



Southern African Power Pool

SAPP Sustainability Bulletin

Volume 21, Issue 21

September 2013

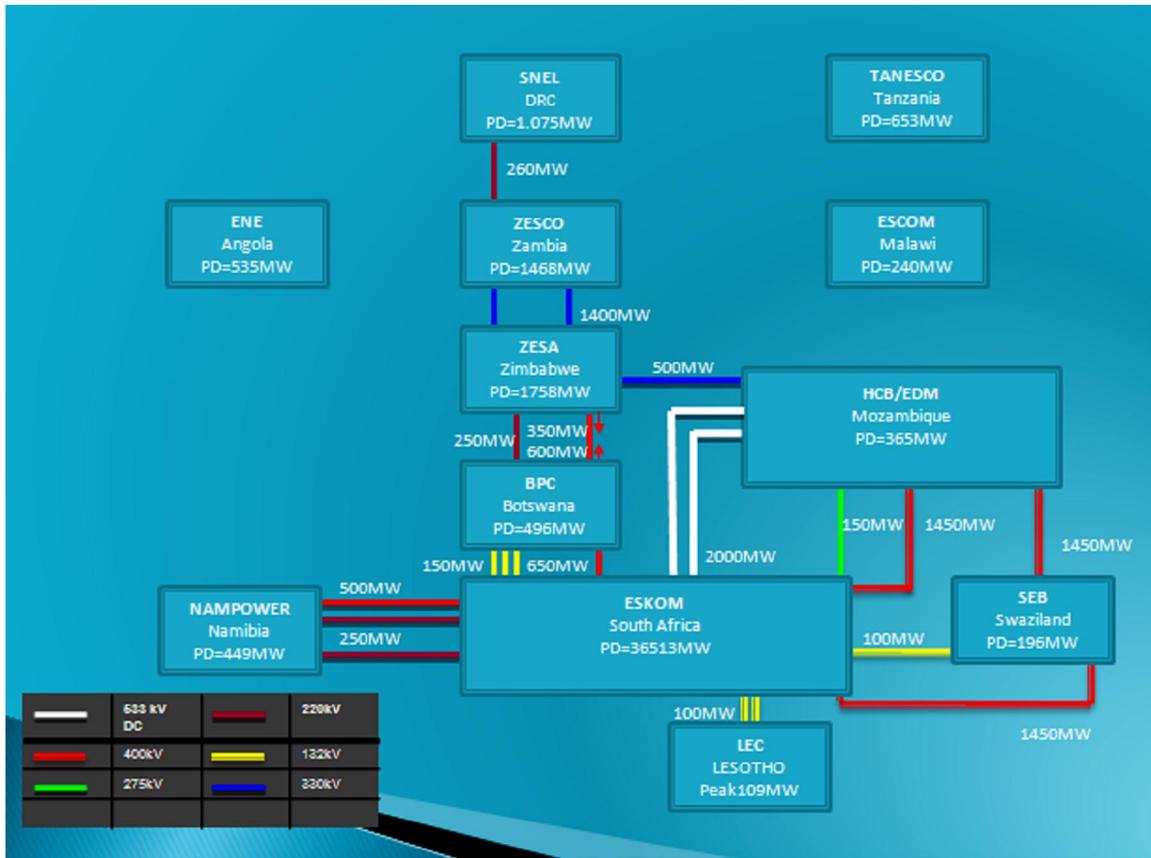
Message from the desk of the SAPP Environmental Sub-Committee (ESC).
%The SAPP Standardised Grid Emission Factor is the first of its kind in the World .
ASB0001 +

The SAPP Sustainability Bulletin for March, 2013(20th Edition) is focusing on the SAPP Grid Emission Factor as a Standardised Baseline for Clean Development Projects in the region.

What is a Grid Emission Factor?

A Grid Emission Factor outlines average CO₂ intensity of the electricity system. It is an input to a baseline that defines emission reductions on top of operations deemed “Business as Usual” It is used in conjunction with various methodologies to calculate carbon credits such as Certified Emission Reductions (CERs) from Clean Development Mechanism(CDM) projects. The current SAPP Pool Plan features 86 projects with additional installed capacity of 31, 000MW of which at least 1/3 being hydropower. With financial support from the German Federal Ministry of the Environment UNEP and the UNEP Risoe Centre in collaboration with the SAPP initiated a study to examine how to best take into account exports and imports of electricity across the national boundaries in the South African Power Pool (SAPP) and to systematically analyse issues associated with the sub-regional grid electricity system in order to develop national grid emission factors (GEFs) in SAPP member countries for application in Clean Development Mechanism projects. . The study identified a common electricity system comprising of nine interconnected countries, with only three in the SAPP yet to be connected. The nine interconnected are: South Africa, Botswana, Lesotho, Swaziland, Mozambique, Zimbabwe, Zambia, Namibia and DRC. Countries yet to be interconnected are Angola, Tanzania and Malawi.

Contact details:
The Environmental Officer
Southern African Power Pool
24 Golden Stairs, Emerald Hill,
Zimbabwe
Tel: +263 4 335468
Mobile: + 263 772 225 493
e-mail: maviya@sapp.co.zw
www.sapp.co.zw



The SAPP Grid

What is Standardised Baseline?

Standard Baseline simplifies Carbon Accounting by establishing a pre-defined sectoral benchmark linked to homogeneity of sector or technology, (e.g. power output). Instead of determining baseline on a case by case basis, the calculated can be used as baseline for a multiple CDM Projects. The “Plug and Play” nature means that uncertainties and costs related to establishing additionality, calculating or validating baselines project emission reductions are reduced. This is mandatory for all CDM projects and is valid for three years after which it will have to be revised. It is aimed at increasing more equitable distribution of CDM. The Guidelines/procedures are outlined in EB 63, revised EB 68.

SAPP GRID EMISSION FACTOR (GEF) Results

The combined Margins for the SAPP GEF are as follows:

- Baseline for Wind and Solar projects: 0.9801
- Baseline for Hydropower Projects, DSM and Energy Efficiency projects : 0.9644

This means that for roughly 1.025 MW of power generated by cleaner technologies or saved through Demand Side Management measures, 1 carbon credit could potentially be claimed.

What are The Main Benefits of the STANDISED BASELINE?

The Benefits of the Standardised Baseline are that:

- It reduces time to market and transaction costs for new CDM projects and Programmes of Activities (PoAs)
- It increases attractiveness of CDM investments in SADC. Beyond RSA, few CDM projects have been registered in the power sector and there are no national GEFs published.
- It stands to make a real contribution towards better regional distribution of CDM projects
- Contributes towards more integrated regional framework approaches to energy security, access, climate mitigation and finance. Linkable to regional energy and infrastructure investment plans and other planned Energy Efficiency programmes



Article by: Johnson Maviya Southern African Power Pool (SAPP)

References:

1. United Nations Framework Convention on Climate Change (UNFCCC). CDM-EB73 – A03 – Standardized Baseline: grid Emission Factor for the SAPP. Version 01.0
2. GFA Envest – (2012) Calculation of the Emission Factor of the Electricity System of the SAPP – Version 1.5