

VENEZUELAN ENERGY SITUATION

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2017 – Centennial Year of Venezuelan Academy of Physical, Mathematical and Natural Sciences
PROGRESS HAS ITS SCIENCE

Estimated possible energy (2015)

	Millions TPE	%
Oil ¹	41.065	87.6
Gas ¹	4440	9.5
Coal ¹	360	0.7
Renewable ²	450	1.0
Nuclear ³	560	1.2
Total	46.875	100.0

TPE = 7.33 Equivalent Oil Barrels

	Millions of TPE	%
Mini Hydraulics	7	1.6
Bio Energy	17	3.8
Solar	228	50.6
Wind	70	15.6
Geothermal	8	1.8
Maremotriz	26	5.8
Hydraulics	94	20.8
Total	450	100.0

Estimated Energy consumption 2015 = 115 IPN + 220 MI = 335 kTPED



Only the renewable can cover the consumption

Source:

(1) BP Report (2014)

(2) "Energías Renovables: potencial energético de recursos aprovechables". División de Alternativas Energéticas, MEM (2001) MARTÍNEZ, A.

(3) Venezuela en el Juego Nuclear

(<http://plumacandente.blogspot.com/2009/10/venezuela-en-el-juego-nuclear.html>)

Infograph: N. Hernández

Total Natural Gas Reserves

Reserves Type	tcf
Proven Developed	39.4
Proven no-developed	162.0
Total Proven Reserves	201.4
Probable	30.5
Possible	29.6
Total Reserves	261.5
Offshore expectatives	147.0
On earth expectatives	53.0
Total Expectatives	200.0
Total Natural Gas Reserves 461.5	

- The country has the necessary reserves of natural gas to supply the thermoelectric plants at present and in the future, but one thing will be to produce the natural gas and another to make it available for consumption by the thermoelectric plants.

CURRENT HYDROELECTRIC GENERATION

- Venezuela has a great hydroelectric power, even underutilized (Only 31)

- Hydropower is an element of sustainable development. It allows:

- reduction of CO₂ emissions.
- **integration of renewable energies.**
- saving of fuels of fossil origin and their availability for export.
- non-consumptive use of water

- **The installed** The installed capacity amounts to about 24,000 MW (2014

<http://www.corpoelec.gob.ve/generaci%C3%B3n>

- Hydroelectricity accounts for 49% of installed capacity

- Hydroelectricity accounts for 65.3% of electricity generation (2014)

<http://www.corpoelec.gob.ve/generaci%C3%B3n>

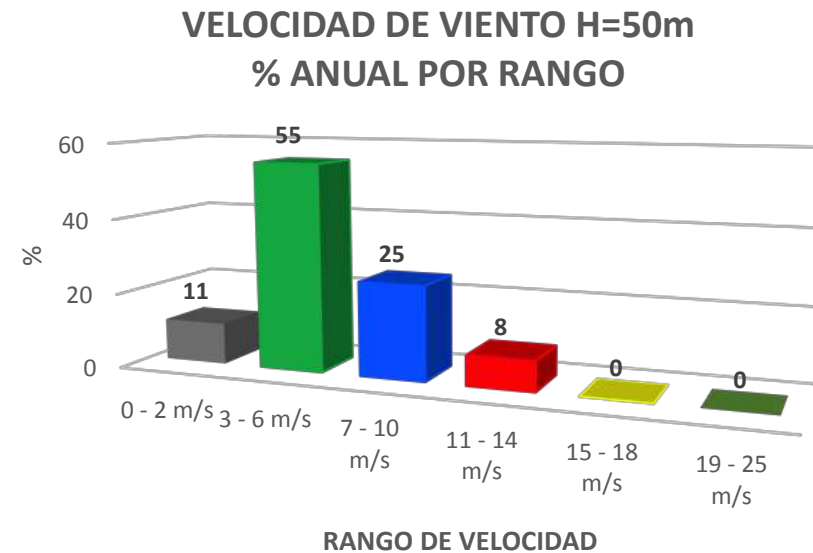
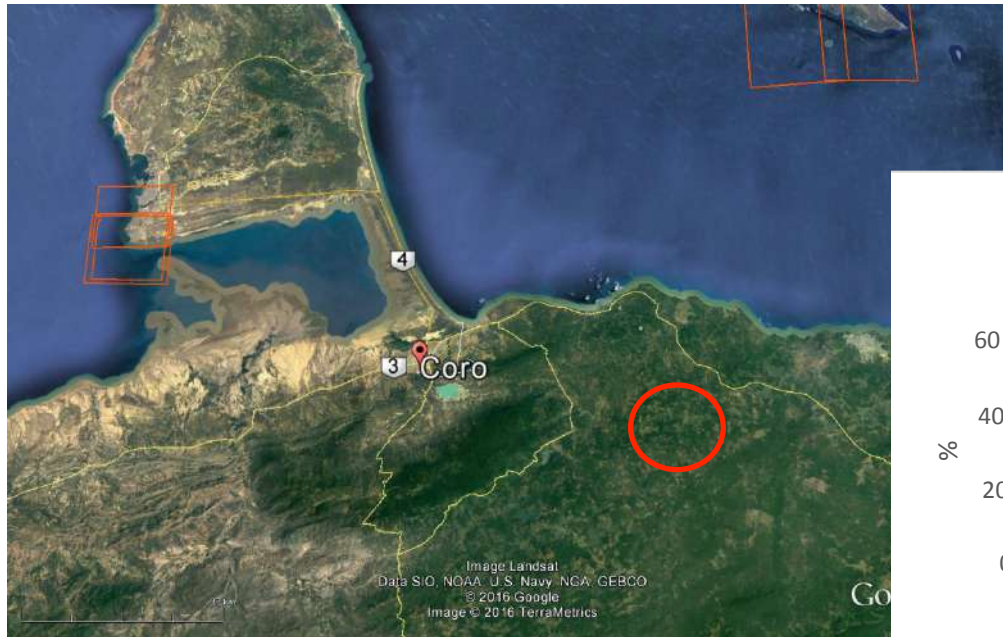
- Hydroelectric power generated = **82,3TWh (2014)**

(144700 BEP / day) (1BEP = 1586.3 KWh)

BP Statistical Review of World Energy June 2015

- **CO₂ emissions Savings = 94.6x 10⁶ Ton**

El Isiro Wind Power Plant



General Remarks

- Venezuela before an oil country is an energy country
- The country, has sufficient energy resources with the aggravating factor that 97.8% are fossil fuels, the most questioned in global energy future schemes. However, the potential of environmentally friendly energy resources can easily cover energy needs beyond the second half of this century.
- The country's energy strategy is complex because it must assume responsibility for the safe, reliable and environmentally satisfactory supply of all its citizens and the production of HC to be placed on the international market in order to obtain the economic resources required for its development.
- In the prospect shown on energy consumption in Venezuela in 2040, 43% is aimed at generating electricity, which is in line with the world trend of an electrified world. 70% of the generation comes from clean energies
- On wind and solar power, Venezuela lags behind not only with respect to developed countries, but among Latin American countries. Even though the Venezuelan State has intended the development of alternative energies, this has not been sustained over time.
- Venezuela, requires comprehensive energy planning that originates public policies that guarantee sustainable energy security.