

## Regional Workshop “Barriers and Opportunities for Biomass based Energy Generation in Latin America and the Caribbean”

**Venue:** Lanzarote Salon, Meliá Habana Hotel, Havana, Cuba.

### Objective of the Workshop

The objective of the workshop is to share the lessons learned from the experiences in the design and implementation of biomass based energy generation projects in Latin America and the Caribbean.

### General Program:

	<b>Day 1 Wednesday, 12 October, 2005</b>	<b>Day 2 Thursday, 13 October, 2005</b>	<b>Day 3 Friday, 14 October, 2005</b>
<b>Morning Session 9:00 – 13:00</b>	Introduction & General Issues	Cogeneration/ Gasification Projects	Biomass for Process Heat
<b>Afternoon Session 14:00 – 18:00</b>	Cogeneration Projects	Bio-combustibles for Transport use	CDM opportunities for Biomass Projects Conclusions

### Technical Coordinators:

**Dr. Al Binger** (UWI-CED, Jamaica)  
**Dr. Alfredo Curbelo** (GEPROP, CITMA, Cuba)  
**Dr. Paulino López** (MINAZ, Cuba)

**Programa:**

**Day 1: Wednesday, 12 October, 2005**

**Morning Session**

**Introduction and General Issues– Moderator: Paulino López**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
8.30 – 9.30	Accreditations	
9:30 - 10:00	Welcome to participants. Introduction and presentation of Workshop.	UNDP, UNEP, MINAZ
10:00 -10:30	Key issues for biomass market development.	Dr. Al Binger, UWI-CED, Jamaica
10:30 -11:00	Coffee Break	
11:00 -11:30	Current energy end use and opportunities for penetration of biomass energy technologies in Latin American countries.	Dr. Alfredo Curbelo, GEPROP-CITMA, Cuba
11:30 -12:00	Discussion	
12:00 -12:30	Co-generation potential from sugar cane biomass in the Cuban sugar cane industry.	Dr. Paulino López, MINAZ, Cuba
12:30 -13:00	Discussion	
13:00 – 14:00	Buffet, restaurant of the Meliá Habana Hotel	

**Afternoon Session**

**Co-generation Projects – Moderator: Alfredo Curbelo**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
14:00-14:30	Australia: 10 MW Power Generation Plant using Biomass.	John Hocken, ComEnergy, Queensland, Kent Mahendra, Derry Weis, Damien Weis, Ramon Losa, Pulse Energy, Australia
14:30-15:00	Co-generation using sugar cane biomass to increase the energy availability in the red.	Humberto Solís, Nicaragua
15:00-15:15	Coffee Break	
15:15 -15:45	GEF/UNDP: cogeneration project in Cuba using sugarcane trash as well as bagasse: Hector Molina.	Ing Aldo Estrada, Hector Molina Project, Dr Paulino López, MINAZ, Cuba
15:45 -16:15	Biomass power generation. Sugar cane bagasse and trash. Experience in Brazil.	Dr. J. Hassuani, Brazil
16:15 -16:45	Sugar cane trash harvesting and use for biomass power generation.	Dr. Félix Pérez, Ing Angel Verdecia, MINAZ, Cuba
16:45 -17:15	Discussion	
17:30	Welcome Cocktail (Meliá Habana Hotel)	

## Day 2: Thursday, 13 October 2005

### Morning Session

#### **Cogeneration / Gasification Projects – Moderator: Al Binger**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
9:00 – 9:10	UNDP project: Biomass Gasification: Feasibility Study: Cuba-Norway.	Dr. Paulino López, MINAZ, Cuba
9:10 – 9:35	UNDP project: Biomass Gasification: Feasibility Study: Cuba-Norway.	Bernhard Paus, OPTIMO, Norway
9:35-10:00	UNDP project: Biomass Gasification: Feasibility Study: Cuba-Norway.	Haakon Vennemo, ECON, Norway
10:00-10:30	Coffee Break	
10:30 -11:00	Lessons Learned-Rural Electrification Project using Biomass Gasification Technology in Chile	Jaime Bravo, Jefe Área MA y Ef. En., Comisión Nacional de Energía, Chile
11:00-11:30	GEF/PNUMA/ONUDI project: Production and commercialization of modern energy services based on sustainable energy: Juventud Island	Dr. Alfredo Curbelo, GEPROP-CITMA, Cuba
11:30 - 12:00	Market opportunities for using Biomass like fuel in heat production. Cuban Projects to introduce Biomass Gasifiers for heat application	Dr. Alfredo Curbelo, GEPROP-CITMA y Nelson Nueva Alastor, SIME, Cuba
12:00-13:00	Discussion	
13:00 – 14:00	Buffet, restaurant of the Meliá Habana Hotel	

### Afternoon Session

#### **Biofuels for Transport Use – Moderator: Paulino López**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
14:00 -14:30	Update of the production and use of ethanol as fuel for transport in Brazil.	Dr. Jose Moreira, CENBIO, Brazil
14:30-15:00	Cuban development to introduce the use of ethanol like fuel for transport.	Dr. Jose Villareal, MITRANS, CETRA, Cuba
15:00-15:30	Coffee Break	
15:30-16:00	Outputs of the Austrian biodiesel project in Nicaragua.	Leonardo Mayorga, Jefe de Proyectos de Biomasa, Universidad de Ingeniería, UNI, Managua, Nicaragua
16:00-16:30	Current state of biodiesel production in Argentina.	Dr. Carlos Muñoz, ABATEC, Argentina
16:30-17:00	Discussion	

### Day 3: Friday, 14 October 2005

#### Morning session

##### **Biomass use for Process Heat generation – Moderator: Al Binger**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
09:00 - 09:30	The Harvest and Use of Marabu and other Sources of Biofuel (parte 1)	Allan Bruks, Allan Bruks AB, Sweden
09:30 -10:00	The Harvest and Use of Marabu and other Sources of Biofuel (parte 2)	Christer Rosendal, Magnus Rydstrand, KMW Energi AB, Sweden
10:00 -10:30	Coffee Break	
10:30 -12:00	Working Group Session	
12:00-13:00	Discussion Panel	PNUMA, SIDS Caribe
13:00 – 14:00	Buffet, restaurant of the Meliá Habana Hotel	

#### Afternoon session

##### **CDM opportunities for Biomass Projects – Moderator: Alfredo Curbelo**

<b>Time Schedule</b>	<b>Topic</b>	<b>Speaker</b>
14:00 -14:30	CDM Projects: case study.	Marcelo SD Junqueira, ECONERGY, Brazil
14:30 -15:00	CDM opportunities for biomass projects.	Christian. Stoffaës, Executive Director, E7 Fund, France
15:00 -15:30	Coffee Break	
15:30 -16:00	Nicaragua: The Monte Rosa Sugar Mill Experience.	Humberto Solís, Nicaragua
16:00-16:30	Sugar Cane Biomass: Integral Use as Source of Food, Energy, Derivatives and Environment Protection-CYTED Network.	Ing. Raúl Sabadí, ICIDCA, MINAZ, Cuba
16:30 – 17:30	Conclusions.	