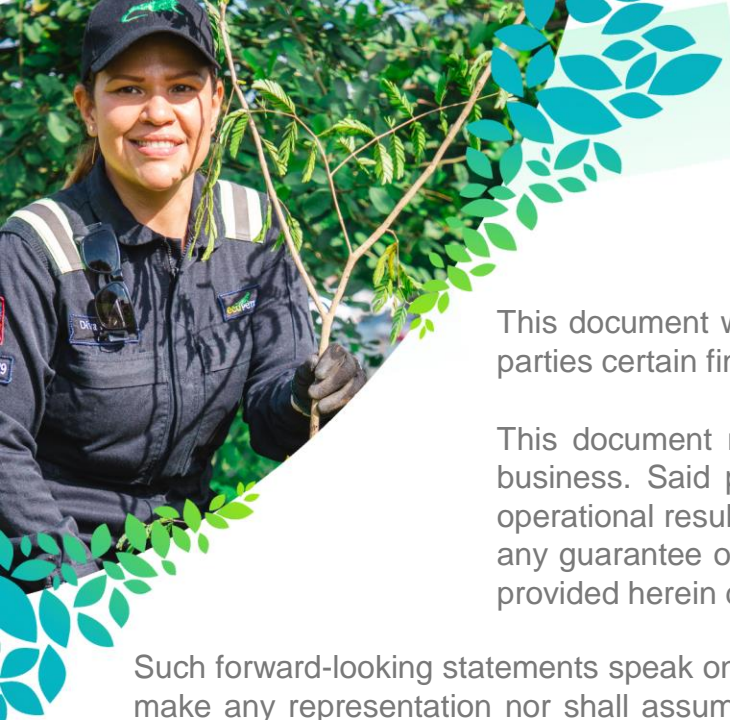


Investor Presentation

June 2023





Legal disclosure

This document was prepared by Ecopetrol S.A. (the “Company” or “Ecopetrol”) with the purpose of providing the market and interested parties certain financial and other information of the Company.

This document may include strategy discussions and forward-looking statements regarding the probable development of Ecopetrol’s business. Said projections and statements include references to estimates or expectations of the Company regarding its future and operational results. Potential investors and the market in general should be aware that the information provided herein does not constitute any guarantee of its performance, risks or uncertainties that may occur or materialize. Actual results may fluctuate and differ from those provided herein due to several factors outside of the control of the Company.

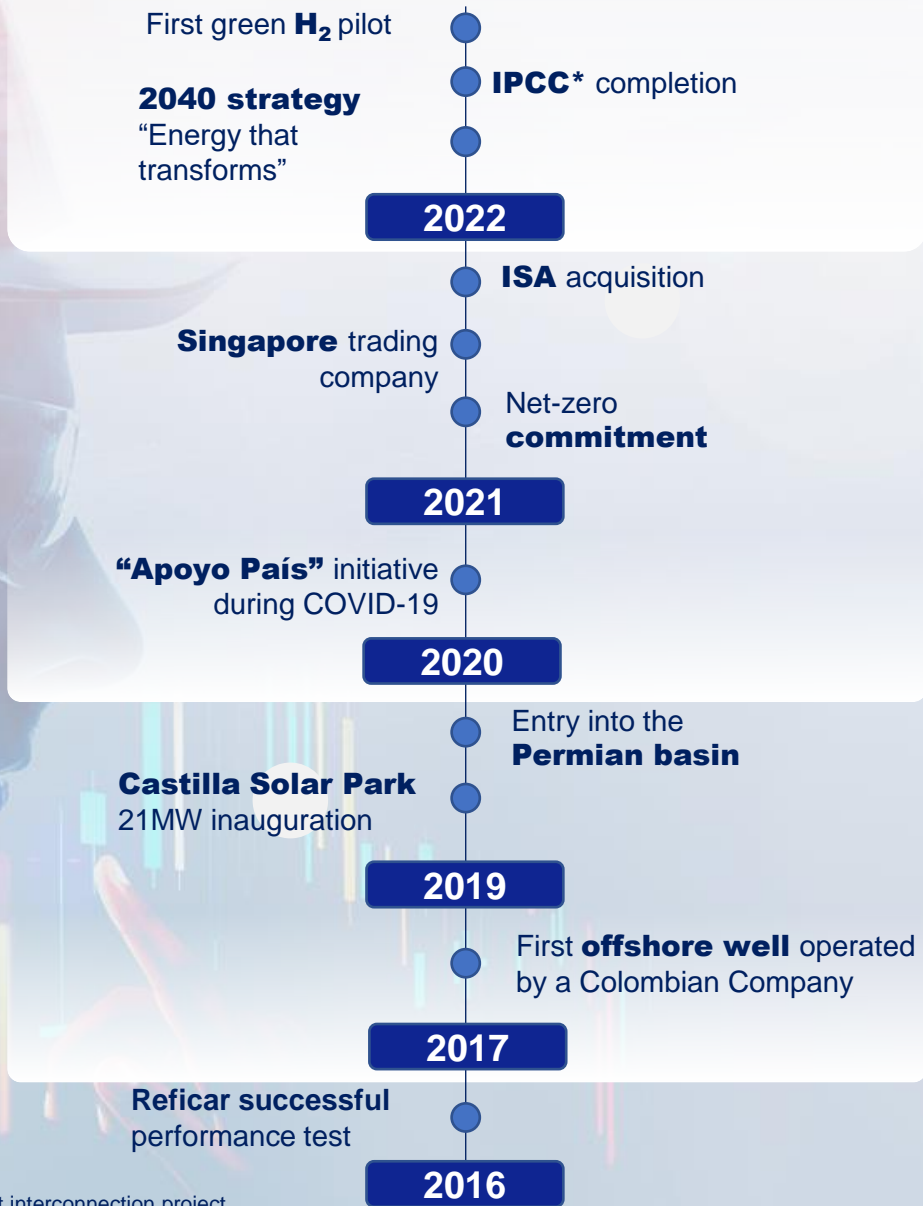
Such forward-looking statements speak only as at the date in which they are made and neither Ecopetrol nor its advisors, officers, employees, directors or agents, make any representation nor shall assume any responsibility in the event actual performance of the Company differs from what is provided herein. Moreover, Ecopetrol, its advisors, officers, employees, directors or agents shall not have any obligation whatsoever to update, correct, amend or adjust this presentation based on new information or events occurring after its disclosure. Additional factors that may affect the future results of Ecopetrol are set forth in the section entitled “Risk Factors” in the Company’s Report on Form 20-F for the year ended December 31, 2022, and in the Company’s other filings with Securities and Exchange Commission (the “SEC”), which are available at www.sec.gov.

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The information contained in this earnings report relating to operational information, financial information and/or statistical data pertaining to companies or institutions that might be considered peer group companies to Ecopetrol has been obtained from public sources available to the general public and is being used solely for informative and statistical purposes. We have not independently verified any such operational information, financial information and/or statistical data, although we believe such operational information, financial information and/or statistical data has been obtained from reliable sources. Ecopetrol S.A. is not liable and does not assume any responsibility for the accuracy, veracity or authenticity of any such operational information, financial information and/or statistical data.

Ecopetrol is today a diversified energy group

Leader in LATAM



*Crude plant interconnection project

3 SOLID BUSINESS LINES

HYDROCARBONS

#1 in Colombia



Production **719 mboed in 1Q23** (+27.3 mboed vs 1Q22)



Record evacuation in multi-purpose pipelines in 1Q23: 306.3 mbd



Record in **consolidated throughput** 412 mbd 1Q23

LOW-EMISSION SOLUTIONS

#1 Self-generator with renewables



Offshore discoveries **Gorgon-2 and Uchuva-1**



208 MW incorporation of **renewable energies**



First **green H2** molecule in Colombia

TRANSMISSION AND TOLL ROADS

#1 Energy transmitter in Latin America



Construction of projects **>4,600 km** additional network circuit

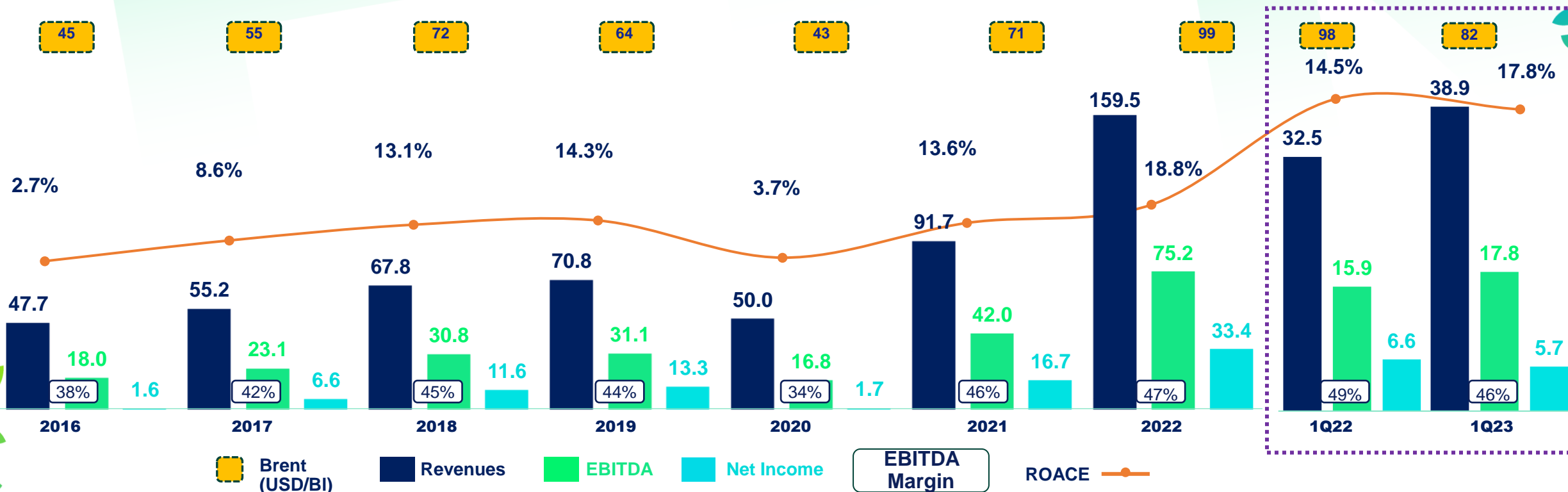


32.2% net income growth vs 2021



Carbon neutrality certification for 11 of ISA's companies

Record results, beyond the financials



RESULTS THAT EXCEED THE SET TARGETS

ENERGY SECURITY

Production mboed	RRR*	Transported volumes mbd	Refineries throughput mbd
------------------	------	-------------------------	---------------------------

ESG

Renewables incorporation MW	Social and Environment Investment	ST+I investment
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FINANCIALS

CAPEX	Gross Debt/ EBITDA	Operating cash flow
-------	--------------------	---------------------

TARGET 2022	700 - 705	100%	>1,000	340 - 360	400 – 450 to 2024	COP T 1.5 2022 - 2024	58 MUSD	4,800 – 5,800 MUSD	<2.5x	COP T 26.6
ACTUAL 2022	709	104%	1,071	358	208 to 2022	COP 615 billion	62 MUSD	5,488 MUSD	1.5x	COP T 36.2

*Reserves Replacement Ratio

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 BUS\$
(~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 MUS\$
(~49 - 53 TCOP)
Annual EBITDA by 2040 **

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

GENERATE VALUE THROUGH TEG

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

Zero Water discharges by 2045

230,000 Non-O&G positions by 2040

Assumptions: Brent (2025- 2040) 45 -55 US\$/Bl. Exchange rate: \$3,800/ cop

*Includes: Royalties, taxes and dividends **6,500 -8,500 MUS\$ O&G Annual EBITDA by 2040

IN 2022, AT 2,011 MBOE, THE ECOPETROL GROUP ACHIEVED THE HIGHEST OIL AND GAS RESERVES OF THE PAST 8 YEARS



Reserve Replacement Ratio

Amount of barrels produced vs barrels incorporated

104%

Exceeding 100% 2022 target

130%

Average over the past 5 years

Location of reserves

89%
Colombia

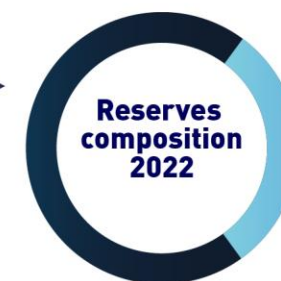
11%
USA

Crude

75%

Average reserve life

8.3
years



Gas

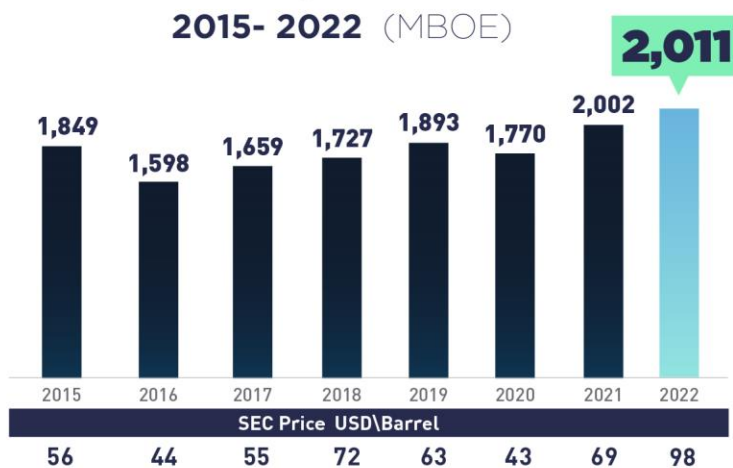
25%

Average reserve life

8.8
years

Timeline of proven reserves

2015- 2022 (MBOE)



215
MBOE

Organic growth

-14
MBOE

Variation

48
MBOE

Price effect

MBOE

2,002

-240
Production

249
Incorporated

2,011*

2021 Reserves

2022 Reserves

2022 Reserves

MBOE

1P Proven

2,011

Probable

486

Scenario 2P
(Proven + Probable)

2,497

Possible

369

Scenario 3P
(Proven + Probable + Possible)

2,866

Contingent Resources

Uncertainty range

1C
(Low)

2C
(Medium)

3C
(High)

Contingent resources MBOE

601

1,169

2,305

Average reserve life

(years)

8.4

Time for which reserves would be sufficient at current production, if no new activities are undertaken

The Securities and Exchange Commission permits oil and gas companies to disclose thereto only their proven, probable and possible reserves according to the SEC's definition thereof and disclose the relative uncertainty associated with these classifications. Ecopetrol only discloses its proven reserves in its SEC filings. As a result, the information pertaining to reserves in the Company's SEC files may differ significantly from the information in this press release. The reserves estimates provided in this document are only estimates, and there is no guarantee that the reserves estimated will be recoverable. The actual recovered reserves could result in higher or lower results than those estimates mentioned here. By their nature, forward-looking statement regarding reserves are only forecasts. Said estimates are included here to provide readers additional measures by which to assess the Company; however, said reserves estimates are not reliable indicators of the future results of the Company, and past performance is not indicative of future results.

¹ Million barrels of oil equivalent

*Decimals are rounded off to the nearest whole number

Offshore Caribbean Gas Potential



11 offshore exploratory contracts

(Only 28% of the area)

Tera Cubic Feet (TCF)

- Gas investments ~ USD 530 million in 2022*
- Planned investments of USD 2.4 – 2.7 billion between 2023 and 2025*

Gas potential upside:

70 – 100 TCF

(Net Ecopetrol)
~ 18 TCF Total Colombian gas potential

Wells with partners



Tayrona
Uchuva (ECP: 55.6%)



Col 5 (ECP: 50%)
Kronos-1 & Gorgon 1 and 2

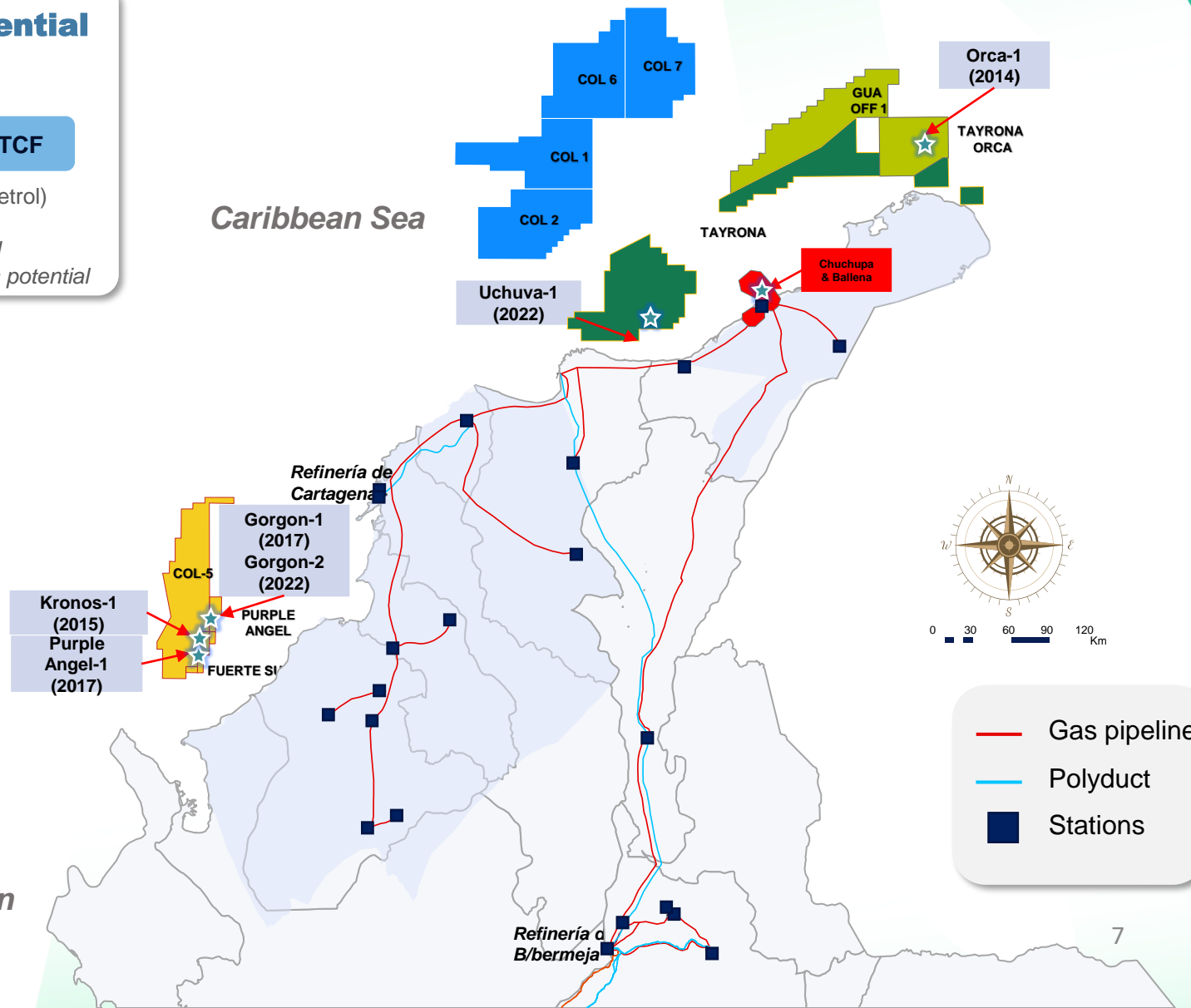


COL 1, 2, 6, 7 (ECP: 40%)



Wells operated by ECP

Tayrona – Orca
Orca discovery
Gua Off 10
Gua Off-1

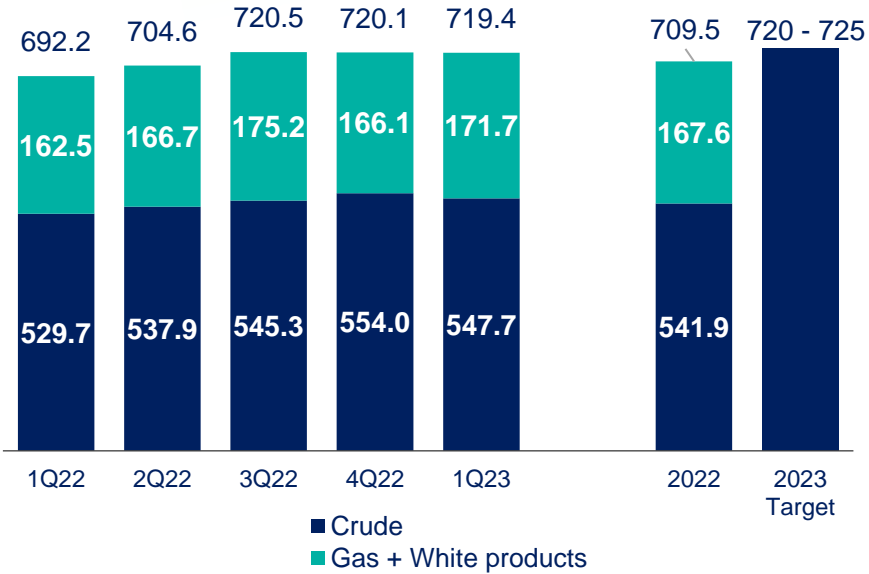


* Average Exchange Rate: COP 4,500/USD

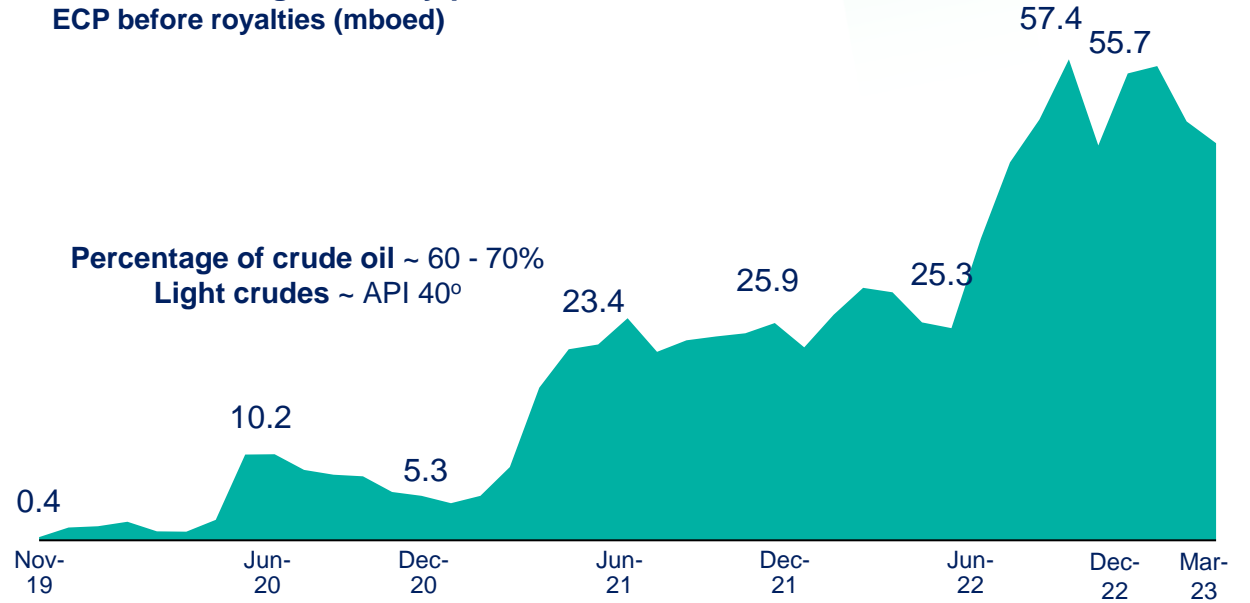
Outstanding production performance

Outstanding contribution from Permian

Production (mboed)



Permian average monthly production ECP before royalties (mboed)



Percentage of crude oil ~ 60 - 70%
Light crudes ~ API 40°

Record production of **100 mboed** in May 2023

Contributing to T ESG Strategy



Decarbonization

325 KTonCO2e reduced in 2022
+167% vs 2022 target Upstream



Water Neutrality in Chichimene

28%

Reuse of total produced water (2 MBWPD)

+20% vs 2021

52%

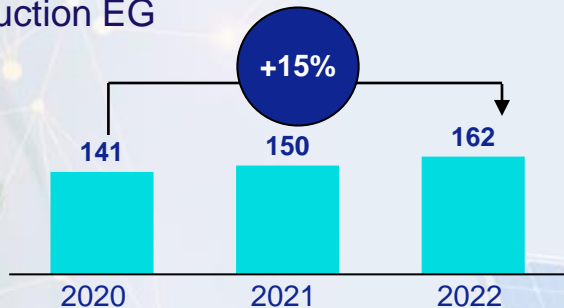
Reduction of freshwater withdrawal vs 2021 (**87.7 KBWPD**)

Profitable growth in low emissions

Gas and LPG production EG (mboed)

160.2 KBED

Gas & LPG* production +1% 1Q23 vs 1Q22



~23% contribution of Gas and LPG to 1Q23 production

Main gas findings:

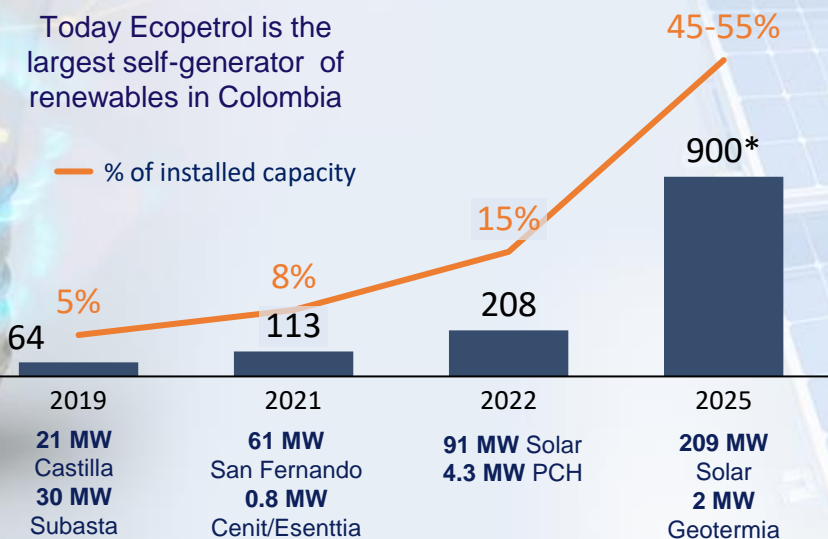


Gorgon-2
(Ultra Deep water)

Uchuva-1
(Deep water)

Renewable Energy (MW)

Today Ecopetrol is the largest self-generator of renewables in Colombia



2019
21 MW Castilla
30 MW Subasta

2021
61 MW San Fernando
0.8 MW Cenit/Esenttia

2022
91 MW Solar
4.3 MW PCH

2025
209 MW Solar
2 MW Geotermia

*In operation and construction.

New Energies



Solar

Rubiales Solar farm (100 MW): Signed agreement with Total Eren for construction

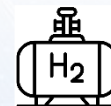
Emissions reduction : 6.417 tCO2 (+127% vs 1Q22)

Savings: 6.638 MCOP (+45% vs 1Q22)



Biomass

Partnership with EDF and Refocosta for the construction of a biomass plant (25MW)



Hydrogen

Advances of 2 projects in final stage of maturity (60 MW electrolysis capacity each)



Geothermal

Signing of the agreement with Baker Hughes and the Central Hidroeléctrica de Caldas

9

Sustainable mobility



Launching of the mobility pilot (Toyota Mirai)

Cartagena Technology Center



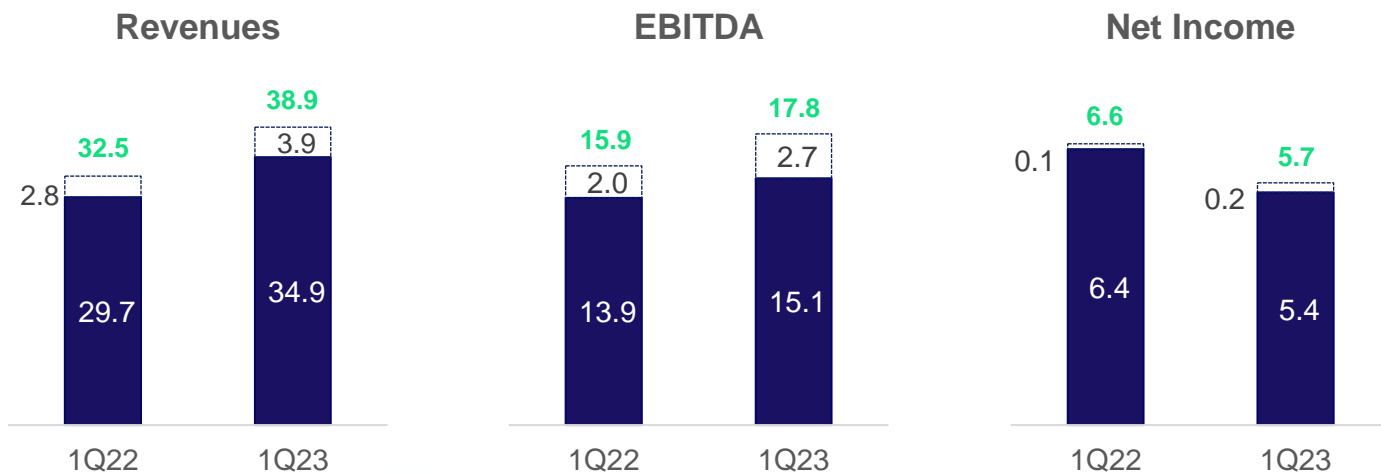
H2 Sustainable Mobility Pilot Launching Event SITP**



On the path to profitable growth

BUSINESS LINE CONTRIBUTION 1T23 (COP T)*

■ GE without Transmission and Toll Roads
 □ Transmission and Toll Roads Contribution
 Total Ecopetrol Group



OPERATING MILESTONES



Award of **13** red extensions in Brazil and **8** connections in Brazil, Colombia and Peru



Energization of **15** upgrades and **1** reinforcement in CTEEP, and partial start-up of Itaúnas IE in Brazil

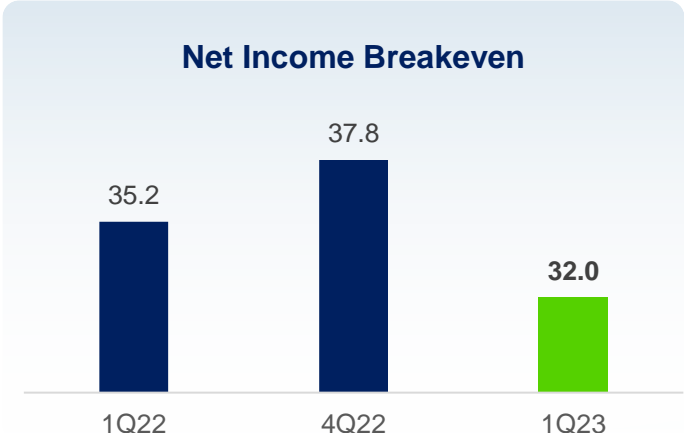
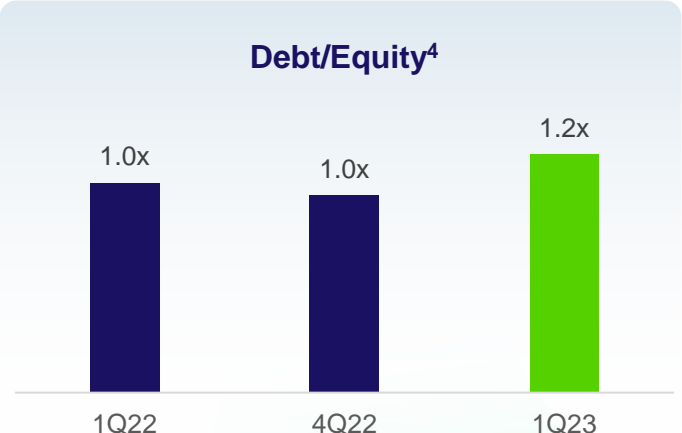
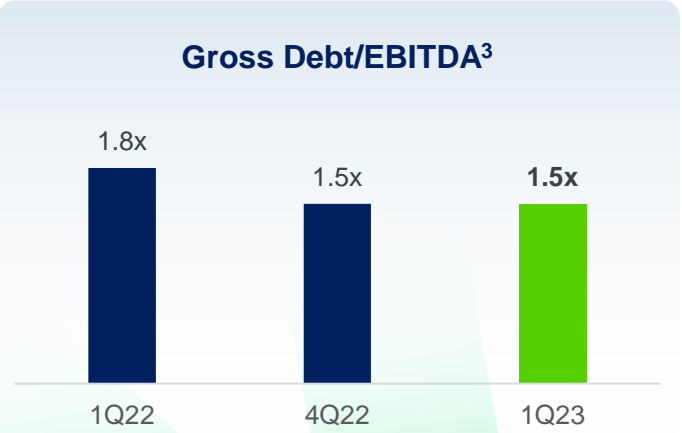
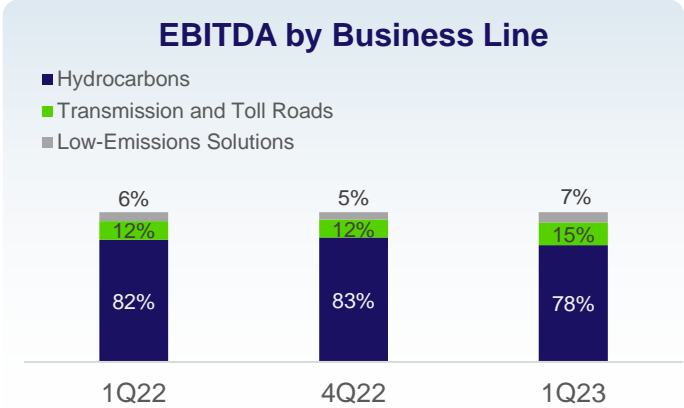
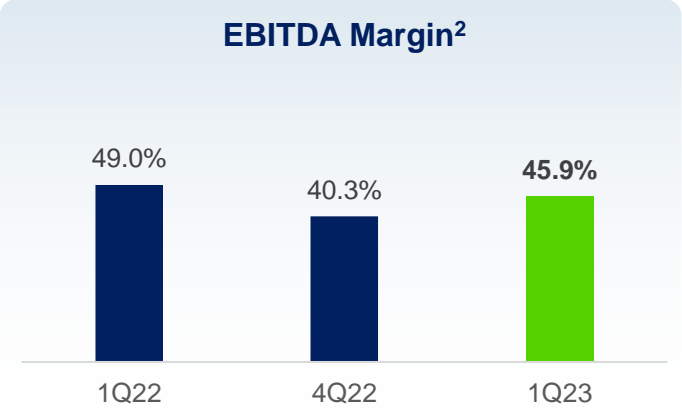
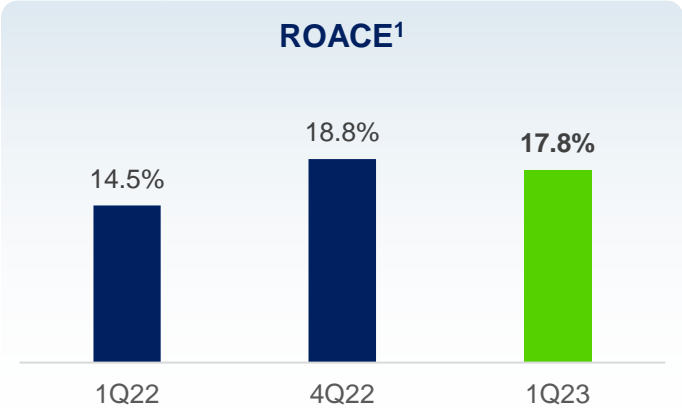


Termination of Ruta del Bosque road concession in Chile

* Totals may not exactly equal the sum of the individual entries due to rounding.

Outstanding results despite changes in market environment

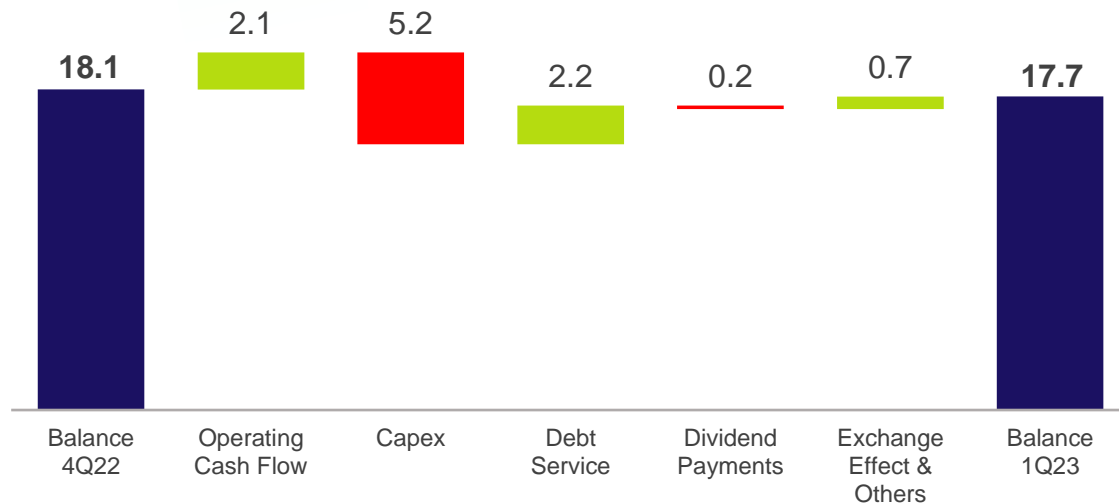
Ecopetrol Group's Indicators 1Q23



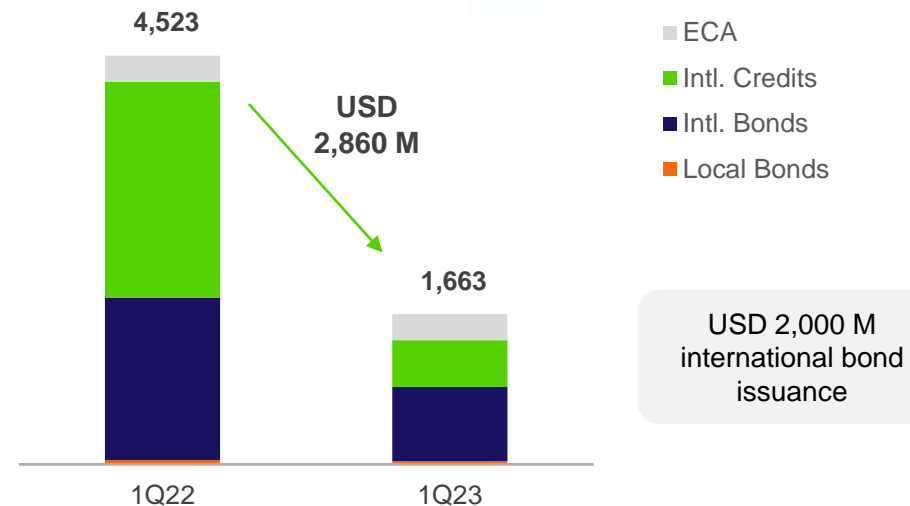
1. Return on Average Capital Employed. 2. Calculated using Ecopetrol's Group methodology (incorporation of results of co-controlled companies) as of 01/01/2022. 3. LTM EBITDA. 4. Accounting Equity.

Strong financials aligned with investment grade*

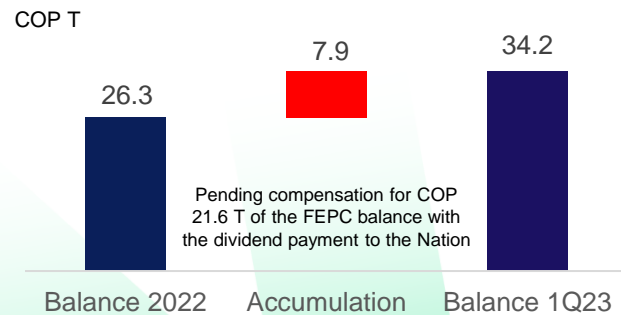
Cash Balance (COP T)



2023 Debt Management (USD M)



FEPC Balance



Liquidity

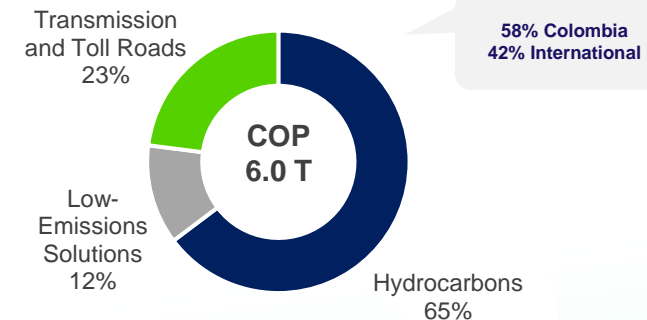
Quick Ratio

1.0x
(1.0x Peers*)

OCF/ Current Liabilities

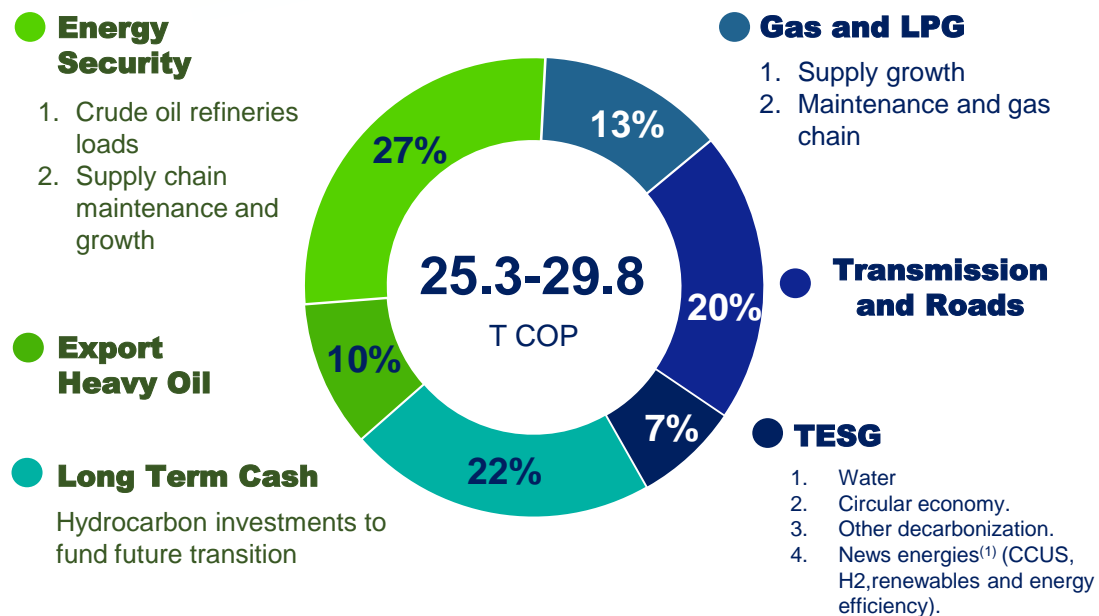
0.4x
(0.8x Peers*)

Capex



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

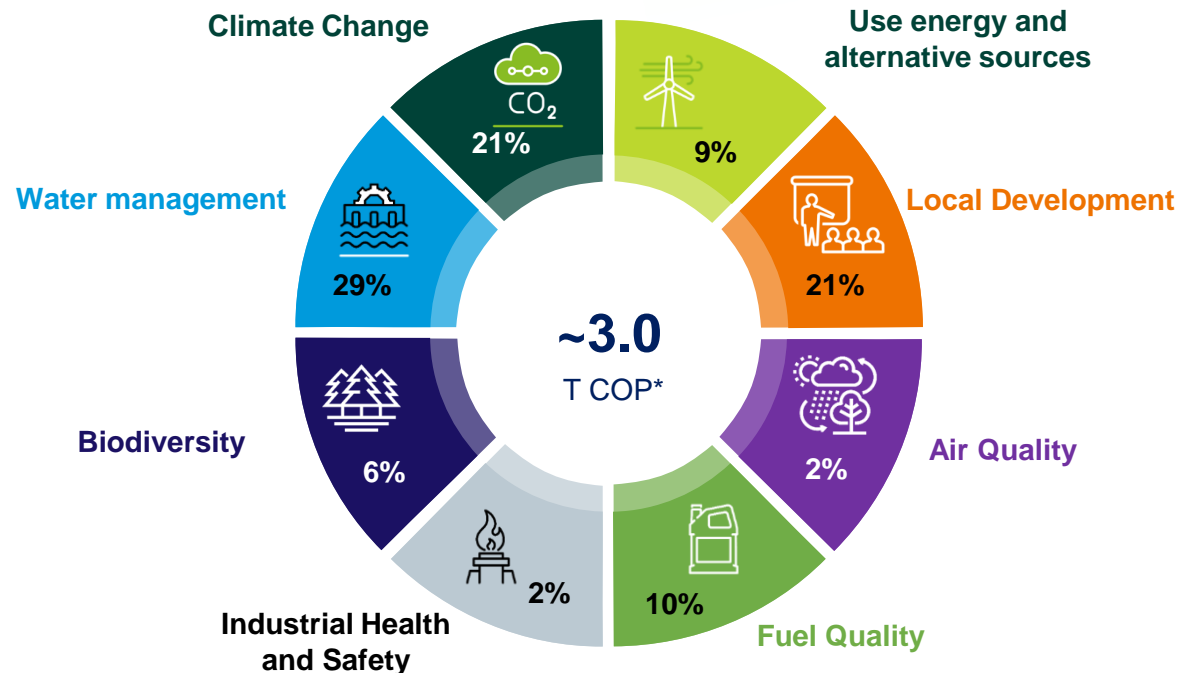
40% of the investments in 2023 are oriented towards the energy transition



~ 60% energy security and cash generation

~ 40% energy transition

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



*Includes ~2.2TCOP of Capex resources and ~0.8TCOP of Opex resources.

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.

TESG in support of long-term value creation

	Strategic Commitments	Target	1Q23 Results		2023 Projection
			Plan	Real	
T	SCIENCE, TECHNOLOGY AND INNOVATION TESG accelerator	 ST+i Value Generation (USD M)	168.3	176.9 	2,950 ¹
E	CLIMATE CHANGE Net zero emissions <ul style="list-style-type: none"> • 25% scope 1 and 2 by 2030 • 100% scope 1 and 2 by 2050 • 50% scope 3 - total emissions by 2050 COMPREHENSIVE WATER MANAGEMENT <ul style="list-style-type: none"> • Water neutrality by 2045² 	 Cumulative GHG reduction against 2019 baseline (MtCO2e)	-0.97	-0.98 	-1.34
		 Water withdrawn for industrial use (mbod) Discharge reduction (mbwpd)	724	651  0.12 ⁴	651 <i>Maturing of initiatives</i>
S	LOCAL DEVELOPMENT 230,000 non-oil jobs by 2040	 Non-oil jobs	-	6,008 ⁴ 	25,000 ⁵
G	CORPORATE GOVERNANCE Generate trust, as well as reputational and financial returns	 Corporate Governance rating in the DJSI	80	80 	80
TESG INVESTMENTS (COP T)			0.32	0.34	2.2
ENERGY TRANSITION INVESTMENTS / TOTAL INVESTMENTS			39%		40%

1. Cumulative projection from 2018. 2. Water Neutrality = volume of fresh water withdrawn for industrial use + volume of discharges - volume of water compensated. 3. Million barrels of water per day. 4. Results as of 2022. 5. Cumulative target as of 2024.

Thank you!

Contact Information:
investors@ecopetrol.com.co

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

~3.000
MBOE

Gas 30%
~5 TCF

2.305
MBOE

Gas 14%
~1,9 TCF

2.866
MBOE

Gas 21%
~3,5 TCF

Offshore and onshore blocks

Include, among others

Include, among others



UCHUVA



GORGON

Possible

369

Probable

486

Proved (1P)

2.011

Gas

25%
~2,8 TCF

Potential upside of gas

70 - 100 TCF
(Net Ecopetrol)

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.