

# OSSE Mar del Plata Wind Park I & II

Manager: Ing. Luis A. Mérida

# Project Information

**a) Energy problems in Mar del Plata:**

Medium voltage lines are insufficient and without redundancy. The thermal power station is obsolete and partially available the time. Fragility electric.

**b) Type of technology considered:**

Wind generators IWP-100 direct-drive permanent magnet.

**c) Project size:**

10 (I) or/and (II) 50 MW.

**d) Need for the project and environmental benefits:**

Increase electrical reliability for water supply, and public use especially in gale force winds. It's planned to reduce GHG emissions and PM

**e) Project Costs:**

(I) \$27.347.085 , (II) \$130.580.000.

**f) Stakeholder involved:**

OSSE e IMPSA.

**g) Mode of Investment**

type EPC



90% electrical outage (24/12/2012)



thermoelectric plant built in 1950

# Financial Information –Project Details

- **Capital structure**

- Equity 30%
- Debt: 70%

- **Operative condition**

- Plant performance: 46,8% (I), 41%(II)
- Electrical tariff: 120 \$/Mw

- **Type of financing**

- Payback Period : 8 years
- Interest=12%

- **Schematic of the sale of electricity:**

At the national electricity market and / or self-consumer,  
this depending on energy costs



# Benefits for the Municipality

- Environmental Benefits

It's going to avoid PM and GHG emissions up to

(I) 26.636 ton Co<sub>2</sub>/year

(II) 114.334 ton Co<sub>2</sub>/year

It's going to avoid raw sewage dump in the ocean when the net electricity is out of function (flow rate between 4.5 and 8.3 m<sup>3</sup> / s).

- Social Benefits

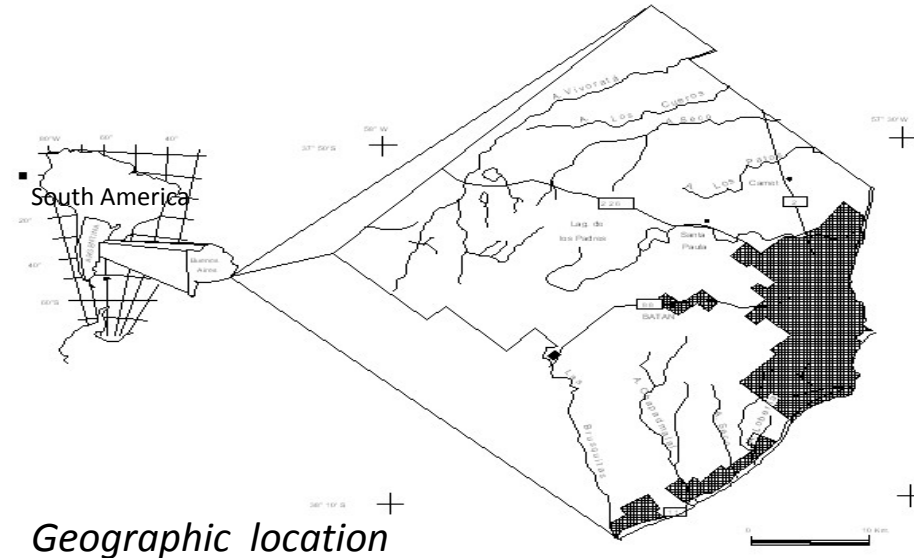
More sustainable city, increased industrial activity, availability of energy for municipal use and for the city itself, cleaner beaches, more tourism.

(Current population: In winter:0,7M, in summer: 2M)

- Financial Benefits/year

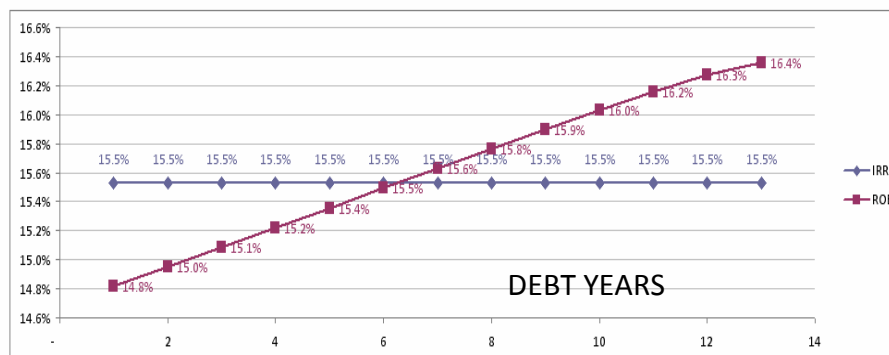
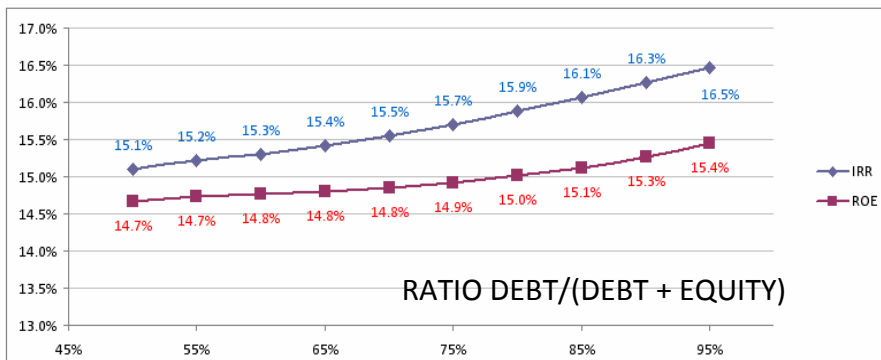
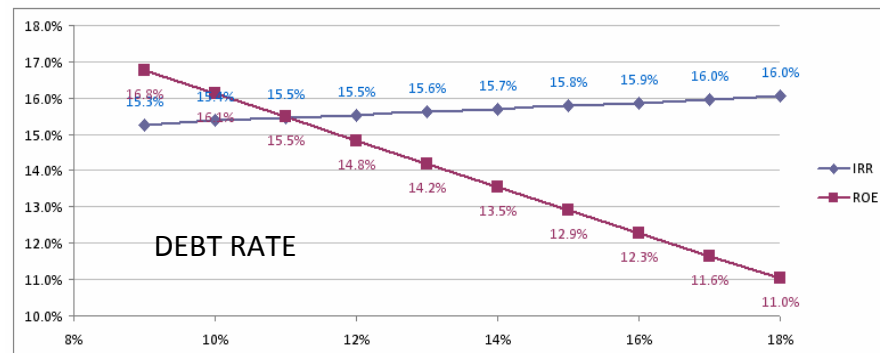
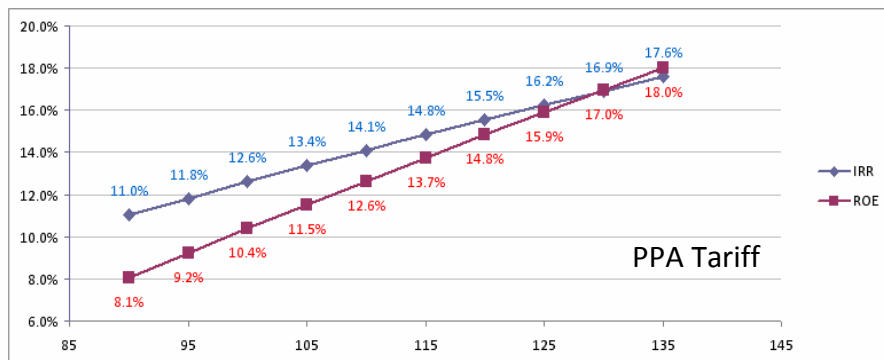
(I) \$4.920.000

(II) \$21.162.608



Sight of Mar del Plata.

# Financial Information – sensibility



Sales: (I) \$4.869.796, (II) \$21.118.608  
EBITDA: (I) \$4.436.200, (II) \$22.179.200

Operational Costs: \$29.500/month  
IRR: (I) 15.73%, (II) 15.38%  
ROE: (I) 14.82%, (II) 14.59%

# Regulatory Framework

- **Renewable energy legislation**

National Law 26.190/07

Provincial Law 12.603 /00

Bylaw 13965/01

Bylaw 18744/08

National Energy Secretariat Resolution (SEN) 304/99,712/09,10811/11

- **PPP Law**

National decrees 966/05 Y 967/05.

Provincial Law 13810

Bylaw 19203/09

- **Self-generation, cogeneration:**

Resolution SEN 269/08

# Tentative Schedule Execution

✓ **Construction and grace period**

2 years

✓ **Possible sources of funding:**

National State provincial and municipal:10%

IMPSA: 5-7 %

Private investors: 13%

✓ **Capital Contribution Subsidy:**

Refund of VAT to 15 years.

✓ **Bidding procedure:**

OSSE (municipality) will call international tender for the installation of wind farms.

1 quarter	<b>25,0%</b>
2 quarter	<b>5,0%</b>
3 quarter	<b>5,0%</b>
4 quarter	<b>5,0%</b>
5 quarter	<b>5,0%</b>
6 quarter	<b>25,0%</b>
7 quarter	<b>25,0%</b>
8 quarter	<b>5,0%</b>

# Additional Information

- **Track record of project promoter:**

- 1) IADB-Emerging and Sustainable Cities Initiative

- 2) IMPSA

105 years of global leadership in renewable energy.

45,000 MW installed in 30 countries on 5 continents

The largest manufacturer South American of Wind Turbine

The biggest investor in wind power generation in South America.

- **Project owner** : Joint venture OSSE-IMPSA

Prospecting of wind and feasibility study was conducted under standard IEC 61400 by two years.

- **Competitive advantage:**

it is possible to produce energy when there is an excess of wind resources and your accumulate in hydro (dams, aqueducts, aquifers) and regulating of 300 points own electricity demand. Furthermore, the development of this park project is expected to build biofuels and hydrogen plants. The park land (I) is owned by the company and medium voltage lines have been installed in 95%.







Thanks to GEB and you for your attention and interest

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