

## A GRID CODE FOR RWANDA

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### ABSTRACT

Parsons Brinckerhoff Africa (PB) in association with ACE Energy and PPA Energy was contracted by the Government of Rwanda (GOR) through the Ministry of Infrastructure (MININFRA) in Rwanda to formulate a National Electricity Grid Code ('Grid Code') for Rwanda.

The Grid Code was successfully delivered to the client encompassing the requirements of the revised Electricity Law in Rwanda to allow private entities a bigger role in the Electrical Supply Industry (ESI) in Rwanda.

### BACKGROUND TO THE ESI IN RWANDA

The interactions between the main functional entities in the Rwandan Electrical Supply Industry (ESI) are illustrated in Figure 1.

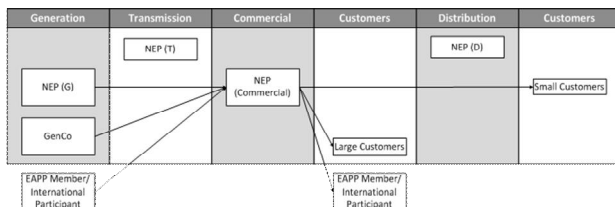


Figure 1 – Current Rwandan functional ESI structure

The GOR has embarked on an electricity market reform process to allow private entities to fulfil a much bigger role in the ESI. Figure 2 interprets the intended future ESI structure for domestic transactions.

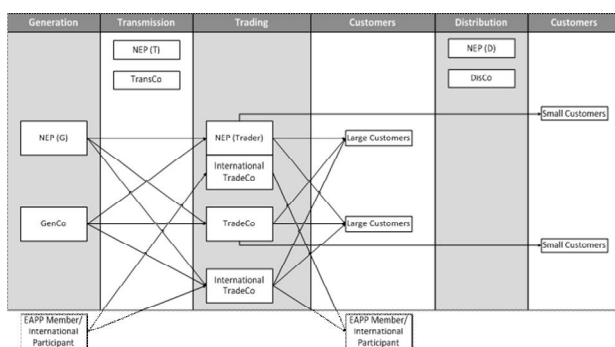


Figure 2 – Intended functional Rwanda ESI structure for domestic and international transactions

### FORMULATION OF RWANDA GRID CODE

The term Grid Code is widely used to refer to a document (or set of documents) that legally establishes technical and other requirements for the connection to and use of an Integrated Power system (IPS) in a manner that ensures reliable, efficient, economic, safe and on-going operation of the IPS.

The Grid Code provides the following assurances:

- a) To the Regulating Authority, the assurance that the Licensees operate according to the respective License conditions.
- b) To Customers, the assurance that Licensees operate transparently and provide non-discriminatory access to their defined services.
- c) To Licensees, the assurance that Customers will honour their mutual Grid Code obligations and that there is industry agreement on these.

The Grid Code covers a range of technical, operational, commercial and governance issues. The Grid Code is broken down into a number of “sub-codes” as follows:

- a) The Preamble;
- b) The Governance Code;
- c) The System Operations Code (including elements of Scheduling and Dispatch);
- d) The Network Code;
- e) The Metering Code;
- f) The Information Exchange Code;
- g) The Network Tariff Code

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### CONCLUSIONS

1. The Government of Rwanda (GoR) has successfully completed the first phase of setting up a Grid Code for Rwanda.
2. The new Rwandan Electricity Law is very forward looking in that it allows for many new

ESI market participants to enter the Rwandan ESI including local and foreign as well as public and private participants in all of the functions along the ESI value chain (Generation, Transmission, Distribution and trading).

3. This liberalised market structure is in line with the continued restructuring and deregulation of electricity industries currently being pursued worldwide.

#### **REFERENCES**

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