

First Amendment to the Philippine Grid Code

Section	Original	Proposed	Proponent
1.1.2	<p>Scope of Application This Chapter applies to all Grid Users including;</p> <ol style="list-style-type: none"> a. The Grid Owner; b. The System Operator; c. The Market Operator; d. Generators; e. Distributors; f. Suppliers; and g. Any other entity with a User System connected to the Grid 	<p>Scope of Application This Chapter applies to all Grid Users including;</p> <ol style="list-style-type: none"> a. The Grid Owner; b. The System Operator; c. The Market Operator; d. Generators; e. Distributors; f. Suppliers; and <u>g. Metering Services Providers; and</u> h. Any other entity with a User System connected to the Grid 	Wholesale Electricity Spot Market
2.2.1 (e)	Initiate the Grid Code enforcement process and make recommendations to the ERC;	Initiate <u>Coordinate</u> the Grid Code enforcement process and make recommendations to the ERC;	Energy Regulatory Commission
2.2.1 (f)	Initiate and coordinate revisions of the Grid Code and make recommendations to the ERC; and	Initiate and c <u>o</u> ordinate revisions of the Grid Code and make recommendations to the ERC; and	Energy Regulatory Commission
2.2.2.1	<p>The GMC shall be composed of the following members who shall be appointed by the ERC:</p> <ol style="list-style-type: none"> a. One (1) member nominated by the System Operator; b. One (1) member nominated by the Grid Owner; c. One (1) member nominated by the Market Operator; d. Three (3) members nominated by Large Generators; e. One (1) member nominated by Small Generators; f. Three (3) members nominated by private and local government Distributors; g. Three (3) members nominated by Electric Cooperatives, one (1) each from Luzon, Visayas, and Mindanao; h. One (1) member nominated by Suppliers; and i. One (1) member nominated by Large Customers. 	<p>The GMC shall be composed of the following members who shall be appointed by the ERC:</p> <ol style="list-style-type: none"> a. One (1) member nominated by the System Operator <u>an independent non-stakeholder group</u>; b. One (1) member nominated by the Grid Owner <u>Transco</u>; c. One (1) member nominated by the Market Operator; d. Three (3) members nominated by Large Generators; e. One (1) member nominated by Small Generators; f. Three (3) members nominated by private and local government Distributors; g. Three (3) members nominated by Electric Cooperatives, one (1) each from Luzon, Visayas, and Mindanao; h. One (1) member nominated by Suppliers; and i. One (1) member nominated by Large Customers. 	Energy Regulatory Commission
2.2.2.4	The Chairman of the GMC shall be selected by the ERC from a list of three (3) members nominated by the GMC. The first Chairman of the GMC, however, shall be the member nominated either by	The Chairman of the GMC shall be selected by the ERC from a list of three (3) members nominated by the GMC. <u>In the event that the ERC makes a finding that no member in the list of nominees is</u>	Grid Management Committee

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	the Grid Owner or the System Operator.	<u>qualified to be the Chairman, the ERC shall direct the GMC to submit a new list of three (3) members, until such time that the ERC shall have been able to choose a qualified Chairman.</u> The first Chairman of the GMC, however, shall be the member nominated either by the Grid Owner or the System Operator <u>Transco.</u>	
2.2.3.1	All members of the GMC shall have a term of three (3) years and shall be allowed only one re-appointment.	<u>Except for the initial members of the GMC whose term have been specified in their respective appointments, All-all subsequent members of the GMC shall have a term of three (3) years and shall not be allowed only oneeligible for re-appointment. However, the initial members of the GMC whose specific appointments are less than the three (3) year term shall be available for re-appointment, but only once.</u>	Energy Regulatory Commission
2.5.1.1	Any party who has evidence that any other party has violated or is violating any provision of the Grid Code may file a complaint to the GMC who shall initiate an enforcement process. The GMC may initiate the enforcement process even if no complaint has been filed but it has information on possible Grid Code violations. The ERC may also direct the GMC to begin the enforcement process.	Any party who has evidence that any other party has violated or is violating any provisions of the Grid Code, may file a complaint to <u>with the GMC-ERC</u> who shall initiate an enforcement process <u>or may direct the GMC to initiate an enforcement process.</u> The GMGERC <u>may likewise direct the GMC to</u> initiate the enforcement process even if no complaint has been filed but it has information on possible Grid Code violations. The ERC may also direct the GMC to begin the enforcement process.	Energy Regulatory Commission
2.5.3.1	If an emergency situation arises which the provisions of the Grid Code have not foreseen, the System Operator shall, to the extent reasonably practicable, consult promptly all affected Users in an effort to reach agreement as to what should be done.	If an emergency situation arises which the provisions of the Grid Code have not foreseen, the System Operator shall, to the extent reasonably practicable, consult promptly all affected Users in an effort to reach agreement as to what should be done <u>the appropriate action to be taken.</u>	Energy Regulatory Commission
2.6.2.1	Within one (1) week following a Significant Incident in the Grid or a User System, the System Operator shall submit to the GMC and the ERC a report detailing the sequence of events and other relevant information pertaining to the incident. The report shall describe the cause of the Significant Incident and the amount and duration of the resulting power interruption.	Within one (1) week following a Significant Incident in the Grid or a User System, the System Operator shall submit to the GMC and the ERC a report detailing the sequence of events and other relevant information pertaining to the incident. <u>In any case, the System Operator shall, in accordance with Section 7.4.1, submit to the ERC, DOE, GMC and its members the relevant updates and status report as soon as this becomes available after the occurrence of Significant Incident. A final report shall be submitted within such period as may be sufficient for the System Operator to gather, retrieve, and evaluate the necessary information from the</u>	Energy Regulatory Commission / Grid Management Committee

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		different stations affected by the Significant Incident. The final report shall describe the cause of the Significant Incident and the amount <u>extent</u> and duration of the resulting power interruptions.	
2.6.2.2	Within one (1) month following the receipt of the System Operator's report on the Significant Incident, the GMC shall validate the report and make recommendations to the ERC. In cases where any User has violated any provision of the Grid Code, the GMC may recommend to the ERC sanctions as part of the Significant Incident report.	Within one (1) month following the receipt of the System Operator's report on the Significant Incident, the GMC shall validate the report and make recommendations to the ERC, <u>if any</u> . In cases where any User has violated any provision of the Grid Code, the GMC may recommend <u>appropriate sanctions</u> to the ERC sanctions as part of the Significant Incident report.	Energy Regulatory Commission
3.3.3.2 (b)	Outages due to generation deficit.	Outages due to generation deficit <u>beyond the control of Transco.</u>	Grid Management Committee
3.3.3.2 (d)	Outages that are initiated by the System Operator or Market Operator during the occurrence of Significant Incidents or the failure of their facilities.	Outages that are initiated by the System Operator or Market Operator during the occurrence of Significant Incidents or the failure of their facilities.	Grid Management Committee
3.3.3.2 (e)	Outages caused by adverse Weather or Major Storm Disasters which result in the declaration by the government of a state of calamity.	Outages caused by adverse Weather or Major Storm Disasters which result in the declaration by the government of a state of calamity.	Grid Management Committee
Chapter 4	FINANCIAL STANDARDS FOR GENERATION AND TRANSMISSION	(This Chapter is proposed for complete deletion)	Wholesale Electricity Spot Market
5.5.1.2	The Connection Point shall be controlled by a circuit breaker that is capable of interrupting the maximum short circuit current at the point of connection.	The Connection Point shall be controlled by a circuit breaker that is capable of interrupting the maximum short circuit current at the point of connection. <u>The circuit breaker may be located within 500 meters line length from the connection point.</u>	Grid Management Committee
7.2.1.1 (d)	The loading levels of all transmission lines and substation Equipment are below 90% of their continuous ratings; and	The loading levels of all transmission lines and substation Equipment are below 90 <u>100</u> % of their continuous ratings; and	Transco Luzon System Operations
7.2.1.2 (c)	There is Critical Loading or Imminent Overloading of transmission lines or substation Equipment	There is Critical Loading <u>or</u> Imminent Overloading of transmission lines or substation Equipment	Grid Management Committee
7.4.1.1 (b)	Red Alert when the Contingency reserve is zero or a generation deficiency exists or if there is Critical Loading or Imminent Overloading of transmission lines or Equipment	Red Alert when the Contingency reserve is zero or a generation deficiency exists or if there is Critical Loading <u>or</u> Imminent Overloading of transmission lines or Equipment	Grid Management Committee
7.9.2.1	If the Grid Owner (or a User) wishes to undertake a System Test	If the Grid Owner (or a User) wishes to undertake a System Test	Energy Environment

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	on the Grid (or the User System), it shall submit to the System Operator a System Test Request that contains the following: <ul style="list-style-type: none"> a. The purpose and nature of the proposed System Test b. The extent and condition of the Equipment involved; and c. A proposed System Test Procedure specifying the switching sequence and the timing of the switching sequence. 	on the Grid (or the User System), it shall submit to the System Operator a System Test Request that contains the following: <ul style="list-style-type: none"> a. The purpose and nature of the proposed System Test b. The extent and condition of the Equipment involved; and c. A proposed System Test Procedure specifying the switching sequence and the timing of the switching sequence. <p><u>The System Operator shall be responsible in informing and coordinating with the Market Operator for the System Test; Scheduling; Implementation; and Evaluation, while inviting the Market Operator to be a Member of the System Test Group.</u></p>	Training Program / Grid Management Committee
8.2.1.1	The Market Operator shall be responsible for the preparation of the Generation Schedule, in accordance with the Market Rules and the procedure described in Article 8.4.	The Market Operator shall be responsible for the preparation <u>and issuance</u> of the Generation Schedule, in accordance with the Market Rules and the procedure described in Article 8.4.	Wholesale Electricity Spot Market / Grid Management Committee
8.2.1.2	The Market Operator shall be responsible for the issuance of the final Generation Schedule.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.2.2.1	The System Operator shall be responsible in providing Central Dispatch for the Scheduled Generating Units, following the procedures specified in Article 8.5, and the Generation Schedule prepared by the Market Operator.	The System Operator shall be responsible in providing Central Dispatch for <u>all</u> the Scheduled Generating Units, following the procedures specified in Article 8.5, and the Generation Schedule prepared by the Market Operator.	Wholesale Electricity Spot Market / Grid Management Committee
8.2.2.2	The System Operator is responsible for ensuring that a number of strategically located Generating Units are available for Ancillary Services, including the provision for Frequency Regulating Reserve and Contingency Reserve.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.2.2.2	The System Operator is responsible for ensuring that a number of strategically located Generating Units are available for Ancillary Services, including the provision for Frequency Regulating Reserve and Contingency Reserve.	The System Operator is shall be responsible for ensuring that a number of strategically located Generating Units are available for Ancillary Services, including the provision for Frequency Regulating Reserve and Contingency Reserve <u>providing all operational data from the Energy Management System which are required for the operation of the WESM.</u>	Wholesale Electricity Spot Market
8.2.2.3	The System Operator shall be responsible in issuing Dispatch Instructions for the Scheduled Generating Units and the Generating Units providing Ancillary Services.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.2.4.1	The Generator is responsible for submitting the Capability and	The Generator <u>with Scheduled Generating Units shall submit</u>	Wholesale Electricity

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	Availability Declaration, Generation Scheduling and Dispatch parameters, and other data for its Scheduled Generating Unit.	<u>Generation Offers for Energy and Operating Reserve to the Market Operator in accordance with Section 3.5 of the WESM Rules and consistent with the information submitted to the Market Operator under Article 8.2.4.1 is responsible for submitting the Capability and Availability Declaration, Generation Scheduling and Dispatch parameters, and other data for its Scheduled Generating Unit.</u>	Spot Market / Grid Management Committee
8.2.4.2	The Generator with a Scheduled Generating Unit shall be responsible for ensuring that all Dispatch Instructions from the System Operator are implemented.	The Generator with a Scheduled Generating Units shall be responsible for ensuring that all Dispatch Instructions from the System Operator are implemented submit <u>Generation Offers for Energy and Operating Reserve to the Market Operator in accordance with Section 3.5 of the Market Rules and consistent with the information submitted to the System Operator under Article 8.2.4.1.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.2.4.3	The Generator providing Ancillary Services shall be responsible in ensuring that its Generating Units can provide the necessary support when instructed by the System Operator to do so.	The Generator providing Ancillary Services shall be responsible in ensuring that its with a Scheduled Generating Units can provide the necessary support when instructed by the shall be responsible <u>for ensuring that all Dispatch Instructions from the System Operator to do so are implemented within the dispatch tolerance.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.2.4.4	(This Section is new, the content is the original statement of Section 8.2.4.3, and revised as written on the next column)	<u>The Generator contracting/offering Ancillary Services shall be responsible in ensuring that its Generating Units can provide the necessary services when scheduled or instructed by the System Operator to do so.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.2.5.1	Distributors and other Users are responsible for submitting their Demand data for the Grid Operating program to be used in Scheduling and Dispatch	Distributors and other Users are responsible for submitting their Demand data for the Grid Operating program to be used in Scheduling and Dispatch <u>by the Market Operator</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.2.5.2	Distributors and other Users are responsible for implementing all Dispatch Instructions pertaining to Demand Control during an emergency situation.	Distributors and other Users are responsible for implementing all Dispatch Instructions pertaining to exercising Demand Control during an emergency situation Bidding in the WESM shall submit <u>Demand Bid data in accordance to Section 3.5 of the Market Rules.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.2.5.3	(This Section is new, the content is the original statement of Section 8.2.5.2)	<u>Distributors and other Users are responsible for implementing all Dispatch Instructions pertaining to Demand Control during an emergency situation.</u>	Wholesale Electricity Spot Market / Grid Management Committee

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8.3.1.1	The Operating Margin of the Grid shall include the generating capacity for the Frequency Regulating Reserve, which is required to respond to changes in Demand during normal conditions and the Contingency Reserve needed to respond to a sudden reduction in generation during emergency conditions, in accordance with the Grid operating criteria specified in Section 7.2.2.	The Operating Margin of the Grid shall include the generating capacity for operating reserves which comply the Frequency Regulating Reserve, which is required to respond to changes in Demand during normal conditions and the Contingency Reserve needed to respond to a sudden reduction in generation during emergency conditions, in accordance with the Grid operating criteria specified in Section 7.2.2.	Wholesale Electricity Spot Market / Grid Management Committee
8.3.1.2	The System Operator shall allocate the Frequency Regulating Reserve to strategically located Generating Plants in order to achieve the required levels of Primary Response and Secondary Response to Frequency changes in the Grid.	The System Operator shall allocate the Frequency Regulating Reserve to strategically located Generating Plants in order to achieve the required levels of Primary Response and Secondary Response to Frequency changes in the Grid <u>develop procedures for the determination and allocation of reserve requirements and define the appropriate control requirements to comply with the Grid operating criteria specified in Section 7.2.2.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.3.1.3	The System Operator shall allocate the Contingency Reserve to strategically located Generating Plants to cover against uncertainties in Generating Plant availability.	The System-Market Operator shall allocate the Contingency Reserve to strategically located Generating Plants to cover against uncertainties in Generating Plant availability <u>co-optimize the allocation of operating reserves in the Scheduling and Dispatch through competitive reserve offers described in Section 3.5 of the Market Rules.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.3.2.2 (b)	The requirements for voltage control and Reactive Powers;	The need to provide an Operating Margin for Frequency Control ; requirements for voltage control and Reactive Powers ;	Wholesale Electricity Spot Market / Grid Management Committee
8.3.2.2 (c)	The need to provide an Operating Margin for Frequency Control;	The need to provide an Operating Margin for Frequency Control ; <u>Availability of Ancillary Services.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.3.2.2 (d)	Availability of Ancillary Services; and	(This Section is proposed for deletion, but its content would be the new statement of Section 8.3.2.2 c)	Wholesale Electricity Spot Market / Grid Management Committee
8.3.2.2 (e)	Bilateral contracts between Generators and Users	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.3.2.3 (a)	The Generation Schedule;	The Generation Schedule <u>issued by the Market Operator</u> ;	Wholesale Electricity

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			Spot Market / Grid Management Committee
8.3.3.1	All the bids to buy Energy and offers to supply Energy for each hour of the trading day shall be submitted to the Market Operator one day ahead of the trading day.	All the bids to buy Energy and offers to supply <u>sell</u> Energy for each hour of the trading day shall be submitted to the Market Operator one day ahead of the trading day <u>in accordance with Section 3.5 of the Market Rules.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.4.1.1	The System Operator shall prepare a cohesive forecast of hourly Grid Demand, which shall include the System loss in the Grid.	The System Operator shall prepare a cohesive forecast of hourly Grid Demand, which shall include the System loss in the Grid <u>preparation of Generation Schedules shall through real-time competitive offers for energy and reserve as well as demand bids described in Chapter 3 of the Market Rules.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.4.1.2	The Market Operator shall prepare a Merit Order Table considering the Generation Scheduling and Dispatch Parameters and Generation Price Data of the Scheduled Generating Units.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.1.3	Scheduled Generating Units shall be committed, following the Merit Order Table, until the Grid Demand and System Loss are fully covered. Additional Generating Units shall be committed to meet the Operating Margin required by the Grid.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.1.4	Scheduled Generating Units that are not included in the Generation Schedule shall be set aside for possible inclusion in the latter stage of the Generation Scheduling process.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.2	Capability and Availability Declaration	Capability and Availability Declaration <u>Issuance of Generation Schedule</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.4.2.1	The Generator shall provide the Market Operator the Capability and Availability Declaration of its Generating Units for the next Schedule Day within the deadline prescribed by the Market Rules.	The Generator Generation Schedule shall provide <u>be issued by</u> the Market Operator <u>with the Capability and Availability Declaration of its Generating Units for the next Schedule Day</u> within the deadline <u>timetable</u> prescribed by the Market Rules.	Wholesale Electricity Spot Market / Grid Management Committee
8.4.2.2	If the Generating Unit Capability and Availability Declaration for the next Schedule Day have not been submitted within the prescribed deadline, the Generating Unit shall be excluded in the next Schedule Day. If this leads to inadequate Operating Margin,	If the Generating Unit Capability and Availability Declaration for the next Schedule Day have not been submitted within the prescribed deadline, the Generating Unit shall be excluded in the next Schedule Day. If this leads to inadequate Operating Margin,	Wholesale Electricity Spot Market / Grid Management Committee

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	the Market Operator shall make best efforts to obtain increased Capability from the available Generators. If necessary, the Market Operator may treat the excluded Generating Unit as the last priority in the Merit Order Table.	the Market Operator shall make best efforts to obtain increased Capability from the available Generators. If necessary, the Market Operator may treat the excluded <u>The final Generation Schedule shall indicate the hourly output of each Scheduled Generating Unit as for each Trading Interval including</u> the last priority in the Merit Order Table <u>allocation of reserves.</u>	
8.4.3	Redeclaration of Capability and Availability	(This Section and Sections under, are proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.4	Merit Order Table	(This Section and Sections under, are proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.5	Unconstrained and Constrained Generation Schedule	(This Section and Sections under, are proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee
8.4.6	Issuance of Generation Schedule	(This Section and Sections under, are proposed for complete deletion, but the contents are revised and would be the new statements for the entire Section 8.4.2)	Wholesale Electricity Spot Market / Grid Management Committee
8.5.1.4	The System Operator shall issue the Dispatch Instructions to all Generators regarding their day-ahead Generation Schedule through an appropriate means of communication.	The System Operator shall issue the Dispatch Instructions to all Generators regarding their day-ahead <u>hourly</u> Generation Schedule through an appropriate means of communication.	Wholesale Electricity Spot Market / Grid Management Committee
8.5.1.6	In the event of two or more Generating Units having the same price, the System Operator shall dispatch the Generating Unit that will result in a smaller System loss.	In the event of two or more Generating Units having the same price, the System Operator shall dispatch the Generating Unit that will result in a smaller System loss <u>The period of placing the Generating Unit online and Shutdown reflected in the Generation Schedule are only tentative and can be modified by another Dispatch Instruction.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.5.1.7	In the event that the System Operator is unable to identify a reason to differentiate which of the Scheduled Generating Units to Shutdown based on the Merit Order Table, The System Operator shall instruct a Scheduled Generating Unit using the following factors:	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market / Grid Management Committee

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	<ul style="list-style-type: none"> a. Effect on power flows (resulting in the minimization of System loss); b. Reserve Capability; c. Reactive Power worth; and d. Generation Scheduling and Dispatch Parameters 		
8.5.1.8	The period of placing the Generating Unit online and Shutdown reflected in the Generation Schedule are only tentative and can be modified by another Dispatch Instruction.	(This Section is proposed for deletion, but its content would be the new statement of Section 8.5.1.6)	Wholesale Electricity Spot Market / Grid Management Committee
8.5.3.1	The Dispatch Instructions for Frequency Regulating Reserve shall specify whether the Generating Unit will provide Primary Response or Secondary Response.	The Dispatch Instructions for to be issued by the System Operator for operating reserves shall be based on the Generation Schedules issued by the Market Operator <u>Frequency Regulating Reserve shall specify whether the Generating Unit will provide Primary Response or Secondary Response.</u>	Wholesale Electricity Spot Market / Grid Management Committee
8.5.3.2	The Dispatch Instructions for Spinning Reserve and Back-up Reserve shall contain the generating capacity to be provided by the specific Generating Unit.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market
8.5.4.3	The Generating Units providing Frequency Regulating Reserve and Contingency Reserve for the Grid shall respond to the Dispatch Instructions of the System Operator according to the required capability of the Generating Units as specified in Article 5.4.	The Generating Units providing Frequency Regulating Reserve and Contingency Reserve for the Grid shall respond to the Dispatch Instructions of the System Operator <u>and through automatic means (i.e., primary and secondary frequency controls)</u> according to the required capability of the Generating Units as specified in Article 5.4.	Wholesale Electricity Spot Market / Grid Management Committee
9.2.2.1	The Meter Operator shall supply, install, connect, test, adjust, place in service, operate, check, and maintain the primary revenue metering System. Consistent with the Market Rules, all primary revenue meters shall be owned and maintained by the Meter Operator	The Meter Operator <u>A Grid User shall elect a Metering Services Provider who shall supply, install, connect, test, adjust, place in service, operate, check, and maintain the primary revenue metering System. The Metering Services Provider shall ensure that its metering installations are provided, installed, tested, calibrated and maintained in accordance with this Chapter 9, the Grid Code and Distribution Code and all applicable laws, rules and regulation. The Metering Services Provider shall prepare the necessary programs, procedures, and facilities for ensuring the accuracy and traceability of calibration and test results for the meters and instrument transformers. Consistent with the Market Rules, all primary revenue meters shall be owned and maintained by the Meter Operator</u>	Metering Sub-Committee / Grid Management Committee
9.3.1.1	The voltage transformers shall comprise three (3) units for a three-	The voltage transformers shall comprise <u>of</u> three (3) units for a	Metering Sub-

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	phase set, each of which complies with the IEC Standard or its equivalent national standard for metering, and is of the 0.3 accuracy class. These voltage transformers shall be connected Wye-Wye with both star points grounded to a grounding Grid of acceptable resistance and shall provide a four-wire secondary connection.	three-phase set, each of which complies with the IEC Standard or its equivalent <u>other acceptable</u> national standard for metering, and is of the 0.3 accuracy class <u>or better</u> . These voltage transformers shall be connected Wye-Wye with both star points grounded to a grounding Grid of acceptable resistance and shall provide a four-wire secondary connection.	Committee / Grid Management Committee
9.3.1.2	The voltage drop in each phase of the voltage transformer connections of the same accuracy and class shall not exceed 0.2 V. It shall be connected only to a billing with a burden that shall not affect the accuracy of the meter.	The voltage drop in each phase of the voltage transformer connections of the same accuracy and class shall not exceed 0.2 V. It shall be connected only to a billing with a burden that shall not affect the accuracy of the meter measurement .	Metering Sub-Committee / Grid Management Committee
9.3.2.1	The current transformers shall comprise three units for a three-phase set, each of which complies with the IEC Standard or its equivalent national standard for metering, and is of 0.3 accuracy class. It is preferred that two (2) current transformer cores with corresponding number of secondary coils per phase be provided between the connection box and the terminal of the metering element on the meter so that the current transformer connections for checking meter pulses can be completely separated from those provided for the revenue meters of this Chapter.	The current transformers shall comprise <u>of</u> three units for a three-phase set, each of which complies with the IEC Standard or its equivalent <u>other acceptable</u> national standards <u>s</u> for metering, and is of 0.3 accuracy class <u>or better</u> . It is preferred that two (2) current transformer cores with corresponding number of secondary coils per phase be provided between the connection box and the terminal of the metering element on the meter so that the current transformer connections for checking meter pulses can be completely separated from those provided for the revenue meters <u>of this Chapter</u> .	Metering Sub-Committee / Grid Management Committee
9.3.3.1	Meters shall be of the three-element type rated for the required site, comply with the appropriate IEC Standards or their equivalent national standards, for static watt-hour meter and other types of meters, and be of the accuracy class of 0.3 or equivalent. The meters shall measure and locally display at least the kW, kWh, kVAR, kVARh, and cumulative Demand, with the features of time-of-use, maintenance records, and pulse output.	The Meters, shall be of the three-element type rated for the required site conform to the type of circuits measured, and shall comply with the appropriate IEC Standards or their equivalent <u>other acceptable</u> national standards, for static watt-hour meter and other types of meters, and be of the accuracy class of 0.3 or <u>equivalent</u> <u>better</u> . The meters shall measure and locally display at least the kW <u>Demand</u> , kWh, kVAR, <u>and</u> kVARh, <u>and cumulative Demand,</u> with the f Features of time-of-use, maintenance records, <u>load profile,</u> and pulse output <u>and others shall be provided as required by the approved billing system for the metering point where it is installed.</u>	Metering Sub-Committee / Grid Management Committee
9.4.1.1	Test on the Instrument Transformers shall be done by a party authorized by the Meter Operator and the concerned User during the Test and Commissioning stage and then at least once every five (5) years or as the need arises due to questions on accuracy. The tests shall be carried out in accordance with this Chapter or	Test on the Instrument Transformers shall be done by a party authorized by the Meter Operator and the concerned User <u>the Metering Services Provider or authorized representative in the presence of the User's authorized representative</u> during the Test and Commissioning stage and then at least once every five (5)	Metering Sub-Committee / Grid Management Committee

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	an agreed equivalent international standard.	years or as the need arises due to questions on accuracy. The tests shall be carried out in accordance with this Chapter or an agreed equivalent international standard <u>If the accuracy of the instrument transformers is under question, the ERC may be called upon as arbiter.</u>	
9.4.2	The Meter Operator and User, through the ERC or an independent party authorized by the ERC, shall test and seal the meters at least once a year and recalibrate or replace such meters if found to be outside the acceptable accuracy stipulated in the Grid Code.	The Meter Operator and User, through the ERC or an independent party authorized by the ERC, shall test and seal the meters at least once a year and recalibrate or replace such meters if found to be outside the acceptable accuracy stipulated in the Grid Code <u>Test and sealing of meters shall be conducted by the ERC or its authorized representative in the presence of the authorized representatives of the Metering Services Provider and the User during the Test and Commissioning stage and as the need arises. If both parties cannot agree on the accuracy of the meter, the ERC shall act as arbiter. Testing and sealing of meters shall be conducted at least once a year. Meters found to be outside acceptable limits of accuracy shall be either recalibrated or replaced.</u>	Metering Sub-Committee / Grid Management Committee
9.4.4.1	The metering equipment at the Connection Point shall be maintained by the Meter Operator. All test results, maintenance programs, and sealing records shall be kept for the life of the Equipment. The Equipment data and test records shall be made available to authorized parties.	The metering equipment at the Connection Point shall be maintained by the Meter Operator <u>Metering Services Provider</u> . All test results, maintenance programs, and sealing-calibration and test records shall be kept for the life of the Equipment. The Equipment data and test records shall be made available to authorized parties.	Metering Sub-Committee / Grid Management Committee
9.5.1.1	The Meter Operator or the Data Collection Agent shall download Integrating Pulse Metering data (the actual hourly data on generation and off-takes at each Connection Point during the previous week) for billing and settlement purposes of the WESM. Each User shall be provided full access to the data for this Connection Point.	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market
9.5.8.2	In principle, check metering data, where available, shall be used to validate metering data provided that check metering Equipment accuracy conforms to the standards of this Chapter. If a check meter is not available or the metering data is missing, then a substitute value shall be prepared by the Market Operator using the WESM's data validation and substitution method approved by	(This Section is proposed for complete deletion)	Wholesale Electricity Spot Market

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	the ERC.		
9.5.9.	Storage and Availability of Metering Data	(This Section and Sections under, are proposed for complete deletion)	Wholesale Electricity Spot Market
9.6	SETTLEMENT AND AUDIT PROCEDURES	(This Section and Sections under, are proposed for complete deletion)	Wholesale Electricity Spot Market

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Terms	Original	Proposed	Proponent
Central Dispatch	The process of issuing direct instructions to the electric power industry participants by the System Operator to achieve an economic operation while maintaining Power Quality, Stability, and the Reliability and Security of the Grid.	The process of <u>scheduling by the Market Operator and</u> issuing direct instructions to the electric power industry participants by the System Operator to achieve an economic operation while maintaining Power Quality, Stability, and the Reliability and Security of the Grid.	Wholesale Electricity Spot Market
Customer	Any person/entity supplied with electric service under a contract with a Distributor or Supplier.	Any person <u>who engages in the activity of purchasing electricity supplied through a transmission or distribution system other than where all that person's electricity requirements are purchased from a/entity supplied with electric service under a contract with a Distributor or Supplier.</u>	Wholesale Electricity Spot Market
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.	The Active Power and/or Reactive Power at a given instant or averaged integrated over a specified <u>interval period</u> 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 <u>to a load integrated over a specified period of time.</u>	Wholesale Electricity Spot Market
<u>Demand Bid</u>	(Not in the Grid Code)	<u>A standing bid, or market bid to buy electricity submitted or revised, by a Customer in accordance with the WESM Rules.</u>	Wholesale Electricity Spot Market
Financial Year	The same as calendar year	The same as calendar <u>A period commencing on 1 January and terminating on 31 December of the year</u>	Wholesale Electricity Spot Market
<u>Generation ScheduleDispatch Schedule</u>	Refers to the schedule that indicates the hourly output of the Scheduled Generating Units that will provide Ancillary Services for the next Schedule Day.	Refers to the schedule that indicates the hourly output of the Scheduled Generating Units that will provide Ancillary Services for the next Schedule Day <u>The target loading levels in MW for each scheduled generating unit or scheduled loads and for each reserve facility for the end of that trading interval determined by the Market Operator through the use of a market dispatch optimization model.</u>	Wholesale Electricity Spot Market
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 the Transmission System.	The high voltage backbone system of interconnected transmission lines, substations, and related facilities for the purpose of conveyance of bulk power. Also known as the Transmission System, <u>located in each of Luzon, Visayas, and Mindanao, or as may be determined by the ERC in accordance with Section 45 of the Act.</u>	Wholesale Electricity Spot Market

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Load	An entity or an electrical Equipment that consumes electrical Energy.	An entity or an electrical Equipment that consumes electrical Energy The minimum load over a given period of time.	Wholesale Electricity Spot Market
<u>Market Bid</u>	(Not in the Grid Code)	<u>A Demand Bid for a particular trading interval of a particular trading day in the current market horizon.</u>	Wholesale Electricity Spot Market
Market Operator	An independent group, with equitable representation from the electric power industry participants, whose tasks includes the operation and administration of the Wholesale Electricity Spot Market in accordance with the Market Rules.	An independent group, with equitable representation from the electric power industry participants, whose tasks includes the operation and administration of the Wholesale Electricity Spot Market in accordance with the Market Rules The entity responsible for the operation of the spot market governed by the Philippine Electricity Market (PEM) Board in accordance with Clause 1.4 of the WESM Rules which, for the avoidance of doubt, is the autonomous group market operator (AGMO) for a period of twelve months from the spot market commencement date as declared by the Department of Energy (DOE) and thereafter the entity to which the functions, assets and liabilities of the AGMO are transferred in accordance with Section 30 of the Act..	Wholesale Electricity Spot Market
<u>Metering Services Provider</u>	(Not in the Grid Code)	<u>A person or entity authorized by the ERC to provide metering services and registered with the Market Operator in that capacity in accordance with clause 2.3.6 of the WESM Rules</u>	Grid Management Committee
<u>Non-Scheduled Generating Unit</u>	(Not in the Grid Code)	<u>A Generating Unit offered by Generation Company not subject to Central Dispatch</u>	Wholesale Electricity Spot Market
Operating Margin	The margin of generation over the total Demand plus losses that is necessary for ensuring Power Quality and the Security of the Grid. Grid Operating Margin is the sum of the Frequency Regulating Reserve and the Contingency Reserve.	The margin of generation over the total Demand plus losses that is necessary for ensuring Power Quality and the Security of the Grid. Grid Operating Margin is the sum of the <u>load following and the</u> Frequency Regulating Reserve and the Contingency Reserve.	Wholesale Electricity Spot Market
Reliability	The probability that a System or Component will perform a required task or mission for a specified time in a specified environment	The probability that a System or Component will perform a required task or mission for a specified time in a specified environment performance of the elements of the bulk electricity system that results in electricity being delivered to Customers within accepted standards and in the amount desired. Reliability may be measured by the frequency, duration and magnitude of adverse effects on the electric supply.	Wholesale Electricity Spot Market
Scheduled Generating Plant	A Generating Plant whose Generating Units are subject to Central Dispatch by the System Operator.	(Proposed for complete deletion)	Wholesale Electricity Spot Market
Scheduled Generating Unit	A Generating Unit within a Scheduled Generating Plant.	A Generating Unit within a Scheduled Generating Plant offered by Generation Company for Central Dispatch.	Wholesale Electricity Spot Market

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Supplier	Any person or entity authorized by the ERC to sell, broker, market, or aggregate electricity to end-users.	Any person or entity authorized-licensed by the ERC to sell, broker, market, or aggregate electricity to end-users.	Wholesale Electricity Spot Market
System Power System	Refers to the Grid or Distributors System or any User System. Also a group of Components connected or associated in a fixed configuration to perform a specified function	Refers to the Grid or Distributors System or any User System. Also a group of Components connected or associated in a fixed configuration to perform a specified function <u>The integrated system of transmission, distribution network and generating plant for the supply of electricity.</u>	Wholesale Electricity Spot Market
System Operator	The party responsible for generation Dispatch, the provision for ancillary services, and operation and control to ensure safety, Power Quality, Stability, Reliability, and Security of the Grid.	The party <u>identified as the System Operator pursuant to the Grid Code which is the party</u> responsible for generation Dispatch, the provision for ancillary services, and operation and control to ensure safety, Power Quality, Stability, Reliability, and Security of the Grid.	Wholesale Electricity Spot Market
User	A person or entity that uses the Grid or Distribution System and related facilities. Also, a person or entity to whom the Grid Code or Distribution Code applies.	A person or entity that uses the Grid or Distribution System and related facilities. Also, a person or entity to whom which the Grid Code or Distribution Code applies.	Wholesale Electricity Spot Market
Voltage Control	The strategy used by the System Operator, Distributor, or User to maintain the voltage of the Grid, Distribution System, or the User System within the limits prescribed by the Grid Code or the Distribution Code.	The strategy used by the System Operator, Distributor, or User to maintain the voltage of the Grid, Distribution System, or the User System within the limits prescribed by the Grid Code or the Distribution Code <u>Control of transmission voltages through adjustments in generator reactive output and transformer taps and by switching capacitors or reactors on the transmission and distribution system.</u>	Wholesale Electricity Spot Market