

Ecopetrol's role in the energy transition



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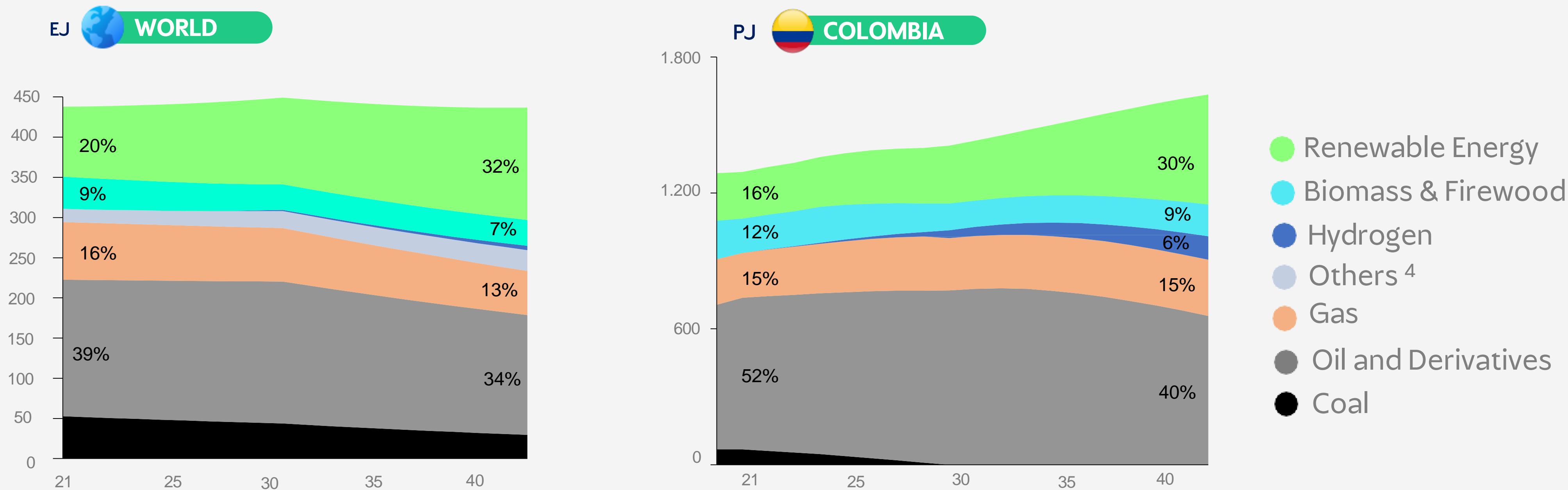
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Colombia is committed with a growing clean and diversified energy matrix



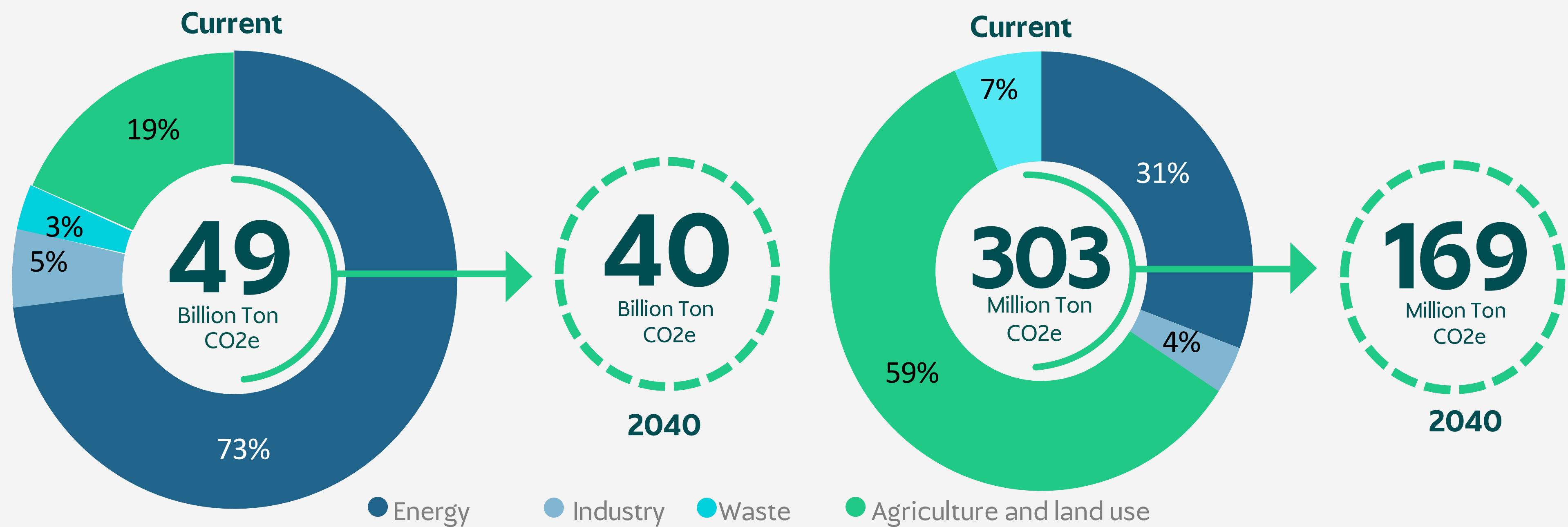
FINAL Energy consumption

World: International Energy Agency – Scenario.
Colombia: UPME – National Energetic Plan 2022 – 2052
EJ: Exajoules
PJ: Petajoules

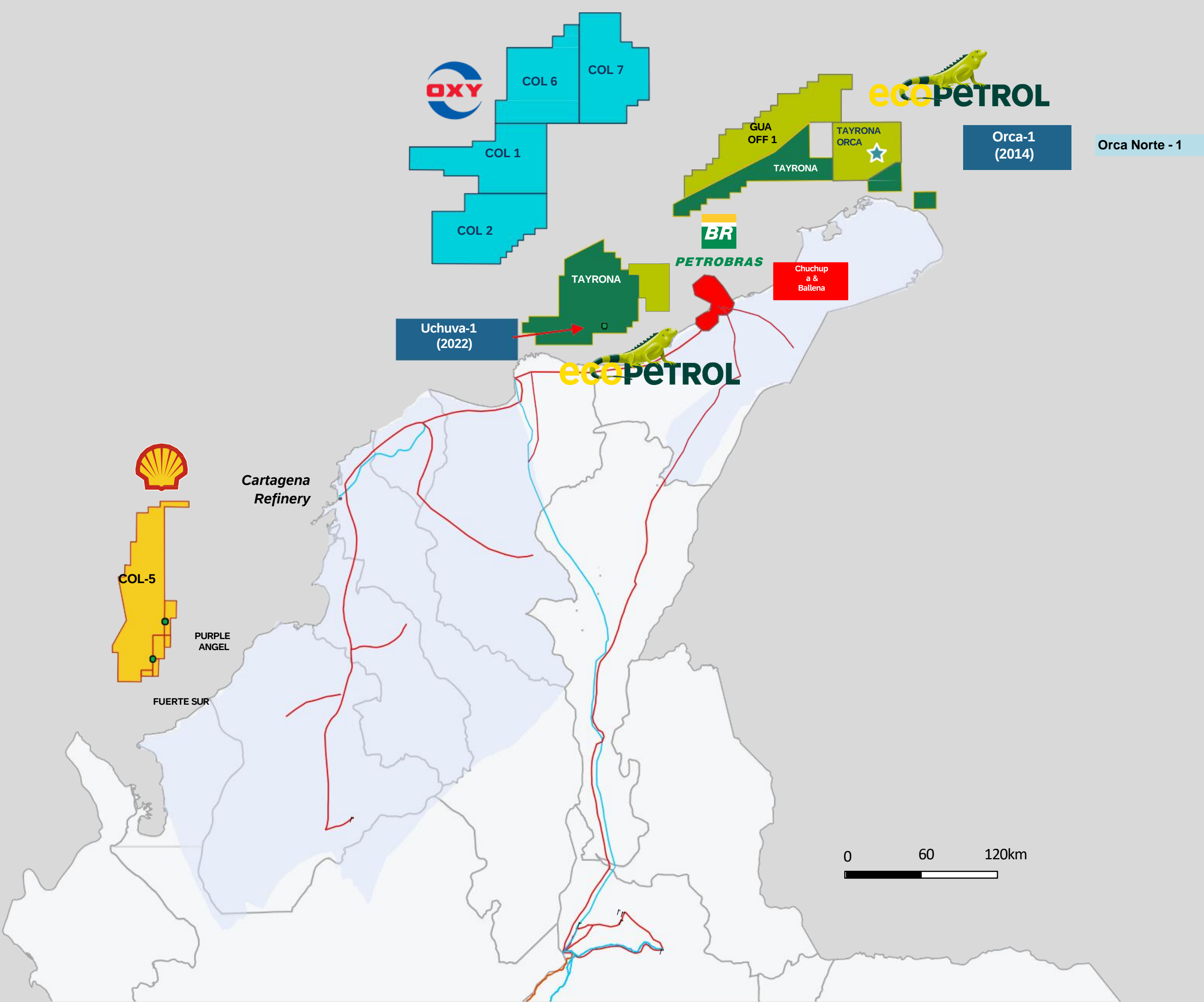


Green House Gas Emissions

World: OurWorldinData; Climate Watch, the Resources Institute (2020)
Colombia: Institute of Hydrology, Meteorology and Environmental studies (IDEAM, 2018)



We work to ensure the rapid entry of offshore potential



We are a diversified energy group, committed to Colombia's energy transition

+ 9

Countries

+ 18k

Employees

+ 104k

Allied Workers
January – August 2023

Hydrocarbons

1st Hydrocarbon Producer in Colombia and #39 in the world according to the TOP 100 Global NOC & IOC Ranking

730 mbped 9M23 produced

We have the best refinery in Latin America

according to World Refining Association

GRB: 101 years

Low Emissions Solutions

1st autogenerator with renewables in Colombia
208 MW @2023

1st producer of green hydrogen
1st Pilot – SITP

We produce **77% of the gas** consumed by the country

Energy Transmission, Toll Roads and Telecom

1st energy transmitter in Latin America
+48,000 km of lines



Top 5 of the most valuable companies in Latin America (Brand Finance 2023)
Brand value of US\$4.1 billion



Featured as one of the most sustainable companies in the world



We are part of the 40 members of the Taskforce on Nature-related Financial Disclosures working group



We contribute to territorial development by building relationships of trust with our interest groups



Transfers to the Nation
42.4 TCOP
@2022



Social and environmental investment
+600BCOP
@2022



Works for taxes
+553 BCOP
@2022



444 Municipalities



133 Municipalities



259 Municipalities



90 Municipalities



8 Municipalities

575

MUNICIPALITIES

52% of the country



Our purpose is to mobilize a just and equitable energy transition for the country



Preserving the value of the hydrocarbon business



724 mbped
Production

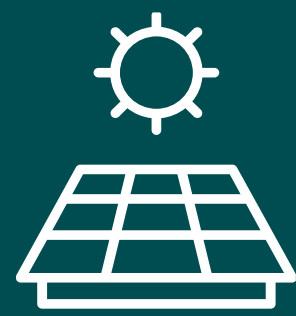
1.094 mbd
transported

420 kbd
refining capacity

+9.000 km
oil pipelines and
polyducts

1st semester, 2023 figures

Accelerating new low-emission solutions businesses

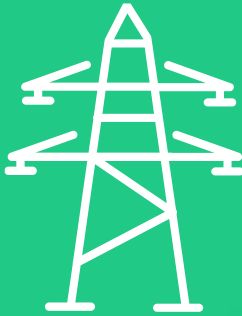


208 MW
Renewable energy
supply capacity

+15 k hectares
Ecoreserves in
Colombia

1st Pilot
Green Hydrogen SITP

ISA as a leverage for diversification in electrical energy



+48.000 km
transmission lines

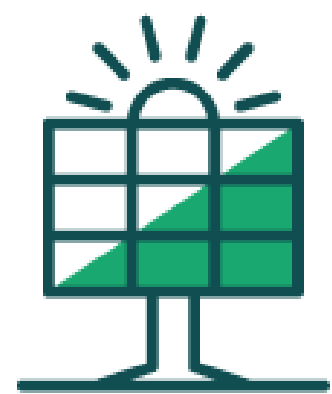
860 km
road concessions in
operation

1st Project
large-scale energy
storage in Brazil

Our 2040 strategy “Energy that Transforms” leverages the country's energy transition



We strengthen the hydrocarbon Business



We accelerate the development of the energy transition



ISA as a leverage for diversification in electrical energy

Competitive Returns

Grow With The Energy Transition

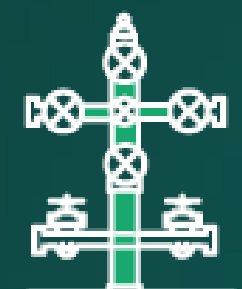
Cuttiing-Edge Knowledge

Generate Value Through Tesg

6 TOPICS HAVE CHANGED



Confirmation of greater gas potential in the Colombian Caribbean Offshore



No hydrocarbon development in unconventional reservoirs in Colombia



Enhanced recovery outperformance



Better results in Permian

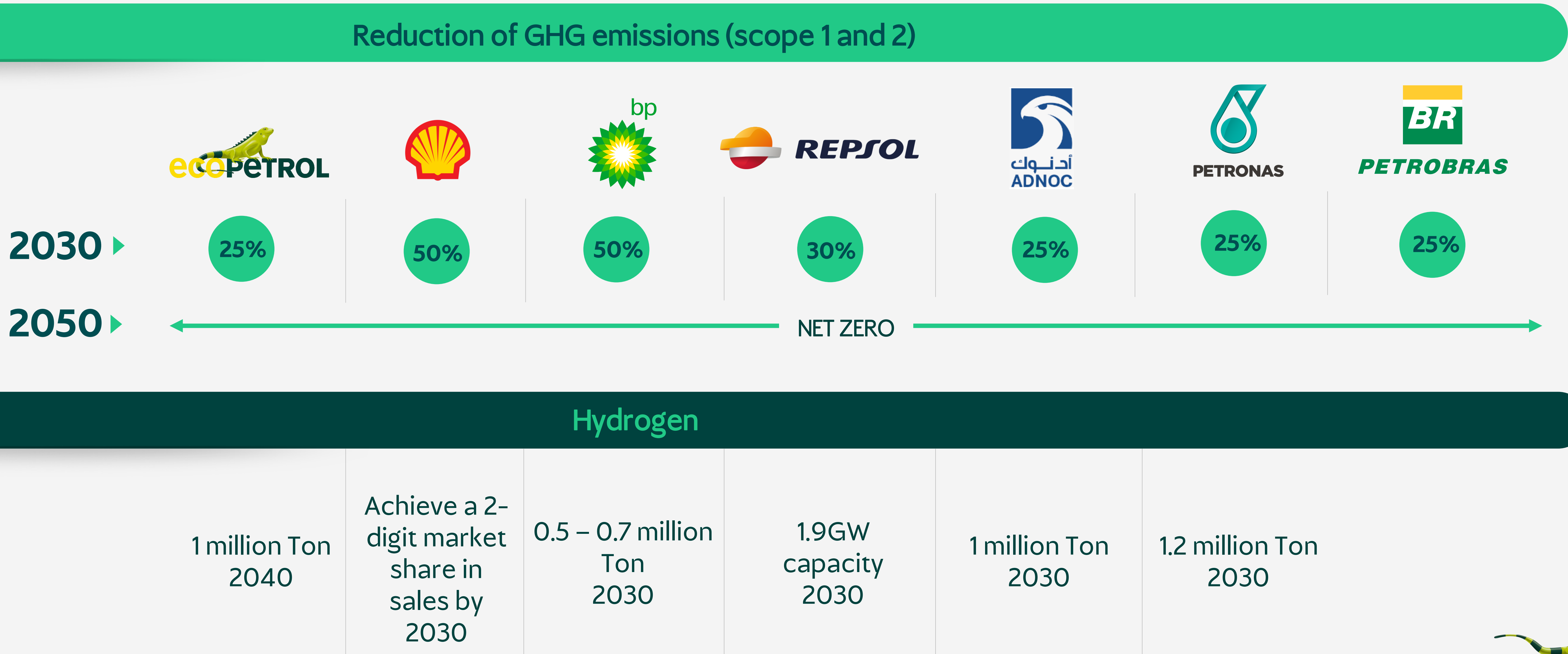


Capturing value through greater commercial activity



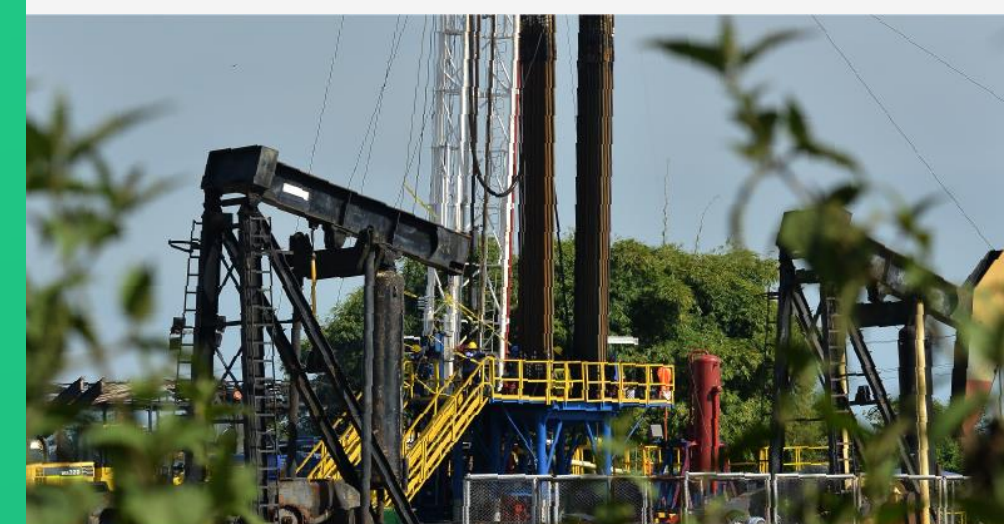
ISA’s better performance versus the acquisition case

Clear goals in line with the main trends worldwide





Big bets for the protection of traditional business and the energy transition



Production:
Portfolio management
Recovery



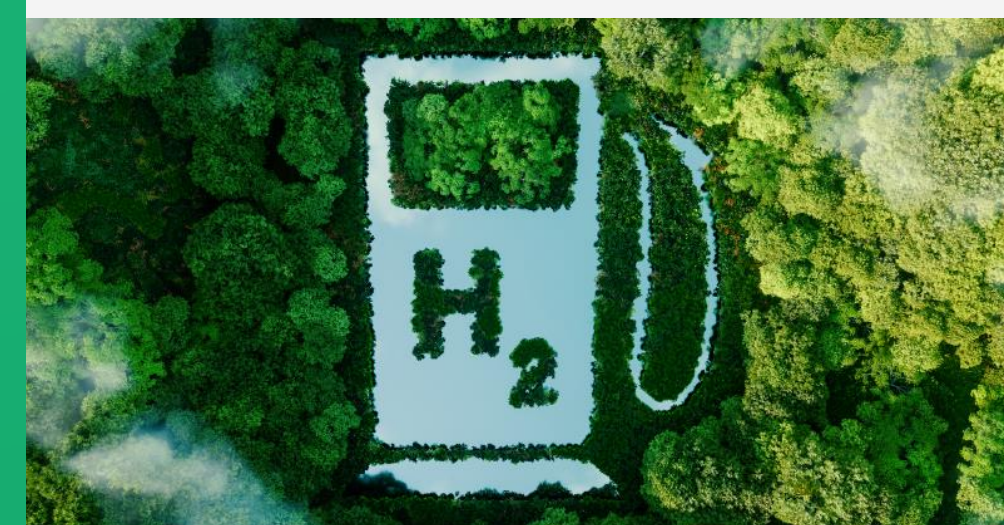
**Gas as fuel of the
transition: Offshore**



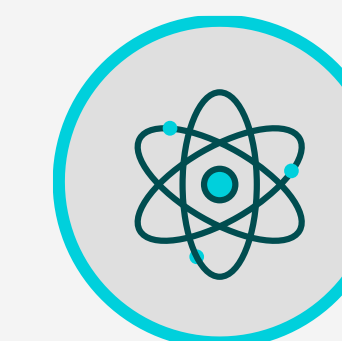
**Self-generation with
Renewables**



**Energy efficiency
(25PJ)**



**Hydrogen
Production**



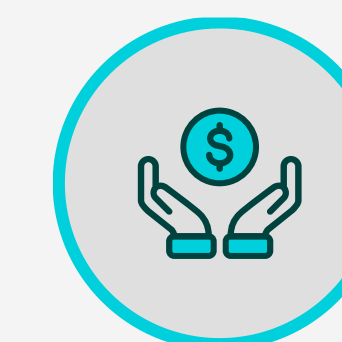
Technology and Innovation
Colombian Institute of Petroleum and
Transition Energies (icepet)



Comprehensive territory management
• Social gas
• Energy communities



**Reduction of methane emissions and
Water neutrality**



**Capital allocation focused on
efficiency**

We advance the diversified portfolio oriented to energy security

11 Offshore exploratory contracts

(represents only 28% of the area)

Discovered volume

North
2-5 TPC

South
2,5 -7 TPC

Total Volumes (Gross)
TCF: Tera Cubic Feet

Does not include Glaucus potential

2023

Glaucus-1
Successful

23-24

Orca Norte-1
well drilling

24-25

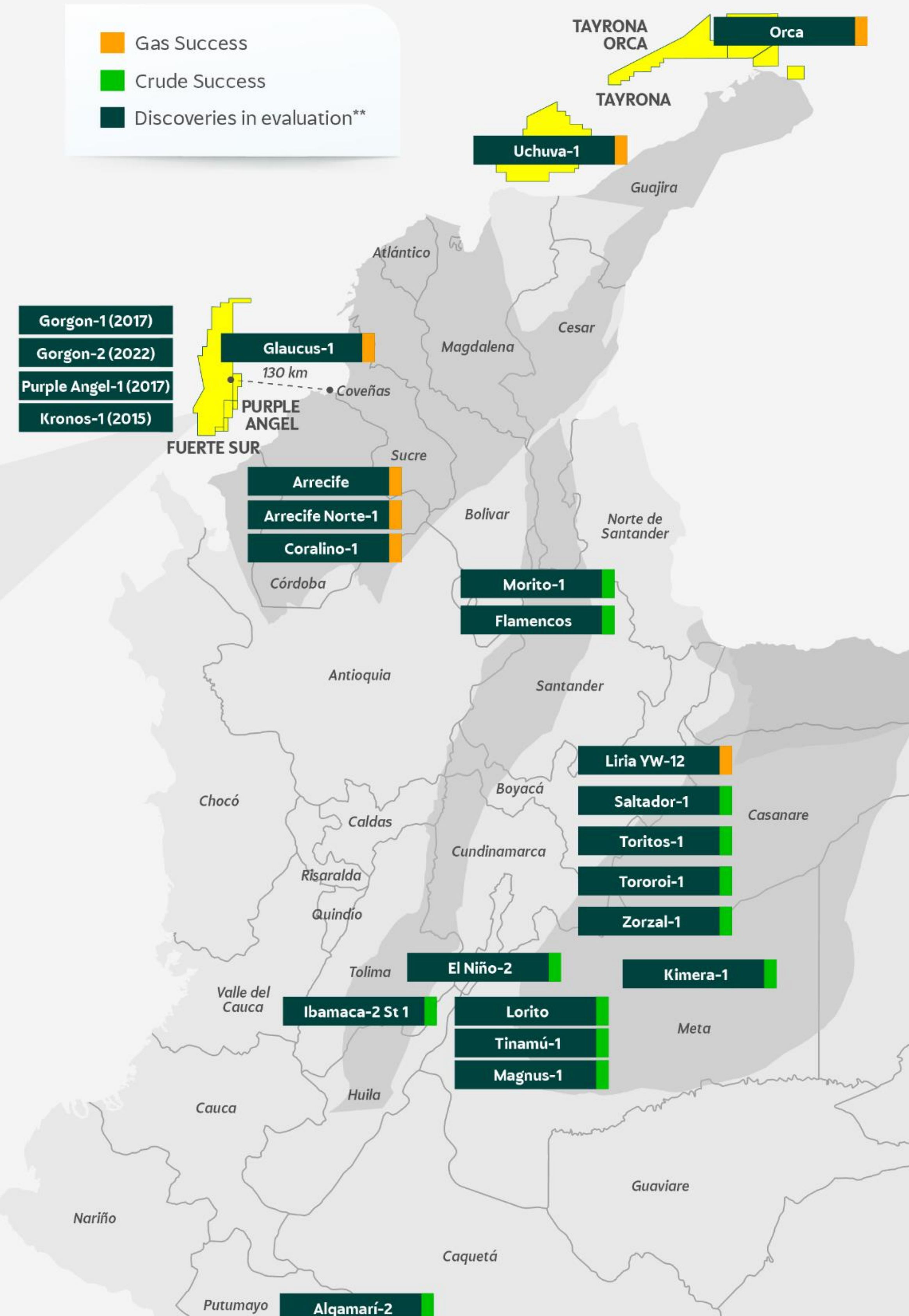
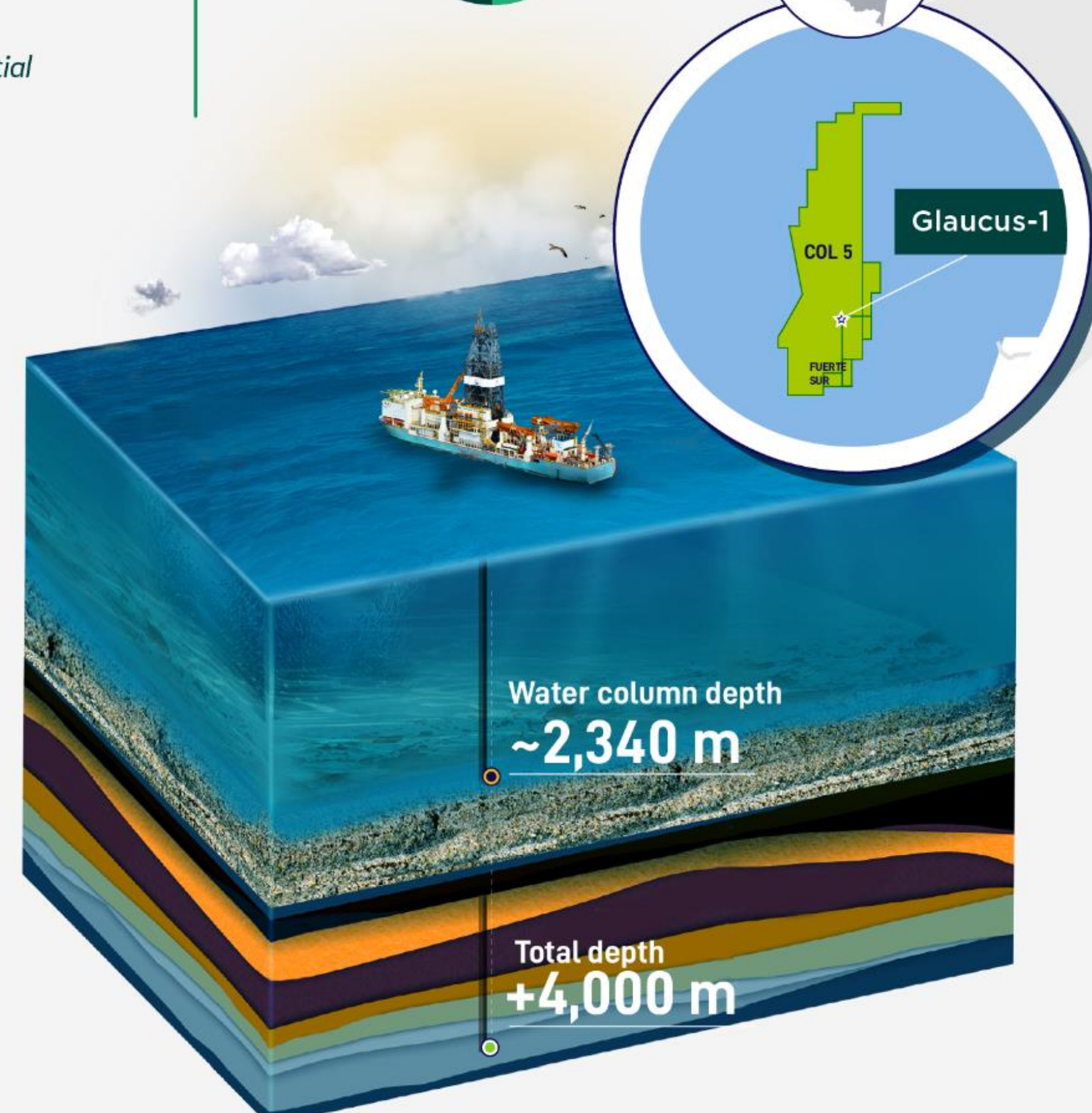
- Tayrona exploration campaign and delimitation of Uchuva
- Start of drilling the Col-1 area with an exploratory well

27-29

First offshore gas

Glaucus - 1

Composition



10 Wells declared successful in 2023

4 Wells drilled in 2022, tested during 2023

Arrecife Norte-1, Tororoi-1, Tinamú-1, Alqamarí-2

6 Exploratory successes drilled in 2023

Zorzal-1, Kimera-1, Saltador-1, Toritos-1, Glaucus-1, Magnus-1

Joint work of

Ecopetrol, Hocol, Geopark, Repsol y Shell

5 In evaluation

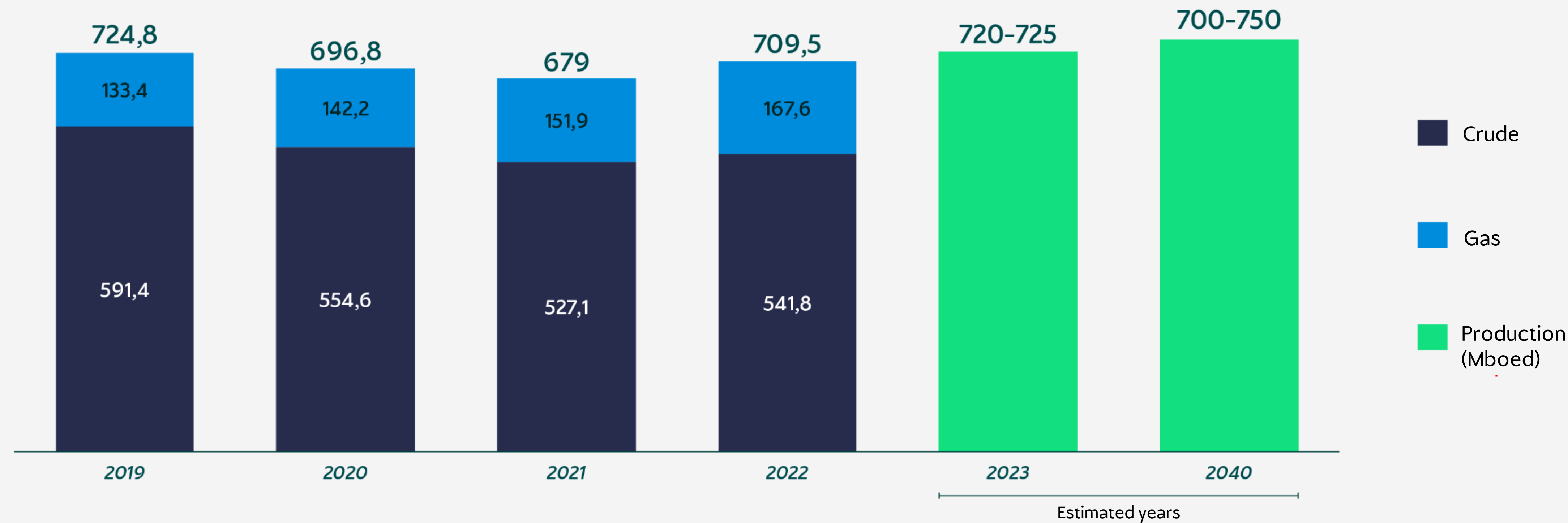
Pollera Norte-1, Leyenda-1, Sabanales-1, Aquila-1, Infantas Oriente Norte-1

5 In drilling

Bullerengue O-5, Zorzal este-1, Arauca-15 Deepening, Arauca-8 Deepening, Bisbita-1

** Discoveries that are in the process of review to define their viability and subsequent transition to production

Efficient portfolio management that maximizes the potential of assets



Main growth levers



Caño Sur
31.6 mboed (+577% vs 2Q22)



Permian 58.7
mboed (+117% vs 2Q22)



Investments in exploration and production 2023 estimated
~13.7 TCOP



Natural gas and LPG contributed
22%
of total production



Reduction of leaks and flares
94%
Progress Plan 2019-2Q23

Levers

Production



Current

- Greenfield Development
- Accelerate Time-to-market



Recovery

- Maximize value of recovery program
- Technology implementation to enhance recovery factor



International non conventional

- Maximize value of current assets

Exploration



Costa Afuera

- Maximize discoveries' potential



Onshore

- Maximize value of current assets
- Accelerate lead maturation



International

- Develop asset portfolio in Brazil



Commercialization

- Increase the value of our products by capturing better commercialization margins

1 million tons of low-emission hydrogen by 2040 is our goal

› Important milestones of our plan

130 k Ton/year	<ul style="list-style-type: none">• 1st molecule of green hydrogen• Start of white hydrogen sampling• Start of mobility pilots• Opening of Caribbean Innovation Center	<ul style="list-style-type: none">• Industrial Scale• National market synthetic fuel tests• Blending test H2 + natural gas	<ul style="list-style-type: none">• Production of low emission hydrogen• Green Ammonia production• Production of synthetic fuels
	Testing and Learning	Scaling	Maturity
	2022 2023 - 2025	2025 - 2030	2030 - 2040

Aspiration @2040

Low-emission H₂ production with export vocation¹

1M

Ton/year @2040

Green Hydrogen Focus

+2,500 MUSD projects²

+400 MUSD EBITDA² (average year)

Strategic alliances @2023



Priority uses



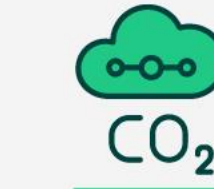
Own operations



Sustainable mobility



Gas Blending

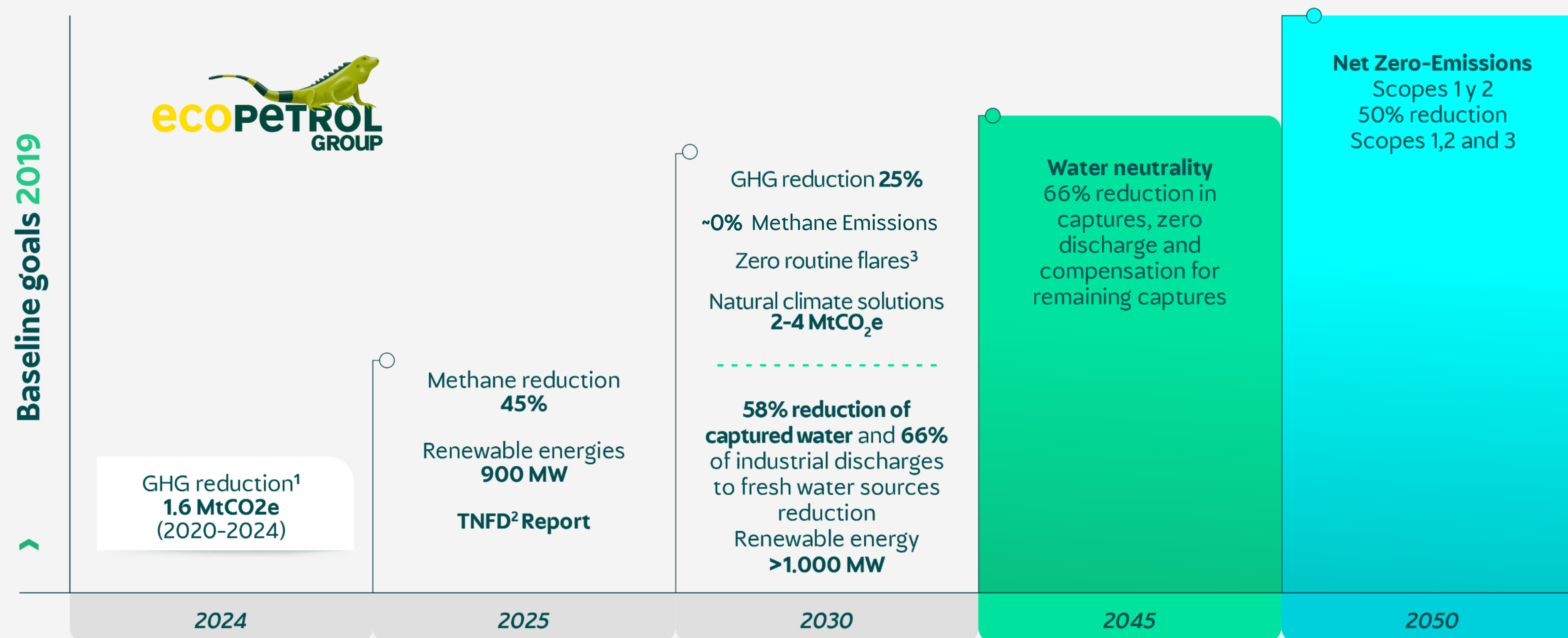


New low-emission projects

1. Includes eMethanol and ammonia. | 2. Does not include required investments and estimated returns on hydrogen production for export.



We ratify our commitment to water neutrality by 2045 and net zero emissions by 2050



1. Greenhouse Gases | 2. Taskforce on Nature-related Financial Disclosures | 3. world bank Initiative "Zero Routine Flaring" | 4. Projection at the end of 2023

Outstanding Achivements



20% reduction in the volume of water captured for industrial use vs 2019.



10 million barrels of Castilla Blend[®] carbon compensated crude oil sold to the Asian, European and American markets



GHG emission reductions achieved, period 2020-2023, **~1.3 MtCO₂e⁴**

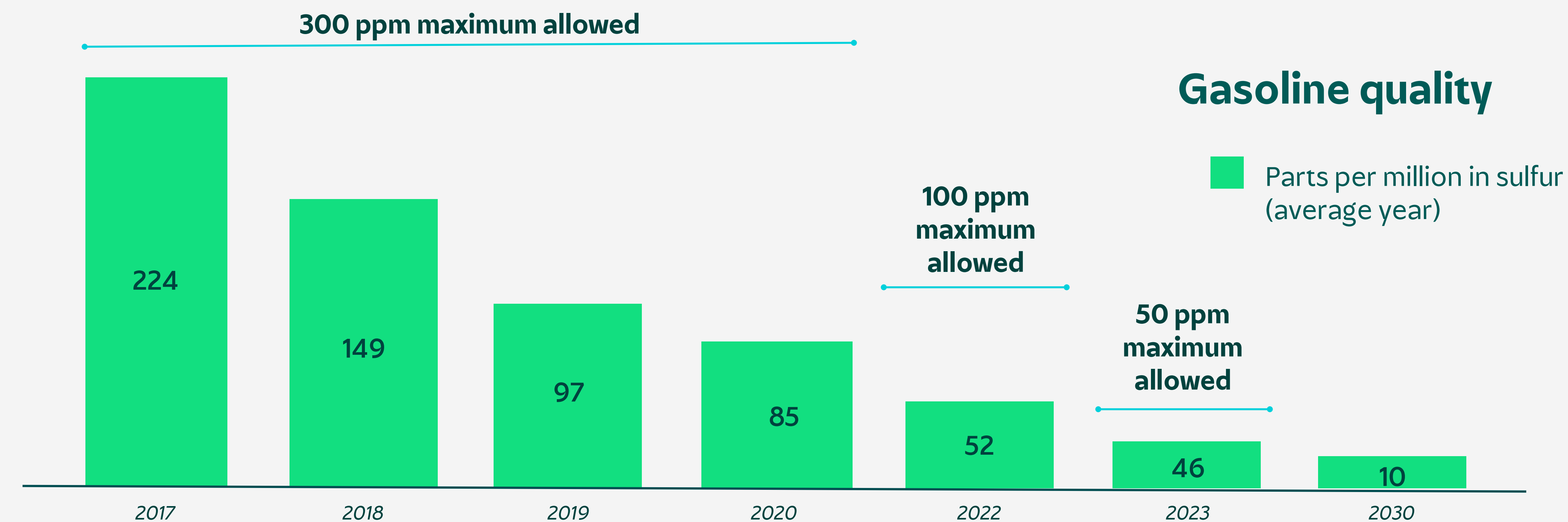


The already built portfolio of Natural Climate Solutions (NCS) will contribute with **~1,5 MtCO₂e for 2030**



Reuse of 2.62 Mbed of water required to operate.

We maintain our commitment to cleaner air for Colombians



Quality comparison with the region

50
ppm

Colombia

150
ppm

Argentina

150
ppm

México

10
ppm

Estados Unidos

Fuente: Stratas Advisor, Global Fuel Quality Developments, IHS, 2022

Gasoline prices

The price of gasoline in
Colombia is below
the world average

» **Place 27** One of the cheapest in
the world

» **Place 5** One of the cheapest in
the region

What's coming...

- » Renewable and synthetic fuels
- » **Biofuels:** hydrotreated vegetable oil / sustainable jet fuel

Comprehensive Territory Management



Education

Projects that promote retention and educational quality

708 k

Beneficiary students

Accumulated Figures 2012 – Sep. 2023 Ecopetrol Group

+140 k @2040

~ 848 students benefited



Dynamization of local economies

Great commitment to the development of
Energy communities

Canutal, energy community of Ovejas (Sucre) building the foundations for the future



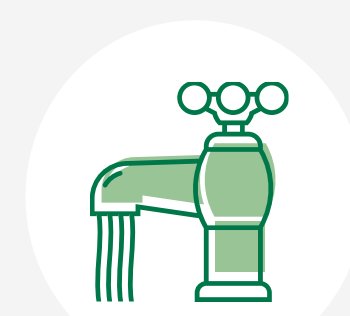
Energy



Crops



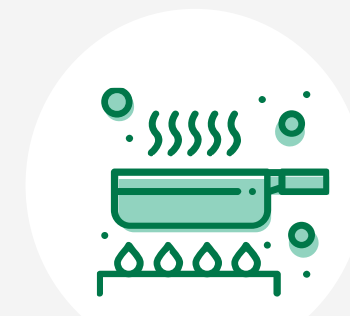
Water



Sewerage



Education



Social gas



Access to public services

30 thousand new homes connected to gas
802 thousand people with access to drinking water

Social gas
Connected homes

3,789

2019

4,559

2020

10,691

2021

18,340

2022

30,842

2023*

*A la fecha

Aspiration **300,000 @2040**

Develop ST+i solutions to solve the GE's strategic challenges

\$20-30
B U S D

Cumulative
impact on
EBITDA to 2040

Potential Value in EBITDA by 2040 of strategic focuses
enabled with technology and innovation

\$2.5
B U S D

Captured
between 2018
and 2022

Transition and Decarbonization

Capture and Use of CO₂
Clean energies
CNS
Hydrogen
E-fuels
Biofuels

~\$13
B U S D

Resilient Assets

Crude Mobility
Teca Nare
Non-Thermal Recovery
Thermal Recovery
ISA infrastructure

~\$5
B U S D

TESG and Circular Economy

Water
Chemical Recycling

~\$1
B U S D

5TH Industrial Revolution

Assisted fields
5TH Downstream
Agile exploration

~\$1
B U S D

**Colombian Institute of Petroleum
and Transition Energies (ICPET)**

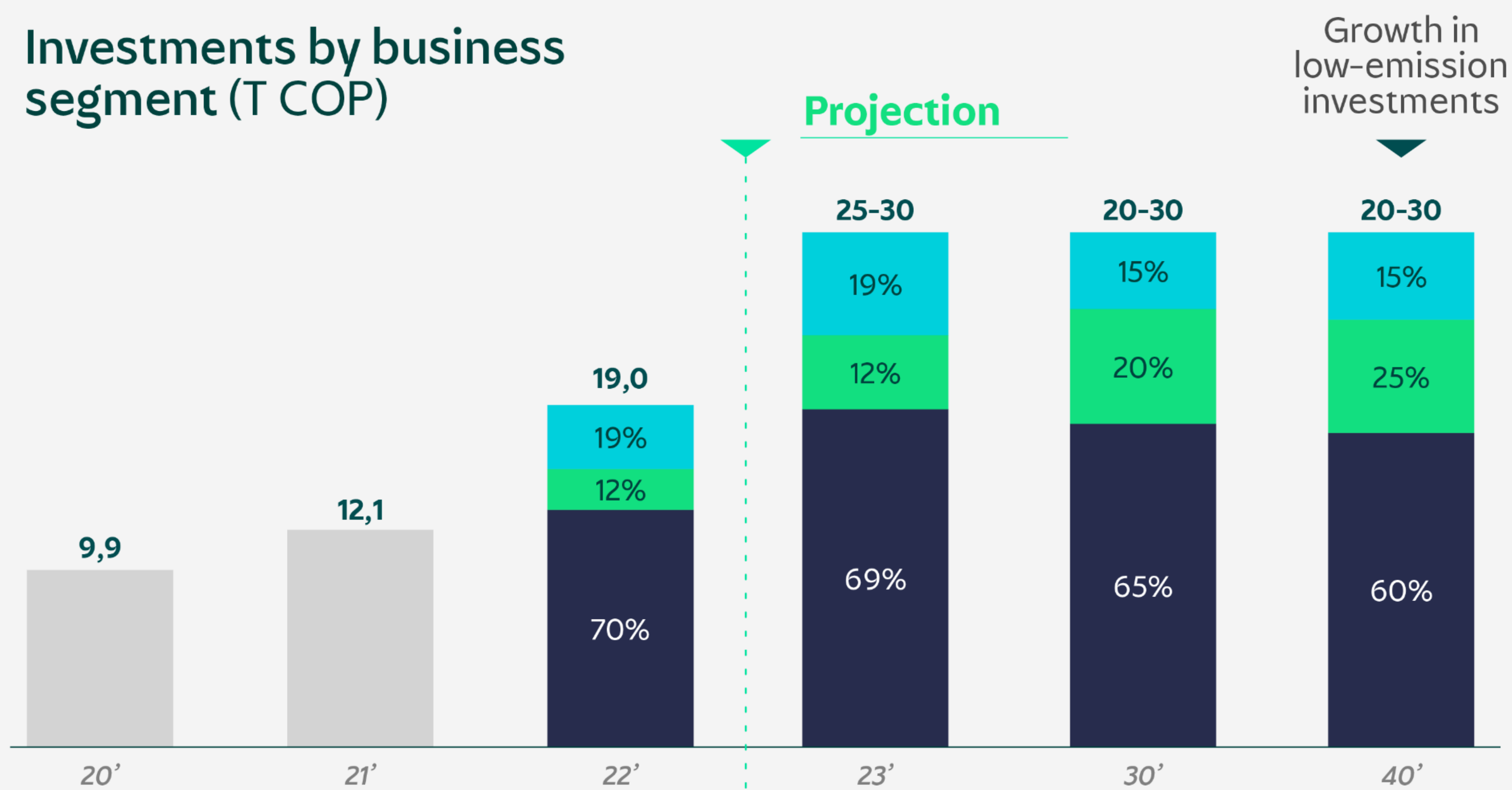
- Automation
- Robotization
- Knowledge + skills
- Digital transformation



Capital allocation based on balance and efficiency

Capital discipline and efficient use of resources

Investments by business segment (T COP)



Transmission and Toll Roads

Low emissions

Hydrocarbons

EBITDA growth and greater diversification

Competitive returns, capital discipline and cash protection

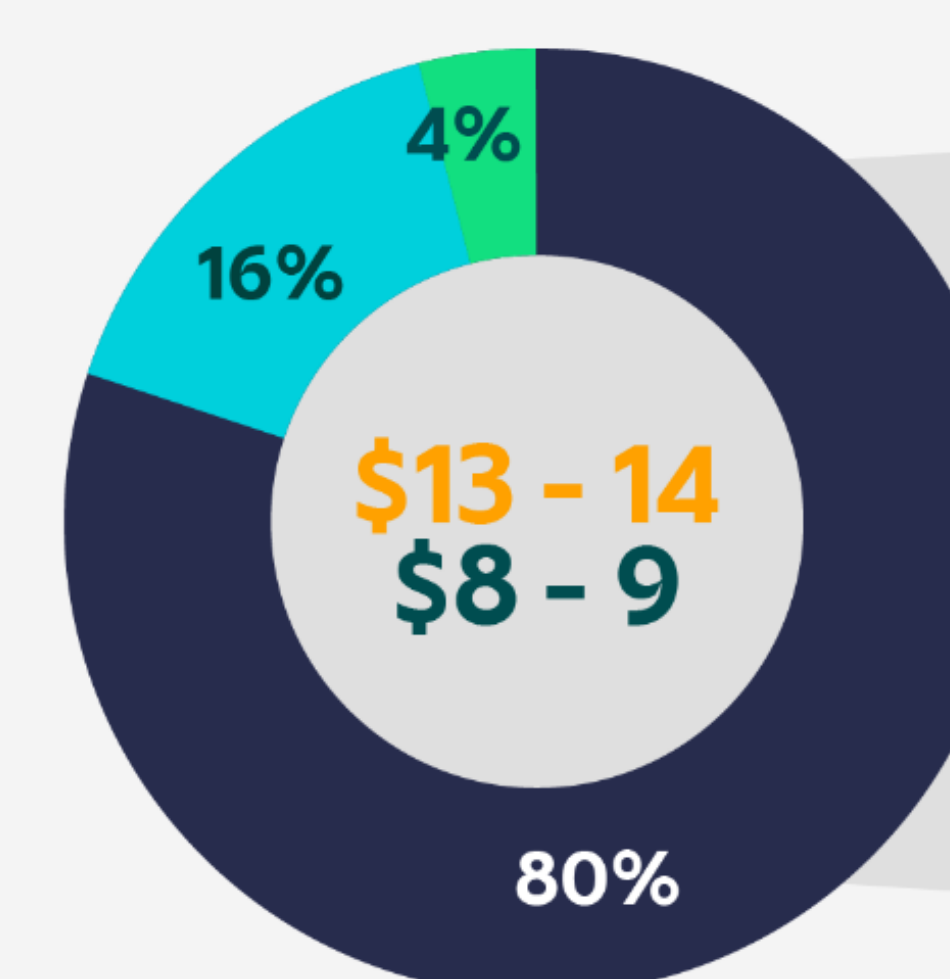
Growth through EBITDA Diversification (\$BUSD)

2023

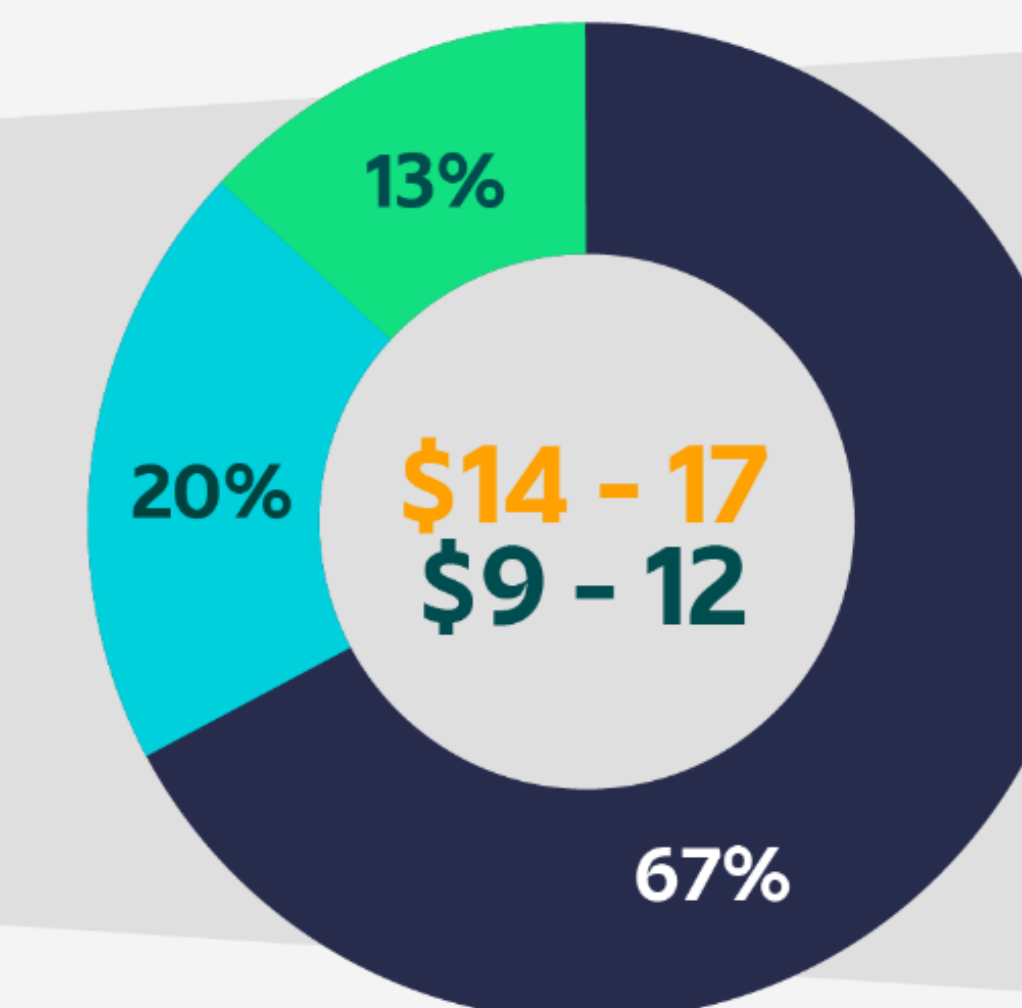
2030

2040

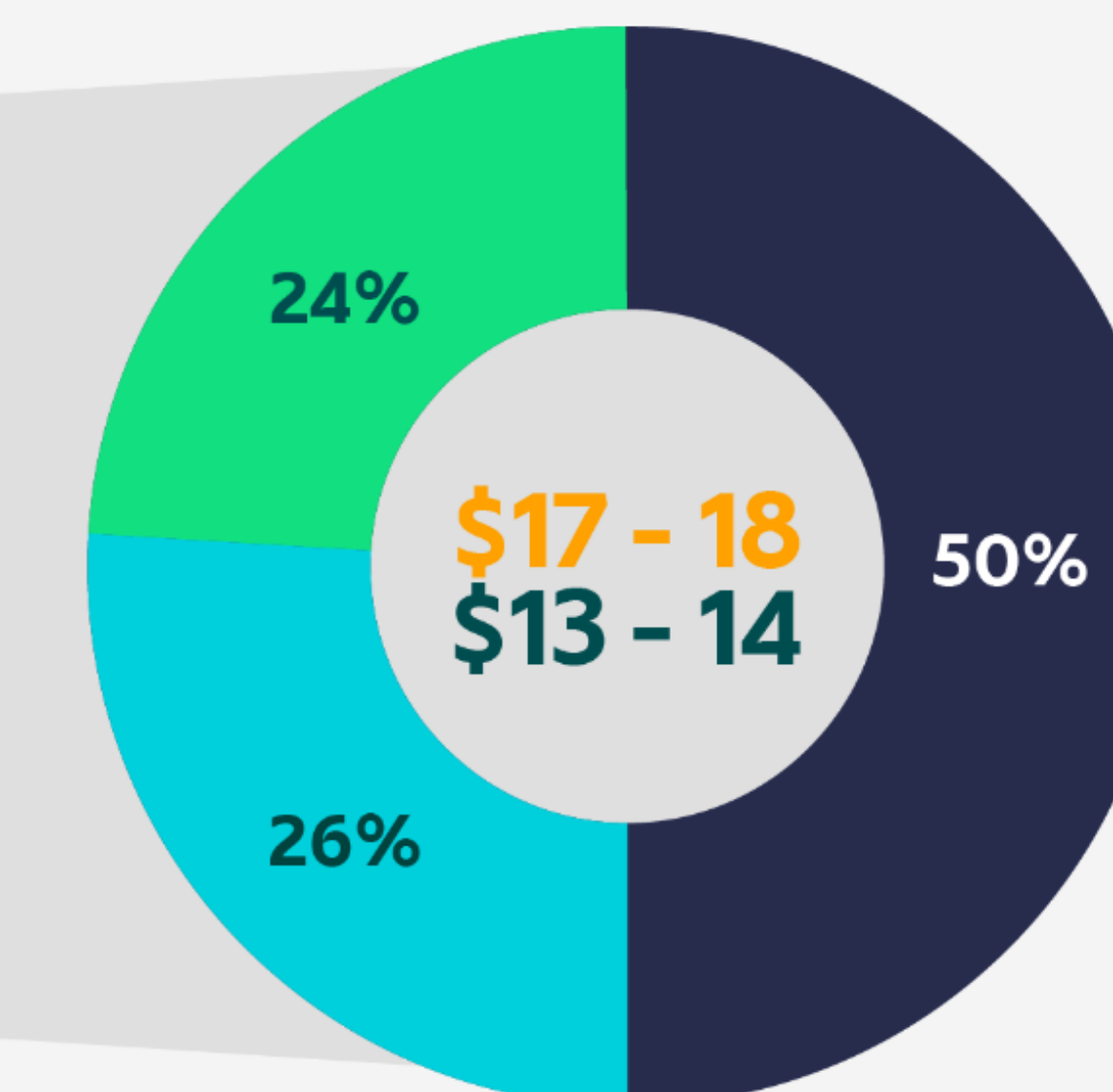
@80 USD/BL¹ @55 USD/BL
EBITDA Margin >40%



Traditional business underpins
the energy transition



We adapt to
continue growing



ROACE between
8% - 10%

¹. Indicative calculation on EBITDA behavior in the event of a better price scenario

Thank you

Contact Information

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