



Ecopetrol: leading Colombia's and Latin America's energy transition

MAY 2023





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2040 Corporate strategy



COMPETITIVE RETURNS

8%-10% Return on capital (ROACE)

< 2,5x Gross debt / EBITDA

13 - 20 TCOP
Annual transfer payments to the Nation*

CUTTING-EDGE KNOWLEDGE

20 - 30 BUSD\$
(~76 - 114 TCOP)

Cumulative EBITDA by 2040 enabled by technology and innovation

70% of personnel in reskilling by 2030 (to face new challenges)

GROW WITH THE ENERGY TRANSITION

13.000 - 14.000
MUSD\$

(~49 - 53 TCOP)
Annual EBITDA by 2040**

30%-50%
Share of low-emission business in GE EBITDA

GENERATE VALUE THROUGH TESSG

Zero CO₂ emissions by 2050 (Scopes 1 and 2)
-50% cutback of total emissions by 2050

Water Neutrality by 2045

230.000 Non-O&G jobs by 2040

We grow with the energy transition as a diversified Energy Group

+9 countries

+18 thousand employees



Hydrocarbons

EBITDA contribution

82%
2022 → 60%
2040



Low-emission solutions

EBITDA contribution

14%
2040

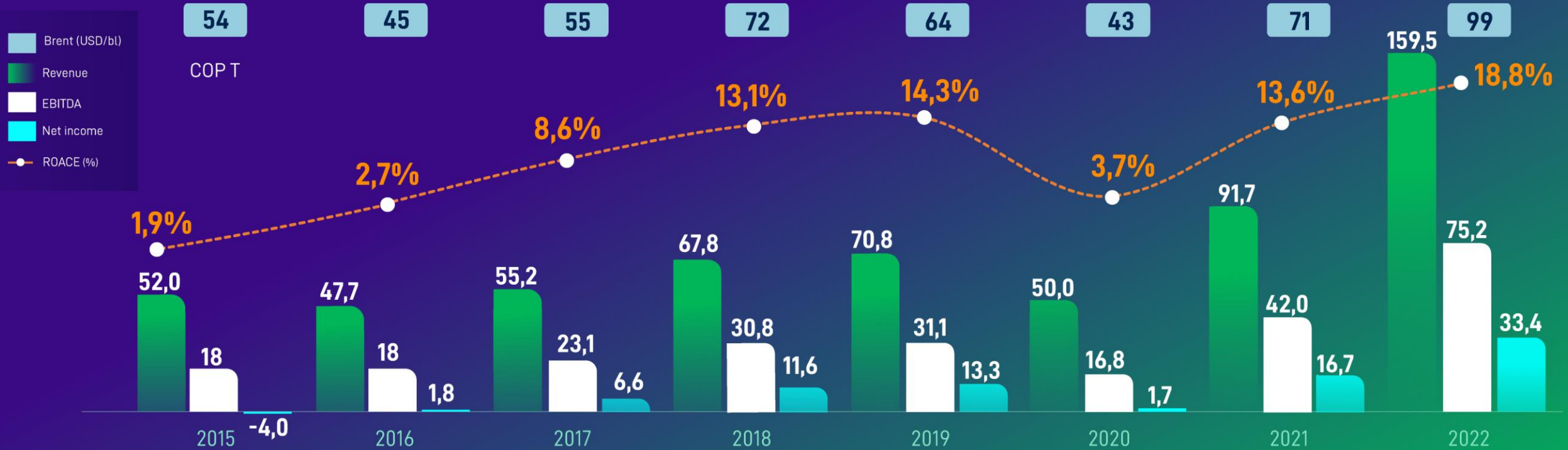


Energy transmission and toll roads

EBITDA contribution

17%
2022 → 26%
2040

Record results after two crisis in less than a decade



2022: RESULTS THAT EXCEEDED TARGETS SET

ENERGY SECURITY

Production mboed	RRR*	Transported volumes mbd	Refineries throughput mbd
✓ 709,5	✓ 104%	✓ 1.071	✓ 358

TESG

Renewables incorporation MW	Social and Environment Investment	ST+I Investment
✓ 208 @ 2022	✓ COP 615 billion	✓ 62 MUSD

FINANCIALS

CAPEX	Gross Debt / EBITDA	Operating cash flow
✓ 5.488 MUSD	✓ 1,5x	✓ COP T 36,2

*Reserves Replacement Ratio

We transformed ourselves, to be able to transform the region



2016

- Cartagena Refinery successful performance test



2017

- First offshore well operated by a Colombian Company



2019

- Entry into the Permian basin
- Castilla Solar Park 21MW operational start - up



2020

- “Apoyo País” program during COVID-19



2021

- ISA acquisition
- Singapore trading company
- Net-zero commitment



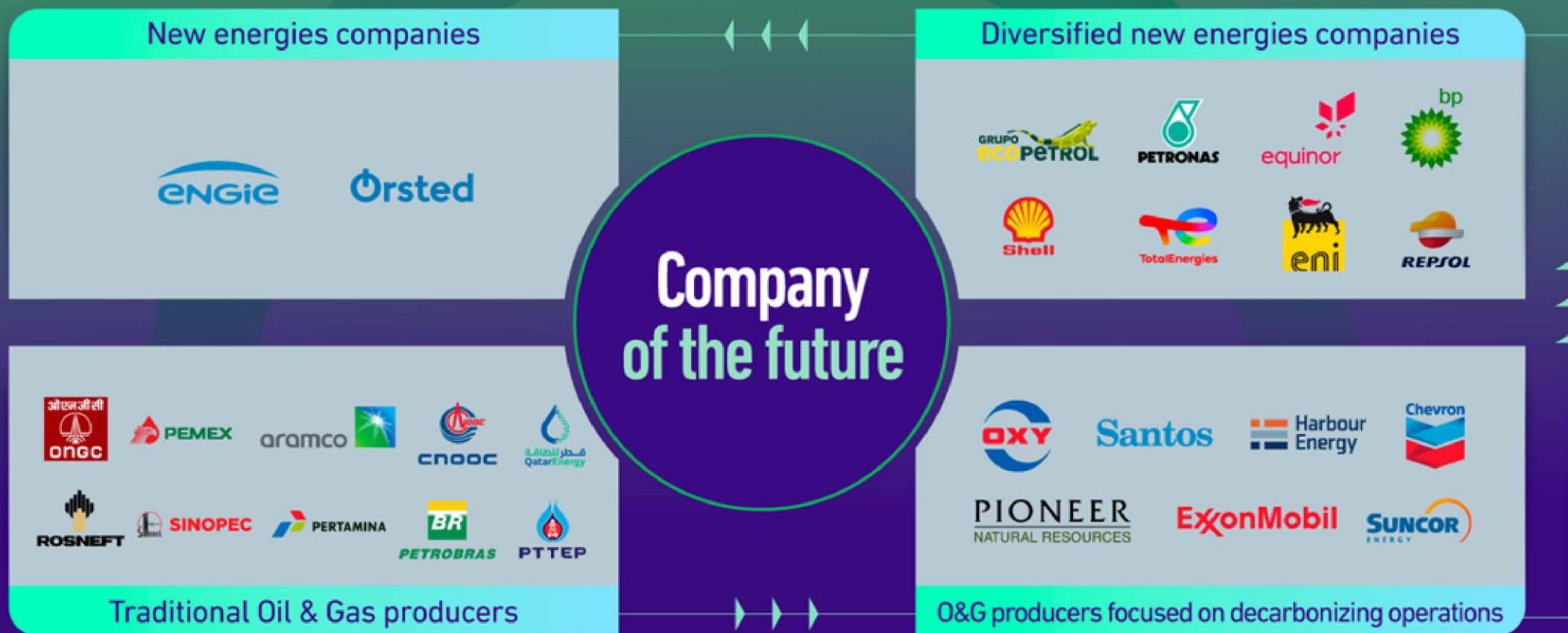
2022

- First green H2 pilot
- IPCC* completion
- 2040 strategy “Energy that transforms”

*Crude plants interconnection project

Ecopetrol is transitioning to become the company of the future

Future energy companies' archetype



Through time companies will migrate from one archetype to another

Source: S&P Global Commodity Insights.

We reached the highest level of reserves in 8 years

Evolution of proved reserves (MBPE)

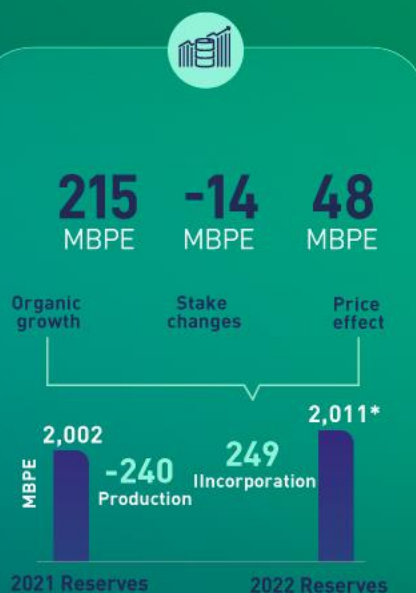


2015 2016 2017 2018 2019 2020 2021 2022

USD/ BI SEC price

56 44 55 72 63 43 69 98

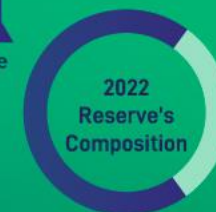
Reserves Replacement Ratio **104%**



Location of Reserves



Liquids
75%
Average life
8.3
years



Gas
25%
Average life
8.8
years

Million barrels of oil equivalent

*Decimals are rounded to the nearest whole number

Ecopetrol Group's resources and reserves progression



More uncertainty ●

● Less uncertainty

Exploration

Production

Seismic acquisition / reprocessing

Exploratory wells

Appraisal wells

Development wells and facilities

Prospective resources
(Potential)

Discovered resources¹
(Potential)

Contingent resources²
(Potential)³

Total Reserves
(3P)⁴

+6,000
* MBOE

Gas
53%
~18 TCF

Offshore and onshore blocks

Potential upside of gas

70 - 100 TCF
(Net Ecopetrol)

~3,000
MBOE

Gas
30%
~5 TCF

Include, among others



UCHUVA

2,305
MBOE

Gas
14%
~1.9 TCF

Include, among others



GORGON

2,866
MBOE

Gas
21%
~3,5 TCF

Possible

369

Probable

486

Proved (1P)

2,011

Gas

25%
~2,8 TCF

Average R/P ratio (1P)

Crude: 8.3 years

Gas: 8.8 years

*TCF: Tera cubic feet *MBOE: millions of barrel of oil equivalent

1 Ecopetrol classification and estimation.

2 Independent verification (86% of resources) and internal verification.

3 The volumes will progress to reserves as economic and technical, as well as social and Environmental, contingencies are completed.

4 Independent verification (99,8%) of reserves.

We improved our execution capacity and got production to pre-pandemic levels



Total production of hydrocarbons
Thousand barrels per day



Main growth drivers

→ Caño Sur: (*green field*) → Permian.
+15 mboed vs. dec 2022.



Investment in production:
3,100 MUSD
(+40% vs. 2021)



Well maintenances:
555
(+25% vs. 2021)



Development Wells
536 (+35% vs. 2021)



Drilling teams:
28
(vs. 20 in 2021)



Circular economy in the Ecopetrol Group: contribution of roads

Implementation of Green asphalt

section at
El Dorado airport
125,000 plastic bags



Section in Medellin
200,000
tapas de envases plásticos



Section in Lorito Road
(Guamal, Meta)
1.5 km – 850,000
plastic bags



Sustainable and efficient asphaltic mixes



Ruta del Maipo –
test in 2.5 km



Pilot tests in Chile with
4 different asphaltic mixes

- Recycled rubber
- reclaimed asphalt material (RAP 15%)
- Plastic
- warm asphalt mix



test section
Ruta Costera (2023)

2,600 Ton recycled plastic 2023



We are making progress in renewables



Brisas solar park (26 MW)

Cantayús small hydroelectric power plant (4.2 MW)

Measurement of wind power potential Huila and Casanare

Renewable energy supply capacity (MW)



*750 MW in operation and 150 under development

Signed agreement with Baker Hughes and CHEC to evaluate technical and economic feasibility of a **geothermal project in the Nereidas Valley in Caldas 50-100 MW**

Hydrogen diversifies the energy mix and is key to decarbonization



→ Successful pilot of green H₂ in the downstream

→ Allies



→ Hydrogen Council Board of Directors

→ White H₂ studies

→ Sustainable mobility:
First Transmilenio bus (March)

→ Mobility pilot in Cartagena (Toyota-Mirai)



→ Own operations (growth)

• Refinery megaprojects (9,000 tn/year of H₂ea.)

→ Land mobility
→ White hydrogen

→ H₂+gas

→ Own operations (conversion)

→ New products (National)

→ Maritime mobility

✓ 130,000 H₂tons



2022

2023

2030

2040

1,000,000
Tons per year of H₂



+2,500 MUSD
In projects

+400 MUSD
EBITDA* per year

*Does not include returns or export investment

Colombia has privileged capabilities and resources to set the pace in the energy transition in the region



→ **Colombia's competitive advantage:**
Diversity of clean energy sources

→ **Our proximity to markets**
is key to reduce the carbon footprint



Water

Top 10 of countries accountable for **46%** of global supply



Wind

Wind potential is **>2x** in the northern region than the global average (**9m/s**)



Solar

Above the global radiation average (**4.5 kWh/m²**)

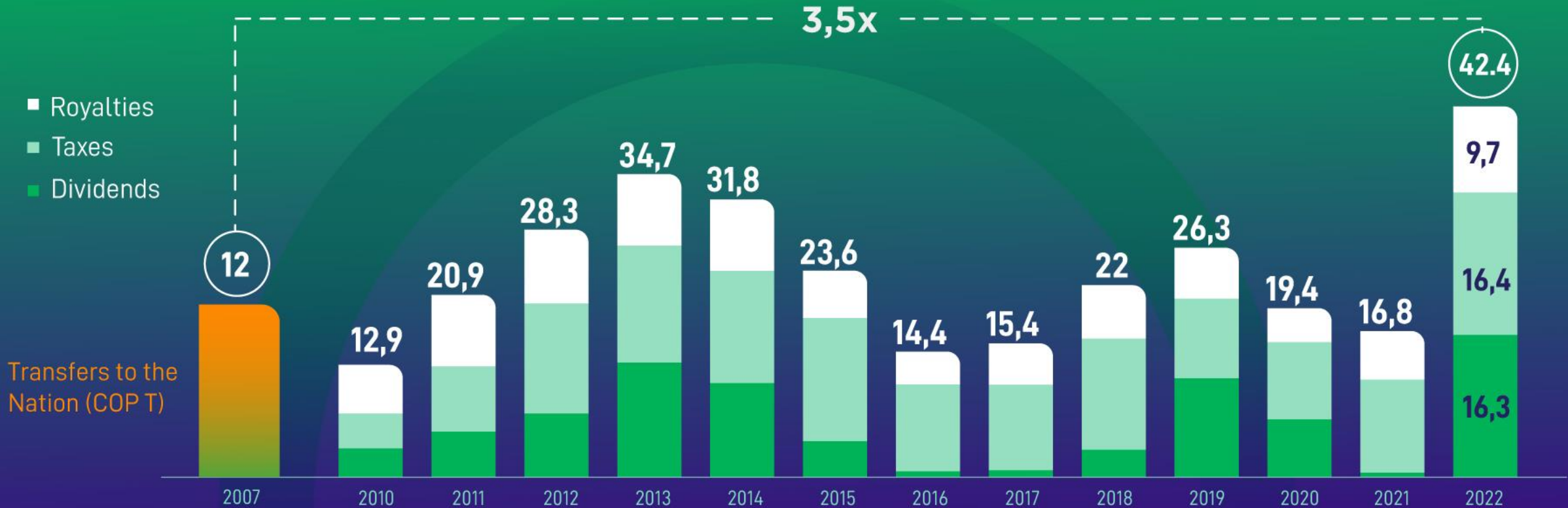


Geothermal

Stored geothermal resources equivalent to **1,170 MW**



Ecopetrol's growing contribution to national development



Transfers to the Nation (COP T)

3,5x

Social & environmental investment

COP B 615
in 2022

+31% vs 2021

Shareholders

COP T 2,1
Dividends

~255 thousands minority shareholders

Balance of payments

Ecopetrol Group accounted for **~30%** of national exports in 2022

71% of the internal demand for fuels attended

Human talent

+20 thousand inclusive Jobs

>560 people with disabilities

Procurement

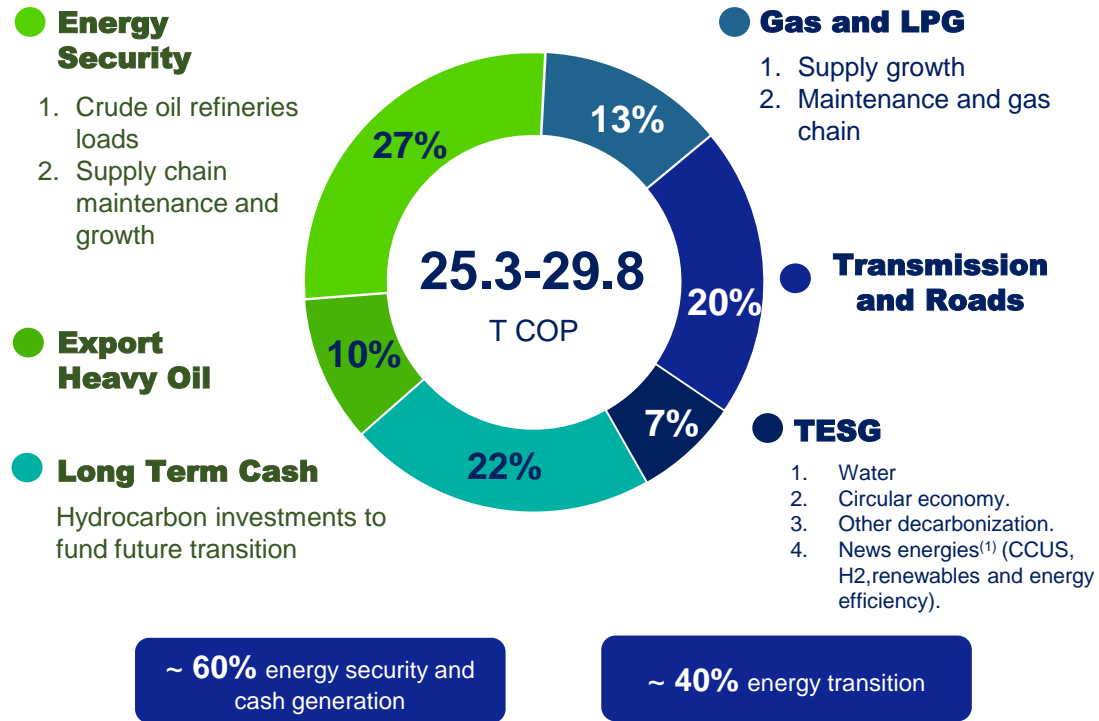
~130 thousand jobs

Generated through contractors by 2022

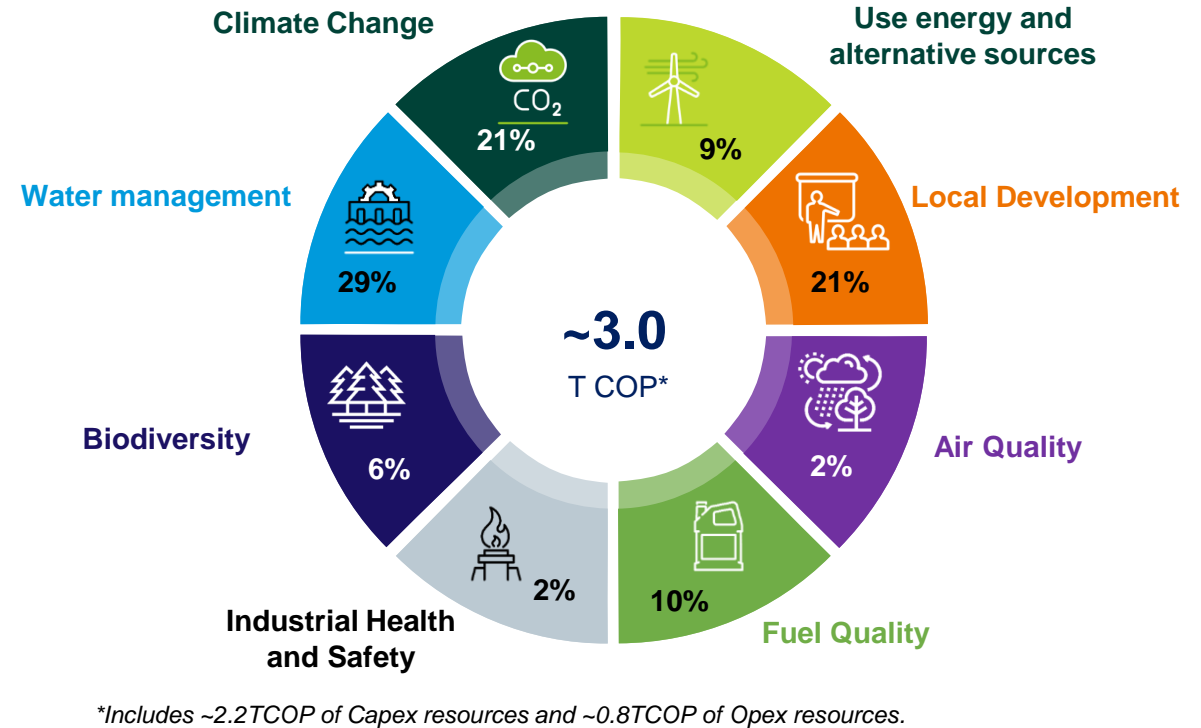
The 2023 financial and investment Plan is geared towards the energy transition and value creation



40% of the investments in 2023 are oriented towards the energy transition



The Ecopetrol Group allocates resources from the 2023 Plan in its commitment to **TESG**



Main Indicators
2023 Plan EG⁽²⁾:

>40

EBITDA Margin (%)

>11

ROACE³ (%)

<2.1

Gross Debt/EBITDA (x)

720-725

Production (MBOED)

25.3-29.8

Investments (T COP)

>40

Transf. Nation⁴ (T COP)

(1) Does not include LBCC project that has H₂ component, (2) Assumptions Plan 2023: Brent: USD 80/B Exchange Rate: 4,500. (3) Normalized FEPC. (4) Includes dividends, royalties and taxes.

Thank **you!**

