



OPERATOR OF THE NIGERIAN ELECTRICITY MARKET

PROCEDURES FOR ADMISSION AND PARTICIPATION DURING THE TRANSITIONAL MARKET

MAY 2010

Purpose

The purpose of this Market Procedure is to describe the details of the requirements to become Participant and maintain the condition as Participant, in particular, the specifics of the Security Cover, in accordance with the Market Rules.

1. DEFINITIONS

- **Distribution Company (*)** means a successor Distribution Company created in the restructuring of the Power Holden Company of Nigeria (PHCN)
- **Generation Company** means companies created from the generation assets of the PHCN in accordance with the Act.
- **PHCN** means the Power Holden Company of Nigeria.
- **Transmission Services Provider (TSP) (*)** means the Transmission Unit responsible for the national interconnected transmission system of Nigeria and that provides open access transmission services.

2. APPLICATION AND REGISTRATION

A. Application and Identification

- i. A person wishing to become a Participant shall submit to the Market Operator a completed Admission Application form, in accordance with the Market Rules, and shall be considered an Applicant Participant.
- ii. The Market Operator shall acknowledge the receipt of each Admission Application and assign it unique application identification.
- iii. Once an application has been approved, the Market Operator shall assign the new Participant a unique identification.

B. Participants Register

- i. The parties admitted to the market or applying to register shall be recorded by the Market Operator in a Register of Participants. This register shall be designed, organized and maintained by the Market Operator in compliance with the Market Rules.
- ii. The Participants Register shall have one record for each Participant and one record for each Applicant Participant until:
 - a. The application is accepted (the applicant becomes and is registered as a Participant); or

- b. The application is rejected by the Market Operator but no complaint is presented by the Applicant Participant within the next thirty (30) days; or
 - c. The Market Operator rejected the application and the Applicant Participant objected the rejection, but the dispute was resolved in favor of the Market Operator and the rejection applies.
- iii. For an Applicant Participant, the record shall include:
- a. The date the admission application was received by the Market Operator;
 - b. The application identification assigned by the Market Operator to the admission application;
 - c. The name of the Applicant Participant;
 - d. The name and address of the representatives of the Applicant Participant;
 - e. The type of participation requested (Generator, Distribution Company, Eligible Customer, Trader);
 - f. The identification number of the license issued by NERC;
 - g. The current status of the application, as follows:
 - Under Review
 - Waiting for missing information or clarifications
 - Rejected and no objection to the rejection received from the Applicant Participant;
 - Rejected but rejection under review, due to complaint by the Applicant Participant.
- iv. For a Participant, the record shall include:
- a. The identification assigned by the Market Operator to the Participant;
 - b. The date admitted as Participant;
 - c. The name of the Participant;
 - d. The name and address of the representatives of the Participant for the Market Operator and for the System Operator;
 - e. Type of Participant:
 - Generator, or
 - Distribution Company, or

- Eligible Customer, or
- Trader
- f. The identification number of the license issued by NERC;
- g. The current status of the Participant:
 - Active
 - Suspended, indicating date of suspension;
 - Termination request of Participant, indicating date termination will become effective;
 - Terminated due to default to Market Rules and no objection still received from the Participant, indicating date of termination; or
 - Terminated due to default to Market Rules but termination under review, due to complaint by Participant.
- h. Registration of the Commercial Metering System that will be used for the calculation of Market Settlement,
 - Trading Points
 - Meters registration numbers;
 - Adjustment or loss factor assigned, as established in the Metering Market Procedure, if the meter is not in the Trading Point or the meter is at a connection to a distribution network; and
 - Configuration formula to calculate the commercial energy of the Participant for Market Settlement.

C. Registration during the Transitional Stage

- i. All Participants registered during the Pre-Transitional Stage shall automatically become Participants of the Transitional Stage Market without any further application, provided that participation will be subject to suspension or termination if within 12 months the Participant does not submit the following to the Market Operator:
 - a. A Security Cover, complying with the requisites and characteristics established in the Market Rules and this Market Procedure and approved by the Market Operator, unless the Participant is exempted by the Market Rules and the Market Operator from requiring a Security Cover; and
 - b. If necessary and requested by the Market Operator, a plan to upgrade its Commercial Metering System and comply with the specifications and

characteristics for the Medium Term Market, as established in the Market Rules and the Metering Market Procedure.

- ii. Any person or company that is not a Participant in the Pre-Transitional Stage and wishes to become a Participant in the Transitional Stage Market shall submit the application form in Annex 1(A) to the Market Operator in accordance to the Market Rules and this Market Procedure.
- iii. After the initiation of the Transitional Stage, any new Independent Power Producer (IPP) must apply and register as a Participant to be authorized to connect, inject energy and sell.
- iv. At least once every three years, the Market Operator shall verify whether Participants still meet the requirements for admission and participation in the Market. To do this, the Market Operator may require additional documentation or the updating of the already submitted information.

D. Application Form

- i. To apply and become a Participant, a person or company must complete and submit to the Market Operator the standard Admission Application Form that is an Annex of this Market Procedure. A copy of the completed application form shall be sent to NERC by the Market Operator.
- ii. During the Transitional Stage the Admission Application Form included as Annex 1 shall apply.

3. SECURITY COVER

A. Forms of Security Cover

The following forms or instruments shall be accepted as Security Cover by the Market Operator:

- i. Cash in Nigerian currency, on deposit in an interest bearing account maintained at the same bank as the Participant Bank Account approved for the payment system, and that shall be payable on demand to the Market Operator; or
- ii. Irrevocable and non-time limited letter of guarantees, or other guarantee of payment acceptable to the Market Operator, in compliance with the related bank legislation and issued by a bank or financial institution operating in Nigeria and with a rating not lower than **AAA** by Augusto rating or Banking Index, that shall be executable on demand to the Market Operator.
- iii. Bonds shall be deemed as Security Cover at their sales values corresponding to the face value.

The Participant shall meet all the incurred costs associated with Security Covers.

4. PROVISION OF SECURITY

A. General Conditions

- i. Each Participant has the obligation to provide the Market Operator with Security Cover for their liabilities arising from the Market Settlement process, for payment that may be due to services provided and energy bought.
- ii. Upon registration, the Applicant Participant must provide the Market Operator the proposed Security Cover. Failure to provide the required Security Cover, the registration and admission process shall not be approved by the Market Operator and the application will be rejected.
- iii. Once an application is approved, the Participant shall maintain the required Security Cover. Failure to maintain the required Security Cover is a cause for suspension or termination of market participation by the Market Operator.

B. Exemptions

- i. During the Transitional Stage, the Market Operator may exempt a Participant from the requirement to provide a security if the Market Operator believes it is likely that the Participant will have a positive result in the Market Settlement, which means that the amount payable to that Participant under the Market Rules will consistently exceed the amount payable to the Electricity Market by that Participant under the Market Rules in respect of that period (a positive Market Settlement amount).
- ii. Once the Market Operator has exempted a Participant from the requirement to provide a security, the Market Operator may cancel the exemption at any time by giving written notice to the Participant, if the conditions that lead to that exemption are no longer valid.

C. Replacement

If a Security Cover provided by a Participant is due to expire or terminate, then the Participant must deliver to the Market Operator, at least ten Business Days prior to expiration or termination of the Security Cover a replacement security which complies with the Market Rules, this Market Procedure, and that will take effect no later than the date on which the existing security is due to expire or terminate.

D. Amount of security

- i. Prior to admission, the Market Operator shall determine and notify in writing to the Applicant Participant the required Security Cover for the next calendar year.

- ii. Prior to the end of each calendar year, the Market Operator must determine and notify in writing to each Participant the estimated minimum Security Cover required for the following calendar year.
- iii. The Market Operator may review its determination of a Participant's Security Cover, provided that any change will apply not earlier than thirty (30) days following the notification by the Market Operator to that Participant of that change.
- iv. A Participant may in its absolute discretion provide to the Market Operator a security or securities for an aggregate amount that exceeds its minimum required Security Cover.

E. Use of Security

- i. If, in accordance with the Market Rules, the Market Operator exercises its rights and calls the Security Cover of a Participant, then the Market Operator shall notify the Participant.
- ii. If, as a result of the Market Operator exercising its rights and using the security provided by a Participant, the Participant has insufficient Security Cover, then, within five (5) Business Days of receiving the Market Operator notice, the Participant must provide an additional security to comply with the requirements of its Security Cover.
- iii. If a Participant fails to comply within the time period referred to, then the Market Operator may give the Participant a suspension notice.

METERING MARKET PROCEDURE

Purpose

The purpose of this Market Procedure is to describe

- i. The requisites and technical specifications of the Commercial Metering System;
- ii. The calendar and procedures for Meter Data collection, validation, correction and completion, to provide in a timely manner the energy information for Market Settlement;
- iii. The administration of special conditions such as late submission of Meter Data, faulty meters, errors, incomplete data; and
- iv. The administration of complaints, in accordance with the Market Rules.

1. DEFINITIONS

- **Automatic Voltage Selector Switch (AVSS)** means the switch that enables automatic changeover of voltage supply from one Voltage Transformer (VT) source to another VT source in case of incomer VT outages, to ensure that the feeder/line meter continues to function.
- **Check Meter** means the standby Meter from where accurate and valid readings are obtained whenever the meter readings from the main meter at the Trading Point are not accurate and reliable. Initially, the meter at the incomer feeder will be used as Check Meter.
- **Check Tolerance** means the maximum difference between the commercial meter reading and the reading used as Check readings to assess the accuracy of the main commercial meter reading. Initially, the Check Tolerance is defined as +/- 2%.
- **Commercial Metering System** has the meaning given to it in 4(A) of the metering market procedure.
- **Connection Point (*)** means a point of connection between the transmission system or a distribution network, and a generation facility or load facility where a Participant connects to inject or withdraw energy, and which will be allocated a Trading Point for considerations of Market Settlement and the Commercial Metering System.
- **Current Transformer (CT)** means the instrument transformer used as current supply to the meter.
- **Distribution Company (*)** means a successor Distribution Company created in the restructuring of the PHCN.
- **Embedded Generation (*)** means a generation unit or power station directly connected to a distribution network.

- **Generation Company** means companies created from the generation assets of the Power Holden Company of Nigeria (PHCN) in accordance with the Act.
- **Historical Average** means the average calculated for the energy quantities used in the Market Settlement in the last six (6) months.
- **Market Settlement (*)** means the process of calculating charges, due from Participants who are required to make payment, and to be paid to Participants who are due to receive payments, pursuant to the Market Rules.
- **Meter** means the measuring instrument used to measure the feeder/line energy, power, power factor, frequency and other power system quantities.
- **Meter Data (*)** means quantities of energy measured and recorded by a Meter for the purpose of determining the energy injected or withdrawn by Participants;
- **PHCN** means the Power Holden Company of Nigeria.
- **Settlement Quantity Meter Data (*)** means the processed data resulting from the collection, and validation process to Meter Data, and the adjustment for losses when the Meter is not located at the Trading Point, in respect of each Participant
- **Voltage Transformer (VT)** means the instrument transformer used as voltage supply to the Meter.

2. CONNECTIONS AND LOCATION OF TRADING POINTS

A. Connection Points and Meters

- i. The Market Settlement process requires measuring the energy injected to or withdrawn from the transmission system by each Participant.
- ii. In principle, the Connection Points of a Participant are the points where the Participant injects and/or withdraws energy, and therefore correspond to:
 - a. The Participant's connection(s) to the transmission system; and/or
 - b. The Participant's connection(s) to the distribution network of another Participant.
- iii. When registering a new Participant or a new connection, each Connection Point shall be assigned a Trading Point and each Trading Point must have a Commercial Metering System, as established in the Market Rules and this Market Procedure.
- iv. This Market Procedure specifies the location of the Trading Point for each type of Participant.

B. Generation Companies

The location of the Trading Point for connection of a generating company to the transmission system is at the beginning of the outgoing transmission line from the power station.

C. Distribution Companies

- i. The location of the Trading Point for the connection of a Distribution Company to the transmission system is at the beginning of the outgoing feeder at the interface (connection) between the distribution system and the transmission system.
- ii. Where two or more Distribution Companies connect their distribution networks to a connection point, the Trading Point shall be at the interface of the two distribution networks and both Participants shall share the Meter.

D. Eligible Customers

The location of the Trading Point for an Eligible Customer connected to the transmission system is at the beginning of the outgoing feeder at the interface (connection) between the Eligible Customer's system/equipment and the transmission system.

E. Independent Power Producers (IPPs)

The location of the Trading Point for the power station of an Independent Power Producer (IPP) shall be the same as for a Generation Company unless specified otherwise in the Power Purchase Agreement(s) of the IPP. For PPAs signed prior to the implementation of this Market Procedure, the Trading Point(s) will be considered located at the delivery point(s) established in the PPA.

3. LOSSES

A. Transmission Losses

For purposes of calculating the Market Settlement, the energy measured with the Commercial Metering System for the Trading Point of a Participant that is a Distribution Company or an Eligible Customer shall be increased by the Market Operator in order to include transmission losses. In the alternative, provision shall be made in the tariff to accommodate the transmission losses.

B. Distribution Losses

- i. When a Participant has a connection to a distribution network of another Participant, the energy metered for the associated Trading Point shall be adjusted by the Market Operator with a reference distribution technical loss

factor, to represent the technical losses associated to the use of the distribution network.

- ii. For purposes of calculating the Settlement Quantities Meter Data, the energy measured by the Commercial Metering Systems for a Trading Point that corresponds to a connection to the distribution network, shall be adjusted by the Market Operator through applying the registered distribution technical loss factor according to the following principles:
 - a. The metered quantities (energy) injected (exported) by generation directly connected to a distribution network (Embedded Generation) and selling to the Market (selling to a Participant different from the Distribution Company to whose distribution network the generation is connected), shall be adjusted to reflect the distribution technical losses, provided that no adjustment will apply if the injection of the Embedded Generation reduces the losses in the distribution network.
 - b. The metered quantities (energy) withdrawn (imported) by a Distribution Company at a connection with the distribution system of another Distribution Company, shall be increased by the reference distribution technical loss factor.
- iii. When the distribution system of a Distribution Company is used by other Participants to connect to the transmission system, the settlement quantity (energy) at the transmission Trading Point of the Distribution Company shall be calculated by the Market Operator as
 - a. The Settlement Quantity Meter Data of the transmission connection of the Distribution Company, after adjusting the energy metered to include transmission losses; minus
 - b. The Settlement Quantity Meter Data of the other Participants at their connections with the distribution network adjusted by transmission and the distribution technical loss factor.

C. Adjustment for location of Meters

- i. The Trading Points define the entry and exit points to the wholesale electricity market. Therefore, the purchasing and selling of electricity by a Participant in the wholesale electricity market shall be at its Trading Points. For that purpose, each Participant shall have a Commercial Metering System associated to each of its Trading Points, for the Market Operator to determine the energy each Participant buys or sells in the Market.
- ii. The Meters should be as close as possible to the Trading Point. When the Meter is not located at the Trading Point, the Meter Data shall be adjusted by the Market Operator to calculate the Settlement Quantity Meter Data, by

applying the loss factors assigned in the registration of the Commercial Metering System, to take into consideration the energy loss between the metering point and the Trading Point.

- iii. For purposes of calculating the energy for settlement when the Meter is not at the Trading Point of a Participant, the Market Operator shall define in the registration of the Commercial Metering System, the use of Meter Data loss factors according to the following principles:
 - a. The energy injected by generation facilities directly connected to the transmission system where the Commercial Metering System is not located at the Trading Point and includes internal consumptions in the power station shall be decreased by the internal consumption for the related settlement period. If the internal consumption is not metered, the Market Operator shall determine the corresponding internal consumption factor when the Commercial Metering System is approved and registered.
 - b. In case there are any step-down or step-up transformers between the Commercial Metering System and the Trading Point of the Participant, which are not included in the loss factors assigned to the Trading Point, a transformer loss factor shall be used to decrease the energy injected and increases the energy withdrawn in order to reflect the related transformer loss. The Market Operator shall determine and register the corresponding transformer loss factors when the Commercial Metering System is approved.
 - c. In case there are any lines between the Commercial Metering System and the Trading Point of the Participant, which are not included in the loss factors assigned to the Trading Point, a line loss factor shall be used to decrease the metered energy injected or increase the metered energy withdrawn in order to reflect the related line loss. The Market Operator shall determine and register the corresponding line loss factor upon the approval and registration of the Commercial Metering System.

4. COMMERCIAL METERING SYSTEM

A. Components

The Commercial Metering System is composed by:

- i. Meters for each Trading Point of Participants and the associated Current Transformers (CT), Voltage Transformer (VT), AVSS and cabling;
- ii. A system that integrates and stores the measurements from the Meters;
- iii. Where available, communication systems to access and read meters remotely; and

- iv. A data collection system, to remotely access the information stored in the Meters or, while remote access is not available, to collect through E-mail or by courier the data registered and read locally from the Meters.

B. Configuration

- i. At each Trading Point a Meter will be installed by the Market Operator on the incomer feeder as Check Meter for the Meters on the outgoing feeders that are the Trading Points.
- ii. Bi-directional Meters shall be installed at Trading Points where energy can flow in both directions to meter energy in the injection (export) and withdrawal (import) direction separately.
- iii. Handling of shared feeders (at a Trading Point between two distribution networks) shall be represented and registered in the configuration of the Commercial Metering System as a percentage of the reading, such that this represents the typical percentage of the energy flow in the feeder that corresponds to each Distribution Company (distribution zone).

C. Specifications

- i. During the Pre-Transitional Stage, the specifications for the Transitional Stage shall apply, provided that the Market Operator may authorize the following transitory metering arrangements:
 - a. Accuracy class of at least 1.0;
 - b. Accumulation and storing of metered data with an integration period of □ 30□ minutes;
 - c. The capability to be interrogated remotely through a modem, unless the Market Operator grants a transitory exemption, and
 - d. Information storage capacity in memory of at least □ 9□ months.
- ii. The standards and specifications of the Commercial Metering System for the Transitional Stage are the following:
 - a. Accuracy class of at least 0.5;
 - b. Accumulation and storing of metered data with an integration period of □ 30□ minutes;
 - c. Stand by-battery with a total stand-by life of 10 years (minimum);
 - d. The capability to be interrogated remotely through a modem, and
 - e. Information storage capacity in memory of at least □ 9□ months.

- iii. The target Commercial Metering System for the Medium Term Market shall comply with the following standards:
 - a. Accuracy class of at least 0.2;
 - b. Accumulation and storing of metered data with an integration period of 15 minutes; and
 - c. Ability to be interrogated remotely and information storage capacity in circular memory of at least twelve (12) months.
- iv. The accuracy class requirements of the instrument transformers shall be in accordance with the size of the load and shall meet the prevailing metering standards.
- v. The Market Operator may from time to time revise the metering specifications and standards. Modification to such specifications or standards shall require the update of this Market Procedure and will apply only to new Commercial Metering Systems, unless agreed otherwise with affected Participants.

D. Calculation of Settlement Quantities

- i. The Meters in the Commercial Metering System shall measure the physical flows.
- ii. To calculate the Settlement Quantities Meter Data of a Participant, the readings from its Commercial Metering System shall be adjusted by the Market Operator to take into consideration losses when applicable in accordance with the principles established in this Market Procedure.

5. METERING ROLES AND RESPONSIBILITIES

A. Responsibilities of the Services Providers

- i. For the initiation of the Transitional Stage, the Market Operator shall install all the Commercial Metering System required at existing Trading Points.
- ii. During the first 24 months of the Transitional Stage, the Market Operator shall have the responsibility of testing and repairing the Meters it installed and owns, provided that this will apply only to Government owned Participants.
- iii. If a Commercial Metering System uses transformers owned by the Transmission Services Provider (TSP), the TSP will have the responsibility of maintaining, repairing and if necessary replacing the transformers (CT and VT) used for the Commercial Metering System.

B. Obligations of Participants

- i. After the initiation of the Transitional Stage and unless otherwise agreed with the Market Operator, each new Participant or each existing Participant requiring a new Trading Point shall install its own Commercial Metering System.
- ii. Before an Applicant Participant is authorized and registered by the Market Operator as a Participant or authorized to participate in the Market in respect to a Trading Point, the Participant must ensure that:
 - a. Each of its Trading Points has a Commercial Metering System;
 - b. Each Commercial Metering System complies with the specifications and conditions established in the Market Rules and this Market Procedure; and
 - c. All its Commercial Metering Systems are registered with the Market Operator.
- iii. The Market Operator shall reject an application for a new Participant and shall not authorize a new Trading Point of an existing Participant if the Commercial Metering System at the corresponding Trading Point(s) does not comply with the provisions and specifications established in the Market Rules and this Market Procedure.

6. COMMERCIAL METERING SYSTEM REGISTRATION

A. Application

- i. When a person applies to register as a Participant, the person shall also register the Commercial Metering System for each of its Trading Points.
- ii. A Participant shall send an application to the Market Operator for the approval and registration of a Commercial Metering System, for:
 - a. Any modification to a registered Commercial Metering System; or
 - b. Installation of a new Commercial Metering System at an existing Trading Point or at a new Trading Point.

B. Test and Certification

- i. The application for registration of a new Commercial Metering System must be accompanied by a certification that it complies with the manufacturer's standards. If the Commercial Metering System is provided and installed by the

Market Operator, the Market Operator, or a representative of the Market Operator, shall do the test and certification.

- ii. When a Participant registers its trading points and any of the Trading Points will use a Commercial Metering System that has already been registered and tested by another Participant (a shared Meter), the approval and registration shall not require a test and certification, as the existing certification will apply.
- iii. Before approving the registration of a Commercial Metering System, the Market Operator shall verify that:
 - a. The Participant has provided a valid certificate, except when no certification is required from the Participant; and
 - b. The manufacturer's specifications are within the standards and specifications established for the Commercial Metering System,

B. Register

- i. The register of a Participant shall include the configuration calculations of its Commercial Metering System to be used by the Market Operator to determine the settlement quantities.
- ii. In the registration process of a Commercial Metering System, the Market Operator will define the associated loss factors, if any, to use for the calculation of the Settlement Quantities Meter Data. The Commercial Metering System register shall include,
 - a. A distribution technical loss factor, if it is a connection to a distribution network;
 - b. An internal consumption factor, if it is a connection of a power station where the Commercial Metering System readings will include the internal consumption of the power station;
 - c. A transformer loss factor or line loss factor, as applicable, if the Commercial Metering System is not at the Trading Point and losses need to be discounted from the Meter Data
- iii. Upon registration of a new Participant or a new Trading Point, the Market Operator shall update the register of Meters used for the Market Settlement. Where Meters shall be read manually, the Market Operator shall prepare and send:
 - a. A list of Meters that must be read by each Participant as part of the data collection process for the Market Settlement; and

- b. The list of Meters that must be read by the System Operator as validation of Meter Data for the Market Settlement.

7. METER DATA CALENDAR

- A. The Meter Data Calendar shall describe the following dates:
 - i. **Reading Date** means the date by which the monthly commercial Meter Data of Trading Points must be read.
 - ii. **Meter Data Submission Date** means, when reading is manual, the date by which the monthly commercial Meter Data of Trading Points must be received by the Market Operator from each Participant and the System Operator by courier or E mail for the Market Settlement process.
 - iii. **Complaints Submission Date** means thirty (30) days after the date the Preliminary Settlement Statement is sent by e-mail or Courier to Participants by the Market Operator.
- B. Before the beginning of each year, the Market Operator shall publish in its Website the Settlement and Payment Calendar, including the timetable for the dates defined in 2(E) of the settlement market procedure.
- C. The Meter Reading Date shall be
 - i. For manual readings, on the first day of the month following the settlement month;
 - ii. For remote (telemetry) readings by the Market Operator, on the first Business Day of the month following the settlement month.
- D. The Meter Data Submission Date shall be on the fourth Business Day of the month.

8. METER READING

A. General Characteristics

- i. The active energy imported from the transmission system and the active energy exported (injected) to the transmission system shall be read from the registered commercial meters.
- ii. The readings for a month shall correspond to the recorded metered quantity at 0:00 hours of the 1st day of the new month, already stored in the Meter.
- iii. Readings shall be done

- a. By the Market Operator in the Meters where remote reading has been implemented; and
- b. Jointly by the Participant and the System Operator, manually in accordance with this Market Procedure,
 - In the Meters where remote reading has not been implemented; and
 - In the Meters where remote reading has been implemented but the remote reading mechanism is in a trial period, or for the purpose of back up reading in case of communications failure for remote reading.
- iv. When remote reading is implemented, the Market Operator shall update this Market Procedure to include the conditions and processes for the Market Operator to remotely read and inform the meter data.

B. Joint Manual Readings for Distribution Companies and Generation Companies

- i. In the absence of telemetry and communications for remote access and reading of commercial meters, manual reading of the Meter in feeders or lines corresponding to each Trading Point shall be taken jointly by the representative of the Participant and a staff of the System Operator in the corresponding substation. The purpose of the joint reading is for checking and ensuring continuity of Meter Data for the Market Settlement process.
- ii. Each Participant shall read the commercial meters included in the Commercial Metering System for its Trading Points monthly. A representative of the System Operator shall be present for the Meter reading to be done jointly, and reading minutes shall be prepared and signed by both parties.
- iii. Manual readings for any month shall be done, not later than the Meter Reading Date of the next month, by scrolling the Meter to retrieve the reading at 0:00 hours of the 1st day of the new month, already stored in the Meter. In order to ensure the completion of Meter readings within the prescribed time limits, the Participant and the System Operator shall agree a Meter reading plan indicating which Meter shall be read at what date and time.
- iv. The reading process shall include the incomer feeder Meter to be used for reconciliation as Check Meter and the Meters in the outgoing feeders that are Trading Points.
- v. Reading shall be cross checked by both representatives for:
 - a. Accuracy, by making sure that reading is from the right Meter and that the copied figures are correct; and

- b. Consistency, by ensuring that the copied readings are coherent and quantities in line (not in contradiction) with the previous readings (the reading for the previous month).
- vi. In case one of the representative(s) fails to be present, Meter reading shall be done by the authorized representative who is present and the Meter reading minutes shall be prepared. The minutes signed by the present representative shall be sent to the Market Operator and the party not present at the Meter reading in written and electronic form within the Meter Data Submission Date.

C. Manual Readings for Eligible Customers and Independent Power Producers

- i. Joint Meter reading shall be taken or retrieved as stored in the programmable Meter by the representatives of the Market Operator and the Independent Power Producer (IPP) or Eligible Customers on an agreed date and time, every month not later than one Business Day after the Meter Data Submission Date.
- ii. In the presence of the representative of IPP or Eligible Customer, the representative of the Market Operator shall, when necessary for PPA or contract settlement, retrieve (down load) the readings from the Meters at the Trading Point for purposes of graphical representation of the power flow or load profile throughout the month(s).
- iii. If requested by the Market Operator for the purpose of PPA or contract settlement, the System Operator shall send the Market Operator information on IPP availability and operation constraints not later than one Business day after the Meter Data Submission Date.

9. MANUAL READING COLLATION AND SUBMISSION OF METER DATA FOR GENERATION COMPANIES AND DISTRIBUTION COMPANIES

A. General Considerations on Submission

- i. Both the Participant and the System Operator shall collate the readings and submit Meter readings to the Market Operator not later than the Meter Data Submission Date.
- ii. The collated readings shall be sent via E-mail or Courier. Faxed Meter reading(s) shall not be accepted due to possible lack of clarity.

B. Check Criteria

Collated data shall be checked by the Participant and the System Operator for:

- i. Accuracy, such as typographical errors with respect to the Meter readings in the field.
- ii. Consistency, by verifying that incomer energy reading (that acts as Check Meter) is equal to the sum of the Meter readings in the outgoing feeders (that are Trading Points) in that Transmission Station within the Check Tolerance.

C. Collation of readings by Distribution Companies and Generation Companies

- i. The Performance Manager of the Distribution Companies and of the Generation Companies who has been assigned this responsibility shall carry out collation at the Zonal Office of the Distribution Company or the Power Station of the Generation Company, as applicable.
- ii. If in verifying consistency, as described in 9(B)ii of the metering market procedure, the sum of the readings for the outgoing feeders should fall outside the Check Tolerance, the Performance Manager shall mark the reading and raise a complaint to the Market Operator on the readings with discrepancy.
- iii. The collated readings shall be sent via E-mail or Courier by the Chief Executive Officer of the Distribution Company or the Generation Company (power station) to ensure that the Market Operator receives it not later than the Meter Data Submission Date of the month. Faxed Meter reading(s) shall not be accepted due to lack of clarity.

D. Collation of readings by the System Operator

- i. The Manager of the System Operations who has been assigned this responsibility shall carry out collation at the respective transmission station.
- ii. The Manager of the System Operations shall collate all the Meter readings in the Transmission Stations, and verify if the difference between the readings in incomer feeders that act as Check Meters and the total of the readings in the corresponding outgoing feeders is within the Check Tolerance. The System Operator shall identify and mark all outgoing and incomer readings outside the Check Tolerance, for the Market Operator to verify and correct as necessary in accordance with this Market Procedure.
- iii. The System Operator shall collate and send its readings to be received by the Market Operator not later than one Business Day after the Meter Data Submission Date of the month.

10. LATE SUBMISSION OF MANUAL READINGS

A. General Conditions

- i. If the Meter readings are not received in time from the Participant, the Market Operator shall use the readings submitted by the System Operator for the settlement process. If the corresponding readings also have not been received from the System Operator, the Market Operator shall use estimated energy as established in this Market Procedure.
- ii. Once the Meter Data is received, the correction of estimated energy shall be carried out in the Market Settlement for the month after data is received. Corrections of this estimated energy shall be carried out in the following month as a change to Meter Data, as described in the Settlement Market Procedure.

B. Distribution Companies and Eligible Customers

- i. In case of late submission of Meter Data, the Market Operator shall use as estimated energy figure for Market Settlement the highest recorded consumption of the Participant in the last three (3) months.
- ii. The Market Operator may apply a penalty for late submission of manual Meter Data readings by the Participant: if,
 - a. On the date the Final Settlement Statement is sent by the Market Operator all Meter Data from the Participant have not been received by the Market Operator. The Market Operator may apply a penalty equal to 2% of the energy consumption in the Final Settlement Statement, valued in Naira at the Participant's buying price.
 - b. By the Meter Data Submission Date all the readings from a Participant have not been received by the Market Operator but all such data is received prior to the Final Settlement Statement, the Market Operator may apply a penalty equal to 1% of the energy in the Final Settlement Statement Valued in Naira at the Participants buying price.

C. Generation Companies

- i. In case of late submission of Meter Data, the Market Operator shall use as estimated energy the minimum between the metered generation data in the last three (3) months and the energy generated in the month calculated by the System Operator with its operational data.
- ii. The Market Operator may apply a penalty for late submission of manual Meter Data readings by a Participant as follows:

- a. If on the date the Final Settlement Statement is sent by the Market Operator all Meter Data from the Participant have not been received by the Market Operator, the Market Operator may apply a penalty equal to 2% of the energy generation in the Final Settlement Statement valued in Naira at the Participant selling price.
- b. If by the Meter Data Submission Date, all the readings from a Participant have not been received by the Market Operator but all such data is received prior to the Final Settlement Statement, the Market Operator may apply a penalty equal to 1% of the energy generation in the Final Settlement Statement valued in Naira at the Participant selling price.

11. RECONCILIATION (Verification and Correction of Meter Data)

- A. Reconciliation by the Market Operator shall start on the Meter Data Submission Date.
- B. The Market Settlement shall be done using the feeder or line readings for the Trading Points that qualify as accurate and valid. For faulty Meters, inaccurate readings or manual readings not submitted in time, the Market Operator shall use estimated data for the Market Settlement.
- C. The criteria for an outgoing feeder reading to qualify as accurate are the following:
 - i. For manual readings, the reading received from the Participant and from the System Operator are the same;
 - ii. The sum of the outgoing feeders should not deviate from the incomer reading used as Check Meter in more than the Check Tolerance.

In such cases, unless the Meter is identified as faulty through a test, the outgoing feeder reading shall be considered valid and shall be used in the Market Settlement process to calculate the settlement quantities.
- D. The Market Operator shall check manual readings received from Participants against the readings received from the System Operator. If the readings differ, the Market Operator shall request the System Operator (in the transmission substation) to read again for a proper reconciliation, and then the System Operator reading shall have precedence and be deemed valid.
- E. For any reading outside the Check Tolerance, the Meter Data shall be estimated and reconciliation shall be as follows:
 - i. If the summation of the readings for the outgoing feeders associated with an incomer is less than the incomer reading and all the outgoing feeders belong to

the same Distribution Company, then the Check Meter (incomer) reading shall be used for that month.

- ii. If the summation of the readings for the outgoing feeders associated with an incomer is less than the Check Meter (incomer) reading and the outgoing feeders belong to more than one Distribution Company, then the Check Meter (incomer) reading shall be allocated between those Distribution Companies with the Historical Average load share (percentage) of the feeder.
- iii. If the summation of the readings for the outgoing feeders associated with an incomer is greater than the incomer reading, then the outgoing feeder reading(s) shall be used for that month.

F. In the event that the energy reading of a substation is less than the Historical Average by more than 50%, then the Market Operator shall confirm from System Operator's records the following:

- i. If the substation had been under period(s) of load shedding longer than historical; or
- ii. If the Substation had been out on maintenance for long period(s); or
- iii. If the Substation had been deloaded for long period(s) due to operational reasons.

If any or all of the above is true, then the Market Operator shall use Historical Average values as estimated energy for the month.

G. Once a reading is identified as inaccurate, the meter engineer(s) of the Market Operator shall visit the site within thirty (30) days and, if the problem is in the Meter, shall resolve urgently. If the problem is external to the Meter, the Market Operator shall inform the Participant and the Transmission Services Provider accordingly.

H. If the Meter for the Trading Point of a Generation Company is defective, the Market Operator shall use the monthly generation records of the System Operator to determine energy injected and use as Meter Data for the Market Settlement of the month.

12. COMPLAINTS ON METER DATA

A. Submission of Complaints

- i. In order for Participants to verify the Meter Data and allow for objections or corrections by Participants, the Market Operator shall include the Meter Data used in the Market Settlement as part of the supporting data of the Preliminary Settlement Statement.

- ii. Until the Complaints Submission Date, Participants have the right to send complaints or observations to the Market Operator on the Meter Data for Market Settlement: The complaint must be sent in writing (including E mail) with a valid explanation.
- iii. If within the Complaints Submission Date a Participant does not object in writing (including by E mail) to the Meter Data included as supporting data of the Settlement Statement, it will be considered that the Participant accepts and agrees with the Meter Data used for the Market Settlement for the related month, and the Market Operator shall receive no further complaints, queries or observations on such data.

B. Review of Complaints

- i. The Market Operator shall review all complaints and queries received within the Complaints Submission period, through examination of the data communication with the Participant that submitted the complaint or query, and consultation with the System Operator or requesting the System Operator for a new reading.
- ii. The party that submitted the complaint and the Market Operator shall use their best endeavors to resolve the dispute. Not later than ninety (90) days after the Complaints Submission Date, the Market Operator shall review and resolve all complaints presented by Participants within the defined deadline.
 - a. If the complaint is considered valid, the Market Operator and the Participant shall agree on the Meter Data to be used for the Market Settlement in accordance with this Market Procedure.
 - b. If a complaint is considered not valid, the Market Operator shall inform the Participant that presented the complaint together with the reason for the rejection.
- iii. All Meter Data complaints resolved prior to the corresponding Preliminary Settlement Statement shall be included in the preliminary settlement.
- iv. All Meter Data complaints resolved prior to the corresponding Final Settlement Statement shall be included in the final Market Settlement.
- v. All Meter Data complaints resolved after the corresponding Final Settlement Statement that require a correction to the corresponding final Settlement Statement shall be included in the Market Settlement following the resolution of the complaint, as described in the Settlement Market Procedure.

13. Data Retention Policy

The Market Operator shall keep the Meter Data and Settlement Quantity Meter Data for five years.

SETTLEMENT MARKET PROCEDURE

Purpose

The purpose of this Market Procedure is to describe the settlement calendar and process by which the net amount to be paid by or paid to each Participant is calculated, taking into consideration trading by Participants (buying and selling of electricity), charges for services provided by the Market, penalties, interests for late payment, corrections to previous settlements, other charges applicable (e.g. VAT), in accordance with the Market Rules and the settlement of charges to be paid to the Transmission Services Provider, the System Operator and the Market Operator.

The Settlement Market Procedure also describes the calendar and mechanisms for Participants and the Market Operator to exchange and validate the settlement results and the administration of complaints.

1. DEFINITIONS

- **Distribution Company (*)** means a successor Distribution Company created in the restructuring of the PHCN.
- **Generation Company** means a company created from the generation assets of the Power Holden Company of Nigeria (PHCN) in accordance with the Act.
- **Market Settlement (*)** means the process of calculating charges, due from Participants who are required to make payment, and to be paid to Participants who are due to receive payments, pursuant to the Market Rules.
- **PHCN** means the Power Holden Company of Nigeria.
- **Settlement Quantity Meter Data (*)** means the processed data resulting from application of the validation and collection process to Meter Data obtained from a Meter in respect of each Participant
- **Usage Charges (*)** means the transmission wheeling tariff for the use of the transmission system

2. GENERAL CONDITIONS

A. General Characteristics

- i. Settlements by the Market Operator shall be in Naira.
- ii. Market Settlement shall be made on a monthly basis.

B. Role of Market Operator

The Market Operator shall do the settlement process for the Market it administers and charges by services providers in the Market.

C. Services and Charges

The settlement will include, as appropriate, the following charges for services provided by the market:

- i. Transmission Usage (wheeling) Charges, for the services provided by the Transmission Services Provider;
- ii. System Operation Charge for the services of the System Operator, if not already included in the Transmission Usage Charge;
- iii. Market Operation Charge for the services of the Market Operator;
- iv. Regulatory Charge

D. Market Settlement System

- i. The Market Operator shall administer a settlement system (software and data bases) to calculate the Market Settlement amount payable by each Participant and to be paid to each Participant under the Market Rules, and the charges payable to each services provider.
- ii. The Market Operator shall be responsible for the development and maintenance of the required software, data (inputs and results) of the Market Settlement System.

E. Market Settlement Calendar

- i. The Market Settlement Calendar shall describe the following dates:
 - a. **Preliminary Settlement Date** means the date the Market Operator sends by courier the Preliminary Settlement Statements.
 - b. **Preliminary Complaints Date** means five (5) Business Days after the Preliminary Settlement Date.
 - c. **Notification Date** means the date the Market Operator sends by courier the Final Settlement Statements.
 - d. **Final Complaints Date** means the last date for Participants to submit to the Market Operator complaints on the Final Settlement Statement of a month.

On the first day of July in the new year, the Market Operator shall publish in its Website the Settlement and Payment Calendar, including the timetable for the dates defined in 2(E) of the settlement market procedure.

F. Market Settlement Statement

- i. The Market Settlement by the Market Operator shall calculate the monthly net result for each Participant in view of
 - e. Payment to be received due to energy sales;
 - f. Payment to be received due to sales of ancillary services;
 - g. Minus, payment due to energy purchases;
 - h. Minus, payment due to charges by services provided, as applicable;
 - i. Minus, payment due to penalties or interests for late payments, when applicable;
 - j. Plus or minus corrections to previous settlements.
 - k. Plus or minus any other payments or charges as may be deemed relevant by the Market Operator (eg VAT)

- ii. The Settlement Statements (both the preliminary statement and the final statement) prepared by the Market Operator for a Participant shall include the following items:
 - a. Receivables as a result of energy sales,
 - b. Receivables as a result of sales of ancillary services,
 - c. Payables as a result of energy purchases,
 - d. Transmission Usage Charges (wheeling) for the TSP;
 - e. System operation charge,
 - f. Market Operations Charge for the Market Operator;
 - g. Regulatory Charge;
 - h. Other charges for special services, such as loan services, CHQ Services payment for fuel by Generators, VAT, etc.
 - i. Penalties;
 - j. Corrections to previous settlements,
 - k. Interests for late payments when applicable;
 - l. Share of non-collected receivables, when the amount due was not paid fully the previous month; and

- m. The net Market Settlement amount for the month;
- n. The Settlement Statements prepared by the Market Operator shall include the taxes required by the applicable laws.
- iii. Each Settlement Statement shall be accompanied by the necessary supporting data for the Participant or services provider to whom the Settlement Statement applies to be able to verify the calculations. The supporting data shall explain, as necessary, applicable charges.

G. Preliminary Settlement Statement

- i. Not later than the Preliminary Settlement Date, the Market Operator shall prepare and send a Preliminary Settlement Statement
 - a. To each Participant, showing the expected monthly amount which, as a result of the Market Settlement calculations, would have to be paid by the Participant to the Market Clearing Account(s) if the preliminary Market Settlement amount is negative, or would be paid to the Participant Bank Account from the Market Operator Clearing Account(s) if the preliminary Market Settlement amount is positive; and
 - b. To the Transmission Services Provider, the System Operator, the Market Operator and the Regulatory Commission showing the preliminary charges that, as a result of the Market Settlement calculations, would be paid respectively to the TSP Bank Account and/or the System Operator Bank Account, the Market Operator Bank Account and the Regulatory Commission Bank Account.

H. Complaints to Preliminary Settlement Statement

- i. Until the Preliminary Complaint Date of the month, the Market Operator shall verify the Preliminary Settlement Statement. In case the Market Operator identifies any mistake, the Market Operator shall review the settlement calculations and include the corresponding corrections in the Final Settlement Statements.
- ii. If a Participant or a services provider reasonably believes there is a numeric error or discrepancy in the Preliminary Settlement Statement, the Participant or services provider may file a complaint with the Market Operator not later than the Preliminary Complaint Date of that month. The complaint shall include a valid explanation. Complaints shall relate exclusively to errors in the settlement calculation. All complaints regarding metering data shall be administered separately, as established in the Metering Market Procedure.
- iii. The Market Operator shall review all complaints on numeric error or discrepancy in the Preliminary Settlement Statement, submitted by Participants and services providers within the defined deadline.

- a. If before the Notification Date a complaint submitted is considered valid, the Market Operator shall review the settlement calculations and include the corresponding corrections in the Final Settlement Statements.
 - b. If before the Notification Date a complaint submitted within the deadline is not considered valid, the Market Operator shall notify the party that submitted the complaint (the Participant or the services provider) that the complaint has been rejected with the reasons for the rejection.
- iv. A complaint presented on the Preliminary Settlement Statement shall be considered resolved if the complaint is accepted as valid by the Market Operator and the corresponding correction included in the Final Settlement Statement, or if the complaint is rejected and the Market Operator informed the Participant or services provider that submitted the complaint of the rejection and the reasons that justified such rejection, and the participant agrees.

I. Final Settlement Statement

- i. Not later than the Notification Date, the Market Operator shall prepare and send the Final Settlement Statement
 - a. To each Participant, showing the monthly amount which, as a result of the Market Settlement calculations, is to be paid by a Participant to the Market Clearing Account(s) if the Market Settlement amount is negative, or to be paid to a Participant Bank Account from the Market Operator Clearing Account(s) if the Market Settlement amount is positive, for the corresponding month; and
 - b. To the Transmission Services Provider, the System Operator, the Market Operator and the Regulatory Commission showing the charges that, as a result of the Market Settlement calculations, are to be paid respectively to the TSP Bank Account, the System Operator Bank Account, the Market Operator Bank Account and the Regulatory Commission Bank Account from the Market Operator Clearing Account(s) for the corresponding month.
- ii. The Final Settlement Statement shall include the same type of information as the Preliminary Settlement Statement.
- iii. The objections to a Final Settlement Statement shall not stop the obligation of the Participant to pay the amount due shown in the settlement statement in full.
- iv. Each Participant is obliged to pay the amount shown, if negative, in the Final Settlement Statement even if the Participant continues to object to the

calculations, or if the Participant presented a complaint to the Preliminary Settlement Statement and such objection had still not been decided or resolved by the Market Operator.

J. Complaints to Final Settlement Statement

- i. All complaints presented on the Preliminary Settlement Statement that are not resolved prior to the Final Settlement Statement, shall be considered as objections to the Final Settlement Statement, without the need of the Participant or services provider to submit an additional objection or complaint.
- ii. A Participant or a services provider may reasonably object to the Final Settlement Statement when an error concerning either the settlement amount calculation or the supporting data is identified. The objections shall be submitted in writing (including by Courier or E mail) to the Market Operator not later than the Final Complaint Date. The application for objections shall indicate the valid justification for such objection.
- iii. The Market Operator shall review the reasons for the objection through examination of the data bases and settlement calculations, and communicating with the party that submitted the objection. In case the objection is regarding the metered data, this will be administered in accordance with the Metering Market Procedure.
- iv. The party that submitted the objection and the Market Operator shall use their best endeavors to resolve the dispute. Not later than sixty (60) days the Market Operator shall review and resolve all objections presented by Participants and services providers.
 - a. If the objection is considered valid, the Market Operator shall make the corresponding corrections to the Final Settlement Statements.
 - b. If the objection is not considered valid, the Market Operator shall notify the party that submitted the objection (the Participant or the services provider) that the objection has been rejected with the reasons for the rejection.

K. Corrections to Previous Final Settlement Statement

- i. The Market Operator shall make corrections to Final Settlement Statements in the following cases:
 - a. A Participant or a services provider submitted a complaint regarding a settlement calculation or metered data within the established deadlines, the complaint is considered valid by the Market Operator and either the Metered Data or the calculation needs to be corrected; and/or

- b. If the Market Operator determines an error in a Final Settlement Statement, even without any complaint, prior to the Final Complaint Date.
- ii. When the Market Operator determines that a Final Settlement Statement has to be corrected, the Market Operator shall send a written notification to the affected Participants and/or services provider, with the corresponding explanations.
- iii. The Market Operator shall include the related corrections as a “correction item” in the Settlement Statement corresponding to the first Market Settlement process following the resolution of the complaint or identification of an error by the Market Operator.

PAYMENT MARKET PROCEDURE

Purpose

The purpose of this Market Procedure is to describe the Market payment calendar and the payment system used by Participants to pay or by the Market Operator for payments to Participants, the amounts arising from the Final Market Settlement Statement, and the administration of special conditions such as late payment or insufficient payments, in accordance with the Market Rules.

1. DEFINITIONS

- **Market Settlement (*)** means the process of calculating charges, due from Participants who are required to make payment, and to be paid to Participants who are due to receive payments, pursuant to the Market Rules.
- **Participant Bank Account** has the meaning given to it in Rule 31.6.
- **Transmission Services Provider (TSP) (*)** means the Transmission Unit responsible for the national interconnected transmission system of Nigeria, that provides open access transmission services
- **Usage Charges (*)** means the transmission wheeling tariff for the use of the transmission system

2. GENERAL CONDITIONS

A. General Characteristics

- i. Payments in the Market shall be in Naira or as specified in the PPA.
- ii. Market payments shall be made on a monthly basis in line with the market calendar.

B. Role of Market Operator

- i. Each month the Market Operator shall administer the Market Payment System, for Participants to pay the debit due or be paid the credit for the previous month and for services providers to be paid their corresponding charges, as specified in the Final Settlement Statement.
- ii. The Market Operator shall act in this process representing Participants and services providers, but without assuming payment responsibilities. Debts and credits shall remain as rights and obligations of the Participants, and the Market Operator is not liable for non-payments of Participants.

C. Market Payment System

i. General Characteristics

- a. The Market Payment System shall be through Bank Accounts and transfer procedures, for the purpose of facilitating settlement and ensuring timely payment.
- b. The Market Payment System shall include the following:
 - Bank account of each Participant (Generation Companies, IPPs, Distribution Companies, Special Trader acting as a service provider)
 - Bank account of each service providers (the Transmission Services Provider, the System Operator and the Market Operator)
 - Special funds;
 - Market Accounts; and
 - Transfers between these accounts

ii. Requisites

To qualify as part of the Market Payment System, a Bank Account must fulfill the following requisites:

- The Bank rating must not be lower than **AAA** by Augusto rating or the Banking Index.
- The Bank must commit that all transfer instructions are effected within 48 hours.

iii. Participants' Bank Accounts

- a. As Participants, each Generation Company, each Distribution Company and the Special Trader shall have and maintain a Bank Account for the administration of the Market Payment System, called the Participant Bank Account.
- b. To be authorized as a Participant, the Market Operator must approve the Participant Bank Account.
- c. IPPs may use as Participant Bank Account the account agreed for payments in its PPA.
- d. When applying to register as a Participant, the Applicant Participant shall inform the Market Operator the name of the Bank and number of the proposed account for the Market Payment System, together with a signed declaration that the account complies with the requisites established for the Market Payment System in the Market Rules and this

Market Procedure. The Market Operator shall review the proposed account to verify compliance with the established requisites.

- e. If the Market Operator identifies that the proposed account does not comply with the requisites established in the Market Rules and this Market Procedure, the Market Operator shall reject the application and request the applicant to propose another bank arrangement that meets the requisites.

Please read the information below before completing the participant admission application form.

1. Why do I need to complete this form?

Market Operations (MO)'s is authorized by the Nigerian electricity Regulatory Commission (NERC) to be the sole operator of the wholesale electricity market in Nigeria. One of its responsibilities is to admit and maintain registers of all market participants in the wholesale electricity market. You must complete and submit this form to apply to be a market participant, if you wish to:

- » participate in the wholesale electricity market and/or
- » convey any physical services through the market's facilities.

If you hold more than one electricity license and intend to perform different functions pursuant to those licenses in the wholesale electricity market, you must submit separate application forms for each function.

2. Why has MO developed this form?

The MO has developed this form to facilitate the admission of participants into the wholesale electricity market in accordance with the market rules. You should read the relevant sections of the market rules prior to completing the forms.

3. Am I eligible to apply as a market participant?

Before the MO can fully admit you as a market participant, you must satisfy the following requirements.

- » Hold a valid electricity license or an exemption order granted or issued, by NERC
- » Fall within one of the classes of persons who may apply for admission as a market participant (see below): and
- » Have entered into agreement with the TSP for the use of the transmission system
- » Have entered into agreement with the relevant DISCO for the use of the distribution network (embedded GENCOS and Retailers)

4. What classes of persons may apply for admission?

The classes of persons who may apply for admission as market participant's are:

- » Generation Licensees
- » Electricity retail licensees
- » Distribution Licensees
- » Persons, other than generation electricity or distribution licensees, that have been granted an electricity license by NERC permitting them to trade in the wholesale electricity market

5. When will I know the outcome of my application?

The MO will notify you in writing of the outcome within 5 business days of the receipt of your fully completed admission form or any further information or clarification requested by the MO, whichever is the later (unless you and the MO have agreed a longer time for this process). If your application is declined, the notification will inform why this is the case. A complete and accurate form will help the MO to process your participant admission application within the above stated period.

6. Any application processing fees?

A non-refundable application processing fees, as approved by NERC, in bank draft is to be paid to the market operations account.

7. Any security cover required?

Before your application for admission to start trading in the wholesale market, is proposed, the MO must receive your proposal for the provision of a security cover, pursuant to sections 15.1.4(b) and 15.3.3(a) of the market rule.

Note: All communication between the MO and market participants shall be in writing.

ANNEX 1

APPLICATION FOR PARTICIPANTS ADMISSION

A. APPLICATION FORM

1.0 Applicant Identification Information

1.1 Name of Applicant: _____

1.2 Business Address: _____

1.3 Telephone: _____

1.4 Website: _____

1.5 Facsimile: _____

2.0 Authorized Representative of Applicant Participant

2.1 Name of Authorized Representative

2.2 Business Address of Authorized Representative

2.3 Business Telephone No. of Authorized Representative

2.4 Mobile Telephone Nos. of Authorized Representative

2.5 Business Facsimile number of Authorized Representative

3.0. What electricity license do you hold?

You may only tick in one of the following boxes indicating the type of electricity license you currently hold or the fact that you have been exempted by NERC from the requirement to obtain electricity license with regards to your current activities, as the case may be.

Electricity generator license

Electricity retail license

Electricity distributor license

An electricity license other than a generator, retailer or distributor license permitting the holder to trade in the wholesale electricity market

Applicant approved by NERC to participate without a license (authorization)

Electricity license number (Please attach a copy of license): _____

4.0. Technical Information

Submission of the technical information as contained in appendix I and II attached is a condition for the processing of participant application for admission.

5.0 Any draft agreement between the applicant and TSP or distribution companies? (Attach Copy)

6.0. Information on metering and communication system

Submission of this information on metering and communication system is a condition for the processing of participant application for admission form.

i.	Power Supply	Voltage:
		Current:
		Frequency and tolerance
		System: 3Q 3 wire or 3 Q 4 wire
		Secondary voltage variation
		Type of internal battery and minimum stand by life (year):
		Type of auxiliary battery:
ii.	Accuracy Class	For 33KV:
		11KV:

		132KV:
		330KV:
iii.	Operating Condition	Operating Temperature range:
		Storage temperature range:
		Humidity range:
iv.	Burden	Current circuit
		/5A meter:
		/1A meter:
v.	Casing	Type of casing:
vi.	Screws	Type of screw for:
		a. Current terminals
		b. Voltage terminals
		c. Auxiliary terminals
vii.	Insulation	Insulation level for:
		a. Current circuit:
		b. Voltage circuit:
		c. Current/voltage circuit and relay and other contacts:
viii.	Meter identity	a. Meter serial number
		b. Make of meter:
		c. Pulse nominal value:
		d. Year of manufacturer:
ix.	Events monitoring and reporting	What are the events that the meter can monitor and report their happening?
x.	Anti-tempering	What are the anti – tempering measures has the meter?
xi.	Data storage	For how long can a measured data be stored?
xii.	Communication	Type of communication facilities?

Note: Market Operation shall require tests to be carried out on applicant participant's metering and communication systems. Successful completion of these tests is a condition for admission.

B. FULFILLMENT OF DUTIES AND RESPONSIBILITIES:

1. The Applicant Participant certifies that it has:
 - a. Installed and proven to be operational the communication equipment required to communicate with the System Operator for the activities that it proposes to fulfill, and to comply with the Grid Code;
 - b. Installed and proven to be operational all metering facilities and communication equipment (E-mail/Fax) to communicate with the Market Operator; and
 - c. The Bank Account and transfer mechanism, as required by the Market Rules for the market settlement and payment and to comply with the Market Rules; or
 - d. Certifies that it has installed and proven to be operational all metering facilities and communication equipment (E-mail/Fax) and has the Bank Account and transfer mechanism for the market Rules, settlement and payment, and for the activities that it proposes to fulfill, and to comply with the Market Rules and the Grid Code; or
 - e. Undertakes to install prior to acceptance of its Admission Application the facilities and equipment, and have the Bank Account and transfer mechanisms described in (a) to (c) above.
2. The Applicant Participant further certifies and agrees that the equipment and facilities described in paragraph 1 are, or shall be prior to certification, available for examination, inspection and testing by Market Operator.
3. For the purpose of registration, the Applicant Participant attaches the list of Connection Points, metering facilities and communication equipment, and a description of the Bank Account and transfer mechanism is attached. In the event that the metering facilities are not yet installed as of the date of this Admission Application, a plan and schedule for completion of installation are attached.
4. The Market Operator will assign a Trading Point and a metering system to each Connection Point, which will be used to measure the energy that is injected or withdrawn by the Participant from the Market. When the registration is finalized, the Market Operator will give the Participant the list of Trading Points and metering facilities.
5. **(Only if registering generation)** The Applicant Participant attaches the list of power stations, generation facilities in each power station and generation capacity of each facility.
6. The Applicant Participant certifies that it employs on its own behalf, or has contracted with entities that employ personnel, who are fully qualified and competent to perform the duties, responsibilities, tasks and functions of the Applicant Participant under the Market Rules and the Market Procedures, and under

the Grid Code and the Operating Procedures. The Applicant Participant agrees that the qualifications of such personnel shall be available to the System Operator and the Market Operator for review.

C. ADDITIONAL OBLIGATIONS:

1. The Applicant Participant agrees to comply with all terms and conditions of the Market Rules, the Market Procedures, the Grid Code and the Operating Procedures, as they may be modified from time to time.
2. The Applicant Participant undertakes that, after registration is confirmed by the Market Operator, the Participant shall inform the Market Operator through written notification any and all changes to the information provided on or attached to this Admission Application form within three (3) Business Days of the change(s). A change in the Authorized Representative or the Bank Account for the Market shall be notified immediately.
3. By submitting this Admission Application, the Applicant Participant shall be deemed to agree to abide by the provision of the Market Rules.
4. The Applicant Participant certifies that all information contained in or attached to this Admission Application is true and correct, to the best of its knowledge and belief.

Signature of Authorized Representative of Applicant Participant _____

Date: _____

Name: _____

Title: _____

APPENDIX I

APPLICABLE ONLY TO GENCOS AND IPPs

- i. Technical data for Applicant Participant's Generating Unit listing the Generating Unit's fixed electrical parameters.
- ii. The Applicant Participant's system data, comprising single-line diagrams and the electrical parameters relating to the applicant participant's facilities connected to the System Operator Controlled Grid.
- iii. The applicant participant's load characteristics, providing the estimated parameters of load groupings in respect of, for example, harmonic content and response to frequency deviations.
- iv. Data relating to Reactive Support Service Facilities other than those owned by the TSP.
- v. Short circuit in feed to the System Operator Controlled Grid from the applicant participant's system at any connection point.
- vi. Maximum net capacity of the generating unit.
- vii. Minimum synchronization time of the generating unit.
- viii. Minimum level of output for which the generating unit must, or is scheduled to run.
- ix. The minimum continuous run time of the generating unit, if it is scheduled to run.
- x. The minimum continuous downtime of the generating unit, if it is scheduled to Desynchronize.
- xi. The maximum ramp-up rate of the generating unit.
- xii. The maximum ramp-down rate of the generating unit.
- xiii. The maximum availability.
- xiv. The ancillary service capability.
- xv. The Governor droop; and
- xvi. Automatic voltage regulator capability.
- xvii. Such other details, information and documentation as may reasonably be required by the system operator.

Note: Market Operator shall require test to be carried out on applicant participant's equipment. Successful completion of these tests is a condition for admission.

APPENDIX II

APPLICABLE ONLY TO RETAILERS, DISCOS AND ELIGIBLE CUSTOMERS

- i. Technical data for applicant participant's power transformer(s)
- ii. Single line diagram of applicant participants network, showing the geographical locations of all distribution transformers, ring main unit, isolator etc.
- iii. List of injection sub-stations, manned or un-manned and their conditions and locations.
- iv. Load characteristics of the area of operation, showing maximum demand, minimum demand and expected annual load growth rate.
- v. Revenue generation profile in the past 2 years and expected annual growth rate.
- vi. List of distribution transformers, showing, serial number, capacities, voltage ratio, frequency, full load losses and no-load losses.
- vii. Percentage loading of power and distribution transformers
- viii. Customer population according to their demography, and their expected annual growth rate.
- ix. Stock level of fast moving distribution materials, e.g. conductors, cables, transformer oil, fuses, feeder pillars, etc.
- x. Stock level of equipments, e.g. power transformers, distribution transformer, panels, breakers, etc.
- xi. List of metered customers, customers on direct connections and customers with faulty meters.
- xii. List of meters in circuit, showing details of type.

Note: Market Operator shall require that a physical inspection of the applicant participant installation and network be carried out. Successful conduct of this inspection is a condition for admission.

ANNEX 2

CONTRACT REGISTRATION FORM

PARTIES	SELLER	PARTICIPANT IDENTIFICATION CODE	NAME OF PARTICIPANT	
	PURCHASER	PARTICIPANT IDENTIFICATION CODE	NAME OF PARTICIPANT	
DURATION		DAY	MONTH	YEAR
	START DATE			
	END DATE			
	RENEWAL	CONDITIONS FOR RENEWAL IF ANY		
	NAME OF POWER STATION	GENERATION UNITS SELLING IN THIS CONTRACT		
ENERGY CONTRACTED (KWh)	FROM:	TO:	PROFILE OF ENERGY CONTRACTED (KWh)	
	MONTH/YEAR	MONTH/YEAR		
GENERATION CAPACITY CONTRACTED (KW)	FROM:	TO:	PROFILE OF GENERATION CAPACITY CONTRACTED (KW)	
	MONTH/YEAR	MONTH/YEAR		

SIGNATURE OF PARTICIPANT’S REPRESENTATIVE:

.....

NAME:

.....

TITLE:

.....

DATE:

.....

ANNEX 3

CONTRACT MODIFICATION FORM

PARTIES	SELLER	PARTICIPANT IDENTIFICATION CODE	NAME OF PARTICIPANT	
	PURCHASER	PARTICIPANT IDENTIFICATION CODE	NAME OF PARTICIPANT	
DURATION		DAY	MONTH	YEAR
	START DATE			
	END DATE			
	RENEWAL	CONDITIONS FOR RENEWAL IF ANY		
	NAME OF POWER STATION	GENERATION UNITS SELLING IN THIS CONTRACT		
ENERGY CONTRACTED (KWh)	FROM:	TO:	PROFILE OF ENERGY CONTRACTED (KWh)	
	MONTH/YEAR	MONTH/YEAR		
GENERATION CAPACITY CONTRACTED (KW)	FROM:	TO:	PROFILE OF GENERATION CAPACITY CONTRACTED (KW)	
	MONTH/YEAR	MONTH/YEAR		

SIGNATURE OF PARTICIPANT’S REPRESENTATIVE:

.....

NAME:

.....

TITLE:

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DATE:

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