Protocol for Central Scheduling and Dispatch of Energy and Contracted Reserves Issue 1.0

| Title            | Section | Provision | Proposed Amendment                                                                                                                                                                                                                                                                                                  | Rationale                                                                                                                                                                             | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
| INTRODUCTIO      | (new)   | N/A       | 1.1.4  DOE, through their  Department Circular  DC2015-11-0018,  promulgated the implementation of the Central Scheduling and Dispatch of Energy and Contracted Reserves.  It was effectively implemented on 22  December 2015 for the Luzon grid. It was then implemented in the Visayas grid on 07  October 2017. | The revision is being proposed to reflect the legal basis of the promulgation of the central scheduling and dispatch of energy and contracted reserves under the DOE DC 2015-11-0018. |                                 |                         |
| INTRODUCTIO<br>N | (new)   | N/A       | 1.1.5  DOE, through their Department Circular DC2015-10-0015, adopted Enhancements to the WESM Design and Operations, which                                                                                                                                                                                         | The revision is being proposed to reflect the transition from 1-hour to five-minute dispatch interval upon the implementation of the enhanced WESM design and operations.             |                                 |                         |

| Title            | Section | Provision              | Proposed Amendment                                                                                                                                                                                                                                             | Rationale                                                                                                                                                                                                                                                                    | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------------|---------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
| INTRODUCTIO<br>N | (new)   | N/A                    | included the change from a 1-hour dispatch interval to a 5-minute dispatch interval.  1.1.6 DOE, through their Department Circular DC2019-12-0018, defined the classification and required levels of ancillary services (A/S) pending the harmonization of A/S | The revision is being proposed to reflect that this manual is being harmonized with the recent DOE DC 2019-12-0018 on the general framework governing the provision and utilization of ancillary services in the grid, and is also aligned with the 2016 edition of the PGC. | Recommendation                  |                         |
| INTRODUCTIO<br>N | 1.2.1   | Pursuant to the DOE    | related issuances and review of the relevant provisions of the 2016 edition of the Philippine Grid Code (PGC 2016).  Pursuant to the DOE Department Circular                                                                                                   | proposed to reflect that this manual is aligned with the                                                                                                                                                                                                                     |                                 |                         |
|                  |         | Department<br>Circular | DC2014-03-0009 <u>and</u><br><u>DC2019-12-0018</u> , this                                                                                                                                                                                                      | manual is aligned with the provisions of the DOE DC2019-12-0018.                                                                                                                                                                                                             |                                 |                         |

| Title | Section | Provision     | Proposed Amendment           | Rationale                                             | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|---------------|------------------------------|-------------------------------------------------------|---------------------------------|-------------------------|
|       |         | DC2014-03-    | Protocol implements          |                                                       |                                 |                         |
|       |         | 0009, this    | the directive for NGCP       |                                                       |                                 |                         |
|       |         | Protocol      | the System Operator          | Market Operator, it is also                           |                                 |                         |
|       |         | implements    | and <u>the <i>Market</i></u> | proposed that references to PEMC be revised to Market |                                 |                         |
|       |         | the directive | <b>Operator</b> PEMC—to      | Operator.                                             |                                 |                         |
|       |         | for NGCP      | formulate and maintain       | operator.                                             |                                 |                         |
|       |         | and PEMC      | the Central Scheduling       |                                                       |                                 |                         |
|       |         | to formulate  | and Dispatch of              |                                                       |                                 |                         |
|       |         | the Central   | Reserves Protocol. This      |                                                       |                                 |                         |
|       |         | Scheduling    | Protocol shall be            |                                                       |                                 |                         |
|       |         | and           | referred to as the           |                                                       |                                 |                         |
|       |         | Dispatch of   | "Protocol for Central        |                                                       |                                 |                         |
|       |         | Reserves      | Scheduling and               |                                                       |                                 |                         |
|       |         | Protocol.     | Dispatch of Energy and       |                                                       |                                 |                         |
|       |         | This          | Contracted Reserves".        |                                                       |                                 |                         |
|       |         | Protocol      |                              |                                                       |                                 |                         |
|       |         | shall be      |                              |                                                       |                                 |                         |
|       |         | referred to   |                              |                                                       |                                 |                         |
|       |         | as the        |                              |                                                       |                                 |                         |
|       |         | "Protocol for |                              |                                                       |                                 |                         |
|       |         | Central       |                              |                                                       |                                 |                         |
|       |         | Scheduling    |                              |                                                       |                                 |                         |
|       |         | and           |                              |                                                       |                                 |                         |
|       |         | Dispatch of   |                              |                                                       |                                 |                         |
|       |         | Energy and    |                              |                                                       |                                 |                         |
|       |         | Contracted    |                              |                                                       |                                 |                         |
|       |         | Reserves".    |                              |                                                       |                                 |                         |

| Title            | Section | Provision                                                                                                                         | Proposed Amendment                                                                                                                                                                                                                                                                                                                   | Rationale                                                                                                                                                         | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
| INTRODUCTIO<br>N | (new)   | N/A                                                                                                                               | 1.2.5 This Protocol shall continue to be applied upon the implementation of the 5-minute dispatch interval unless otherwise stated by a new directive from the DOE and/or the ERC.                                                                                                                                                   | The revision is being proposed to reflect that this protocol will be applicable and effective with the implementation of the enhanced WESM design and operations. |                                 |                         |
| INTRODUCTIO      | 1.3.1   | This Protocol shall apply to the Market Operator, the System Operator and all WESM Members, including intending WESM Members, and | This Protocol shall apply to the Market Operator, the System Operator and all WESM Members, including intending WESM Members, and WESM Participants in the electric power industry for a limited period and shall immediately cease upon New Commercial Launch Date of the WESM Reserve Market pursuant to the provisions of the DOE | The revision is being proposed to reflect that this manual is aligned with the provisions of the DOE DC2019-12-0018.                                              |                                 |                         |

| Title       | Section | Provision    | Proposed Amendment    | Rationale                     | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------------|---------|--------------|-----------------------|-------------------------------|---------------------------------|-------------------------|
|             |         | Participants | Department Circular   |                               |                                 |                         |
|             |         | in the       | No. DC2014-03-0009    |                               |                                 |                         |
|             |         | electric     | and DC2019-12-0018.   |                               |                                 |                         |
|             |         | power        |                       |                               |                                 |                         |
|             |         | industry for |                       |                               |                                 |                         |
|             |         | a limited    |                       |                               |                                 |                         |
|             |         | period and   |                       |                               |                                 |                         |
|             |         | shall        |                       |                               |                                 |                         |
|             |         | immediately  |                       |                               |                                 |                         |
|             |         | cease upon   |                       |                               |                                 |                         |
|             |         | New          |                       |                               |                                 |                         |
|             |         | Commercial   |                       |                               |                                 |                         |
|             |         | Launch       |                       |                               |                                 |                         |
|             |         | Date of the  |                       |                               |                                 |                         |
|             |         | WESM         |                       |                               |                                 |                         |
|             |         | Reserve      |                       |                               |                                 |                         |
|             |         | Market       |                       |                               |                                 |                         |
|             |         | pursuant to  |                       |                               |                                 |                         |
|             |         | the          |                       |                               |                                 |                         |
|             |         | provisions   |                       |                               |                                 |                         |
|             |         | of the DOE   |                       |                               |                                 |                         |
|             |         | Department   |                       |                               |                                 |                         |
|             |         | Circular No. |                       |                               |                                 |                         |
|             |         | DC2014-03-   |                       |                               |                                 |                         |
|             |         | 0009.        |                       |                               |                                 |                         |
| INTRODUCTIO | 1.3.2   | Pursuant to  | Pursuant to the       |                               |                                 |                         |
| N           |         | the          | provisions of the DOE | proposed to reflect that this |                                 |                         |
|             |         |              |                       | manual is aligned with the    |                                 |                         |

| Title              | Section | Provision    | Proposed Amendment      | Rationale                 | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|--------------------|---------|--------------|-------------------------|---------------------------|---------------------------------|-------------------------|
|                    |         | provisions   | Department Circular     | provisions of the DOE     |                                 |                         |
|                    |         | of the DOE   | No. DC2014-03-0009      | DC2019-12-0018.           |                                 |                         |
|                    |         | Department   | and DC2019-12-0018,     |                           |                                 |                         |
|                    |         | Circular No. | all scheduled ASPA      |                           |                                 |                         |
|                    |         | DC2014-03-   | Contracts shall be      |                           |                                 |                         |
|                    |         | 0009, all    | settled in accordance   |                           |                                 |                         |
|                    |         | scheduled    | with the respective     |                           |                                 |                         |
|                    |         | ASPA         | provisions of their     |                           |                                 |                         |
|                    |         | Contracts    | contract and no         |                           |                                 |                         |
|                    |         | shall be     | settlement of reserves  |                           |                                 |                         |
|                    |         | settled in   | shall be made in the    |                           |                                 |                         |
|                    |         | accordance   | WESM.                   |                           |                                 |                         |
|                    |         | with the     |                         |                           |                                 |                         |
|                    |         | respective   |                         |                           |                                 |                         |
|                    |         | provisions   |                         |                           |                                 |                         |
|                    |         | of their     |                         |                           |                                 |                         |
|                    |         | contract     |                         |                           |                                 |                         |
|                    |         | and no       |                         |                           |                                 |                         |
|                    |         | settlement   |                         |                           |                                 |                         |
|                    |         | of reserves  |                         |                           |                                 |                         |
|                    |         | shall be     |                         |                           |                                 |                         |
|                    |         | made in the  |                         |                           |                                 |                         |
|                    |         | WESM.        |                         |                           |                                 |                         |
| DEFINITIONS,       | 2.1.2   | Unless       | Unless otherwise        | This Manual does not have |                                 |                         |
| REFERENCES         |         | otherwise    | defined in the Glossary | Glossary. Definitions are |                                 |                         |
| AND<br>INTERPRETAT |         | defined in   | Section 2 of this       | provided in Section 2.    |                                 |                         |
| ION                |         | the          | document or unless the  |                           |                                 |                         |

| Title          | Section | Provision    | Proposed Amendment      | Rationale                       | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|----------------|---------|--------------|-------------------------|---------------------------------|---------------------------------|-------------------------|
|                |         | Glossary of  | context provides        |                                 |                                 |                         |
|                |         | this         | otherwise, all terms    |                                 |                                 |                         |
|                |         | document     | used in this Protocol   |                                 |                                 |                         |
|                |         | or unless    | that are defined in the |                                 |                                 |                         |
|                |         | the context  | WESM Rules shall        |                                 |                                 |                         |
|                |         | provides     | have the meaning as so  |                                 |                                 |                         |
|                |         | otherwise,   | defined in the WESM     |                                 |                                 |                         |
|                |         | all terms    | Rules and relevant      |                                 |                                 |                         |
|                |         | used in this | Market Manuals.         |                                 |                                 |                         |
|                |         | Protocol     |                         |                                 |                                 |                         |
|                |         | that are     |                         |                                 |                                 |                         |
|                |         | defined in   |                         |                                 |                                 |                         |
|                |         | the WESM     |                         |                                 |                                 |                         |
|                |         | Rules shall  |                         |                                 |                                 |                         |
|                |         | have the     |                         |                                 |                                 |                         |
|                |         | meaning as   |                         |                                 |                                 |                         |
|                |         | so defined   |                         |                                 |                                 |                         |
|                |         | in the       |                         |                                 |                                 |                         |
|                |         | WESM         |                         |                                 |                                 |                         |
|                |         | Rules and    |                         |                                 |                                 |                         |
|                |         | relevant     |                         |                                 |                                 |                         |
|                |         | Market       |                         |                                 |                                 |                         |
|                |         | Manuals.     |                         |                                 |                                 |                         |
| DEFINITIONS,   |         | (new)        | 2.1.3 Maximum           | For clarity, since this term is |                                 |                         |
| REFERENCES AND |         |              | Operating Limit refers  | used in Section 5.1             |                                 |                         |
| INTERPRETAT    |         |              | to the maximum MW       |                                 |                                 |                         |
| ION            |         |              | capability that a       |                                 |                                 |                         |

| Title                                                   | Section | Provision | Proposed Amendment                                                                                                                                                                                                                                                                       | Rationale                                           | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|---------------------------------------------------------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------|-------------------------|
|                                                         |         |           | generator can obtain for a target time or dispatch interval based on its offer capacity while considering its current state, its ramp-up capability, and over-riding constraints, if there                                                                                               |                                                     | Recommendation                  |                         |
| DEFINITIONS,<br>REFERENCES<br>AND<br>INTERPRETAT<br>ION |         | (new)     | are any.  2.1.4 Minimum Operating Limit refers to the minimum MW capability that a generator can obtain for a target time or dispatch interval based on its offer capacity while considering its current state, its ramp-down capability, and over-riding constraints, if there are any. | For clarity, since this term is used in Section 5.1 |                                 |                         |
| REFERENCES                                              | 2.2.1   | This      | This Protocol should be                                                                                                                                                                                                                                                                  | The revision is being                               |                                 |                         |

| Title                | Section | Provision                                                                                                                                                                                   | Proposed Amendment                                                                                                                                                                          | Rationale                                                                                                                                   | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|----------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
|                      |         | Protocol should be read together with WESM Dispatch Protocol Manual, including Chapters 3 and 6 of the WESM Rules, whenever applicable, and the DOE Department Circular No. DC2014-03-0009. | read together with WESM Dispatch Protocol Manual, including Chapters 3 and 6 of the WESM Rules, whenever applicable, and the DOE Department Circular No. DC2014-03-0009 and DC2019-12-0018. | manual is aligned with the provisions of the DOE                                                                                            |                                 |                         |
| RESPONSIBILI<br>TIES | 3.2.3   | The System Operator shall continue to perform the monitoring,                                                                                                                               | The System Operator shall continue to contract out AS required capacities and perform the monitoring, and                                                                                   | The revision is being proposed to clarify that SO shall have the responsibility to contract out the ancillary services required capacities. |                                 |                         |

| Title      | Section | Provision          | Proposed Amendment                   | Rationale                    | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------|---------|--------------------|--------------------------------------|------------------------------|---------------------------------|-------------------------|
|            |         | and                | settlement of reserves               |                              |                                 |                         |
|            |         | settlement         | pursuant to each                     |                              |                                 |                         |
|            |         | of reserves        | provider's ASPA.                     |                              |                                 |                         |
|            |         | pursuant to        | provider extension                   |                              |                                 |                         |
|            |         | each               |                                      |                              |                                 |                         |
|            |         |                    |                                      |                              |                                 |                         |
|            |         | provider's         |                                      |                              |                                 |                         |
|            |         | ASPA.              |                                      |                              |                                 |                         |
|            |         |                    |                                      |                              |                                 |                         |
| CENTRAL    | 4.1     | 4.1                | 4.1 DETERMINATION                    | The revision is being        |                                 |                         |
| SCHEDULING |         | DETERMIN           | <b>⊖</b> F <u>RESERVE TYPES</u>      | proposed to reflect that the |                                 |                         |
| OF RESERVE |         | ATION OF           | AND RESERVE                          | reserve types and reserve    |                                 |                         |
| CAPACITIES |         | RESERVE            | REQUIREMENTS                         | requirements were            |                                 |                         |
|            |         | REQUIREM           | 4.1.1 Appendix A.12 –                | harmonized and aligned with  |                                 |                         |
|            |         | ENTS               | Section 4 of the WESM                | the provisions of the DOE    |                                 |                         |
|            |         | 4.1.1              | Dispatch Protocol                    | DC2019-12-0018.              |                                 |                         |
|            |         | Appendix<br>A.12 – | Manual provides the criteria for the |                              |                                 |                         |
|            |         | Section 4 of       | determination of                     |                              |                                 |                         |
|            |         | the WESM           | reserve requirements                 |                              |                                 |                         |
|            |         | Dispatch           | wherein all reserve                  |                              |                                 |                         |
|            |         | Protocol           | requirement levels are               |                              |                                 |                         |
|            |         | Manual             | set by the System                    |                              |                                 |                         |
|            |         | provides the       | Operator through the                 |                              |                                 |                         |
|            |         | criteria for       | Ancillary Services                   |                              |                                 |                         |
|            |         | the                | Procurement Plan                     |                              |                                 |                         |
|            |         | determinati        | (ASPP) or as ERC-                    |                              |                                 |                         |
|            |         | on of              | approved level of                    |                              |                                 |                         |
|            |         | reserve            | reserve requirement.                 |                              |                                 |                         |
| 1          |         | requirement        | As stated in DOE                     |                              |                                 |                         |
| İ          |         | s wherein          | Department Circular                  |                              |                                 |                         |

| Title | Section | Provision   | Propose        | d Amendment                | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|-------------|----------------|----------------------------|-----------|---------------------------------|-------------------------|
|       |         | all reserve | DC2019-        | 12-0018, the               |           |                                 |                         |
|       |         | requirement | following      |                            |           |                                 |                         |
|       |         | levels are  | types, an      |                            |           |                                 |                         |
|       |         | set by the  |                | ed reserve                 |           |                                 |                         |
|       |         | System      |                | ents, shall be             |           |                                 |                         |
|       |         | Operator    |                | per one-                   |           |                                 |                         |
|       |         | through the |                | rval and per               |           |                                 |                         |
|       |         | Ancillary   | grid.          |                            |           |                                 |                         |
|       |         | Services    |                |                            |           |                                 |                         |
|       |         | Procuremen  | Reserve        | <u>Description</u>         |           |                                 |                         |
|       |         | t Plan      | <u>Type</u>    |                            |           |                                 |                         |
|       |         | (ASPP) or   | Regula-        | Readily available          |           |                                 |                         |
|       |         | as ERC-     | ting           | and dispatch-              |           |                                 |                         |
|       |         | approved    | Reserve        | able generating            |           |                                 |                         |
|       |         | level of    |                | capacity that is           |           |                                 |                         |
|       |         | reserve     |                | allocated                  |           |                                 |                         |
|       |         | requirement |                | exclusively to             |           |                                 |                         |
|       |         |             |                | correct<br>deviations from |           |                                 |                         |
|       |         | 4.1.2 The   |                | the acceptable             |           |                                 |                         |
|       |         | Market      |                | nominal                    |           |                                 |                         |
|       |         | Operator    |                | <u>frequency</u>           |           |                                 |                         |
|       |         | shall use   |                | caused by                  |           |                                 |                         |
|       |         |             |                | unpredic-ted variations in |           |                                 |                         |
|       |         | the results |                | variations in demand or    |           |                                 |                         |
|       |         | of the      |                | generation                 |           |                                 |                         |
|       |         | hourly      |                | output                     |           |                                 |                         |
|       |         | forecasted  | Conting-       | Synchro-nized              |           |                                 |                         |
|       |         | demand of   | <u>ency</u>    | generation                 |           |                                 |                         |
|       |         | the 1200H   | <u>Reserve</u> | capacity from qualified    |           |                                 |                         |
|       |         | Day-Ahead   |                | generating units           |           |                                 |                         |
|       |         | Projection  |                | and qualified              |           |                                 |                         |

| Title Sectio | n Provision                                                                                                                                                                                                                                                       | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Rationale                                                                                                                                                                                                                                                     | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
|              | (DAP) for the regulating, contingency, and dispatchabl e reserve requirement s for the next day.  4.1.3 Should the System Operator prescribe regulating, contingency, and dispatchabl e reserve requirement s for relevant periods, the Market Operator shall use | interrupti- ble loads allocated to cover the loss or failure of a synchro- nized generating unit or a transmi- ssion element or the power import from a circuit intercon- nection  Dispat- chable Reserve Generating capacity that is Reserve not scheduled for regular energy supply, regulating reserve, contingen-cy reserve, or interrup- tible loads not scheduled for contingen-cy reserve, and that are readily available for dispatch in order to replenish the contingen-cy reserve service whenever a generating unit trips or a loss of a single transmi- | ting units, (b) trans- mission element, or (c) power import from a circuit intercon- nection  Maxi-mum capacity among the (a) second largest synchro- nized genera- ting units, (b) trans- mission element, (c) power import from a circuit interco- nnection |                                 |                         |

| Title | Section | Provision                                                     | Proposed Amendment                                                                                                                                                                                                                                                                                                                                           | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------|-------------------------|
| Title | Section | Provision  such levels as input to the MDOM for consistency . | 4.1.2 The Market Operator shall use the results of the hourly forecasted demand of the 1200H Day-Ahead Projection (DAP) for the regulating, contingency, and dispatchable reserve requirements for the next day. For regulating reserves, the requirement shall be: 4.1.2.1 Set to 2% of the demand for upward regulation, and 2% of the demand for downward | Rationale |                                 | Stakeholder's Rationale |
|       |         |                                                               | regulation  4.1.2.2 The System  Operator may, at its option, set different                                                                                                                                                                                                                                                                                   |           |                                 |                         |

| Title                 | Section    | Provision | Proposed Amendment              | Rationale                    | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-----------------------|------------|-----------|---------------------------------|------------------------------|---------------------------------|-------------------------|
|                       |            |           | reserve requirement             |                              |                                 |                         |
|                       |            |           | levels for upward               |                              |                                 |                         |
|                       |            |           | regulation and                  |                              |                                 |                         |
|                       |            |           | <u>downward</u>                 |                              |                                 |                         |
|                       |            |           | regulation provided             |                              |                                 |                         |
|                       |            |           | that they add up to             |                              |                                 |                         |
|                       |            |           | the prescribed                  |                              |                                 |                         |
|                       |            |           | regulating reserve              |                              |                                 |                         |
|                       |            |           | requirement that is             |                              |                                 |                         |
|                       |            |           | stated in clause                |                              |                                 |                         |
|                       |            |           | 4.1.1 of this                   |                              |                                 |                         |
|                       |            |           | Protocol.                       |                              |                                 |                         |
|                       |            |           |                                 |                              |                                 |                         |
|                       |            |           | 4.1.3 Should the                |                              |                                 |                         |
|                       |            |           | System Operator                 |                              |                                 |                         |
|                       |            |           | prescribe regulating,           |                              |                                 |                         |
|                       |            |           | <del>contingency,</del> and     |                              |                                 |                         |
|                       |            |           | <del>dispatchable reserve</del> |                              |                                 |                         |
|                       |            |           | requirements for                |                              |                                 |                         |
|                       |            |           | relevant periods, the           |                              |                                 |                         |
|                       |            |           | Market Operator shall           |                              |                                 |                         |
|                       |            |           | use such levels as input        |                              |                                 |                         |
|                       |            |           | to the MDOM for                 |                              |                                 |                         |
|                       |            |           | <del>consistency.</del>         |                              |                                 |                         |
| CENTRAL               | (inserted) | (new)     | <u>4.2</u>                      | Transferred original Section |                                 |                         |
| SCHEDULING            |            |           | Use of Day-Ahead                | 4.1.2 and provided details   |                                 |                         |
| OF RESERVE CAPACITIES |            |           | Projections and Over-           |                              |                                 |                         |

| Title                                               | Section    | Provision | Proposed Amendment                                                                                                                                                                                                                                                                                          | Rationale                               | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-----------------------------------------------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------|-------------------------|
|                                                     |            |           | riding Constraints                                                                                                                                                                                                                                                                                          |                                         |                                 |                         |
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES   | (inserted) | (new)     | 4.2.1 The Market Operator shall provide the results of the Day-Ahead Projection, particularly covering the one-hour intervals of the next trading day, to the System Operator so that it can be used for determining the MW levels of the reserve requirement for each type of reserve in each grid/region. | Transferred from original Section 4.1.2 |                                 |                         |
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES - | (inserted) | (new)     | 4.2.2 The System Operator shall submit the level of reserve requirement for each type of reserve of each grid/region for a period of time, while                                                                                                                                                            | Transferred from original Section 4.1.2 |                                 |                         |

| Title                                             | Section    | Provision | Proposed Amendment                                                                                                                                                                                                                                                                                                                                              | Rationale                                                                                                                | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|---------------------------------------------------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES | (inserted) | (new)     | taking into account the covered period of the market projections and the real-time dispatch, and in accordance with the WESM Timetable.  4.2.3 The System Operator may submit over-riding constraints to impose limits on the energy flow along specific transmission lines or branch groups to allow reserve capacities to be dispatched without over-loading. | Proposed to ensure that scheduled reserves may be utilized in real-time to provide the service without overloading lines |                                 |                         |
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES | (inserted) | (new)     | 4.2.4 At the very least, the limitation of the energy flow along specific transmission                                                                                                                                                                                                                                                                          | Proposed to ensure that scheduled reserves may be utilized in real-time to provide the service without overloading lines |                                 |                         |

| Title      | Section    | Provision  | Proposed Amendment      | Rationale                              | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------|------------|------------|-------------------------|----------------------------------------|---------------------------------|-------------------------|
|            |            |            | lines or branch         |                                        |                                 |                         |
|            |            |            | groups shall allow      |                                        |                                 |                         |
|            |            |            | additional energy flow  |                                        |                                 |                         |
|            |            |            | equivalent to the       |                                        |                                 |                         |
|            |            |            | upward regulation       |                                        |                                 |                         |
|            |            |            | requirement.            |                                        |                                 |                         |
| CENTRAL    | (inserted) | (new)      | 4.2.5                   | Proposed to ensure that                |                                 |                         |
| SCHEDULING | ,          | ,          | The Market Operator     | validation of AS schedule              |                                 |                         |
| OF RESERVE |            |            | shall use the Day-      | nominated by Trading                   |                                 |                         |
| CAPACITIES |            |            | Ahead Ancillary         | Participant be based on the            |                                 |                         |
|            |            |            | Service Schedule        | submitted DAASS from SO                |                                 |                         |
|            |            |            | (DAASS) provided by     | and to ensure the availability         |                                 |                         |
|            |            |            | the System Operator     | of the capacities schedule in the RTD. |                                 |                         |
|            |            |            | to validate the AS      | the KTD.                               |                                 |                         |
|            |            |            | schedule nominated      |                                        |                                 |                         |
|            |            |            | by the <i>Trading</i>   |                                        |                                 |                         |
|            |            |            | Participant and         |                                        |                                 |                         |
|            |            |            | ensure that the         |                                        |                                 |                         |
|            |            |            | capacities scheduled    |                                        |                                 |                         |
|            |            |            | be available in the     |                                        |                                 |                         |
|            |            |            | Real-Time Dispatch      |                                        |                                 |                         |
|            |            |            | (RTD).                  |                                        |                                 |                         |
| CENTRAL    | 4.2        | 4.2        | 4.23 Submission of      | Re-numbered with the                   |                                 |                         |
| SCHEDULING | 4.2        | Submission | Generation and          | insertion of Section 4.2               |                                 |                         |
| OF RESERVE |            |            |                         | 11100111011 01 00011011 4.2            |                                 |                         |
| CAPACITIES |            | Of         |                         | Clarify the timelines for              |                                 |                         |
|            |            | Generation | Market Projections      | submitting reserve offers              |                                 |                         |
|            |            | and        | 4. <del>2</del> 3.1 XXX |                                        |                                 |                         |

| Title | Section | Provision    | Proposed Amendment                     | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|--------------|----------------------------------------|-----------|---------------------------------|-------------------------|
|       |         | Reserve      | 4.2 <u>3</u> .2 Only t <u>T</u> rading |           |                                 |                         |
|       |         | Offers for   |                                        |           |                                 |                         |
|       |         | Market       | Approved ASPA shall                    |           |                                 |                         |
|       |         | Projections  | submit reserve offers                  |           |                                 |                         |
|       |         | 4.2.1 XXX    | for the one-hour                       |           |                                 |                         |
|       |         | 4.2.2 Only   | intervals of the next                  |           |                                 |                         |
|       |         | trading      | trading day for the                    |           |                                 |                         |
|       |         | Participants | market projections                     |           |                                 |                         |
|       |         | with ERC-    | (WAP and DAP) of the                   |           |                                 |                         |
|       |         | Approved     | WESM prior to 1130H                    |           |                                 |                         |
|       |         | ASPA shall   | of the current trading                 |           |                                 |                         |
|       |         | submit       | day. The capacities of                 |           |                                 |                         |
|       |         | reserve      | their reserve offers                   |           |                                 |                         |
|       |         | offers for   | shall correspond to their              |           |                                 |                         |
|       |         | the market   | ancillary nominations to               |           |                                 |                         |
|       |         | projections  | the System Operator                    |           |                                 |                         |
|       |         | (WAP and     | NGCP pursuant to the                   |           |                                 |                         |
|       |         | DAP) of the  | provisions of their                    |           |                                 |                         |
|       |         | WESM. The    | respective ASPAs.                      |           |                                 |                         |
|       |         | reserve      |                                        |           |                                 |                         |
|       |         | offers shall |                                        |           |                                 |                         |
|       |         | correspond   |                                        |           |                                 |                         |
|       |         | to their     |                                        |           |                                 |                         |
|       |         | ancillary    |                                        |           |                                 |                         |
|       |         | nominations  |                                        |           |                                 |                         |
|       |         | to NGCP      |                                        |           |                                 |                         |
|       |         | pursuant to  |                                        |           |                                 |                         |

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|       |         | the              |                    |           |                                 |                         |
|       |         | provisions       |                    |           |                                 |                         |
|       |         | of their         |                    |           |                                 |                         |
|       |         | respective       |                    |           |                                 |                         |
|       |         | ASPAs.           |                    |           |                                 |                         |
|       |         | 4.2.3            |                    |           |                                 |                         |
|       |         | Trading          |                    |           |                                 |                         |
|       |         | Participants     |                    |           |                                 |                         |
|       |         | shall submit     |                    |           |                                 |                         |
|       |         | their            |                    |           |                                 |                         |
|       |         | generation       |                    |           |                                 |                         |
|       |         | and reserve      |                    |           |                                 |                         |
|       |         | offers           |                    |           |                                 |                         |
|       |         | consistent       |                    |           |                                 |                         |
|       |         | with the         |                    |           |                                 |                         |
|       |         | WESM             |                    |           |                                 |                         |
|       |         | Timetable        |                    |           |                                 |                         |
|       |         | for the          |                    |           |                                 |                         |
|       |         | Week-            |                    |           |                                 |                         |
|       |         | Ahead and        |                    |           |                                 |                         |
|       |         | Day-Ahead market |                    |           |                                 |                         |
|       |         | projections      |                    |           |                                 |                         |
|       |         | to provide a     |                    |           |                                 |                         |
|       |         | more             |                    |           |                                 |                         |
|       |         | accurate         |                    |           |                                 |                         |
|       |         | determinati      |                    |           |                                 |                         |
|       |         | on of            |                    |           |                                 |                         |
|       |         | reserve          |                    |           |                                 |                         |
|       |         | requirement      |                    |           |                                 |                         |
|       |         | s as set         |                    |           |                                 |                         |

| Title | Section | Provision                                                                                                                                                                                                                                                              | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rationale                                                                                                                                                                                                                                                                                                  | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
|       |         | forth in Section 4.1 of this Protocol.  4.2.4 The submission of nominations and offers for Ancillary Services shall be based on per single unit per single type per interval of reserve service in accordance with Appendix A.12 of the WESM Dispatch Protocol Manual. | 4.23.33 Trading Participants shall submit their generation and reserve offers consistent with the WESM Timetable for the Week-Ahead and Day-Ahead market Projections to provide a more accurate determination of reserve requirements as set forth in Section 4.1 of this Protocol.  4.2.4 The submission of nominations and offers for Ancillary Services shall be based on per single unit per single type per interval of reserve service in accordance with Appendix A.12 of the WESM Dispatch Protocol Manual. | The System Operator is now allowing reserve provision on an aggregate basis (e.g., Trans-Asia, Subic Enron).  Transferred to proposed Section 4.2  Original Sections 4.2.6 and 4.2.7 will not be required with the implementation of economic scheduling of Pmin under enhanced WESM design and operations |                                 |                         |

| Title | Section | Provision     | Proposed Amendment         | Rationale                     | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|---------------|----------------------------|-------------------------------|---------------------------------|-------------------------|
|       |         |               |                            |                               |                                 |                         |
|       |         | 4.2.5 The     | 4.2.5 The Trading          |                               |                                 |                         |
|       |         | Trading       | Participant shall see to   |                               |                                 |                         |
|       |         | Participant   | it that the nomination     |                               |                                 |                         |
|       |         | shall see to  | submitted to the Market    |                               |                                 |                         |
|       |         | it that the   | Operator shall be based    |                               |                                 |                         |
|       |         | nomination    | on the day-ahead           |                               |                                 |                         |
|       |         | submitted to  | ancillary service          |                               |                                 |                         |
|       |         | the Market    | schedule (DAAS)            |                               |                                 |                         |
|       |         | Operator      | <del>approved by the</del> |                               |                                 |                         |
|       |         | shall be      | System Operator. For       |                               |                                 |                         |
|       |         | based on      | Regulating Reserves,       |                               |                                 |                         |
|       |         | the day-      | only 50% (one-half) of     |                               |                                 |                         |
|       |         | ahead         | the approved capacity      |                               |                                 |                         |
|       |         | ancillary     | by the System Operator     |                               |                                 |                         |
|       |         | service       | shall be reflected by the  |                               |                                 |                         |
|       |         | schedule      | Trading Participant to     |                               |                                 |                         |
|       |         | (DAAS)        | the Market Operator        |                               |                                 |                         |
|       |         | approved      | through the Market         |                               |                                 |                         |
|       |         | by the        | Participant Interface      |                               |                                 |                         |
|       |         | System        | (MPI).                     |                               |                                 |                         |
|       |         | Operator.     |                            |                               |                                 |                         |
|       |         | For           | 4.2.6 If a generating      |                               |                                 |                         |
|       |         | Regulating    | unit is not scheduled as   |                               |                                 |                         |
|       |         | Reserves,     | a dispatchable reserve,    |                               |                                 |                         |
|       |         | only 50%      | and it has a zero          | MNM representation should     |                                 |                         |
|       |         | (one-half) of | commercial Pmin and a      | be consistent with the System |                                 |                         |

| Title | Section | Provision    | Proposed Amendment               | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
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|       |         | the          | non-zero technical               | Operator. |                                 |                         |
|       |         | approved     | Pmin, the Market                 |           |                                 |                         |
|       |         | capacity by  | Operator shall submit a          |           |                                 |                         |
|       |         | the System   | security limit for that          |           |                                 |                         |
|       |         | Operator     | <del>generating unit</del>       |           |                                 |                         |
|       |         |              | indicating its technical         |           |                                 |                         |
|       |         | reflected by | Pmin as the minimum              |           |                                 |                         |
|       |         | the Trading  | operating limit, whereas         |           |                                 |                         |
|       |         | Participant  | its maximum operating            |           |                                 |                         |
|       |         | to the       | limit shall correspond to        |           |                                 |                         |
|       |         | Market       | its maximum offered              |           |                                 |                         |
|       |         | Operator     | <del>capacity.</del>             |           |                                 |                         |
|       |         | through the  |                                  |           |                                 |                         |
|       |         | Market       | 4.2.7 If a generating            |           |                                 |                         |
|       |         | Participant  | unit is scheduled as a           |           |                                 |                         |
|       |         | Interface    | <del>dispatchable reserve,</del> |           |                                 |                         |
|       |         | (MPI).       | and it has a non-zero            |           |                                 |                         |
|       |         |              | commercial Pmin, the             |           |                                 |                         |
|       |         | 4.2.6 If a   | Market Operator shall            |           |                                 |                         |
|       |         | generating   | submit a security limit          |           |                                 |                         |
|       |         | unit is not  | for that generating unit         |           |                                 |                         |
|       |         | scheduled    | indicating zero (0) as its       |           |                                 |                         |
|       |         | as a         | minimum operating                |           |                                 |                         |
|       |         | dispatchabl  | <del>limit, whereas its</del>    |           |                                 |                         |
|       |         | e reserve,   | maximum operating                |           |                                 |                         |
|       |         | and it has a | limit shall correspond to        |           |                                 |                         |
|       |         | zero         | its maximum offered              |           |                                 |                         |

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|       |         | commercial     | capacity.            |           |                                 |                         |
|       |         | Pmin and a     |                      |           |                                 |                         |
|       |         | non-zero       | 4.3.4                |           |                                 |                         |
|       |         | technical      | The generating unit  |           |                                 |                         |
|       |         | Pmin, the      |                      |           |                                 |                         |
|       |         | Market         | providers in the     |           |                                 |                         |
|       |         | Operator       | Market Network Model |           |                                 |                         |
|       |         | shall submit   | shall be consistent  |           |                                 |                         |
|       |         | a security     | with the System      |           |                                 |                         |
|       |         | limit for that | Operator's model for |           |                                 |                         |
|       |         | generating     | scheduling,          |           |                                 |                         |
|       |         | unit           | monitoring,          |           |                                 |                         |
|       |         | indicating     | dispatching, and     |           |                                 |                         |
|       |         | its technical  | settlement of such   |           |                                 |                         |
|       |         | Pmin as the    | A/S providers.       |           |                                 |                         |
|       |         | minimum        |                      |           |                                 |                         |
|       |         | operating      |                      |           |                                 |                         |
|       |         | limit,         |                      |           |                                 |                         |
|       |         | whereas its    |                      |           |                                 |                         |
|       |         | maximum        |                      |           |                                 |                         |
|       |         | operating      |                      |           |                                 |                         |
|       |         | limit shall    |                      |           |                                 |                         |
|       |         | correspond     |                      |           |                                 |                         |
|       |         | to its         |                      |           |                                 |                         |
|       |         | maximum        |                      |           |                                 |                         |
|       |         | offered        |                      |           |                                 |                         |
|       |         | capacity.      |                      |           |                                 |                         |

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|       |         | 4.2.7 If a     |                    |           |                                 |                         |
|       |         | generating     |                    |           |                                 |                         |
|       |         | unit is        |                    |           |                                 |                         |
|       |         | scheduled      |                    |           |                                 |                         |
|       |         | as a           |                    |           |                                 |                         |
|       |         | dispatchabl    |                    |           |                                 |                         |
|       |         | e reserve,     |                    |           |                                 |                         |
|       |         | and it has a   |                    |           |                                 |                         |
|       |         | non-zero       |                    |           |                                 |                         |
|       |         | commercial     |                    |           |                                 |                         |
|       |         | Pmin, the      |                    |           |                                 |                         |
|       |         | Market         |                    |           |                                 |                         |
|       |         | Operator       |                    |           |                                 |                         |
|       |         | shall submit   |                    |           |                                 |                         |
|       |         | a security     |                    |           |                                 |                         |
|       |         | limit for that |                    |           |                                 |                         |
|       |         | generating     |                    |           |                                 |                         |
|       |         | unit           |                    |           |                                 |                         |
|       |         | indicating     |                    |           |                                 |                         |
|       |         | zero (0) as    |                    |           |                                 |                         |
|       |         | its minimum    |                    |           |                                 |                         |
|       |         | operating      |                    |           |                                 |                         |
|       |         | limit,         |                    |           |                                 |                         |
|       |         | whereas its    |                    |           |                                 |                         |
|       |         | maximum        |                    |           |                                 |                         |
|       |         | operating      |                    |           |                                 |                         |
|       |         | limit shall    |                    |           |                                 |                         |

| Title                                             | Section | Provision                                                                                                                                                                                           | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                           | Rationale                                                                                                                                                                 | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
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|                                                   |         | correspond<br>to its<br>maximum<br>offered<br>capacity.                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                           |                                 |                         |
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES | 4.3     | 4.3 Day-Ahead Scheduling of Reserves by the System Operator 4.3.1 XXX 4.3.2 Trading Participant shall ensure that they nominate all available capacity to the Market Operator based on the approved | 4.34 Day-Ahead Scheduling of Reserves by the System Operator 4.34.1 XXX 4.34.2 Trading Participants shall ensure that they nominate all submit their maximum available capacity to the Market Operator WESM, inclusive of reserve offers based on the approved dayahead ancillary schedule.  4.34.33 The System Operator shall provide the reserve requirements and approved day-ahead ancillary service schedule (DAASS) to | Re-numbered with the insertion of Section 4.2.  To clearly define timelines for submission of information to the Market Operator, Trading Participants, and A/S providers |                                 |                         |

| Title | Section | Provision                                                                                                                                                                                                 | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                                                               | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------|-------------------------|
| Title | Section | Provision  day-ahead ancillary schedule. 4.3.3 The System Operator shall provide the approved day-ahead ancillary service schedule (DAAS) to the Market Operator and ASPA providers not later than 1700H. | the Market Operator and ASPA providers not later than 1700H.  4.4.4 The System Operator shall provide the approved day-ahead ancillary service schedule (DAASS) to the relevant Trading Participants and ASPA providers not later than 1700H.  4.4.5 By 1900H, Trading Participants shall submit their updated generation and reserve offers for the next trading day, ensuring that the reserve offer submitted to the Market Operator shall be consistent with | Rationale |                                 | Stakeholder's Rationale |
|       |         |                                                                                                                                                                                                           | their respective DAASS.  4.4.6 For Regulating                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                 |                         |

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|                          |         |            | Reserves, unless                      |                           |                                 |                         |
|                          |         |            | otherwise distinctly                  |                           |                                 |                         |
|                          |         |            | specified by the                      |                           |                                 |                         |
|                          |         |            | System Operator,                      |                           |                                 |                         |
|                          |         |            | Trading Participants                  |                           |                                 |                         |
|                          |         |            | shall submit half of its              |                           |                                 |                         |
|                          |         |            | DAASS capacity for                    |                           |                                 |                         |
|                          |         |            | upward regulation,                    |                           |                                 |                         |
|                          |         |            | whereas the other half                |                           |                                 |                         |
|                          |         |            | shall be submitted for                |                           |                                 |                         |
|                          |         |            | downward regulation                   |                           |                                 |                         |
|                          |         |            | to the <i>Market</i>                  |                           |                                 |                         |
|                          |         |            | Operator through the                  |                           |                                 |                         |
|                          |         |            | Market Participant                    |                           |                                 |                         |
|                          |         |            | Interface (MPI).                      |                           |                                 |                         |
|                          |         |            |                                       |                           |                                 |                         |
| CENTRAL                  | 4.4     | 4.4        | _                                     |                           |                                 |                         |
| SCHEDULING<br>OF RESERVE |         | Submission | Generation and                        | insertion of Section 4.2. |                                 |                         |
| CAPACITIES               |         | of         | Reserve Offers for the                |                           |                                 |                         |
| OAI AOITIEO              |         | Generation | Real-Time Dispatch                    |                           |                                 |                         |
|                          |         | and        | (RTD)                                 |                           |                                 |                         |
|                          |         | Reserve    | 4.4 <u>5</u> .1 XXX                   |                           |                                 |                         |
|                          |         | Offers for |                                       |                           |                                 |                         |
|                          |         | the Real-  |                                       |                           |                                 |                         |
|                          |         | Time       | 4.4 <u><b>5</b></u> .2 <i>Trading</i> |                           |                                 |                         |
|                          |         | Dispatch   | Participants that were                |                           |                                 |                         |
|                          |         | (RTD)      | scheduled by the                      |                           |                                 |                         |

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|       |         | 4.4.1 XXX    | System Operator to           |           |                                 |                         |
|       |         | 4.4.2        | provide a specific           |           |                                 |                         |
|       |         | Trading      | reserve <b>service</b> for a |           |                                 |                         |
|       |         | Participants | specific trading one-        |           |                                 |                         |
|       |         | that were    | <u>hour</u> interval shall   |           |                                 |                         |
|       |         | scheduled    | submit a reserve offer       |           |                                 |                         |
|       |         | by the       | in the WESM equivalent       |           |                                 |                         |
|       |         | System       | to the capacity              |           |                                 |                         |
|       |         | Operator to  | scheduled by the             |           |                                 |                         |
|       |         | provide a    |                              |           |                                 |                         |
|       |         | specific     | accordance with              |           |                                 |                         |
|       |         | reserve for  | Section 4.3 of this          |           |                                 |                         |
|       |         | a specific   | Protocol based on the        |           |                                 |                         |
|       |         | trading      | following guidelines:        |           |                                 |                         |
|       |         | interval     | 45)                          |           |                                 |                         |
|       |         | shall submit | a. Only two (2)              |           |                                 |                         |
|       |         | a reserve    | reserve offer break          |           |                                 |                         |
|       |         | offer in the |                              |           |                                 |                         |
|       |         | WESM         | submitted                    |           |                                 |                         |
|       |         | equivalent   | b. The first block           |           |                                 |                         |
|       |         | to the       | should have a                |           |                                 |                         |
|       |         | capacity     | quantity (MW) of 0           |           |                                 |                         |
|       |         | scheduled    | MW                           |           |                                 |                         |
|       |         | by the       | c. The second block          |           |                                 |                         |
|       |         | System       | should have a                |           |                                 |                         |
|       |         | Operator in  | quantity equivalent          |           |                                 |                         |
|       |         | accordance   | to the <del>day-ahead</del>  |           |                                 |                         |

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|       |         | with Section | schedule DAASS           |           |                                 |                         |
|       |         | 4.3 of this  | identified in            |           |                                 |                         |
|       |         | Protocol.    | Section 4.34 of this     |           |                                 |                         |
|       |         | a. Only      | Protocol for that        |           |                                 |                         |
|       |         | two (2)      | relevant trading         |           |                                 |                         |
|       |         | reserve      | interval                 |           |                                 |                         |
|       |         | offer        | d. The first and         |           |                                 |                         |
|       |         | break        | second price offer       |           |                                 |                         |
|       |         | quantiti     | blocks shall be          |           |                                 |                         |
|       |         | es shall     | priced at                |           |                                 |                         |
|       |         | be           | PhP0.0/MWh only.         |           |                                 |                         |
|       |         | submitt      | e. <u>For regulating</u> |           |                                 |                         |
|       |         | ed           | <u>reserves</u> , unless |           |                                 |                         |
|       |         | b. The first | <u>otherwise</u>         |           |                                 |                         |
|       |         | block        | distinctly               |           |                                 |                         |
|       |         | should       | specified by the         |           |                                 |                         |
|       |         | have a       | System Operator,         |           |                                 |                         |
|       |         | quantity     | <u>Trading</u>           |           |                                 |                         |
|       |         | (MW) of      |                          |           |                                 |                         |
|       |         | 0 MW         | submit half of its       |           |                                 |                         |
|       |         | c. The       | DAASS capacity           |           |                                 |                         |
|       |         | second       | for upward               |           |                                 |                         |
|       |         | block        | <u>regulation,</u>       |           |                                 |                         |
|       |         | should       | whereas the              |           |                                 |                         |
|       |         | have a       | other half shall         |           |                                 |                         |
|       |         | quantity     | be submitted for         |           |                                 |                         |
|       |         | equival      | <u>downward</u>          |           |                                 |                         |

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|       |         | ent to         |                    |           |                                 |                         |
|       |         | the day-       |                    |           |                                 |                         |
|       |         | ahead          |                    |           |                                 |                         |
|       |         | schedul        |                    |           |                                 |                         |
|       |         | e<br>identifie |                    |           |                                 |                         |
|       |         | d in           |                    |           |                                 |                         |
|       |         | Section        |                    |           |                                 |                         |
|       |         | 4.3 of         |                    |           |                                 |                         |
|       |         | this           |                    |           |                                 |                         |
|       |         | Protocol       |                    |           |                                 |                         |
|       |         | for that       |                    |           |                                 |                         |
|       |         | relevant       |                    |           |                                 |                         |
|       |         | trading        |                    |           |                                 |                         |
|       |         | interval       |                    |           |                                 |                         |
|       |         | d. The first   |                    |           |                                 |                         |
|       |         | and            |                    |           |                                 |                         |
|       |         | second         |                    |           |                                 |                         |
|       |         | price          |                    |           |                                 |                         |
|       |         | offer          |                    |           |                                 |                         |
|       |         | blocks         |                    |           |                                 |                         |
|       |         | shall be       |                    |           |                                 |                         |
|       |         | priced         |                    |           |                                 |                         |
|       |         | at             |                    |           |                                 |                         |
|       |         | PhP0.0/        |                    |           |                                 |                         |
|       |         | MWh            |                    |           |                                 |                         |
|       |         | only.          |                    |           |                                 |                         |

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|       |         | 4.4.3 For      | 4.4.3 For Trading                           |           |                                 |                         |
|       |         | Trading        | Participants that were                      |           |                                 |                         |
|       |         | Participants   | scheduled by NGCP to                        |           |                                 |                         |
|       |         | that were      | provide regulation                          |           |                                 |                         |
|       |         | scheduled      | service for the next                        |           |                                 |                         |
|       |         | by NGCP to     | day(s), they shall                          |           |                                 |                         |
|       |         | provide        | submit a reserve offer                      |           |                                 |                         |
|       |         | regulation     | equal to one-half (1/2)                     |           |                                 |                         |
|       |         |                | of their day-ahead                          |           |                                 |                         |
|       |         |                | ancillary schedule to                       |           |                                 |                         |
|       |         |                | account for the upward                      |           |                                 |                         |
|       |         | shall submit   |                                             |           |                                 |                         |
|       |         | a reserve      | <del>dispatch.</del>                        |           |                                 |                         |
|       |         | offer equal    |                                             |           |                                 |                         |
|       |         | to one-half    | 4.4 <u>5</u> .4 <u>3</u> All <i>Trading</i> |           |                                 |                         |
|       |         | (1/2) of their | Participants shall                          |           |                                 |                         |
|       |         | day-ahead      | observe the "Open                           |           |                                 |                         |
|       |         | ancillary      | Market Window" in                           |           |                                 |                         |
|       |         | schedule to    | submitting <i>generation</i>                |           |                                 |                         |
|       |         | account for    | <u> </u>                                    |           |                                 |                         |
|       |         | the upward     | stated in Section 4.4 of                    |           |                                 |                         |
|       |         | and            | Appendix A.1 of the                         |           |                                 |                         |
|       |         | downward       | WESM Dispatch                               |           |                                 |                         |
|       |         | dispatch.      | Protocol Manual.                            |           |                                 |                         |
|       |         |                |                                             |           |                                 |                         |
|       |         | 4.4.4 All      |                                             |           |                                 |                         |

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|            |         | Trading      |                       |                           |                                 |                         |
|            |         | Participants |                       |                           |                                 |                         |
|            |         | shall        |                       |                           |                                 |                         |
|            |         | observe the  |                       |                           |                                 |                         |
|            |         | "Open        |                       |                           |                                 |                         |
|            |         | Market       |                       |                           |                                 |                         |
|            |         | Window" in   |                       |                           |                                 |                         |
|            |         | submitting   |                       |                           |                                 |                         |
|            |         | generation   |                       |                           |                                 |                         |
|            |         | and reserve  |                       |                           |                                 |                         |
|            |         | as stated in |                       |                           |                                 |                         |
|            |         | Section 4.4  |                       |                           |                                 |                         |
|            |         | of Appendix  |                       |                           |                                 |                         |
|            |         | A.1 of the   |                       |                           |                                 |                         |
|            |         | WESM         |                       |                           |                                 |                         |
|            |         | Dispatch     |                       |                           |                                 |                         |
|            |         | Protocol     |                       |                           |                                 |                         |
|            |         | Manual.      |                       |                           |                                 |                         |
| CENTRAL    | 4.5     | 4.5 Re-      | 4.56 Revision in the  |                           |                                 |                         |
| SCHEDULING |         | nomination   | Reserve               | insertion of Section 4.2. |                                 |                         |
| OF RESERVE |         | of Reserve   | Requirements and Re-  |                           |                                 |                         |
| CAPACITIES |         | Capacities   | nomination of Reserve |                           |                                 |                         |
|            |         |              | Capacities            |                           |                                 |                         |
|            |         |              | 4.6.1                 |                           |                                 |                         |
|            |         |              | The System Operator   |                           |                                 |                         |

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|       |         |              | may update the                     |                          |                                 |                         |
|       |         |              | reserve requirements               |                          |                                 |                         |
|       |         |              | at any time, as may be             |                          |                                 |                         |
|       |         | 4.5.1 All    | necessary.                         |                          |                                 |                         |
|       |         | ASPA         |                                    |                          |                                 |                         |
|       |         | providers    | 4.5 <u>6</u> .1 <u>2</u> All ASPA  |                          |                                 |                         |
|       |         | may re-      | providers may re-                  |                          |                                 |                         |
|       |         | nominate     | nominate capacities for            |                          |                                 |                         |
|       |         | capacities   | reserve during the                 |                          |                                 |                         |
|       |         | for reserve  | actual day of                      |                          |                                 |                         |
|       |         | during the   | implementation subject             |                          |                                 |                         |
|       |         | actual day   | to the AS Guidelines               |                          |                                 |                         |
|       |         | of           | on re-nomination and               |                          |                                 |                         |
|       |         | implementat  | approval process set               |                          |                                 |                         |
|       |         | ion subject  | forth by the System                |                          |                                 |                         |
|       |         | to the re-   | Operator.                          |                          |                                 |                         |
|       |         | nomination   |                                    |                          |                                 |                         |
|       |         | and          |                                    |                          |                                 |                         |
|       |         | approval     |                                    |                          |                                 |                         |
|       |         | process set  |                                    |                          |                                 |                         |
|       |         | forth by the |                                    |                          |                                 |                         |
|       |         | System       |                                    |                          |                                 |                         |
|       |         | Operator.    |                                    |                          |                                 |                         |
|       |         | _            |                                    |                          |                                 |                         |
|       |         | 4.5.2        | 4.5 <u>6</u> .2 <u>3</u> Should an | Ensure that possible re- |                                 |                         |
|       |         | Should an    | ASPA provider's re-                | nomination of reserve    |                                 |                         |
|       |         | ASPA         | nominated capacity be              | capacities will be in    |                                 |                         |
|       |         |              | . ,                                | accordance with the AS   |                                 |                         |

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|       |         | provider's   | approved by the          | •     |                                 |                         |
|       |         | re-          | System Operator, the     | by SO |                                 |                         |
|       |         | nominated    | ASPA provider shall      |       |                                 |                         |
|       |         | capacity be  | update its generation    |       |                                 |                         |
|       |         | approved     | and reserve offer in the |       |                                 |                         |
|       |         | by the       | WESM for the relevant    |       |                                 |                         |
|       |         | System       | trading one-hour         |       |                                 |                         |
|       |         | Operator,    | intervals while          |       |                                 |                         |
|       |         |              | observing the "Open      |       |                                 |                         |
|       |         | provider     | Market Window" as        |       |                                 |                         |
|       |         | shall update | stated in Section 4.4 of |       |                                 |                         |
|       |         | its          | Appendix A.1 of the      |       |                                 |                         |
|       |         | generation   | WESM Dispatch            |       |                                 |                         |
|       |         | and reserve  | Protocol Manual.         |       |                                 |                         |
|       |         | offer in the |                          |       |                                 |                         |
|       |         | WESM for     |                          |       |                                 |                         |
|       |         | the relevant |                          |       |                                 |                         |
|       |         | trading      |                          |       |                                 |                         |
|       |         | intervals    |                          |       |                                 |                         |
|       |         | while        |                          |       |                                 |                         |
|       |         | observing    |                          |       |                                 |                         |
|       |         | the "Open    |                          |       |                                 |                         |
|       |         | Market       |                          |       |                                 |                         |
|       |         | Window" as   |                          |       |                                 |                         |
|       |         | stated in    |                          |       |                                 |                         |
|       |         | Section 4.4  |                          |       |                                 |                         |
|       |         | of Appendix  |                          |       |                                 |                         |

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|---------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
|                                                   |         | A.1 of the                                                                                                         |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
|                                                   |         | WESM                                                                                                               |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
|                                                   |         | Dispatch                                                                                                           |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
|                                                   |         | Protocol                                                                                                           |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
|                                                   |         | Manual.                                                                                                            |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
| CENTRAL                                           | 4.6     | 4.6 Setting                                                                                                        | 4.6 Setting of                                                                                                                                                               | Constraint violation                                                                                                                                                 |                                 |                         |
| SCHEDULING                                        |         | of                                                                                                                 | Constraint Violation                                                                                                                                                         | coefficients with central                                                                                                                                            |                                 |                         |
| OF RESERVE CAPACITIES                             |         | Constraint                                                                                                         | Coefficients during Transition                                                                                                                                               | scheduling are provided in the WESM Manual on Constraint                                                                                                             |                                 |                         |
| CAI ACITIES                                       |         | Violation                                                                                                          | Transition                                                                                                                                                                   | Violation Coefficients and                                                                                                                                           |                                 |                         |
|                                                   |         | Coefficients                                                                                                       |                                                                                                                                                                              | Pricing Re-Runs.                                                                                                                                                     |                                 |                         |
|                                                   |         | during                                                                                                             |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
|                                                   |         | Transition                                                                                                         |                                                                                                                                                                              |                                                                                                                                                                      |                                 |                         |
| CENTRAL<br>SCHEDULING<br>OF RESERVE<br>CAPACITIES | 4.7     | 4.7 XXX  4.7.1 Trading Participants shall ensure that their generators are at the appropriate loading levels prior | 4.7 XXX  4.7.1 Trading  Participants shall ensure that their generators are at the appropriate loading levels prior to the trading intervals where it is expected to provide | Clause provides basis for the MMS to ensure reserve offers are amply scheduled to meet the reserve requirements, subject to the provisions in clause 4.7.2 and 4.7.3 |                                 |                         |
|                                                   |         | to the                                                                                                             | reserve service. This is to ensure that they                                                                                                                                 |                                                                                                                                                                      |                                 |                         |
|                                                   |         | trading                                                                                                            | obtain their intended                                                                                                                                                        | Provides reference from the                                                                                                                                          |                                 |                         |
|                                                   |         | intervals<br>where it is                                                                                           | energy and reserve                                                                                                                                                           | CVC manual in setting priorities for scheduling                                                                                                                      |                                 |                         |

| Title Secti | on Provision                                                                                                                                                                                                                                                                              | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
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|             | expected to provide reserve service. This is to ensure that they obtain their intended energy and reserve schedules for the Real-Time Dispatch (RTD) considering their ramping characteristics.  4.7.2 If a generating unit is not scheduled as a dispatchable reserve, and it has a zero | schedules for the Real- Time Dispatch (RTD) considering their ramping characteristics. Generating units shall obtain reserve schedules based on the submitted reserve offers in Sections 4.5 and 4.6 of this Protocol with the objective of satisfying the reserve requirements by the System Operator.  4.7.2 If a generating unit is not scheduled as a dispatchable reserve, and it has a zero commercial Pmin and a non-zero technical Pmin, the Market Operator shall submit a security limit for that generating unit |           | Recommendation                  |                         |
|             | commercial                                                                                                                                                                                                                                                                                | indicating its technical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                 |                         |

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|       |         | Pmin and a non-zero technical Pmin, the Market Operator shall submit a security limit for that generating unit indicating its technical Pmin as the minimum operating limit, whereas its maximum operating limit shall correspond to its maximum offered capacity. | Pmin as the minimum operating limit, whereas its maximum operating limit shall correspond to its maximum offered capacity there is an insufficiency in the generation capacities to meet the energy and reserve requirements, the Market Management System shall schedule energy and reserve capacities based on the order of priority set in the WESM Manual on Constraint Violation Coefficients and Pricing Re-Runs. |                                                                                                           |                                 |                         |
|       |         | 4.7.3 If a generating unit is                                                                                                                                                                                                                                      | 4.7.3 If a generating unit is scheduled as a dispatchable reserve,                                                                                                                                                                                                                                                                                                                                                      | Provides reference from the CVC manual in setting priorities for scheduling energy and reserve capacities |                                 |                         |

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|       |         | scheduled      | and it has a non-zero         | in times of supply deficiency |                                 |                         |
|       |         | as a           | commercial Pmin, the          |                               |                                 |                         |
|       |         | dispatchabl    | Market Operator shall         |                               |                                 |                         |
|       |         | e reserve,     | submit a security limit       |                               |                                 |                         |
|       |         | and it has a   | for that generating unit      |                               |                                 |                         |
|       |         | non-zero       | indicating zero (0) as its    |                               |                                 |                         |
|       |         | commercial     | minimum operating             |                               |                                 |                         |
|       |         | Pmin, the      | <del>limit, whereas its</del> |                               |                                 |                         |
|       |         | Market         | maximum operating             |                               |                                 |                         |
|       |         | Operator       | limit shall correspond to     | Transferred from 4.7.1        |                                 |                         |
|       |         | shall submit   |                               |                               |                                 |                         |
|       |         | a security     | ' '                           |                               |                                 |                         |
|       |         | limit for that | thermal or an N-1             |                               |                                 |                         |
|       |         | generating     | <u>contingency</u>            |                               |                                 |                         |
|       |         | unit           | constraint, the Market        |                               |                                 |                         |
|       |         | indicating     | Management System             |                               |                                 |                         |
|       |         | zero (0) as    | shall schedule a              |                               |                                 |                         |
|       |         | its minimum    | generator's capacity          |                               |                                 |                         |
|       |         | operating      | to be scheduled for           |                               |                                 |                         |
|       |         | limit,         | energy instead of             |                               |                                 |                         |
|       |         | whereas its    | being allocated for           |                               |                                 |                         |
|       |         | maximum        | <u>reserve</u> service based  |                               |                                 |                         |
|       |         | operating      | on the order of               |                               |                                 |                         |
|       |         | limit shall    | priority set in the           |                               |                                 |                         |
|       |         | correspond     | <u>WESM Manual on</u>         |                               |                                 |                         |
|       |         | to its         | <b>Constraint Violation</b>   |                               |                                 |                         |
|       |         | maximum        | <u>Coefficients</u> and       |                               |                                 |                         |

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|       |         | offered   | Pricing Re-Runs.            |           |                                 |                         |
|       |         | capacity. |                             |           |                                 |                         |
|       |         | 4.7.4 XXX | <u>4.7.4</u>                |           |                                 |                         |
|       |         | 4.7.5 XXX | <u>Trading Participants</u> |           |                                 |                         |
|       |         | 4.7.5.    | shall ensure that their     |           |                                 |                         |
|       |         | 1 XXX     | generators are at the       |           |                                 |                         |
|       |         |           | appropriate loading         |           |                                 |                         |
|       |         | 4.7.5.    | <u>levels</u> prior to the  |           |                                 |                         |
|       |         | 2 XXX     |                             |           |                                 |                         |
|       |         |           | where it is expected        |           |                                 |                         |
|       |         | 4.7.5.    | to provide reserve          |           |                                 |                         |
|       |         | 3 XXX     |                             |           |                                 |                         |
|       |         | 476 VVV   | ensure that they            |           |                                 |                         |
|       |         | 4.7.6 XXX | obtain their intended       |           |                                 |                         |
|       |         |           | energy and reserve          |           |                                 |                         |
|       |         |           | schedules for the           |           |                                 |                         |
|       |         |           | Real-Time Dispatch          |           |                                 |                         |
|       |         |           | (RTD) considering           |           |                                 |                         |
|       |         |           | their ramping               |           |                                 |                         |
|       |         |           | characteristics.            |           |                                 |                         |
|       |         |           | <u>4.7.5</u>                |           |                                 |                         |
|       |         |           | The Market                  |           |                                 |                         |
|       |         |           | Management System           |           |                                 |                         |
|       |         |           | shall consider              |           |                                 |                         |
|       |         |           | ramping constraints         |           |                                 |                         |
|       |         |           |                             |           |                                 |                         |
|       |         |           | for upward and              |           |                                 |                         |

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|       |         |           | downward regulation           |           |                                 |                         |
|       |         |           | services. The                 |           |                                 |                         |
|       |         |           | following equations           |           |                                 |                         |
|       |         |           | show the constraints          |           |                                 |                         |
|       |         |           | for energy and                |           |                                 |                         |
|       |         |           | regulation schedules          |           |                                 |                         |
|       |         |           | while considering             |           |                                 |                         |
|       |         |           | ramping limitations:          |           |                                 |                         |
|       |         |           | 4.7.5.1. [Energy] –           |           |                                 |                         |
|       |         |           | [Downward                     |           |                                 |                         |
|       |         |           | <u>regulation]     &gt;= </u> |           |                                 |                         |
|       |         |           | <u>[ramp_down_limi</u>        |           |                                 |                         |
|       |         |           | <u>t1</u>                     |           |                                 |                         |
|       |         |           |                               |           |                                 |                         |
|       |         |           | 4.7.5.2. [Energy]             |           |                                 |                         |
|       |         |           | + [Upward                     |           |                                 |                         |
|       |         |           | regulation] <=                |           |                                 |                         |
|       |         |           | <pre>[ramp_up_limit]</pre>    |           |                                 |                         |
|       |         |           |                               |           |                                 |                         |
|       |         |           | <u>4.7.6</u>                  |           |                                 |                         |
|       |         |           | With respect to the           |           |                                 |                         |
|       |         |           | constraints shown in          |           |                                 |                         |
|       |         |           | clause 4.7.5 of this          |           |                                 |                         |
|       |         |           | Protocol, the                 |           |                                 |                         |
|       |         |           | following illustration        |           |                                 |                         |
|       |         |           | shows the different           |           |                                 |                         |
|       |         |           | cases of the joint            |           |                                 |                         |

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|            |         |              | ramping of energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | and regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | (upward and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | downward).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | Service of the servic | Topic down link  Target  Topic down link  Topic |                                 |                         |
|            |         |              | Case 2 With upward and downward With upward regulation regulation schedules Schedule only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Sae 3<br>With downward regulation<br>schedule only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |                         |
|            |         |              | 4.7.4 <u>7</u> XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.7.5 <u>8</u> XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.7.5 <u>8</u> .1 XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.7. <del>5</del> <b>8</b> .2 XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.7.5 <u>8</u> .3 XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.7.6 <b>9</b> XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
| SETTLEMENT | 4.9     | 4.9 Settleme | 4.95.1 Settlement of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
| OF RESERVE |         | nt of        | Reserve Capacities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Re-numbered with the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |                         |
| CAPACITIES |         | Reserve      | ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | insertion of the provision as                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |                         |
|            |         | Capaciti     | 4.9 <b>5.1</b> .1 XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | new Section 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |                         |
|            |         | es           | 4.9 <b>5.1</b> .2 XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         |              | 4.9 <b>5.1</b> .3 Section 4.9.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Used minimum and maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |                         |
|            |         | 4.9.1 XXX    | shall also consider <b>T</b> the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | operating limits instead of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |                         |
|            |         | 4.9.2 XXX    | energy schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pmin and Pmax for a more                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |                         |
|            |         | 4.9.3        | obtained by an ASPA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | correct statement of how                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |                         |
|            |         | Section      | provider while being                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | head-room constraints are                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                         |
|            |         | 4.9.2 shall  | scheduled for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | applied in the MDOM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |                         |
|            |         | also         | <u>downward</u> regulation in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |
|            |         | consider the | the RTD because of the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |                         |

| Title | Section | Provision     | Proposed Amendment               | Rationale                     | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|---------------|----------------------------------|-------------------------------|---------------------------------|-------------------------|
|       |         | energy        | head-room constraint in          |                               |                                 |                         |
|       |         | schedule      | the Market Dispatch              |                               |                                 |                         |
|       |         | obtained by   | Optimization Model               |                               |                                 |                         |
|       |         | an ASPA       | (MDOM) shall also be             |                               |                                 |                         |
|       |         | provider      | considered. The head-            |                               |                                 |                         |
|       |         | while being   | room constraint is               |                               |                                 |                         |
|       |         | scheduled     | imposed in the MDOM              |                               |                                 |                         |
|       |         | for           | so that the energy and           |                               |                                 |                         |
|       |         | regulation in | regulating reserve               |                               |                                 |                         |
|       |         | the RTD       | schedules are set in a           |                               |                                 |                         |
|       |         | because of    | manner so that the               |                               |                                 |                         |
|       |         | the head-     | downward and upward              |                               |                                 |                         |
|       |         | room          | dispatch of the                  |                               |                                 |                         |
|       |         | constraint in | regulating reserve will          |                               |                                 |                         |
|       |         | the Market    | not violate the minimum          |                               |                                 |                         |
|       |         | Dispatch      | stable loading (Pmin)            |                               |                                 |                         |
|       |         | Optimizatio   | and maximum <del>available</del> |                               |                                 |                         |
|       |         | n Model       | capacity (Pmax)                  |                               |                                 |                         |
|       |         | (MDOM).       | operating limits of a            |                               |                                 |                         |
|       |         | The head-     | generator,                       |                               |                                 |                         |
|       |         | room          | <del>respectively</del> .        |                               |                                 |                         |
|       |         | constraint is |                                  | <del>-</del>                  |                                 |                         |
|       |         | imposed in    |                                  | The projections on the spot   |                                 |                         |
|       |         | the MDOM      |                                  | transactions for the reserve  |                                 |                         |
|       |         | so that the   |                                  | market may be inaccurate and  |                                 |                         |
|       |         | energy and    |                                  | may cause an incorrect        |                                 |                         |
|       |         | regulating    |                                  | perception of how the reserve |                                 |                         |
|       |         | reserve       |                                  | market will operate.          |                                 |                         |
|       |         | schedules     |                                  |                               |                                 |                         |
|       |         | are set in a  |                                  |                               |                                 |                         |
|       |         | manner so     |                                  |                               |                                 |                         |

| Title Section | Provision   | Proposed Amendment                                                                                                                                                                                                                                                                                | Rationale   | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|---------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------|-------------------------|
|               | Energy – Re | Energy Schedule  Head-room Constraints  Energy - Downward Regulation ≥ Minimum Oper  4.95.1.4 XXX  4.9.5 The Market  Operator shall perform  a simulated billing  calculation following the  billing cycle and to be  made available to  WESM members  participating in the  Contracted Reserves. | ating Limit |                                 |                         |

| Title | Section | Provision     | Proposed Amendment | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|---------------|--------------------|-----------|---------------------------------|-------------------------|
|       |         |               |                    |           |                                 |                         |
|       |         | 4.9.4 XXX     |                    |           |                                 |                         |
|       |         | 4.9.5 The     |                    |           |                                 |                         |
|       |         | Market        |                    |           |                                 |                         |
|       |         | Operator      |                    |           |                                 |                         |
|       |         | shall         |                    |           |                                 |                         |
|       |         | perform a     |                    |           |                                 |                         |
|       |         | simulated     |                    |           |                                 |                         |
|       |         | billing       |                    |           |                                 |                         |
|       |         | calculation   |                    |           |                                 |                         |
|       |         | following     |                    |           |                                 |                         |
|       |         | the billing   |                    |           |                                 |                         |
|       |         | cycle and to  |                    |           |                                 |                         |
|       |         | be made       |                    |           |                                 |                         |
|       |         | available to  |                    |           |                                 |                         |
|       |         | WESM          |                    |           |                                 |                         |
|       |         | members       |                    |           |                                 |                         |
|       |         | participating |                    |           |                                 |                         |
|       |         | in the        |                    |           |                                 |                         |
|       |         | Central       |                    |           |                                 |                         |
|       |         | Scheduling    |                    |           |                                 |                         |
|       |         | and           |                    |           |                                 |                         |
|       |         | Dispatch of   |                    |           |                                 |                         |
|       |         | Energy and    |                    |           |                                 |                         |
|       |         | Contracted    |                    |           |                                 |                         |
|       |         | Reserves.     |                    |           |                                 |                         |

| Title                                  | Section | Provision                                                                                                                                                          | Proposed Amendment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rationale                                                                                                                                                           | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|----------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
| SETTLEMENT<br>OF RESERVE<br>CAPACITIES | 4.10    | 4.10 XXX  4.10.1 The Market Operator shall submit to the System Operator the hourly ex-ante and ex-post reserve schedules not later than 8AM of the following day. | 4.105.2 XXX  4.105.2.1 The Market Operator shall submit to the System Operator the hourly ex-ante RTD energy and reserve schedules, and the generation and ex-post reserve schedules offers used in the RTD run, not later than 8AM 1200H of the following day.  5.2.2 Every Monday, the System Operator shall submit the final list of reserve schedules for the past week (Monday to Sunday) considering the possible revisions for the actual hour in consideration of Section 4.6 of this Protocol. | Re-numbered with the inclusion of the provision under Section 5  WESM Rules clause 5.3.2 provides exemptions to confidentiality, which includes the System Operator |                                 |                         |

| Title | Section | Provision | Proposed Amendment                        | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|-----------|-------------------------------------------|-----------|---------------------------------|-------------------------|
|       |         |           | Not later than the 5 <sup>th</sup>        |           |                                 |                         |
|       |         |           | of the month, the                         |           |                                 |                         |
|       |         |           | System Operator shall                     |           |                                 |                         |
|       |         |           | submit to the Market                      |           |                                 |                         |
|       |         |           | Operator the A/S                          |           |                                 |                         |
|       |         |           | incidental energy of                      |           |                                 |                         |
|       |         |           | each A/S provider for                     |           |                                 |                         |
|       |         |           | each dispatch interval                    |           |                                 |                         |
|       |         |           | during the recently                       |           |                                 |                         |
|       |         |           | completed billing                         |           |                                 |                         |
|       |         |           | period (e.g., On 05<br>February 2020, A/S |           |                                 |                         |
|       |         |           | incidental energy                         |           |                                 |                         |
|       |         |           | shall be submitted by                     |           |                                 |                         |
|       |         |           | the System Operator                       |           |                                 |                         |
|       |         |           | for the billing period                    |           |                                 |                         |
|       |         |           | of January 2020).                         |           |                                 |                         |
|       |         |           | 5.2.4                                     |           |                                 |                         |
|       |         |           | The Market Operator                       |           |                                 |                         |
|       |         |           | shall coordinate with                     |           |                                 |                         |
|       |         |           | the System Operator                       |           |                                 |                         |
|       |         |           | on the validation of                      |           |                                 |                         |
|       |         |           | the accuracy of the                       |           |                                 |                         |
|       |         |           | A/S incidental energy                     |           |                                 |                         |
|       |         |           |                                           |           |                                 |                         |
|       |         |           | provided in clause                        |           |                                 |                         |
|       |         |           | 5.2.3 of this Protocol.                   |           |                                 |                         |
|       |         |           | The completion of the                     |           |                                 |                         |
|       |         |           | validation between                        |           |                                 |                         |
|       |         |           | the Market Operator                       |           |                                 |                         |

| Title       | Section | Provision | Proposed Amendment                  | Rationale             | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------------|---------|-----------|-------------------------------------|-----------------------|---------------------------------|-------------------------|
|             |         |           | and System Operator                 |                       |                                 |                         |
|             |         |           | shall be completed                  |                       |                                 |                         |
|             |         |           | not later than the 15th             |                       |                                 |                         |
|             |         |           | of the month for the                |                       |                                 |                         |
|             |         |           | recently completed                  |                       |                                 |                         |
|             |         |           | billing period.                     |                       |                                 |                         |
|             |         |           | <u>5.2.5</u>                        |                       |                                 |                         |
|             |         |           | Not later than the 18 <sup>th</sup> |                       |                                 |                         |
|             |         |           | of the month, the                   |                       |                                 |                         |
|             |         |           | Market Operator shall               |                       |                                 |                         |
|             |         |           | submit to the System                |                       |                                 |                         |
|             |         |           | Operator the WESM                   |                       |                                 |                         |
|             |         |           | Trading Amount,                     |                       |                                 |                         |
|             |         |           | including the RTD                   |                       |                                 |                         |
|             |         |           | schedules and                       |                       |                                 |                         |
|             |         |           | metered quantities, of              |                       |                                 |                         |
|             |         |           | each A/S provider for               |                       |                                 |                         |
|             |         |           | the dispatch intervals              |                       |                                 |                         |
|             |         |           | when the A/S provider               |                       |                                 |                         |
|             |         |           | had a reserve                       |                       |                                 |                         |
|             |         |           | schedule for the                    |                       |                                 |                         |
|             |         |           | recently completed                  |                       |                                 |                         |
|             |         |           | <u>billing period.</u>              |                       |                                 |                         |
|             |         |           |                                     |                       |                                 |                         |
|             |         |           |                                     |                       |                                 |                         |
| A/S PENALTY | (new)   | (new)     | SECTION 6 A/S                       | The revision is being |                                 |                         |

| Title                        | Section       | Provision                                                                                                                        | Proposed Amendment                                                                                                                                                                                                                                                  | Rationale                                                                                                                                                                                                  | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------|
|                              |               |                                                                                                                                  | PENALTY The System Operator shall consider the data submitted by the Market Operator in Clause 5.2.1 when applying penalties to A/S providers in accordance with their Ancillary Service Procurement Agreement.                                                     | proposed to include provision that data submitted by the Market Operator to the System Operator shall be considered in the application of ancillary services penalties.                                    |                                 |                         |
| PERFORMAN<br>CE<br>STANDARDS | SECTIO<br>N 5 | SECTION 5 XXX  PEMC and NGCP shall endeavor to adopt measures and perform its obligations under this Protocol in accordance with | SECTION 57 XXX  PEMC The Market Operator and NGCP the System Operator shall endeavor to adopt measures and perform its obligations under this Protocol in accordance with comparable industry standards of due diligence. Nothing herein shall make PEMC the Market | Re-numbered with the insertion of Sections 5 and 6 With the transition of market operations to the Independent Market Operator, it is also proposed that references to PEMC be revised to Market Operator. |                                 |                         |

| Title | Section | Provision    | Proposed Amendment           | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|-------|---------|--------------|------------------------------|-----------|---------------------------------|-------------------------|
|       |         | comparable   | <b>Operator</b> and NGCP     |           |                                 |                         |
|       |         | industry     | the System Operator,         |           |                                 |                         |
|       |         | standards    | its employees, officers      |           |                                 |                         |
|       |         | of due       | and board members            |           |                                 |                         |
|       |         | diligence.   | liable for any actual or     |           |                                 |                         |
|       |         | Nothing      | compensatory damages         |           |                                 |                         |
|       |         | herein shall | arising from the             |           |                                 |                         |
|       |         | make         | implementation of this       |           |                                 |                         |
|       |         | PEMC and     | Protocol in the absence      |           |                                 |                         |
|       |         | NGCP, its    | of willful negligence or     |           |                                 |                         |
|       |         | employees,   | bad faith. PEMC The          |           |                                 |                         |
|       |         | officers and | Market Operator and          |           |                                 |                         |
|       |         | board        | NGCP the System              |           |                                 |                         |
|       |         | members      | <u>Operator</u> shall in its |           |                                 |                         |
|       |         | liable for   | reasonable opinion           |           |                                 |                         |
|       |         | any actual   | implement remedial           |           |                                 |                         |
|       |         | or           | measures in order to         |           |                                 |                         |
|       |         | compensato   | manage and mitigate          |           |                                 |                         |
|       |         | ry damages   | any errors in the MMS        |           |                                 |                         |
|       |         | arising from | arising from erroneous       |           |                                 |                         |
|       |         | the          | inputs, system failures      |           |                                 |                         |
|       |         | implementat  | or other related             |           |                                 |                         |
|       |         | ion of this  | circumstances.               |           |                                 |                         |
|       |         | Protocol in  |                              |           |                                 |                         |
|       |         | the absence  |                              |           |                                 |                         |
|       |         | of willful   |                              |           |                                 |                         |
|       |         | negligence   |                              |           |                                 |                         |

| Title              | Section | Provision     | Proposed Amendment | Rationale                                        | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
|--------------------|---------|---------------|--------------------|--------------------------------------------------|---------------------------------|-------------------------|
|                    |         | or bad faith. |                    |                                                  |                                 |                         |
|                    |         | PEMC and      |                    |                                                  |                                 |                         |
|                    |         | NGCP shall    |                    |                                                  |                                 |                         |
|                    |         | in its        |                    |                                                  |                                 |                         |
|                    |         | reasonable    |                    |                                                  |                                 |                         |
|                    |         | opinion       |                    |                                                  |                                 |                         |
|                    |         | implement     |                    |                                                  |                                 |                         |
|                    |         | remedial      |                    |                                                  |                                 |                         |
|                    |         | measures in   |                    |                                                  |                                 |                         |
|                    |         | order to      |                    |                                                  |                                 |                         |
|                    |         | manage        |                    |                                                  |                                 |                         |
|                    |         | and mitigate  |                    |                                                  |                                 |                         |
|                    |         | any errors    |                    |                                                  |                                 |                         |
|                    |         | in the MMS    |                    |                                                  |                                 |                         |
|                    |         | arising from  |                    |                                                  |                                 |                         |
|                    |         | erroneous     |                    |                                                  |                                 |                         |
|                    |         | inputs,       |                    |                                                  |                                 |                         |
|                    |         | system        |                    |                                                  |                                 |                         |
|                    |         | failures or   |                    |                                                  |                                 |                         |
|                    |         | other         |                    |                                                  |                                 |                         |
|                    |         | related       |                    |                                                  |                                 |                         |
|                    |         | circumstanc   |                    |                                                  |                                 |                         |
|                    |         | es.           |                    |                                                  |                                 |                         |
| MODIFICATIO        | SECTIO  | SECTION 6     | SECTION 68 XXX     | The revision is being                            |                                 |                         |
| NS AND EFFECTIVITY | N 6     | XXX           | In accordance with |                                                  |                                 |                         |
| EFFECTIVITY        |         | In accordance | DOE Department     | manual is aligned with the provisions of the DOE |                                 |                         |

| Title | Section | Provision    | Proposed Amendment        | Rationale                     | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
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|       |         | with DOE     | Circular No. DC2014-      |                               |                                 |                         |
|       |         | Department   | 03-009 <b>and DC2019-</b> | Re-numbered with the          |                                 |                         |
|       |         | Circular No. | 12-0018, this Protocol    | insertion of Sections 5 and 6 |                                 |                         |
|       |         | DC2014-03-   | shall be in effect upon   |                               |                                 |                         |
|       |         | 009, this    | approval by the           |                               |                                 |                         |
|       |         | Protocol     | Department of Energy      |                               |                                 |                         |
|       |         | shall be in  | and shall terminate       |                               |                                 |                         |
|       |         | effect upon  | upon Commercial           |                               |                                 |                         |
|       |         | approval by  | Launch Date of WESM       |                               |                                 |                         |
|       |         | the          | Reserve Market or         |                               |                                 |                         |
|       |         | Department   | upon declaration of its   |                               |                                 |                         |
|       |         | of Energy    | cessation by the DOE.     |                               |                                 |                         |
|       |         | and shall    |                           |                               |                                 |                         |
|       |         | terminate    | The DOE may, in its       |                               |                                 |                         |
|       |         | upon         | discretion, revise        |                               |                                 |                         |
|       |         | Commercial   | Sections of this          |                               |                                 |                         |
|       |         | Launch       | Protocol as the           |                               |                                 |                         |
|       |         | Date of      | circumstances may         |                               |                                 |                         |
|       |         | WESM         | require in consultation   |                               |                                 |                         |
|       |         | Reserve      | with <i>Trading</i>       |                               |                                 |                         |
|       |         | Market or    | Participants.             |                               |                                 |                         |
|       |         | upon         |                           |                               |                                 |                         |
|       |         | declaration  |                           |                               |                                 |                         |
|       |         | of its       |                           |                               |                                 |                         |
|       |         | cessation    |                           |                               |                                 |                         |
|       |         | by the DOE.  |                           |                               |                                 |                         |
|       |         |              |                           |                               |                                 |                         |

| Title | Section | Provision    | Proposed Amendment | Rationale | Stakeholder's<br>Recommendation | Stakeholder's Rationale |
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|       |         | The DOE      |                    |           |                                 |                         |
|       |         | may, in its  |                    |           |                                 |                         |
|       |         | discretion,  |                    |           |                                 |                         |
|       |         | revise       |                    |           |                                 |                         |
|       |         | Sections of  |                    |           |                                 |                         |
|       |         | this         |                    |           |                                 |                         |
|       |         | Protocol as  |                    |           |                                 |                         |
|       |         | the          |                    |           |                                 |                         |
|       |         | circumstanc  |                    |           |                                 |                         |
|       |         | es may       |                    |           |                                 |                         |
|       |         | require in   |                    |           |                                 |                         |
|       |         | consultation |                    |           |                                 |                         |
|       |         | with Trading |                    |           |                                 |                         |
|       |         | Participants |                    |           |                                 |                         |
|       |         |              |                    |           |                                 |                         |