



# 4Q22 AND 2022 RESULTS



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# Speakers

Alberto Consuegra  
COO

Diana Escobar  
VP Sustainable  
Development

Yeimy Báez  
VP of Low Emission  
Solutions

Felipe Bayón  
CEO

Jaime Caballero  
CFO

María Paula Camacho  
VP of Corporate Affairs  
and Secretary General

GRUPO  
**ecopETROL**



# Record results, beyond the financials



## RESULTS THAT EXCEED THE SET TARGETS

	ENERGY SECURITY				TESG			FINANCIALS		
	Production mboed	RRR*	Transported volumes mbd	Refineries throughput mbd	Renewables incorporation MW	Social and Environment Investment	ST+I investment	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

# Ecopetrol is today a diversified energy group

Leader in LATAM

First green **H<sub>2</sub>** pilot

**2040 strategy**  
“Energy that transforms”

**IPCC\*** completion

**2022**

**ISA** acquisition

**Singapore** trading company

Net-zero **commitment**

**2021**

“**Apoyo País**” initiative during COVID-19

**2020**

**Castilla Solar Park**  
21MW inauguration

Entry into the **Permian basin**

**2019**

First **offshore well** operated by a Colombian Company

**2017**

**Reficar** successful performance test

**2016**

\*Crude plant interconnection project

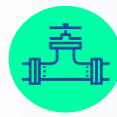
## 3 SOLID BUSINESS LINES

### HYDROCARBONS

**#1** in Colombia



Pre-pandemic production levels  
**734.9 mboed exit rate 4Q22**



**Record evacuation in multi-purpose pipelines** in 4Q22:  
305.6 mbd



Last 3-years record in **consolidated throughput**  
357.5 mbd 4Q22

### 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



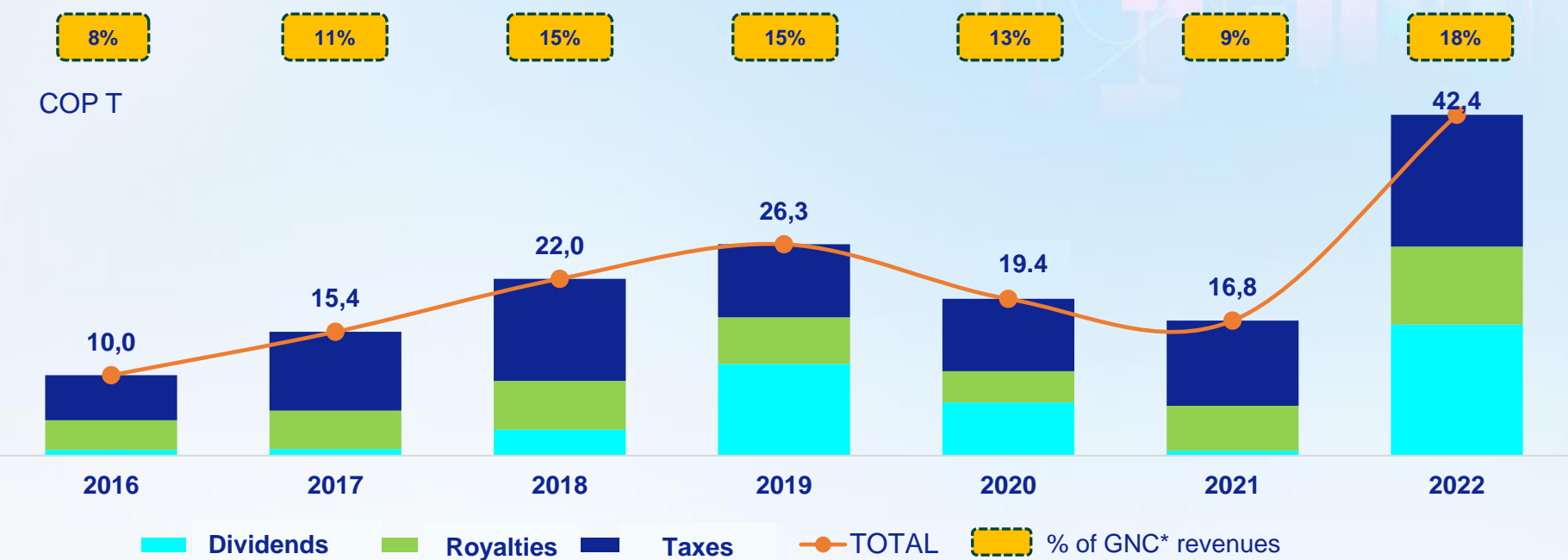
**32.2%** net income growth **vs 2021**



**Carbon neutrality** certification for 11 of ISA's companies



# Ecopetrol's growing contribution to national development



**COP 25.4**  
trillion average per year  
transfers to the Nation for the  
last 5 years

**112% increase**  
5-year average vs 2007

Transfers to the Nation in  
2022 were the **highest in  
history**

## SOCIAL AND ENVIRONMENT INVESTMENT

**COP 615 billion**  
in 2022

- **2,179** farmer **families**
- **128,258** **students**
- **204 km** of roads intervened
- **~764,000 people** with access to drinking water and sanitation

## SHAREHOLDERS

**COP T 2.1**  
Dividends

~ **255 thousand** minority  
shareholders

~ **18 million**  
Indirect shareholders  
through Pension Funds

## BALANCE OF PAYMENTS

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

**71% of the internal  
demand** for fuels - locally  
produced

## HUMAN TALENT

**>560** people with  
disabilities

**7%** identification with  
ethnic minorities

**5%** victims of the armed  
conflict

## PROCUREMENT

**~130 thousand jobs**  
generated through contractors  
by 2022

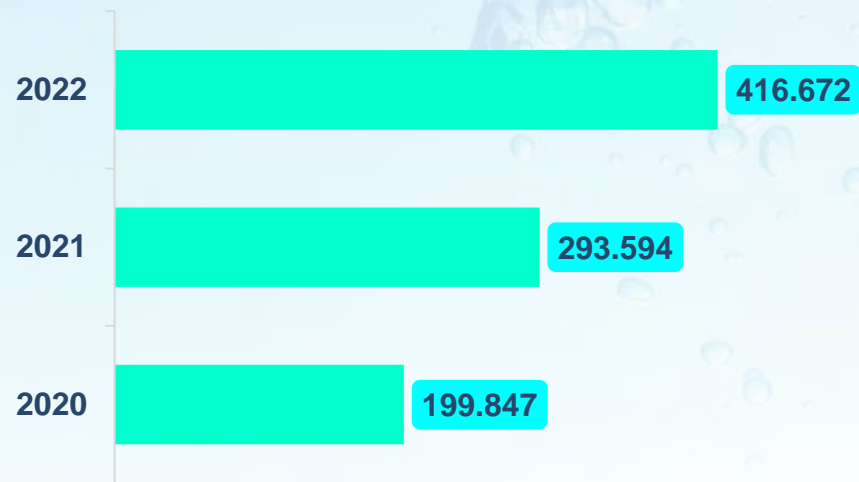
**8%** increase in **local  
goods and services  
procurement**  
vs 2021

\*Central National Government for its Spanish acronym

# Decisive action in the fight against climate change

## Reduced Emissions

**910,113** tons of CO<sub>2</sub>e between 2020 and 2022



**NCS\* portfolio**  
Cumulative capture potential >133% vs. 2021

\*Natural Climate Solutions



## Carbon-neutral subsidiaries



## Decarbonization initiatives



Energy efficiency: optimization of **44.7 MW in electric power** (2018 - 2022).



**Shutdown of ~1,700** identified methane leaks



Sale of 5.8 mmbls in **carbon offset cargoes**

## Responsible and Efficient Water Management

Water - neutrality  
**0**

$$\text{Water neutrality } 0 = \frac{\text{Volume of fresh water captured}}{\text{Volume of fresh water captured}} + \frac{\text{Volume of discharges into freshwater bodies}}{\text{Volume of discharges into freshwater bodies}} - \frac{\text{Compensated water volume}}{\text{Compensated water volume}}$$

**IN 2045 ECOPETROL WILL BE WATER NEUTRAL**

By 2022, we reutilized 78% of the water required to operate our facilities.







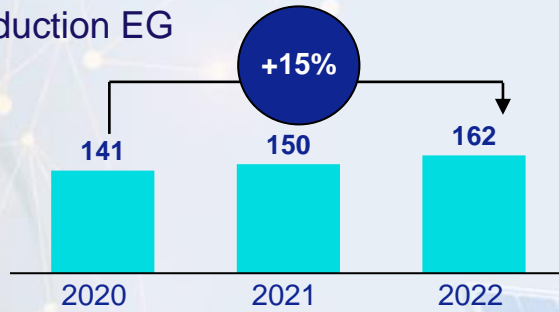
# Low Emission Solutions





# Profitable growth in low emissions

Gas and LPG production EG  
(mboed)



~**23%** contribution of Gas and LPG to 2022 production

Main gas findings:



**Gorgon-2**  
(Ultra Deep water)

**Uchuva-1**  
(Deep water)

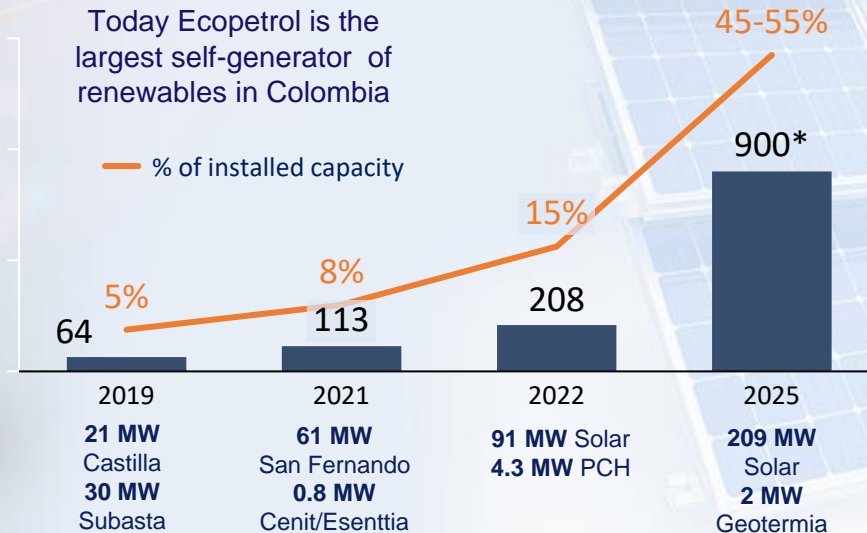
## Investments in Gas and Unprecedented Activity

	2021	2022
Gas Investments (MUSD)	250	539
#Gas wells (exploratory+development)	5	16
Exploratory successes	2	2
Marketing process (GBTUD)	58	134

- Renewal of **100% of the contracts.**
- **+32 GBTUD** of new demand.

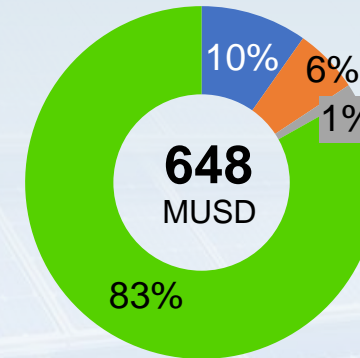
## Renewable Energy (MW)

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



\*In operation and construction.

## Investments in Low Emission Solutions 2022



- Decarbonization
- Energy efficiency
- Hydrogen
- Gas

Gas

**102%**  
Investment execution compliance

**93%**  
of the incorporation of resources from successful exploratory wells

Renewable Energy

**208 MW**  
Incorporation MW @ Dic 22

**21 MUSD**  
Mature solar farms

Hydrogen

Progress in Hydrogen Projects

**7.5 MUSD**

Routes for hydrogen production 3 MUSD  
Blue Hydrogen in GRB 2.5 MUSD

# While we advance in long-term solutions for the transition

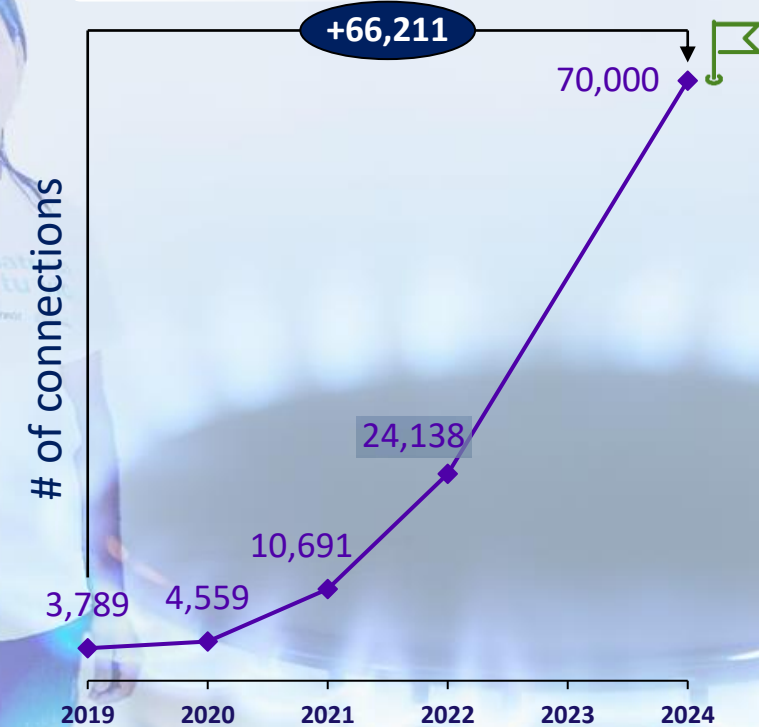


## Strategic Allies and Platforms



## Social Gas

New Connections Target (2019-2024)



## Sustainable Mobility: Decarbonization Commitment Progress

### Kandeo Project

- With a contribution of **COP\$800 billion**, **220,000 TON CO<sub>2</sub>** will be reduced by renewing **4,000** fuel heavy load vehicles to natural gas

### Ecological Route Plan

- First **10** tank trucks already work with **CNG**

### Mobility at Ecopetrol

- Incorporation of **249** electric, gas and hybrid vehicles (**25%** of the vehicle fleet)





# Hydrocarbons

# 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

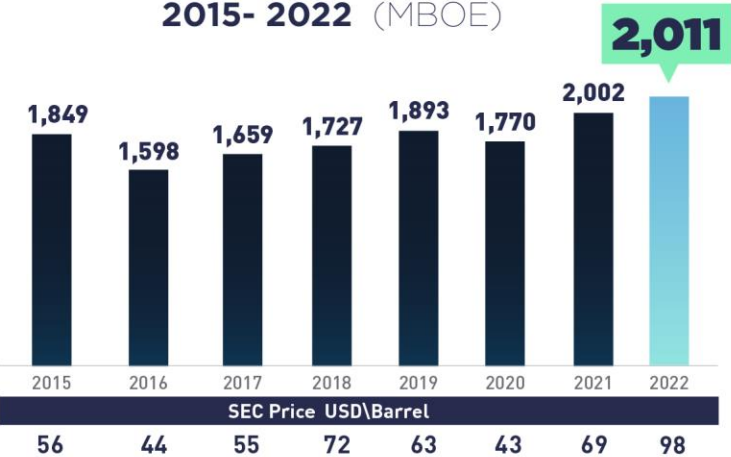
25%

Average reserve life

8.8 yeras

## Timeline of proven reserves

2015- 2022 (MBOE)



## 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

(yeras)

8.4

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

<sup>1</sup> Million barrels of oil equivalent

\*Decimals are rounded off to the nearest whole number

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.



# Diversified exploratory portfolio focused on energy security

**2022**

## Strengthening the exploratory portfolio

### Discovered resources:

- Uchuva-1
- Tejón-1
- Coralino-1

### Contingent resources:

- Gorgon-2
- Lorito

### Prompt progression to commerciality

- Liria YW12
- Niño-2
- Ibamaca-1


**7**
**Successful wells 2022**
**+50%**

Total volume of wells drilled to discovered resources

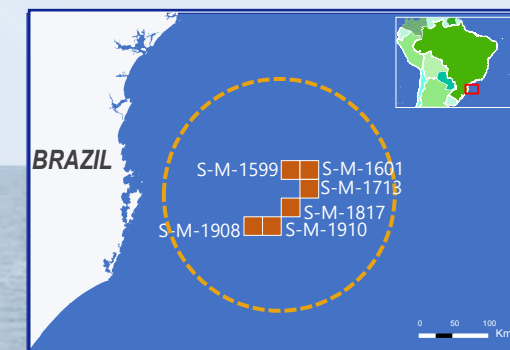
**12**
**2022 new stakes in exploratory areas**

**6**

**Colombia**  
4 ECP - Offshore  
2 HOCOL – Col Norte

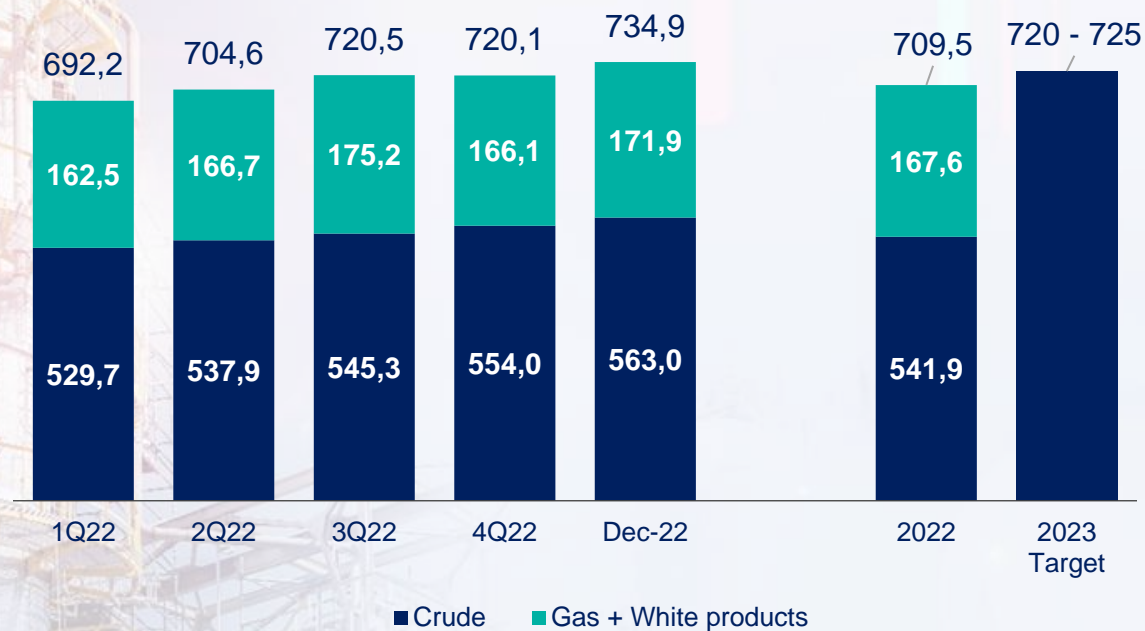
**6**

**Brazil**



# Outstanding production performance

Production (mboed)



## Key Growth levers

- CAÑO SUR** **+15 mboed** dic-22 vs dic-21  
Entry into operation of first fluid treatment train
- PERMIAN** Outstanding contribution to GE production and reserves

## Increased Execution Capacity

	2021	2022
# Development wells	395	536
# Workovers	443	555
# Rigs	20	28

## Contributing to TESG Strategy



Decarbonization

**325** KTonCO<sub>2</sub>e 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)



# Permian: a success story

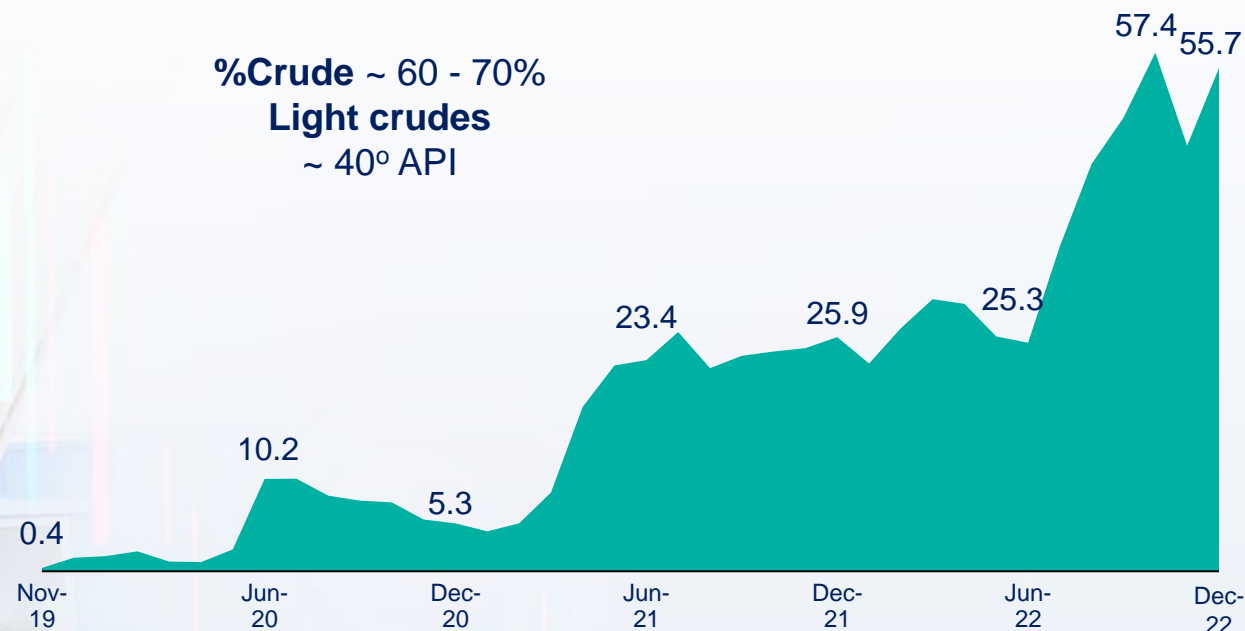
	2019	2022
<b>1P Reserves</b> (Mboe)	164	207 *
<b>Wells on Production</b>	4	209
<b>Annual Average ECP's Production</b> (Kboed net before royalties)	0.9	37.8
<b>Cumulative Production</b> (Mboe net before royalties)	0.1	22.8
<b>EBITDA</b> (MUSD)	1.4	644
<b>EBITDA MARGIN</b> (%)	69.8	87%
<b>OPEX</b> (US / boe)	4.5	3.8

(\*) YE 2022 Reserves

## Production Monthly Average

ECP net before royalties  
(Kboed)

%Crude ~ 60 - 70%  
Light crudes  
~ 40° API



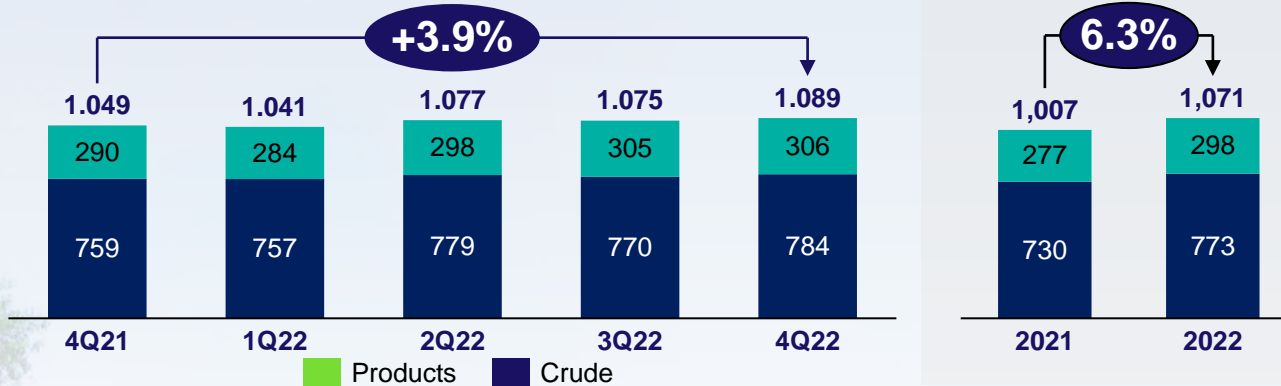
~8 KgCO<sub>2</sub>e/boe  
Low CO<sub>2</sub>e emission  
intensity

18.6%  
ROACE  
2022

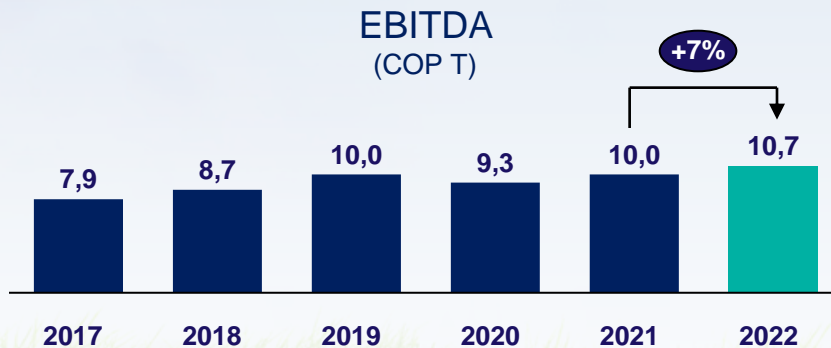
Start of drilling  
operations in  
Delaware area

# Infrastructure that leverages energy security

## Transported Volume (mbd)



## Midstream Financial Results



## The midstream segment is carbon neutral



- ✓ Reduction of **~45.400 tCO2e** during 2020 and 2021
- ✓ Actions under REDD+ mechanism and reforestation **~USD\$4M**
- ✓ **Positive environmental and social** impact in 6 Departments and Municipalities.

## Cenit acquired the small hydroelectric power plant Cantayús

### Ecopetrol Group's 1st Hydroelectric Generation Asset

**4.3MW/h**

Installed Power

**25,4Gw**

Generation capacity/  
year

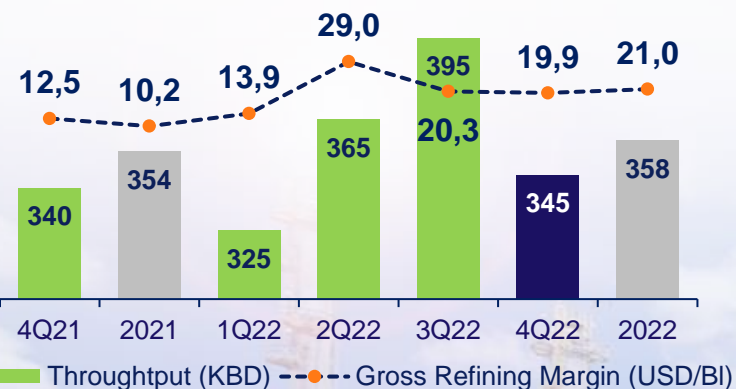
**~ 63,000 tCO2**  
emissions to be avoided in 15 years



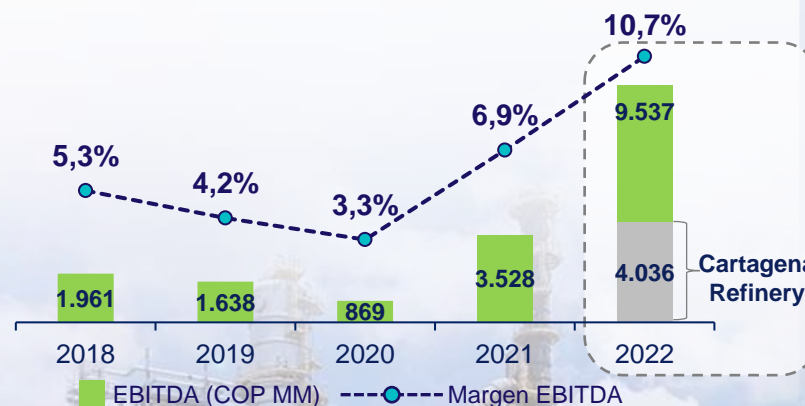


# Record contribution from a growing downstream

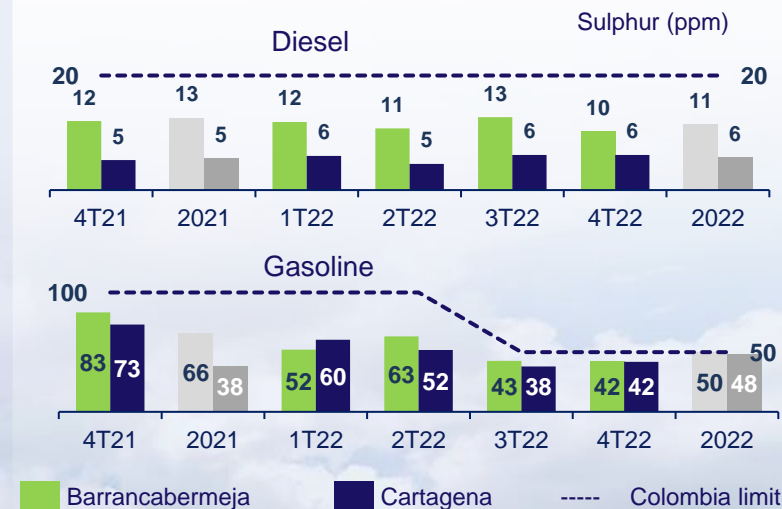
## Gross Refining Margin and Throughput



## Downstream Financial Performance



## Clean Fuels Production



Barrancabermeja Refinery "Best Refinery in Latin America" World Refining Association" (2022)



**Record financial results** in gross refining margin, EBITDA and net income



**Cartagena Refinery** record financial results



Expansion of the Cartagena Refinery (IPCC) +50 mbd capacity



**94%** operational availability



Execution of pilot tests:  
**Renewable diesel** in October 2022  
**H2 green** in 3Q22



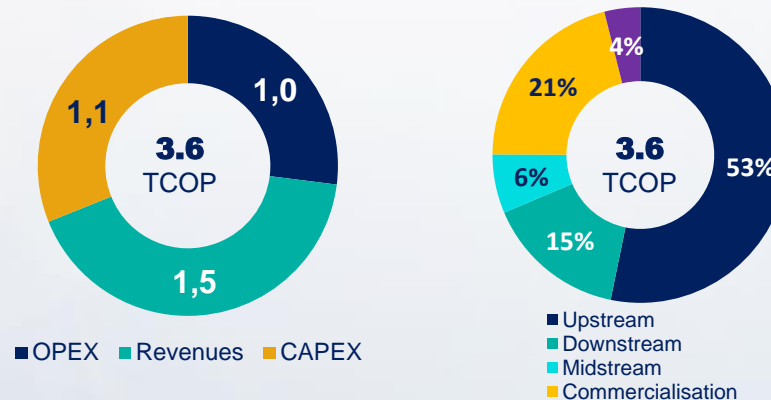
Construction of a recycled plastic resin plant in Esenttia started

# Focus on efficiencies continues mitigating inflationary impacts

## Efficiencies 2015-2022



## 2022 Efficiencies



\*Includes Low Emission Solutions and Corporate

- ✓ Mitigate inflationary effects
- ✓ Focus on improving operational and technical performance of investment projects
- ✓ Margin and marketing revenue enhancement strategies

### Lifting cost



9.21 USD/BI  
(vs. 8.3 USD/BI)

### Refining Cash Cost



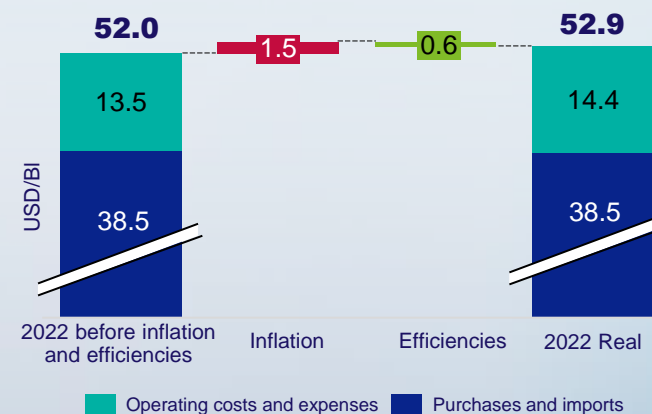
4.48 USD/BI  
(vs. 4.48 USD/BI)

### Cost per Transported Barrel



2.84 USD/BI  
(vs. 3.0 USD/BI)

### Total Unit Cost<sup>1</sup>



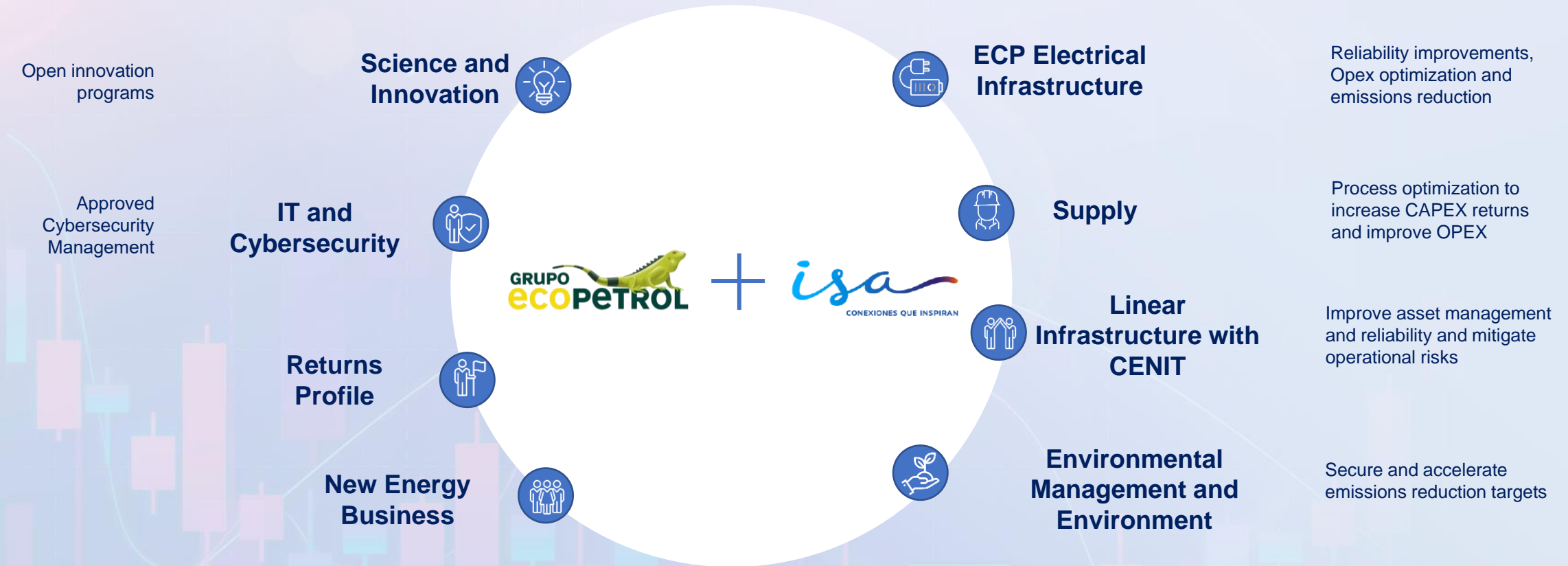
1. O&G indicator (without ISA). Excludes exploratory expenses, taxes and DD&A.





# **Transmission and Toll Roads**

# Synergies that contribute to the growth of EG



## Main lines of work with synergies and estimated benefits for the EG of up to ~USD 360M

### Reliability Initiatives

It will capture benefits for reliability improvement and deferred production reduction

**USD ~9-15 M  
Benefits**

### Commercial Offers

- 6 initiatives of new connections
- 1 storage initiative
- 2 photovoltaic projects

**USD ~115 M  
Benefits**

### New Business

- Infrastructure for Green Hydrogen
- Gas to Power – International Interconnections

### Energy Transition

- Energy Communities
- Roadmap for energy transition (MME\*)

### Expansion Plan

Structuring and management of the electric-energy plan of the EG 2023 - 2040

**USD 190 - 230 M  
Benefits**

\*Ministry of Mines and Energy



# Balanced Scorecard

# Financial strength of the business model

## Ecopetrol Group Indicators 2022

47.2%

EBITDA<sup>1</sup> Margin

18.8%

ROACE<sup>2</sup>

1.5x

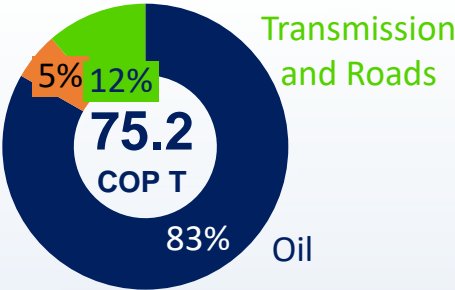
Gross Debt/EBITDA<sup>3</sup>

1.3x

Net Debt/EBITDA<sup>3</sup>

EBITDA  
by business

Low Emission  
Solutions

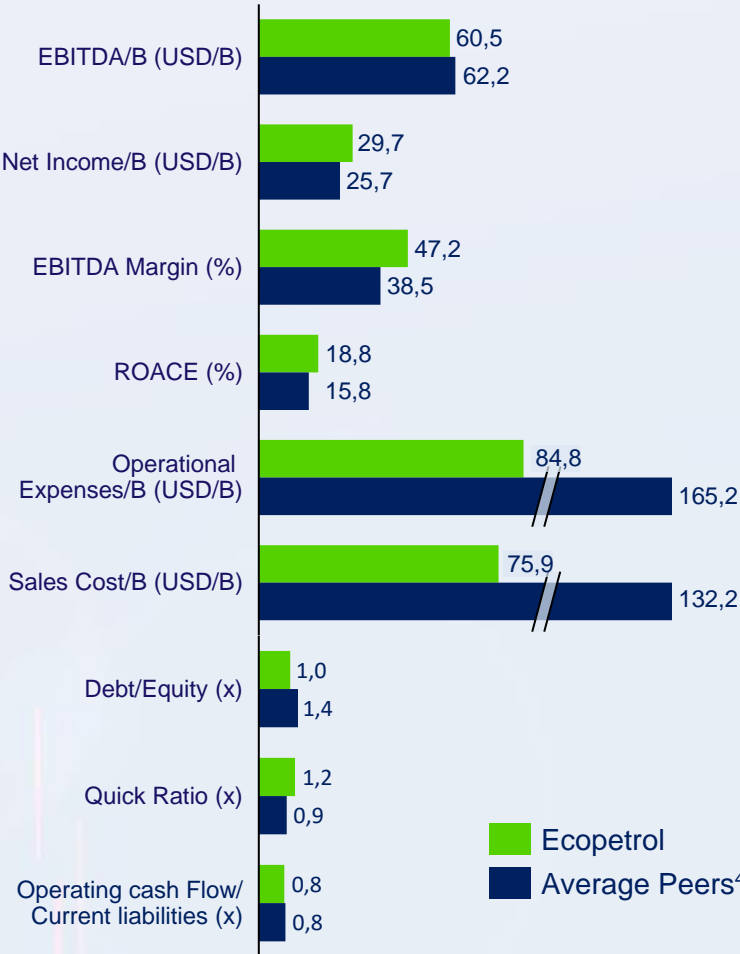


## Demonstrated Competitiveness

Profitability

Efficiencies

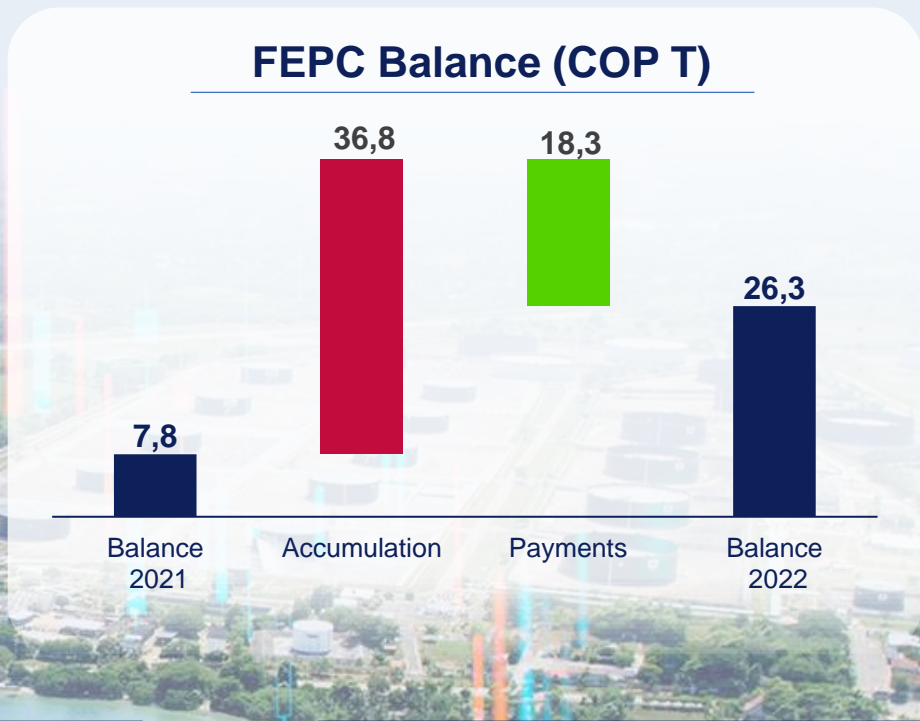
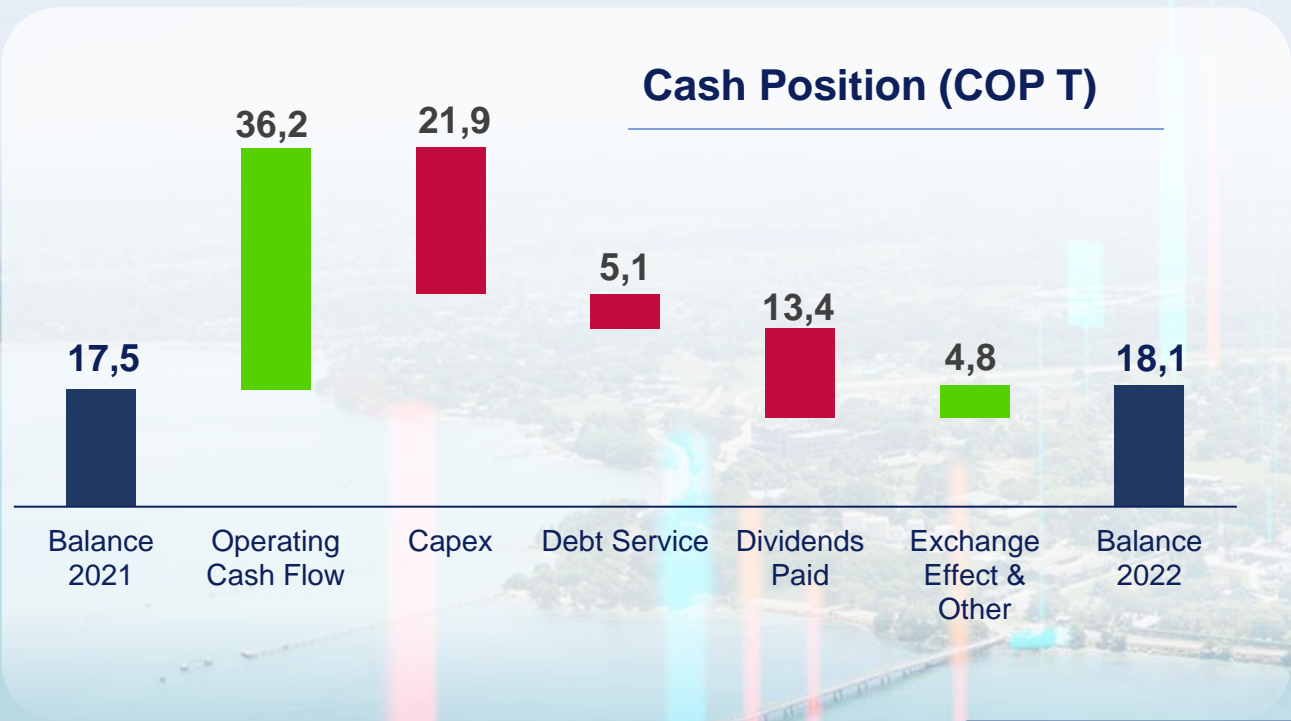
Solvency



1. Calculated using Ecopetrol's Group methodology (incorporation of results of co-controlled companies) as of 01/01/2022. 2. Return on Average Capital Employed. 3. LTM EBITDA. 4. Peers: Shell, Chevron, Exxon, TotalEnergies, BP, PTTEP, Equinor, Repsol, Hess, Marathon y ConocoPhillips.



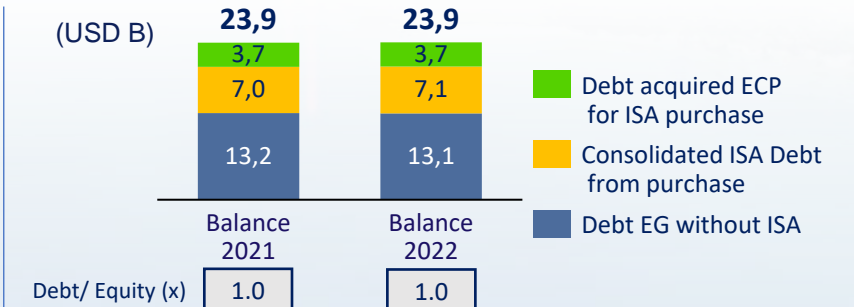
# Steadfast management of capital structure



## Free Cash Flow

## Liquidity

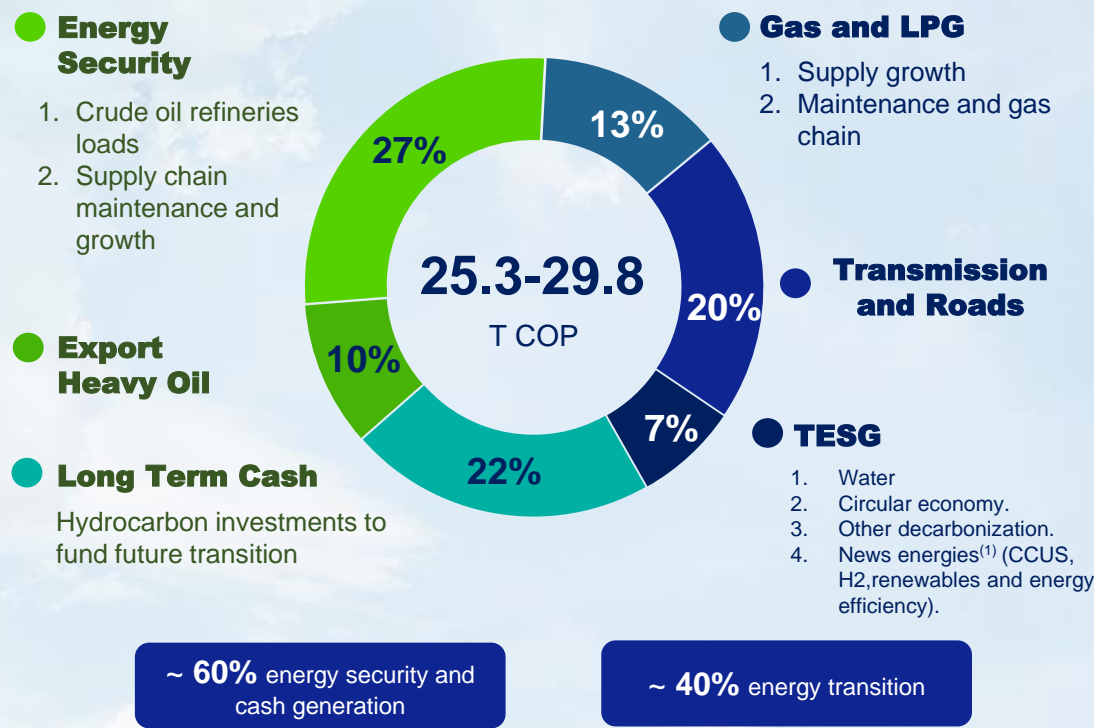
## Debt



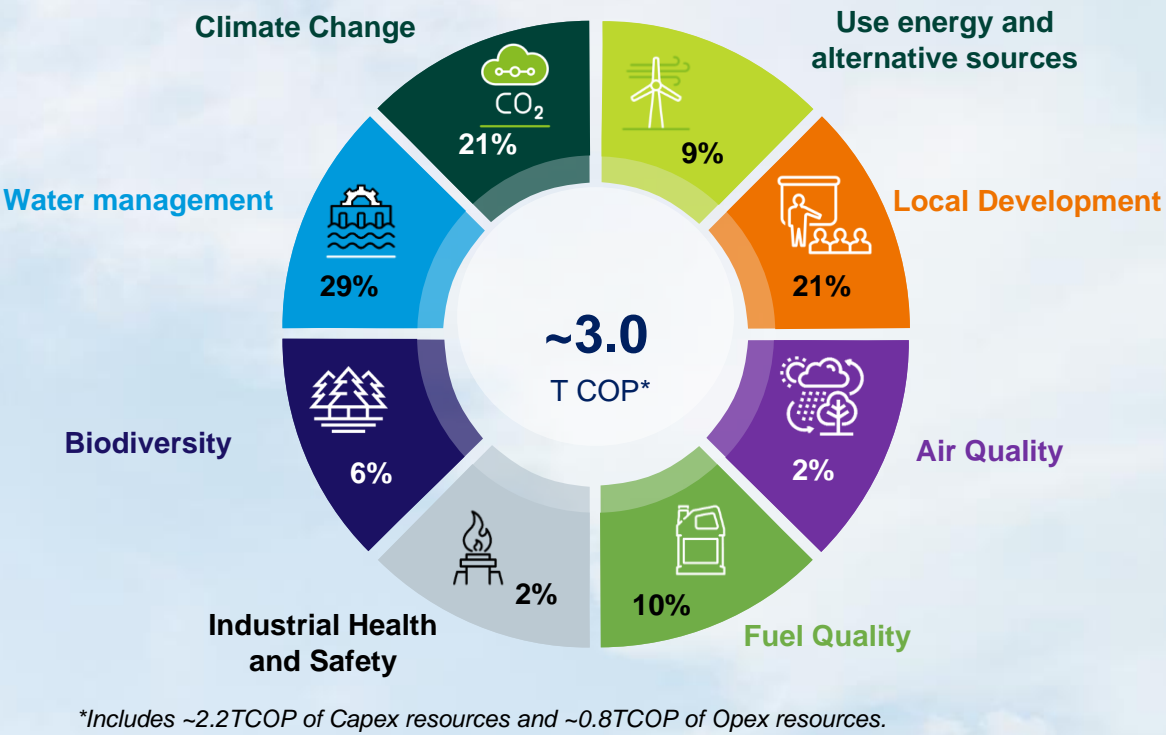
Cash Balance includes: Cash and Cash Equivalents and Other Current and Non-Current Assets.  
\*Data 12M22. Peers: Shell, Chevron, Exxon, TotalEnergies, BP, PTTEP, Equinor, Repsol, Hess, Marathon y ConocoPhillips.

# 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<sup>(2)</sup>:

>40

EBITDA Margin (%)

>11

ROACE<sup>3</sup> (%)

<2.1

Gross Debt/EBITDA (x)

720-725

Production (MBOED)

25.3-29.8

Investments (T COP)

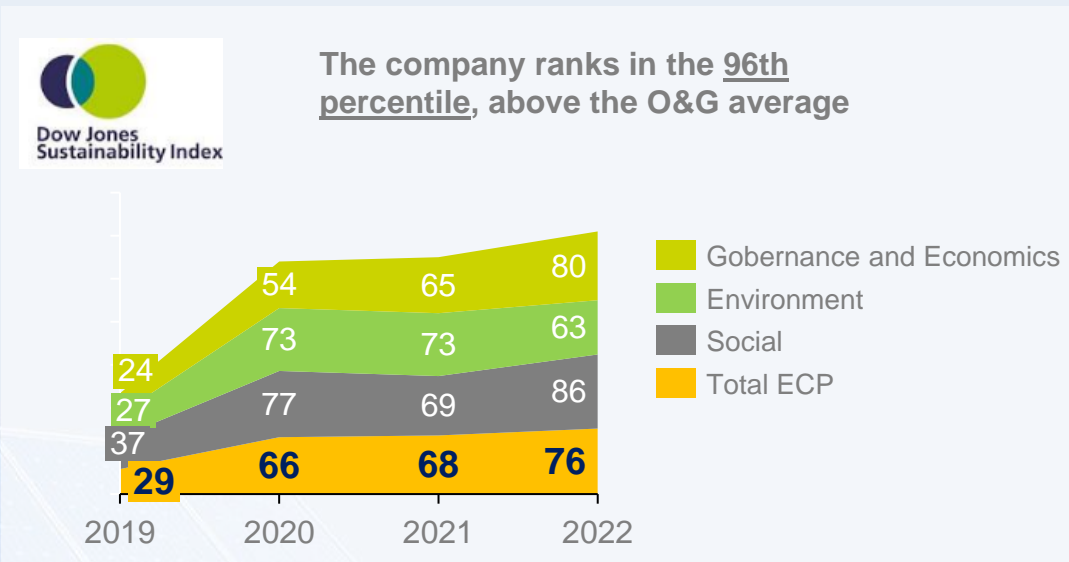
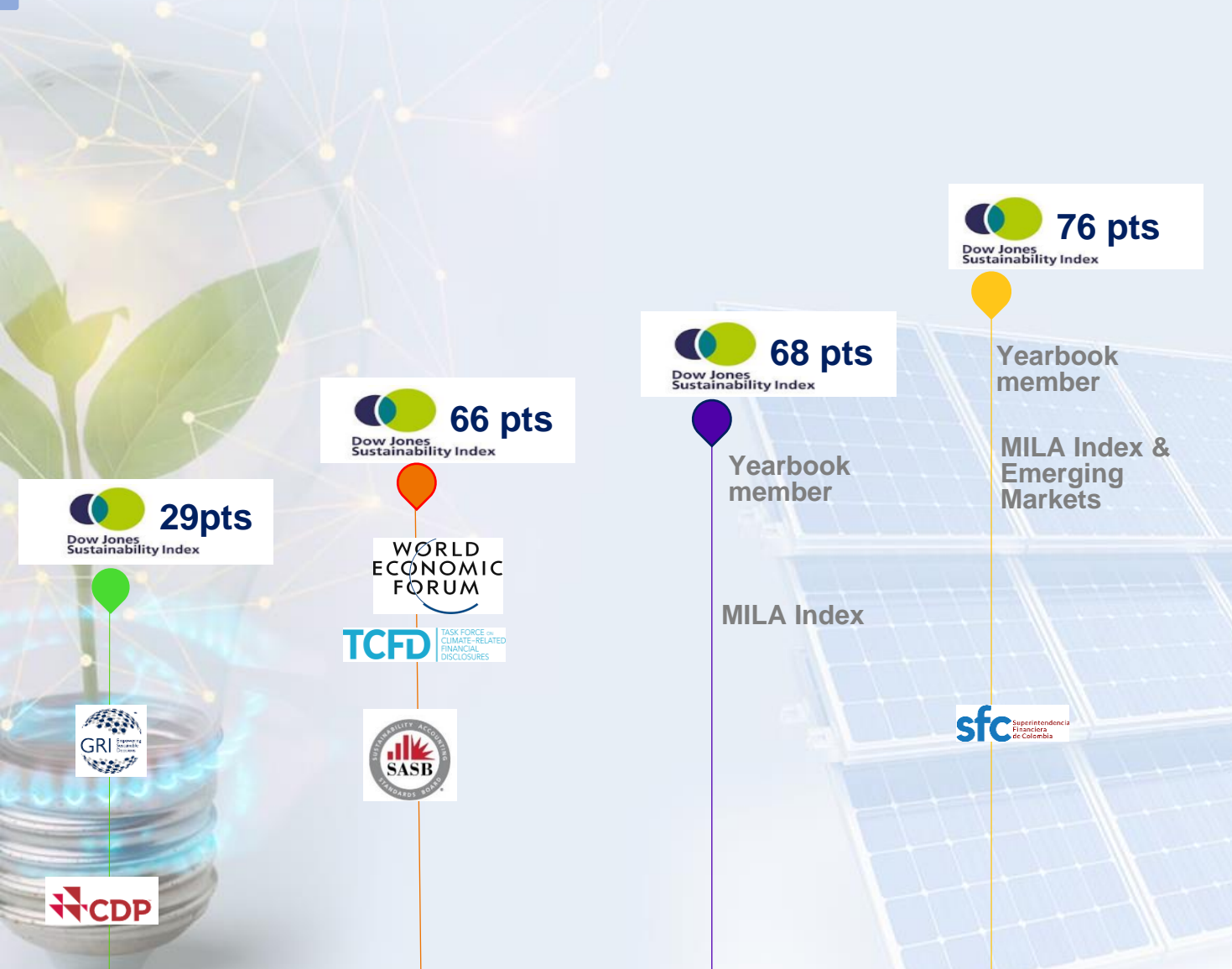
>40

Transf. Nation<sup>4</sup> (T COP)

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



# Ecopetrol evolution in TESG®



	2016	2020	2021	2022
Climate Change				
Ecopetrol	D	C	C	A-
O&G Average	C	C	B	B
Water				
Ecopetrol	B	B	B	B
O&G Average	B-	B	B	B



i. ECP is part of the 44% of Oil & Gas companies that are at the leadership level.



ii. CDP gave a rating (A) to the components: water policies, water in the corporate business strategy, and assessment of risks associated with water.

# Ecopetrol is a key player in Colombia's socio-economic development



## QUALITY, COVERAGE AND SCHOOL RETENTION

1.5% of students in public educational institutions benefited  
+120,000 students benefited



## ACCESS TO SAFE WATER

Contribution to the 1.5% reduction of the national gap



## PEACEBUILDING

31% share of the total national quota "Obras por impuestos"  
Impact on 72 municipalities y 15 departments



## ROADS AND COMMUNITY INFRASTRUCTURE

30% annual social investment of ECP  
708 Km intervened



We operate in more than 500 municipalities (45% of the national territory)

**COP 2.0 T**  
Socio-environmental investment 2019-2022



## ENERGY TRANSITION

Approval for the development of solar photovoltaic solutions projects for 766 households in the Department of Putumayo.



## CONTRIBUTION TO LOCAL ECONOMIES

GDP growth contribution of 0.1 % per year  
**130,000 jobs in 2022** including suppliers (+20% vs 2021)



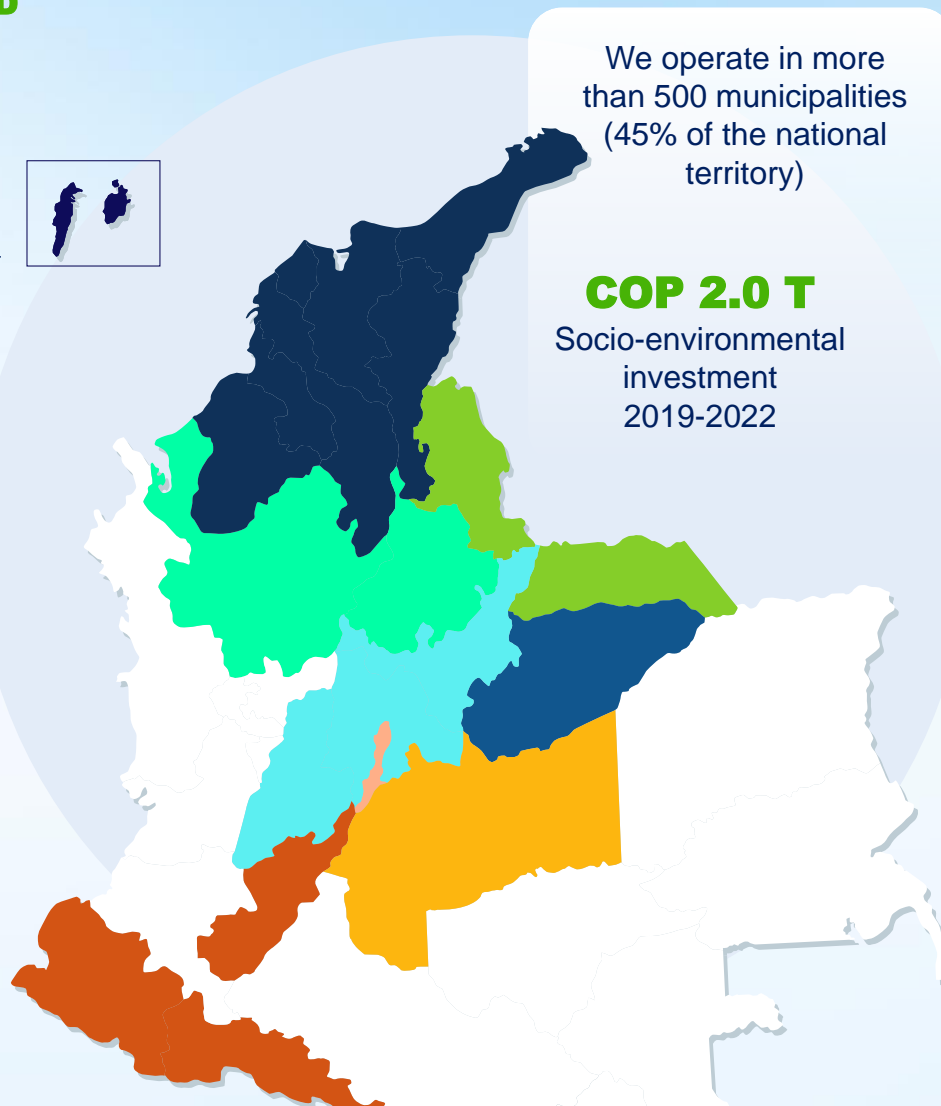
## INCLUSIVE RURAL DEVELOPMENT

+ 4,000 farming families benefited  
Strengthening of productive, logistical and marketing capacities.



## EMPLOYMENT AND INCOME GENERATION

+16,000 jobs per year thanks to social investment  
"Programa Ecopetrol Empeende"  
11.750 entrepreneurs benefited  
MiPymes: 25% growth in employment creation.





# In Summary...

- Commitment to **just and responsible energy transition**
- **Robust** and **highly qualified team**
- **2023 Investment Plan** underway



**Q&A**





# Progresión de recursos y reservas en el Grupo Ecopetrol

Mayor incertidumbre ●

● Menor incertidumbre

## Exploración

## Producción

Adquisición / Reprocesamiento  
de sísmica

Pozos exploratorios

Pozos delimitadores

Pozos de desarrollo y facilidades

**Recursos  
prospectivos**  
(Potencial)

**Recursos  
descubiertos<sup>1</sup>**  
(Potencial)

**Recursos  
contingentes<sup>2</sup>**  
(Potencial)<sup>3</sup>

**Reservas  
totales  
(3P)<sup>4</sup>**

**+6.000**  
\* MBPE

Gas

53%  
~18 TPC

Bloques costa afuera y onshore

Potencial upside gas

**70 - 100 TPC**  
(neto ecopetrol)

**~3.000**  
MBPE

Gas

30%  
~5 TPC

Incluye, entre otros



**UCHUVA**

**2.305**  
MBPE

Gas

14%  
~1,9 TPC

Incluye, entre otros



**GORGON**

**2.866**  
MBPE

Gas

21% ~3,5 TPC

Posibles

369

Probables

486

Probadas (1P)<sup>5</sup>

**2.011**

Gas

25%  
~2,8 TPC

**Vida media  
reservas  
(1P) R/P**

**Crudo: 8,3** años

**Gas: 8,8** años

\*TPC Tera pies cúbicos \*MBPE Millones de barriles de petróleo equivalente

1 Clasificación y estimación de Ecopetrol.

2 Verificación independiente (86% de los recursos) e interna.

3 Los volúmenes progresarán a reservas en magnitud y tiempo de acuerdo con la resolución de contingencias técnicas, económicas, de proyecto o viabilidad socio ambiental.

4 Verificación independiente (99,8%) de las reservas.