



El futuro
es de todos

Minenergía

LA NUEVA
ENERGIA

Investment Opportunities In Colombia's

Energy and mining sector



DiegoMesaP



DiegoMesaEnergia



@DiegoMesaP



Diego Mesa

Global economy is projected to contract sharply due to Covid 19 pandemic

This crisis has highlighted how much modern societies depend on energy

Source:
IMF, Banrep



Colombia's Energy sector is key to boost economic growth

7% Of the national GDP

Comes from the Mining, Hydrocarbons and Electricity sectors

In 2019 Mining, Hydrocarbons and electricity sectors represented

34%

Of Colombia's FDI

56%

Of all exports

Our goal is to achieve a robust economic recovery without a rebound in emissions

Renewable Energies



Sustainable Mobility



Mining diversification



New energy sources



(Geothermal, Hydrogen, Waste to energy, Offshore wind)

Source:
DANE, Banrep

**What
investors are
looking for
when
deciding
where to
invest**



**Business
environment**



**Resource
potential**



**Institutional
framework**



**Environmental
and social
framework**

Source:
McKinsey 2019

Colombia's
approach to
**Energy
Transformation**

**Reliability
& Coverage**



**Efficiency
& Competitiveness**

Sustainability

We introduced different tax incentives to boost capital intensive industries

Colombia is the third best country to do business in latin america

- 1.Chile
- 2.Mexico
- 3.Colombia

Gradual reduction of the income tax rate:

33% 2019

32% 2020

31% 2021

30% 2022

Credit VAT paid on acquisition of productive real fixed assets (capital goods) against corporate income tax

Credit 50% of the ICA and GMF taxes paid during the years 2019 to 2021 against corporate income tax. After 2022 the credit will be 100% of the taxes paid

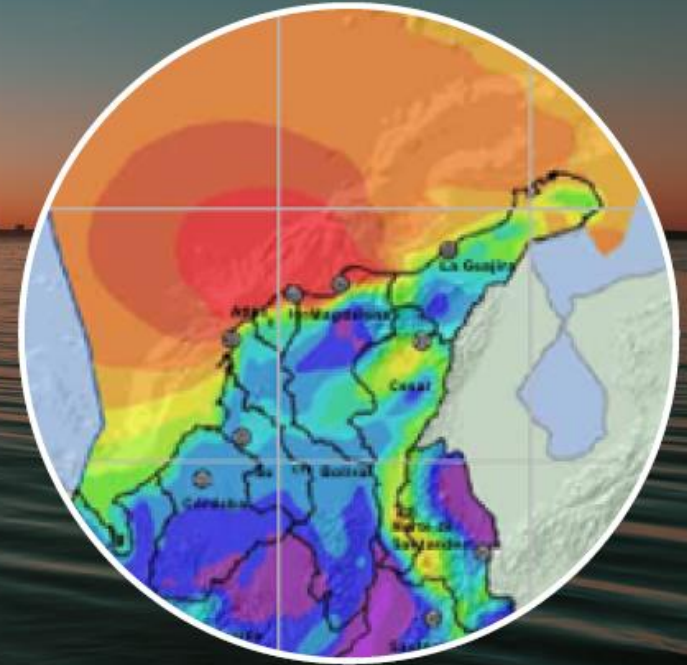
Our Commitment to Renewable Energy



- ▶ **Auction programme:**
Reliability charge and long term energy contracts
Elimination of red tape on environmental licensing
- ▶ **Renewable Energy purchase** 8%-10% of retailer's energy purchases must come from renewable energy projects
- ▶ **Extension of 50% additional tax deduction** on investments made in renewable energy and energy efficiency projects from 5 to 15 years
- ▶ **Automatic exclusion of VAT in the acquisition** of solar panels and other equipments for solar systems

Wind Resource

Wind speed in La Guajira is twice the world average
~9 meters per second at 80 meters height



Solar Resource

Solar radiation in La Guajira is 60% higher than the world's average

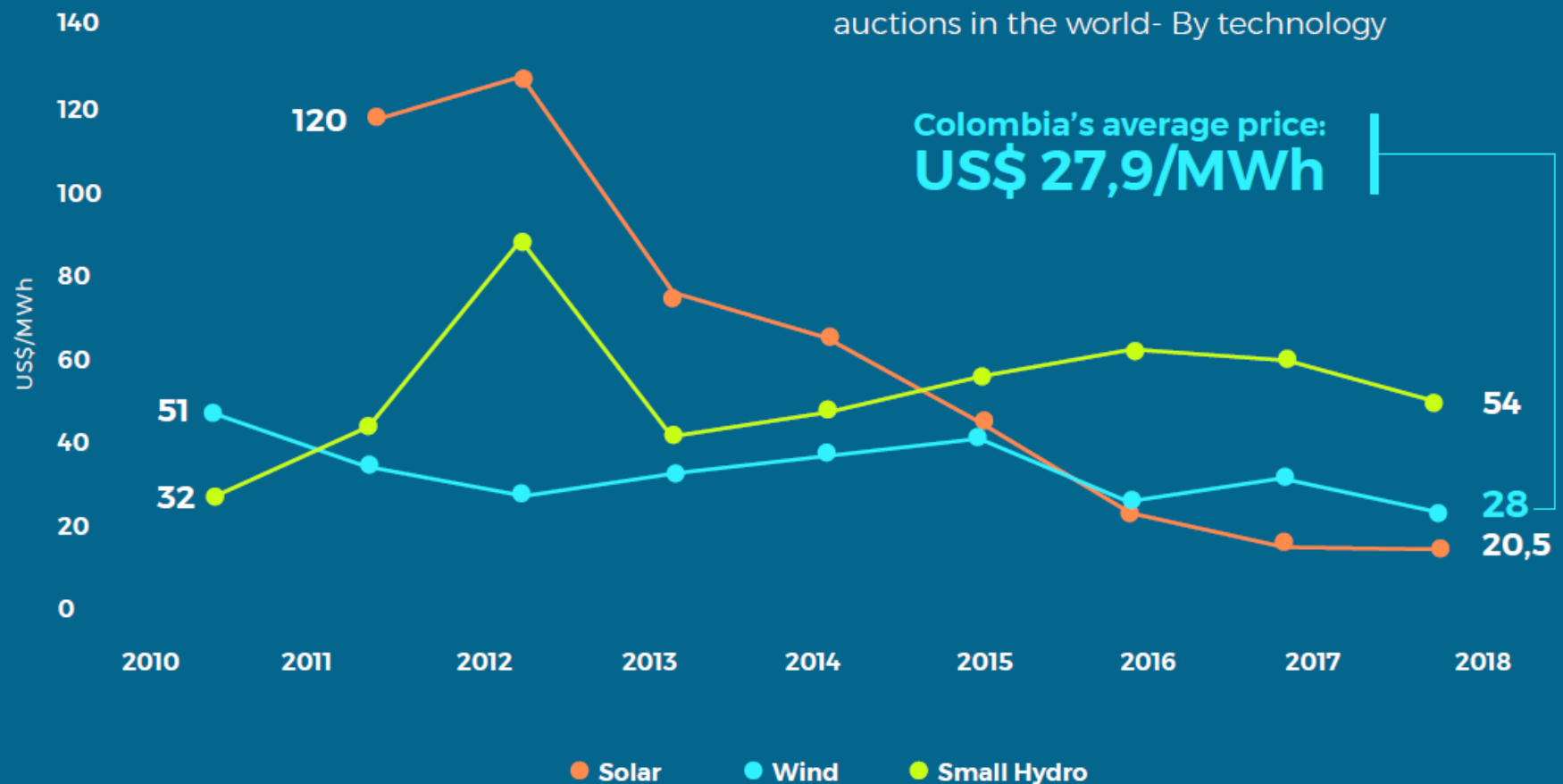


Colombia's Auction Clearing Price is close to the lowest price observed in auctions held in 2018 and way below the average price of 2018:

- ▶ **Solar Energy (US\$ 62/MWh)**
- ▶ **Wind (US\$ 55/MWh)**

Source: BNEF

Lowest Price of renewable energy auctions in the world- By technology



¡We have outstanding results!

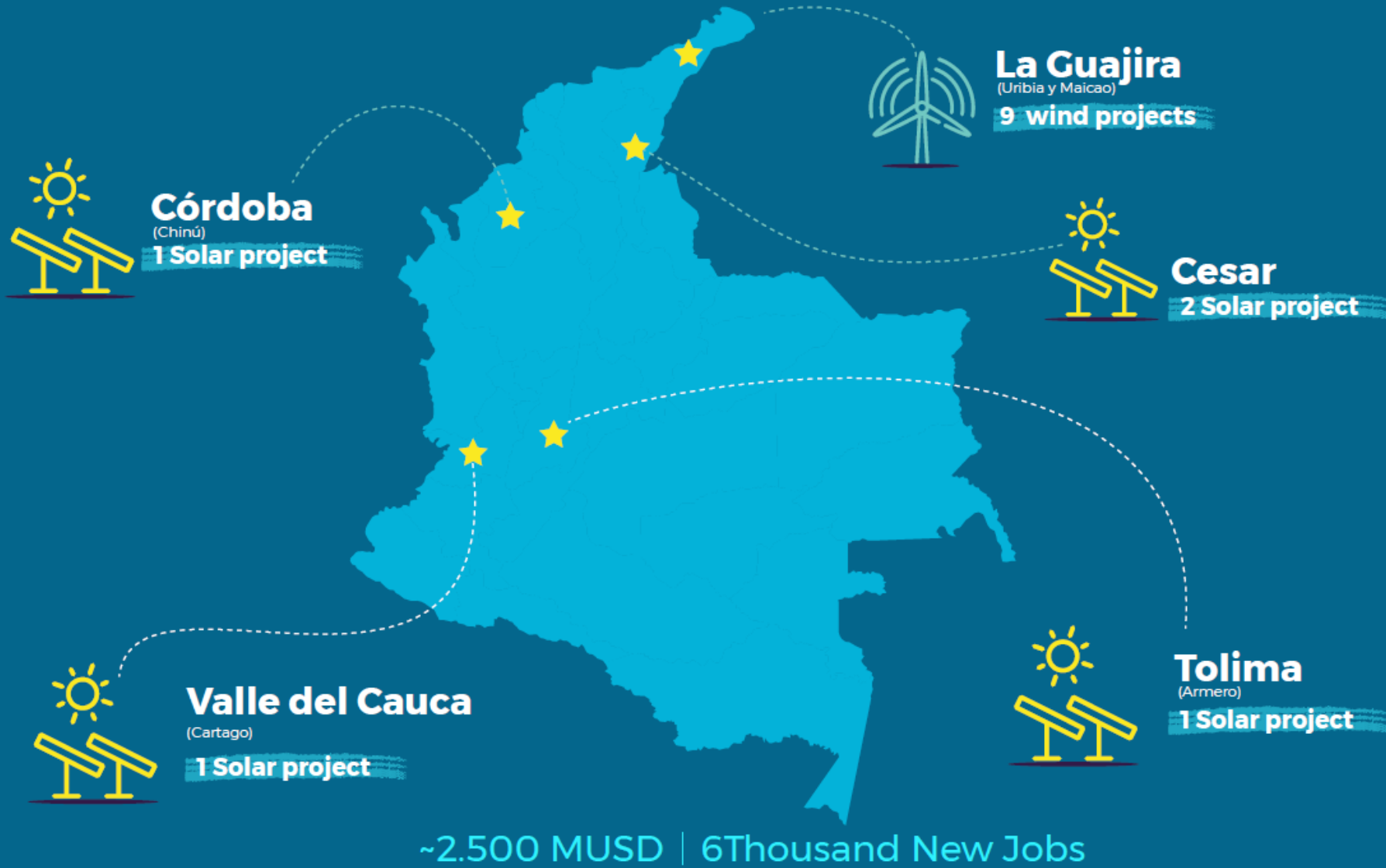
¡14 projects + Self generation initiatives!

- ▶ Reliability charge auction
- ▶ Long term energy contracts auction

We achieved **2.500 MW** 2022

12% Of our energy mix

9 million Tons of CO² reduced



What's
to come!

More than
8.190 MW

148 Non Conventional
Renewable energy
projects with approved
connection to the
energy grid

2.531 MW
18 Wind Projects

5.588 MW
123 Solar Projects

**6.050 MW more
than august 2018**

66 MW
6 Biomass Projects

Process to access benefits of law 1715 is reduced to 45 days

Decree 829 2020

- ▶ UPME is the only delegated entity to evaluate and certify the development of projects. ANLA's endorsement will no longer be necessary
- ▶ Regulates the income tax deduction for 15 years
- ▶ 100% Digital Procedures
- ▶ Incentives for Energy Efficiency projects

Grid connection access

In public consultation

- ▶ Projects with capacity > 1 MW
- ▶ Objective:
 - Meet generation expansion needs
 - Make adequate and efficient use of network availability
 - Unleash unused capacity
 - Efficient, effective and unified procedures
- ▶ CREG will define the requirements to access the transport capacity in terms of: access, energy losses, guarantees, behavioral rules and transition regime



Energy Transformation Mission

Through the Mission we will develop the roadmap for the energy of the future, with 5 strategic focuses:



1 Competition, participation and structure of the electricity market



2 The role of gas in energy transformation



3 Decentralization, digitalization and efficient management of demand



4 Electric power coverage and efficient targeting of subsidies



5 Review of the institutional and regulatory framework

Smart Metering

2030 Goal

75% Consumers

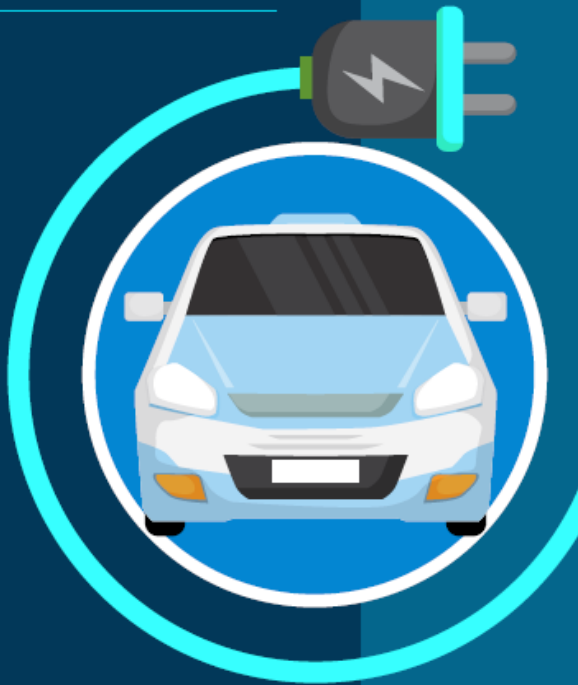
Energy Commission is currently defining


- ▶ Remuneration
- ▶ Roadmap for deployment
- ▶ Cybersecurity regulation
- ▶ Data Government


storage systems


- ▶ We are currently structuring the first storage system auction for the Caribbean cost.
- ▶ To mitigate restrictions in transmission networks
- ▶ In place I semester 2022


Our sustainable mobility strategy




 Vehicular tax can't surpass 1% of the vehicle's commercial value

 VAT: 5%
Tariff: 0
Consumption tax: 0%

 10% discount on insurance rates

 Discount on technical inspections

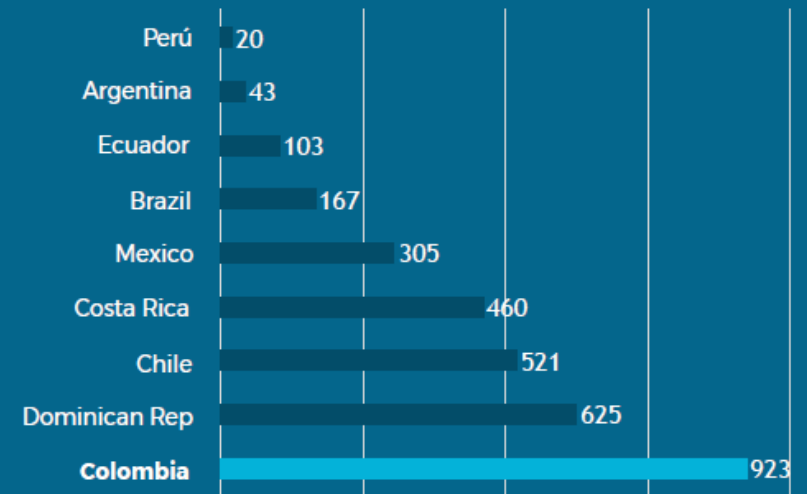
 Exempt from vehicular restrictions

Our 2030 Goal

600 Thousand

Electric vehicles

Annual BEV Sales



In 2019 Colombia was the regional leader in terms of electric vehicles sales

Our
sustainable
mobility
strategy

During this four-year
period we will give access
to electric power to

**100 thousand
Families**



97%

Rural and urban
coverage index

495 thousand

Families without
access to electricity

33 thousand

New families with
electricity in our first year

A photograph of an oil drilling rig at sunset. The sky is a mix of blue, orange, and yellow, with wispy clouds. The rig is silhouetted against the bright horizon. In the foreground, there are some dark structures and a road.

Oil and Gas

Oil and Gas

Our challenge

Colombia has oil - Gas reserves of

2.036
MMbbls of oil

which will last for
6,3 years and

3,1 TCF of gas
which will last for
8 years

We have established
four strategic axes



Exploration of
continental
basins



Enhance oil
recovery in
existing fields



Development of
offshore
potential



Possibility of
exploring and
producing
unconventionals



Permanent Process of Areas Allocation

- ▶ **In 2019 the ANH developed two cycles of the PPAA**
- ▶ **In these two processes, 26 new exploration blocks were awarded**
- ▶ **Around 940 MUSD will be invested in exploration in these new blocks**
- ▶ **We are working in new areas for 2020**

The seismic carried out has shown the high potential of offshore basin

- ▼ In February 2019 the model E&P offshore contract was issued.
- ▼ We are working on the conversion of the 4 remaining contracts.
- ▼ We hope that during the first semester of 2020 a new exploratory well will be drilled.
- ▼ To date, 5 conversions have been made from TEA to E&P contracts.
- ▼ In the 5 signed contracts the companies have committed to invest 1.8 billion USD.



Unconventional Deposits

Represent a huge opportunity for our energy security

Additional

Our reserves would increase between

GDP could grow

10%

Foreign Investment could grow

40%

Years/Oil

8-22

450
kbd

Years/Gas

35-50

68 Thousand
New Jobs



What's next: **Second Regasification Terminal in the pacific coast**

Pre Terms published for public consultation

Technical characteristics

- ▶ FSRU
- ▶ Regasification Capacity: 400 MPCD
- ▶ Storage Capacity: 170.000 LNG cubic feet

▼
**The Government is adopting the
necessary measures
to guarantee the supply of natural gas**



mining

mining

Mining sector engaged at the local level, competitive and with high standards



Stronger institutional framework



Diversification of the mineral production matrix



Legal and formal activity

National Development Plan 2018-2022



Equity =
Entrepreneurship
Legality

Pact: mining and energy resources for sustainable growth and expansion of opportunities

Important steps for strengthening the institutional framework

- ▶ **Better and more transparent cadastre - ANNA.**

- ▶ **Standards**

- ▶ Gender policy, climate change and HHRR plans for the sector.
- ▶ Colombian Reserves Reporting Standard.

- ▶ **Legal provisions for expediting procedures (extensions, transfers).**



In Jan/20, President Iván Duque and the private sector signed a pact for growth and employability in the sector.

2020, a strategic year for modern Colombian mining

Strategic projects for diversification

High standards and investment

- ▶ **First modern Colombian gold mine in production**
- ▶ **3 projects for gold and copper in the pipeline**

With the strategic projects in the pipeline:

- ▶ More than **12,000 new jobs**.
- ▶ Additional **USD 4.5 billion** in FDI.
- ▶ Additional **USD 500 million** in exports for year.

Buriticá

(Gold - Production in 2020, 257,000 oz/year)

Quebradona

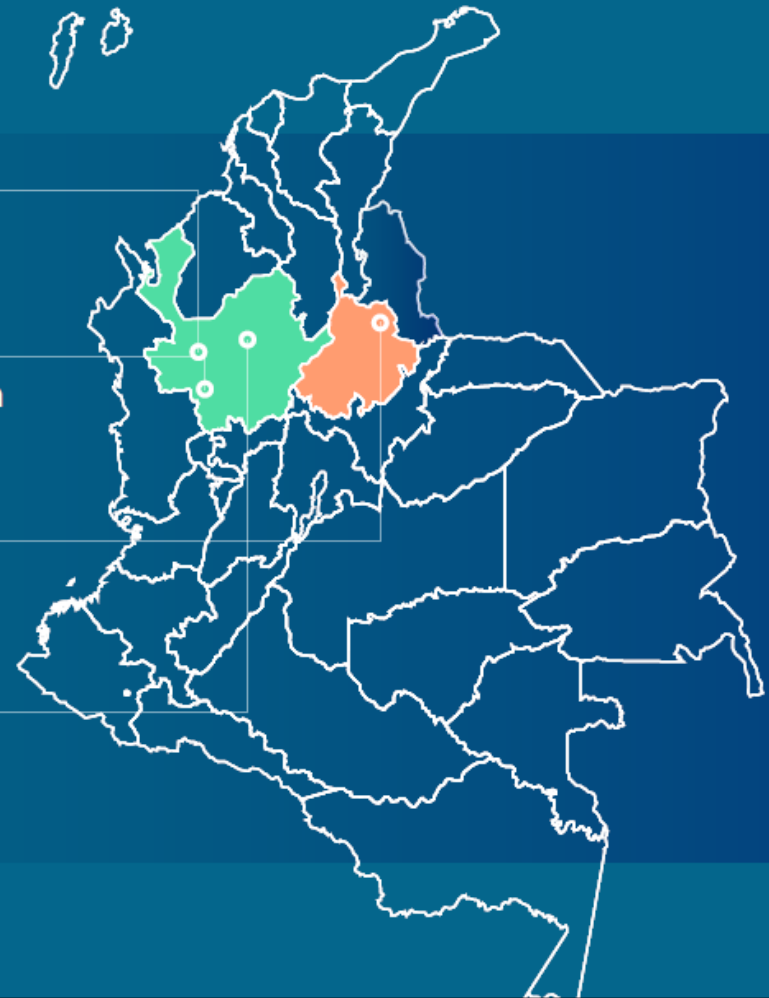
(Copper - Production in 2024, 63,000 ton/year)

Soto Norte

(Gold - Production 2024, 450,000 oz/year)

Gramalote

(Gold - Production in 2025, 289,000 oz/year)



The background image shows three miners in a dark tunnel, illuminated by blue light. They are wearing hard hats with headlamps. The tunnel has a rough, rocky interior with some wooden supports. The overall mood is industrial and focused.

Promotion of legality and mining with business vision

- ▶ **10.000** artisanal miners in transit to become small miners (out of 27.000 in 2022)
- ▶ **Higher** requirements for gold panners registration
- ▶ New model for technical assistance
- ▶ Illegal mining bill

+ Legal **+ Entrepreneur** **+ Responsible** **+ Engaged** **+ Trustworthy**



Diego Mesa Puyo

Minister of Energy Colombia

Sustainable development of the mining-energy sector with social and environmental responsibility and governance to transform Colombia