



Session II: Enabling waste-to-energy solutions to achieve circular Economy and boost climate action

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United Nations
Framework Convention on
Climate Change



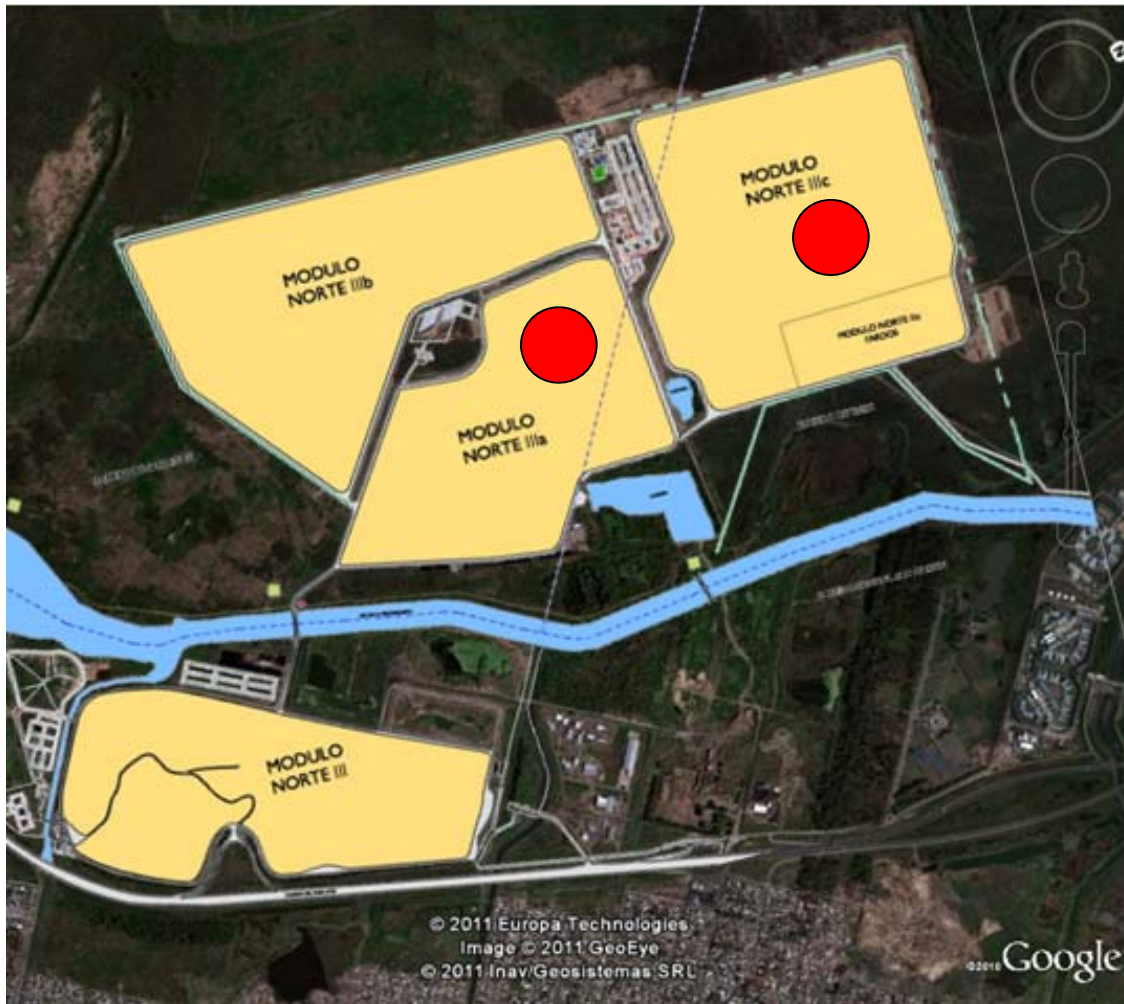
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CLIMATE TECHNOLOGY CENTRE & NETWORK

CASE STUDY: LANDFILL BIOGAS

LOCATION OF ENVIRONMENTAL COMPLEX NORTE III



Norte III Environmental Complex is located in the Municipalities of San Martín, San Miguel and Tigre (Campo de Mayo), Province of Buenos Aires, Argentina

Relevant Data - Central San Miguel

- **Operation since:** May 2012
- **Main Suppliers:**
 - Caterpillar (Finning): Powerhouse (motogenerators)
 - John Zink: Suction, impulse and controlled burning of biogas system
 - Edenor: Electric transmission system.
- **Investment:** U\$ 30.300.000
- **CDM Project Period :** 10 years
- **Amount of CER's:** 6.043.349
- **Number of vertical extraction wells:** 273
- **Electric generation period:** 14 years
- **Electricity route:** 7.2 km.
- **Type:** Underground
- **Tension:** 13.2 kV (medium voltage)
- **Rate (fixed price in dollars):** 124 U \$ D / MWh
- **Energy that will supply:** 15.000 inhabitants
- **TOTAL GENERATED ENERGY ACCUMULATED UP TO PRESENT:**
361.479.583 KWh

Relevant Data - Central San Martin

- **Operation since:** October 2012
- **Main Suppliers:**
 - Biotecnogas Srl ItaliaJ: Suction, impulse and controlled burning of biogas system
 - Industrias Juan F Secco SA: Generation System
 - Edenor: Electric transmission system.
- **Investment:** U\$ 6.000.000
- **CDM Project Period :** 10 years
- **Amount of CER's:** 2.082.712 year
- **Number of vertical extraction wells:** 250
- **Electric generation period:** 8 years
- **Electricity route:** 7.2 km.
- **Type:** Underground
- **Tension:** 13.2 kV (medium voltage)
- **Rate (fixed price in dollars):** 120 U \$ D / MWh
- **Energy that will supply:** 10.000 inhabitants
- **TOTAL GENERATED ENERGY ACCUMULATED UP TO PRESENT:**
148.506.910 KWh

ENARSA - GENREM Program

Argentinian National Secretary of Energy

Program "Award of Contracts of Renewable Sources of Energy Supply"

The projects were implemented through public bidding for the generation of up to 20 MW of electricity from biogas, which was carried out by ENARSA during 2010. This tender sought to encourage the development of electricity generation from renewable sources, to strengthen the sustainable development of renewable energies throughout the country.

The implementation of these projects contributes to the objective of the Law N ° 26.190 (2006) of National Development and its dto. Reg. N ° 562/09, for the use of renewable energy sources. This norm established that in the term of 10 years, that is to say **by the year 2016, 8% of the electricity consumption had to be supplied from renewable energy sources.**

Today the law 27.191 and its Dto. Reg. 531 establishes that the country should consume 20% of renewable energy by 2025 and 8% by 2017.

In exchange for the investment made by the winning companies, ENARSA committed the purchase of energy during the following **8 and 14 years to the dollar price.**

Benefits

- Energy generation
- Reducing methane emissions from sanitary landfill
- Elimination of gas emissions and odors, benefiting the surrounding area. Not only does it mitigate the health problems that these gases can cause to the local population, but it also has a positive impact on the potential development of the area.
- The safe extraction of biogas also significantly reduces the risk of fire and explosion in the landfill
- The project has a positive impact on the local economy, employing local labor and using local materials whenever possible.

Drivers

- Transition to a Circular Economy
- Renewable Energy Policies
- Bans to Sanitary Landfills. Landfill Tax
- Extended Producer Responsibility
- Public – Private - Partnerships
- Job creation

Thank you

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