Energy Access in Central America

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 Arnaldo Vieira de Carvalho  
 Inter-American Development Bank – IDB  
 Energy Division  
 Infrastructure and Environment Department  
 Washington, DC  
 arnaldov@iadb.org; +1 202 623 1719
Electricity Coverage in LAC, 2012

Rate of Electricity Coverage

- Total Population w/out access in the country
- % of access deficit in LAC

10 Countries = 88.3% of the total deficit in LAC
The 15 largest = 97.8% of the total deficit in LAC

Population without access to electricity in LAC 1970-2012

Population without access to electricity in Central American countries, 1970-2012

Electricity Coverage in Central American countries, 1970-2012

Data from InterAmerican Development Bank and Latin American Energy Organization
Last updated: Dec 23, 2013

Electricity Coverage in Central America, 2012

6 million people without access in Central America

IDB Energy Loans in LAC

- More than US$12 Billion per year in general financing
- For past two years, nearly US$1 billion approved per year for energy alone
- Currently US$4.4 Billion in execution
  - Over 40 energy operations in execution across the entire region
- Historically, Rural Electrification is 15% of total IDB portfolio and 80 loans specifically for rural electrification from 1961-2013 mostly grid extensions
  - More than 10,000 solar home systems for isolated homes in past 10 years

**Current energy access operations in Central America**

- **Guatemala**: Multiphase Rural Electrification Program - Phases I and II
- **Honduras**: Support for the Integration of Honduras in the Regional Electricity Market
- **Nicaragua**: National Sustainable Electrification and Renewable Energy Program (PNESER) – Loans I, II and III
- **Costa Rica**: Power Sector Development Program 2012-2016
- **Panama**: Sustainable Rural Electrification Program - Phase I and II
Electricity coverage plans for Nicaragua

Source: Plan Nacional de Desarrollo Humano 2012-2016
Las casas de dos cantones de Caluco, Sonsonate, tienen desde ayer electricidad generada por celdas fotovoltaicas.
Calculation of required Incentive to the Service Provider (subsidy to the client)

- Portion of the Investment not recovered
- Recoverable portion
- Investment by Service Provider
- Subsidy
- Electricity bill
- IDB-financed

NPV total cost

Investment in O & M

Subsidy
RURAL ELECTRIFICATION FINANCING SCHEME

- CENTRAL GOVERNMENT
- IDB
- LOAN EXECUTOR
- OTHER FINANCING ENTITIES
- DISCO/SERVICE PROVIDERS
- GOODS AND SERVICES
- CLIENTS

Financial Flows:
- CENTRAL GOVERNMENT to LOAN EXECUTOR
- LOAN EXECUTOR to IDB
- OTHER FINANCING ENTITIES to DISCO/SERVICE PROVIDERS
- DISCO/SERVICE PROVIDERS to CLIENTS
- TARIFF
- INCENTIVES

Key Points:
- IDB provides financing to the loan executor.
- The central government incentivizes the process.
- Other financing entities contribute funds.
- Clients pay through tariffs.
- Goods and services are provided by DISCO/SERVICE PROVIDERS.
Guarantee Universal Access to Modern Energy

Double Renewable Energy in Global Energy Mix

Double Energy Efficiency Rate of Improvement Globally

GLOBAL

- **1.3 billion people** without access to electricity
- **2.7 billion people** without clean cooking facilities
- **13% in 2011** to **26% in 2030**
- **27% needed by 2035** for IEA WEO 2013\(^1\) 450 ppm\(^2\) scenario (2°C increase)
- **2.4% annual reduction** in energy intensity by 2030, compared to **1.2%** from 1970 to 2008 as measure of energy efficiency

LAC

- **30 million people** without access to electricity
- **85 million people** without clean cooking facilities
- **Already 30% in 2011**
- **44% needed by 2035** for IEA WEO 2013\(^2\) 450 ppm scenario
- LAC energy intensity reduced only **0.43%** during 1970-2012
- Major effort needed
- Means there are many opportunities

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1) International Energy Agency’s World Energy Outlook 2013
2) Parts Per Million
IDB Commitment to SE4ALL

U$ 5 Billion in 5 Years

Pres. Moreno Member of Global Advisory Board

IDB as Regional Hub for SE4ALL
Planning is Key

- **National Action Agendas:**
  - Review all plans in the country related to SE4ALL Goal – for example in biofuels, access to electricity or cooking fuels, or energy efficiency policy
  - Identify the gap between goals of current country plans and those of SE4ALL
  - Suggest steps for addressing the difference

- **National Plans for Universal Access to Modern Energy (announced June 5th, 2014 at SE4ALL Forum/Advisory Board Meeting)**
  - Will address access in both electricity and thermal uses such as cooking fuels
Supporting National Universal Access Plans

• IDB will support any member country that wishes to generate *National Plans for Universal Access to Modern Energy*

• Support would be for planning that:
  
  ✓ Addresses, at a minimum, access to electricity and cooking fuels
  
  ✓ Uses information systems like GIS allowing for the optimization of investment and design solutions
  
  ✓ Maximizes existing renewable resources in each country
  
  ✓ Clearly and objectively defines the areas that should be attended to with off-grid and on-grid
GIS to be employed for Universal Access Plans

El Salvador
Merci!
Thank you!
¡Gracias!
Obrigado!