



**TotalEnergies**

# TotalEnergies's Renewable Energy Ambition in Kazakhstan

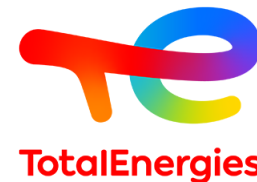


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TotalEnergies Renewables for Kazakhstan

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## TotalEnergies: a major player in the energy transition



**Be a multi-energy company committed to supplying energy** that is reliable, affordable, sustainable and accessible to as many people as possible



**Meet the challenge of more energy, fewer emissions alongside our customers,** stakeholders and society as a whole to contribute to our planet's sustainable development and effectively address the issue of climate change



**Produce and market fuels, natural gas and electricity** while promoting renewable, decarbonized energies

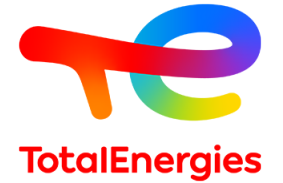


**An objective of Net Zero by 2050,** together with society





# ELECTRICITY, the energy of the 21<sup>st</sup> century



Demand for electricity is growing faster than primary energy demand throughout the world, including within the OECD

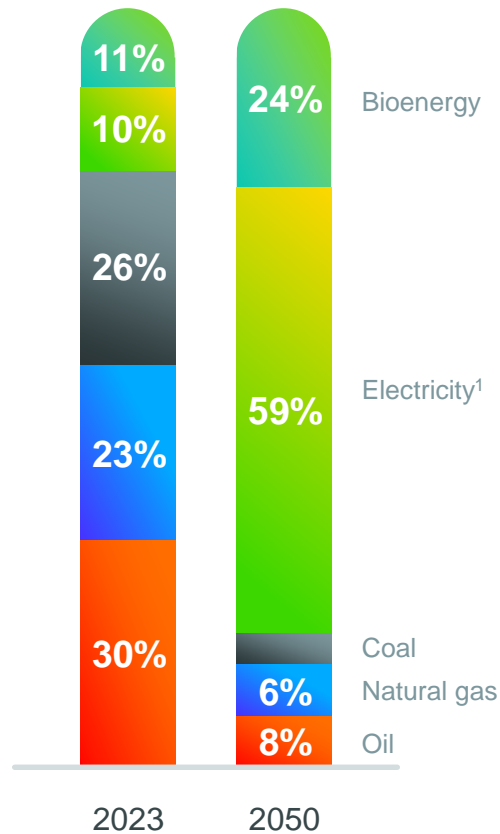
Every sector of the economy is going electric

One ambition: to become an integrated power player, ranked among the world's top ten power producers (exc. China)

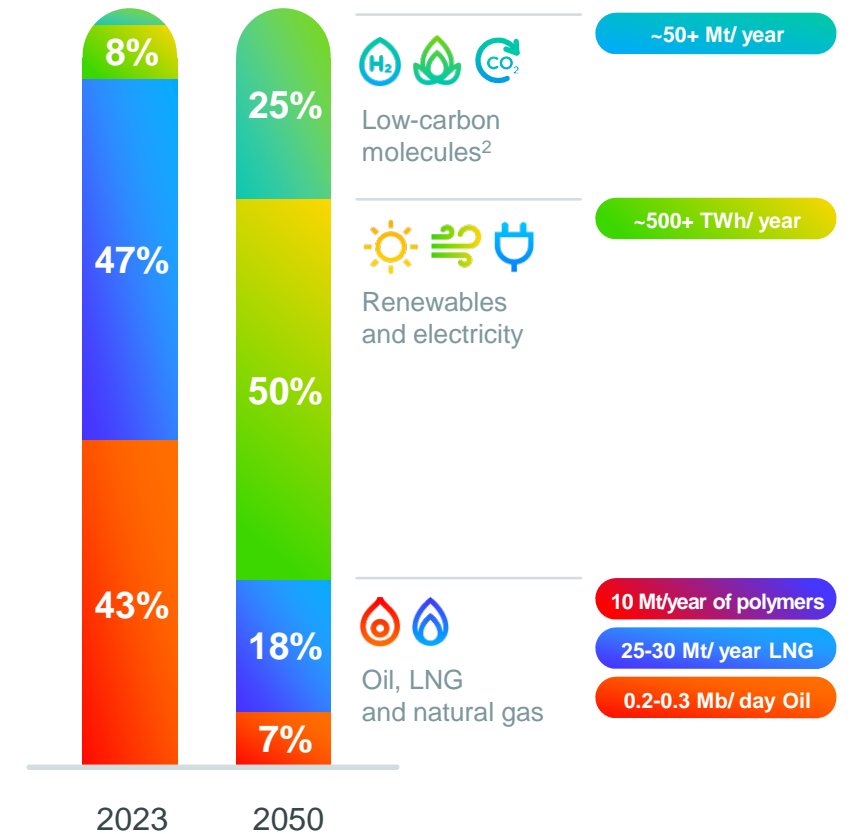
One objective: make profitable investments in renewables and electricity

**+** \$5 billion/year

- 2050 IEA NZE energy mix

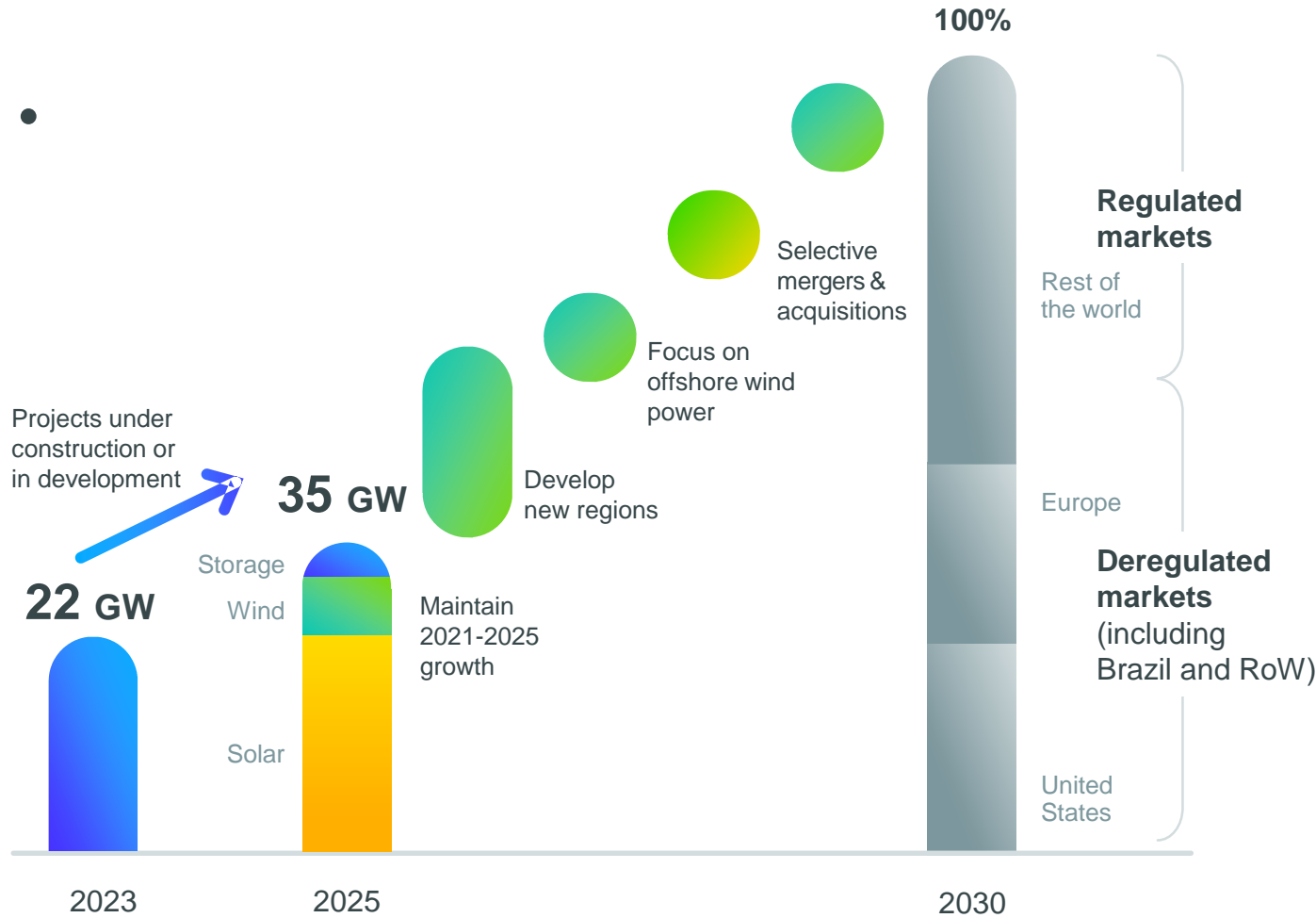


## 2050 TotalEnergies' sales mix





# From a renewable energy producer... among the LEADING producers of renewable energies by 2030



## 100 GW

of gross renewable power  
generation capacity by 2030



### Capitalize on TotalEnergies' global footprint

A strong presence in renewables in Europe, India and the United States

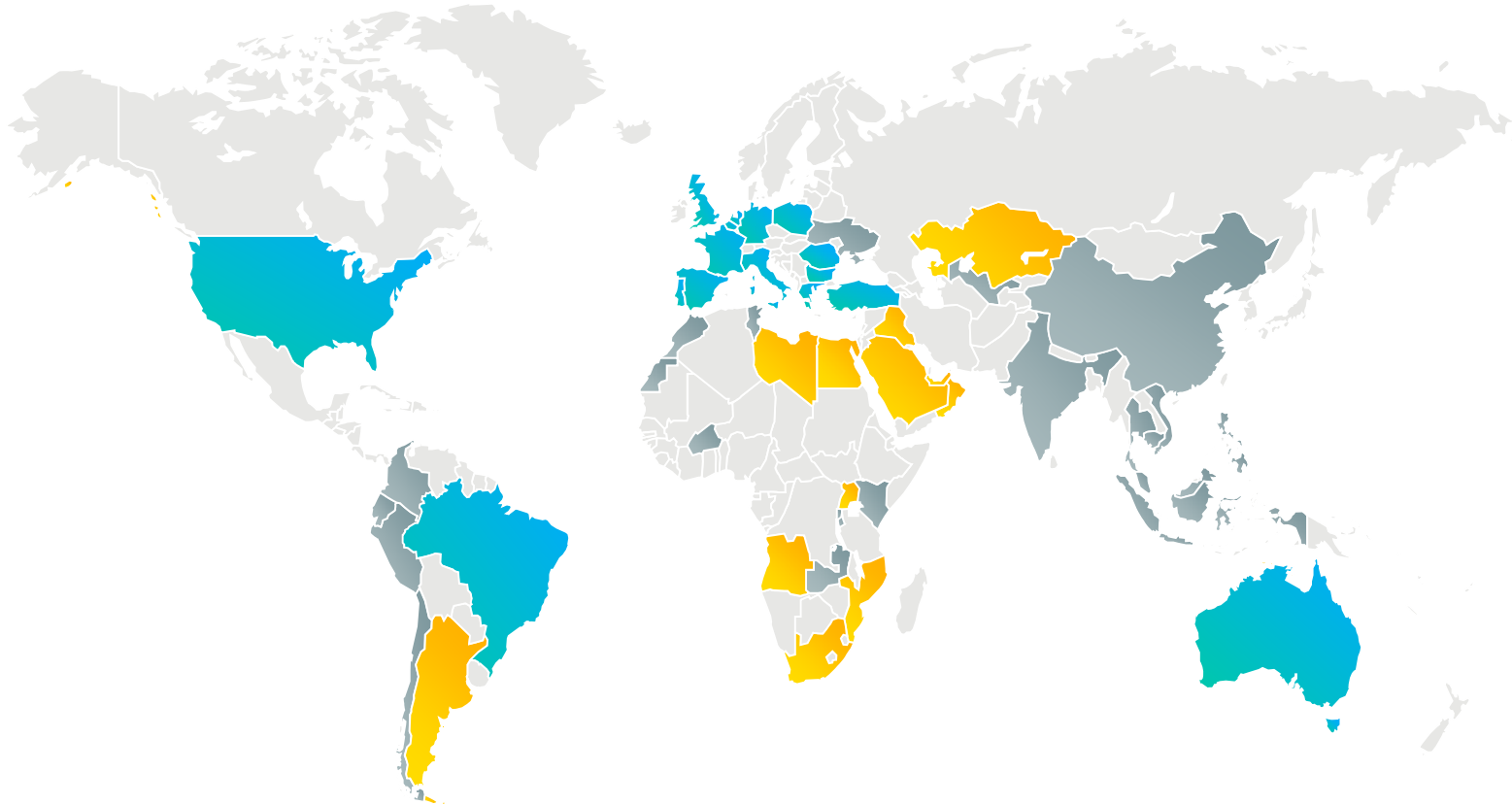
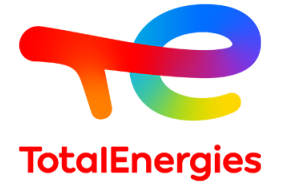


### Leverage the Company's critical expertise in offshore wind power

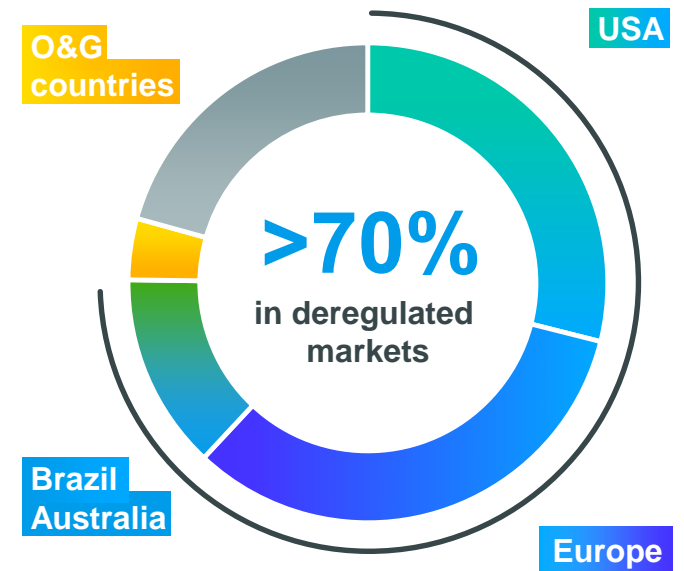
A portfolio totaling more than 16 GW



# Focus on deregulated markets to leverage market volatility

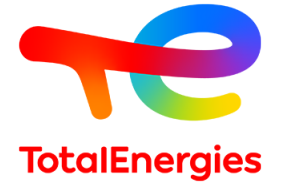


Power Generation by geography



Key deregulated country | O&G presence country | Other presence

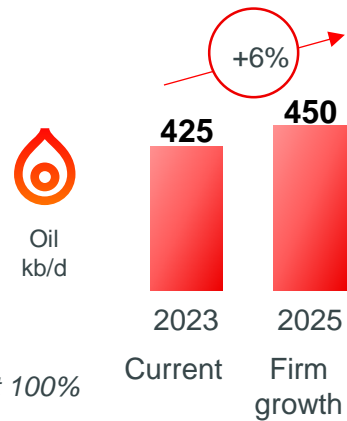
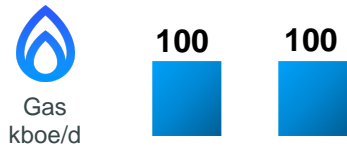
# TotalEnergies in Kazakhstan



## Exploration & Production

### Kashagan

- Complex offshore sour oil and gas field (15% H<sub>2</sub>S, 5% CO<sub>2</sub>)
- Non-operated, PSA (until 2041)

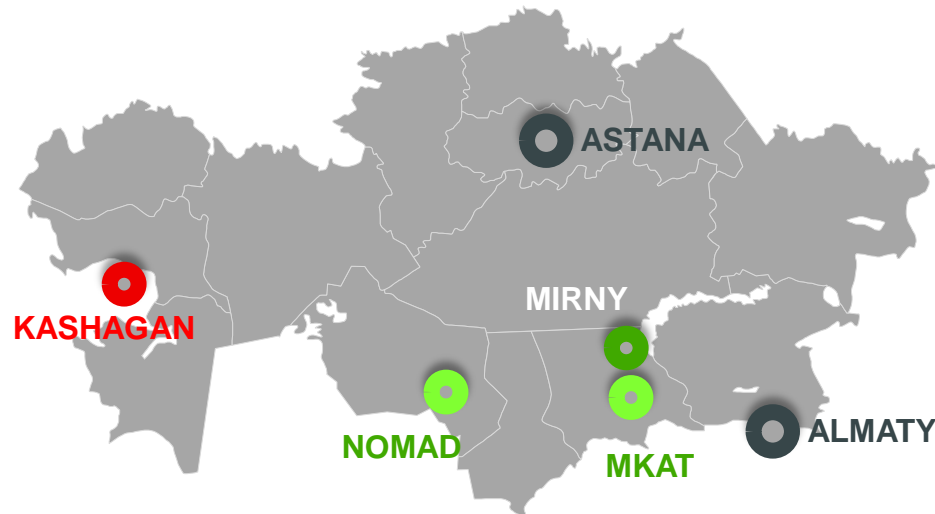


Values at 100% shares

## OFFICES

### Astana:

- EP & REN main offices



## Marketing & Services

- Based in Almaty
- 8000 t/y lubricant sales for light cars and heavy machinery

## RENEWABLES

### M-KAT – Solar 100 MWp

- Generation of 176 GWh/ year
- PPA for 15y
- Commissioning date: December 2019

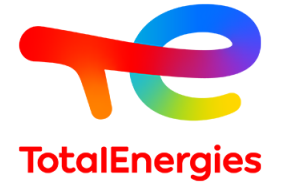
### NOMAD – Solar 28 MWp

- Generation of 49 GWh/ year
- PPA for 15y
- Commissioning date: December 2019

## A reliable partner for Kazakhstan

- Long-standing relationship (since 1992) and trusted partner with the Government of RoK
- Multi-energy presence: both renewable energies and Oil and Gas with the capacity and resources to handle big scale multi-energy projects

# The Mirny Wind and Energy Storage Project



## The Project

### First of a kind in Kazakhstan:



~130-150  
wind turbines



300 MW /  
600 MWh

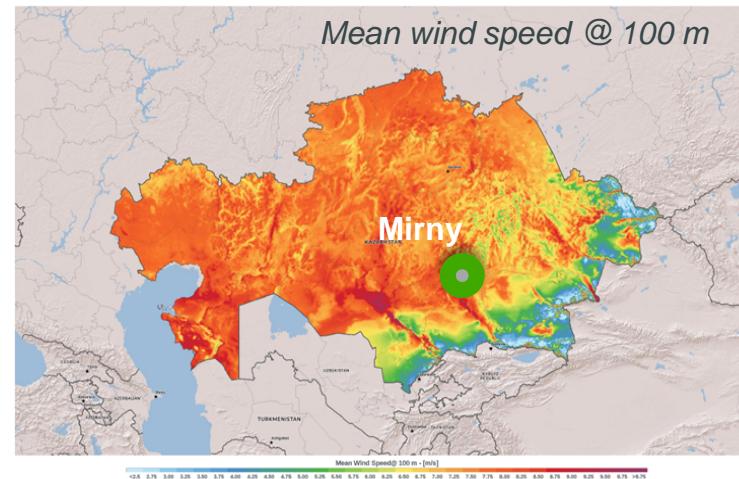


CO<sub>2</sub> savings  
3.2 Mt / year



CAPEX  
~1.4 G\$

- Inter Governmental Agreement signed between France and Kazakhstan
- PPA & investment agreement signed in 2023
- Land and grid secured
- Wind measurement campaign & Technical studies ongoing



## Project goals

- First renewable energy gigaproject initiated in the country
- Supply of green electricity for 1 million people, preventing the emission of 3.5 million tons of CO<sub>2</sub> annually
- Development of educational initiatives in collaboration with local universities to enhance local capital development
- Setting up of a BESS Technical Expertise Centre

## Ownership structure



60 %

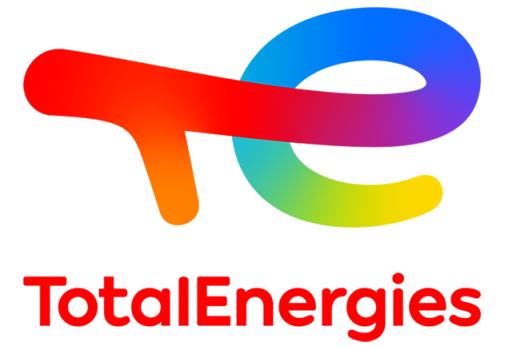


20 %



20 %

Successfully Complete MIRNY Project → 1<sup>st</sup> Priority



Thank you