

Renewable energy situation in Argentina (2018)



History

- Despite its favourable weather conditions, Argentina has a low development on renewable energy, particularly on wind & solar energy.
- Economical crisis and foreign policies delayed investments and long-term projects.

Inflection point

- In 2015, with a new political model and re-entry to international markets new possibilities appeared.
- Renewables energies became a main objective in the political agenda.
- New objectives about renewable energy generation were established for the next 9 years.

Renewable energy generation goals

8% - 2017/2018

16% - 2021

20% - 2025

Law 27.191

Law 27424 (Distributed Generation Law)

Renewable energy tender programs (Renovar)



Public-Private-Participation tenders (PPP)

Social conscience

Change of consumption habits

Renovar 1 Program (2016)

Tender program for development of projects to generate electrical energy through renewable sources.



Technology	Quantity of projects	Awarded Power (MW)	Average Price (USD/MWh)
 Wind	12	707,5	59,39
 Solar	4	400	59,75

Other Renewable Energy sources: 35MW

Renovar 1,5 Program (2016)

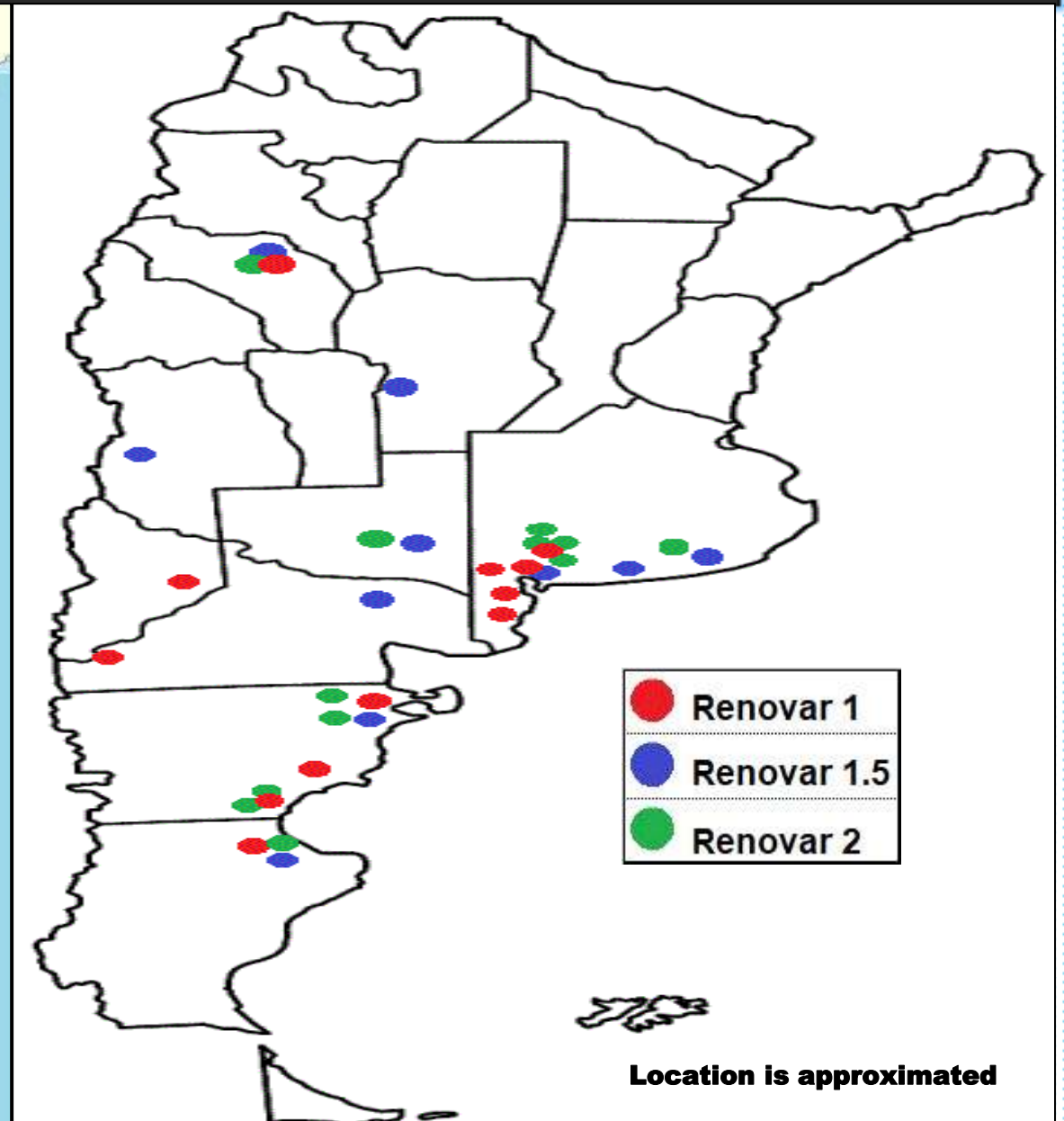
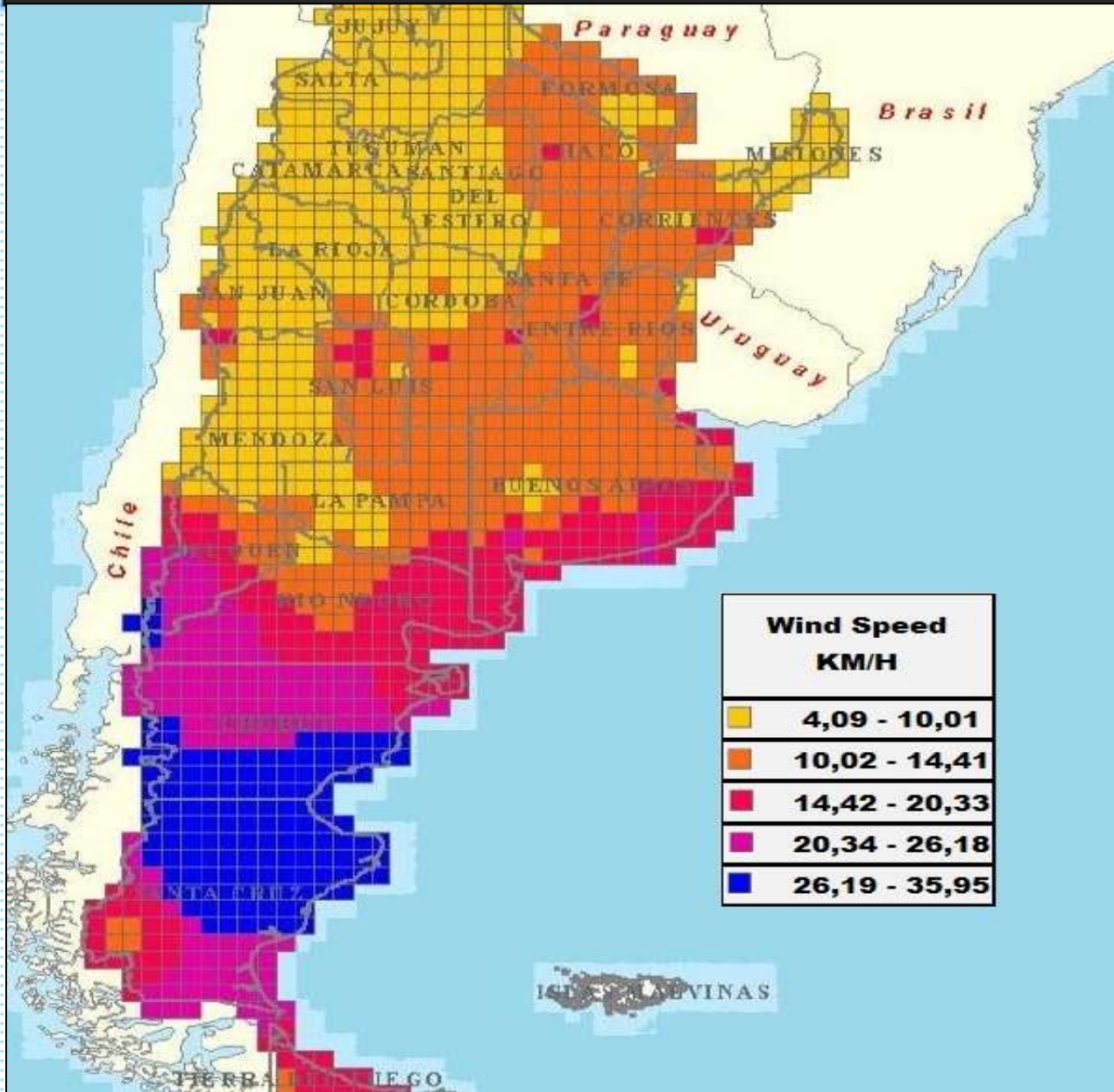
Technology	Quantity of projects	Awarded Power (MW)	Average Price (USD/MWh)
 Wind	10	765,4	53,34
 Solar	20	516,2	54,94

Renovar 2 Program (2017)

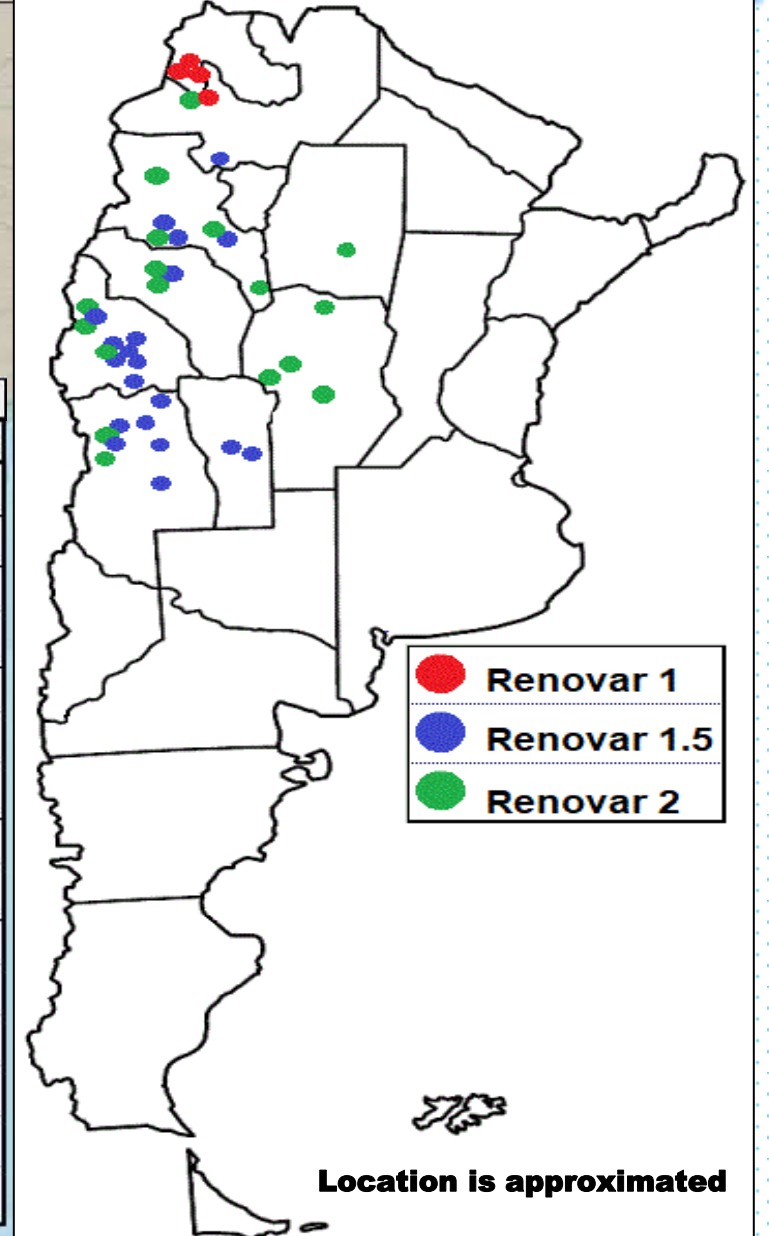
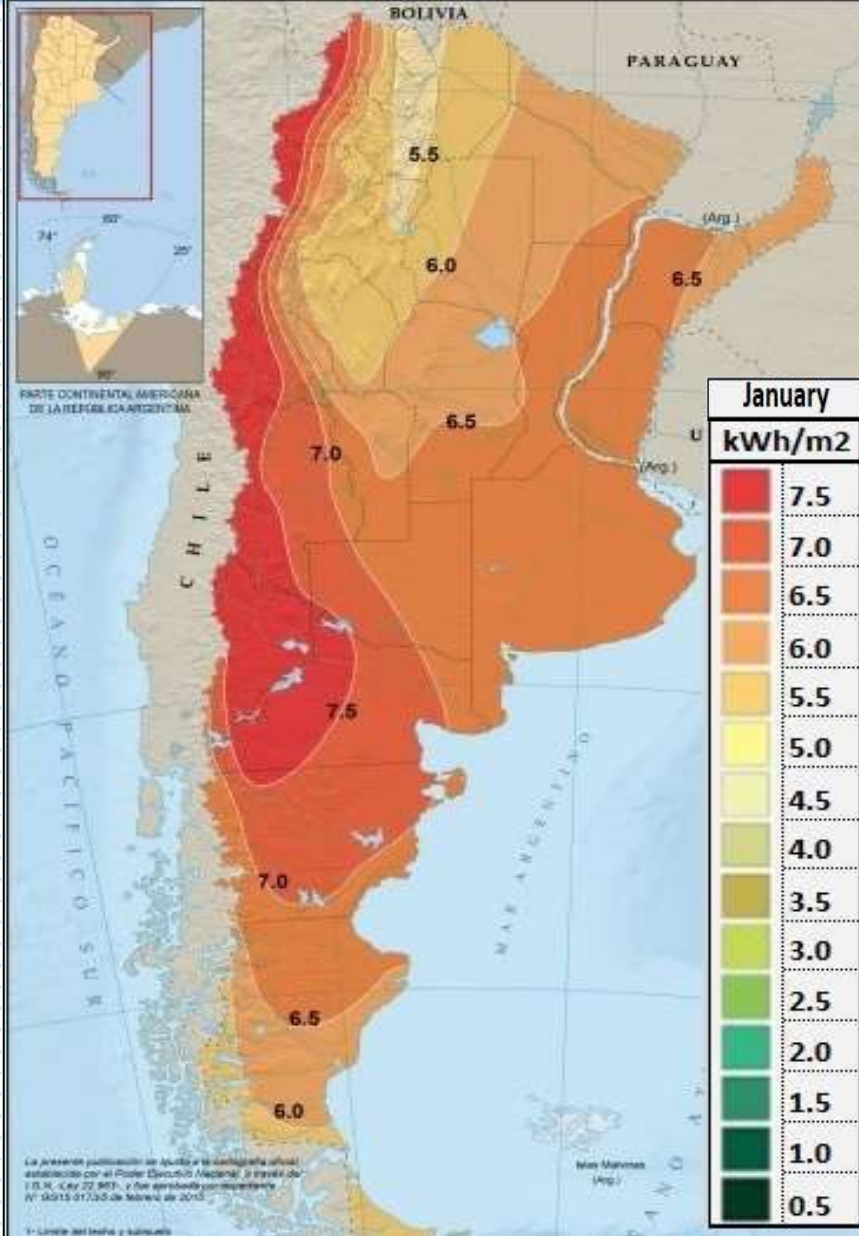
Technology	Quantity of projects	Awarded Power (MW)	Average Price (USD/MWh)
 Wind	12	993,4	40,91
 Solar	17	816,3	42,84

Other Renewable Energy sources: 233,30MW

Wind Energy projects



Solar Energy projects





Wind Farm Mario Cebreiro (Corti) - Buenos Aires

- In operation since 05/2018
- 29 Wind Turbines Vestas Model V126/3450 (3450kW - 126 Mts. diameter)
- Total power: 100 MW
- Developer: Pampa Energía



Solar farm Caldenes del Oeste - San Luis

- In operation since 08/2018
- 92.400 Solar panels model BYD325 WP - 10 Inverters Sungrow SG2500HV
- Total power: 24.75 MW
- Developer: Total Eren

PPP Tenders

Joint projects executed in collaboration between Public & Private sector.

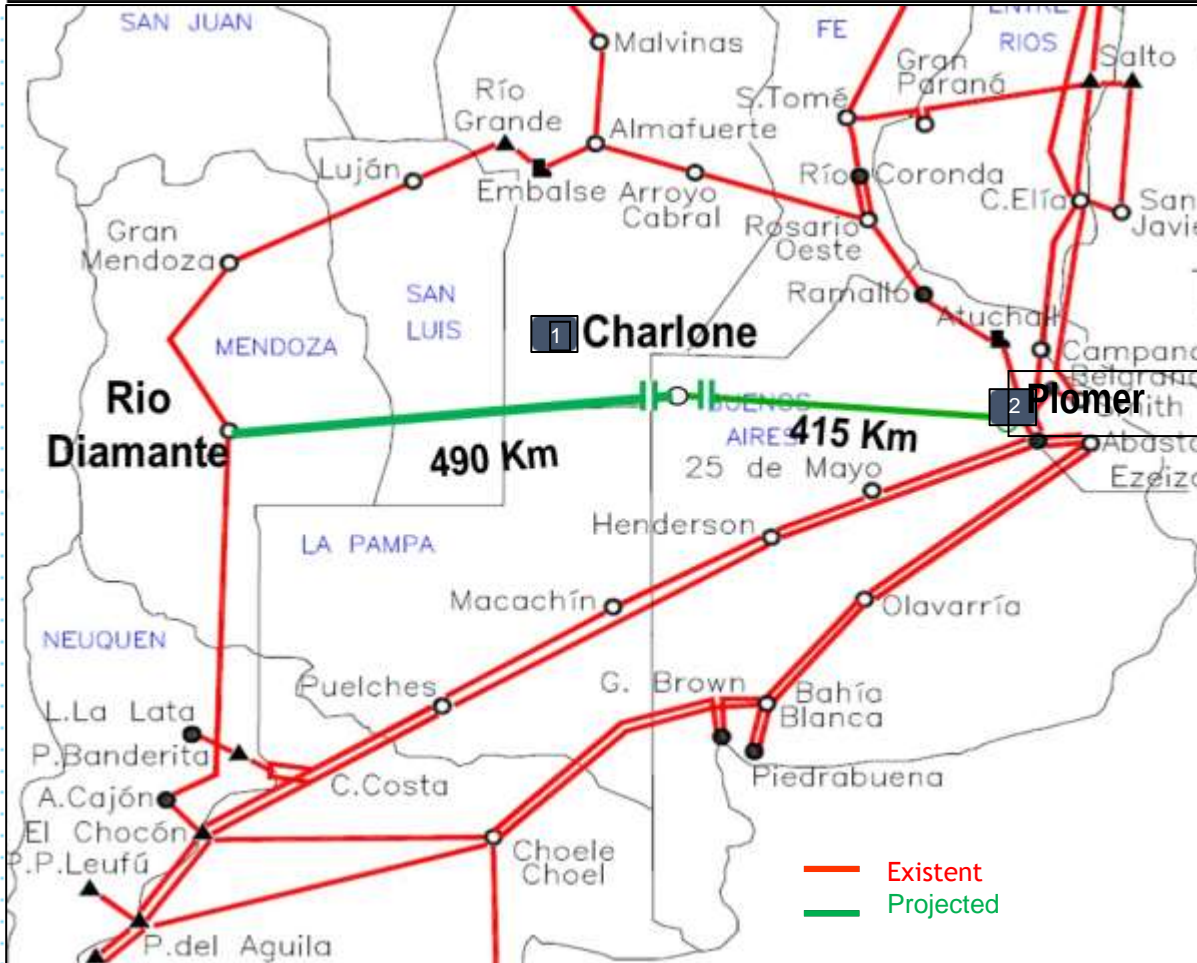
It includes the construction of High-Tension lines to transport the new electric energy generated by renewable energy sources

2.175 km of High-tension lines (500kV) projected for the first round of tenders (2018)

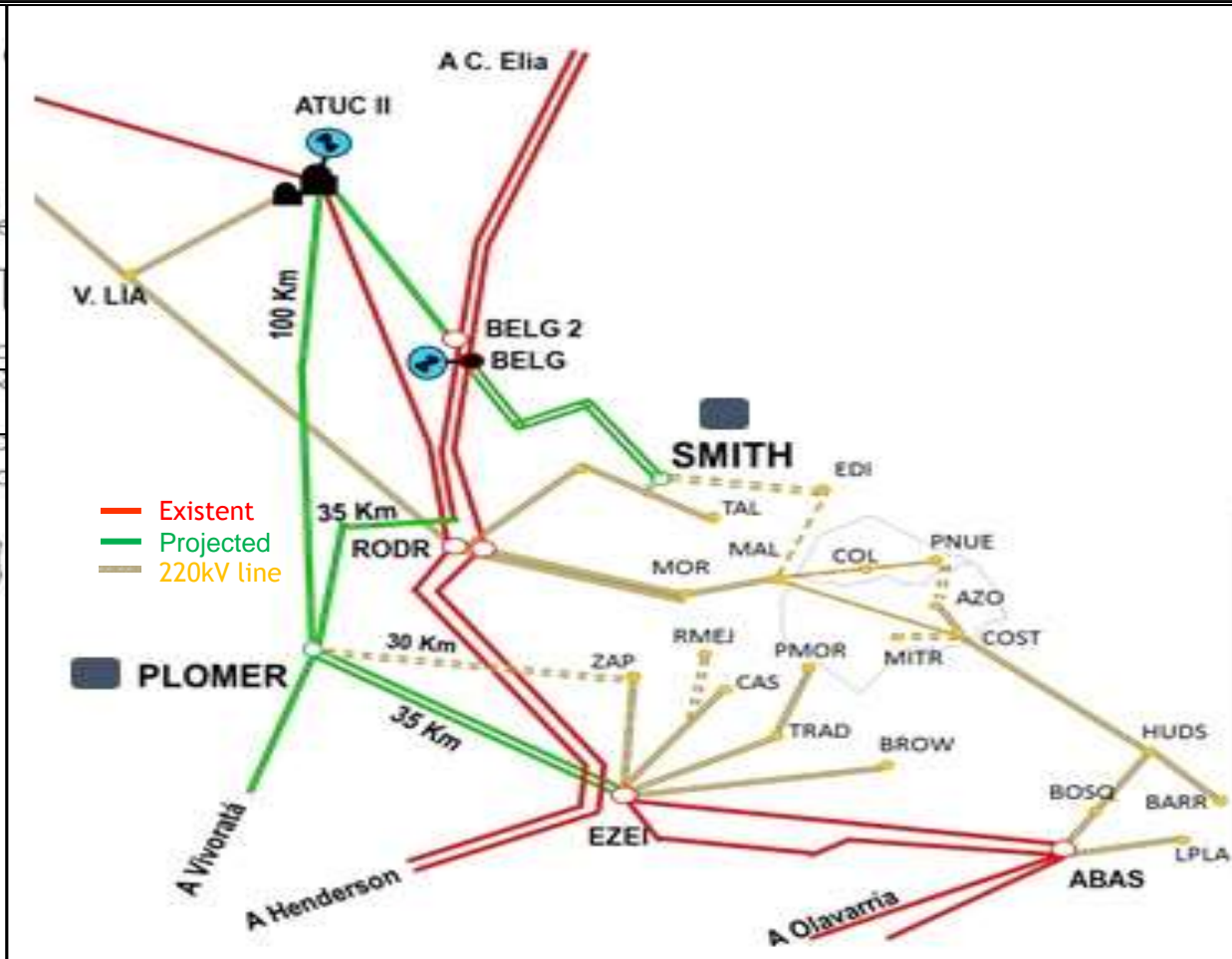
PPP Tenders opening in late 2018

DESCRIPTION	KM
LINE ATUCHA-BELGRANO 2 + E.T. BELGRANO 2	35
LINE BELGRANO 2 - SMITH + E.T. SMITH	100
LINE ATUCHA 2 - PLOMER + E.T. PLOMER + DOUBLE LINE 35 KM	130
ADEQUACY E.T. EZEIZA-BELGRANO-RODRIGUEZ	-
LINE RIO DIAMANTE-CHARLONE + E.T. CHARLONE	490
LINE CHARLONE-PLOMER	415
LINE RODEO-LARIOJAS SUR + E.T. RODEO + E.T. LARIOJAS SUR	300
LINE PTO MADRYN-CHOELE + VIVORATÁ-PLOMER	705
Total	2.175 KM

Examples of projected high-tension lines (Operational in 2021)



Line Rio Diamante - Charlone / Charlone - Plomer (Central region of Argentina)



Line Atucha - Belgrano II / Belgrano II - Smith / Plomer - Atucha II / 3 Transformer stations (Buenos Aires)

Law 27424 - Distributed Generation

It allows individuals to generate their own energy and sell the excess to the electric market

Jan 2018:

Iniciates Trial period for the first residencial house with self-generated energy (6kW) through 24 solar panels (San Fernando – Buenos Aires)



Big Users

Law 27191 establish that users considered as "Big users" are obliged to consume at least 8% of their energy from renewable sources



Loma Negra (Cement company) & Coca-Cola signed contracts (2018) for provision of renewable energy for an 8% and 40% respectively of their total consumption.

Waste of energy

According to statistics, a typical Argentinian house consumes way more energy than a similar house in Chile and Uruguay, with similar weather conditions

Electrical consume 2017
(Kwh/Month) – Average House



Waste examples



Sleeping under covers with the AC turned on is the favourite way to waste energy. Also, it happens the same situation with the AC in heater function during the winter.

It also applies for workplaces where the AC is turned on in unnecessarily low/high temperatures.



Leaving the lights on in unoccupied rooms.

In addition, natural light is not properly used and LED and high efficiency lamps are not present in most of the houses



Phone chargers and other electrical devices that are plugged in or in stand-by mode are part of the regular day.

Home appliances with low efficiency performance are also very common.

Sources

- Ministerio de energía y minería (Argentina) - www.minem.gob.ar
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Author: Matias Sanabria

Supported by:



Contact Folkecenter:

Kammersgaardsvej 16, Sdr. Ydby -
DK-7760 Hurup Thy

Mail: info@folkecenter.dk

Telephone: +45-9795-6600