#### INTER-AMERICAN DEVELOPMENT BANK

# WORKSHOP ENERGY REGULATION AND SECURITY OF SUPPLY

# **IDB'S EXPERIENCE**

Florence, Italy - June 9, 2011



#### IDB'S EXPERIENCE IN THE ENERGY SECTOR

Two types of intervention:

1. Project Specific

2. Sector Comprehensive



# **Project Specific**

# SIEPAC Central America Electricity Integration



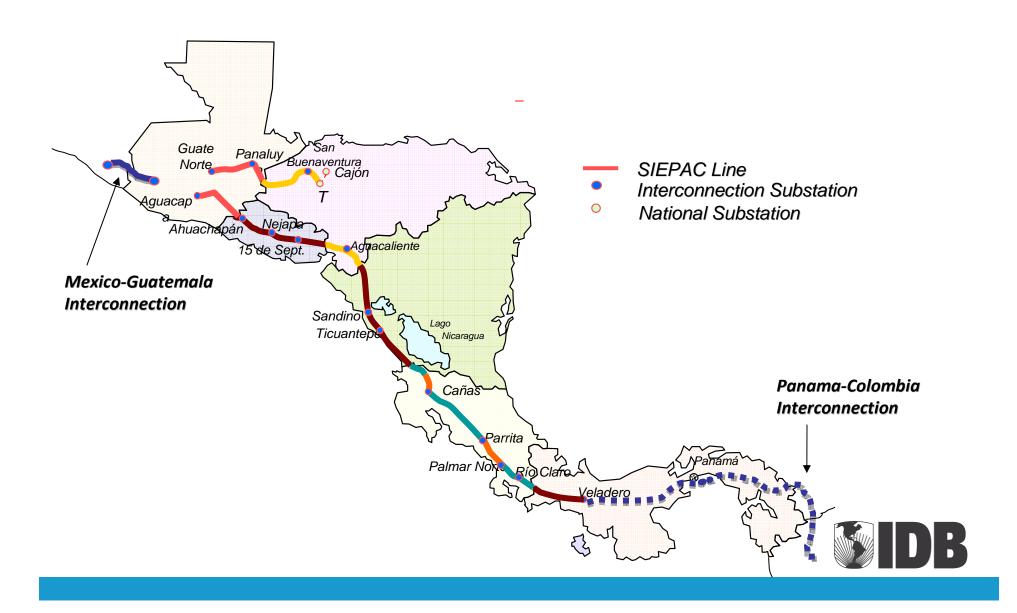
# SIEPAC project

#### **Objectives**

- ➤ The development of the regional transmission line:
  - √1788 km a 230kV
- > Creation of a Regional Electricity Market (MER):
  - ✓ Its institutions: Regulator (CRIE),
  - √ System Operator (EOR) ,
  - √The Company Owner of the Line (EPR); and,
  - ✓ Market rules: RTMER and RMER



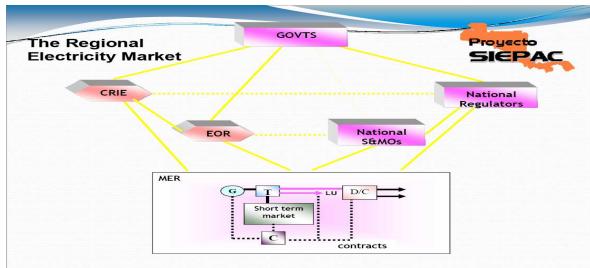
# SIEPAC Transmission Line – Line & substations



# Regional Integration Market (MER) concept

MER as a 7th market, superposed to the 6 national markets, which will operate based on the following premises:

- a)electricity trade can take place in a regional contract market and a spot market;
- b)all MER agents with the exception of the transmission companies can purchase and sell electricity freely and will have open access to the transmission system;
- c)MER generation agents can install power plants in any of the member countries and sell energy at regional level;
- d)MER is a market with its own rules, independent of the national markets, which makes energy transactions using the regional transmission grid (RTR) and the national networks..





# A slow and complex process

23 YEARS OF JOINT EFFORTS			
1987	SIEPAC Presented to V Centennial Fund		
1992	IDB joins the project		
1996	International Treaty signed		
1997	IDB approves financing		
2002	EOR, CRIE and EPR created		
2004	MER detailed design completed		
2005	Colombia joins EPR		
2006	MER Rules are approved Transitory rules in place		
2009	México joins EPR		
2011	RMER will be in place SIEPAC fully operational		



# IDB's financial and technical support

SUBSTANTIAL IDB SUPPORT					
Technical Assistance to develop MER:					
IDB	US\$ 8.0 M grants US\$16.0 M loans		100%		
Infrastructure financing (US\$M):					
IDB		253.5	51%		
CABEI		100.0	20%		
CAF		15.0	3%		
Bancomext		44.5	9%		
Other Loans		22.5	5%		
Equity (9 shareholders)		58.5	12%		
Total Cost		494.0			



#### **Benefits**

- Increased system reliability and robustness, reduced reserve capacity, and optimal use of renewable sources.
- Depending on demand growth, integration could bring reductions of up to 23% in average generation costs that could be transferred to customers.
- Interconnections with Mexico (already operational) and Colombia (in preparation) would enhance these benefits.



# Challenges to overcome

#### **Regulatory and institutional short-term:**

Strengthen regional institutions with technical and legal tools to decisionmaking and supervisory bodies.

#### Regulatory and operational medium term:

- Harmonize national and regional transmission regulations.
- Implementation of energy trading rules with reciprocal access to national markets.
- Long-term contracting requires reviewing of transmission rights.
- Harmonization of interconnections with Mexico and Colombia.



# **Sector Comprehensive**

**Policy Based Loans** 



# **Characteristics**

Fiscal needs

Extensive sector reform required

Non sustainable power sector





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