



Republic of the Philippines
DEPARTMENT OF ENERGY
(Kagawaran ng Enerhiya)

DEPARTMENT CIRCULAR NO. DC 2021-07-0022 /M

**ADOPTING FURTHER AMENDMENTS TO THE WHOLESALE ELECTRICITY SPOT MARKET (WESM) MARKET MANUAL ON CONSTRAINT VIOLATION COEFFICIENTS AND PRICING RE-RUNS FOR THE IMPLEMENTATION OF ENHANCEMENTS TO WESM DESIGN AND OPERATIONS
(Provisions for Self-Scheduled Generation)**

WHEREAS, Sections 30 and 37(f) of the Electric Power Industry Reform Act (EPIRA) provides that the DOE, jointly with the electric power industry participants, shall establish the Wholesale Electricity Spot Market (WESM) and formulate the detailed rules governing the operations thereof;

WHEREAS, on 28 June 2002, the DOE, with the endorsement of the electric power industry participants, promulgated the WESM Rules through Department Circular No. DC2002-06-003;

WHEREAS, any changes, amendments, and modifications to the WESM Rules, Retail Rules and their Market Manuals shall be undertaken in accordance with the provisions of Chapter 8 of the WESM Rules;

WHEREAS, on 10 June 2019, the Market Operator submitted to the Rules Change Committee (RCC) its proposed amendments to the Market Manual on Constraint Violation Coefficients (CVC) and Pricing Re-Runs for the implementation of enhancements to WESM design and operations;

WHEREAS, the proposal aims to include additional CVCs to reflect the dispatch and curtailment hierarchy for non-scheduled, priority dispatch and must-dispatch generating unit classifications – collectively called self-scheduled generating units;

WHEREAS, on 21 June 2019, the RCC during its 153rd RCC Meeting discussed with the Market Operator the abovementioned proposal, and thereafter approved the publication of the proposed amendments in the Philippine Electricity Market Corporation's (PEMC) information website to solicit comments from market participants and other interested parties;

WHEREAS, on 16 August 2019, the RCC during its 155th RCC Meeting deliberated on the proposal giving due course to the comments received from market participants, and thereafter finalized and approved for endorsement to the PEM Board;

WHEREAS, on 28 August 2019, after due evaluation and deliberation, the PEM Board, during its 15th Regular PEM Board Meeting, approved for endorsement to the DOE the above stated RCC-approved proposal;

WHEREAS, on 04 September 2019, the PEM Board-approved amendments to the Market Manual on Constraint Violation Coefficients (CVC) and Pricing Re-Runs were submitted to the DOE for final approval, in compliance with Chapter 8 of the WESM Rules;

WHEREAS, on 18 March 2020, the DOE posted the draft Department Circular adopting the proposed amendments in the DOE website to solicit comments from the market participants and other interested parties;

WHEREAS, on 15, 17 and 19 June 2020, the DOE conducted virtual public consultations on the proposed amendments to solicit further comments from the stakeholders and other interested parties;

NOW THEREFORE, after careful review of the PEM Board-approved proposal and the comments and recommendations received on the same, the DOE, pursuant to its authority under the EPIRA and the WESM Rules, hereby adopts, issues, and promulgates the following amendments to the WESM Market Manual Constraint Violation Coefficients (CVC) and Pricing Re-Runs, Issue No. 6:

Section 1. Amendments to the WESM Market Manual. The following provisions in the WESM Market Manual on Constraint Violation Coefficients (CVC) and Pricing Re-Runs, Issue No. 6, are hereby amended:

a. Section 4.3.1 (Order of Constraint Violation Coefficients) under Constraint Violation Coefficient is amended to read as –

“4.3.1 The order of relaxing *soft constraints* shall be set such that *constraints* resulting in the lowest reduction in the capability of the *network, load or generating units* shall be allowed to occur first, as follows:

- a. Tertiary or Dispatchable Reserve Requirement Constraint
- b. Primary or Contingency Reserve Requirement Constraint
- c. Nodal Value of Lost Load (VoLL) or Nodal Energy Balance Constraint
- d. System Energy Balance Constraint
- e. Self-Scheduled Generation Constraint – Non-Scheduled Generation
- f. Self-Scheduled Generation Constraint – Priority Dispatch Generation
- g. Self-Scheduled Generation Constraint – Must Dispatch Generation
- h. Thermal Contingency Constraint – Transformer
- i. Thermal Contingency Constraint – Line
- j. Thermal Contingency Constraint – Branch Group
- k. Secondary or Regulating Reserve Requirement Constraint
- l. Thermal Base Case Constraint – Transformer
- m. Thermal Base Case Constraint – Line
- n. Thermal Base Case Constraint – Branch Group.”

b. Section 4.3.4 (Order of Constraint Violation Coefficients) under Constraint Violation Coefficient is amended to read as –

4.3.4 The following table provides the *constraint violation coefficients*, which is reflective of the order of relaxing *soft constraints* established in Section 4.3.1 of this *Market Manual*, and the corresponding action by the *System Operator*.

Order	Constraint Violation Coefficient Name	CVC	SO Action
1	Tertiary or Dispatchable Reserve Requirement Constraint	100,000	None
2	Primary or Contingency Reserve Requirement Constraint	200,000	None
3	Nodal Value of Lost Load or Nodal Energy Balance Constraint	800,000	Re-dispatch generation and/or drop load as necessary.
4	System Energy Balance Constraint	1,300,000	For over-generation, identify generating units to be shut down to eliminate excess capacity.
			For under-generation, identify must-run units that can be dispatched or drop load as necessary.
5	Self-Scheduled Generation Constraint – Non-Scheduled Generation	1,400,000	The schedule of loading level of the relevant non-scheduled generating unit(s) shall be curtailed.
6	Self-Scheduled Generation Constraint – Priority Dispatch Generation	1,500,000	The projected output of the relevant priority dispatch generating unit(s) shall be curtailed.
7	Self-Scheduled Generation Constraint – Must Dispatch Generation	1,600,000	The projected output of the relevant must dispatch generating unit(s) shall be curtailed.
8	Thermal Contingency Constraint – Transformer	2,500,000	Re-dispatch generation and/or drop load as necessary.
9	Thermal Contingency Constraint – Line	2,500,000	
10	Thermal Contingency Constraint – Branch Group	3,000,000	
11	Secondary or Regulating Reserve Requirement Constraint	5,600,000	Re-dispatch generation and/or drop load as necessary.
12	Thermal Base Case Constraint – Transformer	6,000,000	Re-dispatch generation and/or drop load as necessary.
13	Thermal Base Case	6,000,000	

	Constraint – Line		
14	Thermal Base Case Constraint – Branch Group	6,500,000	

Table 1. Order of Constraint Violation Coefficients”

- c. Section 5.3.1 (Automatic Pricing Re-Run Parameters) under Automatic Pricing Re-Runs is amended to read as –

“5.3.1 The corresponding constraint relaxation formulas for the constraint violation coefficients during pricing re-runs shall be as provided in Table 2 below:

Order	Constraint Violation Coefficient Name	CVC	Violation Variable Value	Delta	Constraint Relaxation during Pricing Re-Run	Re-run Price
1	Tertiary or Dispatchable Reserve Requirement Constraint	100,000	x	0.1	x + delta	EDP AND RP
2	Primary or Contingency Reserve Requirement Constraint	200,000	x	0.1	x + delta	EDP AND RP
3	Nodal Value of Lost Load or Nodal Energy Balance Constraint	800,000	x	0.1	x + delta	EDP AND RP
4	System Energy Balance Constraint	1,300,000	x	0	delta	Excess Price for over-generation
						Shortage Price for under-generation
5	Self-Scheduled Generation Constraint – Non-Scheduled Generation	1,400,000	x	0.1	x + delta	EDP AND RP

Order	Constraint Violation Coefficient Name	CVC	Violation Variable Value	Delta	Constraint Relaxation during Pricing Re-Run	Re-run Price
6	Self-Scheduled Generation Constraint – Priority Dispatch Generation	1,500,000	x	0.1	x + delta	EDP AND RP
7	Self-Scheduled Generation Constraint – Must Dispatch Generation	1,600,000	x	0.1	x + delta	EDP AND RP
8	Thermal Contingency Constraint – Transformer	2,500,000	x	0.1	x + delta	EDP AND RP
9	Thermal Contingency Constraint – Line	2,500,000	x	0.1	x + delta	EDP AND RP
10	Thermal Contingency Constraint – Branch Group	3,000,000	x	0.1	x + delta	EDP AND RP
11	Secondary or Regulating Reserve Requirement Constraint	5,600,000	x	0.1	x + delta	EDP AND RP
12	Thermal Base Case Constraint – Transformer	6,000,000	x	0.1	x + delta	EDP AND RP
13	Thermal Base Case Constraint – Line	6,000,000	x	0.1	x + delta	EDP AND RP
14	Thermal Base Case Constraint – Branch Group	6,500,000	x	0.1	x + delta	EDP AND RP

Table 2. Automatic Pricing Re-Run Parameters"

Section 2. Transitory Provisions. This amended Market Manual shall be initially used for the development of the WESM's New Market Management System (NMMS) and provide guidance for the stakeholders and WESM participants on the implementation of the enhancements to WESM design and operations. For clarity, the Market Manual on Constraint Violation Coefficients, Issue No. 4, shall remain valid and effective for the commercial operation of the integrated WESM and Retail Market using the current MMS.

Section 3. Separability Clause. If for any reason, any section or provision of this Circular is declared unconstitutional or invalid, such parts not affected shall remain valid and subsisting.

Section 4. Effectivity. This Circular shall take effect fifteen (15) days following its publication in two (2) newspapers of general circulation. Copies thereof shall be filed with the University of the Philippines Law Center – Office of National Administrative Register (UPLC-ONAR).

Issued on _____ 2020 at the Energy Center, Rizal Drive, Bonifacio Global City, Taguig City.


ALFONSO G. CUSI
Secretary



JUN 25 2021