Colombia • Renewable energy

Gross electricity generation from renewable sources by 2021, TWh (%)

- Bioenergy 1.84 (2.9)
- Hydropower 60.72 (96.2)
- Solar PV energy 0.53 (0.8)
- Wind energy 0.06 (0.1)

Total: 63.15 (100)

Source: Renewable Energy Statistics 2023 © IRENA

Wind power plants over 1 MW, MW:

1 Jepirachi EPM, 20.0

Landfill gas-to-energy plants:

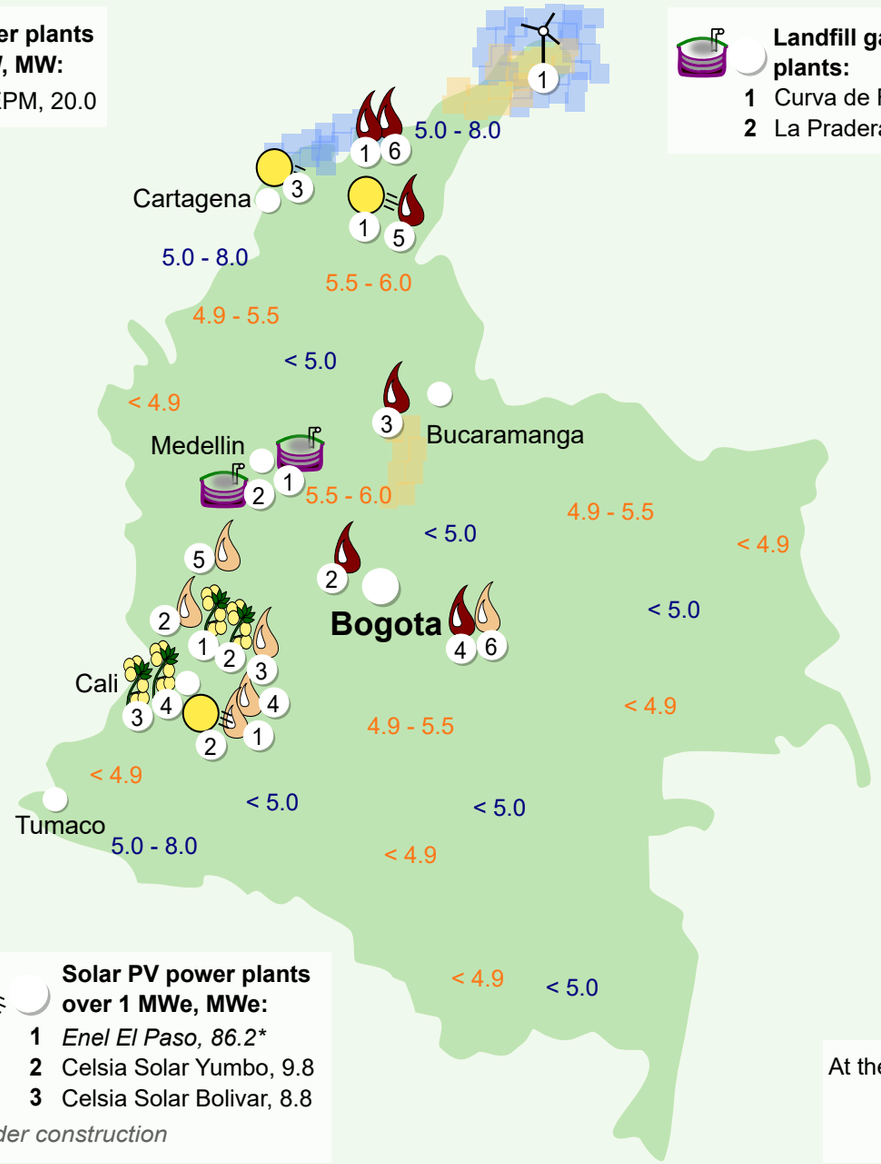
1 Curva de Rodas, EVM
2 La Pradera, EVM

Total installed renewable energy power capacity by 2022, GW (%)

- Bioenergy 0.40 (2.9)
- Hydropower 12.56 (93.4)
- Solar PV energy 0.49 (3.6)
- Wind energy 0.02 (0.1)

Total: 13.47 (100)

Source: Renewable Energy Statistics 2023 © IRENA



Major biodiesel plants:

1 Santa Marta, BioC del C
2 Facatativa, Bio D
3 Barrancabermeja, Ecodiesel de Colombia
4 San Carlos de Guaroa, Manuelita SA
5 Codazzi, Oleoflores SA
6 Santa Marta, Odin Energy

Major bioethanol plants:

1 Caloto, Incauca SA
2 El Cerrito, Ingenio Providencia SA
3 Palmira, Manuelita SA
4 Candelaria, Mayagüez
5 La Virginia, Ingenio Risaralda SA
6 Puerto Lopez, Grupo GPC

Key biomass power plants:

1 Guacari Sugar Mill, Ingenio Pichichi SA
2 Palmira Sugar Mill, Manuelita SA
3 Cali Sugar Mill, Providencia SA
4 Cali Sugar Mill, Incauca SA

Solar PV power plants over 1 MWe, MWe:

1 *Enel El Paso, 86.2**
2 Celsia Solar Yumbo, 9.8
3 Celsia Solar Bolivar, 8.8

** under construction*

0.0 kWh/m²/d	Global Horizontal Irradiation GHI)
0.0 m/s	Wind speed

High activity areas:

The most common solar GHI intensity is over 6.0 kWh/m² per day distributed in northern part of country, in the Department of La Guajira, and in the Department of Santander.

The most common wind speed is over 8.0 m/s per year at 50 m are distributed along the country northern coastline with the Caribbean Sea.

Source: Energydata.info

At the end of 2015, Colombian bioethanol and biodiesel production was about 456 mln litres of ethanol and 583 mln litres of biodiesel.

Source: USDA Global Agriculture Information Network (Aug 2016)

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