

Standardised Baseline Grid Emissions Factor for Belize's National Power grid



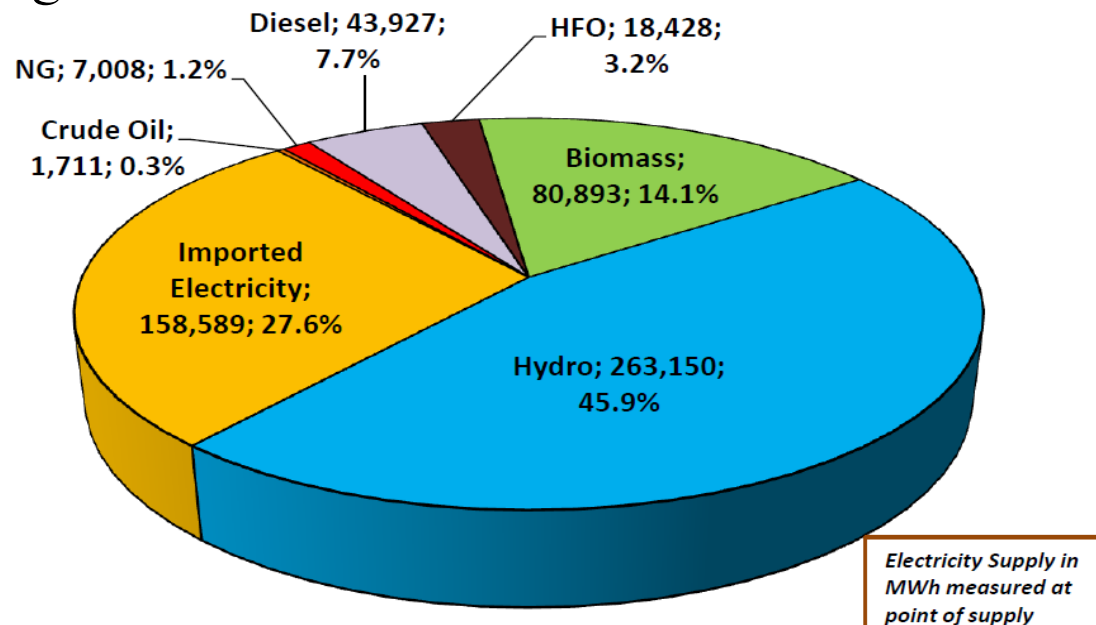
Colin Mattis
National Climate Change Office
Belmopan, Belize

The CDM in Belize

- Belize ratified the Convention in 1994 and the Kyoto Protocol nine years later (in 2003).
- Capacity building for CDM facilitated by EU-UNEP Project-Capacity building project \$129,000 USD- implementing agency-UNEP Risoe Centre.
 - Establishment of the DNA in the Ministry of Natural Resources and the Environment
 - Formulate the CDM Legal Framework
 - Prepare CDM Review process
 - Project approval
 - Review mechanism
 - Sustainable Development criteria
 - Design/standardize format for PINS and submission of CDM projects

Background to Belize's electricity sector

- Approximately 60% of electricity is generated from renewable energy sources
- 27.6% of electricity used is imported from Mexico (Federal Electricity Commission of Mexico (CFE))
- About 16% is generated for own use



Belize's electricity sector Cont'd

- The grid is managed by the state-owned Belize Electricity Limited (BEL) which also controls the distribution and transmission of the electricity.
 - Several independent power producers (IPP) sell part of their electricity to the grid.
 - Belize Aquaculture Limited (BAL),
 - Belize Cogeneration Energy Limited (BELCOGEN)
 - Belize Electric Company Limited (BECOL).
- BAL generates its electricity with a heavy fuel oil powered turbine
- All remaining IPPs generate their electricity by means of renewable resources (hydro or biomass).

Challenges to CDM projects

- Grid Emissions Factor very low when considering energy produced only in Belize
 - Practically Zero
 - High share of renewable sources in the electricity generation mix
- Poses great challenges for CDM project proponents whose projects both displace electricity from the main grid and help reduce the country's GHG emissions.
 - Demonstrating additionality
 - Accessing the carbon market for additional revenues
- Serves to significantly discourage investments in CDM

Developing the Standardised baseline

- The DNA of Belize requested the development of a standardised baseline for the joint Grid Emissions Factor by the UNEP DTU in 2011
 - Using new methodology which produces emissions factor from net electricity imported and electricity produced.
- Leads to an increase in the Grid Emissions Factor above zero because of the high amount of electricity coming from Mexico.
- Data for Grid Generation and Fuel Combustion provided to UNEP DTU by Ministry of Natural Resources and the Environment
- Standardised baseline for the Grid emissions factor- 0.6556 (tCO₂/MWh). This was completed in February 2012.

Submission to UNFCCC for approval

- Standardised baseline discussed at 4th National Workshop for the implementation for the MEA/ACP project in Belize
 - Decision made to submit standardized baseline developed by UNEP DTU using the Grid Emission Factor methodology
 - Submitted standardised baseline application form, GEF document and BEL annual reports to CDM team on March 21st, 2013
- UNFCCC/CDM Team helped to prepare assessment report on quality of data collection, processing and compilation
 - 10 or fewer registered CDM projects as on 31st December 2010
 - Did not appoint a DOE

Gaps/Challenges

- The Secretariat found gaps related to the compliance of submitted data with the ‘Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines’.- September 24th, 2013
 - Linkages between references submitted on August 15th, 2013, and related information provided in excel worksheets and other docs could not be established.
- DNA requested to provide complete reference data
- DNA requested to provide additional and/or corrected documents if these are needed to provide clarification

Gaps/challenges

- It was also requested by the UNFCCC that Belize's DNA address the following technical issues:
 - Update the CO₂ emission factor for Belize by using the annual CO₂ emission factors for the Mexican Electricity System
 - Define project electricity system using a delineation of the project electricity system provided by the DNA.
 - Provide a definition for remote charges in the standardized baseline/GEF document

Corrective action taken

- UNEP DTU and RCC St. George's provided technical advice and support
 - Submission of official document stating that the data on electricity generation and fuel consumption is valid.
 - confirm that the information is factual, and the procedure used to collect it (i.e. what procedures did the Ministry of Energy use to collect the data.).
 - Addressed technical issues
- Letter of validation submitted by the CEO of the Ministry of Energy, Science and Technology and Public Utilities
- The standardized baseline will be discussed at EB 81 (22-26 September, 2014) where a final decision will be made

Standardised baseline: Waste sector

- RCC St. George's provided technical support for the unsolicited submission of a letter to the CDM Executive Board stating whether current national legislation in place to support projects in the waste sector.
 - RCC to provide technical support for the development of standardized baselines for the sector
- Letter and proposed standardized baseline application form drafted by MFFSD and sent to Chair of CDM executive board on Feb 28th, 2014

Conclusion

- Standardized baselines could help lower transaction costs for individual project developers
- Increase the transparency and objectivity of the process to assess additionality.
- Reduce uncertainty for investors and encourage greater participation in the CDM.
- Increased participation could mean more abatement activity in the country supported by increased financial flows.
- By reducing both assessment costs and uncertainty in project approvals, standardized baselines could increase access by underrepresented regions and sectors where costs are prohibitive.
- Collaborative effort between Belize DNA, UNEP DTU and RCC St. George's

Thank You



Colin Mattis
cco.cc@ffsd.gov.bz