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**GMI - Landfill Subcommittee
Venice – Nov. 2010**



BIO-CANCÚN PROJECT

**Municipal Waste-to-Energy
Plant**

Cancun, Quintana Roo, México

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SEMARNAT



SECRETARÍA DE
MEDIO AMBIENTE Y
RECURSOS NATURALES

BACKGROUND



- In Oct. 2009, Canada and Mexico decided to work together to implement a waste-to-energy project to divert organic matter from landfill sites.
- In Feb. 2010, SEMARNAT and EC held an introductory workshop in Cancun to present the project to local authorities: the State of Quintana Roo and the City of Benito Juarez

PROJECT DETAILS



- Location:
 - Cancun - Quintana Roo - Mexico
 - Population: 0.7M
 - Weather > 25 °C
- Source: Resorts
- Waste Quantity: 200TPD
- Waste composition: 88% OM
- Technology: Anaerobic Digestion
- Project Life: 20 years

ANAEROBIC DIGESTION (AD)

- Anaerobic digestion (AD) is a decades-old process used all over the world to handle organic waste.
- Primary applications have been in:
 - Sewage and wastewater treatment plants
 - Treatment of animal manures and:
 - at a smaller scale, household and community digesters to provide biogas for cooking and lighting.
- The use of Organic Fraction of Municipal Solid Waste (OFMSW) for biogas is very recent. Only 2 plants in North America (in Canada)



OBJECTIVES

- Build a bio-digester for treatment and use of OFMSW
- Implement a continuous process to treat OFMSW and divert it from landfill
- Generate power from biogas and fertilizers as a by-product.
- Serve as a test for similar Waste-to-energy systems to be implemented throughout Mexico (Acapulco, Puerto Vallarta..)
- Support technology transfer and deployment of clean technologies

STAKEHOLDERS

- **Semarnat/Environment Canada:** Project Coordinator
- **Local authorities:** Facilitator of the project
- **Canadian industry:** Project Manager
- **Mexican Industry:** Operator and Plant Owner
- **Mexican Tourism Industry:** Supplier



WORKPLAN

- **Technical**
 - Feasibility studies.
 - Conceptual, basic and detail engineering.
 - Economic and financial analysis.
 - Procurement and construction.
 - Testing, startup and stabilization.
 - Training

- **Administrative**
 - National and legal instruments, local procedures (concession)
 - Environmental impact study and general procedures
 - CDM .



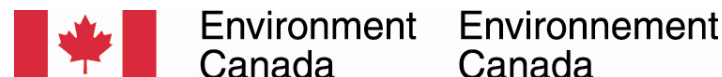
TIMELINE

- Contribution Agreements July 2010
- Feasibility Studies Oct. 2010
- Detail engineering and project Design Jan. 2011
- Construction project June 2011
- Testing Jan. 2012
- Operations May 2012



THANK YOU!

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