

# Municipal Solid Waste Update

## PAKISTAN

---

**B.H.Bashir**  
**GMI Municipal Solid Waste Subcommittee Meeting**  
**Vancouver, Canada, 13 March 2013**



# Renewable Energy Policy Of Pakistan

- Resource Risk - responsibility of GoP
- ~~Guaranteed Electricity Purchase~~
- Grid provision is the responsibility of the purchaser
- Attractive Return on Equity (17%-18%)
- Attractive Feed-in Tariff
- Fast track policy announced to accompany the FIT
- Counter Guarantee by the ADB being finalized
- Special Incentives by the State bank for upto 20 MW Power Plants
- No Import Duties on Equipment
- Zero Sales Tax
- Net Metering
- Banking of Electricity
- Wheeling Provisions
- Grid Spill Over Concept introduced
- Carbon Credits

2013 Policy prepared, approved by ECC. Biomass / Waste to Energy Policy Framework announced. Policy alone will not do the trick

# Pakistan: Investors Choice Destination

(Norway, Turkey, Iran, Germany, USA, China and Japan)



- Foreign investment by 2013: (US \$ 1.2 – US \$ 3.0 Billion)
  - 400-450 MW on existing Lands
  - 1000 MW Additional if land is made available immediately.
- Next Focus: Indigenous Manufacturing

**Renewable Sector is attracting the largest investment of any sectors in Pakistan**



# Established Enabling Environment



## Created Enabling Environment:

- Feed-in-Tariff as well as Cost Plus tariff being negotiated
- Grid Code being Amended
- Streamlined Land Issues: Statement of Conditions; standardized, legally vetted documentation

## Created Lender / Investor Confidence

- Circular Debt Concerns Addressed – ADB Counter Guarantee negotiated
- Regained Lenders Confidence – OPIC, IFC, ADB supporting Projects.
- Lender Acceptable Standardized Project Documents (PPA / IA / Wheeling) Available
- Regional Environmental Impact Analysis, approved by donors available to investors

## Reduced Lead Times And EPC Contracts

- Major plant manufacturers now offering rapid delivery and EPC contract

## Encouraged Local Manufacturing

- DESCON (Pvt Sector) now producing high pressure boilers in Pakistan.
- HMC (Public Sector) given design for manufacturing of high pressure boilers

## Inclusive / Cooperative Approach

- All Provinces now a full member of AEDB Board, and RE Policy Review team.



# Pakistan Update

---

- Regulatory Update – RE Policy now includes Waste to Energy and Bioenergy.
- National solid waste plans/directives are being implemented by AEDB which provides a one window facility to investors:
- A Composting plant has been setup at Lahore

# WASTE TO ENERGY INITIATIVES IN PAKISTAN

## REFUSE DERIVED FUEL PLANTS

### 1. RDF Plant

Location: Lahore

Capacity: 100MT/day

Clients : Cement Industry using RDF as alternate fuel

Status : Operational

### 2. RDF Plant

Location: Quetta

Capacity: 800MT/day

Clients: General Electric Power Plant

Status: Operational

### 3. RDF Plant

Location: Wah (Fauji Cement)

Capacity: 600 MT/day

Status: Operational

### 4. RDF Plant

Location: Peshawer

Capacity: 1000MT/day

Clients : Cement industry in the Wah/Taxila area

Status: Agreement signed for construction

### 5. RDF Plant

Location: Hyderabad

Capacity: 1200MT/day

Clients: Lucky Cement

Status: Project preparation on going, Agreement signed, EIA comp.

## 6. RDF Plant

Location: Lahore Mehmud Buti for DG Khan  
Cement

Capacity: 1000MT/day

Status: Detailed Feasibility study in  
process.

## 7. RDF Plant

Location: Rawalpindi Luser

Capacity: 1000MT/day

Status: Detailed Feasibility study in  
process.



# WASTE TO ENERGY PLANTS

## 1 WTE Plant

Location: Karachi  
Capacity: 20 MW  
Clients: DHA Karachi  
Status: Under Negotiation

## 2. WTE Plant

Location: Faisalabad  
Capacity: 30 MW  
Clients: City Government of Faisalabad, WAPDA  
Status: Detailed feasibility study carried out by IPDF.

## 3. WTE Plant

Location: Lahore  
Capacity: 5-10 MW  
Clients: Sundar Industrial Estates, Government of Punjab  
Status: Detailed feasibility study in process, Signed agreement,  
Land in Sunder acquired

#### 4. WTE Plant

---

Location: Sheikupura

Capacity: 20 MW

Clients: National Industrial Parks

Status: Detailed Feasibility study in process

#### LANDFILL GAS PROJECT

Location: Dera Ghazi Khan

Capacity: 300MT/day

Clients: Local Government

Status: Construction phase of landfill

# New Waste to Energy Project – Location Mardan, Khyber Pukhtunkhwa, Pakistan

---

The proposed project includes building a MSW Gasification plant with heat recovery facilities to generate electrical power.

About 525 tonnes per day (TPD) of MSW will be utilized to generate 12MW electricity.

# Methane Action Plan-Summary

- Activities to promote mitigation/abatement
  - Studies being carried out to determine quality and quantity of waste and its energy potential in 20 largest cities
  - Awareness campaign, Issuance of Lols
- Drivers to advance project development
  - Approval of Framework for waste to Energy Policy
  - Provision of Technology to Public/Pvt Sectors
- Challenges to mitigation/abatement
  - Lack of environmental awareness, financing, technology, capacity building of implementing agency required
- Public and private sector involvement
  - AEDB, Provincial Departments and Pvt Sector involved
- Barriers / Assistance needed / Information needed
  - Technology, Training, Financing, Capacity Building

# Nationally Appropriate Mitigation Action (NAMA)

---

- NAMA involvement (currently developing or interested in NAMA)
  - **Interested**
- Waste sector NAMA?
  - **Interested in developing if help provided**
- Cooperating agencies: NGOs, development agencies, or assisting countries
  - World Bank, ADB, JICA, GiZ, USTDA, UNDP, UNIDO, HBS, Netherlands Govt. IUCN, WWF etc.

# Support Required For NAMA Development in Pakistan

- Studies to identify potential policies and measures that could achieve GHG reductions and improved waste management practices.
- Capacity building through in-country workshops
- Research of best practices to reduce GHG emissions from the waste sector
- Data collection
- Analysis to support NAMA development, and the design of NAMA in the waste sector, including financing, measurement, reporting and verification.