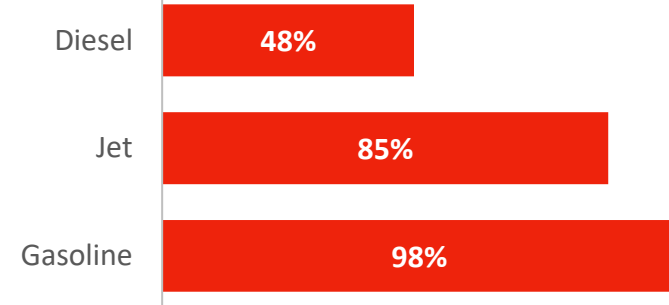


Turkey's Net Import / Export Balance

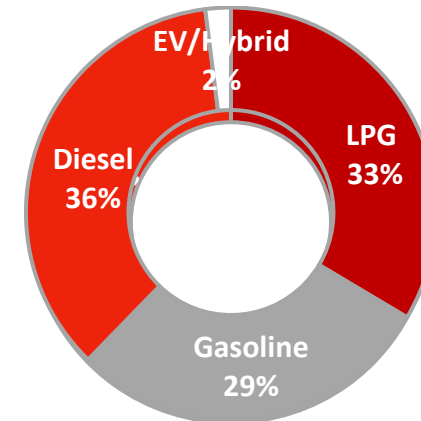


Market Share of Tüpraş

2022 12M



Fuel Choice of Passenger Cars 2023

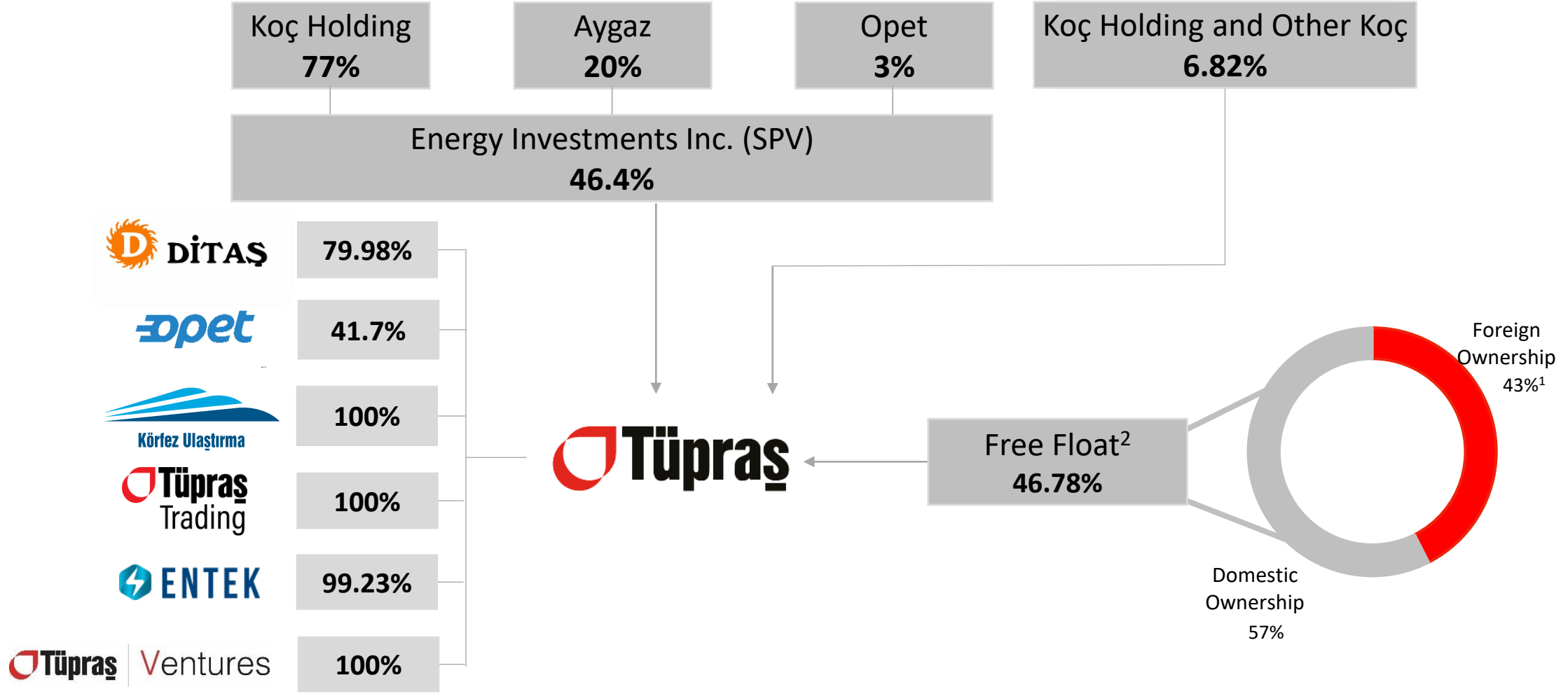




Company Overview

Tüpraş Shareholder Structure

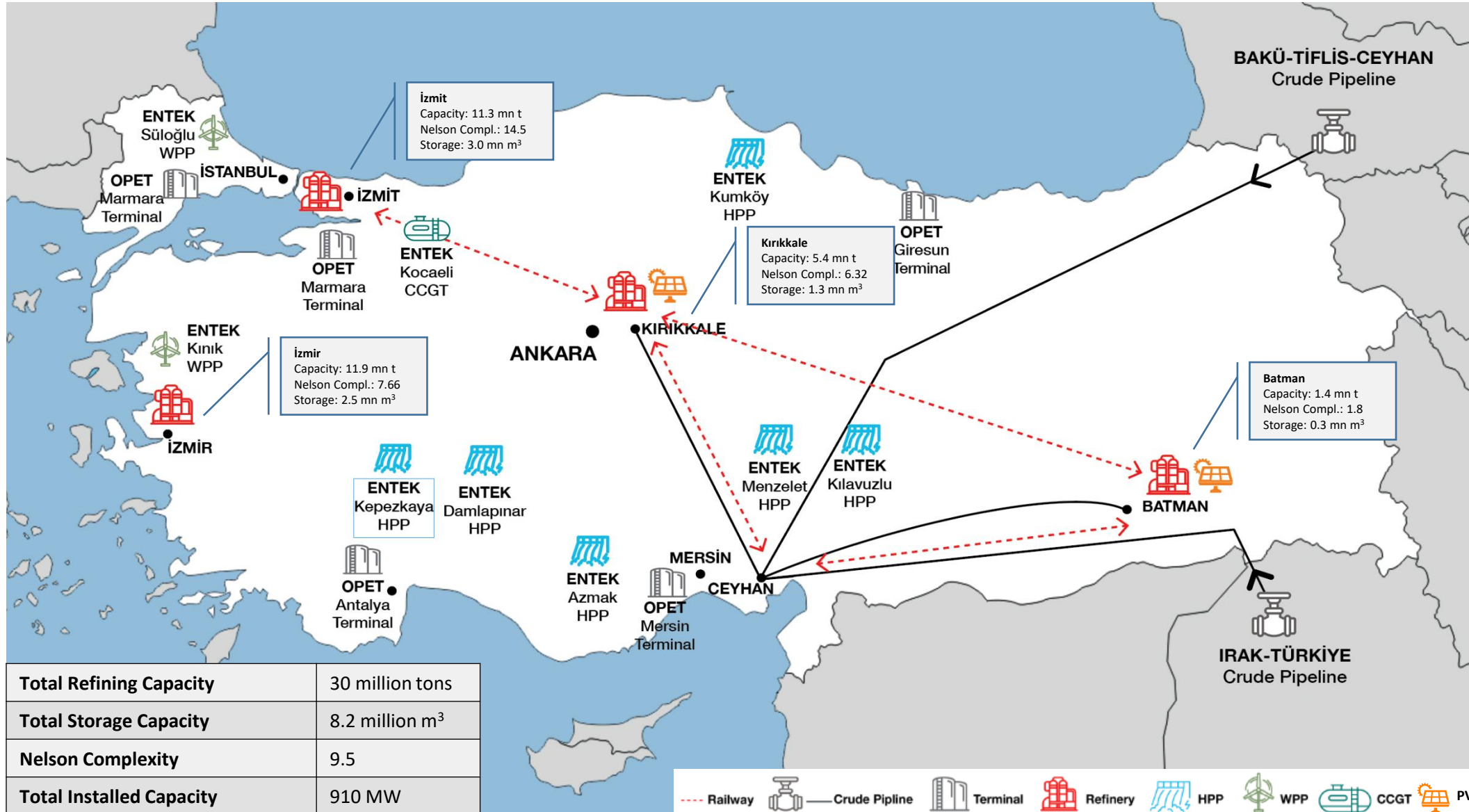
Tüpraş is Turkey's biggest industrial company and leading refiner.



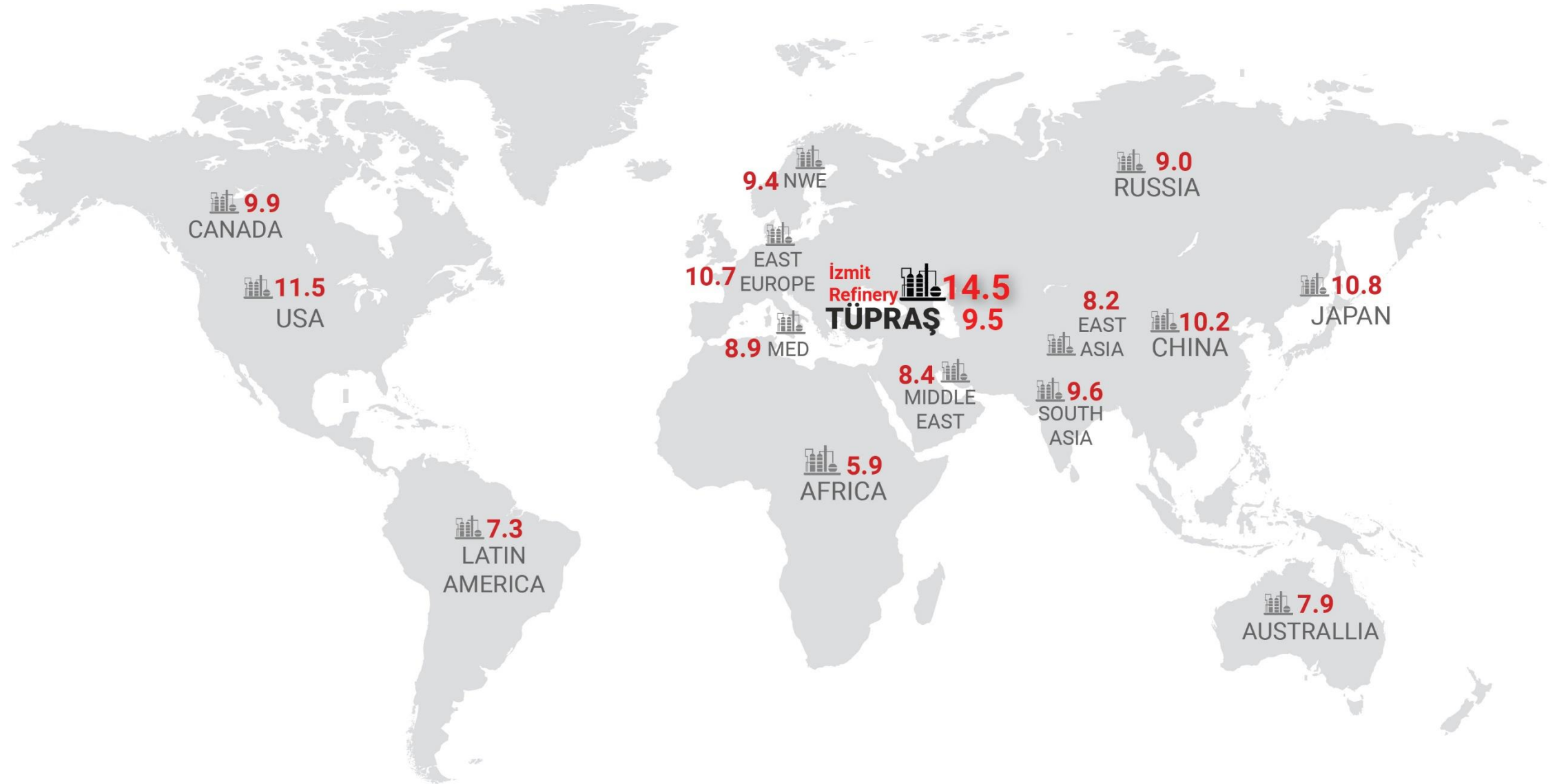
¹ As of December 31, 2023

² Includes %1.11 shares of Liquid Petroleum Co.

Tüpraş' Refining Assets & Distribution Network



Nelson Complexity of Refining Companies



OPET - Distribution



Tüpraş Share: 41.7%

- 1,866 stations as of 31 December 2023.
- As of December 2023 Market share: 19.0% in white products; 28.4% in black products

Tüpraş Trading UK - Trading



Tüpraş Share: 100%

- Over 8 million tons of product trade**
More than 10 million tons of spot crude oil connections
- Trading Office in London is important for wider integration with the global energy landscape by allowing to:
 - Closely monitor international market opportunities
 - Support import and export operations
 - Create additional value from supply chain and sales activities

DİTAŞ - Marine Transport



Tüpraş Share: 79.98%

- 4 Crude Oil Tanker: 470,067 DWT
- 8 Product Tanker: 130,437 DWT
- 4 Bitumen Tanker: 61,450 DWT

Körfez Ulaştırma - Railway Transport



Tüpraş Share: 100%

- ~5% share in Turkish rail freight market
- ~2.5 mn ton of product and semi-product carried in 2023
- Operates with 12 locomotives (7 of them are hybrid) and 519 cistern wagons

Entek Electricity



Tüpraş's Share : %99.23

- Entek's installed power: 492 MW
 - 2 WPP with 116 MW capacity , 1 CCGT with 112 MW capacity, 8 Hydro Power Plants with total capacity of 264 MW.
- Entek's sales from production was 1.3 GWh
- EBITDA figure was TL 1.6 bn

Tüpraş Ventures

Tüpraş's Share: %100

- Aiming to establish strategic partnerships in new growth areas for energy transformation.
- In 2023, 18 investments were undertaken through Emerald Industrial Innovation Fund.

Tüpraş | **Ventures**

emerald
Technology Ventures



KOC GROUP COMPANIES'
FIRST PRIVATE VENTURE
CAPITAL INVESTMENT FUND



Energy
Transformation



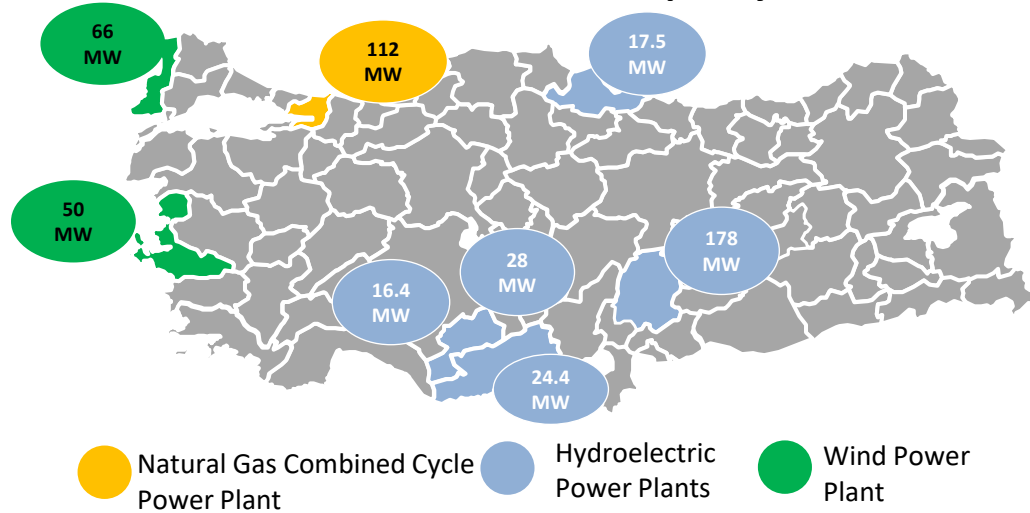
Sustainability



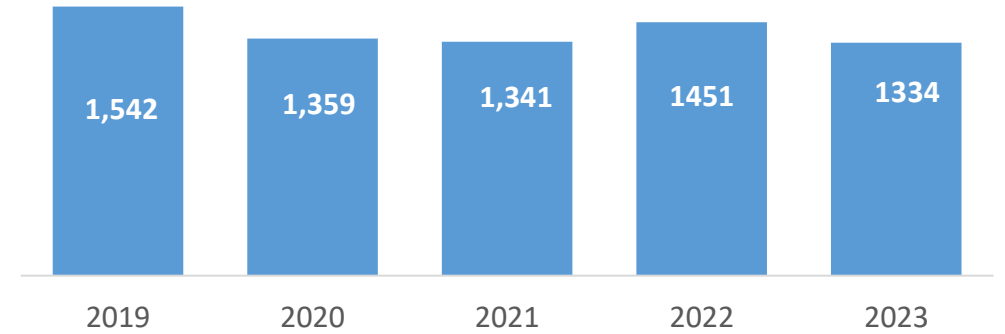
Operational
Excellence

Entek - Electricity (Tüpraş Share: 99.23%)

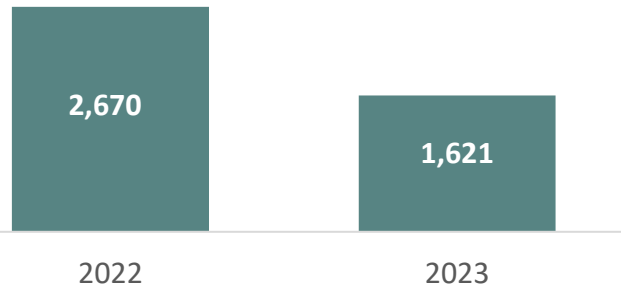
Entek's Installed Capacity



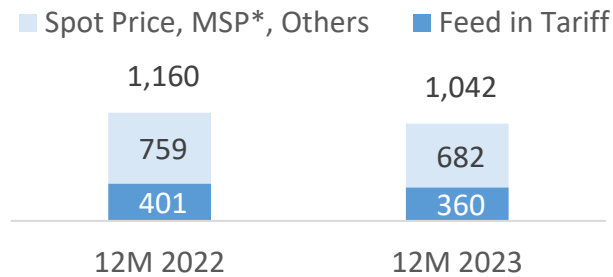
Production (000 MWh)



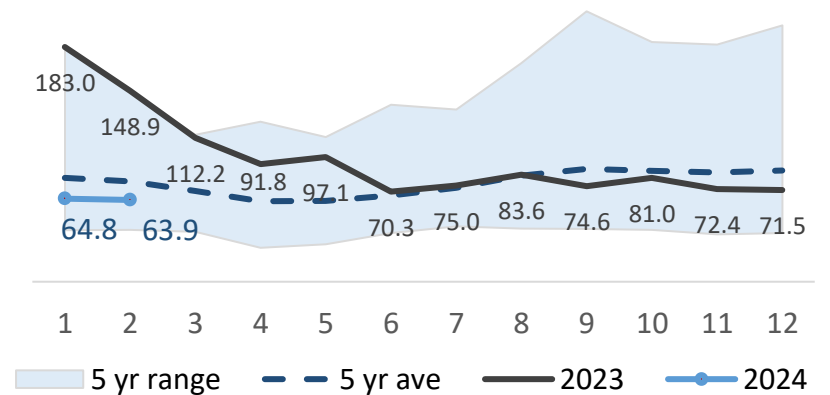
EBITDA (million TL)



Total ZCE Sales from Production (GWh)



Spot Price (\$/Mwh)

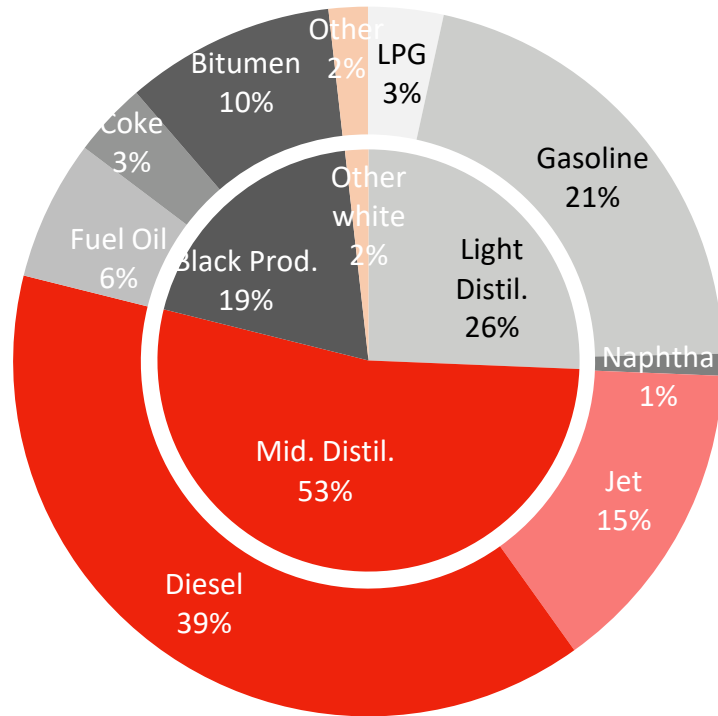




Operations

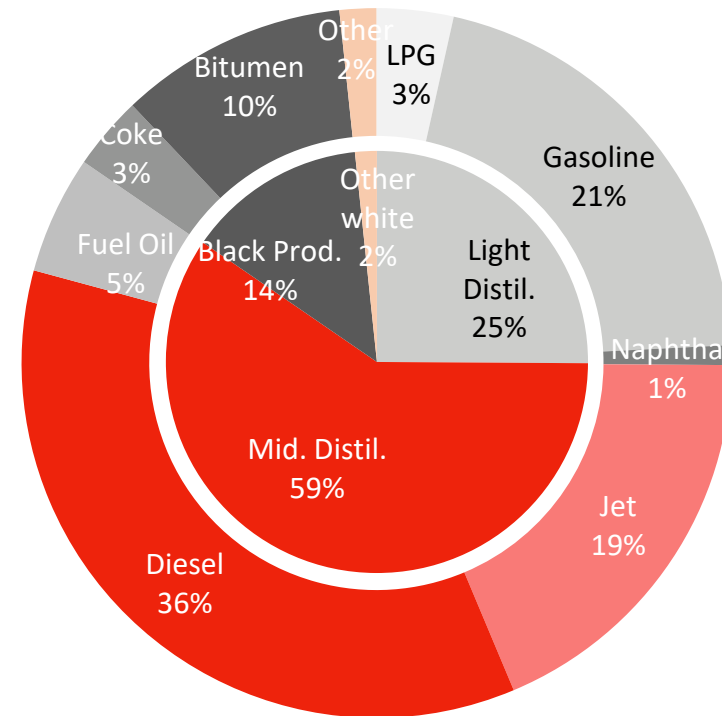
Annual Product Yields

12M 2022



White Product Yield (%)	80.0%
Production	26.0 mn tons
API	31.1

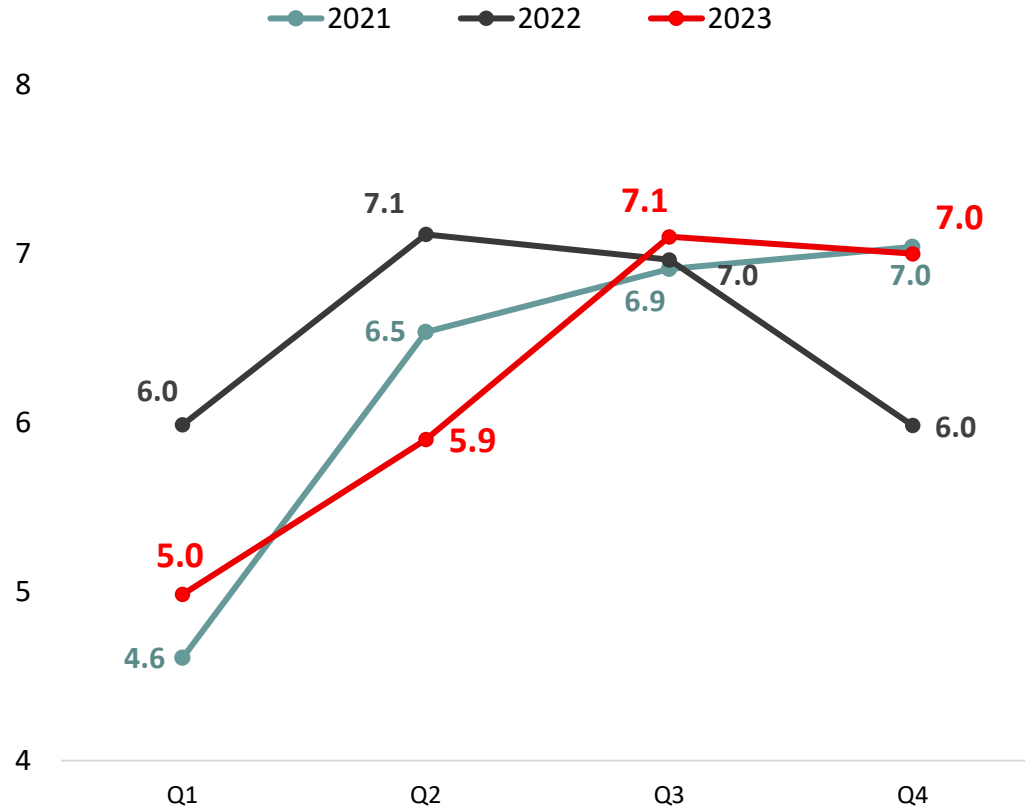
12M 2023



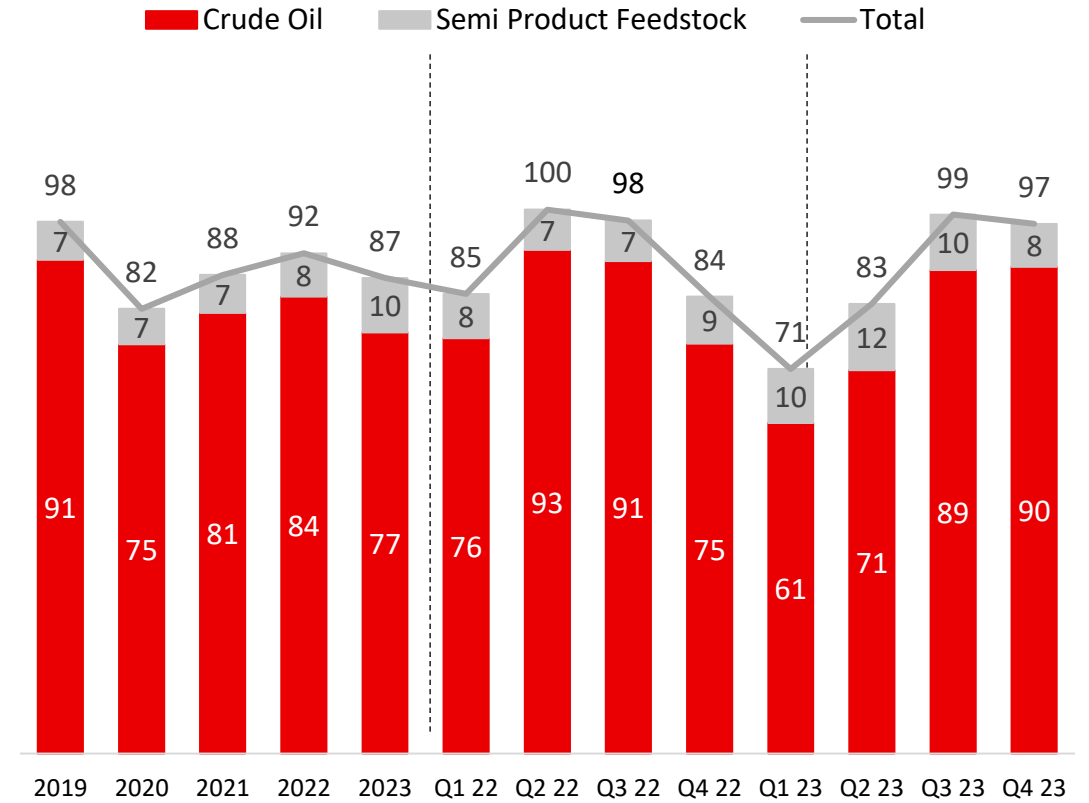
White Product Yield (%)	79.6%
Production	24.9 mn tons
API	31.1

Capacity Utilization and Quarterly Production Volume

Quarterly Production (Million Tons)



Capacity Utilization (%)

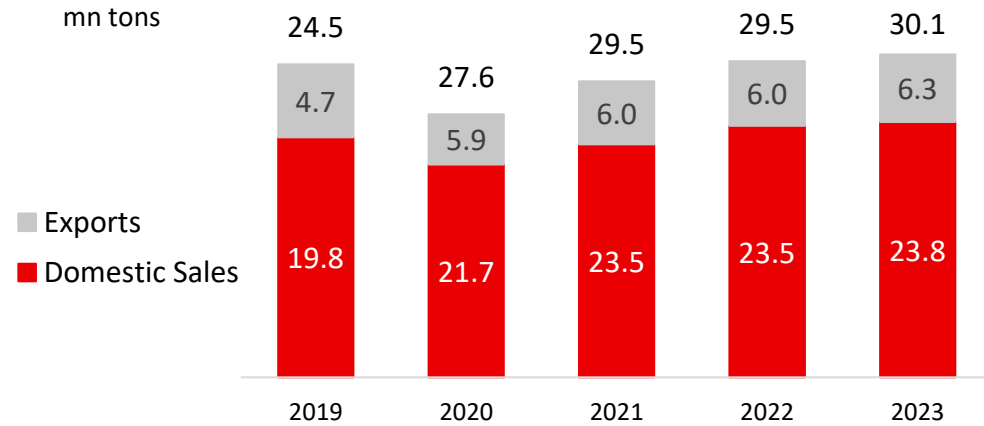


*Capacity utilization calculation is based on 30 mn tons for Q1 2019 and onwards.

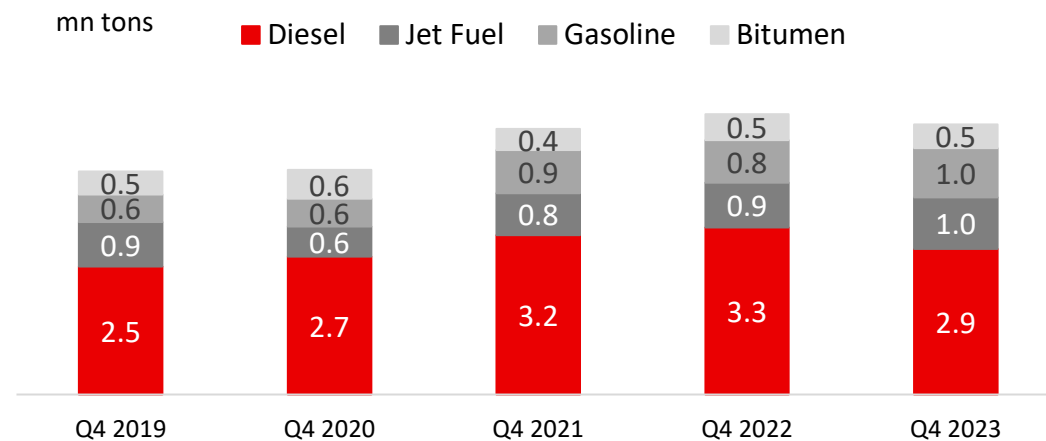
Sales

- Tüpraş generated 30.1 million tons of total sales in 2023.

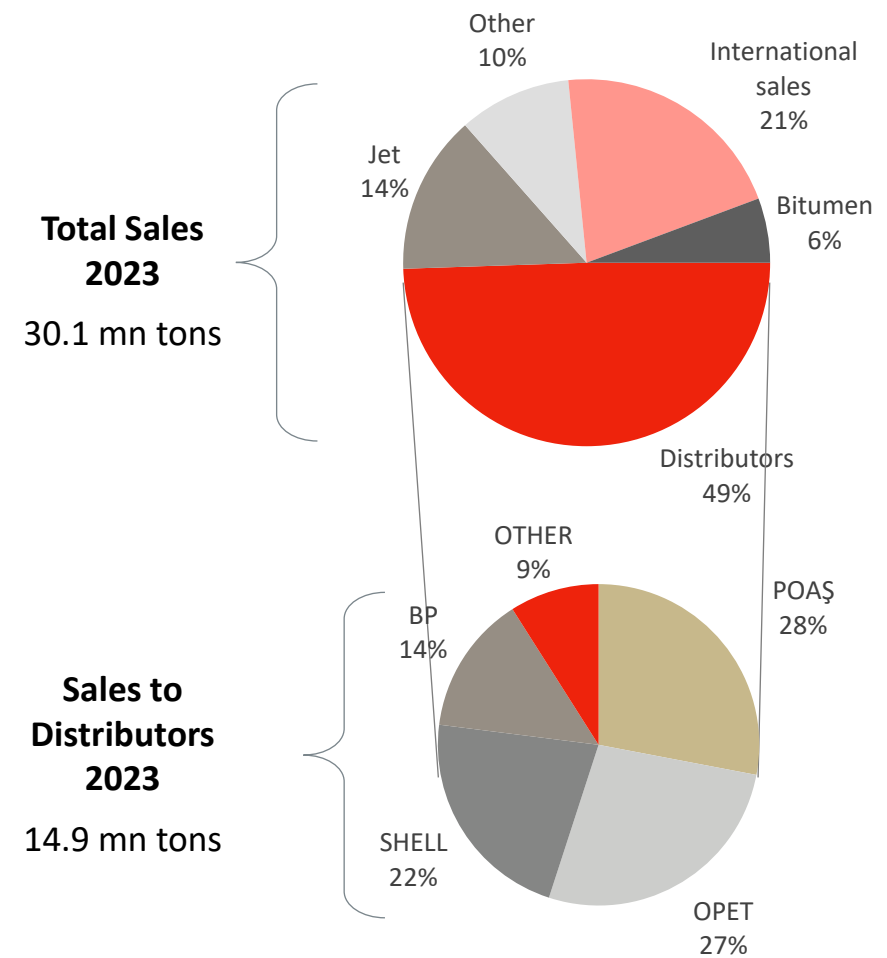
Total Sales



Domestic Sales of Key Products

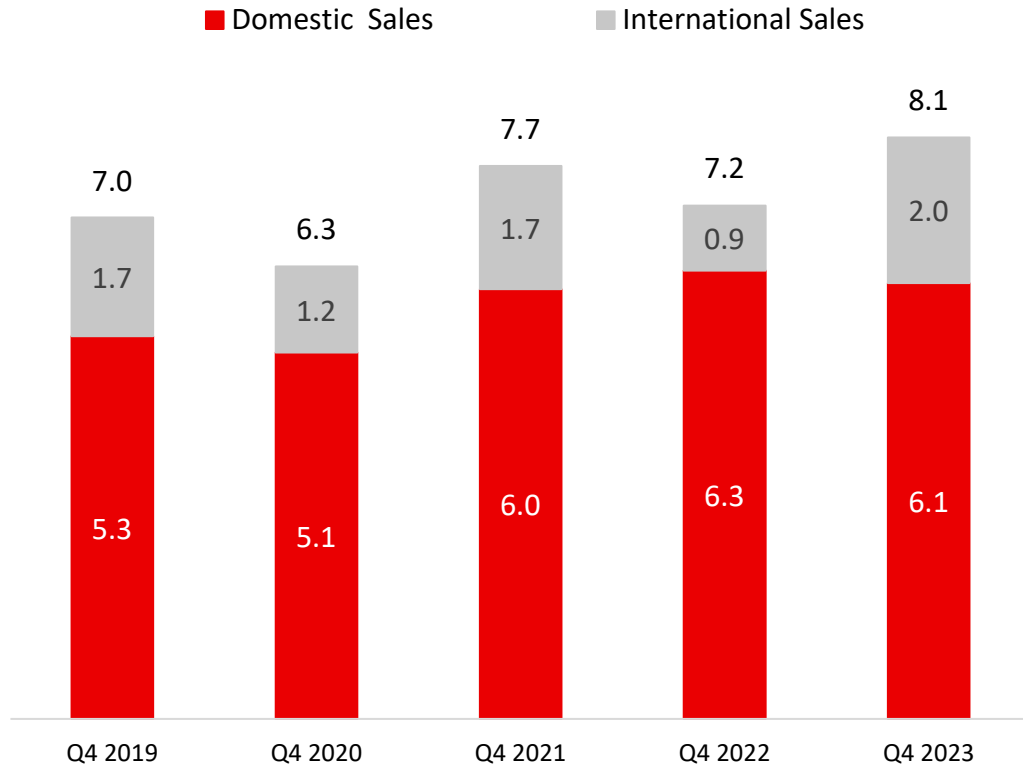


Customer Groups 2023

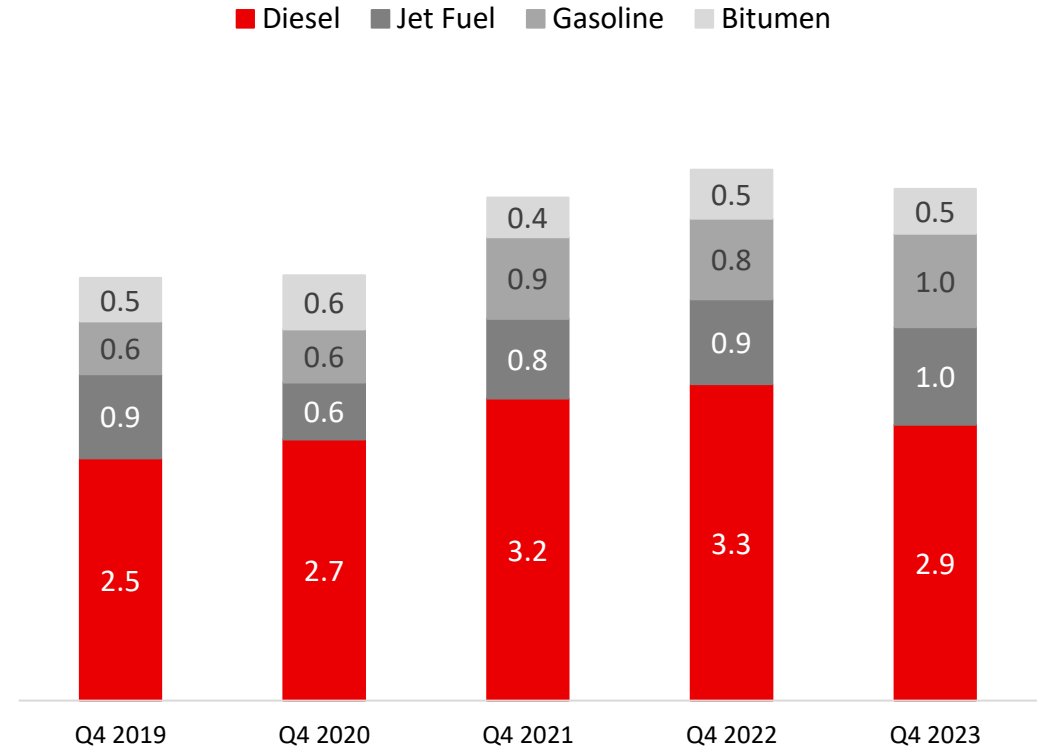


Quarterly Product Sales (Million Tons)

Total Product Sales



Domestic Sales of Selected Products





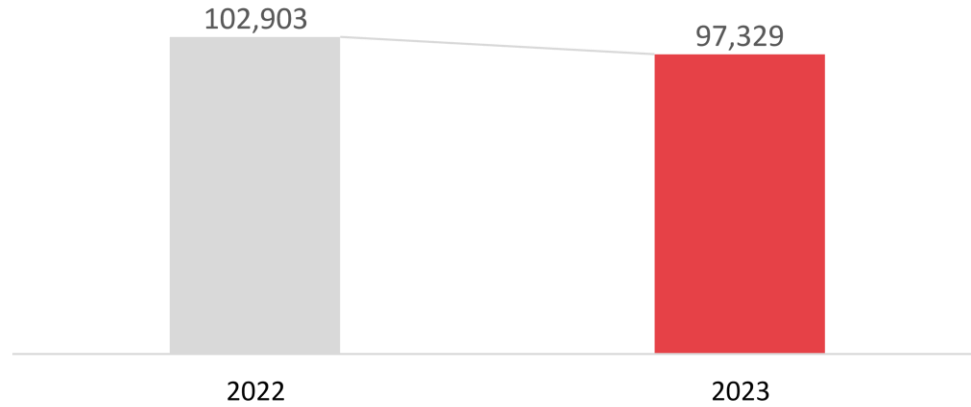
Financials

Income Statement – IAS 29 Applied (Million TL)

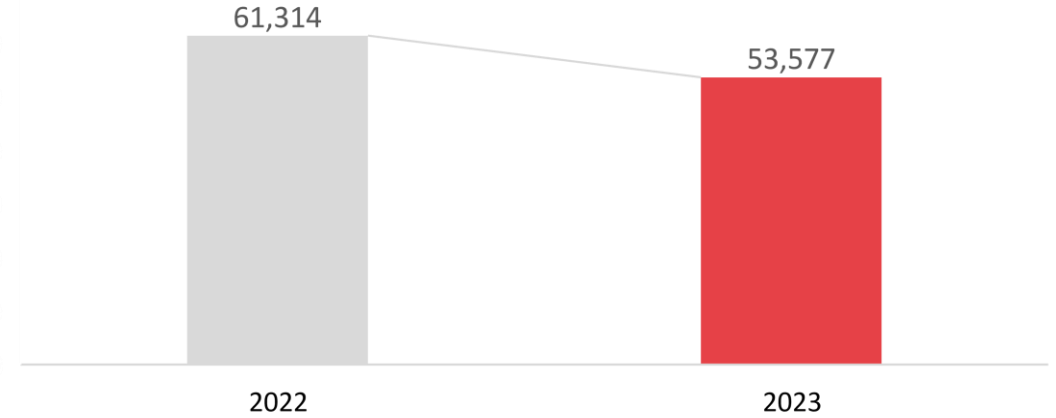
Million TL	2023	2022	%
Net Sales	686,529	916,751	-25%
COGS	-576,796	-803,671	-28%
Gross Profit	109,732	113,080	-3%
Operating Expenses	-19,556	-16,159	21%
Income/Loss from other operations	-16,549	-20,668	-20%
Operating Profit	73,628	76,253	-3%
Inc./Loss from investments	82	-7,548	-
Inc./Loss from Equity pick ups	1,051	-16	-
Operating Profit Before Fin. Income/Loss	74,761	68,689	9%
Financial Income /Expense	-5,194	-13,461	-61%
Monetary Gain/Loss	-11,747	13,280	-188%
Profit Before Tax	57,820	68,508	-16%
Net Profit (excluding minority interest)	53,577	61,314	-13%
EBITDA*	97,329	102,903	-5%
Inventory Gain/Loss	14,804	9,529	55%
EBITDA* CCS	82,525	93,374	-12%

Financial Highlights

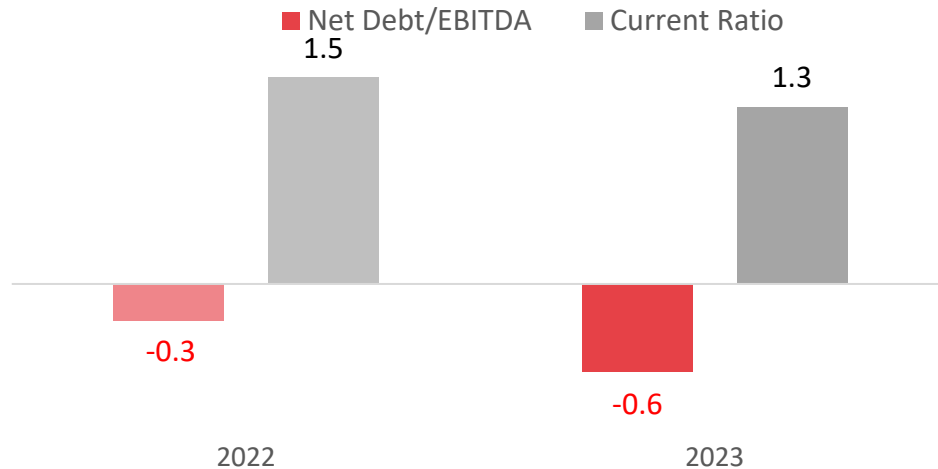
EBITDA (mn TL)



Net Income* (mn TL)



Current Ratio & Net Debt / EBITDA



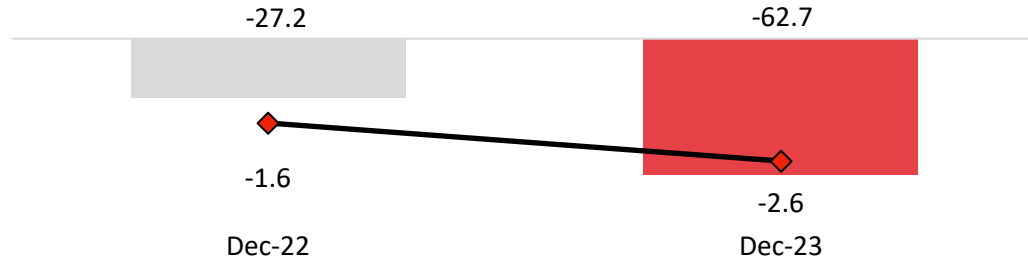
Net Return on Average Equity (%)



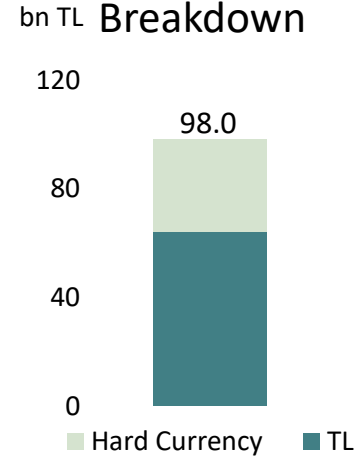
Balance Sheet Analysis

Net Debt (Cash)

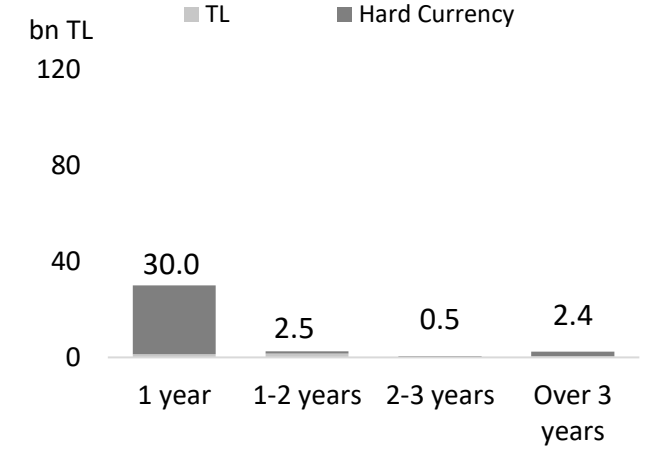
■ In Billion TL ◆ In Billion \$



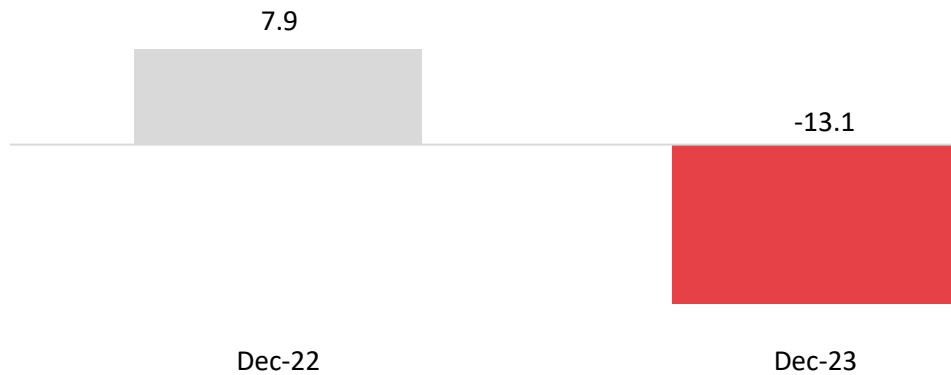
Cash Currency Breakdown



Redemption Schedule



Working Capital Requirement (Billion TL)



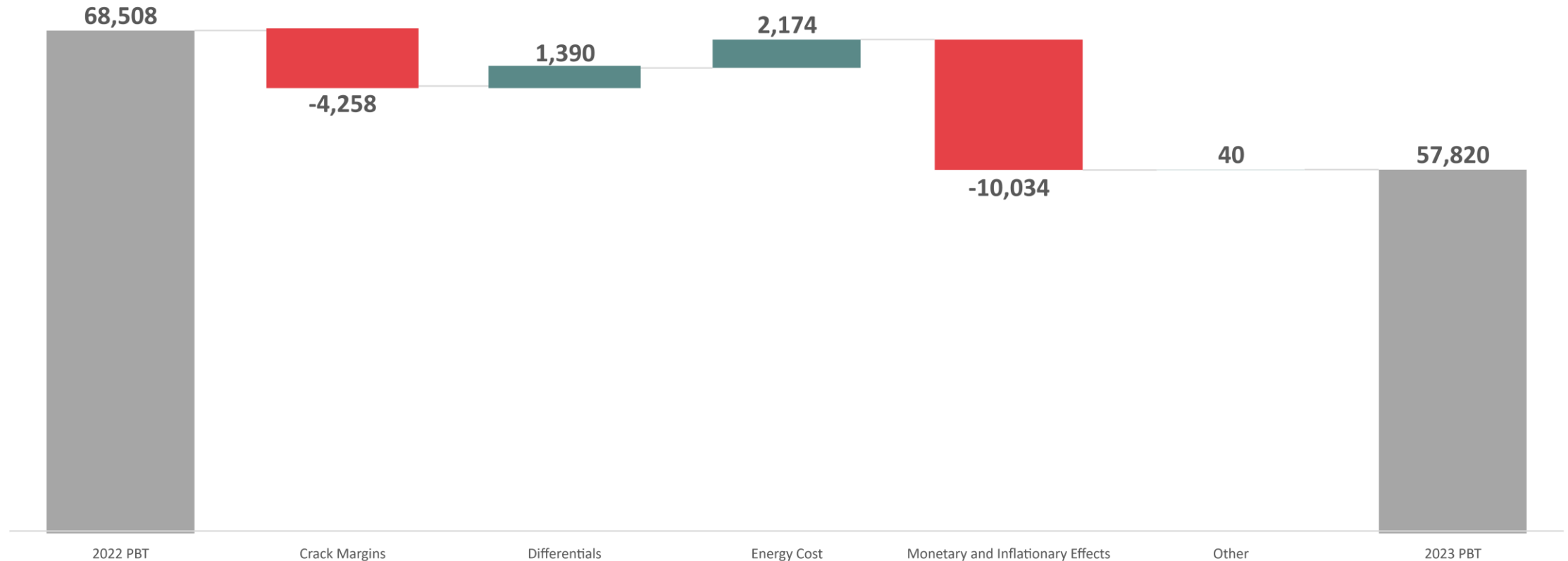
Financial Management

- Working Capital Requirement remains negative with less volatility in prices and better inventory turnover
- Net cash position continued with strong operating cashflow.

Profit Before Tax Bridge (2022 – 2023)

Lower energy costs and wider differentials were not able to compensate monetary and inflationary adjustments and weakness in crack margins. As a result, 2023 PBT ended lower than 2022 PBT.

Million TL



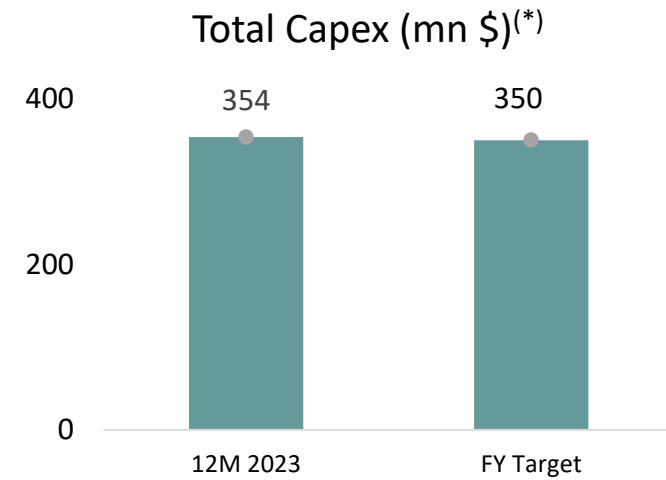
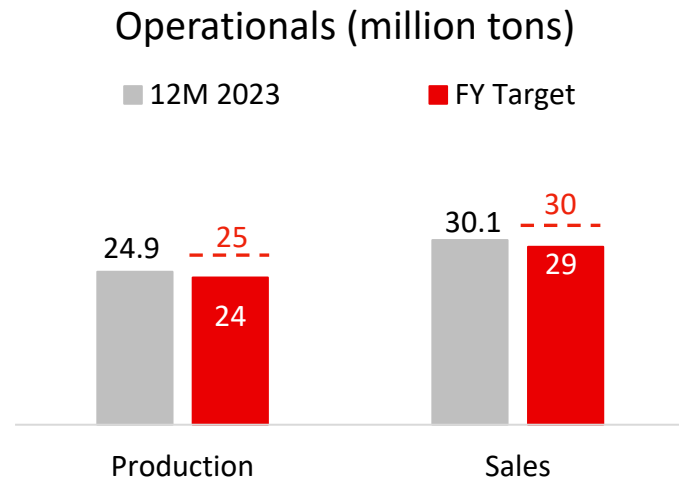
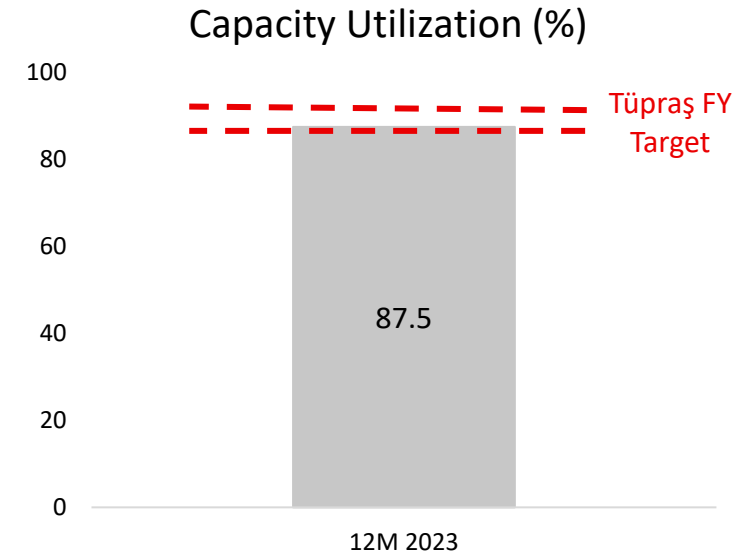
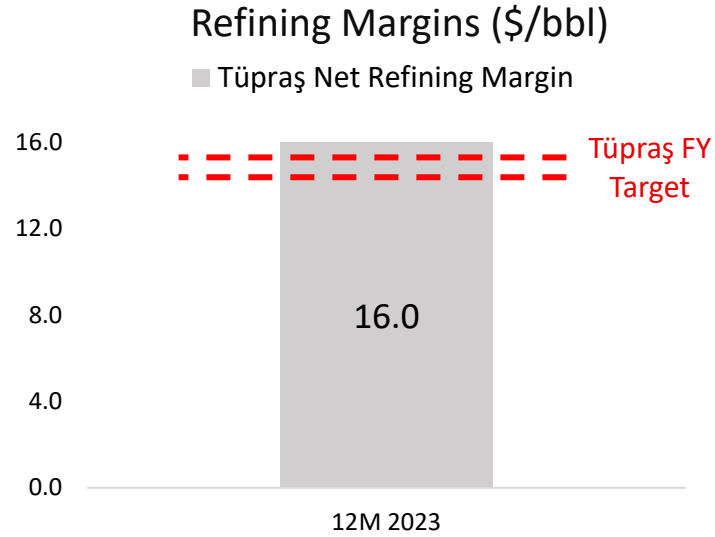
2024 Expectations

Tüpraş Crack Margin expectation ~14 \$/bbl

- ~26 mn tons annual production, ~30 mn tons annual sales and 85-90% average capacity utilization

Consolidated Capex ~500 million \$

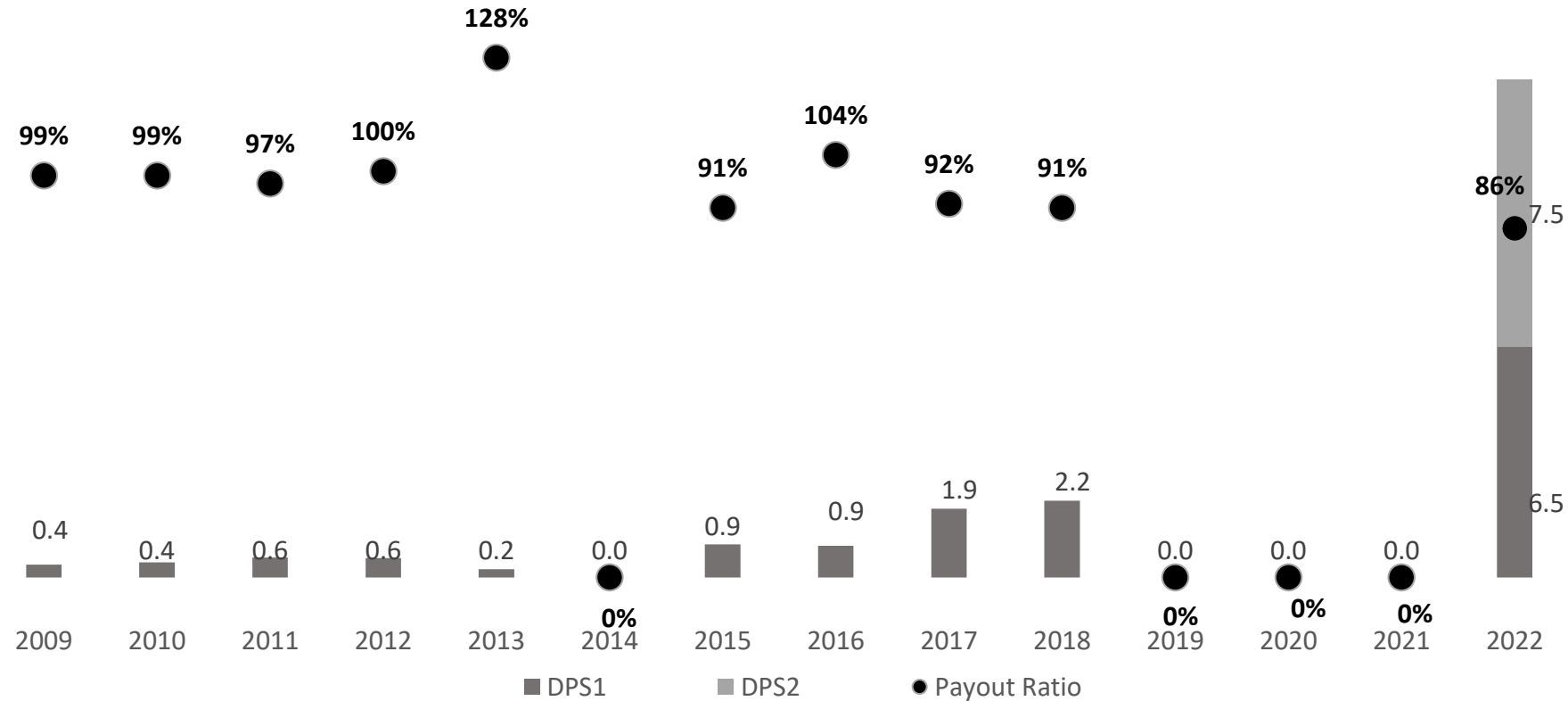
2023 Results



Tüpraş Balance Sheet (Million TL)

	31.12.2023	31.12.2022*	Diff.	Diff. (%)
Current Assets	201,149	197,510	3,639	2
Cash & C. Equivalents	98,024	82,008	16,016	20
Trade Receivables	40,439	35,290	5,149	15
Derivatives	2,064	5,927	-3,863	-65
Inventories	44,464	59,453	-14,989	-25
Pre-paid expenses	1,278	1,433	-155	-11
Other Current Assets	14,880	13,399	1,481	11
Long Term Assets	165,644	150,191	15,454	10
Financial Assets & Subsidiaries	8,643	7,701	942	12
Tangible & Intangible Fixed Assets	138,787	132,068	6,719	5
Derivatives	37	94	-57	-61
Pre-paid expenses	1,815	1,119	695	62
Deferred Tax	6,466	706	5,760	815
Other Longterm Assets	9,896	8,502	1,395	16
Total Assets	366,794	347,700	19,093	5
Short Term Liabilities	155,271	130,004	25,267	19
Financial Loans	29,968	19,764	10,204	52
Trade Payables	97,956	86,839	11,117	13
Derivatives	533	1,639	-1,106	-67
Provisions	1,226	874	352	40
Other ST Liabilities	25,588	20,888	4,699	22
Long Term Liabilities	8,582	38,284	-29,702	-78
Financial Loans	5,358	35,055	-29,696	-85
Payables & Provisions	2,074	1,961	113	6
Derivatives	469	491	-22	-4
Other LT Liabilities	681	777	-97	-12
Total equity attributable to equity holders of the parent	200,763	177,884	22,879	13
Minority Interests	2,178	1,528	649	42
Total Liabilities & Equity	366,794	347,700	19,093	5

Dividend (TL)



Strategic Transition Dividend Plan

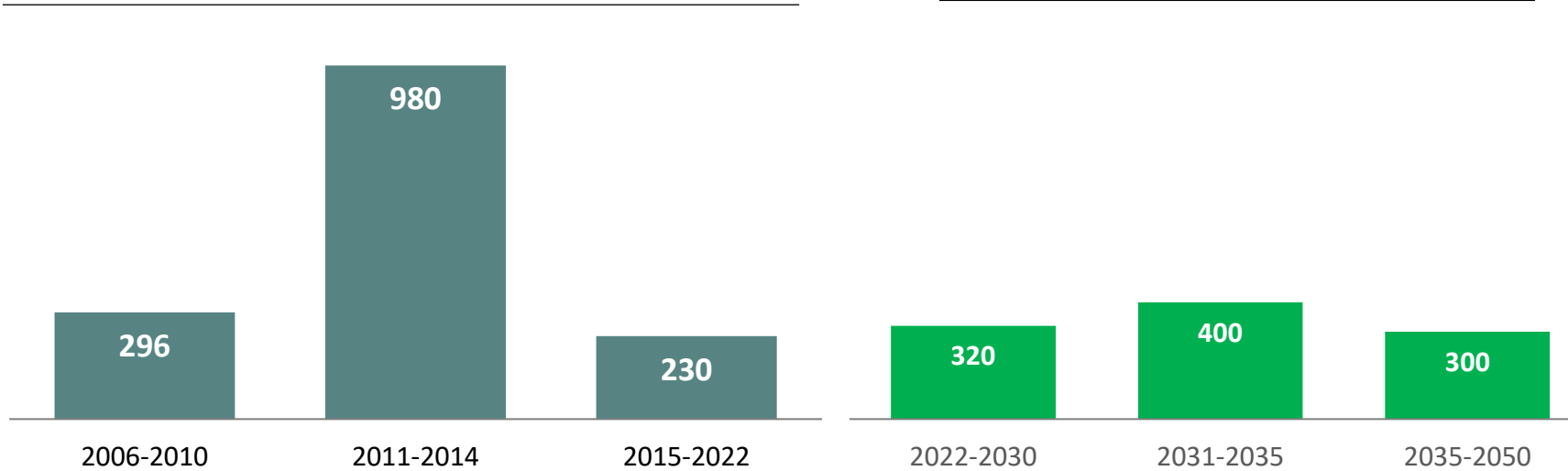
Our new business model enables us to pay ~80% average dividends and we will remain as a high dividend payer

*2009-2022 dividend payout ratio, which is calculated according to distributable net income based on statutory accounts

Investments (Million \$)


Avg. 460 Mn\$

Avg. 350 Mn\$

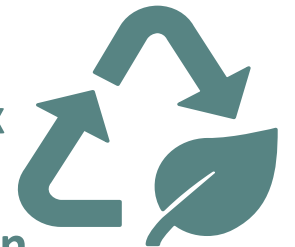


CURRENT PROJECTS

- FCC Modernization in İzmir
- New Sulphur Recovery Unit in Kırıkkale
- Solar Power Plant in Kırıkkale
- Firefighting System Modernization in Kırıkkale
- Wind Power Plant in İzmir

7+ 
After privatization
Billion \$ investment

~50%
of total capex
ESG related
investments in
2022



Financial Policy

Financial Discipline: Risk management policies focusing on areas such as leverage, liquidity, counterparty risk, commodity, interest rate and currency exposure.

Leverage & Liquidity

Liquidity risk management & targets/limits for financial ratios:

- Net financial debt/EBITDA
- Net financial debt/Equity
- Current ratio
- Share of long-term debt

Counterparty Risk Policy

Deposit is kept within bank-based limits:

- Credit rating assessment and strong capital base.
- Cap on the maximum deposit allocated to a single bank.
- Cap for deposits subject to banks shareholders' equity

Interest Rate & Fx

- The fixed/floating profile of financial debt.
- Management of FX risk with derivative instruments
- Zero FX exposure target on daily basis.

Commodity Hedging Policy

Inventory Hedging Policy:

- Operational hedge: Optimum stock policy & forward pricing mechanism.
- Financial hedge: Cargo based hedging to match the pricing period of purchases with sales.

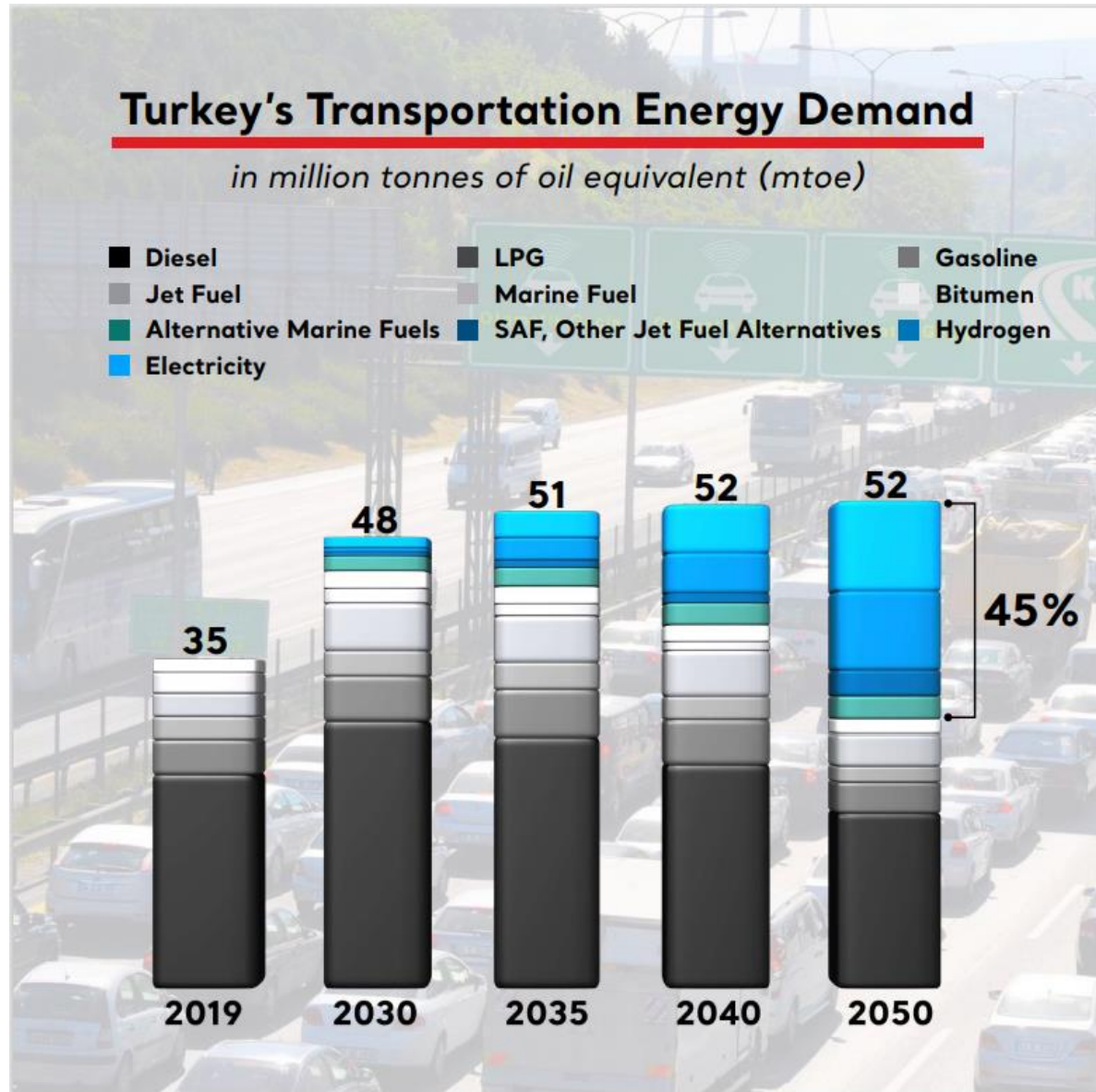
Crack Margin Hedging Policy:

- Financial hedge: Crack margin (gasoline, diesel, jet fuel, fuel oil) risk mitigation by using derivatives.
- Hedge ratio between %0-%50 with up to 1 year hedge tenor



Strategy

Turkey's Transportation Energy Demand



OUR PROJECTIONS



Turkey's fossil fuel consumption **to peak in 2030**



Diesel to be partially **replaced by H₂**, for commercial vehicles existing domestic refining capacity will still be well positioned



In passenger cars, **EVs to lead new sales** starting early 2030s and become the dominant powertrain before 2040

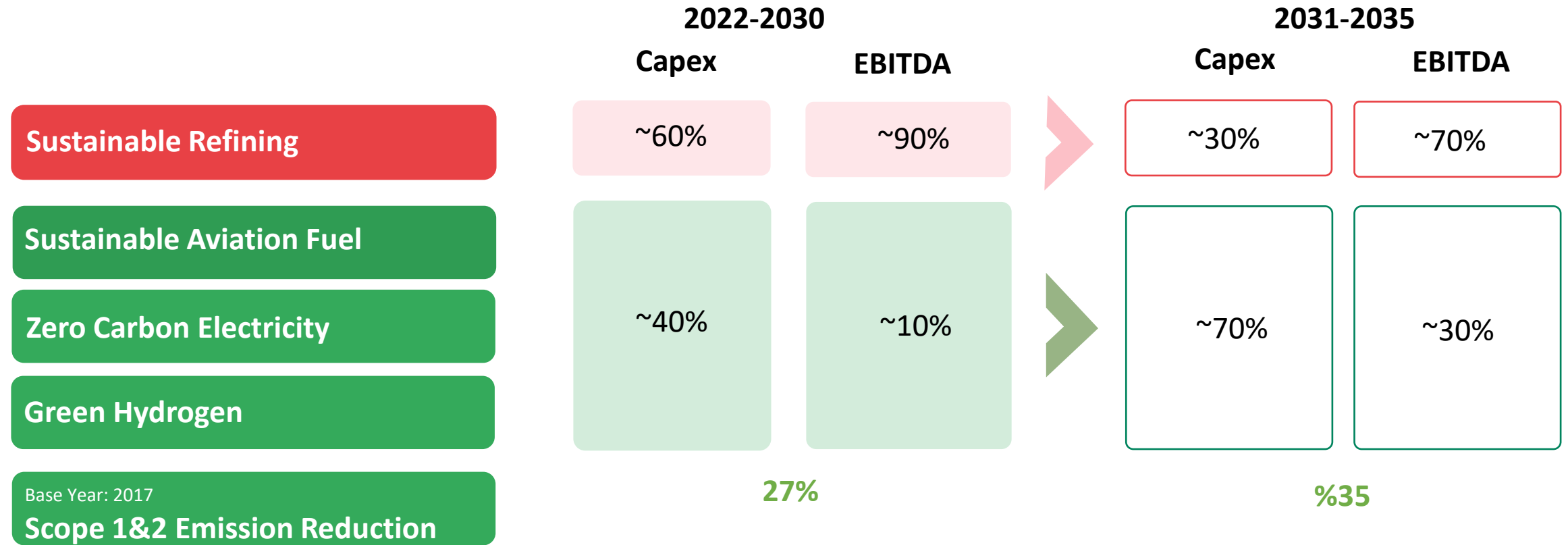


H₂ to enter a **rapid growth phase** from 2030



Sustainable Aviation Fuel to cover ~10% of aviation fuel by 2030

Strategic Transition Plan



Sustainable & Profitable Tüpraş

2035

Average EBITDA
> \$1 Billion / Year

Average Capex
~ \$350 Million /Year

ROACE
> 25%

Net Debt/
EBITDA
<2.0x

Average Pay-Out Ratio
~ 80%

Strategic Transition Plan – Investment Areas



SUSTAINABLE REFINING

Energy Efficiency and Decarbonization Projects

- Remain as a **Major EBITDA Contributor**
- **Improve energy efficiency** to drive up profitability
- **Diversify product portfolio** through lighter chemicals
- Within **2022-2035**;
 - **~2.3 bn USD capex, ~13 bn USD Cumulative EBITDA**



ZERO CARBON ELECTRICITY

Integrating Zero Carbon Electricity to produce Green H₂

- Ensure affordable **green H₂ production, capturing electrification demand**
- **Primarily supply zero carbon electricity for H₂ production, remaining portion to be sold**
- Within **2022-2035**;
 - **~1.3 bn USD capex , ~400 MUSD Cumulative EBITDA**



BIOFUELS

Becoming the Lead SAF Supplier in Turkey

- Capture changing market for **liquid fuels, ensure long term profitability in aviation sector.**
- **Conversion of existing unit** in İzmir to produce **Sustainable Aviation Fuel (SAF)**
- Within **2022-2035**;
 - **~600 MUSD capex, ~1.1 bn USD Cumulative EBITDA**



GREEN HYDROGEN

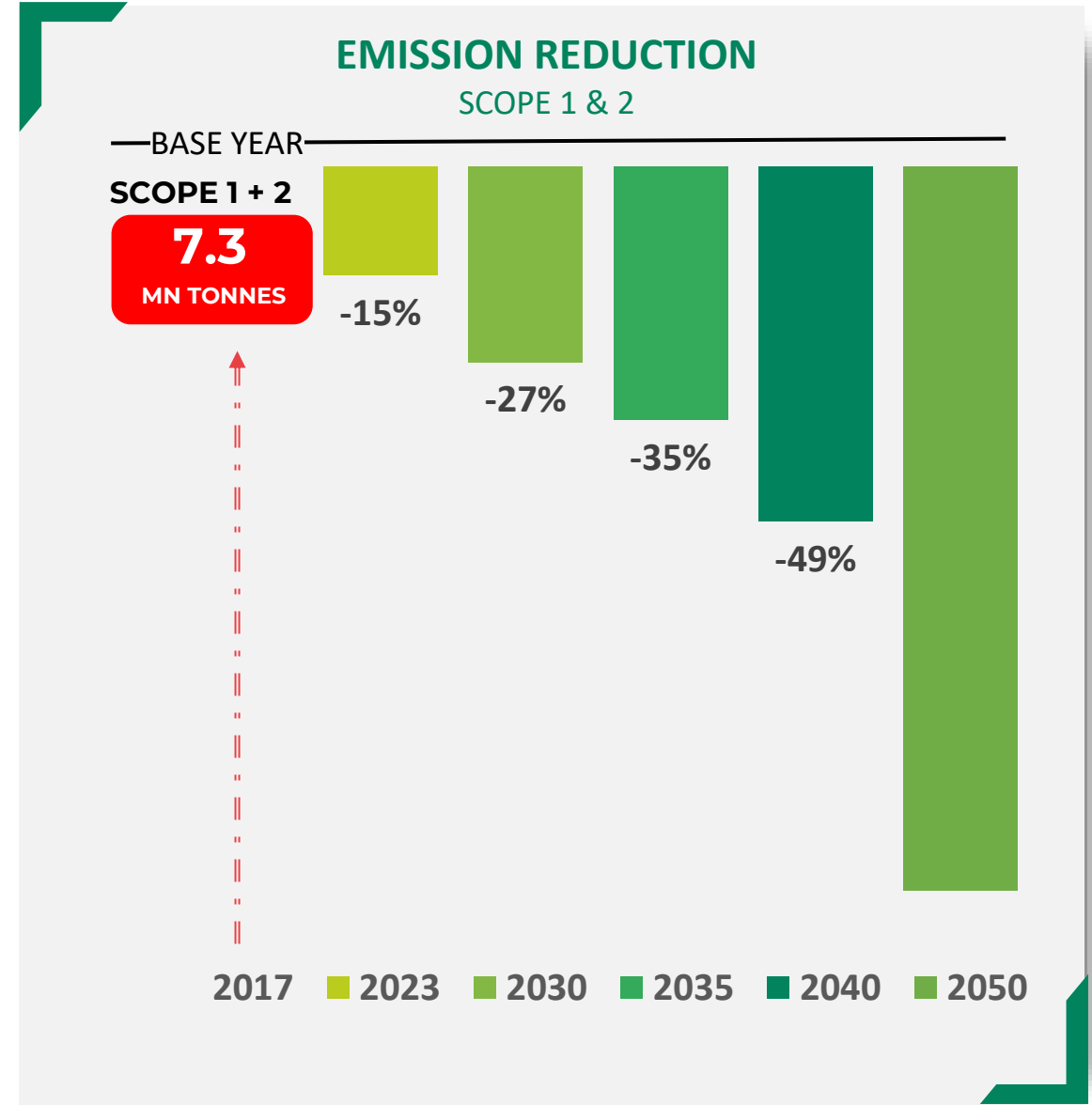
Reducing Refining Emissions

- Capture changing market for **land transportation, reduce refining emissions.**
- **Reduce Scope 1-2 emissions** of refineries. Followed by **H₂ sales**, starting from 2030.
- Within **2022-2035**;
 - **~690 MUSD capex, ~640 MUSD Cumulative EBITDA**

Strategic Transition Plan – Emission Reduction



We will invest in energy efficiency & decarbonization Projects, green hydrogen & zero carbon electricity usage in refining to reduce scope 1 & 2 emissions



Strategic Transition Plan - Financials

We are
sustainable
and
profitable.

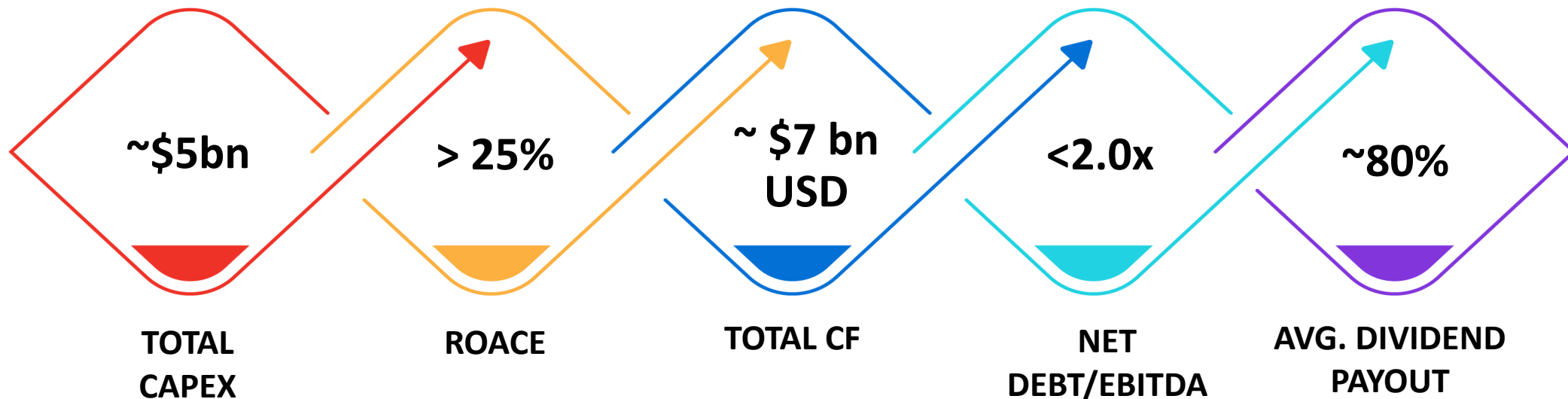
Will **eliminate our scope 1 & 2 emissions by 2050** while executing our plan and achieving these results.

\$350mn average CAPEX until 2035, totaling **\$5 bn.**

ROACE will remain above 25% creating **~\$7bn total CF** until 2035

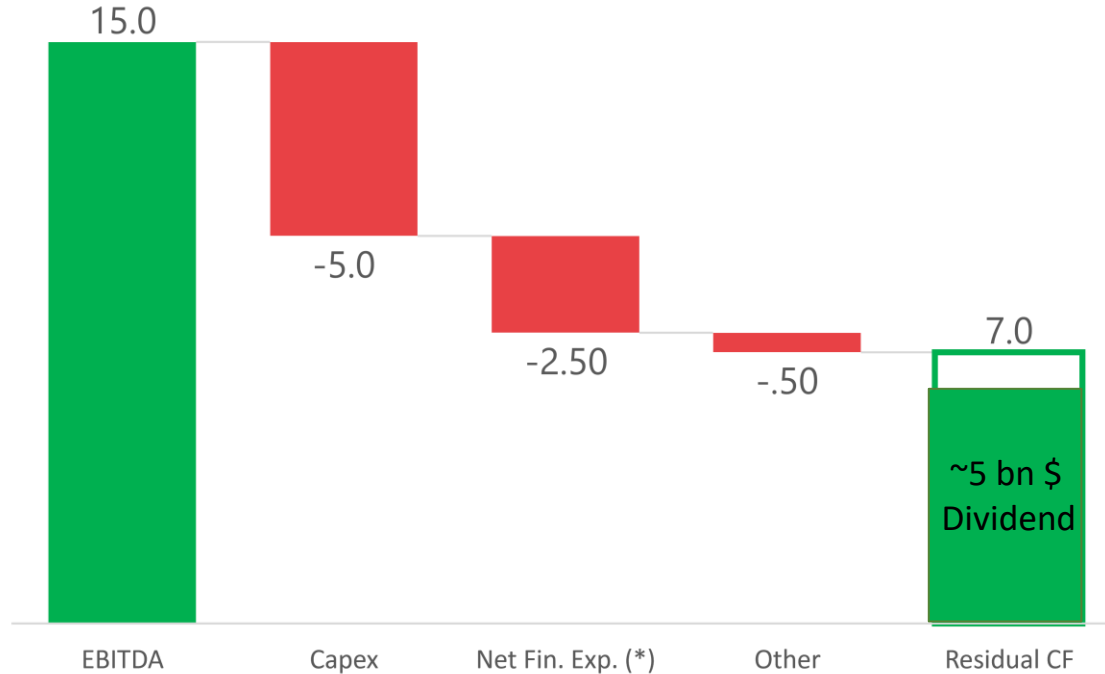
With ample CF, **Net Debt / EBITDA** will be below **<2.0x**

Will remain a **high dividend payer**, average **~80% dividend pay-out**



Strategic Transition Plan - Financials

Cumulative Cash Flow Bridge (\$ bn)



(*) Consists of net additional funding and related financial expenses

Sound Financial Plan

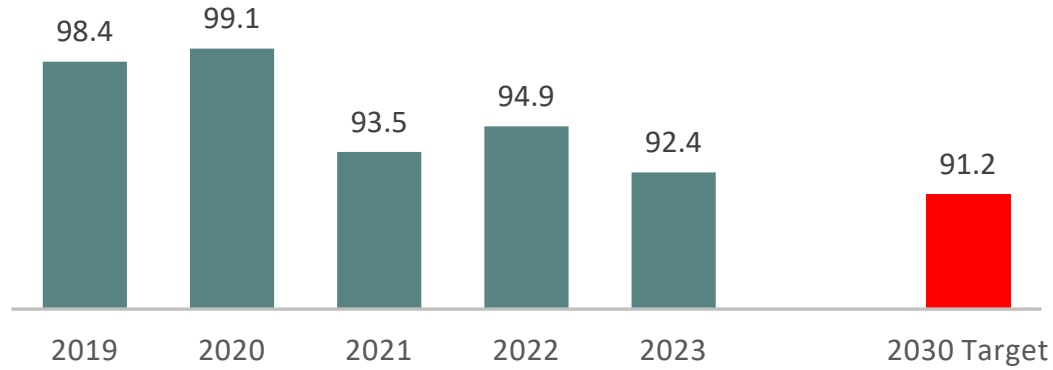
- Superior EBITDA generation and disciplined capex plan leads to very low external funding requirement.
- Strong FCF generation ensures strong dividend potential
- 80% dividend payout on average according to our new business model
- Net Debt / EBITDA will remain below 2x



ESG

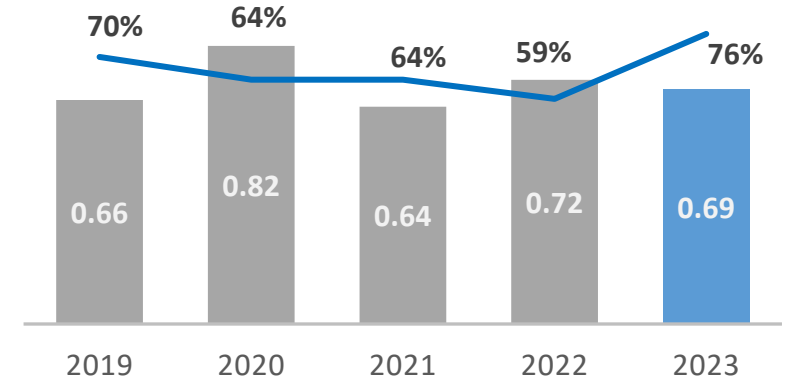
Tüpraş's Environmental Highlights

Energy Intensity Achievements

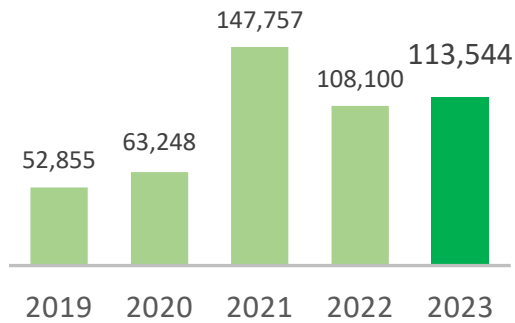


Water Consumption per processed crude oil (m3/ton)

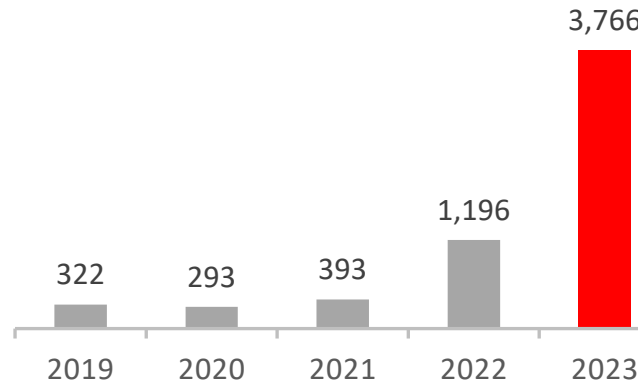
Ratio of recovered water to total water consumption (%)



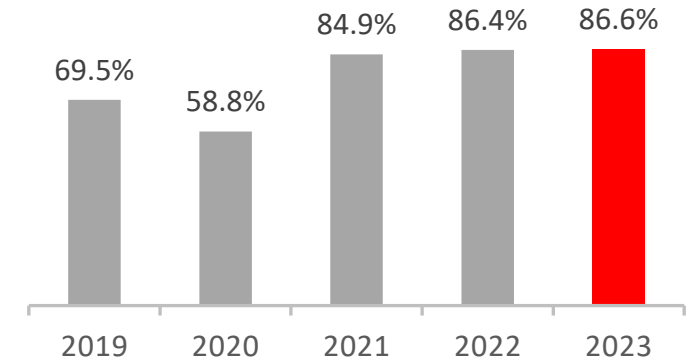
Levelized Greenhouse Gas Emissions Reductions through Energy Efficiency Projects (tons CO2e)



Environmental Investment and Operational Expenditures (MTL)



Waste recycling rate



A photograph of an industrial worker in a dark uniform, white hard hat, and green safety glasses. The worker is wearing yellow gloves and is operating a large, complex piece of machinery with a prominent handwheel. The machinery is metallic and has some handwritten markings, including "40w" and "P3-15". In the background, another worker in a dark uniform with reflective yellow stripes is visible, though out of focus. The scene is set in an industrial environment with various pipes and components.

Appendix

2024 Refinery Maintenance Schedule

Refinery	Unit	Starting Quarter	Duration (weeks)	Purpose	Planned
İzmit	Crude Oil & Vacuum	Q4	5	Periodic Maintenance	Planned
	Desulphurizer	Q4	5		Planned
	RUP	Q1	13		Planned
	FCC	Q2	6	Periodic Maintenance	Planned
İzmir	FCC	Q3-Q4	21	Revamp	Planned
	Crude Oil , Vacuum, HYC	Q1	7	Periodic Maintenance	Ongoing
Batman	Crude Oil & Vacuum	Q4	4	Seasonal	Planned

RUP Maintenance

Preparation and planning phase: 2022

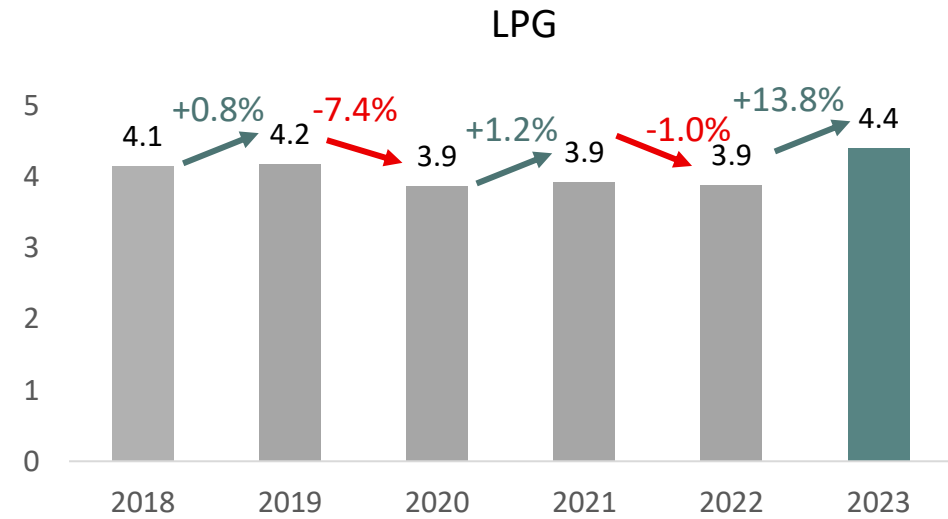
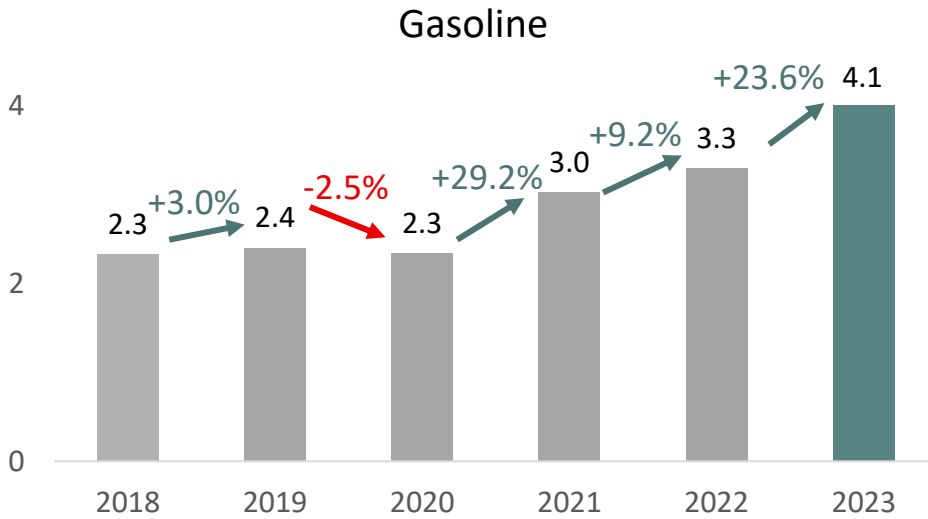
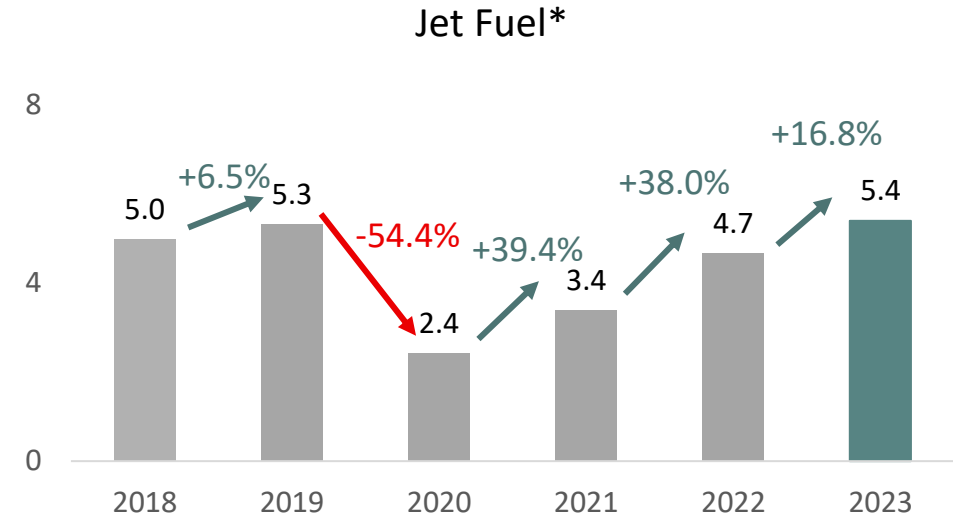
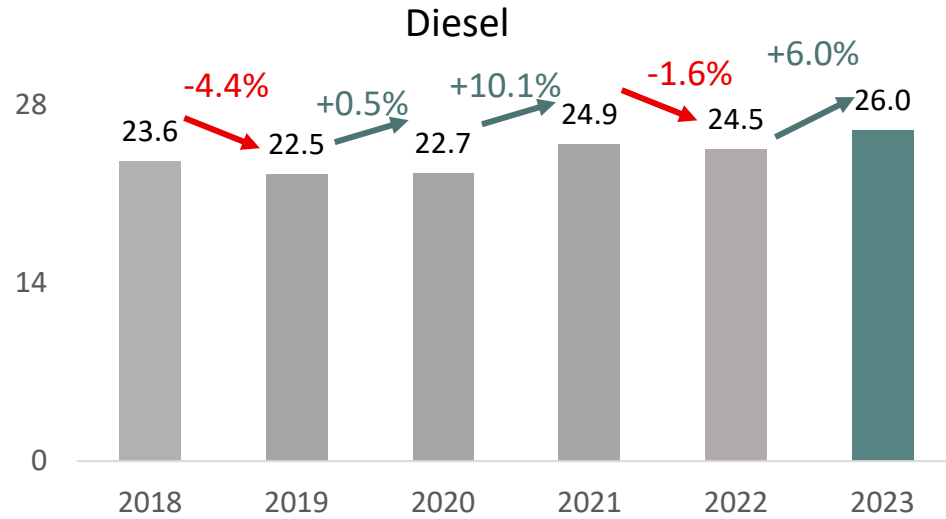
Maintenance start: March 1

- Catalyst changes
- Checks and maintenance on distillation columns, heat exchangers, furnaces and flare.
- Detailed planned maintenance

Completion:
92 days

Turkish Market Fuel Consumption 2018-2023

Million
Tons



Competition - STAR Refinery

Timeline



- Feasibility studies began in 2010 and construction kicked off in 2011
- Goldman Sachs has acquired a 13% stake in SOCAR Turkey for \$1.3 billion.
- Total investment size 6.3 bn USD, with 3.3 bn USD credit agreement.
- Following the completion of construction late 2018, reached full capacity utilization in August 2019
- Star reached to 13 mn tons of capacity

Turkish Market Structure (mn tons, 2023)

Turkey Demand	Tüpraş	STAR	Total	Turkish Market Demand*	Balance
LPG	0.9	0.2	1.1	4.4	-3.3
Petchem F.	0.2	1.7	1.9		
Gasoline	5.1		5.1	4.1	1.0
Jet Fuel	4.6	1.3	5.9	5.4	2.1
Diesel	8.9	6.9	15.7	26.0	-9.3
Fuel Oil	1.3		1.3	0.3	1.0
Bitumen	2.6		2.6		
Pet coke	0.8	0.9	1.7		
Total	~30	~13	~43		

* Source: EMRA

Competition - Regional Competition

- Tüpraş competes with 69 refineries in the Mediterranean and Black Sea markets.
- Mediterranean regional product balance is also affected from Middle East, North West Europe and Asia flows

Mediterranean



54 Refineries ~7.7 mbd

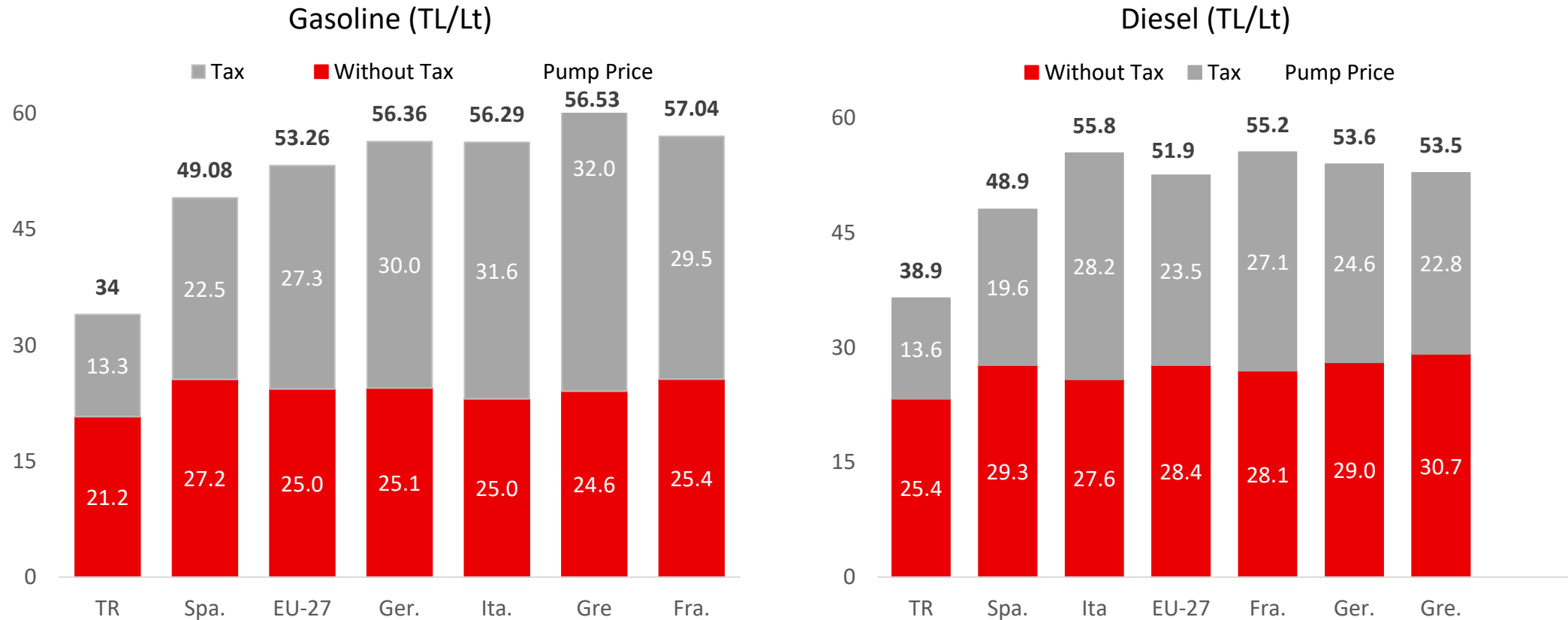
Black Sea



15 Refineries ~1.5 mbd

European Pump Price Comparison

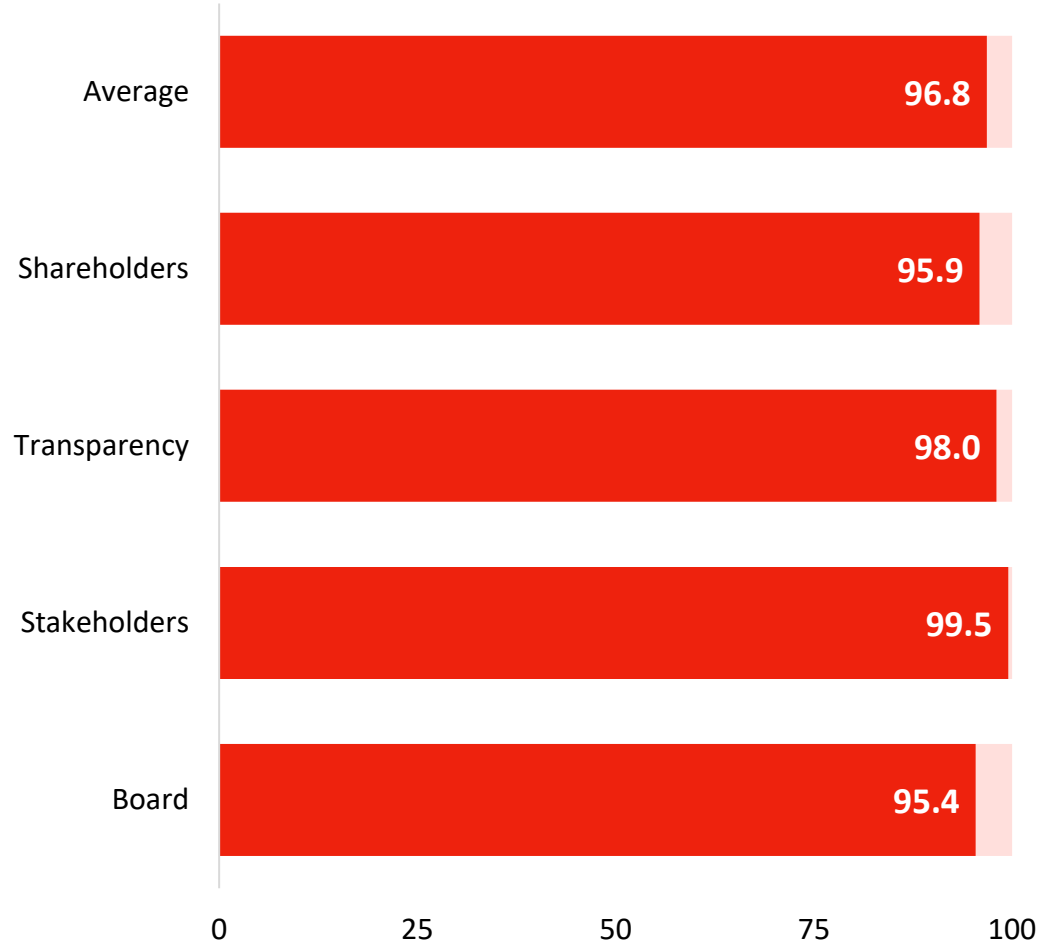
Turkish fuel prices are highly competitive with other European countries.



Prices of Europe and Turkey, as of December 31, 2023

Tüpraş - Ratings

Tüpraş BIST Corporate Governance Rating Score

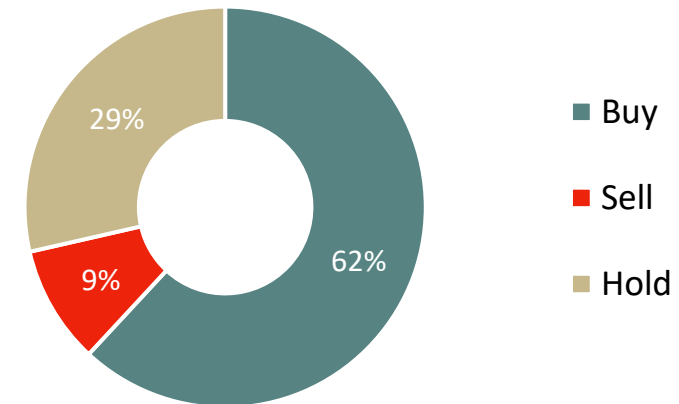


Source: SAHA Corporate Governance and Rating Services Inc. (November 2023)

Credit Rating Scores

Foreign Currency Long Term	FitchRatings	MOODY'S	S&P Global Ratings
Tüpraş	B+ (Stable)	B2 (Positive)	
Turkey	B + (Positive)	B3 (Positive)	B (Positive)
Koç Holding		B2 (Positive)	BB-(Positive)

Analyst Recommendations

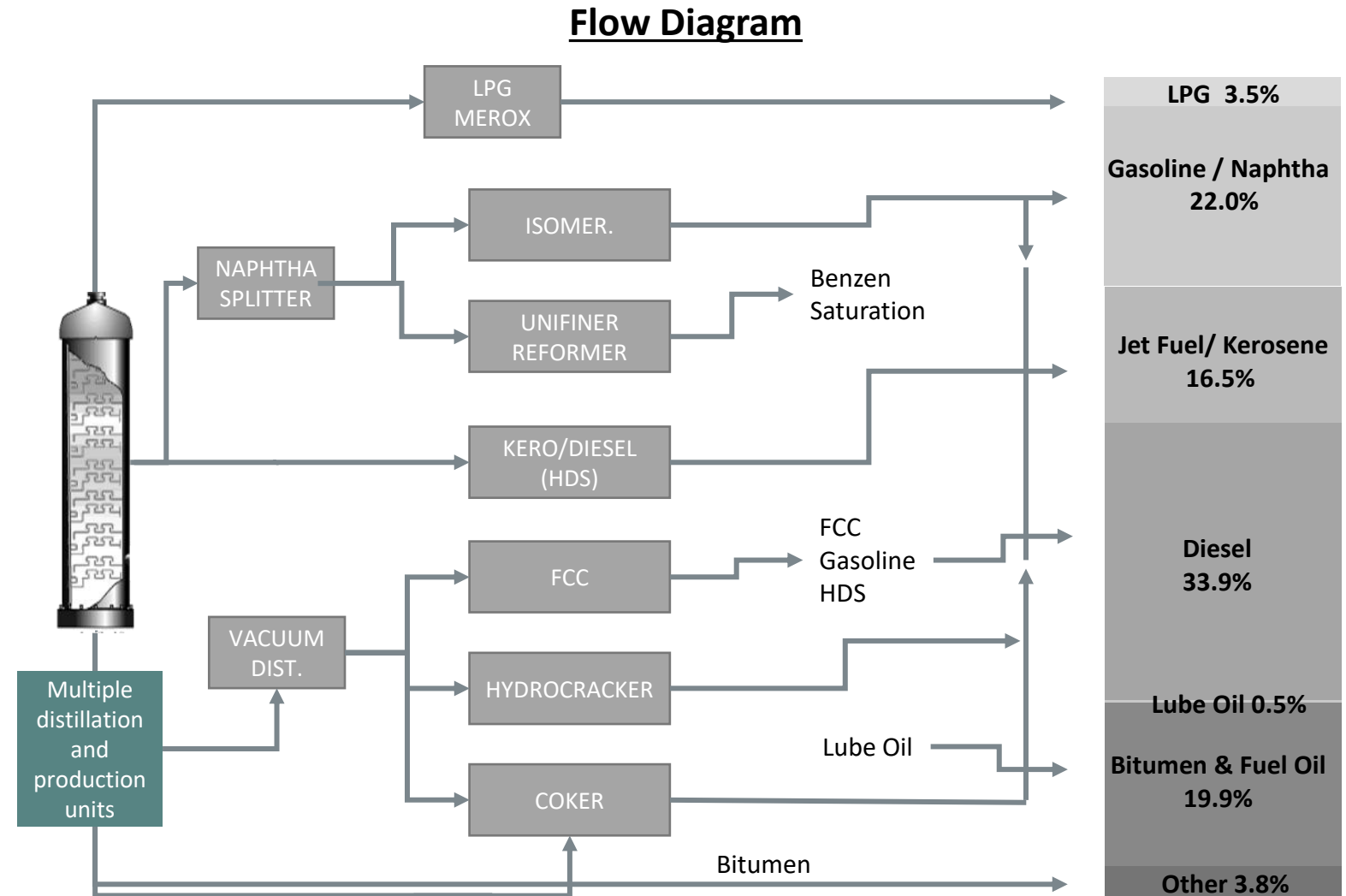


Source: Bloomberg*
*data as of Feb'24

Tüpraş Production Flow and Yield Breakdown

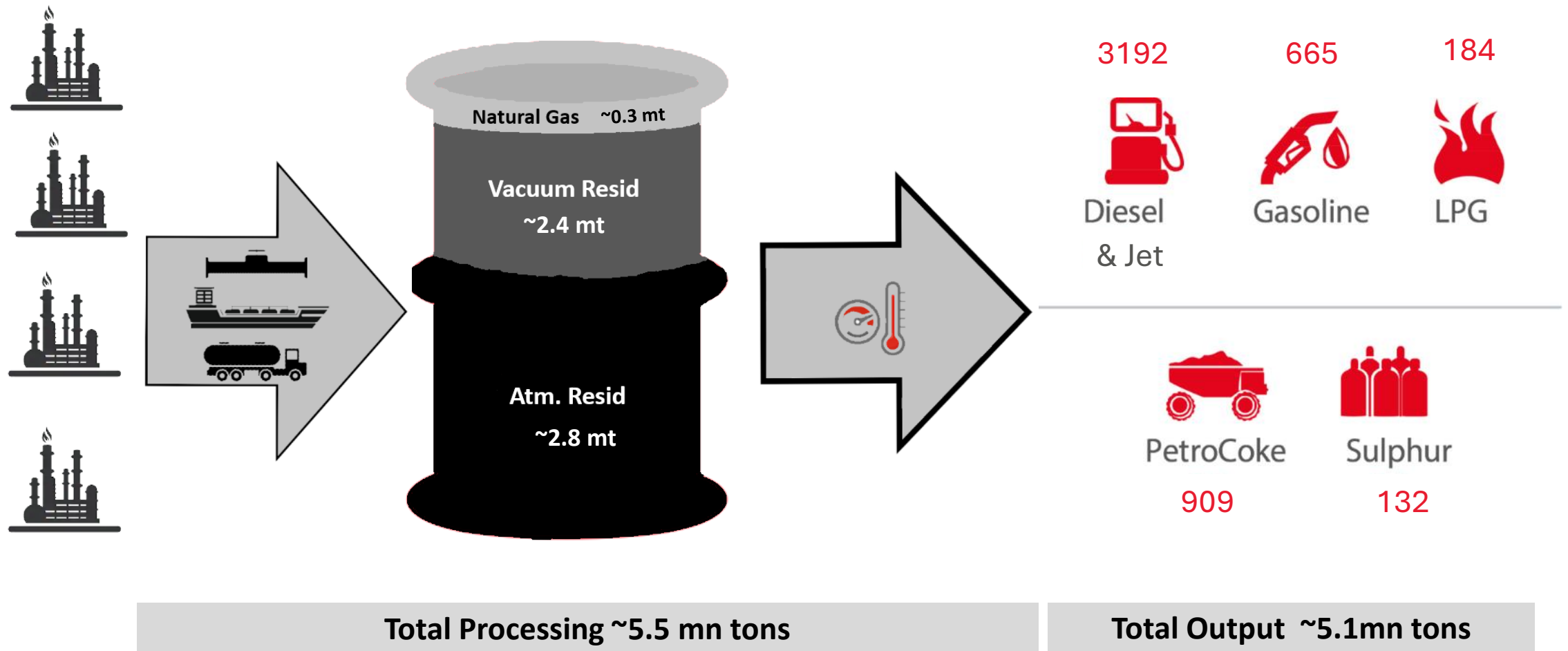
- Tüpraş has 30 million tons of production capacity
- Tüpraş operates 4 refineries with an integrated system optimization program

Key Units	# of Units	Capacity (m ³ /d)
CRUDE OIL	8	99,420
VACUUM DIST.	8	42,752
HYDROCRACKER	4	18,032
ISOMERATION	3	7,804
UNIFINER REFORMER	5	16,225
KERO/DIESEL (HDS)	9	37,265
FCC	2	4,650
COKER	1	9000
NAPHTA SPLITTER	8	
LPG MEROX	6	

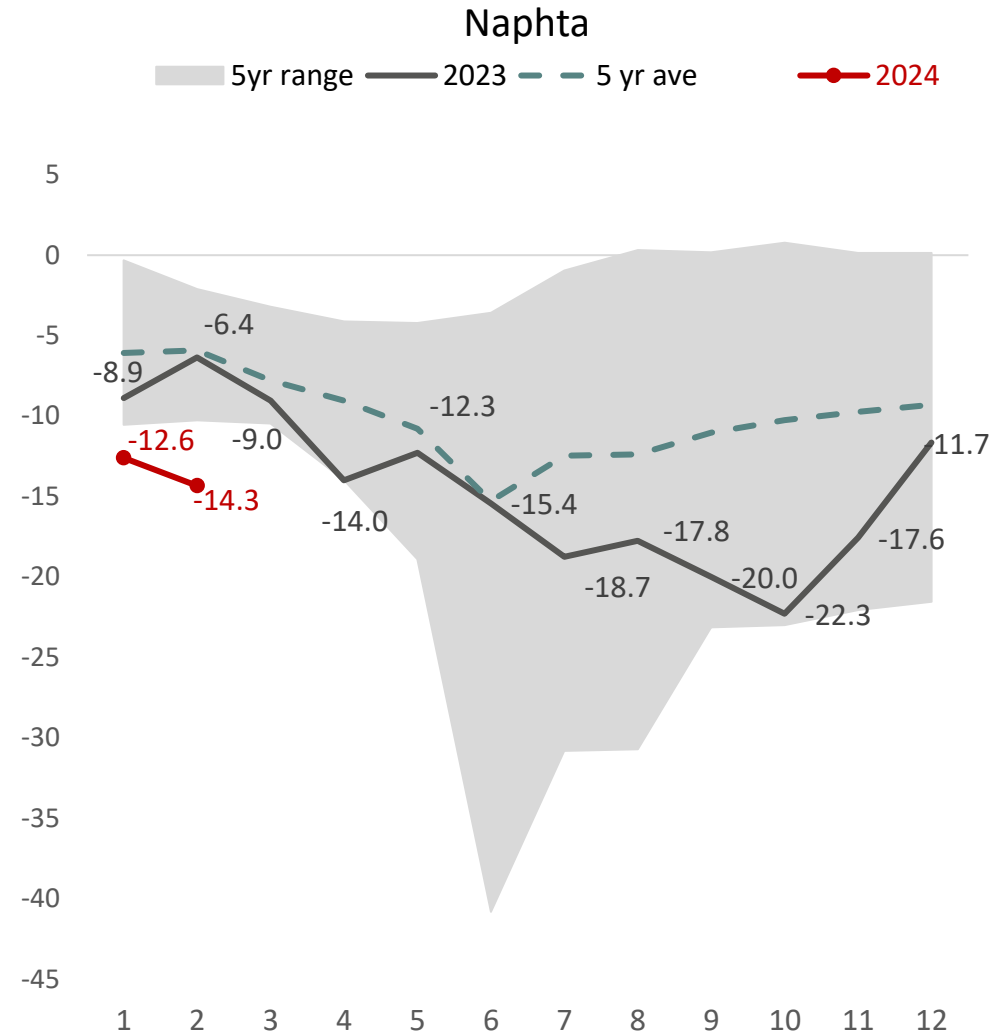
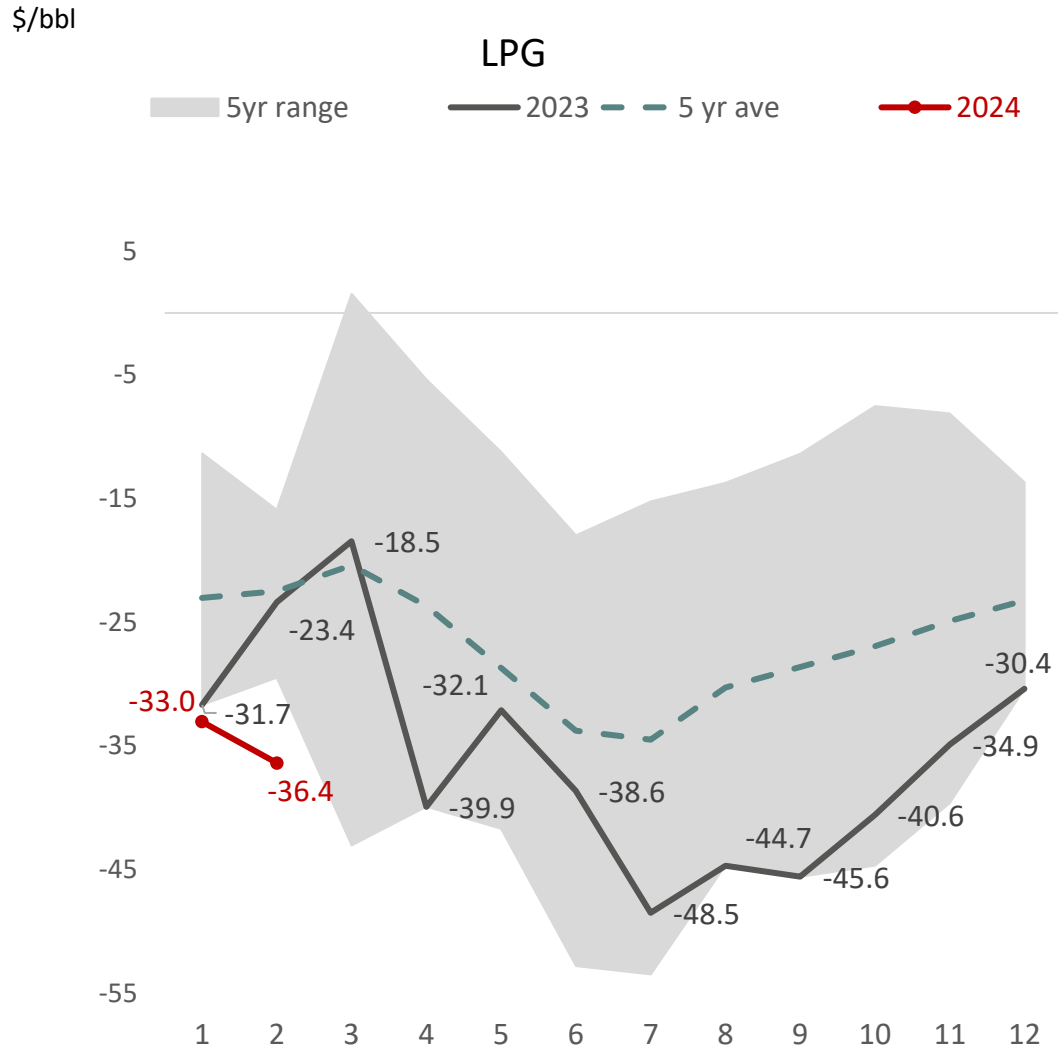


RUP Feedstock and Production

- Residuum Upgrade Plant (RUP) was completed in 2015 and it is the main conversion unit of Tüpraş.
- The second scheduled maintenance began in Q1 2024, is expected to be completed in 92 days.



LPG and Naphta Cracks



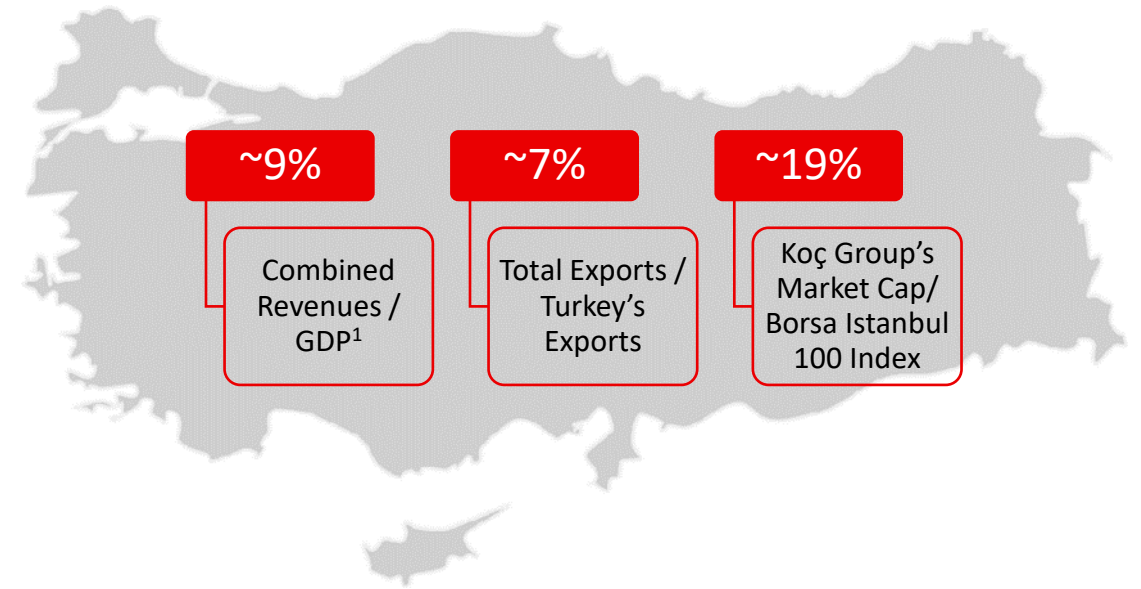
Data as of 29 February, 5 year range shows 2019-2023

Turkey's Leading Investment Holding Company

- Koç Holding is Turkey's largest industrial and services group
- The only Turkish company in Fortune Global 500².

Pioneer in its Sectors

- Leading positions with clear competitive advantages in sectors with long-term growth potential such as energy, automotive, consumer durables and finance.



Notes : Data as of YE22

(1) 2022 Report (based on consolidated revenues)

(2) 2022 report (based on consolidated revenues)

 **Tüpraş**

 **Koç**



Investor
Presentation

Latest
Webcast



Sustainability
Report



Strategic
Transition Plan



tuprasir@tupras.com.tr
