

National Power Corporation
(SERVICE PROVIDER)

TERMS AND CONDITIONS

FOR

THE SALE OF

ANCILLARY SERVICES

OCTOBER 2002

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GENERAL TERMS AND CONDITIONS

1. Purpose and Applicability

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- 1.1 To pursue the mandate under Republic Act 9136, the Philippine Grid Code and consistent with the decision of the Energy Regulatory Commission on June 26, 2002.
- 1.2 To define the terms and conditions of sale of Ancillary Services to Customer in order to maintain quality, reliability and security in the transmission of capacity and energy from resources to loads, in accordance with Good Utility Practice.

The SERVICE PROVIDER, pursuant to the Terms and Conditions contained herein, the Philippine Grid Code, and R.A. 9136, shall provide Ancillary Services and accordingly charge the rates found in Annexes 1 and 2, whichever is to be approved by the Energy Regulatory Commission (ERC).

2. Definition of Terms

Act. Republic Act No. 9136 also known as the "Electric Power Industry Reform Act of 2001", mandates the restructuring of the electricity industry, the Privatization of the National Power Corporation (SERVICE PROVIDER), and the institution of reforms, including the promulgation of the Philippine Grid Code (PGC) and the creation of the National Transmission Company.

Active Energy. The integral part of the Active Power with respect to time, measured in Watt-hour (Wh) or multiples thereof. Unless otherwise qualified, the term "Energy" refers to Active Energy.

Active Power. The time average of the instantaneous power over one period of the electrical wave, measured in Watts (W) or multiples thereof. For AC circuits or Systems, it is the product of the root-mean-square (RMS) or effective value of the voltage and the RMS value of the in-phase component of the current. In a three-phase System, it is the sum of the Active Power of the individual phases.

Ancillary Services. Services that are necessary to support the transmission of capacity and energy from resources to loads in order to maintain power quality, reliability and security of the transmission system in accordance with good industry practice and the Philippine Grid Code.

Ancillary Service Agreement. The agreement and any amendments or supplements thereto entered into by and between the Ancillary SERVICE PROVIDER and its Customer.

Ancillary Service Rates. The firm and non-firm rates found in Annexes 1 and 2, whichever is approved by the ERC, pertaining to provision of ancillary

services. These are expressed in P/kW, P/kWh, or P/MVArh on a monthly or daily basis for firm and non-firm services, respectively.

Applicable Law. The Constitution and all laws, statutes, treaties, rules, codes, ordinances, regulations, certificates, orders, decrees, resolutions, directives, rulings, interpretations, approvals, licenses and permits of any Government Authority, and judgments, decrees, injunctions, writs, orders or like actions of any court, arbitrator, or any administrative, judicial or quasi-judicial tribunal or agency of competent jurisdiction, including but not limited, to R.A. No. 9136 and its implementing rules, the Grid Code, Distribution Code, The WESM Rules, in each case as applicable to this Agreement and as maybe amended, modified, supplemented or replaced from time to time.

Back-up Energy. The energy supplied to a Customer's transmission system load/s for a specific period when the Customer's Grid experienced an outage, whether scheduled or unscheduled, and Spinning Reserve was not available.

Back-up Power. The supply of capacity to a Customer's transmission system load/s in the event that the Customer's Grid Generating Resource/s is experiencing an outage, whether scheduled or unscheduled, and Spinning Reserve no longer applies.

Billing Period. The time interval as agreed upon by the SERVICE PROVIDER and Customer in which Customer's consumption is regularly recorded, accumulated and read for the purpose of billing.

Black Start Capability. The ability of a generating unit to shift from a shutdown condition to an operating condition without assistance from the electrical grid and then to energize the grid to help other units start after the occurrence of blackout in accordance with the Grid Code.

Computed Value. The amount derived using available meter readings, gross-up of actual system losses and other variables for the preceding month, as agreed between the SERVICE PROVIDER and the Customer. In the absence of electronic metering facilities, average system losses for the past year per grid shall be used.

Connection Agreement. An agreement between the SERVICE PROVIDER and the Customer, which specifies the terms and conditions pertaining to the connection of the SERVICE PROVIDER's equipment to a new connection point in the Grid.

Contingency Reserve. Generating capacity that is intended to take care of the loss of the largest Synchronized Generating Unit or the power import from a single Grid interconnection, whichever is higher. Contingency Reserve includes Spinning Reserve and Back-up Reserve.

Contracted Capacity. The level of capacity reserved by SERVICE PROVIDER for the Customer in accordance with the Ancillary Service Agreement.

Customer. Any electric utility, power marketer, entity generating electric energy for sale, or bulk power customer as may be lawfully authorized to take unbundled services and that executes or is party to an Ancillary Services Agreement.

Department of Energy (DOE). The government agency created pursuant to Republic Act No. 7638 which provide with the additional mandate under the Act of supervising the restructuring of the electricity industry, developing policies and procedures, formulating and implementing programs, and promoting a system of incentives that will encourage private sector investments and reforms in the electricity industry and ensuring an adequate and reliable supply of electricity.

Demand. The Active Power and/or Reactive Power at a given instant or averaged over a specified interval of time, that is actually delivered or is expected to be delivered by an electrical Equipment or supply System. It is expressed in Watts (W) and/or VARs and multiples thereof.

Disconnection. The opening of an electrical circuit to isolate an electrical System or Equipment from a power source.

Dispatch. Refers to the real-time control of all generation and transmission resources that are currently on-line and available to meet the demand and to maintain reliability and security for optimum power quality of the transmission system.

Dispatch Instruction. Refers to the instruction issued by the System Operator to the Generators with Scheduled Generating Units and the Generators whose Generating Units will provide Ancillary Services to implement the final Generation Schedule in real time.

Distribution Code. The set of rules, requirements, procedures, and standards governing Distribution Utilities and Users in the operation, maintenance, and development of their Distribution Systems. It also defines and establishes the relationship of the Distribution Systems with the facilities or installations of the parties connected thereto.

Distribution Utility. An Electric Cooperative, private corporation, government-owned utility, or existing local government unit, that has an exclusive franchise to operate a Distribution System in accordance with R.A. 9136.

Equipment. All apparatus, machines, conductors, etc. used as part of, or in connection with, an electrical installation.

Energy. Unless otherwise qualified, refers to the Active Energy.

Energy Imbalance. The hourly mismatches of energy generated between scheduled and actual dispatch of any generating plant.

Energy Regulatory Commission (ERC) The independent, quasi-judicial regulatory body created pursuant to R.A. 9136, which is mandated to promote competition, encourage market development, ensure customer choice, and penalize abuse of market power in the restructured electricity industry.

Firm Ancillary Service. A type of Ancillary Service that is equivalent in priority to SERVICE PROVIDER's generating resources offered to Customer and is available upon demand on a monthly basis, subject to exceptions related to unscheduled events or curtailment of network capacity.

Force Majeure. Events beyond the reasonable control of the party claiming force majeure which, through the exercise of due foresight and Good Industry Practice, that party could not have avoided and which, by exercise of due diligence, that party is unable to overcome. Such events include, but are not limited to the following, to the extent that such event prevents performance by a party of an obligation: flood, lightning strikes, earthquake, fire, epidemic, war, invasion, riot, civil disturbance, sabotage, explosion, insurrection, military or usurped power, strike, labor dispute, action of any court or governmental authority, system blackout or any civil or military authority, *de facto* or *de jure*, act of the public disorder, or any other event or cause of a similar nature beyond the reasonable control of the party claiming force majeure.

Frequency. The number of complete cycles of a sinusoidal current or voltage per unit time, usually measured in cycles per second or Hertz.

Good Industry Practice. The practices and methods not specified in specific standards but are generally accepted by the power industry to be sound and ensure the safe and reliable planning, operation, and maintenance of a power system.

Grid. The high voltage backbone System of interconnected transmission lines, substations and related facilities for the purpose of conveyance of bulk power. Also known as Transmission System.

Grid Code. The set of rules, requirements, procedures, and standards to ensure the safe, reliable, secure and efficient operation, maintenance and development of the high voltage backbone Transmission System and its related facilities.

Imbalance Service. The use of generation capacity and energy to correct the hourly mismatches between actual and scheduled transactions between suppliers and their customers.

Load Following and Frequency Regulation Service. A service that provides generating capacity necessary to adjust total system generation over short

periods of time to match system load changes resulting from random fluctuations in total Transmission System load.

Load. An entity or an electrical Equipment that consumes electrical energy.

Maintenance Service. The supply of electricity to a Customer's generating station while it is out of service for maintenance or repair.

Marginal Cost. Refers to the total variable costs of the most expensive generating plant (marginal plant) needed to supply the immediate demand for electricity.

Market Rules. The rules that govern the administration of the Wholesale Electricity Spot Market (WESM).

National Power Corporation (NPC). The government corporation created under Republic Act No. 6395, as amended, whose generation assets, real estate, and other disposable assets, except for the assets of SPUG, And IPP contracts, shall be privatized, and whose transmission assets shall be transferred to the Power Sector Assets and Liabilities Management Corporation (PSALM).

Non-Firm Service. Refers to the service that can be withdrawn at any time for whatever valid reason the SERVICE PROVIDER may consider in accordance with the Terms and Conditions. The billing determinant is the actual amount measured on a daily basis.

OATS Rules. The set of Rules, Terms, and conditions governing the implementation of the OATS, as approved by the ERC.

Plant Gate. The point where the SERVICE PROVIDER shall measure the demand and energy consumed in any billing period in case the point of receipt is not available.

Point/s of Delivery. Point/s of interconnection located at the boundary delineating the assets between the SERVICE PROVIDER and Customer, where capacity and energy will be made available to the Customer by the designated generating resources.

Point/s of Interconnection. A point or points between the asset boundary of the SERVICE PROVIDER and Customer.

Prevailing Energy Charges. The Generation Charge, Franchise and Benefits to Host Communities Taxes and all other energy-related charges as may be allowed by the ERC (such as Foreign Exchange Adjustment – FOREX), excluding charges covering cross subsidies.

Reactive Power and Voltage Control Service. The injection or absorption of reactive power from generators to maintain transmission system voltages within required ranges.

SERVICE PROVIDER. The Generating Plants authorized by the ERC to operate a facility/ies used in the generation of electricity.

Shutdown. The condition of the plant and its associated equipment when it is de-energized or disconnected from the system.

Small Power Utilities Group (SPUG). The functional unit of NPC created to pursue the missionary electrification function.

Spinning Reserve Service. A service that provides generating capacity necessary to respond immediately to infrequent, but usually large, failures of generating units or transmission plant in accordance with the Philippine Grid Code. This service is limited to a period not exceeding 30 minutes.

Start-up Service. The supply of capacity and energy to a generating unit in preparation for its synchronization to the transmission grid.

System Control Operator. The party responsible for generation dispatch, the provision of Ancillary Services, and operation and control to ensure safety, power quality, stability, reliability and the security of the Grid.

Terms. The Terms and Conditions for providing Ancillary Services including the proposed Ancillary Services rates by the SERVICE PROVIDER to the Customer, as approved by the ERC.

Customer. The party that owns the high voltage backbone Transmission System and is responsible for maintaining adequate grid capacity in accordance with the provisions of the Grid Code, more commonly known as TRANSCO.

Transmission Service. The combined Power Delivery Service and associated Ancillary Services provided under the OATS Rules.

Value-Added Tax (VAT). An indirect tax levied on any person or entity who, in the course of trade or business, sells, barter, exchanges, leases goods or properties, renders services, or imports goods.

Unconstrained Generation Schedule. The generation schedule without considering any operational constraints such as the Grid constraints changes in Generating unit declared data and parameters, and changes in forecasted data.

Wholesale Electricity Spot Market (WESM). The electricity market established by the DOE pursuant to Section 30 of the Act.

WESM Rules. The Rules that govern the administration and operation of the Wholesale Electricity Spot Market (WESM).

3. The Service Provider

- 3.1 The SERVICE PROVIDER shall provide Ancillary Services as one entity with sub-entities in Luzon, Visayas and Mindanao. Each Sub-entity comprises of all the plants geographically and organizationally included in its portfolio including all of its Independent Power Producers (IPPs), as applicable.
- 3.2 The SERVICE PROVIDER shall undergo, if necessary, pre-qualification requirements to determine the capability of plants under its portfolio to provide any or all of the Ancillary requirements of the customers.

4. Effectivity

- 4.1 The Terms shall take effect upon approval by the ERC and shall be applicable as long as the Customer seeks to procure Ancillary Services to maintain the power system in a secured, reliable and efficient operating state. This shall remain in force and effect until the market for Ancillary Services becomes competitive and/or the approval of a new set of rules, terms and conditions by the ERC upon application by the SERVICE PROVIDER or until the SERVICE PROVIDER finds the terms, conditions or rates inappropriate, inconsistent or disadvantageous to its business interest.
- 4.2 All Ancillary Service Agreements validly entered into and executed by SERVICE PROVIDER, as Ancillary Services Provider, under the Terms shall be respected and shall continue to be in force and effect to the extent that the provisions thereof are not inconsistent with R.A. 9136, the Grid Code, and the provisions of the OATS Rules.

5. Scope of Service and Applicable Rates

- 5.1 The provision of Ancillary Services herein stated including the proposed rates based on Embedded Cost (Annex 1) and Long Run Marginal cost (Annex 2) methodologies, whichever is approved by the ERC shall be applicable to the Customer, unless otherwise revised in accordance with R.A. 9136.

6. Grid Connection and Connection Agreement

The SERVICE PROVIDER shall secure the required Connection Agreement with Customer in accordance with the Grid Code before the Ancillary Services can be made available to the Customer.

7. Billing Procedure and Payment Procedure

- 7.1 **Billing Procedures.** The SERVICE PROVIDER shall bill the Customer based on the contracted capacity or actual load dispatch of the SERVICE

PROVIDER as measured at the Point of Receipt, whichever is higher. In the absence of actual load due to lack of appropriate metering facilities, the computed value of the load or the contracted capacity, whichever is higher, shall be used. Within ten (10) days after the end of the billing period, the SERVICE PROVIDER shall issue an invoice to Customer containing all the ancillary and ancillary-related charges during the preceding month. Customer shall pay the amount stated in the invoice within twenty (20) days upon receipt thereof. All payments shall be made, in immediately available funds, payable to the SERVICE PROVIDER, or by wire transfer to a bank designated by the SERVICE PROVIDER.

- 7.2 **Interest on Unpaid Balances.** Interest on any unpaid amounts (including amounts placed in escrow) shall be calculated at a rate equivalent to two percent (2%) per month or a fraction thereof on unpaid amounts from the due date of the bill. Interest shall be computed based on a 360-day year.
- 7.3 **Customer Default.** In the event Customer fails, for any reason other than a billing dispute as described below, to make payment to the SERVICE PROVIDER on or before the due date as described above, and such failure of payment is not corrected within thirty (30) calendar days after SERVICE PROVIDER notifies the Customer to rectify such failure, a default by the latter shall be deemed to exist. Upon the occurrence of default, SERVICE PROVIDER shall provide notice to the Customer of its intention to suspend service in thirty (30) days, and may suspend service thereafter if it does not receive payment by the end of such period.
- 7.4 **Billing Dispute.** In the event of a billing dispute between SERVICE PROVIDER and Customer, SERVICE PROVIDER shall continue to provide service under the Ancillary Service Agreement as long as Customer continues to make all payments including the portion of the invoice in dispute, pending resolution of such dispute. SERVICE PROVIDER shall settle the dispute within thirty (30) days. If the Customer fails to meet the requirement for continuation of service, the SERVICE PROVIDER shall notify the Customer of its intention to suspend service upon the lapse of sixty (60) days from Customer's receipt of notice, and may suspend service following such period.
- 7.5 **Billing Adjustments.** In the event that a billing is found erroneous due to wrong reading of meter, or arithmetical mistakes or omissions, SERVICE PROVIDER shall send Customer a credit/debit memo to correct the error within sixty (60) days from the date of the receipt of the bill.

8. Metering

- 8.1 The Metering Standards and Procedures, installation, operation and maintenance of all billing meters at the point of receipt, including Testing, and shall be in accordance with the provisions of the Grid Code and the WESM Rules.
- 8.2 In every meter reading/downloading of information from the meters with regard to the actual consumption for the billing period, representatives of the

SERVICE PROVIDER and the Customer shall witness the actual meter reading/downloading on site.

- 8.3 In cases where billing meters are not available at the point of receipt, the SERVICE PROVIDER shall make use of meter at the plant gate, and consider all losses within the asset boundary of SERVICE PROVIDER, on a per plant basis, as agreed upon between SERVICE PROVIDER and Customer.

9. Records and Inspections

- 9.1 SERVICE PROVIDER shall keep a record of the revenues accrued from the ancillary service and ancillary service-related charges, which shall be booked into separate accounts or sub-accounts representing payments made by the Customer.
- 9.2 The Customer may, at any time and for a reasonable purpose, upon prior notice, inspect the Grid Generating Resource/s, plants, equipment, facilities and records of the SERVICE PROVIDER in order to determine whether the SERVICE PROVIDER is complying with its obligations under the Terms.

10. Regulatory Filings

- 10.1 Nothing contained in the Terms or Ancillary Services Agreement shall be construed as affecting in any way the right of SERVICE PROVIDER to unilaterally submit to the ERC an application for change in rates/charges, terms and conditions, classification of service, rule or regulation.
- 10.2 Nothing contained in the Terms or any Service Agreement shall be construed as affecting in any way the ability of the Customer to exercise its similar rights under R.A. 9136, the Grid Code, Distribution Code and related laws and regulations.

11. Force Majeure and Indemnification

- 11.1 **Force Majeure.** Neither the SERVICE PROVIDER nor the Customer shall be considered in default as to any obligation under the Terms if it is prevented from fulfilling its obligations due to a Force Majeure Event. However, a party, whose performance of its obligations under the Terms is hindered by a Force Majeure Event, shall make all reasonable efforts to perform its obligations hereunder. Force Majeure Events shall not affect the obligation of the Customer to make payments to SERVICE PROVIDER as provided herein.

12. Dispute Resolution Procedures

- 12.1 **Internal Dispute Resolution Procedures.** Any dispute between the SERVICE PROVIDER and the Customer involving Ancillary Services under the Terms (excluding applications for rate changes or other changes to the Rate Schedule, which shall be filed directly to the ERC) shall be referred

in writing to senior representatives of the SERVICE PROVIDER and the Customer for resolution on an informal basis as promptly as practicable. In the event the designated representatives are unable to resolve the dispute within thirty (30) days (or such other period as the parties have agreed upon) by mutual agreement, such dispute may be submitted to and resolved by external arbitration provided, that where dispute involves interpretation or application of the Terms and/or the Ancillary Services Agreement in relation to the administration or interpretation of the Grid Code, it shall be referred to the Grid Management Committee, and resolved in accordance with the dispute resolution procedures provided in the Grid Code.

12.2. External Arbitration Procedures. Any arbitration initiated under the Terms shall be conducted before a single neutral arbitrator appointed by the parties. If the parties fail to agree upon a single arbitrator within ten (10) days of the referral of the dispute to arbitration, each party shall choose an arbitrator who shall sit on a three-member arbitration panel. Within twenty (20) days from selection, the two (2) arbitrators so chosen shall select a third arbitrator, who shall chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric industry matters, including electric generation and transmission bulk issues, and shall not have any current or past substantial business or financial affiliations with any party involved in the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with generally accepted arbitration rules.

12.3 Arbitration Decisions. Unless otherwise agreed upon by the parties, the arbitrator(s) shall render a decision within ninety (90) days from the completion of the three-member arbitration panel and shall notify the parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the Terms and shall have no power to modify or change the Terms in any manner. The decision of the arbitrator(s) shall be final and binding upon the parties, and judgment on the award may be entered in any court having jurisdiction. The final decision of the arbitrator(s) shall also be filed with the ERC if it affects jurisdictional rates, terms and conditions of service or facilities;

12.4 Costs. Each party shall be responsible for its own incurred costs during the arbitration process and for the following costs, if applicable:

12.4.1 The cost of the arbitrator chosen by the party to sit in the three-member panel and half of the cost of the third arbitrator chosen; or;

12.4.2 One half the cost of the single arbitrator jointly chosen by the parties.

13. Termination of Service

13.1 Any parties have the right to initiate termination of service agreements on the following grounds:

- 13.1.1 Termination of the Connection Agreement and/or Transmission Service Agreement of the Service Provider;
- 13.1.2 Termination of the Power Purchase Agreement (PPA) or Energy Conversion Agreement (ECA) of the contracted plant of the SERVICE PROVIDER.
- 13.1.3 Extended Force Majeure Event as provided in clause 11.1.

14. Assignment of Rights

- 14.1 The SERVICE PROVIDER may assign or transfer any ancillary services either for a certain number of billing periods or permanently subject to the following conditions:
 - 14.1.1 In any untoward incidents, which may arise such as the shutdown of plants like forced outage, tripping of associated lines due to faults, and any other related unforeseen circumstances where it prohibits the plants of the SERVICE PROVIDER to generate ancillary services.
 - 14.1.2 In any scheduled instances, which may arise, such as planned outage or maintenance outage of the plants of the SERVICE PROVIDER, where the latter is impeded in generating ancillary services.
- 14.2 The assignment of rights or transferring of such ancillary services shall relieve all the rights and obligations of the SERVICE PROVIDER to supply the necessary ancillary service.

15 Non-Waiver of Rights and Privilege.

- 15.1 Non action or reaction on the part of the SERVICE PROVIDER in any case of unforeseen incidents or events, which may occur, shall not in any way be misconstrued as waiving its rights and privilege.

TERMS OF SERVICE

1. Scope of Ancillary Services

Ancillary Services include all services necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation to the Customer's transmission system in accordance with Good Industry Practice. Ancillary Services are needed to provide satisfactory service to the Transmission System. The SERVICE PROVIDER shall offer to the Customer the following Firm and Non-Firm Ancillary Services:

- a. Load Following and Frequency Regulation**
- b. Spinning Reserve**
- c. Energy Imbalance**
- d. Back-up Power**
- e. Back-up Energy**
- f. Unscheduled Back-up Power Service**
- g. Unscheduled Back-up Energy**
- h. Black Start Capability**
- i. Reactive Power and Voltage Control**
- j. Maintenance Power and Energy**
- k. Start-up Power and Energy**

2. Obligations of SERVICE PROVIDER

2.1 The SERVICE PROVIDER shall offer to the Customer the Ancillary Services in accordance with the terms and conditions provided herein.

2.2 The SERVICE PROVIDER shall ensure that the minimum technical requirements, for each Ancillary Service are met throughout the Terms.

2.3 The SERVICE PROVIDER shall ensure that its Grid Generating Resources contracted to provide Ancillary Service is capable of providing each Ancillary Service at the relevant contracted level of performance.

2.4 The SERVICE PROVIDER shall provide the Customer, as applicable, with the daily unconstrained generation schedule of the Ancillary Services commitments on a per plant basis.

4. 3. Obligations of Customer

3.1 The Customer shall provide the SERVICE PROVIDER, as applicable, on a daily basis, as well as on real-time, the status of the transmission system and available transmission capacity.

- 3.2 The Customer shall provide the SERVICE PROVIDER on a monthly basis the actual system loss for the preceding month for each transmission system.
- 3.3 The Customer shall confirm the specified Ancillary Service dispatched availed on a daily basis.
- 3.4 The Customer shall furnish the SERVICE PROVIDER, on a monthly basis, with sufficient evidence of its compliance pertaining to the Performance Standards for Transmission set forth in the Grid Code.

4. Requests for Ancillary Services

- 4.1 The SERVICE PROVIDER shall supply the Ancillary Services as requested by the Customer (Annex 3).
- 4.2 The SERVICE PROVIDER shall use all reasonable efforts to comply with the request.
- 4.3 If, at any time, the SERVICE PROVIDER considers that the contracted plant in respect of an Ancillary Service is, or will become, incapable of meeting any of the minimum technical requirements or providing the Ancillary Service in accordance with any of the contracted levels of performance, then SERVICE PROVIDER shall immediately notify Customer accordingly. The notice shall specify the following:
 - a) when the contracted plant becomes, or will become incapable of meeting any of the technical requirements or providing the Ancillary Service in accordance with any of the Contracted Levels of Performance;
 - b) the duration for which the SERVICE PROVIDER expects the incapability to continue; and
 - c) the cause of the incapability and whether in the reasonable and good faith judgment of the SERVICE PROVIDER, the incapability is due to a Force Majeure Event.
- 4.4 If, at any time and for any reason, the Customer will not be able to dispatch the scheduled Ancillary Service, it shall immediately notify the SERVICE PROVIDER of its inability to deliver the said services stating among others, a) the reason/s for the said incapability, b) the estimated duration of said incapability, and whether, in the reasonable and good faith judgment of the Customer, the incapability is due to a Force Majeure Event.
- 4.5 Notwithstanding the dispatch instructions issued to the SERVICE PROVIDER, and whenever required for the security and reliability of the grid, the Customer may direct the SERVICE PROVIDER to

provide Ancillary Services although unscheduled, or at a level higher than that stated in the dispatch instructions. The SERVICE PROVIDER shall not unreasonably refuse to provide such Ancillary Services. Neither shall the SERVICE PROVIDER be precluded from exercising its rights under clause 4.3 in good faith and when applicable.

5. Charges and Settlements

5.1 **Monthly Charges.** The Customer shall pay SERVICE PROVIDER monthly demand and energy charges, as applicable, for all Ancillary Services, based on the prevailing rates approved by the ERC, subject to any adjustment to cover Value-added Tax (VAT) and other applicable taxes and adjustments as may be allowed by ERC. The applicable rates are provided herein in Annex 1 and Annex 2, whichever is to be approved by ERC.

5.2 Billing Determinants.

5.2.1 **Demand.** The demand-related Ancillary Service rates shall be applied to the contracted or actual demand measured at the Point/s of Delivery; whichever is higher, rounded to the nearest full kilowatt (KW). In the absence of actual demand due to lack of appropriate metering facilities, the computed value of demand or the contracted demand, whichever is higher, shall be used.

5.2.2 **Energy.** The energy-related Ancillary Service rates shall be applied to the actual energy generated, measured at the Point/s of Delivery, rounded to the nearest full kilowatt-hour (kWh), due to actual provision of back-up power.

5.2.3 **Reactive Energy.** The reactive energy-related Ancillary Service rates shall be applied to the actual reactive energy generated, measured at the Point of Delivery, rounded to the nearest full Megavar-hour (MVARh), due to actual provision of back-up power.

5.3 Mode of Payments

5.3.1 Firm Ancillary Services shall be charged on a monthly basis in accordance with the Firm Ancillary Charges (Annex 1 and Annex 2), whichever is to be approved by ERC.

5.3.2 Non-Firm Ancillary Service shall be charged on a daily (as used) or on "as available" basis in accordance with the Non-Firm Ancillary Charges (Annex 1 and Annex 2), whichever is to be approved by ERC.

- 5.3.3 The proposed rates in Annex 1 and 2 shall be adjusted accordingly, depending on the Customer's Ancillary percentage reserve requirements (i.e. Load Following and Frequency Regulation – 2.8%. Spinning Reserve – 10.4% and Back-up – 19.6%).
- 5.3.4 For purposes of billing Ancillary Services, the following shall be used in determining the corresponding firm and non-firm charges:
- 5.3.4.1 Load Following and Frequency Regulation - (LFFR) the contracted or the actual load in KW, as measured at the Point/s of Delivery, whichever is higher, of the SERVICE PROVIDER dispatched for purposes of LFFR, rounded to the nearest full kilowatt (kW) multiplied by applicable LFFR rate in Annex 1 or Annex 2, whichever is to be approved by the ERC. In the absence of actual load due to lack of appropriate metering facilities, the computed value of the load or the contracted demand, whichever is higher, shall be used;
 - 5.3.4.2 Spinning Reserve (SR) – the contracted or the actual load in kW, as measured at the Point/s of Delivery, whichever is higher, of the SERVICE PROVIDER dispatched for purposes of SR, rounded to the nearest full kilowatt (kW), multiplied by applicable SR rate in Annex 1 or Annex 2, whichever is to be approved by the ERC. In the absence of actual load due to lack of appropriate metering facilities, the computed value of the load or the contracted demand, whichever is higher, shall be used;
 - 5.3.4.3 Back-up Power (BUP) – the contracted or the actual load in kW, as measured at the Point/s of Delivery, whichever is higher, of the SERVICE PROVIDER dispatched for purposes of BUP, rounded to the nearest full kilowatt (kW), multiplied by applicable BUP rate in Annex 1 or Annex 2, whichever is to be approved by the ERC. In the absence of actual load due to lack of appropriate metering facilities, the computed value of the load or the contracted demand, whichever is higher, shall be used;
 - 5.3.4.4 Back-up Energy (BUE) - the related energy generated, measured at the Point/s of Delivery, rounded to the nearest full kilowatt-hour (kWh), due to actual provision of back-up power multiplied by the appropriate energy related ancillary service rate in Annex 1 or Annex 2, whichever is to be approved by the ERC.
 - 5.3.4.5 Reactive Supply and Deficiency – the related reactive energy generated at the Point/s of Delivery, rounded to the

nearest full Megavar-hour (MVAh), due to actual provision of back-up power multiplied by the applicable Reactive Supply and Deficiency charge in Annex 1 or Annex 2, whichever is to be approved by the ERC.

5.3.5 In the event that the Back-up Power Service is actually supplied by SERVICE PROVIDER as a result of the outage of the Customer's grid, the proposed rate schedule for Ancillary Services to be approved by ERC shall be applied as follows:

5.3.5.1 For provision of Back-up Power Service during unscheduled outage of more than 30 minutes continuously (without prior notice to the Customer):

(Back-up Power Rate in P/kW/day X total kW consumed)
+ (Applicable Energy Rate X 1.5 X total Back-up energy generated)

5.3.5.2 For provision of Back-up Power Service due to scheduled outage:

(Back-up Power Rate in P/kW/month X total kW consumed) + (Applicable Energy Rate X total Back-up energy generated)

5.3.5.3 Energy Imbalance (EI) shall be recorded in whole kWh and shall be recorded separately on an hourly basis.

5.3.5.3.1 When EI is within the +/-1.5% deviation band, both the SERVICE PROVIDER and the Customer can choose either to make in-kind payment (return-in-kind) during corresponding later hours, or settle in cash, within the next billing period, using marginal cost or prevailing energy charges, whichever is higher

5.3.5.3.2 Where EI, due to under-delivery, exceeded 1.5%, compensation shall be in cash, and shall be paid to the SERVICE PROVIDER at 150% of hourly marginal costs or the prevailing energy rates, whichever is higher. For the first six (6) billing periods after the commencement of service, penalty for energy imbalance shall not be imposed.

SCHEDULE 1
Load Following and Frequency Regulation Service

Load Following and Frequency Regulation (LFFR) Service provide generating capacity necessary to adjust total system generation over a short period of time (e.g., minutes) to match system load changes that result from random fluctuations in total Transmission System Load.

The SERVICE PROVIDER's Generating Facility capacity or part thereof will be dedicated at all times that it is so designated, to the Grid LFFR Service capacity pool under of the control of the System Control Operator (SCO).

The requirement for Load Following capacity shall be specified by the Customer in terms of a Load Following Reserve Margin, which is the required reserve margin expressed as percentage of average monthly maximum system peak demand (net of plant station use).

The Load Reserve Margin shall be subject to revision by the SCO based on the required level of total system Load Following Capacity and monthly average maximum system demand. The initial Load Following Reserve Margin shall be 2.8%.

SCHEDULE 2

Spinning Reserve Service

Spinning Reserve Service provides generating capacity necessary to respond immediately to infrequent, but usually large, failures of generating units or Transmission line facilities. Spinning Reserve shall be limited to a period not exceeding 30 minutes. Continued supply service for periods in excess of 30 minutes shall be provided under the Terms of Back-up Service.

The SERVICE PROVIDER's Generating Facility capacity or part thereof will be dedicated at all times that it is so designated to the Grid Spinning Reserve capacity pool under the control of the System Control Operator (SCO).

The requirements for Spinning Reserve Capacity shall be specified by the Customer in terms of a Spinning Reserve Margin, which is the required reserve margin expressed as a percentage of monthly average maximum system peak demand (net of plant station use).

The Spinning Reserve Margin shall be subject to revision by the SCO on the required level of total system Spinning Reserve Capacity and monthly average maximum system demand for an annual period. The initial Spinning Reserve Margin shall be 10.4%.

SCHEDULE 3
Energy Imbalance Service

Energy Imbalance provides for generation of energy when another Customer's actual generation deviates from its scheduled generation by more than 1.5% without suitable cause. Suitable cause may include dispatch instructions from the SCO, forced outage, or other event as may be provided in the Connection Agreement.

The total deviation (MWh) accumulated for all imbalance events during the billing period shall be charged at the rate set forth in the Tariff as approved by ERC.

SCHEDULE 4 Back-up Service

Back-up service provides for the supply of capacity and energy for periods during which the Customer's Grid is experiencing an outage, whether scheduled or unscheduled, and spinning Reserve Service does not apply.

The SERVICE PROVIDER's Generating Facility capacity or part thereof will be dedicated at all times that it is so designated to the grid Back-up service capacity pool and under the control of the System Control Operator.

The requirement for back-up capacity shall be specified in terms of a Reserve Plant Margin, which is the back-up capacity expressed as a percentage of Firm Contract Transmission Capacity. The Customer shall specify the required back-up Reserve Plant Margin, which shall exclude requirements for spinning reserve.

Back-up Service includes Maintenance Service, Start-up Service, and Black Start Service.

Maintenance service refers to the supply of electricity to a Customer's generating station while it is out of service for maintenance or repair.

Start-up Service refers to the supply of power to a generating unit in preparation for its synchronization to the transmission grid.

Black Start Service refers to the supply of power to a generating unit to enable said facility to start-up from shutdown stage wherein the grid has been experiencing a blackout in its (generators) area of responsibility. The SERVICE PROVIDER must seek clearance first from the System Operators before commissioning the said generator and synchronizing it back to the System Grid.

The SERVICE PROVIDER must provide the energy required for start-up whenever it is possible to do so by black start capability.

The Reserve Plant Margin shall be subject to revision considering the circumstances of the grid(s), planned system reliability margins, and other relevant factors as determined by the System Control Operator. The initial Reserve Plant Margin shall be 19.6%.

SCHEDULE 5
Reactive Supply and Voltage Control Service

Reactive Supply and Voltage Control Service provides for the supply of Reactive Power (VAR) to maintain the system voltage within a predetermined acceptable voltage profile in the Transmission System during normal and contingency conditions.

The Service Provider's Generating Facility capacity or part thereof will be dedicated at all times that it is so designated to the Reactive Supply and Voltage Control Service capacity pool under the control of the System Control Operator (SCO).

Consumption for this service will be based on the product of the total reactive power requested for dispatch by the SCO and the number of hours covered by the dispatch request.

The rate of compensation shall be the rate set forth in the Tariff schedule.