

PUBLIC

## **WESM Market Manual**

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# **Management of Net Settlement Surplus Issue 4.0**

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Abstract	This Market Manual sets the procedure for the allocation of the net settlement surplus in the Philippine Wholesale Electricity Spot Market
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2	PEMC	Incorporate ERC Resolution No. 06 Series of 2009 and address audit findings
3	PEMC	Specify the calculation for the allocation of Net Settlement Surplus As approved by the ERC through ERC Resolution No. 1 Series of 2018
4	PEMC/IEMOP	Harmonization with ERC Resolution No. 07, Series of 2019

## Document Approval

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## Reference Documents

Document ID	Document Title
	WESM Rules
	WESM Price Determination Methodology
WESM-BSM	Billing and Settlements Manual
	PEMC Board Resolution No. 2005-37, 15 December 2005
	Energy Regulatory Commission Decision, In the Matter of the Application for Approval of the Price Determination Methodology for the Philippine Wholesale Electricity Spot Market, ERC Case No. 2006-007 RC, 21 June 2006.
	Energy Regulatory Commission Resolution No 06 Series of 2009, A Resolution Adopting the Rules for the Distribution of Net Settlement Surplus

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	Energy Regulatory Commission Resolution No 01 Series of 2018, A Resolution Adopting the Amendments to the Rules for the Distribution of NSS
	Energy Regulatory Commission Resolution No 07 Series of 2019, A Resolution Adopting Amendments to the Rules for the Distribution of Net Settlement Surplus (NSS)

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## SECTION 1 INTRODUCTION

### 1.1 BACKGROUND

- 1.1.1 The surplus or deficit resulting from the aggregate *settlement* transactions in the Philippine *Wholesale Electricity Spot Market (WESM)* is the *net settlement surplus*.<sup>1</sup> Specifically, a *net settlement surplus* arises when the total payments of *Customers* exceeds the total payments to *Generation Companies* (or generators, for brevity).
- 1.1.2 The *WESM Rules* Clause 3.13.16.2<sup>2</sup> provides that the *net settlement surplus*:
- a) may be retained by the *Market Operator* to fund deficit *settlement* as a result of transactions required in *WESM Rules* Clause 3.13.14 and may be flowed back to the *Trading Participants* in accordance with the procedures to be developed under *WESM Rules* Clause 3.13.16.3 and may be used by the *Market Operator* to establish and support the market for financial *transmission rights* subject to the approval of the *PEM Board*; and
  - b) shall be clearly accounted for and taken into account when setting the allowable charges under any regulatory instruments applying to the *Market Operator* and the *System Operator*.
- 1.1.3 In accordance with *WESM Rules* Clause 3.13.6.3 (d), the *Market Operator* is required to develop procedures on the possible uses of *net settlement surplus* subject to approval by the *PEM Board*; and, to continuously review the procedures on possible uses of such surplus to the extent the *Market Operator* considers it to be reasonably necessary to promote *WESM* objectives. Any changes made on the procedures are approved by the *PEM Board*.<sup>3</sup>
- 1.1.4 The *Energy Regulatory Commission* (the “*Commission*”) in its decision in the application for approval of the *WESM* price determination methodology likewise directed the *Philippine Electricity Market Corporation* (the “*PEMC*”) to formulate the procedures for redistribution of the *net settlement surplus* within three (3) months from the start of the *WESM* commercial operations in Luzon. It likewise directed the *PEMC* to annually submit to the *Commission* a comprehensive report on the *net settlement surplus*, including but not limited to, the monthly levels and the underlying causes of the surplus.<sup>4</sup>

### 1.2 PURPOSE

- 1.2.1 This document implements the above-mentioned requirements of the *WESM Rules* and the directive of the *Commission* and specifically establishes the following –
- a) The manner by which the *net settlement surplus* or deficit is calculated;

<sup>1</sup> *WESM Rules* Clause 3.13.16.1.

<sup>2</sup> See *WESM Rules* Clauses 3.13.16.2 and 3.13.16.3, as amended by *DOE Circular* DO-2004-07-008.

<sup>3</sup> See *WESM Rules* Clause 3.13.16.2, as amended by *DOE Circular* DO-2004-07-008.

<sup>4</sup> Decision, In the Matter of the Application for Approval of the Price Determination Methodology for the Philippine Wholesale Electricity Spot Market, *ERC Case No. 2006-007 RC*, 21 June 2006.

- b) The uses of the *net settlement surplus* and the methodology for its allocation;
- c) The schedule for allocation or flow back of the *net settlement surplus*; and
- d) The manner of compliance with the reportorial requirements set in the *WESM Rules* and in regulatory directives.

1.2.2 This document governs the uses and procedures for allocation of the *net settlement surplus* until the implementation of the financial *transmission rights* market or other utilization regime as may be decided and approved by the *PEM Board*.

### 1.3 SCOPE

The guidelines and methodology set in this document applies to all *Trading Participants* registered in the *WESM*, the *Market Operator* and the *Philippine Electricity Market Corporation*.

## SECTION 2 DEFINITIONS, REFERENCES AND INTERPRETATION

### 2.1 DEFINITIONS

All italicized terms in this document will have the same meaning as defined in the *WESM Rules*, unless the context provides otherwise.

### 2.2 REFERENCES

This document should be read together with the –

- a) *WESM Rules*, as amended;
- b) Price Determination Methodology;
- c) Billing and *Settlements* Manual;
- d) *Energy Regulatory Commission* Decision, In the Matter of the Application for Approval of the Price Determination Methodology for the Philippine *Wholesale Electricity Spot Market*, *ERC* Case No. 2006-007 RC, 21 June 2006; and
- e) *Energy Regulatory Commission* Resolution No. 7, Series of 2019, A Resolution Adopting Amendments to the Rules for the Distribution of *Net Settlement Surplus* (NSS).

### 2.3 INTERPRETATION

Any reference to a clause in any section of this *Market Manual* shall refer to the particular clause of the same section in which the reference is made, unless otherwise specified or the context provides otherwise.

**SECTION 3 RESPONSIBILITIES****3.1 MARKET OPERATOR**

3.1.1 In accordance with *WESM Rules* Clause 3.13.16.3, the *Market Operator* shall:

- a) *Publish* regular summary reports on the amount of any *net settlement surplus* being generated;
- b) Within one (1) year from *spot market commencement date*, and every year thereafter, *publish* a review of the underlying factors giving rise to any *net settlement surplus*, and attempt to identify any binding *constraints* which may have caused or contributed to such *net settlement surplus*;
- c) Determine, in consultation with *Trading Participants* and *Network Service Providers*, and subject to approval by the *PEM Board*, whether the *net settlement surplus* generated by any particular set of *constraints* is of such magnitude as to justify development of a regime similar to that implemented in the *WESM Rules* with respect to *transmission line rentals* and *transmission rights*.
- d) Develop procedures on the possible uses of *net settlement surplus* subject to approval by the *PEM Board*; and
- e) Continuously review the procedures on possible uses of *net settlement surplus* to the extent the *Market Operator* considers it to be reasonably necessary to promote *WESM* objectives. Any changes made on the procedures shall have approval from the *PEM Board*.

3.1.2 In accordance with *ERC* Resolution No. 07, Series of 2019, the *Market Operator* shall:

- a) Ensure the accurate implementation of the said *ERC* Resolution including the corresponding Net Settlement Surplus (NSS) or Net Settlement Deficit (NSD) re-distribution pursuant to Articles III, IV, V and VI of said Resolution; and
- b) Hold liable for any erroneous implementation of the formula as contained in the said *ERC* Resolution.

**SECTION 4 NET SETTLEMENT SURPLUS ALLOCATION****4.1 NET SETTLEMENT SURPLUS**

4.1.1 The *WESM Rules*, as amended, defines *net settlement surplus* as the settlement surplus or deficit remaining after all *market transactions* have been accounted for, including the assignment of transmission line rentals to *Network Service Providers*. This surplus or deficit is assumed to be attributable to economic rentals arising from other binding constraints, and accounted for in accordance with the *WESM Rules* provision on the *Treatment of Net Settlement Surplus*.

4.1.2 The *Market Operator* shall immediately include the NSS for allocation and reflect the same in the corresponding billing statement on the current billing period, from the time of computation and determination of the NSS amount. The allocation shall be in the form of an immediate deduction from or an adjustment of the total settlement amount of the recipients of the NSS for their *WESM transactions*.



4.1.3 The DUs serving the captive shall be eligible for an NSS allocation. As such, any NSS allocation received by the DUs shall be re-distributed back to its End-users respective of their consumption during the same billing period that it received the allocation. Re-distribution of which is deemed to be received by the End-users by virtue of adjustment in the billed amount from the DUs.

4.1.4 The RES, being the *Direct WESM Member*, shall be eligible to receive an NSS allocation. As such, any NSS Allocation received by the RES shall be re-distributed back to its End-users in the retail electricity market, respective of their consumption during the same billing period that it received the allocation.

In the event of a deficit, the RES shall collect the amount of deficit payable to *Market Operator* from its End-users in the retail electricity market respective of their consumption.

4.1.5 The *Generation Company* that have withdrawn from the grid or the *Generation Company* declared as the paying counterparty of the Line Rental shall be eligible to receive an NSS allocation from the *Market Operator*. Any NSS allocation received by the *Generation Company* shall be an adjustment to the settlement amount of the *Generation Company* for the subject billing month.

## 4.2 RE-DISTRIBUTION OF NET SETTLEMENT SURPLUS/DEFICIT

4.2.1 *WESM Participants* that paid for the surplus line loss and congestion payments shall receive a share in the NSS. Pursuant to Article IV Section 1 of ERC Resolution No. 7 Series of 2019, , the NSS or *NSD* shall be billed to *Direct WESM Members* including, but not limited to, the following entities:

- a) *Distribution Utilities* (DUs);
- b) Retail Energy Suppliers (RES), including Local RES and Supplier of Last Resort (SoLR) and other electricity *suppliers*;
- c) *Generation Companies*;
- d) Independent Power Producer (IPP) Administrators; and
- e) Other parties registered as *Direct WESM Members*.

4.2.2 The total of the hourly *NSS* and/or *NSD* allocation for every *billing period* shall be reflected immediately as a deduction to or an adjustment to the total *settlement amount* of the *Direct WESM Member*, whether for its own *WESM* transactions or on behalf of its *Indirect WESM Member*. This shall be correspondingly re-distributed to the end-users at the retail level as part of the monthly generation rate pursuant to their corresponding power supply agreements approved by the *ERC*.

4.2.3 *NSS* or *NSD* allocation corresponding to adjustments for transactions prior to the switching of an *Indirect WESM Member* to another *Direct Member* shall be billed to the current *Direct WESM Member*.

4.2.4 Any *NSS* or *NSD* allocation billed to the *RES* shall be subject to re-distribution to its *Contestable Customers* pursuant to their *Retail Supply Contract*.

## SECTION 5 METHODOLOGY AND PROCEDURE

### 5.1 CALCULATION OF NET SETTLEMENT SURPLUS AND NET SETTLEMENT DEFICIT

- 5.1.1 The adoption of locational marginal pricing for the *WESM* under different *market trading nodes* accounts for congestion and losses in the transmission system. As a result, the price differences occur between generator nodes and customer nodes due to the losses and congestion. The aggregate *WESM settlement amount* may result to:
- a) *Net Settlement Surplus* which is also known as *NSS*; or
  - b) *Net Settlement Deficit* which is also known as *NSD*.
- 5.1.2 The *NSS* or *NSD* amount shall be calculated based on the total *trading amount* for every *trading interval*.
- 5.1.3 The *NSS* occurs when the total collectibles exceed the total payables.
- 5.1.4 The *NSD* occurs when the total payables exceed the total collectibles.
- 5.1.5 Pursuant to Article III Section 1 of ERC Resolution No. 07 Series of 2019, the total *NSS* or *NSD* ( $NSS_{Total}$  or  $NSD_{Total}$ ) shall be determined by getting the difference of the total collectibles ( $TA_{Collectibles}$ ) and the total payables ( $TA_{Payables}$ ):

$$NSS_{Total,i} \text{ or } NSD_{Total,i} = TA_{Collectibles,i} - TA_{Payables,i}$$

Where:

$NSS_{Total,i}$  or  $NSD_{Total,i}$  = Total *Net Settlement Surplus* or *Net Settlement Deficit*, in PhP, for *trading interval i*

$TA_{Collectibles}$  = Total *trading amount*, in PhP, to be collected by the *Market Operator* from the *Trading Participants* for *trading interval i*

$TA_{Payables}$  = Total *trading amount*, in PhP, to be paid by the *Market Operator* from the *Trading Participants* for *trading interval i*

$i$  = *trading interval*

### 5.2 DERIVATION OF NET SETTLEMENT SURPLUS AND NET SETTLEMENT DEFICIT

- 5.2.1 Pursuant to Article III Section 2 of ERC Resolution No. 07 Series of 2019, allocation of the *NSS* or *NSD* shall be based on the cause of the surplus (e.g., surplus transmission loss payment, surplus congestion payment, among others). As such, the *NSS* or *NSD* calculation is disaggregated into *NSS* or *NSD* due to losses ( $NSS_{Loss}$  or  $NSD_{Loss}$ ) and the *NSS* or *NSD* due to congestion ( $NSS_{Congestion}$  or  $NSD_{Congestion}$ ), which are allocated separately. The following formula illustrates the components of the disaggregated *NSS* or *NSD*:

$$NSS_{Total,D,i} \text{ or } NSD_{Total,D,i} = NSS_{Loss,i} \text{ or } NSD_{Loss,i} + NSS_{Congestion,i} \text{ or } NSD_{Congestion,i}$$

Where:

$$NSS_{Total,D,i} \text{ or } NSD_{Total,D,i} = \text{Sum of disaggregated Net Settlement Surplus or Deficit due to transmission loss and congestion, in PhP, for trading interval } i$$

$$NSS_{Loss,i} \text{ or } NSD_{Loss,i} = \text{Net Settlement Surplus or Net Settlement Deficit due to transmission loss payments, in PhP, for trading interval } i$$

$$NSS_{Congestion,i} \text{ or } NSD_{Congestion,i} = \text{Net Settlement Surplus or Net Settlement Deficit due to congestion payments, in PhP, for trading interval } i$$

$$i = \text{trading interval } i$$

5.2.2 In order to determine  $NSS_{Loss}$  or  $NSD_{Loss}$  and  $NSS_{Congestion}$  or  $NSD_{Congestion}$ , the trading amounts shall also be disaggregated among its components. Based on the components of the locational marginal prices (LMP), the trading amounts collected and paid by the Market Operator for each trading participant shall be disaggregated as follows:

$$TA_{Payable,P,i} \text{ or } TA_{Collectible,P,i} = TA_{Energy,P,i} + TA_{Loss,P,i} + TA_{Congestion,P,i}$$

Where:

$$TA_{Payable,P,i} \text{ or } TA_{Collectible,P,i} = \text{Trading amount of Trading Participant } P, \text{ in PhP, for trading interval } i$$

$$TA_{Energy,P,i} = \text{Trading amount for energy of Trading Participant } P, \text{ in PhP, for trading interval } i$$

$$TA_{Loss,P,i} = \text{Trading amount for transmission loss of Trading Participant } P, \text{ in PhP, for trading interval } i$$

$$TA_{Congestion,P,i} = \text{Trading amount for congestion of Trading Participant } P, \text{ in PhP, for trading interval } i$$

5.2.3 The NSS or NSD due to line loss payment ( $NSS_{Loss}$  or  $NSD_{Loss}$ ) shall be determined as the difference of the collectibles and the payables for energy and transmission loss as shown be the equation below:

$$NSS_{Loss,i} \text{ or } NSD_{Loss,i} = \sum_{cp \in CP} (TA_{Energy,cp,i} + TA_{Loss,cp,i}) - \sum_{pp \in PP} (TA_{Energy,pp,i} + TA_{Loss,pp,i})$$

Where:

$NSS_{Loss,i}$  or  $NSD_{Loss,i}$  = Net Settlement Surplus or Net Settlement Deficit due to transmission loss payments, in PhP, for trading interval  $i$

$TA_{Energy}$  = Total trading amount of a trading participant for energy, in PhP, for trading interval  $i$

$TA_{Loss}$  = Total trading amount of a Trading Participant for transmission loss, in PhP, for trading interval  $i$

$CP$  = Set of Trading Participants with collectible trading amounts

$cp$  = Trading Participant with collectible trading amount

$PP$  = Set of Trading Participants with payable trading amounts

$pp$  = Trading Participant with payable trading amount

$i$  = trading interval

5.2.4 The  $NSS$  or  $NSD$  due to congestion ( $NSS_{Congestion}$  or  $NSD_{Congestion}$ ) shall be calculated as the difference of the collectibles and the payables for congestion as shown below:

$$NSS_{Congestion,i} \text{ or } NSD_{Congestion,i} = \sum_{cp \in CP} TA_{Congestion,cp,i} - \sum_{pp \in PP} TA_{Congestion,pp,i}^5$$

Where:

$NSS_{Congestion,i}$  or  $NSD_{Congestion,i}$  = Net Settlement Surplus or Net Settlement Deficit due to congestion payments, in PhP, for trading interval  $i$

$TA_{Congestion}$  = Total trading amount of a trading participant for congestion, in PhP, for trading interval  $i$

$CP$  = Set of Trading Participants with collectible trading amounts

$cp$  = Trading Participant with collectible trading amount

<sup>5</sup> For confirmation of DOE: Difference in the formula, using cp instead of pp in the subtrahend.

<i>PP</i>	=	Set of <i>Trading Participants</i> with payable trading amounts
<i>pp</i>	=	<i>Trading Participant</i> with payable trading amount
<i>i</i>	=	trading interval

5.2.5 During *trading intervals* when there is no computed transmission loss and congestion, the *NSS* or *NSD* shall be computed as follows:

$$NSS_{NoTLCP,i} \text{ or } NSD_{Total,i} = TA_{collectibles,i} + TA_{payables,i}^6$$

Where:

$NSS_{NoTLCP,i}$  or  $NSD_{NoTLCP,i}$  = Total Net Settlement Surplus or Net Settlement Deficit when there is no calculated transmission loss and congestion payments, in PhP, for *trading interval i*

$TA_{collectibles,i}$  = Total trading amount, in PhP, to be collected by the Market Operator from the Trading Participants for trading interval *i*

$TA_{payables,i}$  = Total trading amount, in PhP, to be paid by the Market Operator to the Trading Participants for trading interval *i*

*i* = trading interval

### 5.3 DETERMINATION OF NET SETTLEMENT SURPLUS ALLOCATION

5.3.1 The Market Operator shall allocate the *NSS* to the *Trading Participants* that paid for the surplus loss and congestion charges. The allocation shall be determined based on each recipient's contribution to the total  $NSS_{Loss}$  and  $NSS_{Congestion}$ .

5.3.2 The allocation of  $NSS_{Loss}$  shall be calculated as follows:

$$NSS_{Loss,P,i} = \frac{LL_{Spot,P,i} + LL_{LR,P,i}}{\sum LL_{Spot,i} + LL_{LR,P,i}} \times NSS_{Loss,i}^7$$

Where:

$NSS_{Loss,P,i}$  = *NSS* allocation due to line loss payments, in PhP, of *Trading Participant P* for trading interval *i*

<sup>6</sup> For confirmation of DOE: Difference in the formula, using addition instead of subtraction.

<sup>7</sup> For confirmation of DOE: Difference in the formula, summation should be for both  $LL_{Spot,P,i} + LL_{LR,P,i}$

$LL_{Spot,P,i}$	=	Surplus line loss payment for spot transaction, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$LL_{LR,P,i}$	=	Surplus line loss payment for <i>line rental</i> , in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$NSS_{Loss,i}$	=	<i>Net Settlement Surplus</i> due to line loss payments, in PhP, for <i>trading interval i</i>
$i$	=	<i>trading interval</i>

5.3.3 The allocation of  $NSS_{Congestion}$  shall be calculated as follows:

$$NSS_{Congestion,P,i} = \frac{CC_{Spot,P,i} + CC_{LR,P,i}}{\sum CC_{Spot,i} + CC_{LR,P,i}} \times NSS_{Congestion,i}^8$$

Where:

$NSS_{Congestion,P,i}$	=	NSS allocation due to congestion charge payments, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$CC_{Spot,P,i}$	=	Surplus congestion charge payment for spot transaction, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$CC_{LR,P,i}$	=	Congestion charge payment for line rental, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$NSS_{Congestion,i}$	=	<i>Net Settlement Surplus</i> due to congestion payments, in PhP, for <i>trading interval i</i>
$i$	=	<i>trading interval</i>

5.3.4 In *trading intervals* when there are no calculated transmission loss and congestion payments, the *NSS* shall be allocated to all *Trading Participants* with withdrawal from the grid. The allocation shall be proportionate to the actual withdrawal from the *grid* of the *Trading Participant* relative to the total actual withdrawals during the *trading interval* as shown by the equation below:

$$NSS_{NoTLCP,p,i} = \frac{MQ_{Withdrawal,P,i}}{\sum_{ww \in WW} MQ_{Withdrawal,ww,i}} \times NSS_{NoTLCP,i}^9$$

Where:

<sup>8</sup> For confirmation of DOE: Difference in the formula, summation should be for both  $CC_{Spot,P,i} + CC_{LR,P,i}$

<sup>9</sup> For confirmation of DOE: Inconsistent of formula in the definition of variables, using P in  $NSS_{NoTLCP,p,i}$  instead of p

$NSS_{NoTLCP,P,i}$	=	NSS allocation when there is no calculated transmission loss and congestion payments, in PhP, of <i>Trading Participant P</i> for trading interval <i>i</i>
$MQ_{Withdrawal,P,i}$	=	Actual withdrawal from the grid, in MWh, of <i>Trading Participant P</i> for trading interval <i>i</i>
$NSS_{NoTLCP,i}$	=	<i>Net Settlement Surplus</i> when there is no calculated transmission loss and congestion payments, in PhP, for trading interval <i>i</i>
$ww$	=	<i>Trading Participant</i> with actual withdrawal from the grid
$WW$	=	Set of all <i>Trading Participants</i> with actual withdrawal from the grid
$i$	=	trading interval

## 5.4 DETERMINATION OF NET SETTLEMENT DEFICIT ALLOCATION

5.4.1 The *Market Operator* shall allocate the *NSD* to Customers who caused the deficit. The allocation shall be determined based on each recipient's contribution to the total  $NSD_{Loss}$  and  $NSD_{Congestion}$ .<sup>10</sup>

5.4.2 The allocation of  $NSD_{Loss}$  shall be calculated as follows:

$$NSD_{Loss,P,i} = \frac{LL_{Spot,P,i} + LL_{LR,P,i}}{\sum LL_{Spot,i} + LL_{LR,P,i}} \times NSD_{Loss,i}^{11}$$

Where:

$NSD_{Loss,P,i}$	=	NSD allocation due to line loss payments, in PhP, of <i>Trading Participant P</i> for trading interval <i>i</i>
$LL_{Spot,P,i}$	=	Surplus line loss payment for spot transaction, in PhP, of <i>Trading Participant P</i> for trading interval <i>i</i>
$LL_{LR,P,i}$	=	Surplus line loss payment for line rental, in PhP, of <i>Trading Participant P</i> for trading interval <i>i</i>
$NSD_{Loss,i}$	=	<i>Net Settlement Deficit</i> due to line loss payments, in PhP, for trading interval <i>i</i>
$i$	=	trading interval

5.4.3 The allocation of  $NSD_{Congestion}$  shall be calculated as follows:

<sup>10</sup> For confirmation of DOE: Deletion of "2) Customers who received excess payment"

<sup>11</sup> For confirmation of DOE: Difference in the formula, summation should be for both  $LL_{Spot,P,i} + LL_{LR,P,i}$

$$NSD_{Congestion,P,i} = \frac{CC_{Spot,P,i} + CC_{LR,P,i}}{\sum CC_{Spot,i} + CC_{LR,P,i}} \times NSD_{Congestion,i}^{12}$$

Where:

$NSD_{Congestion,P,i}$	=	NSD allocation due to congestion charge payments, in PhP, <i>Trading Participant P</i> for <i>trading interval i</i>
$CC_{Spot,P,i}$	=	Surplus congestion charge payment for spot transaction, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$CC_{LR,P,i}$	=	Congestion charge payment for line rental, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$NSD_{Congestion,i}$	=	<i>Net Settlement Deficit</i> due to congestion payments, in PhP, for <i>trading interval i</i>
$i$	=	<i>trading interval</i>

5.4.4 In *trading intervals* when there are no calculated transmission loss and congestion payments (e.g. administered pricing, price substitution methodology and secondary price cap, among others) the *NSD* shall be allocated to all trading participants with actual withdrawal from the grid. The allocation shall be proportionate to the actual withdrawal from the grid of the *Trading Participant* relative to the total actual withdrawals during the interval as shown by the equation below:

$$NSD_{NoTLC,P,i} = \frac{MQ_{Withdrawal,P,i}}{\sum_{ww \in WW} MQ_{Withdrawal,ww,i}} \times NSD_{NoTLC,i}^{13}$$

Where:

$NSD_{NoTLC,P,i}$	=	NSD allocation when there is no calculated transmission loss and congestion payments, in PhP, of <i>Trading Participant P</i> for <i>trading interval i</i>
$MQ_{Withdrawal,P,i}$	=	Actual withdrawal from the <i>grid</i> , in MWh, of <i>Trading Participant P</i> for <i>trading interval i</i>
$NSD_{NoTLC,i}$	=	<i>Net Settlement Deficit</i> when there is no calculated transmission loss and congestion payments, in PhP, for <i>trading interval i</i>
$ww$	=	<i>Trading Participant</i> with actual withdrawal from the grid

<sup>12</sup> For confirmation of DOE: Difference in the formula, summation should be for both  $CC_{Spot,P,i} + CC_{LR,P,i}$

<sup>13</sup> For confirmation of DOE: Inconsistent of formula in the definition of variables, using P in  $NSD_{NoTLC,P,i}$  instead of p



$WW$  = Set of all *Trading Participants* with actual withdrawal from the grid

$i$  = *trading interval*

## 5.5 LIMITATION OF FLOW BACK MECHANISM

The allocation mechanism described in this document will only be up to the level of the registered WESM Participants. Further allocation to the retail Customers is not considered in this methodology.

## 5.6 SCHEDULE OF PAYMENTS TO THE PARTICIPANTS

The net settlement surplus will be returned to the WESM Participants as an outright adjustment to their Final Statements.

# SECTION 6 REPORTORIAL REQUIREMENTS

## 6.1 REPORTS

6.1.1 The *Market Operator* shall prepare the following reportorial requirements:

- a) Monthly summary reports on the amount of *NSS* or *NSD* distributed to each *Trading Participant* which shall include the breakdown of the computation of line loss and congestion per *Trading Participant* and other pertinent details to support the calculations. This report shall be made available to all *WESM Participants* and shall be *published* in the *market information website*. A verified copy of the report shall likewise be submitted to the *ERC* on a monthly basis including contributors to and reasons for the surplus or deficit, no later than ninety (90) *business days* from the last day of the *billing period* covered by the monthly summary report. The corresponding Value Added Tax (VAT) and interest amounts, as well as the date when the interests were earned or credited to *the Market Operator*, if any, shall similarly be included in the subject monthly summary report;
- b) The pertinent data covered by the subject monthly summary report shall also be submitted in MS Excel format; and
- c) The annual report on the *NSS* or *NSD* calculation and allocation shall be submitted no later than the 30<sup>th</sup> day of May immediately following the year in review, comparing the subject year and the preceding year's *NSS* levels and allocations, and analysis of the factors and constraints giving rise to any *NSS* or *NSD*. This report shall also be submitted to the market participants and to the *PEM Board*.

6.1.2 The *Market Operator* shall comply with Clause 5.2.6 of the *WESM Rules* which requires, among others, the conduct of a *spot market* audit covering such items as enumerated under Clauses 5.2.6.1 to 5.2.6.4 of the *WESM Rules*. The audit shall also include the actual calculation of *NSS* or *NSD*, its breakdown into *NSS* or *NSD* due to

loss and congestion, and its allocation, corresponding VAT and interest amounts, as well as the actual billing and collection.

Such audit shall be conducted by a qualified third party auditor, and a quarterly report resulting therefrom shall be submitted to the ERC no later than ninety (90) business days after the *billing period* in review.

## SECTION 7 INTERESTS

- 7.1 Should the *Market Operator* be unable to return the amount of the *NSS* due to be flowed back to appropriate *WESM participants* under the ERC Resolution No. 7 Series of 2019 during the period specified, the retained amount shall be imposed an interest at the rate of the prevailing 91-day Treasury Bill rate as published by the Bangko Sentral ng Pilipinas (BSP) plus 300 basis points, the return of which shall be in accordance with Article 4 of ERC Resolution No. 07 Series of 2019. Such interest shall not be passed on to the market participants.
- 7.2 The DUs and RES, which are recipients of *NSS* but have not complied with the re-distribution process under the ERC Resolution No. 07 Series of 2019 during the period specified shall be subject to the interest at the rate of the prevailing 91-day Treasury Bill rate as published by the BSP plus 300 basis points, the return of which shall be in accordance with Article 4 of ERC Resolution No. 07 Series of 2019. The subject interest shall be on account of DUs and RES and shall not be passed on to their respective customers.

## SECTION 8 PENALTIES

- 8.1 A penalty ranging from One Hundred Thousand Pesos (PhP100,000.00) to a maximum of Fifty Million Pesos (PhP50,000,000.00) shall be imposed on the following acts:
- a) Failure to correctly implement *NSS* Rules, as amended, including the *NSS* or *NSD* formula;
  - b) Failure to submit documentary requirements as required under the *ERC* Resolution No. 7 Series of 2019;
  - c) Failure to conduct audits of the market operations and the settlement systems and the other procedures, persons, systems or other matters relevant to the spot market as required under Section 1.5.2 of the *WESM* Rules and Section, Article VII of *ERC* Resolution No. 07 Series of 2019.
  - d) Non-submission or failure to submit on a timely basis, the required reports as provided in Article VII of *ERC* Resolution No. 07 Series of 2019;
  - e) Failure to act on and resolve adverse findings of *NSS* audit within ninety (90) days upon receipt by the *ERC* of the subject Quarterly Audit Report;
  - f) Submission of inaccurate *NSS* and other related data;
  - g) Unauthorized disclosure of *NSS* data; and
  - h) Failure to comply with the directives of the *ERC* pertinent to the implementation of the *ERC* Resolution No. 7 Series of 2019.

- 8.2 The penalties stated in the preceding section shall be without prejudice to any civil, administrative, and criminal action that may be filed against the violation/s of the ERC Resolution No. 07 Series of 2019.

<b>SECTION 9 AMENDMENT, PUBLICATION AND EFFECTIVITY</b>
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**9.1 AMENDMENTS TO THIS MANUAL**

Any amendments to this Manual shall be approved by the *DOE*, following the procedures for changes to *Market Manual* set out in the *WESM Rules* and in the relevant Market Manual.

**9.2 PUBLICATION AND EFFECTIVITY**

This *Market Manual* and its subsequent amendments shall be *published* in the *market information website* maintained by the *Market Operator*.

This *Market Manual* or any amendments thereto shall become effective upon approval of the *DOE* in accordance with *WESM Rules* Clause 8.6.4. The date of effectivity shall be indicated herein.