

# Energy To the future





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# 

LARGESI INDUS I RIAL COMPANY IN TURKEY PROVIDING TURKEY'S ENERGY FOR 60 YEARS



# EUROPE'S 7TH WORLD'S 30TH LARGEST REFINING COMPANY

# \$7 BILLION INVESTMENT

# 4 REFINERIES 30 MILLION TON CAPACITY 75% REFINING CAPACITY \* OF TURKEY

AMONG **LARGEST** EXPORTERS OF TURKEY

\* SOURCE: EMRA





# 57% TOTAL STORAGE CAPACITY WITH OPET

# ONE OF THE **MOST COMPLEX REFINERIES** OF THE MEDITERRANEAN REGION

# **51% MARKET SHARE\*** IN TURKEY

SOLID DIVIDEND PAYER

**\* SOURCE: EMRA** 







# WE WILL LEAD TURKEY'S ENERGY TRANSFORMATION, BY CREATING A DIVERSIFIED PORTFOLIO







# **GLOBAL PRIMARY ENERGY DEMAND OUTLOOK**



\* Source: IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector



**Electricity** is the backbone of reaching 'Net Zero', driving both electrification and green hydrogen production.



Oil, the energy source of humanity for ages, is gradually being replaced by **alternative energy sources.** 



Oil demand moves onto a downward trajectory, but it will be the significant energy source during **transition period**.



# **Turkey's Transportation Energy Demand**

## in million tonnes of oil equivalent (mtoe)



Gasoline Bitumen Hydrogen

45%

# **OUR PROJECTIONS**



Turkey's fossil fuel consumption to peak in 2030



**Diesel** to be partially **replaced by H<sub>2</sub>**, 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



H<sub>2</sub> to enter a rapid growth phase from 2030

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

# STRATEGIC TRANSITION PLAN OUR AMBITION: THE LEADER OF FUTURE ENERGY IN TURKEY



# **STRATEGIC PRIORITIES**

# **PROFITABLE TO FUND THIS TRANSITION**



# **STRATEGIC ACTIONS**

## **BECOMING THE LEAD** SAF PRODUCER IN TURKEY

SAF

**INVESTING FOR A** SUSTAINABLE & PROFITABLE REFINING

CAPITALIZING HYDROGEN KNOW-HOW TO CREATE A **GREEN VALUE CHAIN** 

## BECOMING A LEADING ZERO CARBON ELECTRICITY PRODUCER

12



BY 2050

scope 1**&2** 



# **TRANSITION PLAN TOWARDS BEING A CARBON NEUTRAL COMPANY**



## SUSTAINABLE & PROFITABLE TÜPRAŞ

Average EBITDA >\$1 bn per annum Average CAPEX

~\$350 mn per annum

# 2022-2030

# 2030-2035

ROACE

Net Debt / EBITDA

<2.0x

Avg. Dividend Payout

~80%

> 25%





## We will invest in

energy efficiency & decarbonization projects, green hydrogen & zero carbon electricity usage in refining to reduce scope 1 & 2 emissions

# EMISSION REDUCTION SCOPE 1 & 2





# STRATEGIC TRANSITION PLAN



## SUSTAINABLE REFINING



BIOFUELS



## ZERO CARBON ELECTRICITY



## GREEN HYDROGEN



SUSTAINABLE REFINING



# SUSTAINABLE REFINING



**ENEGY EFFICIENCY** PROJECTS

DECARBONIZATION PROJECTS

 $CO_2$ 

**REFINING WILL REMAIN AS A MAJOR** EBITDA CONTRIBUTOR

WE WILL CONTINUE TO INVEST TO **DIVERSIFY PRODUCT PORTFOLIO THROUGH** LIGHTER CHEMICAL STREAMS **IMPROVE REFINING PROFITABILITY REDUCE SCOPE 1 & 2 EMISSIONS** 

### **REFINING INVESTMENTS**









# BIOFUELS











# **MARKET OUTLOOK**



\* Source: Calculated with established life cycle assessment (LCA) methodologies, such as CORSIA methodology

**OUR FOCUS:** BECOMING THE **LEAD SAF SUPPLIER** IN TURKEY

## OFFERS LONG TERM **HIGH** PROFITABILITY

## BEST "EMISSION REDUCING **ALTERNATIVE**" FOR AVIATION

**REDUCES GHG EMISSIONS UP TO** 80% \* vs FOSSIL JET FUEL

100001





# **BIOFUELS** BUSINESS PLAN



## CONVERT EXISTING UNIT IN IZMIR WITH ~\$230M CAPEX TO BE FINALIZED IN 2026

- **400 kton/year** biofuel production capacity at the first stage
- ~10% of our jet fuel sales will be SAF by 2030
- Reach 75% SAF production yield in (~300 kton/year)

## SAF PRODUCTION CAPACITY WILL TRIPLE BY 2035 WITH FRONT LOADED CAPEX







# ZERO CARBON ELECTRICITY



# **ZERO CARBON** ELECTRICITY





# **MARKET OUTLOOK**

\* Source: IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector

# **ZERO CARBON ELECTRICITY** BUSINESS PLAN

## **INVESTING IN ZERO CARBON ELECTRICITY**

- Use majority of zero carbon electricity to produce Green H<sub>2</sub> for our refinery processes and sales to heavy transportation and logistics
- Sell remaining zero carbon electricity to grid
- Procure zero carbon electricity (~50% of total need) via PPAs to optimize capex/cogs balance







### **OUTLOOK FOR ZERO CARBON ELECTRICITY UTILIZATION**





# **ZERO CARBON ELECTRICITY** ACTIONS & TARGETS

- Completed study for **Solar** and **Wind** installations at our refineries (potential to install up to 300 MW)
- Installed 2 MW Solar PV to Batman In 2021, to be followed by 70 MW in Kırıkkale
- Exploring areas to reduce CO<sub>2</sub> emissions through electrification of refinery



Main portion of profits from zero carbon electricity investments is included in integrated Green H<sub>2</sub> margins

### **INSTALLED CAPACITY**

## BY 2030: ~1 GW BY 2035: ~2.5 GW





# **GREEN HYDROGEN**

### \*No Hydrogen 20 OTHER consumption in 2020 scenario INDUSTRY (\*) Source: IEA 6 0 2020 2030 2050



# **MARKET OUTLOOK**









# HYDROGEN BUSINESS PLAN

- Evaluating test site for a 20 MW H<sub>2</sub> electrolyzer, fueling station and renewables to power them
  - Start selling **Green H**<sub>2</sub> to heavy transportation and logistics **by 2030**

HYDROGEN

ENERGY

STORAGE

Convert all existing grey H<sub>2</sub> production **to green by 2040** 





# 2020-2021



**COOPERATION** WITH EMERALD INDUSTRIAL INNOVATION FUND



**INVESTING IN NEW TECHNOLOGIES IN** THE US & EUROPE



\$ 50 MILLION ALLOCATED

# INDICATORS

- 6 joint investments with international energy companies
- **5** direct investments
- Collaboration with more than 20 startups
- 5 venturing experts with the competence to invest in international start-up companies

- New market opportunities
- to Energy Transformation

**CO-INVESTMENT EVALUATIONS** WITH VC'S & ENERGY COMPANIES



2022

DIRECT

INVESTMENT

**EVALUATIONS** 

**BENEFITS** 

2030

Productivity increase and cost savings with implemented startup technologies

Business intelligence contributes to company decisions after 2030 on the path

## **CULTURAL TRANSFORMATION**

- Business units eager to know startups & new technologies
- Business units have increased the speed of technology adoption and shortened the time to implement new technologies with an agile culture and lean initiative





4 100

4.80

6.76 6.54 6.95 9.66 6.95

8.59

DIGITALIZATION



0.11

6.27



000 **~**⊖ CONNECTED PEOPLE

## INTERCONNECTED



CONNECTED **OPERATIONS** 



CONNECTED DIGITAL PROCESSES

# DIGITALIZATION

SAFE

## VALUE ORIENTED

## OW CARBON







## **OPERATIONAL** TRANSPARENCY

## HIGH AUTOMATION & HIGH EFFICIENCY

## EMPLOYEE EFFICIENCY & EXPERIENCE



LOW CARBON



**CYBER SECURITY & TECHNICAL SAFETY** 



**BENEFIT FROM** AI MOBILITY



# **CREATING SKILLS OF THE FUTURE** Sustainable, Competitive & Forward Looking Tüpraş

# ORGANIZATIONAL STRUCTURE

Create and deploy a lean new generation operating model, based on total business portfolio





# EMPLOYEE EXPERIENCE

Create **Tüpraş Employee Experience concept** within the scope of the **Future of Work** 





# CAPABILITY & METHOD

Determine the capabilities that Tüpraş should have in the future. Create an implementation roadmap





# STRONG POLICIES HAVE BEEN EFFECTIVELY IMPLEMENTED FOR YEARS '



HUMAN RIGHTS



ANTI-BRIBERY, ANTI-CORRUPTION



# TÜPRAŞ IS TAKING PLACE IN THESE SUSTAINABILITY INDICES





# FEMALE REPRESENTATION IS THE KEY FACTOR IN OUR HR POLICIES

FEMALE REPRESENTATION IN **THE BOARD OF DIRECTORS** BY 2021

18%

FEMALE REPRESENTATION IN FEMALE REPRESENTATION IN THE BOARD OF DIRECTOR **ALL MANAGEMENT LEVELS** IN THE NEXT 5 YEARS









TARGETED RATE OF WOMEN IN NEW RECRUITMENTS







# MAIN FIELDS **OF R&D STUDIES**



DIGITAL TRANSFORMATION & ROBOTICS









# CARBON CAPTURE

WATER & WASTE MANAGEMENT

# ENERGY MANAGEMENT

# RENEWABLE FUELS



# MAIN FIELDS OF R&D STUDIES



DIGITAL TRANSFORMATION & ROBOTICS



# CARBON CAPTURE



# WATER & WASTE MANAGEMENT

# ENERGY MANAGEMENT



RENEWABLE FUELS



Horizon2020 European Union Funding for Research & Innovation

# Tüpraş became **the most successful Turkish Company** in EU Horizon 2020

12 ongoing, 5 completed projects

# **Sustainable Development Goals** as an important guide for R&D efforts







# 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 \$5bn.

**ROACE will remain above 25% creating ~\$9bn total** FCF until **2035** 

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

Will remain a high dividend payer, average ~ 80% dividend payout











# FINANCIAL TRANSITION EBITDA

BY BUSINESS (IN \$ MILLION)









\*Total consolidated investments including RUP (\$3.2 Bn) which was completed in 2015

# FINANCIAL TRANSITION CAPEX

BY BUSINESS (IN \$ MILLION)



# FINANCIAL TRANSITION CUMULATIVE CASH FLOW BRIDGE



\* Consists of net additional funding and related financial expenses

## 2022- 203**5**

# **SOUND FINANCIAL PLAN**

- Superior EBITDA generation and disciplined CAPEX plan leads to low external funding requirement
- Strong FCF generation ensures strong dividend potential





### **DIVIDEND PAYOUT**



\* Years without dividend payments are not taken into account. Dividends distribution is calculated according to distributable net income based on Statutory Accounts.

# FINANCIAL TRANSITION DIVIDEND

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

Our new business





