Annex A

ORCP-WR-WM-24-03
Date Received by Secretariat: 19-Jul-2024

REQUEST FOR MARKET RULES AND MANUALS AMENDMENTS

Proposals made only under this prescribed form shall be accepted and considered as submitted.
This request for amendments should be submitted to:

Rules Change Committee
Attention: WESM Governance Committee Secretariat
Philippine Electricity Market Corporation
18/F Robinsons Equitable Tower
ADB Avenue, Ortigas Center
Pasig City, 1605 Philippines
Email address: mag_rrd@wesm.ph

[In accomplishing and submitting this form, you give your consent for PEMC to collect, record, organize, and update your personal data as herein provided as part of your information for purposes of rules change process.]

I. Proponent's Information

Name	**Richard J. Nethercott**
Designation	President and CEO
Company	Independent Electricity Market Operator of the Philippines, Inc.
Company Address	9/F Robinsons Equitable Tower ADB Ave. Ortigas Center
	Pasig City
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II. Amendment Information

Proposed Amendments to the (please tick the box):
☒ WESM Rules ☐ Retail Rules

☒ Market Manual:
- ✓ WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 18.0
- ✓ WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0
- ✓ WESM Manual on Dispatch Protocol Issue 21.0
- ✓ WESM Manual on Load Forecasting Methodology Issue 5.0

Topic: Proposed Amendments Involving Energy Storage Systems

Proposed Classification of Amendments (please tick the box):
☒ General ☐ Minor ☐ Urgent

If Urgent, reason for urgency:

III. SUMMARY OF THE PROPOSED RULES CHANGE

The proposed rules changes contained herein is to provide the enhancements on the WESM implementing guidelines related to the participation of Energy Storage Systems (ESS) in view of the DOE Department Circular DC2023-04-0008.

IV. BACKGROUND

The DOE issued Department Circular DC2023-04-0008 entitled “Prescribing Policy for Energy Storage System in the Electric Power Industry”, which provided the general framework for the operations of the ESS in the electric power industry to maximize the benefits provided by this emerging technology.

Currently, the WESM Rules and relevant market manuals classifies Battery Energy Storage System (BESS) and Pumped-Storage Units (PSU) as Generating Units. However, these are only specific types of ESS, whereas the DOE DC2023-04-0008 prescribed the following ESS technologies that should be allowed to operate in the Philippine power grid.

Table 1. Prescribed ESS Technologies based on DOE DC2023-04-0008

Technology	Definition
Battery Energy Storage System (BESS)	Capable of storing electric energy electrochemically from which it is able to charge or discharge electricity
Compressed Air Energy Storage (CAES)	Uses electric energy to inject high-pressure air containers. When energy is required, the pressurized air is heated and expanded in an expansion turbine driving a generator for power production
Flywheel Energy Storage (FES)	Uses electric energy to accelerate a rotating mass, called a “rotor”, to store kinetic energy. Energy is extracted from the system by drawing down the kinetic energy from the rotor
Pumped-storage hydropower (PSH)	Uses electric energy to pump water from a lower elevation reservoir to a higher elevation reservoir. When required, the water flows back from the upper to lower reservoir, powering a turbine with a generator to produce electric energy.

DOE DC2023-04-0008 further prescribed the following types of ESS configurations.

Table 2. Prescribed Types of ESS Configurations based on DOE DC2023-04-0008

Technology	Definition
Stand-Alone Energy Storage System	ESS that is connected to and stores energy sourced from the transmission or distribution system
Generating Plant and ESS	ESS is connected to the generating plant/s and can be charged from the generating plant/s or to the grid or distribution system

Technology	Definition
Integrated RE Plant and ESS	Combination of re plant/s and an ESS, where the ESS is solely charged by the re plant/s
Integrated Non-RE Plant and ESS	Refers to a combination of a conventional plant/s and an ESS, where the ESS will not charge from the grid or distribution system and that its pmax will be limited to the plant capacity

V. THE PROPOSED RULES CHANGE

The proposed changes to the WESM Rules and other Market Manuals intend to define ESS as a separate category of WESM Membership, as well as define the different ESS types prescribed in the DOE DC2023-04-0008 that may operate in the Philippine power grid.

If these proposed changes are not adopted, then the WESM design will not be aligned with the policy prescribed by the DOE, and will then limit the participation of ESS technologies, therefore hindering the investment of such facilities in the Philippine power grid.

VI. BACKGROUND AND DESCRIPTION OF THE PROPONENT

The proponent is the Independent Electricity Market Operator of the Philippines Inc. (IEMOP), the independent market operator of the WESM.

Top Officers:
Richard J. Nethercott – President and Chief Executive Officer
Robinson P. Descanzo – Chief Operating Officer
Sheryll M. Dy – Head of Legal
Isidro E. Cacho, Jr. – Head of Trading Operations
Salvador D. Subaran – Head of Information Systems and Technology
Arthur P. Pintado – Head of Internal Audit
Mary Anne T. Santiago – Head of Finance
Edward I. Olmedo – Head of Market Development and Innovation

VII. CONCLUSIONS AND RECOMMENDATIONS

Amendments to the WESM Rules and various Market Manuals are proposed to conform to the DOE DC2023-04-0008 for the integration of different ESS technologies and configuration types in the WESM. It is recommended that the proposed amendments be adopted.

VIII. REFERENCES

1. WESM Rules
2. WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures Issue 18.0
3. WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0
4. WESM Manual on Dispatch Protocol Issue 21.0
5. WESM Manual on Load Forecasting Methodology Issue 5.0

Commenter	General Comments	Proponent's Response

Proposed Amendments

A. WESM Rules

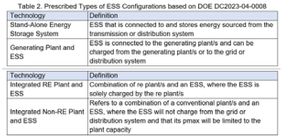
WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Introduction – Responsibilities of the System Operator	1.3.4	Under these Rules, the *System Operator* shall have the following functions and responsibilities: (a) Be responsible for and operate the *power system* in accordance with the *WESM Rules*, the *Grid Code* and any instruction issued by the *Market Operator* or the *ERC*. (b) Provide *central dispatch* to all generation facilities and loads connected, directly or indirectly, to the transmission system in accordance with the *dispatch schedule* submitted by the *Market Operator.* *xxxx*	Under these Rules, the *System Operator* shall have the following functions and responsibilities: (a) Be responsible for and operate the *power system* in accordance with the *WESM Rules*, the *Grid Code* and any instruction issued by the *Market Operator* or the *ERC*. (b) Provide *central dispatch* to all generation facilities**, <u>ESS facilities</u>,** and loads connected, directly or indirectly, to the transmission system in accordance with the *dispatch schedule* submitted by the *Market Operator.* *xxxx*	Inclusion of ESS facilities since it is proposed to be a separate WESM Member that should be centrally dispatched by the System Operator				
Registration	2.2.1	Scope of Application	Scope of Application Other than the *Market Operator*, the *WESM Rules* apply to:	Inclusion of ESS since it is proposed to be a				

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		Other than the *Market Operator*, the *WESM Rules* apply to: (a) *System operator*, (b) *Generation Companies;* (c) *Ancillary Services Provider,* (d) *Distribution Utilities;* (e) *Suppliers;* (f) *Metering Services Providers;* (g) Bulk consumers/End-users; and (h) Other similar entities authorized by the ERC to become members of the WESM. All of which are WESM Participants.	(a) *System operator*, (b) *Generation Companies;* (c) *Ancillary Services Provider,* (d) *Distribution Utilities;* (e) *Suppliers;* (f) *Metering Services Providers;* (g) Bulk consumers/End-users; and ***(h) Energy Storage Systems;*** ~~(h)~~**(i)** Other similar entities authorized by the ERC to become members of the WESM. All of which are WESM Participants.	separate WESM Member				
Registration	2.3.1.2	2.3.1.2 To register as a *WESM Member*, a *Generation Company* shall: (a) Classify each of the *generating units* which form part of the *generating system* it owns, operates or controls or from which it otherwise sources electricity as either a: (i) *scheduled generating unit*; or (ii) *non-scheduled generating unit*; or (iii) *must-dispatch generating unit;* or	2.3.1.2 To register as a *WESM Member*, a *Generation Company* shall: (a) Classify each of the *generating units* which form part of the *generating system* it owns, operates or controls or from which it otherwise sources electricity as either a: (i) *scheduled generating unit*; or (ii) *non-scheduled generating unit*; or (iii) *must-dispatch generating unit;* or (iv) *priority dispatch generating unit;*	To move BESS and PSU in proposed ESS Membership Type instead of Generation Company				

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		(iv) *priority dispatch generating unit;* (v) *battery energy storage system*; or (vi) *pumped-storage unit.*	~~(v) *battery energy storage system*; or~~ ~~(vi) *pumped-storage unit.*~~					
Registration	2.3.1.9	2.3.1.9 A facility or a group of facilities connected at a common connection point that is capable of storing electrical energy through chemical reactions from which it is able to charge or discharge electrical energy to the power system and that can be dispatched to any operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate energy, (2) curtail the consumption of *energy* in the case of demand response, or (3) consume *energy* shall be classified as *battery energy storage system.*	~~2.3.1.9 A facility or a group of facilities connected at a common connection point that is capable of storing electrical energy through chemical reactions from which it is able to charge or discharge electrical energy to the power system and that can be dispatched to any operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate energy, (2) curtail the consumption of *energy* in the case of demand response, or (3) consume *energy* shall be classified as *battery energy storage system.*~~	To move BESS definition in proposed ESS Membership Type				
Registration	2.3.1.10	A *facility* or a group of facilities connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of electrical power shall be	~~A *facility* or a group of facilities connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of electrical power shall be~~	To move PSU definition in proposed ESS Membership Type				

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		classified as a *pumped-storage unit.*	~~classified as a *pumped-storage unit.*~~					
Registration	2.3.1.11	2.3.1.11 A *Generation Company* shall operate its *battery energy storage system* and *pumped-storage unit* in accordance with the scheduling and dispatch procedures described in Chapter 3, within the *dispatch conformance standards* specified in accordance with Clause 3.8.5 when it is scheduled to operate as *Generation.*	~~2.3.1.11 A *Generation Company* shall operate its *battery energy storage system* and *pumped-storage unit* in accordance with the scheduling and dispatch procedures described in Chapter 3, within the *dispatch conformance standards* specified in accordance with Clause 3.8.5 when it is scheduled to operate as *Generation.*~~					
Registration	2.3.1.12	2.3.1.12 xxxx	2.3.1.~~12~~9 xxxx	Renumbering				
Registration	2.3.1.13	2.3.1.13 xxxx	2.3.1.~~13~~10 xxxx	Renumbering				
Registration	2.3.8	(new)	**Energy Storage Systems**	Introduce new membership type for ESS				
Registration	2.3.8.1	(new)	**An *Energy Storage System* that is directly connected to a *transmission system* shall register with the *Market Operator* as a *WESM Member.* An embedded *Energy Storage System* shall register with the *Market Operator* as a *WESM***	Proposed criteria for mandatory and voluntary registration of ESS.	1. We would like to inquire on the meaning of "+/-". Section 8.1.2 of DOE DC2023-04-0008 does not indicate "+/-" in relation to the regional	xxx An embedded *Energy Storage System* shall register with the *Market*		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			Member if it meets the following criteria: **(a) +/- 10 MW for Luzon _Grid_;** **(b) +/- 5 MW for Visayas _Grid_; and** **(c) +/- 5 MW for Mindanao _Grid_.** **If the _energy storage system_ does not fit the above criteria, it may register as a _WESM Member_ on a voluntary basis.**		thresholds. For clarity, we suggest deleting "+/-". 2. We would also like to seek clarification if ESS for distribution facility upgrades deferment and distribution power quality management will be required to register in the WESM if it meets the regional thresholds. During the 4 September 2024 public consultation for the ERC's draft Energy Storage Rules, ERC-MOS clarified that DU-owned ESS are exempted from securing a COC as these facilities function mainly for power quality requirements.	_Operator_ as a _WESM Member_ if **its capacity is equal to or above the following regional thresholds** ~~it meets the following criteria~~: (a) ~~+/-~~ 10 MW for Luzon _Grid_; (b) ~~+/-~~ 5 MW for Visayas _Grid_; and (c) ~~+/-~~ 5 MW for Mindanao _Grid_. xxx		
Registration	2.3.8.2	(new)	**To register as a _WESM Member_, the _Energy Storage System_ shall:** **(a) Classify the facility it owns, operates, or controls as either a:** **(i) _battery energy storage system_**	Proposed classification of ESS.	Clause 2.3.8.2(a) is not aligned with the configurations of ESS as prescribed in DOE DC2023-04-0008, which are also mentioned in table 2 on the background of the proposed amendment:	To register as a _WESM Member_, the _Energy Storage System_ shall: (a) Classify the facility it owns, operates, or controls as either a: **(As per**		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			(ii) *pumped-storage hydropower* **(iii) *integrated generating plant and ESS*** **(b) Satisfy the *Market Operator* that those *energy storage systems,* and its connection points, comply with the relevant technical requirements set out in the *WESM Rules*, the *Grid Code and Distribution Code*; and** **(c) Satisfy the membership criteria specified in Clause 2.3.3.4.**		 Table 2. Prescribed Types of ESS Configurations based on DOE DC2023-04-0008 Technology / Definition Stand-Alone Energy Storage System / ESS that is connected to and stores energy sourced from the transmission or distribution system Generating Plant and ESS / ESS is connected to the generating plant/s and can be charged from the generating plant/s or to the grid or distribution system Technology / Definition Integrated RE Plant and ESS / Combination of re plant/s and an ESS, where the ESS is solely charged by the re plant/s Integrated Non-RE Plant and ESS / Refers to a combination of a conventional plant/s and an ESS, where the ESS will not charge from the grid or distribution system and that its pmax will be limited to the plant capacity	**DOE DC2023-04-0008)** **(i) Stand-alone Energy Storage Systems** *1. battery energy storage system* *2. pumped-storage hydropower* **(ii) Integrated Non-RE Plant and ESS** **(iii) Integrated RE Plant and ESS** **(iv) Generating Plant and ESS** xxx		
Registration	2.3.8.3	(new)	**A facility or a group of facilities connected at a common connection point that is capable of storing electrical energy through chemical reactions from which it is able to charge or discharge electrical energy to the power system and that can be dispatched to any**	Definition of classification for BESS	As provided in DC2023-04-0008, BESS can be classified as *Stand-alone Energy Storage System*.			

WESM Rules								
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			operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate energy, (2) curtail the consumption of *energy* in the case of demand response, or (3) consume *energy* shall be classified as *battery energy storage system.*					
Registration	2.3.8.4	(new)	**A *facility* or a group of facilities connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of electrical power shall be classified as a *pumped-storage hydropower.***	Definition of classification for PSH	As provided in DC2023-04-0008, PSH can be classified as *Stand-alone Energy Storage System*.			
Registration	2.3.8.5	(new)	**If a non-renewable energy plant has a *battery energy storage system* that fits the following criteria, then it shall be classified as an *integrated generating plant and ESS*:** **(a) All *facilities* are connected at a common connection point; and** **(b) Combined nameplate capacity greater than or equal to the regional thresholds**	Proposed treatment of non-RE facilities that are integrated with ESS	Clause 2.3.8.5(c) contradicts the definition of *Integrated Non-RE Plant and ESS* under DOE DC-2023-04-0008. In the Department Circular, "***Generating Plant and ESS***" refers to a combination Conventional Plant/s and/or RE Plant/s, and an ESS, where the ESS	If a non-renewable energy plant has a *battery energy storage system* that fits the following criteria, then it shall be classified as an *integrated* ***non-RE*** ~~*generating*~~ *plant and ESS*: (a) All *facilities* are connected at a		

WESM Rules								
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			provided in Clause 2.3.8.1; and **(c) Connected *battery energy storage system* can be charged either from the *generating unit*, *transmission system*, or *distribution system*****		is charged either from the Generation Plant/s or from the Grid or Distribution System; while "***Integrated Non-RE Plant and ESS***" refers to a combination of Conventional Plant/s and an ESS, where the ESS will not charge from the Grid or Distribution System and that its Pmax will be limited to the plant capacity. Since this clause appears to refer to "Integrated Non-RE Plant and ESS", there should be a separate provision for "Generating Plant and ESS".	common connection point; and (b) Combined nameplate capacity greater than or equal to the regional thresholds provided in Clause 2.3.8.1; and (c) Connected *battery energy storage system* **is solely charged by the non-RE plant** ~~can be charged either from the generating unit, transmission system, or distribution system~~		
Registration	2.3.8.6	(new)	**If a renewable energy plant has a *battery energy storage system* connected at a common connection point, while the *battery energy storage system* can be charged either from the *generating unit*, *transmission system*, or *distribution system*, then it can be classified as a *must dispatch***	Proposed treatment of RE facilities that are integrated with ESS	1. Clause 2.3.8.6 is not consistent with the definition of *Integrated RE Plant and ESS* as prescribed in DOE DC-2023-04-0008. In the Department Circular, "***Integrated RE Plant and ESS***" refers to a combination of RE	If a renewable energy plant has a *battery energy storage system* connected at a common connection point, where the *battery energy storage system* **is solely charged by the *RE plant*** ~~*can be*~~		

WESM Rules								
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			***generating unit* or a *priority dispatch generating unit* subject to Clauses 2.3.1.5 and 2.3.1.6. It may, at its option, be classified as an *integrated generating plant and ESS* subject to Clause 2.3.8.5.**		Plant/s and an ESS, where the ESS is solely charged by the RE Plant/s. 2. We would like to seek clarification on the rationale for classifying the BESS charged from the grid/distribution system as *must dispatch* or *priority dispatch.* We propose to limit the classification to *Integrated RE Plant and ESS* only. The ESS component in the "Generating Plant and ESS" configuration should be classified as scheduled generating unit.	~~*charged from the generating unit, transmission system, or distribution system*~~, then it can be classified as a *must dispatch generating unit* or a *priority dispatch generating unit* subject to Clauses 2.3.1.5 and 2.3.1.6. It may, at its option, be classified as an *integrated* ***RE*** ~~*generating*~~ *plant and ESS* subject to Clause 2.3.8.5.		
Registration	2.3.8.7	(new)	**An *Energy Storage System* shall register each of its *connection points* with the *Market Operator.***	Clarity on registration of connection points.				
Registration	2.3.8.8	(new)	**An *Energy Storage System* shall operate its *facilities* in accordance with the scheduling and dispatch procedures described in**	Clarification on responsibility of ESS for scheduling and dispatch.				

WESM Rules								
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			Chapter 3, within the *dispatch conformance standards* specified in accordance with Clause 3.8.5 when it is scheduled to operate as *Generation.*					
Load Forecasting	3.5.4.2	Each *net load forecast* shall be prepared in such a way as to represent the net *load* to be met by *generation* from *scheduled generating units*, *must-dispatch generating units*, *priority dispatch generating units*, *non-scheduled generating units, batter energy storage systems* and *pumped-storage units* including losses occurring outside the system represented by the market network model, but excluding any *scheduled load.*	Each *net load forecast* shall be prepared in such a way as to represent the net *load* to be met by *generation* from *scheduled generating units*, *must-dispatch generating units*, *priority dispatch generating units*, *non-scheduled generating units, batter energy storage systems,* ~~and~~ *pumped-storage* ~~*units*~~ ***hydropower, and integrated generating plant and ESS*** including losses occurring outside the system represented by the market network model, but excluding any *scheduled load.*	Revised PSU to PSH and added integrated plant and ESS.	BES and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	xxx … *non-scheduled generating units,* ~~*batter energy storage systems, pumped-storage hydropower*~~ ***stand-alone ESS,*** *and* ~~*integrated*~~ *generating plant and ESS* including losses occurring… xxx		
Load Forecasting	3.5.4.7	Each *pumped-storage unit* shall submit a forecast in respect of each dispatch interval that it will operate as *load* for each trading day of the week in accordance with the timetable. The *pumped-storage unit* shall be deemed to be operating on *generation*	Each *pumped-storage* ~~*unit*~~ ***hydropower*** shall submit a forecast in respect of each ***dispatch interval*** that it will operate as *load* for each trading day of the week in accordance with the timetable. The *pumped-storage* ~~*unit*~~ ***hydropower*** shall be deemed to be operating on	Revised PSU to PSH	PSH can be classified as stand-alone ESS. All ESS that will charge from the grid should submit a forecast in respect of each dispatch interval that it will operate as *load*.	Each ~~*pumped-storage hydropower*~~ ***stand-alone ESS and generating plant and ESS*** shall submit a forecast in respect of each *dispatch interval* that it will operate as *load*		

WESM Rules								
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		mode in each *dispatch interval* without a *load* forecast.	*generation* mode in each *dispatch interval* without a *load* forecast.			for each trading day of the week in accordance with the timetable. The ~~*pumped-storage hydropower*~~ ***stand-alone ESS*** **and** ***generating plant and ESS*** shall be deemed to be operating on *generation* mode in each *dispatch interval* without a *load* forecast.		
Submission of Offers, Bids, and Data	3.5.5.1	Each *Generation Company* including *Generation Companies* with *bilateral contracts* shall submit a standing *market offer* equivalent to the *maximum stable load (Pmax)* or *available capacity* for each of its *scheduled generating units, battery energy storage systems,* or *pumped-storage units* for each *dispatch interval* in each *trading day* of the week in accordance with the *timetable*. If the submitted offer reflects a capacity that is less than the *maximum stable load (Pmax),* the *Generation*	Each *Generation Company* **or** ***Energy Storage System,*** including ~~*Generation Companies*~~ those with *bilateral contracts,* shall submit a standing *market offer* equivalent to the *maximum stable load (Pmax)* or *available capacity* for each of its *scheduled generating units, battery energy storage systems,* ~~or~~ *pumped-storage* ~~*units*~~ ***hydropower, and integrated generating plant and ESS*** for each *dispatch interval* in each *trading day* of the week in accordance with the *timetable*. If the submitted offer reflects a capacity that is less	Revised PSU to PSH and added integrated plant and ESS.	Integrated RE plant and ESS has the option to be classified as a must run or priority dispatch. BESS and PSH can also be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	xxx … each of its *scheduled generating units,* ~~*battery energy storage systems*~~*, pumped-storage* ~~*hydropower*~~ ***stand-alone ESS, and*** ~~*integrated*~~ *generating plant and*		

WESM Rules								
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		Company shall include the reason for such in its standing *offer*. The standing *market offer* shall apply until revised or updated by the *Generation Company*.	than the *maximum stable load (Pmax),* the *Generation Company* **or *Energy Storage System*** shall include the reason for such in its standing *offer*. The standing *market offer* shall apply until revised or updated by the *Generation Company* **or *Energy Storage System*.**			*ESS* for each *dispatch interval* in each *trading day* of the week in accordance with the *timetable*… xxx		
Generation Offers and Data	3.5.5.2	Each *scheduled generating unit* and *pumped-storage unit* operating on *generation* mode shall submit a *Generation Offer* that includes the information specified in Appendix A1.1	Each *scheduled generating unit*, ~~and~~ *pumped-storage ~~unit~~* ***hydropower*, and *integrated generating plant and ESS*** operating on *generation* mode shall submit a *Generation Offer* that includes the information specified in Appendix A1.1	Revised PSU to PSH	PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	Each *scheduled generating unit*, ~~*pumped-storage hydropower*~~ ***stand-alone ESS, and*** ~~*integrated*~~ *generating plant and ESS* operating on *generation* mode shall submit a *Generation Offer* that includes the information specified in Appendix A1.1		
Submission of Offers, Bids, and Data	3.5.5.3	Each *Generation Company* operating a *battery energy storage system* shall submit an *energy storage systems Offer* that includes that information specified in Appendix A1.4.	Each ~~*Generation Company*~~ ***Energy Storage System*** operating a *battery energy storage system* shall submit an *energy storage systems* ***offer*** ~~that includes that~~ **with** information specified in Appendix A1.4.	Changed to ESS for BESS facilities.	To accommodate the other Energy Storage Systems that will submit an energy storage system offer, Appendix A1.4 should be revised.	Each *Energy Storage System* operating ~~a~~ ***as stand-alone ESS or generating plant and ESS*** shall submit an *energy storage systems offer* with information		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
						specified in Appendix A1.4.		
Submission of Offers, Bids, and Data	3.5.5.13	Each *Generation Company* that has secured a *Final Certificate of Approval to Connect* but with pending issuance of *Certificate of Compliance* from the *ERC* shall submit, as applicable: a) Standing nomination of the *loading levels* for each of its *scheduled generating units*, *battery energy storage systems*, and *pumped-storage units*; or b) *Projected outputs* in respect of its *must-dispatch generating units* and *priority dispatch generating units*. The *Generation Company* shall submit its nomination of the *loading levels* or *projected outputs* for each *dispatch interval* on each *trading day* of the week in accordance with the *timetable*. The standing nomination of the loading levels and *projected outputs* shall apply until revised or updated by the *Generation Company*.	Each *Generation Company* **or *Energy Storage System*** that has secured a *Final Certificate of Approval to Connect* but with pending issuance of *Certificate of Compliance* from the *ERC* shall submit, as applicable: a) Standing nomination of the *loading levels* for each of its *scheduled generating units*, *battery energy storage systems*, ~~and~~ *pumped-storage* ~~*units*~~ ***hydropower,* and *integrated generating plant and ESS***; or b) *Projected outputs* in respect of its *must-dispatch generating units* and *priority dispatch generating units*. The *Generation Company* shall submit its nomination of the *loading levels* or *projected outputs* for each *dispatch interval* on each *trading day* of the week in accordance with the *timetable*. The standing nomination of the loading levels and *projected outputs* shall apply until revised or updated by the *Generation Company*.	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	xxx a) Standing nomination of the *loading levels* for each of its *scheduled generating units*, ~~*battery energy storage systems*,~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS***, and ~~*integrated*~~ *generating plant and ESS*; or xxx		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Submission of Offers, Bids, and Data	3.5.7.2	When applicable, subject to Clause 3.3.4.2, each *scheduled generating unit, battery energy storage system* and *pumped-storage unit* registered as an *Ancillary Services Provider* in respect of a *reserve facility* in a particular *reserve region* shall submit a standing *reserve offer* for each of its relevant *reserve facilities* in respect of that *reserve region* for each *dispatch interval* for each day of the week in accordance with the *timetable*. The standing *reserve offer* shall apply until revised or updated by the *scheduled generator* registered as an *Ancillary Services Provider*.	When applicable, subject to Clause 3.3.4.2, each *scheduled generating unit, battery energy storage system* ~~and~~ *pumped-storage* ~~*units*~~ ***hydropower,*** **and** ***integrated generating plant and ESS*** registered as an *Ancillary Services Provider* in respect of a *reserve facility* in a particular *reserve region* shall submit a standing *reserve offer* for each of its relevant *reserve facilities* in respect of that *reserve region* for each *dispatch interval* for each day of the week in accordance with the *timetable*. The standing *reserve offer* shall apply until revised or updated by the *scheduled generator* registered as an *Ancillary Services Provider*.	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	When applicable, subject to Clause 3.3.4.2, each *scheduled generating unit,* ~~*battery energy storage systems,*~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS***, and ~~*integrated*~~ *generating plant and ESS* registered as an *Ancillary Services Provider…* *xxx*		
Submission of Offers, Bids, and Data	3.5.11.1	Each *Trading Participant* which has submitted standing *offers* or bids for each of its *scheduled generating unit, battery energy storage system* and *pumped-storage unit* may revise any of its *market offers* or *market bids* equivalent to the *available capacity* and shall take into account the conditions under Clause 3.5.11.5 and Clause 3.5.11.6,	Each *Trading Participant* which has submitted standing *offers* or bids for each of its *scheduled generating unit, battery energy storage system* ~~and~~ *pumped-storage* ~~*units*~~ ***hydropower,*** **and** ***integrated generating plant and ESS*** may revise any of its *market offers* or *market bids* equivalent to the *available capacity* and shall take into account the conditions under	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	Each *Trading Participant* which has submitted standing *offers* or bids for each of its *scheduled generating unit,* ~~*battery energy storage systems,*~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS***, and		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		for any *dispatch interval* in any trading day of the current week-ahead *market horizon.* Each revised *market offer* or *market bid* shall be submitted in accordance with the *timetable* subject to Clause 3.5.11.4 and contain all the information set out in Appendix A1.	Clause 3.5.11.5 and Clause 3.5.11.6, for any *dispatch interval* in any trading day of the current week-ahead *market horizon.* Each revised *market offer* or *market bid* shall be submitted in accordance with the *timetable* subject to Clause 3.5.11.4 and contain all the information set out in Appendix A1.			~~*integrated*~~ *generating plant and ESS* may revise any of its *market offers* or *market bids*… *xxx*		
Market Dispatch Optimization Model	3.6.1.5	The *market dispatch optimization model* shall be designed so that, subject to the approximations and adjustments provided for by Clause 3.6.4: (a) It will produce an optimal dispatch given the objective defined by Clause 3.6.1.4, and the constraint structure defined by Clause 3.6.1.4, and specifying *dispatch* targets for each *scheduled generating unit*, *battery energy storage system, pumped-storage unit, non-scheduled generating unit*, *must-dispatch generating unit, priority dispatch generating unit*, *scheduled load* and *reserve facility*; xxxx	The *market dispatch optimization model* shall be designed so that, subject to the approximations and adjustments provided for by Clause 3.6.4: (a) It will produce an optimal dispatch given the objective defined by Clause 3.6.1.4, and the constraint structure defined by Clause 3.6.1.4, and specifying *dispatch* targets for each *scheduled generating unit*, *battery energy storage system, pumped-storage* ~~*units*~~ ***hydropower, integrated generating plant and ESS***, *non-scheduled generating unit*, *must-dispatch generating unit, priority dispatch generating unit*, *scheduled load* and *reserve facility*;	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	xxx … *scheduled generating unit,* ~~*battery energy storage systems, pumped-storage hydropower*~~ ***stand-alone ESS,*** **and** ~~*integrated*~~ *generating plant and ESS …*		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			xxxx			xxx		
	3.6.1.8	When restricting *dispatch* targets under Clause 3.6.1.7, the *market dispatch optimization model* shall consider the following hierarchy when a combination of the groups is to be restricted: (a) *market offers* of *scheduled generating units, battery energy storage systems and pumped-storage units* operating on generation mode beyond its minimum (b) *Non-scheduled generating units* (c) *Priority dispatch generating units* (d) *Must-dispatch generating units*	When restricting *dispatch* targets under Clause 3.6.1.7, the *market dispatch optimization model* shall consider the following hierarchy when a combination of the groups is to be restricted: (a) *market offers* of *scheduled generating units, battery energy storage system**,*** ~~*and*~~ *pumped-storage* ~~*units*~~ ***hydropower*** operating on generation mode beyond its minimum***, and integrated generating plant and ESS*** (b) *Non-scheduled generating units* (c) *Priority dispatch generating units* (d) *Must-dispatch generating units*	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	xxx (a) *market offers scheduled generating unit,* ~~*battery energy storage systems,*~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS*** operating on generation mode beyond its minimum, and ~~*integrated*~~ *generating plant and ESS…* xxx		
Scheduling and Dispatch Implementation	3.8.1	Prior to commencement of each *dispatch interval*, the *Market Operator* shall, in consultation with the *System Operator*, and in accordance with the *timetable* prescribed in the *relevant Market Manuals:*	Prior to commencement of each *dispatch interval*, the *Market Operator* shall, in consultation with the *System Operator*, and in accordance with the *timetable* prescribed in the *relevant Market Manuals:* (a) Determine, or estimate, the *status* of all *generation facility* for that *dispatch interval*;	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.			

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		(a) Determine, or estimate, the *status* of all *generation facility* for that *dispatch interval*; xxxx (e) Use the *market dispatch optimization model* to determine the *target loading level* in *MW* for each *scheduled generating unit, battery energy storage system, pumped-storage unit, must-dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load* and *reserve facility* for the end of that *dispatch interval* using the latest data from the *System Operator* and *Trading Participants*; (f) Submit to the *System operator* the *dispatch schedule* containing the *target loading levels* to be achieved at the end of that *dispatch interval*, determined in accordance with Clause 3.8.1 (e); (g) Send to all *Trading Participants* a *dispatch schedule* that contains *target loading levels* in respect of	xxxx (e) Use the *market dispatch optimization model* to determine the *target loading level* in *MW* for each *scheduled generating unit, battery energy storage system, pumped-storage* ~~*units*~~ ***hydropower, integrated generating plant and ESS***, *must-dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit, scheduled load* and *reserve facility* for the end of that *dispatch interval* using the latest data from the *System Operator* and *Trading Participants*; (f) Submit to the *System operator* the *dispatch schedule* containing the *target loading levels* to be achieved at the end of that *dispatch interval*, determined in accordance with Clause 3.8.1 (e); (g) Send to all *Trading Participants* a *dispatch schedule* that contains *target loading levels* in respect of their *scheduled generating unit, battery energy storage system, pumped-storage* ~~*units*~~			xxx (e)… *scheduled generating unit,* ~~*battery energy storage systems,*~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS,*** **and** ~~*integrated*~~ *generating plant and ESS…* xxx xxx (g)… *scheduled generating unit,* ~~*battery energy storage systems,*~~ ~~*pumped-storage hydropower*~~ ***stand-alone ESS,*** **and**		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		their *scheduled generating unit, battery energy storage system, pumped-storage unit, must-dispatch generating unit, priority dispatch generating unit* and *non-scheduled generating units* calculated under Clause 3.8.1(e) for each *dispatch interval* prior to the commencement of that *dispatch interval* in accordance with the relevant *Market Manuals*; xxxx	***hydropower, integrated generating plant and ESS***, *must-dispatch generating unit, priority dispatch generating unit* and *non-scheduled generating units* calculated under Clause 3.8.1(e) for each *dispatch interval* prior to the commencement of that *dispatch interval* in accordance with the relevant *Market Manuals*; xxxx			~~*integrated*~~ *generating plant and ESS…* xxx		
System Operator Implementation of Real-Time Dispatch	3.8.3.3	All *scheduled generating units, battery energy storage systems, pumped-storage units* and *priority dispatch generating units* shall follow all instructions from the *System Operator*, in accordance with the *Grid Code,* the *WESM Rules* and pertinent *Market Manuals*.	All *scheduled generating units, battery energy storage systems, pumped-storage* ~~*units*~~ ***hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units* shall follow all instructions from the *System Operator*, in accordance with the *Grid Code,* the *WESM Rules* and pertinent *Market Manuals*.	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the configurations in DOE DC2023-04-0008.	All *scheduled generating unit,* ~~*battery energy storage systems, pumped-storage hydropower*~~ ***stand-alone ESS,*** **and** ~~*integrated*~~ *generating plant and ESS…* xxx		
Market Information	3.11.1.3	Each *trading day*, in accordance with the *timetable*, the *Market Operator* shall *publish*: (a) The *dispatch schedule* for each *scheduled generating unit, battery energy storage*	Each *trading day*, in accordance with the *timetable*, the *Market Operator* shall *publish*: (a) The *dispatch schedule* for each *scheduled generating unit, battery energy storage system, pumped-storage* ~~*units*~~	Revised PSU to PSH and added integrated plant and ESS.	BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the	xxx … *scheduled generating unit,* ~~*battery energy*~~		

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		system, pumped-storage unit, must-dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit and *scheduled load* in each *dispatch interval* in the *settlement intervals* for the previous *trading day*; and (b) A summary of the information provided to it with respect to each *dispatch interval* by the *System Operator* in accordance with Clause 3.8.2.2.	***hydropower, integrated generating plant and ESS***, *must-dispatch generating unit, priority dispatch generating unit, non-scheduled generating unit* and *scheduled load* in each *dispatch interval* in the *settlement intervals* for the previous *trading day*; and (b) A summary of the information provided to it with respect to each *dispatch interval* by the *System Operator* in accordance with Clause 3.8.2.2.		configurations in DOE DC2023-04-0008.	~~*storage systems*~~, ~~*pumped-storage hydropower*~~ ***stand-alone ESS,*** **and** ~~*integrated*~~ *generating plant and ESS…* xxx		
Glossary		(new)	**Energy Storage System. A facility capable of absorbing energy directly from the Grid or Distribution System, or from a generating unit connected to the grid or distribution system and storing it for a time period, then injecting stored energy when prompted and needed to ensure reliability and a balanced power system.**	New ESS definition based on DOE DC2023-04-0008				
Glossary		Battery Energy Storage System. A system with all related equipment essential to its functioning as a single entity which is capable of storing electrical *energy*	Battery Energy Storage System. ~~A system with all related equipment essential to its functioning as a single entity which is capable of storing electrical *energy* through~~	Revised definition to be consistent with DOE DC2023-04-0008				

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		through chemical reactions from which it is able to charge or discharge electrical *energy* to the power system.	~~chemical reactions from which it is able to charge or discharge electrical *energy* to the power system.~~ **A facility capable of storing electric energy electrochemically from which it is able to charge or discharge electric energy.**					
Glossary		Loading Level. The instantaneous level of output or consumption (in MW) of a *generating unit or load.*	Loading Level. The instantaneous level of output or consumption (in MW) of a *generating unit*, ***energy storage system***, *or load.*	To include ESS				
Glossary		Pumped-Storage Unit. A *facility* or group of facilities that act as *load* while using *energy* to pump water to higher elevation reservoirs, and then act like generators by producing electric *energy* when water is release back to the lower reservoir.	**Pumped-Storage** ~~**Unit Hydropower**~~**.** A *facility* or group of facilities that ~~act as *load* while using *energy* to pump water to higher elevation reservoirs, and then act like generators by producing electric *energy* when water is release back to the lower reservoir~~ **uses electric energy to pump water from a lower elevation reservoir to a higher elevation reservoir. When required, the water flows back to the upper to the lower reservoir, powering a turbine with a generator to produce electric energy.**	Revised definition to be consistent with DOE DC2023-04-0008				
Appendix	A1.4	Battery Energy Storage System Offer:	Battery Energy Storage System Offer:		Suggest revising to include other **stand-alone ESS and**			

WESM Rules								
Title	**Clause**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		(a) Shall include the location of the *connection point* and relevant *market network node*; (b) Shall include the *pricing zone* of the *connection point,* (c) May include up to ten (10) *energy offer* blocks per (aggregate) unit. The maximum combined capacity of *generation* and *reserve offers* must not be less than the available capacity of the generator; (d) Shall be for a minimum block size of 1 MW; (e) Shall have monotonically increasing prices and quantity (f) May start from a negative quantity to represent its projected maximum consumption; (g) May include negative prices (h) May include the projected state-of-charge at the start of the relevant dispatch interval	(a) Shall include the location of the *connection point* and relevant *market network node*; (b) Shall include the *pricing zone* of the *connection point,* (c) May include up to ten (10) *energy offer* blocks per (aggregate) unit. The maximum combined capacity of *generation* and *reserve offers* must not be less than the available capacity of the generator; (d) Shall be for a minimum block size of 1 MW; (e) Shall have monotonically increasing prices and quantity **for discharging** **(f) Shall have monotonically decreasing prices for charging** (~~f~~**g**) May start from a negative quantity to represent its projected maximum consumption; (~~g~~**h**) May include negative prices (~~h~~**i**) May include the projected state-of-charge at the start of the relevant dispatch interval		**generating plant and ESS** that will submit their offer.			

B. WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Other Considerations	2.5.4.1	Generation Unit Classification a) An Applicant wishing to register as Generation Company shall, upon application, classify each of the generating unit or group of generating units which form part of the generating system it owns or operates or controls or from which it otherwise sources electricity as either – (i) Scheduled generating unit/s for unit/s that are connected to a common connection point with a nameplate rating or a combined nameplate rating of greater than or equal to the following regional thresholds: o 10 MW for Luzon Grid o 5 MW Visayas Grid; and o 5 MW for Mindanao Grid. xxxx	~~Generation Unit~~ Classification of **Generating Units** a) An Applicant wishing to register as Generation Company shall, upon application, classify each of the generating unit or group of generating units which form part of the generating system it owns or operates or controls or from which it otherwise sources electricity as either – (i) Scheduled generating unit/s for unit/s that are connected to a common connection point with a nameplate rating or a combined nameplate rating of greater than or equal to the following regional thresholds: o 10 MW for Luzon Grid o 5 MW Visayas Grid; and o 5 MW for Mindanao Grid. xxxx	Clerical changes. Then moved BESS and PSH to different section.				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		(iv) A priority dispatch generating unit for a generating unit or group of generating units connected at a common connection point that are qualified renewable energy plants that are not must dispatch, such as those using either geothermal energy or biomass as fuel, or is an impounding hydro plant, and is not providing frequency control ancillary services. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section. (v) Battery Energy Storage System are generating units that are connected at a common connection point that are capable of storing electrical energy through chemical reactions from which it is able to charge	(iv) A priority dispatch generating unit for a generating unit or group of generating units connected at a common connection point that are qualified renewable energy plants that are not must dispatch, such as those using either geothermal energy or biomass as fuel, or is an impounding hydro plant, and is not providing frequency control ancillary services. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section. ~~(v) Battery Energy Storage System are generating units that are connected at a common connection point that are capable of storing electrical energy through chemical reactions from which it~~					

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		or discharge electrical energy to the power system and that can be dispatched to any operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate Energy, (2) curtail the consumption of Energy in the case of demand response, or (3) consume Energy. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section. (vi) Pumped-storage units are generating units connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of electrical power shall be classified as a pumped-	~~is able to charge or discharge electrical energy to the power system and that can be dispatched to any operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate Energy, (2) curtail the consumption of Energy in the case of demand response, or (3) consume Energy. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section.~~ ~~(vi) Pumped-storage units are generating units connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of~~					

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		storage unit. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or nonscheduled generating unit/s subject to this Section. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section. b) For the foregoing purposes, the reserve regions in the WESM correspond to the major grids of the transmission system and are Luzon, Visayas and Mindanao. c) The Market Operator shall approve the classification of a generating unit/s as either a non-scheduled generating unit or a must-dispatch generating unit or a priority dispatch generating unit or an energy storage system, subject to prevailing relevant rules, regulations and issuances. An Applicant may appeal the	~~electrical power shall be classified as a pumped-storage unit. However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or nonscheduled generating unit/s subject to this Section.~~ However, the Generation Company may also elect to have such unit/s classified as scheduled generating unit/s or non-scheduled generating unit/s subject to this Section. b) For the foregoing purposes, the reserve regions in the WESM correspond to the major grids of the transmission system and are Luzon, Visayas and Mindanao. c) The Market Operator shall approve the classification of a generating unit/s as either a non-scheduled generating unit or a must-dispatch generating unit or a priority dispatch					

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		decision of the Market Operator to the PEM Board.	generating unit ~~or an energy storage system~~, subject to prevailing relevant rules, regulations and issuances. An Applicant may appeal the decision of the Market Operator to the PEM Board.					
Other Considerations	2.5.4.2	(new)	**Classification of Energy Storage Systems** **a) An Applicant wishing to register as an Energy Storage System shall, upon application, classify each of its facility that form part of the Energy Storage System it owns, operates, or controls as either a:** **(i) Battery Energy Storage System for a facility or a group of facilities connected at a common connection point that is capable of storing electrical energy through chemical reactions from which it is able to charge or discharge electrical energy to the power system and that can be dispatched to**	New section for ESS	Similar to our comment in the proposed amendments to the WESM Rules, we suggest revising to **align with the ESS configurations as prescribed in DC2023-04-0008** (i.e., stand-alone ESS, Integrated Non-RE Plant and ESS, Integrated RE Plant and ESS, and Generating Plant and ESS) and give description on the manner of dispatching for the ESS.			

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			any operating level within their entire capacity range but are also constrained by a MW or MWh limit to (1) generate energy, (2) curtail the consumption of energy in the case of demand response, or (3) consume energy. **(ii) Pumped-storage hydropower for a facility or a group of facilities connected at a common connection point that is capable of storing water from a lower elevation reservoir to a higher elevation reservoir for the purpose of production of electrical power.** **(iii) Integrated Generating Plant and ESS is a non-renewable energy plant with a battery energy storage system that fits the following criteria:**		BESS can be classified under **stand-alone ESS** PSH can be classified as **stand-alone ESS.** We would like to seek clarification if this is for *integrated non-RE Plant and ESS*?			

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			○ **All facilities are connected at a common connection point; and** ○ **Combined nameplate capacity greater than or equal to the regional thresholds provided in Clause 2.3.8.1; and** ○ **Connected battery energy storage system can be charged either from the generating unit, transmission system, or distribution system** **b) If a renewable energy plant has a battery energy storage system connected at a common connection point, while the battery energy storage system can be charged either from the**		**If the BESS is integrated, as per DC2023-04-0008, the battery should be charged solely by the plant.** For clarification, should this be under (a)? Does this relate to *integrated RE and ESS*? If so, the battery should be			

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
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			generating unit, transmission system, or distribution system, then it can be classified as a must dispatch generating unit or a priority dispatch generating unit subject to Clause 2.5.4.1 of this Market Manual. It may, at its option, be classified as an *integrated generating plant and ESS* subject to Clause 2.5.4.2 (iii).		charged solely by the RE Plant.			
Other Considerations	2.5.4.3	2.5.4.2 Aggregation of Generating Units	2.5.4.~~2~~**3** Aggregation of Generating Units	Renumbered				
Other Considerations	2.5.4.4	(new)	**2.5.4.4 Modelling of Energy Storage Systems** **At the very least, battery energy storage systems, pumped-storage hydropower, and integrated generating plant and ESS shall be modelled as a single resource for each connection point.** **An Energy Storage System that owns multiple facilities in a single connection point shall, upon application, inform the Market Operator if it wishes to have a different representation of its facilities**	Provided clause for the general framework of modelling ESS as a single resource per connection point	We suggest revising the provision to align with the ESS configurations in DOE DC2023-04-0008.	xxx At the very least, ~~battery energy storage systems, pumped-storage hydropower,~~ **stand-alone ESS, integrated RE plant and ESS, and integrated non-RE plant and ESS,** ~~and integrated generating plant and ESS~~ shall be modelled as a single resource for each connection point**, while**		

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			in the market network model. The Applicant, the Network Services Provider, Metering Services Provider, System Operator, and the Market Operator shall agree on the manner of market resource representation in accordance with the procedures set forth in relevant Market Manuals.			**generating plant and ESS shall be modelled as a multiple resource for each connection point.** xxx		
Other Considerations	2.5.4.5	2.5.4.3. Dispatch Conformance Standards A Generation Company shall operate scheduled generating units, priority dispatch generating units, battery energy storage systems and pumped-storage units in accordance with the scheduling and dispatch procedures described in Chapter 3, and in accordance with the dispatch conformance standards specified in accordance with Clause 3.8.5.	2.5.4.~~3~~**5**. Dispatch Conformance Standards A Generation Company shall operate scheduled generating units, priority dispatch generating units, battery energy storage systems and pumped-storage ~~units~~ **hydro** in accordance with the scheduling and dispatch procedures described in Chapter 3, and in accordance with the dispatch conformance standards specified in accordance with Clause 3.8.5.	Renumbered and changed PSU to PSH.	Include ***Energy Storage System***. The dispatch of the ESS (i.e., scheduled, non-scheduled, must dispatch, priority dispatch) will depend on its configuration under the DOE DC 2023-04-0008. BESS and PSH can be classified as stand-alone ESS	A Generation Company **or Energy Storage System** shall operate scheduled generating units, priority dispatch generating units, **stand-alone ESS, and generating plant and ESS** ~~battery energy storage systems and pumped-storage units hydro~~ in accordance with the scheduling and dispatch procedures described in Chapter 3, and in accordance with the dispatch conformance standards specified in accordance with Clause 3.8.5.		

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Other Considerations	2.5.4.6	2.5.4.4. Generation Registered Capacities A Generation Company shall include in its application for registration the maximum stable load (Pmax), the minimum stable load (Pmin), the ramp up rate, and the ramp down rate of each generating unit or aggregated generating units that are included in its application. xxxx For Generation Companies applying for the Commercial Operations registration, the information on the generating unit parameters provided to the Market Operator shall be consistent with that contained in the Certificate of Compliance or the Provisional Authority to Operate issued by the ERC, as well as submissions made to the ERC in relation to the issuance thereof. If the generating unit is a battery energy storage system, the Generation Company shall include the generating unit's energy storage efficiency and maximum storage capacity in its Application. If the generating unit	2.5.4.4**6**. Generation Registered Capacities A Generation Company shall include in its application for registration the maximum stable load (Pmax), the minimum stable load (Pmin), the ramp up rate, and the ramp down rate of each generating unit or aggregated generating units that are included in its application. xxxx For Generation Companies applying for the Commercial Operations registration, the information on the generating unit parameters provided to the Market Operator shall be consistent with that contained in the Certificate of Compliance or the Provisional Authority to Operate issued by the ERC, as well as submissions made to the ERC in relation to the issuance thereof. ~~If the generating unit is a battery energy storage system, the Generation Company shall include the generating unit's energy storage efficiency and maximum storage capacity in its Application. If the~~	Renumbered and removed reference for BESS				

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		is a pumped-storage unit, the Generation Company shall include the generating unit's maximum pump load. xxxx	~~generating unit is a pumped-storage unit, the Generation Company shall include the generating unit's maximum pump load.~~ xxxx					
Other Considerations	2.5.4.7	(new)	**2.5.4.4. Registered Capabilities of Energy Storage Systems** **An Energy Storage System shall include in its application for registration the maximum operating limit, the minimum operating limit, the maximum ramp up rate, and the maximum ramp down rate of the energy storage system that are included in its application.** **The following table establishes the minimum and maximum operating limits, the maximum ramp up rate, and the minimum ramp down rate for each energy storage system.** ***<see table 1 at the end of the proposal>***	New section for detailing technical data requirements for registration of ESS facility.	Suggest revising this section and the table 1 to align with the ESS configurations as provided in DC2023-04-0008			

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			For Energy Storage Systems applying for the Test and Commissioning registration, the information on the generating unit parameters provided to the Market Operator shall be consistent with that contained in the ERC Form 7 (General Plant Description) duly received by the ERC. **For Energy Storage Systems applying for the Commercial Operations registration, the information on the facility parameters provided to the Market Operator shall be consistent with that contained in the Certificate of Compliance or the Provisional Authority to Operate issued by the ERC, as well as submissions made to the ERC in relation to the issuance thereof.** **For battery energy storage systems and integrated generating plant and ESS, the Energy Storage System shall include the facility's energy storage efficiency and**					

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			maximum storage capacity of the BESS in its Application. **For pumped-storage hydropower, the Generation Company shall include the generating unit's pumping MW limit.** **The Energy Storage System shall also provide information on the location of the real-time monitoring facility where the minimum operating limit, maximum operating limit, and ramp up/down rates were certified at (i.e., gross generation, or net of station use). Should the location represent the gross generation output of the generating system, the Energy Storage System shall comply with the procedures provided for under Section 2.5.4.8 of this Market Manual.**					
Other Considerations	2.5.4.8	2.5.4.5. Modelling of Station Use of Generating Units A Generation Company shall inform the Network Service Provider and the Market Operator of the provisions of its station use	2.5.4.~~5~~**8**. Modelling of Station Use of Generating Units **and Energy Storage Systems** A Generation Company **or Energy Storage System** shall inform the Network Service Provider and the Market	Added ESS				

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		for registration and inclusion in the market network model.	Operator of the provisions of its station use for registration and inclusion in the market network model.					
Other Considerations	2.5.4.9	2.5.4.6. Modelling of Generating Units of Ancillary Service Providers A Generation Company with generating units providing ancillary services, in coordination with Market Operator, shall ensure that the generating units are represented in the market network model in accordance with the requirements of the System Operator.	2.5.4.~~6~~**9**. Modelling of Generating Units of Ancillary Service Providers A Generation Company **or Energy Storage System** with ~~generating units~~ **facilities** providing ancillary services, in coordination with Market Operator, shall ensure that the ~~generating units~~ **facilities** are represented in the market network model in accordance with the requirements of the System Operator.	Added ESS and standardized the use of the term "facility" for asset owned as generating unit or ESS facility.				
Other Considerations	2.5.4.10	2.5.4.7. Modelling of Generating Unit's Availability Upon registration, Trading Participants shall specify if the availability of its generating unit shall be based on the real-time status of its generator circuit breaker, or on the availability of its market offers.	2.5.4.7. Modelling of ~~Generating Unit~~ **Facility's** Availability Upon registration, Trading Participants shall specify if the availability of its ~~generating unit~~ **facility** shall be based on the real-time status of its ~~generator~~ **main** circuit breaker, or on the availability of its market offers.	Used the term "facility" for asset owned as generating unit or ESS facility.				
Other Considerations	2.5.4.11	2.5.4.8. Real-Time Monitoring Location During the registration of the generating unit, the Generation	2.5.4.~~8~~**11**. Real-Time Monitoring Location During the registration of the ~~generating unit~~ **facility**, the	Added ESS and standardized the use of the term "facility" for asset owned as				

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		Company shall specify if its real-time monitoring will be at the gross MW output of the generating unit or at the same location as its market trading node, which is at its connection point and net of its station use, in accordance with the guidelines set forth in the WESM Manual on Market Network Model Development and Maintenance Procedures.	Generation Company **or Energy Storage System** shall specify if its real-time monitoring will be at the gross MW output of the ~~generating unit~~ **facility** or at the same location as its market trading node, which is at its connection point and net of its station use, in accordance with the guidelines set forth in the WESM Manual on Market Network Model Development and Maintenance Procedures.	generating unit or ESS facility.				
Registration Phases	2.5.5.1	An Applicant wishing to register as a Generation Company or a generating system as an additional facility shall start its registration from one of the following phases: xxxx b) If the Applicant needs to conduct the necessary test and commissioning process as required by the PGC, the Applicant shall undergo Test and Commissioning Registration. For this purpose, Test and Commissioning shall refer to the generating unit's connection/synchronization to the grid.	An Applicant wishing to register as a Generation Company**, an Energy Storage System,** or a generating system as an additional facility shall start its registration from one of the following phases: xxxx b) If the Applicant needs to conduct the necessary test and commissioning process as required by the PGC, the Applicant shall undergo Test and Commissioning Registration. For this purpose, Test and Commissioning shall refer to the ~~generating unit's~~ **facility's**	Added ESS and standardized the use of the term "facility" for asset owned as generating unit or ESS facility.				

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		xxxx	connection/synchronization to the grid. xxxx					
Assessment of Applications	2.5.6.1	Submission and Preliminary Assessment of Applications xxxx An Applicant as a Generation Company shall comply with the authorization requirement under Section 2.5.3.1 based on its registration phase as follows: 1. Backfeed Registration. The Applicant shall submit a receiving copy of its application with the ERC for a Certificate of Compliance, together with Form 7 (General Plant Description) duly stamped "received" by the ERC. 2. Test and Commissioning Registration. The Applicant shall submit the scheduled date of Test and Commissioning, as coordinated with the Network Service Provider15 and System Operator, for the conduct of test and commissioning. Prior to the actual conduct of test and commissioning, the Generation Company shall furnish the Market	Submission and Preliminary Assessment of Applications xxxx An Applicant as a Generation Company **or Energy Storage System** shall comply with the authorization requirement under Section 2.5.3.1 based on its registration phase as follows: 1. Backfeed Registration. The Applicant shall submit a receiving copy of its application with the ERC for a Certificate of Compliance, together with Form 7 (General Plant Description) duly stamped "received" by the ERC. 2. Test and Commissioning Registration. The Applicant shall submit the scheduled date of Test and Commissioning, as coordinated with the Network Service Provider15 and System Operator, for the conduct of test and commissioning. Prior to the actual conduct of test and commissioning, the Generation	Added ESS and standardized the use of the term "facility" for asset owned as generating unit or ESS facility.				

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		Operator and System Operator a copy of its Provisional Certificate of Approval to Connect (PCATC). Embedded generators shall submit a Clearance to energize from the Network Service Provider as an additional requirement. The test and commissioning period of the Applicant shall be as indicated in the Provisional Certificate of Approval to Connect. Applicant shall submit a receiving copy of its application with the ERC for a Certificate of Compliance, together with Form 7 (General Plant Description) duly stamped "received" by the ERC if this was not yet submitted. In case of extended period for Test and Commissioning, the Applicant shall submit to the Market Operator the corresponding extended PCATC three (3) working days from the original expiry date of PCATC indicating the approved period for the extended conduct of Test and Commissioning. xxxx h) Participant Interface Access. During the Test and	Company **or Energy Storage System** shall furnish the Market Operator and System Operator a copy of its Provisional Certificate of Approval to Connect (PCATC). Embedded ~~generators~~ **facilities** shall submit a Clearance to energize from the Network Service Provider as an additional requirement. The test and commissioning period of the Applicant shall be as indicated in the Provisional Certificate of Approval to Connect. Applicant shall submit a receiving copy of its application with the ERC for a Certificate of Compliance, together with Form 7 (~~General~~ Plant Description) duly stamped "received" by the ERC if this was not yet submitted. In case of extended period for Test and Commissioning, the Applicant shall submit to the Market Operator the corresponding extended PCATC three (3) working days from the original expiry date of PCATC indicating the approved period for the extended conduct of Test and Commissioning. xxxx					

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		Commissioning Registration phase, the Applicant may subscribe to and allow the Market Operator to apply or install a method employing encryption in its computers to provide secure access to the Market Management System. The Applicant shall have read-only access to the Market Management System for its facility during the Test and Commissioning phase to enable the Trading Participant to view its generating unit's schedules. Full access for its facility will only be enabled by the Market Operator no later than eight (8) calendar days from approval of the Applicant's Commercial Operations registration, or from the date of effectivity of Final Certificate of Approval to Connect (FCATC) if the Energy Regulatory Commission (ERC) is yet to issue the COC.	h) Participant Interface Access. During the Test and Commissioning Registration phase, the Applicant may subscribe to and allow the Market Operator to apply or install a method employing encryption in its computers to provide secure access to the Market Management System. The Applicant shall have read-only access to the Market Management System for its facility during the Test and Commissioning phase to enable the Trading Participant to view its ~~generating unit's~~ **facility's** schedules. Full access for its facility will only be enabled by the Market Operator no later than eight (8) calendar days from approval of the Applicant's Commercial Operations registration, or from the date of effectivity of Final Certificate of Approval to Connect (FCATC) if the Energy Regulatory Commission (ERC) is yet to issue the COC.					
Approval of Applications	2.5.7.3	Guidelines for Test and Commissioning Registration a) The WESM Member shall be allowed to declare bilateral	Guidelines for Test and Commissioning Registration a) The WESM Member shall be allowed to declare bilateral	Added ESS and standardized the use of the term "facility" for assets				

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		contract quantities for its generating unit and be entitled to WESM payments for its generated output only: (i) within the test and commissioning period indicated in the valid Provisional Certificate of Approval to Connect (PCATC) issued by the Network Service Provider or until completion of the conduct of test and commissioning, if completed earlier; or (ii) when the WESM Member is issued a FCATC by the Network Service Provider pending the issuance of the COC by the ERC, unless the latter issues an Order for the immediate disconnection of the generating unit from the Grid. In the absence of the requirement or condition set forth in this Section, except for its own station use, generation beyond the authorized period of test and commissioning shall not be allowed, unless an extended	contract quantities for its ~~generating unit~~ **facility** and be entitled to WESM payments for its generated output only: (i) within the test and commissioning period indicated in the valid Provisional Certificate of Approval to Connect (PCATC) issued by the Network Service Provider or until completion of the conduct of test and commissioning, if completed earlier; or (ii) when the WESM Member is issued a FCATC by the Network Service Provider pending the issuance of the COC by the ERC, unless the latter issues an Order for the immediate disconnection of the ~~generating unit~~ **facility** from the Grid. In the absence of the requirement or condition set forth in this Section, except for its own station use, generation beyond the authorized period of	owned as generating unit or ESS facility.				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		period has been approved by the Network Service Provider. Neither shall such generation be declared as a bilateral contract quantity nor shall it be entitled to WESM payments. Any net surplus as a result of injected energy from unauthorized test and commissioning activity or operation will be treated in accordance with Clause 3.13.12 of the WESM Rules. However, the WESM Member shall still be charged for all withdrawals from the grid or distribution network, as the case may be. b) Dispatch of a generating unit to which FCATC has been released but with pending issuance of COC shall be in accordance with the following: (i) For its must-dispatch generating units, the Generation Company shall submit projected output to the Market Operator and comply with the applicable forecast accuracy standards; and (ii) For scheduled generating units, priority dispatch generating unit,	test and commissioning shall not be allowed, unless an extended period has been approved by the Network Service Provider. Neither shall such generation be declared as a bilateral contract quantity nor shall it be entitled to WESM payments. Any net surplus as a result of injected energy from unauthorized test and commissioning activity or operation will be treated in accordance with Clause 3.13.12 of the WESM Rules. However, the WESM Member shall still be charged for all withdrawals from the grid or distribution network, as the case may be. b) Dispatch of a ~~generating unit~~ **facility** to which FCATC has been released but with pending issuance of COC shall be in accordance with the following: (i) For its must-dispatch generating units, the Generation Company shall submit projected output to the Market Operator and comply with the applicable forecast accuracy standards; and					

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
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		and energy storage systems, the Generation Company shall submit to the Market Operator its day-ahead nomination and shall comply with the applicable dispatch conformance standards. Projected output and day-ahead nominations shall be submitted through the Market Operator's Market Participant Interface, which, as necessary, may be revised by the Generation Company near real-time. Compliance of generating units referred in these guidelines with the forecast accuracy standards and dispatch conformance standards, as applicable, shall be monitored by the Enforcement and Compliance Office and non-compliance shall be subject to imposition of financial penalties. xxxx e) In case the Network Service Provider did not issue an extended PCATC to the WESM Member, the PCATC shall be deemed without effect after the	(ii) For scheduled generating units, priority dispatch generating unit, ~~and energy storage systems~~ **battery energy storage system, pumped-storage hydropower, and integrated generating plant and ESS**, the Generation Company **or Energy Storage System** shall submit to the Market Operator its day-ahead nomination and shall comply with the applicable dispatch conformance standards. Projected output and day-ahead nominations shall be submitted through the Market Operator's Market Participant Interface, which, as necessary, may be revised by the Generation Company **or Energy Storage System** near real-time. Compliance of ~~generating units~~ **facilities** referred in these guidelines with the forecast accuracy standards and dispatch conformance standards, as applicable, shall		BESS and PSH can be classified as stand-alone ESS. We suggest revising the provision to align with the ESS configurations in DOE DC2023-04-0008.	(ii) For scheduled generating units, priority dispatch generating unit, ~~battery energy storage systems, pumped-storage hydropower~~ ***stand-alone ESS, integrated RE plant and ESS, integrated non-RE plant and ESS***, and ~~integrated~~ generating plant and ESS, the Generation Company or Energy Storage System shall submit to the Market Operator its day-ahead nomination and shall comply with the applicable dispatch conformance standards.		

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		expiry date and the System Operator shall no longer impose overriding constraints on the generating unit. Any unauthorized generation shall not be allowed to be declared as bilateral contract quantity and shall not be entitled to WESM payments in accordance with Section 2.5.7.3 (a). f) The Network Service Provider shall immediately inform the Market Operator of any suspended validity of PCATC due to failure of the generating facility to satisfy the grid connectivity parameters required by the PGC. Suspended PCATC shall observe Section 2.5.7.3 (a). Notwithstanding the suspension of the PCATC, an extended PCATC shall be submitted within three (3) working days prior to original expiry of PCATC. Should the PCATC expire while the WESM Member is in the process of satisfying the grid connectivity parameters required by PGC or PDC, the process for the conduct of Test and Commissioning shall be reset.	be monitored by the Enforcement and Compliance Office and non-compliance shall be subject to imposition of financial penalties. xxxx e) In case the Network Service Provider did not issue an extended PCATC to the WESM Member, the PCATC shall be deemed without effect after the expiry date and the System Operator shall no longer impose overriding constraints on the ~~generating unit~~ **facility**. Any unauthorized generation shall not be allowed to be declared as bilateral contract quantity and shall not be entitled to WESM payments in accordance with Section 2.5.7.3 (a). f) The Network Service Provider shall immediately inform the Market Operator of any suspended validity of PCATC due to failure of the ~~generating~~ facility to satisfy the grid connectivity parameters required by the PGC. Suspended PCATC shall observe Section 2.5.7.3 (a).					

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		g) In case of changes in capacity and capabilities of the generating unit arising from the results of test and commissioning, the WESM Member shall immediately inform the Market Operator for the purpose of updating its registration details subject to provisions of Section 3.3 of this Manual. h) The Network Service Provider of a generating unit shall furnish the ERC and Market Operator a copy of the FCATC within three (3) calendar days from issuance thereof to the relevant WESM Member. i) The WESM Member shall submit to the Market Operator an application for Commercial Operations Registration of its generating unit within three (3) working days from date of receipt of its COC or Provisional Authority to Operate (PAO) from the ERC, provided that this shall not apply to embedded generation companies that are allowed to register on a voluntary basis and have opted not to register in the WESM.	Notwithstanding the suspension of the PCATC, an extended PCATC shall be submitted within three (3) working days prior to original expiry of PCATC. Should the PCATC expire while the WESM Member is in the process of satisfying the grid connectivity parameters required by PGC or PDC, the process for the conduct of Test and Commissioning shall be reset. g) In case of changes in capacity and capabilities of the ~~generating unit~~ **facility** arising from the results of test and commissioning, the WESM Member shall immediately inform the Market Operator for the purpose of updating its registration details subject to provisions of Section 3.3 of this Manual. h) The Network Service Provider of a ~~generating unit~~ **facility** shall furnish the ERC and Market Operator a copy of the FCATC within three (3) calendar days from issuance thereof to the relevant WESM Member.					

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		xxxx j) The Market Operator shall submit a monthly report on the status of the Test and Commissioning of the generating units to the Enforcement and Compliance Office, copy furnished the DOE and ERC, indicating information such as but not limited to: xxxx	i) The WESM Member shall submit to the Market Operator an application for Commercial Operations Registration of its ~~generating unit~~ **facility** within three (3) working days from date of receipt of its COC or Provisional Authority to Operate (PAO) from the ERC, provided that this shall not apply to embedded ~~generation companies~~ **facilities** that are allowed to register on a voluntary basis and have opted not to register in the WESM. xxxx j) The Market Operator shall submit a monthly report on the status of the Test and Commissioning of the ~~generating units~~ **facilities** to the Enforcement and Compliance Office, copy furnished the DOE and ERC, indicating information such as but not limited to: xxxx					
REGISTRATION OF ANCILLARY SERVICES PROVIDERS	2.6.1.1	Persons or entities wishing to register as WESM member under this category must – a) Be registered as a Generation Company or a Customer;	Persons or entities wishing to register as WESM member under this category must – a) Be registered as a Generation Company**, Energy**	Added ESS and changed PSU to PSH.				

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		xxxx f) For Generation Companies, only scheduled generating units, battery energy storage systems, and pumped-storage units can be registered as a reserve facility.	**Storage System,** or a Customer; xxxx f) For Generation Companies **and Energy Storage Systems**, only scheduled generating units, battery energy storage systems, and pumped-storage ~~units~~ **hydro** can be registered as a reserve facility.		Suggest revising since as provided in DC2023-04-0008, BESS and PSH can be grouped together as stand-alone ESS			
REGISTRATION OF ANCILLARY SERVICES PROVIDERS	2.6.1.2	The application for registration of a Generation Company as Ancillary Services Provider shall specify the following information for each of its reserve facility which has been issued a valid certification to provide Ancillary Services: a) Reserve category or categories which said generating unit intends to trade in the WESM; xxxx	The application for registration of a Generation Company **or Energy Storage System** as **an** Ancillary Services Provider shall specify the following information for each of its reserve facility which has been issued a valid certification to provide Ancillary Services: a) Reserve category or categories which said ~~generating unit~~ **facility** intends to trade in the WESM; xxxx	Added ESS and standardized the use of the term "facility" for assets owned as generating unit or ESS facility.				
Metering Services Provider	2.7.2.4	2.7.2.4. The following may not be registered as Metering Services Providers – a) A Generation Company or Customer which is involved in the trading of energy may not be registered as a Metering Services	2.7.2.4. The following may not be registered as Metering Services Providers – a) A Generation Company**,** **Energy Storage System,** or Customer which is involved in the trading of energy may not be	Added ESS				

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		Provider in respect to any market trading node assigned to it; or xxxx	registered as a Metering Services Provider in respect to any market trading node assigned to it; or xxxx					
Facility-Related Changes	3.3.1	3.3.1. Registered Capacities Changes in the registered capacities (i.e., Pmin or Pmax) of a generating unit shall require confirmation by the *Market Operator* before such change can be considered in the WESM scheduling and dispatch processes.	3.3.1. Registered ~~Capacities~~ **Capabilities** Changes in the registered ~~capacities~~ **capabilities** (~~i.e.~~ **e.g.**, Pmin**,** ~~or~~ Pmax**, ramp rates**) of a generating unit **or *energy storage system*** shall require confirmation by the *Market Operator* before such change can be considered in the WESM scheduling and dispatch processes.	Revised to use capabilities to cover registered capacities and other maximum operating limits.				
	3.3.1.1	3.3.1.1. The *Trading Participant* wishing to change the registered capacities and/or ramp rates of its generating unit/s shall make a request in writing to the *Market Operator*. Such changes shall be in accordance with the latest Certificate of Compliance (COC).	3.3.1.1. The *Trading Participant* wishing to change the registered ~~capacities~~ **capabilities** and/or ramp rates of its generating unit/s **and *energy storage system/s*** shall make a request in writing to the *Market Operator*. Such changes shall be in accordance with the latest Certificate of Compliance (COC).	Added ESS and revised to use capabilities to cover registered capacities and other maximum operating limits.				
	3.3.1.2	Request for changes submitted by the *Trading Participant*, in connection with the registered capacities and/or ramp rates of	Request for changes submitted by the *Trading Participant*, in connection with the registered ~~capacities~~ **capabilities** and/or	Added ESS and revised to use capabilities to cover registered				

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		its generating units shall be approved by the *Market Operator* on the basis of the latest Certificate of Compliance.	ramp rates of its generating units **and *energy storage systems*** shall be approved by the *Market Operator* on the basis of the latest Certificate of Compliance.	capacities and other maximum operating limits.				
	3.3.1.3	The *Market Operator* shall notify the *PEM Board, ERC* and *DOE* of any changes in the registered capacities and/or ramp rates of *generating units* in the *WESM*.	The *Market Operator* shall notify the *PEM Board, ERC* and *DOE* of any changes in the registered ~~capacities~~ **capabilities** and/or ramp rates of *generating units* **and *energy storage systems*** in the *WESM*.	Added ESS and revised to use capabilities to cover registered capacities and other maximum operating limits.				
Re-classification of generating units and ESS	3.3.2	3.3.2. Re-classification of generation units	3.3.2. Re-classification of ~~generation units~~ ***generating units* and *energy storage systems***	Revised to use generating units. Added ESS.				
Re-classification of generating units and ESS	3.3.2.1	The *Trading Participant* under whom a generating unit is registered in the *WESM* may request for the reclassification of such unit (i.e., *scheduled*, *non-scheduled, must dispatch* or *priority dispatch*) by submitting to the *Market Operator* a request in writing supported by documents and information as would enable the *Market Operator* to evaluate the request.	The *Trading Participant* under whom a generating unit **or *energy storage system*** is registered in the *WESM* may request for the reclassification of such unit (i.e., *scheduled*, *non-scheduled, must dispatch* or *priority dispatch*, ***integrated generating plant and ESS***) by submitting to the *Market Operator* a request in writing supported by documents and information as would enable the *Market Operator* to evaluate the request.	Added ESS and integrated generating plant and ESS.	We would like to seek clarification on the rationale for including "integrated generating plant and ESS" as a classification of dispatch. The introduction of ESS should not change dispatch classifications (i.e., scheduled, non-scheduled, must dispatch, priority dispatch). The			

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
					dispatch of ESS should depend on its configuration under DOE DC2023-04-0008.			
Re-classification of generating units and ESS	3.3.2.2	The *Market Operator* shall approve the reclassification subject to the conditions set forth in *WESM Rules* section 2.3.1, and relevant prevailing rules, regulations and issuances, and in consultation with the *System Operator.*	The *Market Operator* shall approve the reclassification subject to the conditions set forth in *WESM Rules* section 2.3.1 **and 2.3.8**, and relevant prevailing rules, regulations and issuances, and in consultation with the *System Operator.*	Included new section for ESS.				
Representation in the Market Network Model	3.3.3.1	Changes in the manner of representation of any generating unit or customer facility in the *Market Network Model* may be initiated by the *Trading Participant* transacting such facilities in *the WESM*.	Changes in the manner of representation of any generating unit**, *e*nergy storage system,** or customer facility in the *Market Network Model* may be initiated by the *Trading Participant* transacting such facilities in *the WESM*.					
Transfer of Registration of Facilities	3.3.5.1	A generation facility or unit or a customer facility registered under one *WESM Member* may be transferred to another person or entity that meets the criteria and qualifications to be registered as a *WESM Member* and *Trading Participant.*	A ~~generation facility or~~ **generating** unit**, energy storage system,** or a customer facility registered under one *WESM Member* may be transferred to another person or entity that meets the criteria and qualifications to be registered as a *WESM Member* and *Trading Participant.*	Added ESS.				
New Energy Storage System	3.3.8	(new)	**New Energy Storage System**	New section for ESS.				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			3.3.8.1. A registered *Energy Storage System* that has a new *facility* and intends to trade its capacity through a separate *market trading node* shall have it registered as a new *facility.* **3.3.8.2. The registered *Energy Storage System* shall comply with the technical and commercial requirements under Section 2.5.3 and the procedures under Sections 2.5.4, 2.5.5, 2.5.6 and 2.5.7 for the registration of its new facility.** **3.3.8.3. The *Market Operator* shall assess and approve the request for the registration, on applicable phases, of new *facility* in accordance with the procedures under Sections 2.5.6, 2.5.7, and 2.5.8.**					
Enrolment and De-listing of Supply Customers	3.5.1.2	3.5.1.2. The notice to the *Market Operator* shall include the following - a) details on the duration of the supply contract; xxxx	The notice to the *Market Operator* shall include the following - a) details on the duration of the supply contract; xxxx	Included ESS				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		f) for *Replacement Power Arrangements* between *Generation Companies*, copy of the supply contract; and g) for supply to an *Indirect WESM Member* through its *Direct WESM Member* that is a *Generation Company*, written confirmation by the *Indirect WESM Member* of the notice and the foregoing information.	f) for *Replacement Power Arrangements* between *Generation Companies* **and/or *Energy Storage Systems***, copy of the supply contract; and g) for supply to an *Indirect WESM Member* through its *Direct WESM Member* that is a *Generation Company* **or an *Energy Storage System***, written confirmation by the *Indirect WESM Member* of the notice and the foregoing information					
	3.5.1.5	*Generation Companies* may register other *Generation Companies* or *Customer Trading Participants*, except for *Contestable Customers*, as *Supply Customers*. A *Generation Company* can only enroll another *Generation Company* as a *Supply Customer* if: a) the *Generation Companies* have entered into a *Replacement Power Arrangement*; or b) the *Generation Company* acting as the *Supply Customer* is the designated *Direct WESM Member* of an *Indirect WESM Member* that has a contract with	*Generation Companies* **and *Energy Storage Systems*** may ~~register~~ **enroll** other *Generation Companies*, ***Energy Storage Systems***, or *Customer Trading Participants*, except for *Contestable Customers*, as *Supply Customers*. A *Generation Company* **or *Energy Storage System*** can only enroll another *Generation Company* **or *Energy Storage System*** as a *Supply Customer* if: a) the *Generation Companies* **or *Energy Storage Systems*** have entered into a *Replacement Power Arrangement*; or	Changed register to enroll for consistency and clarity.				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		the enrolling *Generation Company.*	b) the *Generation Company* **or *Energy Storage System*** acting as the *Supply Customer* is the designated *Direct WESM Member* of an *Indirect WESM Member* that has a contract with the enrolling *Generation Company.*					
	3.5.1.6	Prior to providing the notice under Clause 3.5.1.3, the *Market Operator* shall verify that *Generation Companies* that wish to enroll *Renewable Energy Suppliers* as *supply customer*s must own, control or operate *generation unit/s* that are all producing electricity using renewable energy resources.	Prior to providing the notice under Clause 3.5.1.3, the *Market Operator* shall verify that *Generation Companies* ***or Energy Storage Systems*** that wish to enroll *Renewable Energy Suppliers* as *supply customer*s must own, control or operate ~~*generation unit/s*~~ ***facilities*** that are all producing electricity using renewable energy resources.	Included ESS and used facilities.				
Cessation of Registration	5.2.1.3	If the *WESM member* wishes to cease to be registered as a *Trading Participant* as a result of the retirement or closure of its generation or customer facilities that are injecting or withdrawing power from the grid, it shall likewise cause the disconnection of such facilities from the transmission or distribution system to which these are connected. The notice to be submitted to the *Market Operator*	If the *WESM member* wishes to cease to be registered as a *Trading Participant* as a result of the retirement or closure of its ~~generation or customer~~ facilities that are injecting or withdrawing power from the grid, it shall likewise cause the disconnection of such facilities from the transmission or distribution system to which these are connected. The notice to be submitted to the *Market*					

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		shall be accompanied by proof of such disconnection.	*Operator* shall be accompanied by proof of such disconnection.					
Issuance of Notices of De-Registration and Disconnection	5.4.2.2	If the *WESM member* is a *Generation Company* or a *Customer* with facilities connected to the grid and is being de-registered pursuant to the WESM Rules or market manuals, the *Market Operator* shall simultaneously issue a notice of disconnection to the *WESM Member* to be deregistered and a request for disconnection to the *National Grid Corporation of the Philippines (*the "*NGCP")* or relevant *Network Service Provider*. The issuance of the notice and request for disconnection shall be in accordance with prevailing rules and regulations on disconnection.	If the *WESM member* is a *Generation Company**, **Energy Storage System***,* or a *Customer* with facilities connected to the grid and is being de-registered pursuant to the WESM Rules or market manuals, the *Market Operator* shall simultaneously issue a notice of disconnection to the *WESM Member* to be deregistered and a request for disconnection to the *National Grid Corporation of the Philippines (*the "*NGCP")* or relevant *Network Service Provider*. The issuance of the notice and request for disconnection shall be in accordance with prevailing rules and regulations on disconnection.	Included ESS.				
Effects of Deregistration	5.6.2	Deregistration shall also result in the disconnection of the relevant generation or customer facilities from the transmission or distribution system under the following circumstances -	Deregistration shall also result in the disconnection of the relevant ~~generation or customer~~ facilities from the transmission or distribution system under the following circumstances -	Revised to use "facilities"				
Effects of Deregistration	5.6.2.1	The *WESM member* was deregistered as a *Generation Company* or *Customer;* or	The *WESM member* was deregistered as a *Generation Company**, Energy Storage System***,* or *Customer;* or	Included ESS.				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Appendix A Glossary of Terms		Certificate of Compliance Certificate issued by the Energy Regulatory Commission to generation companies or facilities authorizing and setting conditions for the operations of the generation companies or facilities	Certificate of Compliance Certificate issued by the Energy Regulatory Commission ~~to generation companies or facilities~~ **authorizing and setting the conditions for the operations of the facilities of *Generation Companies* and *Energy Storage Systems*** ~~authorizing and setting conditions for the operations of the generation companies or facilities~~	Revised definition to consider ESS.				
Appendix A Glossary of Terms		Replacement Power Arrangement Agreement entered by a *generation company* with another *generation company* for delivery of electricity by the purchasing *generation company* to its customers when its power plant is on outage or supply deration due to seasonal dependency or resource intermittency	Replacement Power Arrangement Agreement entered by a *generation company* **or *energy storage system*** with another *generation company* **or *energy storage system*** for delivery of electricity by the purchasing *generation company* **or *energy storage system*** to its customers when its power plant is on outage or supply deration due to seasonal dependency or resource intermittency	Included ESS				
Appendix A Glossary of Terms		Supply Customer Customers connected to the grid that are being supplied electricity by Generation Companies or	Supply Customer Customers connected to the grid that are being supplied electricity by Generation	Included ESS				

WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures Issue 18.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		Wholesale Aggregators under any power supply agreement or contract.	Companies, ***Energy Storage Systems***, or Wholesale Aggregators under any power supply agreement or contract.					
Appendix A Glossary of Terms		Test and Commissioning Refers to the conduct of procedures to determine and certify that a generating unit was connected to the grid in accordance with the Philippine Grid Code (PGC), Philippine Distribution Code (PDC) and other relevant guidelines and specifications and to determine readiness to deliver energy to Grid or distribution network for the purpose of securing a COC from the ERC.	Test and Commissioning Refers to the conduct of procedures to determine and certify that a generating unit **or** ***energy storage system*** was connected to the grid in accordance with the Philippine Grid Code (PGC), Philippine Distribution Code (PDC) and other relevant guidelines and specifications and to determine readiness to deliver energy to Grid or distribution network for the purpose of securing a COC from the ERC.	Included ESS				
Appendix A Glossary of Terms		Wholesale Aggregator Any person or entity, other than a Generation Company issued a Certificate of Registration by the ERC to sell electricity to Distribution Utilities	Wholesale Aggregator Any person or entity, other than a Generation Company **or Energy Storage System** issued a Certificate of Registration by the ERC to sell electricity to Distribution Utilities	Included ESS				

C. WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Definition, References, and Interpretation	2.1.5	*Market Resources* refers to the objects defined in the Market Network Model to represent *generators, battery energy storage systems, pumped-storage units,* and *loads*.	*Market Resources* refers to the objects defined in the Market Network Model to represent *generators, battery energy storage systems, pumped-storage ~~units~~* ***hydro, integrated generating plant and ESS,*** and *loads*.	Revised PSU to PSH. Added Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS.	*Market Resources* refers to the objects defined in the Market Network Model to represent *generators, ~~battery energy storage systems~~, and ~~pumped-storage hydro~~* ***stand-alone ESS, integrated RE plant and ESS, integrated non-RE plant and ESS,*** and *~~integrated~~ generating plant and ESS,* and *loads*.		
Market Network Model Development	4.1.3	The components of the MNM interact with one another in accordance with dispatch schedule of the generating *units, battery energy storage systems, pumped-storage units, customer* demand and the physical laws that govern the operation of the network components. These interactions are complex by nature but should be balanced to maintain the reliable and secure operation of the power system by the System Operator, as well as	The components of the MNM interact with one another in accordance with dispatch schedule of the *generating units, battery energy storage systems, pumped-storage ~~units~~* ***hydro, integrated generating plant and ESS,*** *customer* demand and the physical laws that govern the operation of the network components. These interactions are complex by nature but should be balanced to maintain the reliable and secure operation of	Revised PSU to PSH. Added Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS.	The components of the MNM interact with one another in accordance with dispatch schedule of the *generating units, ~~battery energy storage systems~~, and ~~pumped-storage hydro~~* ***stand-alone ESS, integrated RE plant and ESS, integrated non-RE plant and ESS,*** and		

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		for the generation of fair and economic market dispatch schedules and nodal energy price.	the power system by the System Operator, as well as for the generation of fair and economic market dispatch schedules and nodal energy price.			~~*integrated*~~ *generating plant and ESS*, *customer* demand and the physical laws that govern the operation of the network components. xxx		
Market Trading Nodes	4.4.1	These are nodes in the load flow model designated as the reckoning node for settlement of energy and reserves of Trading Participants. MTN shall be modeled as the trading point of a generating unit, battery energy storage systems, pumped-storage unit or a Load corresponding to its connection point. Where the MTN and the metering point are of different location, site-specific loss adjustment (SSLA) provided in the WESM Metering Market Manual shall apply. Further details on MTN can be viewed in Section 6 of this Market Manual.	These are nodes in the load flow model designated as the reckoning node for settlement of energy and reserves of Trading Participants. MTN shall be modeled as the trading point of a generating unit, battery energy storage systems, pumped-storage ~~unit~~ **hydro, *integrated generating plant and ESS*,** or a Load corresponding to its connection point. Where the MTN and the metering point are of different location, site-specific loss adjustment (SSLA) provided in the WESM Metering Market Manual shall apply. Further details on MTN can be viewed in Section 6 of this Market Manual.	Revised PSU to PSH. Added Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS.	xxx MTN shall be modeled as the trading point of a generating unit, ~~*battery energy storage systems, pumped-storage hydro*~~ ***stand-alone ESS, integrated RE plant and ESS, integrated non-RE plant and ESS,*** and ~~*integrated*~~ *generating plant and ESS*, or a Load corresponding to its connection point. xxx		
Market Trading Nodes	4.4.13	Representations of Pumped-Storage Unit Market Resources	Representations of Pumped-Storage ~~Unit~~ **Hydro** Market Resources	Revised PSU to PSH.	This should be Section 4.4.5 of *WESM Manual on*			

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		This is the mathematical model of a pumped-storage unit with its dual capability of injecting or withdrawing power through the network.	This is the mathematical model of a pumped-storage unit with its dual capability of injecting or withdrawing power through the network.		*Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0*			
Market Trading Nodes	4.4.13	(new)	**Representations of *Integrated Generating Plant and ESS* Resources** **This is the mathematical model of an *integrated generating plant and ESS* with its dual capability of injecting or withdrawing power through the network.**	Added new section on Integrated Generating Plant and ESS.	Suggest revising to align with the configurations of ESS as prescribed in DC-2023-04-0008.			
MNM Development Timetable	Item 1	Description At the very least, the technical requirements indicated in the WESM Market Manual on Registration, Suspension and De-Registration Criteria and Procedures for new generators, battery energy storage systems, or pumped-storage units should be provided. The same requirements are also required when requesting for the remodelling of facilities (i.e. aggregation of disaggregation of resources).	Description At the very least, the technical requirements indicated in the WESM Market Manual on Registration, Suspension and De-Registration Criteria and Procedures for new generators, battery energy storage systems, ~~or~~ pumped-storage ~~units~~ **hydro, or integrated generating plant and ESS** should be provided. The same requirements are also required when requesting for the remodelling of facilities (i.e.	Revised PSU to PSH. Added Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS.	xxx for new generators, ~~*battery energy storage systems, pumped-storage hydro*~~ ***stand-alone ESS, integrated RE plant and ESS, integrated non-RE plant and ESS***, or		

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			aggregation ~~of~~ **or** disaggregation of resources).			~~*integrated*~~ *generating plant and ESS* should be provided. xxx		
Types of Market Resources	6.3.1	Market Resources can be classified as: xxxx d) Pumped-Storage Unit resources – resources that represent a registered pumped-storage unit directly connected to a network operated by the System Operator. It is a resource where power is injected or withdrawn through the transmission network.	Market Resources can be classified as: xxxx d) Pumped-Storage ~~Unit~~ **Hydro** resources – resources that represent a registered pumped-storage unit directly connected to a network operated by the System Operator. It is a resource where power is injected or withdrawn through the transmission network. **e) Integrated Generating Plant and ESS resources – resources in the *market network model* that represent a registered integrated *facility* of a generating plant and *battery energy storage system* that is connected to a *transmission* or *distribution network*.**	Revised PSU to PSH. Added Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008 (i.e., stand-alone ESS, Integrated Non-RE Plant and ESS, Integrated RE Plant and ESS, and Generating Plant and ESS). In addition, PSH can be grouped together as stand-alone ESS.			
Market Resources	6.8	6.8 PUMPED-STORAGE UNIT MARKET RESOURCE 6.8.1. During the registration of the pumped- storage unit resource, the Trading Participant	6.8 PUMPED-STORAGE ~~UNIT~~ **HYDRO** MARKET RESOURCE 6.8.1. During the registration of the pumped- storage ~~unit~~ **hydro** resource, the Trading Participant	Revised PSU to PSH and clarified offers only during generation mode.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition,			

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		shall specify if the scheduling point should represent the gross MW output of the generator or at the same location as the market trading node (i.e. at the connection point, which is at the connection point and net of its station use. The location of the scheduling point shall be the reference point for the registered capacity, submission of generation offers and self-scheduled nominations, scheduling, dispatch, and dispatch compliance monitoring. 6.8.2. The information that should be submitted by the generators in their energy supply and reserve offers are enumerated in Appendix A1.1 of the WESM Rules. 6.8.3. During the registration of the pumped-storage unit resource, Trading Participants shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its market offers.	shall specify if the scheduling point should represent the gross MW output of the generator or at the same location as the market trading node (i.e. at the connection point, which is at the connection point and net of its station use. The location of the scheduling point shall be the reference point for the registered capacity, submission of generation offers and self-scheduled nominations, scheduling, dispatch, and dispatch compliance monitoring. 6.8.2. The information that should be submitted by the ~~generators~~ ***Trading Participants*** **during generation mode** in their energy supply and reserve offers are enumerated in Appendix A1.1 of the WESM Rules. 6.8.3. During the registration of the pumped-storage ~~unit~~ **hydro** resource, Trading Participants shall specify if its availability shall be based on the real-time status of its connecting breaker, or on the availability of its market offers.		PSH can be grouped together as stand-alone ESS			
Market Resources	6.9	(new)	**6.9 INTEGRATED GENERATING PLANT AND ESS MARKET RESOURCE**	New section on Integrated Generating Plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed			

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			6.9.1. During the registration of the market resource for the *integrated generating plant and ESS*, the *Trading Participant* shall specify if the scheduling point should represent the gross MW output of the *facility* or at the same location as the market trading node (i.e. at the connection point). The location of the scheduling point shall be the reference point for the registered capability, submission of generation *offers* and self-scheduled *nominations*, *scheduling*, *dispatch*, and *dispatch compliance monitoring*. **6.9.2. If the battery *facility* of the *integrated generating plant and ESS* shall charge and discharge from the same *connection point* as the *generating unit*, then the *integrated generating plant and ESS* shall be modeled as a single market resource at the very least.** **6.9.3. If the battery *facility* of the *integrated generating plant and ESS* shall charge**		in DC2023-04-0008 (i.e., stand-alone ESS, Integrated Non-RE Plant and ESS, Integrated RE Plant and ESS, and Generating Plant and ESS). As provided in DOE DC2023-04-0008, if the ESS is			

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			separately from a different *connection point* as the *generating unit*, then a separate *load market resource* shall be modelled aside from the *integrated generating plant and ESS* market resource. This *load market resource* shall represent the projected MW charging of the battery *facility*. **6.9.4. The information that should be submitted by *Trading Participants* during generation mode in their energy supply and reserve offers are enumerated in Appendix A1.1 of the WESM Rules.** **6.9.5. During the registration of the market resource for the *integrated generating plant and ESS*, *Trading Participants* shall specify if its availability shall be based on the real-time status of its main connecting breaker, or from its *market offers*.**		***integrated*** to a non-RE or RE facility, then it can only be charged from the non-RE or RE facility.			
Market Resources	6.10	6.9 PROCEDURE FOR REGISTRATION OF MARKET RESOURCES 6.9.1 xxxx	6.~~9~~**10** PROCEDURE FOR REGISTRATION OF MARKET RESOURCES 6.~~9~~**10.1** xxxx	Renumbered				

WESM Manual on Market Network Model Development and Maintenance – Criteria and Procedures Issue 8.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		6.9.2 xxxx	6.~~9~~**10.2** xxxx					

D. WESM Manual on Dispatch Protocol Issue 21.0

WESM Manual on Dispatch Protocol Issue 21.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Overview on WESM Operations	1.1.3	By considering the *power system's* topology and characteristics through the *market network model*, the *real-time dispatch* (RTD) schedules generated by the *Market Operator* are security-constrained economic *dispatch schedules*. The *Market Operator* likewise prepares a *WESM merit order table* (*WMOT*) that presents the list of available *generating units* ranked in accordance with the *offer* prices submitted for these units. The *WMOT* is submitted to the *System Operator* as a guide in constraining off and on generating units whenever there is a deviation in real-time after *reserves* are exhausted. Post-dispatch reports are thereafter relayed by the *System Operator* to the *Market Operator*.	By considering the *power system's* topology and characteristics through the *market network model*, the *real-time dispatch* (RTD) schedules generated by the *Market Operator* are security-constrained economic *dispatch schedules*. The *Market Operator* likewise prepares a *WESM merit order table* (*WMOT*) that presents the list of available *generating* ~~*units*~~ ***facilities*** ranked in accordance with the *offer* prices submitted for these units. The *WMOT* is submitted to the *System Operator* as a guide in constraining off and on generating ~~*units*~~ ***facilities*** whenever there is a deviation in real-time after *reserves* are exhausted. Post-dispatch reports are thereafter relayed by the *System Operator* to the *Market Operator*.	Replaced generating units to generating facilities to consider ESS in generation mode.				
Scope of WESM Operations	1.3.1	1.3.1 In accordance with *WESM Rules* Chapters 3 and 6, this Dispatch Protocol covers the following procedures for *dispatch* scheduling and implementation during normal system conditions and *emergency* conditions: a. Submission and processing of *bids* and *offers;* *xxxx*	1.3.1 In accordance with *WESM Rules* Chapters 3 and 6, this Dispatch Protocol covers the following procedures for *dispatch* scheduling and implementation during normal system conditions and *emergency* conditions: a. Submission and processing of *bids* and *offers;* *xxxx*	Included ESS				

WESM Manual on Dispatch Protocol Issue 21.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		g. *Start-up* and *shutdown* of *generating units;*	g. *Start-up* and *shutdown* of *generating units* **and *energy storage systems***;					
Definitions, References, and Interpretation	2.1.2	xxxx e. Capability. Highest power that a specified *generating unit* can deliver and sustain whenever called upon. xxxx h. Contingency Reserve. Synchronized generation capacity from qualified *generating units* and qualified *interruptible loads* allocated to cover the loss or failure of a synchronized *generating unit* or a transmission element or the power import from a circuit interconnection. xxxx gg. Start-up. The synchronization of a *generating unit* to the *grid* from its *outage* state (closing of *generator* circuit breakers).	xxxx e. Capability. ~~Highest power~~ **Operating limits** that a specified ~~*generating unit*~~ ***facility*** can deliver and sustain whenever called upon. xxxx h. Contingency Reserve**.** Synchronized generation capacity from qualified *generating units**, energy storage systems,*** and qualified *interruptible loads* allocated to cover the loss or failure of a synchronized *generating unit* or a transmission element or the power import from a circuit interconnection. xxxx gg. Start-up. The synchronization of a *generating unit* ***or energy storage system*** to the *grid* from its *outage* state (closing of *generator* circuit breakers).	Revised definition of capability. Added ESS for scheduling as Contingency Reserve. Added ESS in items for start-up.				
Responsibilities	3.3.2	*Scheduled Generation Companies* are required to operate their *generating units* in accordance with the scheduling and *dispatch* procedures described in Chapter 3 of the *WESM Rules.*	~~*Scheduled*~~ *Generation Companies* **and *Energy Storage Systems*** are required to operate their ~~*generating units*~~ ***facilities*** in accordance with the scheduling and *dispatch* procedures described in Chapter 3 of the *WESM Rules.*	Revised to add ESS and standardized the use of the term facility.				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Background for Market Offers	6.1.1	*WESM Rules* Clause 3.5 provides for the rules in respect of the submission of *market offers*. Under said section, each *Scheduled Generation Company* including those with *bilateral contracts* shall submit standing profiles of *market offers* for each of its *scheduled generating units* for each one (1) hour interval. Non-scheduled *Generation Companies*, meanwhile, shall submit standing profiles of the schedule of the *loading levels* for each of its *non-scheduled generating units*, while *Generation Companies* in respect of their *Must dispatch generating units* and *priority dispatch generating units* shall submit standing *projected outputs* of their *generating units*.	*WESM Rules* Clause 3.5 provides for the rules in respect of the submission of *market offers*. Under said section, each *Scheduled Generation Company* **or *Energy Storage System*** including those with *bilateral contracts* shall submit standing profiles of *market offers* for each of its ~~*scheduled generating units*~~ ***facility*** for each one (1) hour interval. Non-scheduled *Generation Companies*, meanwhile, shall submit standing profiles of the schedule of the *loading levels* for each of its *non-scheduled generating units*, while *Generation Companies* in respect of their *Must dispatch generating units* and *priority dispatch generating units* shall submit standing *projected outputs* of their *generating units*.	Revised to add ESS and standardized the use of the term facility.				
Background on Market Offers	6.1.8	*WESM Rules* Clause 3.5.11.5 requires *Trading Participants* to revise their *bids* or *offers* if they no longer represent a reasonable estimate of either the *status* (e.g., *generator* circuit breaker status, offline state) for the *dispatch interval* of the relevant *generating unit,* the capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval*, or *scheduled load* or *bids* or *offers* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	*WESM Rules* Clause 3.5.11.5 requires *Trading Participants* to revise their *bids* or *offers* if they no longer represent a reasonable estimate of either the *status* (e.g., *generator* circuit breaker status, offline state) for the *dispatch interval* of the relevant ~~*generating unit*~~ ***facility***, the capacity that can be attained taking into account the *ramp rate* limitations of the ~~*generating unit*~~ ***facility*** during the relevant *dispatch interval*, or *scheduled load* or *bids* or *offers* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	Revised to standardize the use of the term facility.				

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Background on Market Offers	6.1.9	Pursuant to *WESM Rules* Clause 3.5.11.6, *Trading Participants* that cancel their *bids* or *offers*, or submit *bids* or *offers* less than the *maximum stable load (Pmax)* or *available capacity* of their *facility* or *generating unit* are required to provide justifiable reasons or circumstances of such cancellation or submission.	Pursuant to *WESM Rules* Clause 3.5.11.6, *Trading Participants* that cancel their *bids* or *offers*, or submit *bids* or *offers* less than the *maximum stable load (Pmax)* or *available capacity* of their *facility* ~~*or generating unit*~~ are required to provide justifiable reasons or circumstances of such cancellation or submission.	Revised to standardize the use of the term facility.				
Categories of Self-scheduled Nominations, Bids, and Offers	6.4.1	The *self-scheduled nominations, bids*, and *offers* that can be submitted in the *WESM* are as follows: a. Real-time *market offers* for *scheduled generating units* of *Scheduled Generation Companies*; b. Operating *reserves offers* for certified *ancillary service providers;* c. *Demand bids* from *customer Trading Participants*; and *d. Self-scheduled nominations*	The *self-scheduled nominations, bids*, and *offers* that can be submitted in the *WESM* are as follows: a. Real-time *market offers* for *scheduled generating units**, battery energy storage systems, pumped-storage hydropower, and integrated generating plant and ESS* of *Trading Participants*~~ of *Scheduled Generation Companies*~~; **and** b. Operating *reserves offers* for certified *ancillary service providers;* **and** c. *Demand bids* from *customer Trading Participants*; and *d. Self-scheduled nominations*	Added all ESS types.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS.	xxx a. Real-time *market offers* for *scheduled generating units**, ~~battery energy storage systems, pumped-storage hydropower,~~ stand-alone ESS, and ~~integrated~~ generating plant and ESS* of *Trading Participants*; and xxx		
Formats and Contents of Submission for Market Offers	6.9.2	*Trading Participants shall provide the following information when submitting market offers:* *a. May include up to ten (10) market offer blocks per (aggregate) unit. The*	*Trading Participants shall provide the following information when submitting market offers **for scheduled generating units, pumped-storage hydropower,***	Added all ESS types.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-	*Trading Participants shall provide the following information when*		

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		maximum combined capacity of generation and reserve offers must not be less than the available capacity of the generator; *xxxx*	***and integrated generating plant and ESS on generation mode**:* *a. May include up to ten (10) market offer blocks per (aggregate) unit. The maximum combined capacity of generation and reserve offers must not be less than the available capacity of the generator;* *xxxx*		0008. In addition, PSH can be classified under stand-alone ESS.	*submitting market offers for scheduled generating units, ~~pumped-storage hydropower~~ **stand-alone ESS on generation mode**, and ~~integrated~~ generating plant and ESS on generation mode:* xxx		
Revisions of Self-scheduled Nominations, Bids and Offers Based on Reasonable Estimates	6.13	*Trading Participants* shall revise their *self-scheduled nominations, bids,* or *offers*, if the *self-scheduled nominations, bids or offers* submitted no longer represent a reasonable estimate of either the following: a. The status (e.g., generator circuit breaker status, outage) for the *dispatch interval* of the relevant *generating unit* or *scheduled load*; or b. The capacity that can be attained taking into account the *ramp rate* limitations of the *generating unit* during the relevant *dispatch interval;* or c. The *loading level, projected output*, *bid* or *offer* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	*Trading Participants* shall revise their *self-scheduled nominations, bids,* or *offers*, if the *self-scheduled nominations, bids or offers* submitted no longer represent a reasonable estimate of either the following: a. The status (e.g., generator circuit breaker status, outage) for the *dispatch interval* of the relevant *generating unit**,*** ***energy storage system**,*** or *scheduled load*; or b. The capacity that can be attained taking into account the *ramp rate* limitations of the ~~*generating unit*~~ ***facility*** during the relevant *dispatch interval;* or c. The *loading level, projected output*, *bid* or *offer* likely to apply in the *real-time dispatch* optimization for the *dispatch interval*.	Revised to add ESS and standardize the use of the term facility.				

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Report of Material Adverse Change in State of Trading Participant Facilities	6.14.4	The following is a non-exhaustive list of the material adverse changes to be reported by the *Trading Participants*: a. Inadvertent omissions or cancellation of *self-scheduled nominations, bids*, and *offers* of significant quantity relative to the demand in the specific *dispatch interval* for which such *self-scheduled nominations, bids*, or *offers* apply. xxxx g. A significant event that is expected to cause the *Trading Participant* to cancel or revise its standing *self-scheduled nominations, bids* or *offers*, or to submit *offers* for *scheduled generating units* that are less than the registered maximum capacities of said units.	The following is a non-exhaustive list of the material adverse changes to be reported by the *Trading Participants*: a. Inadvertent omissions or cancellation of *self-scheduled nominations, bids*, and *offers* of significant quantity relative to the demand in the specific *dispatch interval* for which such *self-scheduled nominations, bids*, or *offers* apply. xxxx g. A significant event that is expected to cause the *Trading Participant* to cancel or revise its standing *self-scheduled nominations, bids* or *offers*, or to submit *offers* for *scheduled generating units,* ***battery energy storage systems, pumped-storage hydropower,*** **and** ***integrated generating plant and ESS*** that are less than the registered maximum capacities of said units.	Added all ESS types.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS	xxxx g. A significant event that is expected to cause the *Trading Participant* to cancel or revise its standing *self-scheduled nominations, bids* or *offers*, or to submit *offers* for *scheduled generating units,* ~~*battery energy storage systems, pumped-storage hydropower,*~~ ***stand-alone ESS,*** and ~~*integrated*~~ *generating plant and ESS* that are		

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						less than the registered maximum capacities of said units.		
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.3.4	The *Trading Participants* shall ensure timely submission to the *System Operator* of their requests and schedules for *outages* of their *generating units*, in accordance with the *Grid Code*.	The *Trading Participants* shall ensure timely submission to the *System Operator* of their requests and schedules for *outages* of their *generating units* **and *energy storage systems***, in accordance with the *Grid Code*.	Added ESS				
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.5.1	The approved *outage* schedules that shall be provided by the *System Operator* to the *Market Operator* through data exchange communication facilities shall be for the following types of equipment: a. *Generating units*; b. *Transmission lines*; and c. Sub-station equipment	The approved *outage* schedules that shall be provided by the *System Operator* to the *Market Operator* through data exchange communication facilities shall be for the following types of equipment: a. *Generating units*; b. *Transmission lines*; c. Sub-station equipment; and **d. *Energy Storage Systems***	Added ESS				
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.6.2	The types of *over-riding constraints* that may be imposed in the MDOM include the following: a. *Security* Limits - The *System Operator* may impose *security* limits to override the *market offers* and address possible threats in *system security*. i. *Generation* Limits – involves the minimum and maximum operating limits for *generation. Security* limits for *generating units* shall also include scheduled	The types of *over-riding constraints* that may be imposed in the MDOM include the following: a. *Security* Limits - The *System Operator* may impose *security* limits to override the *market offers* and address possible threats in *system security*. i. ~~*Generation*~~ **Capability** Limits – involves the minimum and maximum operating limits for ~~*generation*~~ ***generating units* and *energy storage systems***.	Revised Generation Limit to Capability Limit to cover ESS.				

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		must-run units in accordance with the selection criteria in section 17.2 of this Dispatch Protocol. ii. Branch Group Limits – involves the maximum flow that may pass through a certain group of *transmission lines* iii. Transmission Limits – involves the maximum flow that may pass through a specific line or transformer or *HVDC* iv. Other types as may be recommended by the *System Operator* b. Non *Security* Limits: Testing and commissioning i. Generating Unit Limitations ii. Regulatory and Commercial Testing	*Security* limits for *generating units* **and *energy storage systems*** shall also include scheduled *must-run units* in accordance with the selection criteria in section 17.2 of this Dispatch Protocol. ii. Branch Group Limits – involves the maximum flow that may pass through a certain group of *transmission lines* iii. Transmission Limits – involves the maximum flow that may pass through a specific line or transformer or *HVDC* iv. Other types as may be recommended by the *System Operator* b. Non *Security* Limits: Testing and commissioning i. ~~Generating Unit~~ Limitations **of *Generating Units* and *Energy Storage Systems*** ii. Regulatory and Commercial Testing					
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.6.3	*Over-riding constraints* in the scheduling and *dispatch* of *generating units* qualifying as *must-run units* designated under Section 7.6.2 and Section 17, shall be compensated based on the mechanism set forth in the Price Determination Methodology Manual.	*Over-riding constraints* in the scheduling and *dispatch* of ~~*generating units*~~ ***facilities*** qualifying as *must-run units* designated under Section 7.6.2 and Section 17, shall be compensated based on the mechanism set forth in the Price Determination Methodology Manual.	Revised to standardize the use of the term facility.				

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		Over-riding constraints for the scheduling and *dispatch* of *generating units* undergoing Regulatory and Commercial testing process shall be considered as price takers in the *WESM* for *generation* traded in the *spot market*.	*Over-riding constraints* for the scheduling and *dispatch* of ~~*generating units*~~ ***facilities*** undergoing Regulatory and Commercial testing process shall be considered as price takers in the *WESM* for *generation* traded in the *spot market*.					
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.6.4	*Generating units* undergoing regulatory and commercial tests shall submit to the *System Operator* the MW profile that details the MW target for each *dispatch interval* during its requested test period at least two (2) working days prior to the start of its testing.	*Generating units* **and *energy storage systems*** undergoing regulatory and commercial tests shall submit to the *System Operator* the MW profile that details the MW target for each *dispatch interval* during its requested test period at least two (2) working days prior to the start of its testing.	Added ESS				
SYSTEM OPERATOR INPUT DATA AND REPORTS	7.7.5	The *System Operator* shall consider the following when preparing the *contingency* list: a. Loading limits of *transmission lines*, transformers and *generating units;* b. Single circuit *outage* (N-1) *contingency* including loss of Interconnection; c. Selective multiple circuit *outage* with corresponding System Integrity Protection Scheme (SIPS); and d. Other forms of *contingencies* submitted by the *System Operator*.	The *System Operator* shall consider the following when preparing the *contingency* list: a. Loading limits of *transmission lines*, transformers ~~and~~ *generating units****, and energy storage*** *systems;* b. Single circuit *outage* (N-1) *contingency* including loss of Interconnection; c. Selective multiple circuit *outage* with corresponding System Integrity Protection Scheme (SIPS); and d. Other forms of *contingencies* submitted by the *System Operator*.	Added ESS				
Market Projections	8.6.4	The results of the *market projections* shall be published and notified to the *Trading Participants* through the *MPI*. *Trading Participants* shall be provided with the following information pertaining to their	The results of the *market projections* shall be published and notified to the *Trading Participants* through the *MPI*. *Trading Participants* shall be provided with the following information pertaining to their respective registered resource (i.e.	Added ESS				

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		respective registered resource (i.e. *generating unit* or *load*): xxxx	*generating unit**, energy storage system,*** or *load*): xxxx					
Background on Real-Time Dispatch Scheduling	9.1.1	*WESM Rules* Clause 3.8 sets out the responsibilities of the *Market Operator* in the scheduling of *generation* and *load* in the *WESM*. Among other responsibilities, *WESM Rules* Clause 3.8.1 directs that prior to the commencement of each *dispatch interval,* the *Market Operator* shall use the *Market Dispatch Optimization Model* (MDOM) to determine the target *loading level* in MW for each *non-scheduled generating unit, must dispatch generating unit, priority dispatch generating unit, scheduled generating unit* or each *scheduled load* and for each *facility* for the end of the *dispatch interval* using the latest data from the *System Operator* and the *Trading Participants*.	*WESM Rules* Clause 3.8 sets out the responsibilities of the *Market Operator* in the scheduling of *generation* and *load* in the *WESM*. Among other responsibilities, *WESM Rules* Clause 3.8.1 directs that prior to the commencement of each *dispatch interval,* the *Market Operator* shall use the *Market Dispatch Optimization Model* (MDOM) to determine the target *loading level* in MW for each *non-scheduled generating unit, must dispatch generating unit, priority dispatch generating unit, scheduled generating unit**, battery energy storage system, pumped-storage hydropower, integrated generating plant and ESS,*** or each *scheduled load* and for each *facility* for the end of the *dispatch interval* using the latest data from the *System Operator* and the *Trading Participants*.	Added all ESS types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be grouped together as stand-alone ESS	xxx …determine the target *loading level* in MW for each *non-scheduled generating unit, must dispatch generating unit, priority dispatch generating unit, scheduled generating unit**, ~~battery energy storage systems, pumped-storage hydropower,~~ stand-alone ESS, and ~~integrated~~ generating plant and ESS,*** or each *scheduled load*		

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						and for each *facility* for the end of the *dispatch interval*… *xxx*		
Background on Real-Time Dispatch Scheduling	9.1.3	The *WESM Rules* defines *loading level* as the instantaneous level of output or consumption in MW of a *generating unit* or *load.* The *target loading level* of a *generator* or *load* is the *loading level* determined as an end-of-period target for that scheduled *generator* or *load*.	The *WESM Rules* defines *loading level* as the instantaneous level of output or consumption in MW of a *generating unit,* ***energy storage system,*** or *load.* The *target loading level* of a *generator* or *load* is the *loading level* determined as an end-of-period target for that scheduled *generator* or *load*.	Added ESS				
Responsibilities in Real-Time Dispatch Scheduling	9.3.3	*Trading Participants* shall be responsible for: a. Ensuring submission of *market offers* and *reserve offers* as set out in the *WESM Rules* and in accordance with the *WESM timetable* and the procedures and requirements set forth in this Dispatch Protocol. b. For *scheduled generating units* and *priority dispatch generating units* who are *dispatch*ed, generating in accordance with the *dispatch schedule* communicated and within the *Dispatch Conformance Standards* set forth in this *Market Manual.* *xxxx*	*Trading Participants* shall be responsible for: a. Ensuring submission of *market offers* and *reserve offers* as set out in the *WESM Rules* and in accordance with the *WESM timetable* and the procedures and requirements set forth in this Dispatch Protocol. b. For *scheduled generating units,* ***pumped-storage hydropower*** **on generation mode,** ***integrated generating plant and ESS*** **on generation mode,** and *priority dispatch generating units* who are *dispatch*ed, generating in accordance with the *dispatch schedule* communicated and within the *Dispatch Conformance Standards* set forth in this *Market Manual.*	Added all ESS types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be grouped together as stand-alone ESS	xxx b. For *scheduled generating units,* ~~*pumped-storage hydropower*~~ ***stand-alone ESS*** on generation mode, ~~*integrated*~~ *generating plant and ESS* on generation mode**,** and *priority dispatch*		

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			xxxx			*generating units* who are *dispatche*d, generating in accordance with the *dispatch schedule*		
Real-Time Dispatch Scheduling	9.7.2	The RTD results shall be published and notified to the *Trading Participants* through the Market Participant Interface (*MPI*). The *Trading Participants* shall be provided following information pertaining to their respective registered resource (i.e., *generating unit* or *load*): xxxx	The RTD results shall be published and notified to the *Trading Participants* through the Market Participant Interface (*MPI*). The *Trading Participants* shall be provided following information pertaining to their respective registered resource (i.e., *generating unit**, energy storage system,*** or *load*): xxxx	Added ESS				
Merit Order Table	10.1.1	The *WESM merit order table* (*WMOT*) is prepared as a guide for the *System Operator* in selecting *generating units* that can be re-*dispatche*d in the course of the operations of the *power system*. The use of the *WMOT* by the *System Operator* shall be in accordance with the re-dispatch process described in the relevant Section of this Dispatch Protocol.	The *WESM merit order table* (*WMOT*) is prepared as a guide for the *System Operator* in selecting ~~*generating units*~~ ***facilities*** that can be re-*dispatche*d in the course of the operations of the *power system*. The use of the *WMOT* by the *System Operator* shall be in accordance with the re-dispatch process described in the relevant Section of this Dispatch Protocol.	Revised to standardize the use of the term facility.				
Merit Order Table	10.1.3	The *System Operator* utilizes the *WMOT* of Offers Dispatched as a guide in determining which *generating units* may be constrained-off, whereas the *WMOT* of Offers Not Dispatched is a guide for determining which *generating units* may	The *System Operator* utilizes the *WMOT* of Offers Dispatched as a guide in determining which *generating units* may be constrained-off, whereas the *WMOT* of Offers Not Dispatched is a guide for determining which ~~*generating units*~~	Revised to standardize the use of the term facility.				

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		be constrained-on for a particular *dispatch interval*.	***facilities*** may be constrained-on for a particular *dispatch interval*.					
Merit Order Table	10.2	This Section sets out the requirements and procedures for the preparation and use of the *WMOT* in the *dispatch* of *generating units*.	This Section sets out the requirements and procedures for the preparation and use of the *WMOT* in the *dispatch* of *generating units* **and *energy storage systems.***	Added ESS				
Merit Order Table	10.3.2	Consistent with its obligations set out in this Dispatch Protocol in respect to the issuance of *dispatch instructions*, the *System Operator* shall be responsible for ensuring the application of the information provided in the *WMOT* in the real-time operation of the *grid*. The *System Operator* shall also be responsible for identifying the *generating units* that were issued *dispatch* instructions through the *dispatch* instruction report prepared in accordance with Sections 14.4.2 and 14.4.5.	Consistent with its obligations set out in this Dispatch Protocol in respect to the issuance of *dispatch instructions*, the *System Operator* shall be responsible for ensuring the application of the information provided in the *WMOT* in the real-time operation of the *grid*. The *System Operator* shall also be responsible for identifying the *generating units* **and *energy storage systems*** that were issued *dispatch* instructions through the *dispatch* instruction report prepared in accordance with Sections 14.4.2 and 14.4.5.	Added ESS				
Merit Order Table	10.4.2	The *WMOT* shall include the following: a. All *generating units* for which *offers* have been submitted for the relevant *dispatch interval*; and b. All *generating units* which have been scheduled or included in the RTD schedule as a result of the imposition of *over-riding constraints*, with or without *offers* submitted for that *dispatch interval.*	The *WMOT* shall include the following: a. All *generating units* **and *energy storage systems*** for which *offers* have been submitted for the relevant *dispatch interval*; and b. All *generating units* **and *energy storage systems*** which have been scheduled or included in the RTD schedule as a result of the imposition of *over-riding constraints*, with or without *offers* submitted for that *dispatch interval.*	Added ESS				

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Merit Order Table	10.4.3	The following *generating units* shall be excluded in the *WMOT*: a. *Generating units* which are on *outage* as reflected in the *outage* schedule submitted by the *System Operator*, and b. *Generating units* which are not available as reflected in the network configuration considered in the RTD *market run.*	The following *generating units* **and *energy storage systems*** shall be excluded in the *WMOT*: a. *Generating units* **and *energy storage systems*** which are on *outage* as reflected in the *outage* schedule submitted by the *System Operator*, and b. *Generating units* **and *energy storage systems*** which are not available as reflected in the network configuration considered in the RTD *market run.*					
Merit Order Table	10.4.4	The *energy offers* for all *generating units* with *offers* will be segregated into two, namely, the: a. Offers Dispatched b. Offers Not dispatched	The *energy offers* for all *generating units* **and *energy storage systems*** with *offers* will be segregated into two, namely, the: a. Offers Dispatched b. Offers Not dispatched	Added ESS				
Merit Order Table	10.4.5	The "Offers Dispatched" consists of the *energy offer* blocks, excluding *reserve schedules,* which have been scheduled in the RTD schedule for the *dispatch interval*. To the extent possible, the *dispatch schedule* of each *generating unit* will be split into corresponding *offer* blocks. The scheduled *offer* blocks will then be sorted and listed from the lowest-priced to the highest-priced scheduled *offer* block, with the lowest-priced scheduled *offer* block at the bottom of the list and the highest-priced at the top of the list. The *generating units* for which no *offers* are submitted but were scheduled are considered as price takers. Their respective MW schedules are included in	The "Offers Dispatched" consists of the *energy offer* blocks, excluding *reserve schedules,* which have been scheduled in the RTD schedule for the *dispatch interval*. To the extent possible, **only *offer* blocks that represent injection to the grid shall be considered. To add,** the *dispatch schedule* of each ~~*generating unit*~~ ***facility*** will be **further** split into corresponding *offer* blocks. The scheduled *offer* blocks will then be sorted and listed from the lowest-priced to the highest-priced scheduled *offer* block, with the lowest-priced scheduled *offer* block at the bottom of the list and the highest-priced at the top of the list. The ~~*generating units*~~ ***facility*** for which no	Specified that offer blocks that represent generation or injection to the grid from generating units and ESS shall be considered in MOT.				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		this list and are placed at the bottom of the list with *must dispatch generating units* at the bottom and followed by *priority dispatch generating units* and *non-scheduled generating units* in that order.	*offers* are submitted but were scheduled **to inject power to the grid** are considered as price takers. Their respective MW schedules are included in this list and are placed at the bottom of the list with *must dispatch generating units* at the bottom**,** ~~and~~ followed by *priority dispatch generating units**,*** ~~and~~ **then** *non-scheduled generating units* in that order.					
Merit Order Table	10.4.6	The "Offers Not Dispatched" consists of the remaining *energy offers* of each available *generating unit* that are not scheduled or included in the RTD schedule for the *dispatch interval.* To the extent possible, the remaining *offers* will be sorted by *offer* blocks. The *offer* blocks not dispatched will then be sorted and listed from the lowest-priced to the highest-priced scheduled *offer* block, with the lowest-priced scheduled *offer* block at the bottom of the list and the highest-priced at the top of the list. Capacities that were not dispatched through their *energy offers* but have *reserve dispatch* targets shall be excluded from the list.	The "Offers Not Dispatched" consists of the remaining *energy offers* of each available ~~*generating unit*~~ ***facility*** that are not scheduled or included in the RTD schedule for **generation dispatch in** the *dispatch interval.* To the extent possible, **only *offer* blocks that represent injection to the grid shall be considered. To add**, the remaining *offers* will be sorted by *offer* blocks. The *offer* blocks not dispatched will then be sorted and listed from the lowest-priced to the highest-priced scheduled *offer* block, with the lowest-priced scheduled *offer* block at the bottom of the list and the highest-priced at the top of the list. Capacities that were not dispatched through their *energy offers* but have *reserve dispatch* targets shall be excluded from the list.	Specified that offer blocks that represent generation or injection to the grid from generating units and ESS shall be considered in MOT.				
Dispatch Implementation	11.2.2	The procedures set out in this Section are associated with the following procedures:	The procedures set out in this Section are associated with the following procedures:	Added ESS				

WESM Manual on Dispatch Protocol Issue 21.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		a. Procedures for the *dispatch* of *generating units* which are scheduled to *start-up* or *shutdown* are set out in Section 13 of this Dispatch Protocol; b. Designation and *dispatch* of *must-run units* which are set out in Section 17 of this Dispatch Protocol; xxxx	a. Procedures for the *dispatch* of *generating units* **and *energy storage systems*** which are scheduled to *start-up* or *shutdown* are set out in Section 13 of this Dispatch Protocol; b. Designation and *dispatch* of *must-run units* which are set out in Section 17 of this Dispatch Protocol; xxxx					
Dispatch Implementation	11.3.1	The *System Operator,* in coordination with the *Market Operator,* shall be responsible for the following: a. Monitoring the implementation of *dispatch* targets as determined by the *Market Operator* at the end of each *dispatch interval;* b. Directly issuing *dispatch instructions* to *generating units* operating on *AGC;* c. Implementing the *WMOT* provided by the *Market Operator*; xxxx	The *System Operator,* in coordination with the *Market Operator,* shall be responsible for the following: a. Monitoring the implementation of *dispatch* targets as determined by the *Market Operator* at the end of each *dispatch interval;* b. Directly issuing *dispatch instructions* to *generating units* **and *energy storage systems*** operating on *AGC;* c. Implementing the *WMOT* provided by the *Market Operator*; xxxx	Added ESS				
Dispatch Implementation	11.3.4	A Trading *Participant* that has been released with a Final Certificate of Approval to Connect but with pending issuance of the *Certificate of Compliance* from the *ERC* for its *generating units* shall likewise comply with *dispatch schedules* issued by the *Market Operator*, the *dispatch instructions* issued by the *System Operator* to their facilities	A Trading *Participant* that has been released with a Final Certificate of Approval to Connect but with pending issuance of the *Certificate of Compliance* from the *ERC* for its *generating units* **and *energy storage systems*** shall likewise comply with *dispatch schedules* issued by the *Market Operator*, the *dispatch instructions* issued by the *System*	Added ESS				

<table>
<tr><th colspan="9">WESM Manual on Dispatch Protocol Issue 21.0</th></tr>
<tr><th>Title</th><th>Section</th><th>Provision</th><th>Proposed Amendment</th><th>Rationale</th><th>Comments</th><th>Proposed Wording based on Comments</th><th>Proponent's Response</th><th>RCC Decision</th></tr>
<tr><td></td><td></td><td>operating on AGC mode, and the re-dispatch instructions issued to them by the System Operator, if any.</td><td>Operator to their facilities operating on AGC mode, and the re-dispatch instructions issued to them by the System Operator, if any.</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dispatch Implementation</td><td>11.4.1</td><td>Except for generating units operating on AGC, dispatch instructions shall include the following:

xxxx</td><td>Except for generating units <u>and energy storage systems</u> operating on AGC, dispatch instructions shall include the following:

xxxx</td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dispatch Implementation</td><td>11.4.2</td><td>For generating units operating on AGC, the following shall be observed:

xxxx</td><td>For generating units <u>and energy storage systems</u> operating on AGC, the following shall be observed:

xxxx</td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dispatch Implementation</td><td>11.4.4 (a)</td><td>When the grid frequency reaches 59.7Hz or lower, the Trading Participants shall operate based on the following conditions:

<table>
<tr><th>Condition</th><th>Status of Actual Dispatch</th><th>Expected Response</th></tr>
<tr><td>Frequency is 59.7 Hz or lower</td><td>If ramping down, or current actual loading is higher than dispatch schedule</td><td>Generating unit should stop ramping down and maintain current actual loading unless otherwise instructed by the System Operator</td></tr>
</table>
</td><td>When the grid frequency reaches 59.7Hz or lower, the Trading Participants shall operate based on the following conditions:

<table>
<tr><th>Condition</th><th>Status of Actual Dispatch</th><th>Expected Response</th></tr>
<tr><td>Frequency is 59.7 Hz or lower</td><td>If ramping down, or current actual loading is higher than dispatch schedule</td><td>Generating unit <u>or energy storage system</u> should stop ramping down and maintain current actual loading</td></tr>
</table>
</td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
</table>

WESM Manual on Dispatch Protocol Issue 21.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		<table><tr><td></td><td>If ramping up, or current actual loading is lower than *dispatch schedule*</td><td>*Generating unit* should continue to ramp up to its *dispatch schedule* unless otherwise instructed by the *System Operator*</td></tr></table>	<table><tr><td></td><td></td><td>unless otherwise instructed by the *System Operator*</td></tr><tr><td></td><td>If ramping up, or current actual loading is lower than *dispatch schedule*</td><td>*Generating unit* **<u>or</u>** ***<u>energy storage system</u>*** should continue to ramp up to its *dispatch schedule* unless otherwise instructed by the *System Operator*</td></tr></table>					
Dispatch Implementation	11.4.4 (b)	Once the *grid frequency* goes up to 60 Hz after coming off from a state in Section 11.4.4 (a), then the *Trading Participants* shall resume to dispatch its *generating units* to meet its *dispatch schedule*.	Once the *grid frequency* goes up to 60 Hz after coming off from a state in Section 11.4.4 (a), then the *Trading Participants* shall resume to dispatch its *generating units* **<u>and *energy storage systems*</u>** to meet its *dispatch schedule*.	Added ESS				
Dispatch Implementation	11.4.4 (c)	When the *grid frequency* reaches 60.3 Hz or higher, the *Trading Participants* shall operate based on the following conditions:	When the *grid frequency* reaches 59.7Hz or lower, the *Trading Participants* shall operate based on the following conditions:	Added ESS				

<table>
<tr><th colspan="10">WESM Manual on Dispatch Protocol Issue 21.0</th></tr>
<tr><th>Title</th><th>Section</th><th colspan="3">Provision</th><th colspan="3">Proposed Amendment</th><th>Rationale</th><th>Comments</th><th>Proposed Wording based on Comments</th><th>Proponent's Response</th><th>RCC Decision</th></tr>
<tr><td></td><td></td><td colspan="3"><table>
<tr><td>Condition</td><td>Status of Actual Dispatch</td><td>Expected Response</td></tr>
<tr><td rowspan="2">Frequency is 60.3 Hz or higher</td><td>If ramping down, or current actual loading is higher than dispatch schedule</td><td>Generating unit should continue to ramp down to its dispatch schedule unless otherwise instructed by the System Operator</td></tr>
<tr><td>If ramping up, or current actual loading is lower than dispatch schedule</td><td>Generator should stop ramping up and maintain current actual loading unless otherwise instructed by the System Operator</td></tr>
</table></td><td colspan="3"><table>
<tr><td>Condition</td><td>Status of Actual Dispatch</td><td>Expected Response</td></tr>
<tr><td rowspan="2">Frequency is 60.3 Hz or higher</td><td>If ramping down, or current actual loading is higher than dispatch schedule</td><td>Generating unit <u>or</u> <u>energy storage system</u> should continue to ramp down to its dispatch schedule unless otherwise instructed by the System Operator</td></tr>
<tr><td>If ramping up, or current actual loading is lower than dispatch schedule</td><td><s>Generator</s> <u>Generating unit</u> <u>or</u> <u>energy storage system</u> should stop ramping up and maintain current actual loading unless otherwise instructed by the System Operator</td></tr>
</table></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Dispatch Implementation	11.4.4 (d)	Once the *grid frequency* comes down to 60 Hz after coming off from a state in Section 11.4.4 (c), then the *Trading Participants* shall resume to dispatch its generating units to meet its *dispatch schedule*.	Once the *grid frequency* comes down to 60 Hz after coming off from a state in Section 11.4.4 (c), then the *Trading Participants* shall resume to dispatch its generating units and ***energy storage systems*** to meet its *dispatch schedule*.	Added ESS				
Dispatch Implementation	11.6.2	In cases of the occurrence of system *emergencies*, a threat to *system security*, or an event of *force majeure*, of the nature described in Chapter 6 of the *WESM Rules* and in Section 16 of this Dispatch Protocol, the *System Operator* shall declare *market intervention* in accordance with said Chapter 6 of the *WESM Rules* and this Dispatch Protocol. While *market intervention* is in effect, the *System Operator* shall take control of the *dispatch* of *generating units* in accordance with the procedures set out specifically for *market intervention*. The *System Operator* shall notify the *Market Operator* of its actions.	In cases of the occurrence of system *emergencies*, a threat to *system security*, or an event of *force majeure*, of the nature described in Chapter 6 of the *WESM Rules* and in Section 16 of this Dispatch Protocol, the *System Operator* shall declare *market intervention* in accordance with said Chapter 6 of the *WESM Rules* and this Dispatch Protocol. While *market intervention* is in effect, the *System Operator* shall take control of the *dispatch* of *generating units* **and *energy storage systems*** in accordance with the procedures set out specifically for *market intervention*. The *System Operator* shall notify the *Market Operator* of its actions.	Added ESS				
Dispatch Implementation	11.6.3	Where the results of the *ex-ante* or *real-time dispatch market runs* reflect *constraint violation coefficients* (CVCs), the *System Operator* shall use all reasonable endeavors to *dispatch generating units* in accordance with the RTD schedules and the *WMOT* generated and communicated by the *Market Operator* for the relevant *dispatch interval*. The *System Operator* shall, however, issue the necessary re-dispatch	Where the results of the *ex-ante* or *real-time dispatch market runs* reflect *constraint violation coefficients* (CVCs), the *System Operator* shall use all reasonable endeavors to *dispatch generating units* **and *energy storage systems*** in accordance with the RTD schedules and the *WMOT* generated and communicated by the *Market Operator* for the relevant *dispatch interval*. The *System Operator* shall, however, issue	Added ESS				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		instructions to address the condition that gave rise to the occurrence of the CVCs.	the necessary re-dispatch instructions to address the condition that gave rise to the occurrence of the CVCs.					
Dispatch Implementation	11.6.5	In an event where all available *reserves* have been exhausted to address a threat in *system security* covered under Section 11.6.2, the *System Operator* may designate *generating units* to operate on *must-run unit* and they shall be re-dispatched out-of-merit to ensure the reliability and *security* of the *grid* in accordance with the selection criteria provided in Section 17.2.	In an event where all available *reserves* have been exhausted to address a threat in *system security* covered under Section 11.6.2, the *System Operator* may designate *generating units* **and *energy storage systems*** to operate on *must-run unit* and they shall be re-dispatched out-of-merit to ensure the reliability and *security* of the *grid* in accordance with the selection criteria provided in Section 17.2.	Added ESS				
Dispatch Implementation	11.7.1	The *System Operator* shall re-dispatch *generating units* using the *WMOT* in accordance with the following procedure: a. Instruct *generators* to ramp-up (or ramp-down) following the *WMOT*. b. Report to the *Market Operator* the list of *generating units* instructed to ramp-up and would be designated as *must-run units.*	The *System Operator* shall re-dispatch *generating units* **and *energy storage systems*** using the *WMOT* in accordance with the following procedure: a. Instruct ~~*generators*~~ ***facilities*** to ramp-up (or ramp-down) following the *WMOT*. b. Report to the *Market Operator* the list of ~~*generating units*~~ ***facilities*** instructed to ramp-up and would be designated as *must-run units.*	Revised to add ESS and to standardize the use of the term facility.				
Dispatch Implementation	11.7.2	The *System Operator* shall designate *generating units* to operate as *must-run units* and shall issue re-dispatch instructions in accordance with Section 17.3 of this Dispatch Protocol.	The *System Operator* shall designate *generating units* **and *energy storage systems*** to operate as *must-run units* and shall issue re-dispatch instructions in accordance with Section 17.3 of this Dispatch Protocol.	Added ESS				
Dispatch Implementation	11.7.3	The *System Operator* shall inform the *generating unit* that it shall be re-dispatched as either a *constrain-on generator*, *constrain-off generator,* or a	The *System Operator* shall inform the *generating unit* **and *energy storage system*** that it shall be re-dispatched as either a *constrain-on* ~~*generator*~~ ***facility***,	Revised to add ESS and to standardize				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		must-run unit for the relevant *dispatch interval*. The re-dispatched target MW loading shall also be communicated to the *generating unit/plant.*	*constrain-off* ~~*generator*~~ ***facility***, or a *must-run unit* for the relevant *dispatch interval*. The re-dispatched target MW loading shall also be communicated to the ~~*generating unit/plant*~~ ***facility***.	the use of the term facility.				
Dispatch Implementation	11.7.4	*Generators* whose generating plants received re-dispatch instruction shall immediately and strictly comply with the corresponding *dispatch instructions* of the *System Operator.*	~~*Generators*~~ ***Trading Participants*** whose ~~generating plants~~ ***generating units or energy storage systems*** received re-dispatch instruction shall immediately and strictly comply with the corresponding *dispatch instructions* of the *System Operator.*	Revised for clarity to include ESS				
Dispatch Implementation	11.7.5	After complying with the re-dispatch instructions, *generators* shall immediately follow the *dispatch schedules* for the next *dispatch interval*.	After complying with the re-dispatch instructions, ~~*generators*~~ ***generating units and energy storage systems*** shall immediately follow the *dispatch schedules* for the next *dispatch interval*.	Revised for clarity to include ESS				
Background on Dispatch Compliance	12.1.1	A *Generation Company* is required to operate their *scheduled generating units* and/or *priority dispatch generating units* in accordance with the scheduling and *dispatch* procedures described in Chapter 3 of the *WESM Rules*. More specifically, *scheduled generating units* and *priority dispatch generating units* shall generate in accordance with the *dispatch schedules* communicated pursuant to *WESM Rules* Clause 3.8.17 and in accordance with the *dispatch conformance standards* specified in Clause 3.8.5. They are to follow such schedules unless otherwise restricted or instructed by the *System Operator*.	A *Generation Company* ***and Energy Storage System*** is required to operate their *scheduled generating units****,*** ***pumped-storage hydropower on generation mode, integrated generating plant and ESS on generation mode****,* and/or *priority dispatch generating units* in accordance with the scheduling and *dispatch* procedures described in Chapter 3 of the *WESM Rules*. More specifically, *scheduled generating units****,*** ***pumped-storage hydropower on generation mode, integrated generating plant and ESS on generation mode****,* and *priority dispatch generating units* shall generate	Added ESS and all its types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	A *Generation Company* and *Energy Storage System* is required to operate their *scheduled generating units****,*** ~~*pumped-storage hydropower*~~ ***stand-alone ESS*** on generation mode*,* ~~*integrated*~~ *generating plant and ESS* on generation mode*,*		

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			in accordance with the *dispatch schedules* communicated pursuant to *WESM Rules* Clause 3.8.17 and in accordance with the *dispatch conformance standards* specified in Clause 3.8.5. They are to follow such schedules unless otherwise restricted or instructed by the *System Operator*.			and/or *priority dispatch generating units* in accordance with the scheduling and *dispatch* procedures described in Chapter 3 of the *WESM Rules*. More specifically, *scheduled generating units*, ~~*pumped-storage hydropower*~~ ***stand-alone ESS*** on generation mode, ~~*integrated*~~ *generating plant and ESS* on generation mode, and *priority dispatch generating units* shall generate in accordance with the *dispatch schedules* communicated pursuant to *WESM Rules* Clause 3.8.17 and in accordance		

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
						with the *dispatch conformance standards* specified in Clause 3.8.5. They are to follow such schedules unless otherwise restricted or instructed by the *System Operator*.		
Background on Dispatch Compliance	12.1.5	*Scheduled generating units*, *battery energy storage systems, pumped storage units, must dispatch generating units,* and *priority dispatch generating units* that have Final Certificate of Approval to Connect but with pending issuance of *Certificate of Compliance* from the ERC shall likewise operate in accordance with Sections 12.1.1 and 12.1.3, as applicable, and as prescribed in Chapter 3 of the *WESM Rules*.	*Scheduled generating units*, *battery energy storage systems, pumped storage ~~units~~* ***hydropower, integrated generating plant and ESS,*** *must dispatch generating units,* and *priority dispatch generating units* that have Final Certificate of Approval to Connect but with pending issuance of *Certificate of Compliance* from the ERC shall likewise operate in accordance with Sections 12.1.1 and 12.1.3, as applicable, and as prescribed in Chapter 3 of the *WESM Rules*.	Revised PSU to PSH and added integrated generating plant and ESS.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, BESS and PSH can be classified as stand-alone ESS.	*Scheduled generating units*, ~~*battery energy storage systems, pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS, must dispatch generating units,* and *priority dispatch generating units* that have Final Certificate of Approval to Connect… xxx		
Scope and Purpose on	12.2.1	This Section describes the *dispatch* compliance obligations of *Trading*	This Section describes the *dispatch* compliance obligations of *Trading*	Specified all ESS types	Suggest revising to align with the	This Section describes the		

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Dispatch Compliance		*Participants* in the *WESM*, particularly in respect to compliance with *energy dispatch schedules* of *scheduled generating units*, *non-scheduled generating units*, *priority dispatch generating units* and *Must dispatch generating units*.	*Participants* in the *WESM*, particularly in respect to compliance with *energy dispatch schedules* of *scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS***, *non-scheduled generating units*, *priority dispatch generating units* and *Must dispatch generating units*.		configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	*dispatch* compliance obligations of *Trading Participants* in the *WESM*, particularly in respect to compliance with *energy dispatch schedules* of *scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS, non-scheduled generating units*, *priority dispatch generating units* and *Must dispatch generating units*.		
Scope and Purpose on Dispatch Compliance	12.2.2	For *scheduled generating units* and *priority dispatch generating units*, this Section establishes the *dispatch conformance standards* and procedures for monitoring compliance that are required to be established and be set out in a *Market Manual* pursuant to *WESM Rules* Clause 3.8.5.	For *scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS***, and *priority dispatch generating units*, this Section establishes the *dispatch conformance standards* and procedures for monitoring compliance that are required to be established and be set out in a *Market*	Specified all ESS types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	For *scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* and *priority dispatch*		

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			Manual pursuant to *WESM Rules* Clause 3.8.5.			*generating units*, this Section establishes the *dispatch conformance standards* xxx		
Responsibilities on Dispatch Compliance	12.3.2	The *Market Operator* is responsible for: a. Coordinating with the *System Operator* for the periodic review of the *dispatch conformance standards* as well as of the procedures set out in this Section; and b. Providing a mechanism for monitoring and for notifying *Trading Participants* of possible breach by *scheduled generating units* and *priority dispatch generating units* with the *dispatch conformance standards*.	The *Market Operator* is responsible for: a. Coordinating with the *System Operator* for the periodic review of the *dispatch conformance standards* as well as of the procedures set out in this Section; and b. Providing a mechanism for monitoring and for notifying *Trading Participants* of possible breach by *scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units* with the *dispatch conformance standards*.	Specified all ESS types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	b. Providing a mechanism for monitoring and for notifying *Trading Participants* of possible breach by *scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* and *priority dispatch generating units* with the *dispatch conformance standards*.		
Compliance with Dispatch Schedules and Instructions	12.4.1	Compliance by the *Scheduled Generating Units* and *Priority Dispatch Generating Units*. a. All *scheduled generating units* and *priority dispatch generating units* shall comply with their respective *dispatch schedules*. This obligation shall also	Compliance by the *Scheduled Generating Units* and *Priority Dispatch Generating Units*. a. All *scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units*	Specified all ESS types and focused on generation mode only of	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be	a. All *scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant*		

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		apply to the *scheduled generating units* and *priority dispatch generating units* with a Final Certificate of Approval to Connect but with pending issuance of the *Certificate of Compliance* from the ERC. In complying with their *dispatch schedules*, said *generating units* shall generate in accordance with the *dispatch conformance standards* prescribed in Section 12.5 of the Dispatch Protocol. In the case of a *priority dispatch generating unit*, compliance with the *dispatch conformance standards* shall also apply in cases where its *dispatch schedule* was restricted pursuant to *WESM Rules* Clauses 3.6.1.7 and 3.6.1.8 because of a potential *system security contingency*. b. If re-dispatch instructions or *emergency* directions were issued by the *System Operator* to a *scheduled generating unit* or *priority dispatch generating unit* under the circumstances described in Section 11 of this Dispatch Protocol, the *generating unit* re-dispatched or directed shall comply with the *dispatch instructions* of the *System Operator* in accordance with Section 12.4.4 of this Dispatch Protocol. xxxx	shall comply with their respective *dispatch schedules* **when scheduled to inject power to the grid (i.e., generation mode).** This obligation shall also apply to the *scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units* with a Final Certificate of Approval to Connect but with pending issuance of the *Certificate of Compliance* from the ERC. In complying with their *dispatch schedules*, said ~~*generating units*~~ ***facilities*** shall generate in accordance with the *dispatch conformance standards* prescribed in Section 12.5 of the Dispatch Protocol. In the case of a *priority dispatch generating unit*, compliance with the *dispatch conformance standards* shall also apply in cases where its *dispatch schedule* was restricted pursuant to *WESM Rules* Clauses 3.6.1.7 and 3.6.1.8 because of a potential *system security contingency*. b. If re-dispatch instructions or *emergency* directions were issued by the *System Operator* to a *scheduled generating unit*, ***pumped storage hydropower, integrated generating plant and ESS,*** or *priority dispatch generating unit* under the circumstances described in Section 11 of this Dispatch Protocol, the ~~*generating unit*~~ ***facility*** re-	these ESS types.	classified as stand-alone ESS	*and ESS,* and *priority dispatch generating units* shall comply with their respective *dispatch schedules* when scheduled to inject power to the grid (i.e., generation mode). This obligation shall also apply to the *scheduled generating units*, ~~*pumped storage units hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* and *priority dispatch generating units* with a Final Certificate of Approval to Connect but with pending issuance of the *Certificate of Compliance* from the ERC. xxx		

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			dispatched or directed shall comply with the *dispatch instructions* of the *System Operator* in accordance with Section 12.4.4 of this Dispatch Protocol. xxxx			b. If re-dispatch instructions or *emergency* directions were issued by the *System Operator* to a *scheduled generating unit*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* or *priority dispatch generating unit* under the circumstances described in Section 11 of this Dispatch Protocol, the *facility* re-dispatched or directed shall comply with the *dispatch instructions* of the *System Operator* in accordance with Section 12.4.4 of this Dispatch Protocol.		
Dispatch Compliance	12.4.4	xxxx	xxxx	Added ESS				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		a. All *generating units* that were re-dispatched or were otherwise given *dispatch instructions* by the *System Operator* that differ from their respective *dispatch schedules* shall use reasonable endeavors to comply with said re-dispatch instructions. xxxx	a. All *generating units* **and *energy storage systems*** that were re-dispatched or were otherwise given *dispatch instructions* by the *System Operator* that differ from their respective *dispatch schedules* shall use reasonable endeavors to comply with said re-dispatch instructions. xxxx					
Dispatch Compliance Criteria	12.5.1	Dispatch Compliance Criteria a. Compliance by a *generating unit* with its *dispatch schedule* is determined based on the extent of the dispatch deviation incurred by the dispatched *generating unit* in relation to the dispatch threshold and is measured over a prescribed period or number of intervals. b. All *scheduled* and *priority dispatch generating units* shall not deviate beyond the upper and lower dispatch thresholds of +1.5% or -3% of the *dispatch schedule* or +/-1MW, whichever is higher, as follows: c. Reaction Period. If a *generating unit* incurs a dispatch deviation beyond either the upper and lower dispatch thresholds at any *dispatch interval*, the *Trading Participant* shall take action and implement measures in order for that *generating unit* to *dispatch* within the	Dispatch Compliance Criteria a. Compliance by a *generating unit* **or *energy storage system*** with its *dispatch schedule* is determined based on the extent of the dispatch deviation incurred by the dispatched *generating unit* **or *energy storage system*** in relation to the dispatch threshold and is measured over a prescribed period or number of intervals. b. All *scheduled* ***generating units, pumped storage hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units* shall not deviate beyond the upper and lower dispatch thresholds of +1.5% or -3% of the *dispatch schedule* or +/-1MW, whichever is higher, as follows: c. Reaction Period**.** If a *generating unit* **or *energy storage system*** incurs a dispatch deviation beyond either the upper and lower dispatch thresholds at	Added ESS and all its types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	b. All *scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* and *priority dispatch generating units* shall not deviate beyond the upper and lower dispatch		

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		upper and lower dispatch thresholds over four (4) *dispatch intervals.* d. If the *generating unit* is able to comply only on the *dispatch interval* immediately after the reaction period, it must additionally sustain compliance for no less than three (3) consecutive *dispatch intervals*.	any *dispatch interval*, the *Trading Participant* shall take action and implement measures in order for that *generating unit* **or *energy storage system*** to *dispatch* within the upper and lower dispatch thresholds over four (4) *dispatch intervals.* d. If the *generating unit* **or *energy storage system*** is able to comply only on the *dispatch interval* immediately after the reaction period, it must additionally sustain compliance for no less than three (3) consecutive *dispatch intervals*.			thresholds of +1.5% or -3% of the *dispatch schedule* or +/- 1MW, whichever is higher, as follows: xxx		
Dispatch Compliance Criteria	12.5.2	Detection of Non-Compliance and Possible Breach a. *Scheduled generating units* and *priority dispatch generating units* shall be flagged for non-compliance with *dispatch schedules* and for possible breach of the *dispatch conformance standards*. b. Non-Compliance with Dispatch Schedules. If the *dispatch* deviation incurred by a *generating unit* is beyond the upper and lower dispatch thresholds for a particular *dispatch interval*, that *generating unit* shall be flagged as non-compliant with its *dispatch schedule* for said *dispatch interval.* xxxx	Detection of Non-Compliance and Possible Breach a. *Scheduled generating units*, ***pumped storage hydropower, integrated generating plant and ESS,*** and *priority dispatch generating units* shall be flagged for non-compliance with *dispatch schedules* and for possible breach of the *dispatch conformance standards*. b. Non-Compliance with Dispatch Schedules. If the *dispatch* deviation incurred by a *generating unit* **or *energy storage system*** is beyond the upper and lower dispatch thresholds for a particular *dispatch interval*, that *generating unit* **or *energy storage system*** shall be flagged as non-compliant with its *dispatch schedule* for said *dispatch interval.*	Specified all ESS types	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008. In addition, PSH can be classified as stand-alone ESS	a. *Scheduled generating units*, ~~*pumped storage hydropower*~~ ***stand-alone ESS***, ~~*integrated*~~ *generating plant and ESS,* and *priority dispatch generating units* shall be flagged for non-compliance with *dispatch schedules* and for possible breach of the *dispatch conformance standards*		

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		d. If the unit becomes compliant within the reaction period, the non-compliance count will be stopped or reset to zero. e. If the unit becomes compliant after the reaction period, counting of non-compliance shall be stalled and the non-compliance count shall thus not be incremented. Counting of non-compliance will continue and the non-compliance count will again be incremented when the generating unit is flagged as non-compliant in the succeeding interval. In this case, the non-compliance count shall only be stopped and be reset to zero if the generating unit is able to sustain *dispatch* compliance or is not flagged as non-compliant pursuant to Section 12.5.2 (b) for at least three (3) consecutive *dispatch intervals.* f. Possible Breach. The *generating unit* shall be flagged for possible breach of the *dispatch conformance standards* if the non-compliance count for a *generating unit* exceeds four (4) intervals for deviations beyond the error threshold. In such cases, further assessment shall be carried out for the purpose of establishing, among other circumstances, whether or not the non-compliance is attributed to the following: xxxx	xxxx d. If the ~~unit~~ ***generating unit* or *energy storage system*** becomes compliant within the reaction period, the non-compliance count will be stopped or reset to zero. e. If the ~~unit~~ ***generating unit* or *energy storage system*** becomes compliant after the reaction period, counting of non-compliance shall be stalled and the non-compliance count shall thus not be incremented. Counting of non-compliance will continue and the non-compliance count will again be incremented when the generating unit is flagged as non-compliant in the succeeding interval. In this case, the non-compliance count shall only be stopped and be reset to zero if the generating unit is able to sustain *dispatch* compliance or is not flagged as non-compliant pursuant to Section 12.5.2 (b) for at least three (3) consecutive *dispatch intervals.* f. Possible Breach. The *generating unit* or ***energy storage system*** shall be flagged for possible breach of the *dispatch conformance standards* if the non-compliance count for a *generating unit* **or *energy storage system*** exceeds four (4) intervals for deviations beyond the error threshold. In such cases, further					

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			assessment shall be carried out for the purpose of establishing, among other circumstances, whether or not the non-compliance is attributed to the following: xxxx					
Dispatch Compliance Reporting	12.6.2	*Trading Participants* shall submit to the *Market Operator* a daily non-conformance report that shall state, among other things, the reasons for non-compliance by their *generating units* for all instances when it is flagged for possible breach. The daily report shall cover flagged possible breach occurring within a *trading day* and shall be submitted within three (3) *working days* or within such other periods as may be notified to the *Trading Participants* from time to time. The reports so submitted shall be made available for market surveillance, compliance monitoring and enforcement, and market audit purposes.	*Trading Participants* shall submit to the *Market Operator* a daily non-conformance report that shall state, among other things, the reasons for non-compliance by their *generating units* **and *energy storage systems*** for all instances when it is flagged for possible breach. The daily report shall cover flagged possible breach occurring within a *trading day* and shall be submitted within three (3) *working days* or within such other periods as may be notified to the *Trading Participants* from time to time. The reports so submitted shall be made available for market surveillance, compliance monitoring and enforcement, and market audit purposes.	Added ESS				
Start-up and Shutdown of Facilities	Section Title	START-UP AND SHUTDOWN OF GENERATING UNITS	START-UP AND SHUTDOWN OF ~~GENERATING UNITS~~ **FACILITIES**	Standardized to use term facility.				
Start-up and Shutdown of Facilities	13.1	This Section sets out the principles and procedures for the *start-up* and *shutdown* of *generating units* included in the scheduling and *dispatch* processes in the *WESM*. These are set out in order to minimize disruption in the scheduling and *dispatch* processes in the *WESM* that	This Section sets out the principles and procedures for the *start-up* and *shutdown* of *generating units* **and *energy storage systems*** included in the scheduling and *dispatch* processes in the *WESM*. These are set out in order to minimize disruption in the scheduling and *dispatch* processes	Added ESS				

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		may be caused by the *start-up* or *shutdown* of *generating units*.	in the *WESM* that may be caused by the *start-up* or *shutdown* of *generating units* **and *energy storage systems*.**					
Start-up and Shutdown of Facilities	13.2.2	13.2.2 Consistent with its obligations pertaining to *real-time dispatch* scheduling and implementation, the *System Operator* shall ensure: a. Continuous and timely submission and updating of the *outage* schedules of *generating units* to the *Market Operator*; b. Issue clearance to *Trading Participants* to carry out the *start-up* or *shutdown* of their *generating units*; and c. Carry out the procedures set out in this Section.	13.2.2 Consistent with its obligations pertaining to *real-time dispatch* scheduling and implementation, the *System Operator* shall ensure: a. Continuous and timely submission and updating of the *outage* schedules of *generating units* **and *energy storage systems*** to the *Market Operator*; b. Issue clearance to *Trading Participants* to carry out the *start-up* or *shutdown* of their *generating units* **and *energy storage systems***; and c. Carry out the procedures set out in this Section.	Added ESS				
Start-up and Shutdown of Facilities	13.2.3	The *Trading Participants* shall ensure their compliance with the procedures set out in this Section, and, among other responsibilities, shall ensure: a. Timely submission of the notices and information required of them every time they intend to *start-up* or shut down their *generating units*; b. Timely submission or cancellation of their *energy* and operating *reserve offers* consistent with the *WESM timetable* that is consistent with their scheduled *start-up* or shut-down; c. Strict compliance with their *outage* and *dispatch schedules*; and	The *Trading Participants* shall ensure their compliance with the procedures set out in this Section, and, among other responsibilities, shall ensure: a. Timely submission of the notices and information required of them every time they intend to *start-up* or shut down their *generating units* **and *energy storage systems*;** b. Timely submission or cancellation of their *energy* and operating *reserve offers* consistent with the *WESM timetable* that is consistent with their scheduled *start-up* or shut-down;	Added ESS				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		d. Clearance from the *System Operator* prior to the *start-up* or *shutdown* of their *generating unit*.	c. Strict compliance with their *outage* and *dispatch schedules*; and d. Clearance from the *System Operator* prior to the *start-up* or *shutdown* of their *generating unit* **or *energy storage system*.**					
Start-up and Shutdown of Facilities	13.3.1	A *Trading Participant* shall request for clearance from the *System Operator* to *start-up*/*shutdown* its *generating unit* before the *dispatch interval* in which the *start-up/shutdown* is scheduled.	A *Trading Participant* shall request for clearance from the *System Operator* to *start-up*/*shutdown* its *generating unit* **or *energy storage system*** before the *dispatch interval* in which the *start-up/shutdown* is scheduled.	Added ESS				
Start-up and Shutdown of Facilities	13.3.2	For planned *outages,* a *Trading Participant* shall request for clearance from the *System Operator* and submit the *shutdown* profile of the *generating unit* to the *System Operator* not later than seven (7) *trading day*s before the *dispatch interval* in which the *shutdown* is scheduled.	For planned *outages,* a *Trading Participant* shall request for clearance from the *System Operator* and submit the *shutdown* profile of the *generating unit* **or *energy storage system*** to the *System Operator* not later than seven (7) *trading day*s before the *dispatch interval* in which the *shutdown* is scheduled.	Added ESS				
Start-up and Shutdown of Facilities	13.3.4	The *dispatch* scheduling of the *generating unit* that will *start-up* or *shutdown* shall be managed through its *market offers* submitted within the *WESM timetable*. The *Trading Participant* shall submit *market offers* or *nominations* for the *dispatch interval* during which the unit is to *start-up* or *shutdown* and make adjustments to its *market offers or nominations,* as appropriate.	The *dispatch* scheduling of the *generating unit* **or *energy storage system*** that will *start-up* or *shutdown* shall be managed through its *market offers* submitted within the *WESM timetable*. The *Trading Participant* shall submit *market offers* or *nominations* for the *dispatch interval* during which the unit is to *start-up* or *shutdown* and make adjustments to its *market offers or nominations,* as appropriate.	Added ESS				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Start-up and Shutdown of Facilities	13.3.5	Consistent with the provisions in the *WESM Manual* on the Market Network Model Development and Maintenance - Criteria and Procedure, the status of *generating units* shall be based on their registered availability in the *market network model*.	Consistent with the provisions in the *WESM Manual* on the Market Network Model Development and Maintenance - Criteria and Procedure, the status of *generating units* **or *energy storage system*** shall be based on their registered availability in the *market network model*.	Added ESS				
Start-up and Shutdown of Facilities	13.4	Start-up of a Generating Unit	Start-up of a Generating Unit **or *Energy Storage System***	Added ESS				
Start-up and Shutdown of Facilities	13.4.1	A *generating unit* must have *market offers* or *nominations* prior to the execution of the *real-time dispatch* run consistent with the *WESM timetable.*	A *generating unit* **or *energy storage system*** must have *market offers* or *nominations* prior to the execution of the *real-time dispatch* run consistent with the *WESM timetable.*	Added ESS				
Start-up and Shutdown of Facilities	13.4.2	The *System Operator* shall update the *outage* schedule of *generators* to remove the *generating unit* cleared to *start-up* from the *outage* list. Submission shall be in accordance with the *WESM timetable*.	The *System Operator* shall update the *outage* schedule of ~~*generators*~~ ***facilities*** to remove the *generating unit* **or *energy storage system*** cleared to *start-up* from the *outage* list. Submission shall be in accordance with the *WESM timetable*.	Revised to add ESS and standardized the use of the term facility.				
Start-up and Shutdown of Facilities	13.4.4	Once synchronized to the *grid* and scheduled for *dispatch*, the *generating unit* shall ramp-up linearly to its adjusted operating limit that was based on its *start-up* profile in the next *dispatch interval*.	Once synchronized to the *grid* and scheduled for *dispatch*, the *generating unit* **or *energy storage system*** shall ramp-up linearly to its adjusted operating limit that was based on its *start-up* profile in the next *dispatch interval*.	Added ESS				
Start-up and Shutdown of Facilities	13.5	*Shutdown* of a Generating Unit	*Shutdown* of a Generating Unit **or *Energy Storage System***	Added ESS				
Start-up and Shutdown of Facilities	13.5.1	*Generating units* cleared and scheduled for *shutdown* shall be included in the approved *outage* schedule submitted by	*Generating units* **and *energy storage systems*** cleared and scheduled for *shutdown* shall be included in the	Added ESS				

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		the *System Operator* to the *Market Operator*.	approved *outage* schedule submitted by the *System Operator* to the *Market Operator*.					
Start-up and Shutdown of Facilities	13.5.2	The *generating unit* shall ramp-down linearly while shutting down until it is finally disconnected from the *grid.*	The *generating unit* **or *energy storage system*** shall ramp-down linearly while shutting down until it is finally disconnected from the *grid.*	Added ESS				
Start-up and Shutdown of Facilities	13.5.4	Once the generating unit has completely shut down, the relevant *Trading Participant* shall cancel its daily *market offer* or *nomination* profile for the affected *trading day*.	Once the generating unit **or *energy storage system*** has completely shut down, the relevant *Trading Participant* shall cancel its daily *market offer* or *nomination* profile for the affected *trading day*.	Added ESS				
Post Dispatch Data and Operation Reports	14.4.2	Dispatch Instruction Report. On a weekly basis, the *System Operator* shall submit a report to the *Market Operator* containing their *dispatch instructions* that includes, but are not limited to, *generator* re-dispatch (e.g. constrain-on generation, constrain-off generation, must-run generation), MW output schedule during *market intervention or market suspension,* and, as necessary, commands via the *automatic generation control.* The Dispatch Instruction Report shall contain, among others, the following information: a. Date and Time of Incident xxxx	Dispatch Instruction Report. On a weekly basis, the *System Operator* shall submit a report to the *Market Operator* containing their *dispatch instructions* that includes, but are not limited to, ~~*generator*~~ ***facility*** re-dispatch (e.g. constrain-on generation, constrain-off generation, must-run generation), MW output schedule during *market intervention or market suspension,* and, as necessary, commands via the *automatic generation control.* The Dispatch Instruction Report shall contain, among others, the following information: a. Date and Time of Incident xxxx	Revised to add ESS and standardized the use of the term facility.				

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		Reason for Dispatch Instruction: • Utilized for *ancillary services* • Testing Requirement • Re-dispatch of *constrain-on* and *constrain-off generating units* • Designation of *must-run units* • Limitation on *must dispatch generating units* • *Market Intervention* or *Market Suspension* d. Short description of the issue being addressed xxxx	Reason for Dispatch Instruction: • Utilized for *ancillary services* • Testing Requirement • Re-dispatch of *constrain-on* and *constrain-off generating units* **and *energy storage systems*** • Designation of *must-run units* • Limitation on *must dispatch generating units* • *Market Intervention* or *Market Suspension* d. Short description of the issue being addressed xxxx					
Post Dispatch Data and Operation Reports	14.4.3	Market intervention Report. Pursuant to *WESM Rules* Clause 6.6.2.2, the *System Operator* (for grid-related) and *Market Operator* (for market-related) shall submit a *market intervention* report, as soon as practicable, to the *Market Surveillance Committee, Market Operator, DOE* and *ERC*, after the resumption of the *spot market*. Said report shall include the details of the activities done during the duration of the *market intervention* that include as follows: xxxx d. the actual *dispatch* of all *generating units* per interval affected.	Market intervention Report. Pursuant to *WESM Rules* Clause 6.6.2.2, the *System Operator* (for grid-related) and *Market Operator* (for market-related) shall submit a *market intervention* report, as soon as practicable, to the *Market Surveillance Committee, Market Operator, DOE* and *ERC*, after the resumption of the *spot market*. Said report shall include the details of the activities done during the duration of the *market intervention* that include as follows: xxxx	Added ESS				

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
			d. the actual *dispatch* of all *generating units* **and *energy storage systems*** per interval affected.					
Post Dispatch Data and Operation Reports	14.4.5	Report on Must-run Units. In accordance with *WESM Rules* Clause 3.5.13.1, the *System Operator* shall submit information to the *Market Operator* identifying all the *generating units* designated as *must-run units* within the *trading day*, as well as information necessary for the proper settlement of such *generating units*. Such information shall be included in the Dispatch Instruction Report.	Report on Must-run Units. In accordance with *WESM Rules* Clause 3.5.13.1, the *System Operator* shall submit information to the *Market Operator* identifying all the *generating units* **and *energy storage systems*** designated as *must-run units* within the *trading day*, as well as information necessary for the proper settlement of such *generating units* **and *energy storage systems***. Such information shall be included in the Dispatch Instruction Report.	Added ESS				
Procedures During Market Intervention or Suspension	16.6.2	Pursuant to *WESM Rules* Clauses 6.5.2.1 and 6.6.5.1, the actions that the *System Operator* may take shall include, but shall not be limited to, the following: a. Increase or decrease the *generation* or supply *capability* such as issuance of *emergency* instructions to all available but not committed *generating units* to *start-up*, *shutdown*, cancel *generating units* on testing or recall transmission equipment *outages*; xxxx	Pursuant to *WESM Rules* Clauses 6.5.2.1 and 6.6.5.1, the actions that the *System Operator* may take shall include, but shall not be limited to, the following: a. Increase or decrease the *generation* or supply *capability* such as issuance of *emergency* instructions to all available but not committed *generating units* **and *energy storage systems*** to *start-up*, *shutdown*, cancel *generating units* on testing or recall transmission equipment *outages*; xxxx	Added ESS				
Management of Must-Run Units	17.1.1	*WESM Rules* Clause 6.6.1 states that the *System Operator* shall develop and periodically update the *system security* and reliability guidelines in consultation	*WESM Rules* Clause 6.6.1 states that the *System Operator* shall develop and periodically update the *system security* and reliability guidelines in consultation	Added ESS				

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		with *WESM Participants* and the *Market Operator.* With this, *Must-run units (MRUs)* were introduced as *generating units* that are scheduled or *dispatch*ed in real-time to maintain the *security* and reliability of the *grid.*	with *WESM Participants* and the *Market Operator.* With this, *Must-run units (MRUs)* were introduced as *generating units* and ***energy storage systems*** that are scheduled or *dispatch*ed in real-time to maintain the *security* and reliability of the *grid.*					
Management of Must-Run Units	17.1.2	*WESM Rules* Clause 3.5.13.1 permits the *System Operator*, in coordination with the *Market Operator*, to impose *constraints* on the power flow, *energy generation* of a specific facility in the *Grid* to address *system security* and reliability of the *Grid.* On the other hand, relaxation of *constraints* on power flows, *energy generation* and *reserves* may also be implemented if the *Market Operator* is unable to generate a feasible *dispatch schedule.* For this purpose, the *System Operator*, in consultation with the *Market Operator,* is directed to develop the criteria and procedures for *dispatch* of *generating units* that are required to run as a result of the imposition or relaxation of *constraints*.	*WESM Rules* Clause 3.5.13.1 permits the *System Operator*, in coordination with the *Market Operator*, to impose *constraints* on the power flow, *energy generation* of a specific facility in the *Grid* to address *system security* and reliability of the *Grid.* On the other hand, relaxation of *constraints* on power flows, *energy generation* and *reserves* may also be implemented if the *Market Operator* is unable to generate a feasible *dispatch schedule.* For this purpose, the *System Operator*, in consultation with the *Market Operator,* is directed to develop the criteria and procedures for *dispatch* of *generating units* **and *energy storage systems*** that are required to run as a result of the imposition or relaxation of *constraints*.	Added ESS				
Management of Must-Run Units	17.1.3	The *Market Operator* shall provide a *merit order table* to the *System Operator* to serve as a guide in selecting *generating units* that can be re-*dispatch*ed in the course of the operations of the *power system*.	The *Market Operator* shall provide a *merit order table* to the *System Operator* to serve as a guide in selecting *generating units* **and *energy storage systems*** that can be re-*dispatch*ed in the course of the operations of the *power system*.	Added ESS				

<table>
<tr><th colspan="9">WESM Manual on Dispatch Protocol Issue 21.0</th></tr>
<tr><th>Title</th><th>Section</th><th>Provision</th><th>Proposed Amendment</th><th>Rationale</th><th>Comments</th><th>Proposed Wording based on Comments</th><th>Proponent's Response</th><th>RCC Decision</th></tr>
<tr><td>Management of Must-Run Units</td><td>17.1.5</td><td>The System Operator utilizes the merit order table's "Offers Dispatched" as a guide in determining which generating units may be constrained-off, whereas the merit order table's "Offers Not Dispatched" is a guide for determining which generating units may be constrained-on for a particular dispatch interval.</td><td>The System Operator utilizes the merit order table's "Offers Dispatched" as a guide in determining which generating units</u> and <u>energy storage systems</u> may be constrained-off, whereas the merit order table's "Offers Not Dispatched" is a guide for determining which generating units</u> and <u>energy storage systems</u> may be constrained-on for a particular dispatch interval.</td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Management of Must-Run Units</td><td>17.3.1</td><td>The System Operator shall select and designate the generating units that will run as an MRU for any period, in accordance with the criteria set forth in this section.</td><td>The System Operator shall select and designate the generating units</u> <u>and energy storage systems</u> that will run as an MRU for any period, in accordance with the criteria set forth in this section.</td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Management of Must-Run Units</td><td>17.3.2</td><td>xxxx

Table 9. Criteria and Considerations for Selection of MRUs

<table><tr><th>MRU Criteria</th><th>Considerations for Qualifications/Selection of Must-run units</th></tr><tr><td>System Voltage Requirement refers to the required voltage control and reactive power which the System Operator may need to take into account</td><td>• Generating unit/s run as MRU shall provide/absorb reactive power support in accordance with its corresponding reactive power capability curve to address under/over voltage problem.
• Power plants with reactive power</td></tr></table></td><td>xxxx

Table 9. Criteria and Considerations for Selection of MRUs

<table><tr><th>MRU Criteria</th><th>Considerations for Qualifications/Selection of Must-run units</th></tr><tr><td>System Voltage Requirement refers to the required voltage control and reactive power which the System Operator may need to take into account</td><td>• Generating unit/s <u>or energy storage system/s</u> run as MRU shall provide/absorb reactive power support in accordance with its corresponding reactive power capability curve to address under/over voltage problem.
• Power plants with reactive power</td></tr></table></td><td>Added ESS</td><td></td><td></td><td></td><td></td></tr>
</table>

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Title	**Section**	**Provision**		**Proposed Amendment**		**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		for the reliability of the *Grid*	*generation*/ absorption capability. • The use of *MRU* shall be based on the location where voltage problem exists	for the reliability of the *Grid*	*generation*/ absorption capability. • The use of *MRU* shall be based on the location where voltage problem exists					
		Thermal Limits of Transmission Line and Power Equipment refers to the *dispatch* limitations of *generators* affected by the actual condition of the *transmission lines* and/or power equipment.	• Generating unit/s called to run as *MRU* to ensure the *security* and reliability of the *grid*.	Thermal Limits of Transmission Line and Power Equipment refers to the *dispatch* limitations of ~~*generators*~~ ***facilities*** affected by the actual condition of the *transmission lines* and/or power equipment.	• Generating unit/s **or *energy storage system/s*** called to run as *MRU* to ensure the *security* and reliability of the *grid*.					
		Real-power Balancing and *Frequency* Control refers to the *energy* required to maintain the balance between supply and demand.	• The *System Operator* issues re-*dispatch instruction* to the Generating unit/s with fast ramp rate capability to constrain-on its output to immediately address threat in *security* and reliability of the *grid*. • During islanding operation or whenever a portion or part of the *grid*	Real-power Balancing and *Frequency* Control refers to the *energy* required to maintain the balance between supply and demand.	• The *System Operator* issues re-*dispatch instruction* to the Generating unit/s **or *energy storage system/s*** with fast ramp rate capability to constrain-on its output to immediately address threat in *security* and reliability of the *grid*.					

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Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
		is isolated, the *System Operator* may require the Generator/s to come on-line to supply the corresponding demand of the localized portion of the isolated part of the *grid*	• During islanding operation or whenever a portion or part of the *grid* is isolated, the *System Operator* may require the ~~Generator/s~~ ***facility*** to come on-line to supply the corresponding demand of the localized portion of the isolated part of the *grid*					
Management of Must-Run Units	17.4.1	The *Generating unit/s* identified and instructed by the *System Operator* as *MRU*s shall be based on the *security* assessment conducted by the *System Operator.*	The *Generating unit/s* ***or energy storage system/s*** identified and instructed by the *System Operator* as *MRU*s shall be based on the *security* assessment conducted by the *System Operator.*	Added ESS				
Management of Must-Run Units	17.4.2	*Generators* whose generating plants are instructed as *MRU*s must immediately and strictly comply with the corresponding *dispatch instructions* of the *System Operator*	~~*Generators* whose generating plants are~~ ***Generating units* and *energy storage systems*** instructed as *MRU*s must immediately and strictly comply with the corresponding *dispatch instructions* of the *System Operator*	Revised for clarity to include ESS				
Excess Generation	18.2.2	The *System Operator* shall be responsible for the following: xxxx c. Coordinate with the *Market Operator* for the imposition of over-riding *constraint* limit for certain generating unit/s that would be required not to be shut down.	The *System Operator* shall be responsible for the following: xxxx c. Coordinate with the *Market Operator* for the imposition of over-riding *constraint* limit for certain generating unit/s ***or energy storage system/s*** that would be required not to be shut down.	Added ESS				

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		d. Implement Emergency Procedures and provide instructions to *generating units* not elected as must-run to *shutdown*, as maybe necessary, based on the *System security* and Reliability Guidelines and *WESM merit order table* (*WMOT*) provided by the *Market Operator*.	d. Implement Emergency Procedures and provide instructions to *generating units* **and *energy storage systems*** not elected as must-run to *shutdown*, as maybe necessary, based on the *System security* and Reliability Guidelines and *WESM merit order table* (*WMOT*) provided by the *Market Operator*.					
Excess Generation	18.2.3	*Trading Participants* shall be responsible for the following: a. Review *generating units*' availability, maintenance schedule, *energy* and ramping limits in anticipation of the off-peak condition in the *power system*. xxxx	*Trading Participants* shall be responsible for the following: a. Review ~~*generating units*'~~ **the** availability, maintenance schedule, *energy* and ramping limits **of *generating units* and *energy storage systems*** in anticipation of the off-peak condition in the *power system*. xxxx	Revised for clarity to include ESS				
Excess Generation	18.3.3	The *System Operator* may submit *over-riding constraint* limits for *generating units* that are required to operate as *must-run units* during the period of the impending *excess generation*.	The *System Operator* may submit *over-riding constraint* limits for *generating* ***units* and *energy storage systems*** that are required to operate as *must-run units* during the period of the impending *excess generation*.	Added ESS				
Excess Generation	18.3.4	*Trading Participants* may revise their *bids* and offers and shall exercise prudence on their *bids* and *offers* with regard to market integrity and *power system security* for intervals with impending *excess generation* periods by: a. *Customer*s – Assessing their electricity consumption	*Trading Participants* may revise their *bids* and offers and shall exercise prudence on their *bids* and *offers* with regard to market integrity and *power system security* for intervals with impending *excess generation* periods by: a. *Customer*s – Assessing their electricity consumption	Added ESS				

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		b. Generators – Assessing the capacity and mode of operation of their *generating units*.	b. Generators – Assessing the capacity and mode of operation of their *generating units*. **c. *Energy Storage Systems* – Assess the capability and mode of operation of their *facilities*.**					
Excess Generation	18.3.5	Should there be any indication of an *excess generation* four (4) hours prior to the affected hour, the *System Operator* shall prescribe the shut-down of generating units based on the *WESM excess generation merit-order table* provided by the *Market Operator*. The excess generation merit-order table shall be based on the average loss factor computed every six (6) months.	Should there be any indication of an *excess generation* four (4) hours prior to the affected hour, the *System Operator* shall prescribe the shut-down of generating units **and *energy storage systems*** based on the *WESM excess generation merit-order table* provided by the *Market Operator*. The excess generation merit-order table shall be based on the average loss factor computed every six (6) months.	Added ESS				
Procedures for Load Shedding	19.2.3	The *WESM Members* shall: xxxx c. Ensure that its *generating units* remain in synchronism for operating conditions as specified under the *Grid Code*. xxxx	The *WESM Members* shall: xxxx c. Ensure that its *generating **units** and **energy storage systems*** remain in synchronism for operating conditions as specified under the *Grid Code*. xxxx	Added ESS				

E. WESM Manual on Load Forecasting Methodology Issue 5.0

WESM Manual on Load Forecasting Methodology Issue 5.0								
Title	**Section**	**Provision**	**Proposed Amendment**	**Rationale**	**Comments**	**Proposed Wording based on Comments**	**Proponent's Response**	**RCC Decision**
Customer Forecast Submission	7.1.8	(new)	***Pumped-storage hydro* shall submit *Customer* forecasts during pump-mode operations.**	Added responsibility to submit customer forecast during pump mode.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008.			
Customer Forecast Submission	7.1.9	(new)	**If a separate *load market resource* is modelled to *represent* the projected *MW* charging of the battery *facility* within the *integrated generating plant and ESS,* then the responsible *Trading Participant* shall submit *Customer* forecasts for the *load market resource* in cases where it charges the battery from the *transmission* or *distribution system*.**	Added responsibility to submit customer forecast when charging from transmission or distribution system.	Suggest revising to align with the configuration of ESS as prescribed in DC2023-04-0008 (i.e., stand-alone ESS, Integrated Non-RE Plant and ESS, Integrated RE Plant and ESS, and Generating Plant and ESS).	If a separate *load market resource* is modelled to *represent* the projected *MW* charging of the battery *facility* within the ~~*integrated*~~ *generating plant and ESS,* then the responsible *Trading Participant* shall submit *Customer* forecasts for the *load market resource* in cases where it charges the battery from the *transmission* or *distribution system*.		

Table 1. Reference for Registered Capacities of Energy Storage Systems

Type	Minimum Operating Limit	Maximum Operating Limit	Maximum Ramp Up Rate	Maximum Ramp Down Rate
Battery Energy Storage System	MW Charging Limit	MW Discharging Limit	Maximum ramp up capability of ESS	Maximum ramp down capability of ESS
Pumped-storage hydropower	MW Pumping Limit	MW Generation Capacity (Pmax)	Maximum ramp up capability of ESS	Maximum ramp down capability of ESS
Integrated Generating Plant and ESS	MW Charging Limit of BESS	MW Generation Capacity (Pmax)	Maximum ramp up capability of Generating Plant, plus the maximum ramp up capability of ESS	Maximum ramp down capability of Generating Plant, plus the maximum ramp down capability of ESS