**Name of Stakeholder:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Market Manual on Load Forecasting Methodology**

| **Section** | **Original Provision** | **Proposed Amendment** | **Rationale** |  **Comment /** **Proposed Revision** | **Rationale** |
| --- | --- | --- | --- | --- | --- |
| 6.2.8 | (NEW) | **The projected load used in section 6.2.4 may be based on the following information.**1. **Real-time data**
2. **Historical load profiles from real-time data**
3. **Historical metered quantity profiles**

**Load profiles from *network service providers* that shall be regularly updated at least every month** | Due to insufficient real-time monitoring needed to measure the consumption of some downstream loads, there are cases that the network model is simplified up to the location where the real-time data is available. With this new provision, it will address the current real-time monitoring limitations by the new process of estimating the real-time data for loads (with no RTU) using the historical data such as the metered quantities (MQ).Item (d) on load profiles from NSPs is being proposed in cases where distribution systems are included in the market network model. The updates shall include activities that will impact the representation of the real-time configuration of the market network model and updated load profiles at the scheduling points. |  |  |

**Market Manual on WESM Manual on Registration, Suspension and De-Registration Criteria and Procedures**

| **Section** | **Original Provision** | **Proposed Amendment** | **Rationale** |  **Comment /** **Proposed Revision** | **Rationale** |
| --- | --- | --- | --- | --- | --- |
| 2.5.4.2. | Aggregation of Generating UnitsA *Generation Company* that owns multiple *generating units* located in a single generating station shall, upon application, inform the *Market Operator* if it wishes to have an aggregated representation for such *generating units* in the *market network model*. The *Applicant*, the *Network Services Provider*, *Metering Services Provider*, *System Operator* and the *Market Operator* shall agree on the manner of aggregated representation in accordance with the procedures set forth in relevant *Market Manuals*.16 | Aggregation of Generating UnitsA *Generation Company* that owns multiple *generating units* located in a single generating station shall, upon application, inform the *Market Operator* if it wishes to have an aggregated representation for such *generating units* in the *market network model*.The *Applicant*, the *Network Services Provider*, *Metering Services Provider*, *System Operator* and the *Market Operator* shall agree on the manner of aggregated representation in accordance with the procedures set forth in relevant *Market Manuals*.16**Should the technical information contained in the *Certificate of Compliance or Provisional Authority to Operate (PAO)* or ERC Certificate with appropriate exhibit issued by the *ERC* indicate details per *generating unit*, the following shall be observed when reflecting the aggregated facility’s *registered capacity*:**1. ***Maximum Stable Load* (or *Pmax*) shall be based on the sum of the individual *generating unit*’s maximum capacity; and**
2. ***Minimum Stable Load* (or *Pmin*) shall be based on the smallest *Pmin* among the individual *generating units*.**
 | To clarify how Pmin and Pmax are determined for aggregated generating units |  |  |
| 2.5.4.8 | (NEW) | **2.5.4.8 Real-Time Monitoring Location****During the registration of the *generating unit*, the *Generation Company* shall specify if its real-time monitoring will be at the gross MW output of the *generating unit* or at the same location as its *market trading node,* which is at its *connection point* and net of its station use, in accordance with the guidelines set forth in the *WESM Manual* on Market Network Model Development and Maintenance – Criteria and Procedures.** | To require the generation company to provide the Market Operator information on the location of its real-time monitoring facilities to more efficiently facilitate its accurate inclusion in the MNM |  |  |

**Market Manual on WESM Manual on Market Network Model Development and Maintenance - Criteria and Procedures**

| **Section** | **Original Provision** | **Proposed Amendment** | **Rationale** |  **Comment /** **Proposed Revision** | **Rationale** |
| --- | --- | --- | --- | --- | --- |
| 2.1.5 | (NEW) | **2.1.5** ***Market Resource* refers to the objects defined in the *Market Network Model* to represent generators, battery energy storage systems, pumped-storage units, and loads.** | To provide general term used in MNM for all objects representing generators, BESS, pumped-storage units, and loadsThe market resource is the actual objects being modelled in the system. |  |  |
| 3.2.2 | (NEW) | **3.2.2** **The *System Operator* and the *Generation Companies* shall ensure that their facilities for real-time monitoring are available and that they accurately reflect the state of their generation (i.e., MW/MVAR output and generator breaker status).** | To include Generator Companies in the responsibility to maintain real-time facilities to cover cases when the Generation Company owns or manages its own real-time monitoring facilities |  |  |
| 3.2.3 | (NEW) | **3.2.3** **The Market Operator shall immediately inform the System Operator of any observed discrepancies in the real-time data.**  | To provide separate responsibility for IEMOP to report any observed discrepancies in the real-time data from SO |  |  |
| 4.3.2 | Network data that accurately reflects the conditions prevailing on the network, including losses, constraints and contingencies, at any trading interval | Network data that accurately reflects the conditions prevailing on the network, including losses, constraints and contingencies, at any ~~trading~~ **dispatch** interval | Revised the term “trading interval” to “dispatch interval” for consistency with the use of dispatch intervals |  |  |
| 4.4.2 | Generator plant/unit representationsThese are numerical representations of generating units and its characteristics corresponding to power injection to the network. Generating units shall be modeled as the positive power injection with linear monotonically increasing cost function. | **Representations of** Generator plant/unit ~~representations~~ ***Market Resources***These are numerical representations of generating units and its characteristics corresponding to power injection to the network. Generating units shall be modeled as the positive power injection with linear monotonically increasing cost function. | To reflect the general term for representations of generators, battery energy storage systems, pumped-storage unit, and loads |  |  |
| 4.4.3 | Load representationsThese are numerical representations of the customer demand corresponding to power withdrawal from the network. Loads shall be modeled as constant power withdrawal points. | **Representations of** Load ~~representations~~ ***Market Resources*** These are numerical representations of the customer demand corresponding to power withdrawal from the network. Loads shall be modeled as constant power withdrawal points. | To reflect the general term for representations of generators, battery energy storage systems, pumped-storage unit, and loads |  |  |
| 4.4.4 | *Battery Energy Storage System* representationThis is the mathematical model of a *battery energy storage system* with its dual capability of injecting or withdrawing power through the network. | ***Representations of*** *Battery Energy Storage System* ~~representation~~ ***Market R*esources**This is the mathematical model of a *battery energy storage system* with its dual capability of injecting or withdrawing power through the network. | To reflect the general term for representations of generators, battery energy storage systems, pumped-storage unit, and loads |  |  |
| 4.4.5 | *Pumped-Storage Unit* representationThis is the mathematical model of a *pumped-storage unit* with its dual capability of injecting or withdrawing power through the network. | ***Representations of*** *Pumped-Storage Unit* ~~representation~~ ***Market R*esources**This is the mathematical model of a *pumped-storage unit* with its dual capability of injecting or withdrawing power through the network. | To reflect the general term for representations of generators, battery energy storage systems, pumped-storage unit, and loads |  |  |
| 4.4.7 | Transshipment NodeA node in the network model that has neither a generator nor customer associated to it. A transshipment node connects at least two equipments together. | Transshipment NodeA node in the network model that has neither a generator nor customer associated to it. A transshipment node connects at least two equipment~~s~~ together. | Clerical correction for equipment |  |  |
| 4.6.3 | The Market Operator shall publish the results of the market impact study as may be required by the PEM Board. | The *Market Operator* shall ~~publish~~ **submit** the results of the market impact study ~~as may be required by~~ **to** the **DOE, ERC, and the PEM Board.****The *Market Operator* shall publish a public copy of the same in the market information website, if** **required by the DOE, ERC, or the PEM Board**. | To include the DOE, ERC and PEM Board as recipient of the studyFor transparency |  |  |
| 5 | ALTERATIONS TO THE MARKET NETWORK MODEL | ~~ALTERATIONS~~ **UPDATING AND MAINTENANCE OF** ~~TO~~ THE MARKET NETWORK MODEL | Revised for clarity |  |  |
| 5.2.2 | Changes in the MNM configuration as a result of network development or aggregation or disaggregation of Trading Nodes shall be published in accordance with MNM publication requirements set forth in Section 6.0 of this document. | ~~Changes~~ **Updates** in the MNM ~~configuration~~ as a result of **the** ~~network development or~~ aggregation or disaggregation of ~~Trading Nodes~~ ***market resources*** shall be **made** ~~published~~ in accordance with **the** ~~MNM publication~~ requirements set forth in Section ~~6.0~~ **5.5** of this ~~document~~ ***Market Manual***. | Revised for clarityTo correct the reference on the manner of publication in case of changes/updates in the MNM |  |  |
| 5.3.2 | The MNM may contain simplifications related to the representation of Generation and Customer Trading Nodes upon request of a Trading Participant and approved by the Market Operator, System Operator, and if necessary, the Network Service Provider. Such simplifications are listed, but not limited to the following conditionsa) Aggregated representation of multiple generating units;b) Aggregated representation in the MNM may be applied to multiple generating units that are located in a single generating station;c) Disaggregated representation of customer trading nodes; andd) Single Customer Trading Nodes representing an aggregate of multiple customers maybe disaggregated into several Customer Trading Nodes corresponding to the customers represented in that Trading Node. It is provided, however, that such disaggregation shall be allowed only in cases where there are appropriate real-time monitoring points that can account for the real-time withdrawal of energy in each disaggregated individual customer trading node. | The MNM may contain simplifications related to the representation of ~~Generation and Customer Trading Nodes~~ ***market resources*** upon request of a *Trading Participant***. It should be** ~~and~~ ~~approved~~ **agreed upon** by the *Trading Participant*, *Market Operator*, *System Operator*, and if necessary, the *Network Service Provider*. Such simplifications are listed, but not limited to the following conditions~~.~~**:**a) Aggregated representation of multiple generating units~~;~~~~b)~~ **(note:** aggregated representation in the MNM may be applied to multiple *generating units* that are located in a single generating station**)**;~~c~~**b**) Disaggregated representation of customer trading nodes; and~~d~~**c**) Single Customer Trading Nodes representing an aggregate of multiple customers ~~maybe disaggregated into several Customer Trading Nodes corresponding to the customers represented in that Trading Node. It is provided, however, that such disaggregation shall be allowed only in cases where there are appropriate real-time monitoring points that can account for the real-time withdrawal of energy in~~ ~~each disaggregated individual customer trading node.~~**d)** **Representation of downstream*****generating units*****with limited real-time monitoring facilities such as in cases of embedded generators****where there is limited availability of real-time monitoring facilities between the transmission system’s main substation and the generator, in which case, the *Market Operator*****may provisionally model the*****generating unit*****at the nearest MNM substation to which it is****indirectly connected. The following illustration shows an****example of this case:*****[See Appendix A****.]***e) Representation of downstream *generating units* located in a *distribution network* that is not reflected in the *market network model*. The *Market Operator* may model the *generating unit* at the nearest MNM substation to which it is indirectly connected.** | Revised for clarityIncluded provision on the treatment of Generators (e.g. Embedded Generators) that are located far from the main substation of NGCP, and there is limited real-time monitoring facilities available, or when they are in distribution networks that are not modelled in the MNM.To reflect the current practice of IEMOP in simplifying actual network configurations |  |  |
| 5.5.2 | 5.5.2 The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS’ production system. Every revision of the MNM shall have the following associated documents published in the Market Information Website:a) MNM Revisions Manual;b) Bus-Oriented Single Line Diagram; andc) Information brief | ~~The Market Operator shall regularly publish the relevant updated MNM documents within seven days after the completion of the MNM consistency monitoring in the MMS’ production system. Every revision of the MNM shall have the following associated documents published in the Market Information Website:~~~~a) MNM Revisions Manual;~~~~b) Bus-Oriented Single Line Diagram; and~~~~c) Information brief~~ | Redundant provision.Regular reporting is already covered in Section 5.5.1.[[1]](#footnote-1) |  |  |
| 5.5.3 | All publication by the Market Operator regarding the MNM shall be in an un-editable electronic format. The MNM documents shall be published to the general public through the Market Information Website. | **5.5.~~3~~.** 5.5.**2** All publication by the Market Operator regarding the MNM shall be in an un-editable electronic format. The MNM documents shall be published to the general public through the Market Information Website. | Renumbering due to deletion of previous section |  |  |
| -- | MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION | ~~MARKET NETWORK MODEL MAINTENANCE AND PUBLICATION~~ | Not necessary; clerical edit. |  |  |
| 5.10.2 | (NEW) | **5.10.2** **The *System Operator*, in coordination with *Network Service Providers* and *Trading Participants* shall continuously ensure the completeness, availability, and accuracy of the required *real-time data* in the *market network model*.** | To highlight the responsibility of SO in ensuring reliability of real-time dataThe Market Operator and the System Operator will develop a standard to determine the acceptable level of completeness, availability, and accuracy of data, which will be submitted as proposed amendments to the WESM Manual on Dispatch Protocol. |  |  |
| 5.10.3 | (NEW) | **5.10.3** **The *System Operator* shall report real-time monitoring facilities owned or managed by the *Trading Participants* or owned by the System Operator** **that have been persistently erroneous or non-updating for at least two (2) *business days* to the *Market Operator* and *Enforcement and Compliance Office*. The *Trading Participant* shall endeavor to resolve the issue within fifteen (15) calendar days from the time it was reported.** | To ensure that the TP and SO will correct real-time data errors in a timely manner  |  |  |
| 5.10.4 | (NEW) | **5.10.4** **The *System Operator* in coordination with the Market Operator and Trading Participant shall estimate shall be responsible for estimating *real-time data* that was reported to be erroneous or non-updating.** | To ensure accuracy of scheduling and pricing |  |  |
| 5.10.5 | (NEW) | **5.10.5** **The Market Operator shall immediately inform the System Operator of any observed discrepancies in the real-time data.** | To provide separate responsibility for IEMOP to report any observed discrepancies in the real-time data from SO |  |  |
| 6 | MARKET TRADING NODE | ~~MARKET TRADING NODE~~**MODELLING OF MARKET RESOURCES** | To reflect the general term for representations of generators, battery energy storage systems, pumped-storage unit, and loads |  |  |
| 6.1.2 | (NEW) | **It is possible to define only one *market resource* to represent both the *scheduling point* and the *market trading node*.** | Added to clarify that some market resources can represent both scheduling point and market trading node. |  |  |
| 6.3 | CLASSIFICATION OF MARKET TRADING NODES | ~~CLASSIFICATION~~ **TYPES** OF MARKET ~~TRADING NODES~~ **RESOURCES** | Revised to use Market Resources as defined in proposed Section 2.1.5. |  |  |
| 6.3.1 | MTN’s can be classified as: a) Generator nodes – nodes that represent a registered generating unit or generating system directly connected to a network operated by the System Operator. It is a node where power is injected into the transmission network.b) Customer nodes – nodes that represent where power is withdrawn by Trading Participants from the grid. c) Battery Energy Storage System nodes – nodes that represent a registered battery energy storage system directly connected to a network operated by the System Operator. It is a node where power is injected or withdrawn through the transmission network.d) Pumped-Storage Unit nodes – nodes that represent a registered pumped-storage unit directly connected to a network operated by the System Operator. It is a node where power is injected or withdrawn through the transmission network. | ~~MTN’s~~ **Market Resources** can be classified as: a) Generator ~~nodes~~ **resources** – ~~nodes~~ **resources** that represent a registered generating unit or generating system directly connected to a network operated by the System Operator. It is a ~~node~~ **resource** where power is injected into the transmission network.b) Customer ~~nodes~~ **resources** – ~~nodes~~ **resources** that represent where power is withdrawn by Trading Participants from the grid. c) Battery Energy Storage System ~~nodes~~ **resources** – ~~nodes~~ **resources** that represent a registered battery energy storage system directly connected to a network operated by the System Operator. It is a ~~node~~ **resource** where power is injected or withdrawn through the transmission network.d) Pumped-Storage Unit ~~nodes~~ **resources** – ~~nodes~~ **resources** that represent a registered pumped-storage unit directly connected to a network operated by the System Operator. It is a ~~node~~ **resource** where power is injected or withdrawn through the transmission network. | Replaced nodes with resources as defined in proposed Section 2.1.5.  |  |  |
| 6.3.2 | Where available remote telemetering facilities are situated at a location net of the station service, the Trading Participant shall have a generator and a customer MTN registered in the WESM to accurately reflect the direction of power flow. | **For *generating units* registered and modelled net of its station use** ~~Where available remote telemetering facilities are situated at a location net of the station service~~, the *Trading Participant* shall have a generator and a customer ~~MTN~~ **resource** registered in the WESM to accurately reflect the direction of power flow. | Revised for clarity |  |  |
| 6.4 | CRITERIA FOR THE DEFINITION OF MTNThe following are the general criteria for the definition of MTN: | ~~CRITERIA FOR THE DEFINITION OF MTN~~ **GUIDELINES FOR MODELLING A MARKET RESOURCE**The following are the general ~~criteria for the definition of MTN~~ **guidelines in modelling the different *market resources***: | Replaced MTN with Market Resource defined in proposed Section 2.1.5. |  |  |
| 6.4.5 | If the Trading Participant is a dispatchable generator connected to a distribution system (embedded facility), then its MTN and scheduling point shall be assigned to the nearest scheduling point represented in the MNM. Adjustments to the real-time monitoring of the Customer scheduling point shall be made accordingly to reflect the total power consumed by that Customer scheduling point accounting for the power generated by the dispatchable generator situated downstream. | ~~If the Trading Participant is a dispatchable generator connected to a distribution system (embedded facility), then its MTN and scheduling point shall be assigned to the nearest scheduling point represented in the MNM. Adjustments to the real-time monitoring of the Customer scheduling point shall be made accordingly to reflect the total power consumed by that Customer scheduling point accounting for the power generated by the dispatchable generator situated downstream.~~ | For deletion since Section 5.3.2 (d)[[2]](#footnote-2) already covers this provision |  |  |
| 6.4.6 | A generating facility shall be modelled as a scheduling point. | ~~A generating facility shall be modelled as a scheduling point.~~ | For deletion since generating resources can have both MTNs and scheduling points |  |  |
| 6.5 | GENERATOR MTN | GENERATOR ~~MTN~~ **MARKET RESOURCE** | For consistency with the proposed new Section 2.1.5 (Definition of Market Resource) |  |  |
| 6.5.1 | A MTN is considered a generator node if energy is supplied into that node and the direction of the power flow is from the apparatus or equipment (i.e. generator) operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator. | ~~A MTN is considered a generator node if energy is supplied into that node and the direction of the power flow is from the apparatus or equipment (i.e. generator) operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator.~~ | For deletion since the definition is already indicated in Section 6.3.1 |  |  |
| 6.5.2 | 6.5.2 During the submission of offers to supply electricity, the participant generator shall specify the location of the connection point and the relevant market network node. | ~~6.5.2~~ ~~During the submission of offers to supply electricity, the participant generator shall specify the location of the connection point and the relevant market network node.~~ **6.5.1 During the registration of the generator resource, the *Trading Participant* shall specify if the *scheduling point* should represent the gross MW output of the generator or at the same location as the *market trading node*, which is at the connection point and net of its station use. The location of the *scheduling point* shall be the reference point for the *registered capacity*, submission of *generation offers* and self-scheduled nominations, scheduling, dispatch, and dispatch compliance monitoring.** | Re-numberedRevised for clarity where the scheduling point shall be the reckoning or reference point capacity registration until dispatch compliance monitoring. Settlement is reckoned at the market trading node. |  |  |
| 6.5.3 | 6.5.3 xxx | ~~6.5.3~~ **6.5.2** xxx | Re-numbered |  |  |
| 6.6 | CUSTOMER MTN | CUSTOMER ~~MTN~~ **MARKET** **RESOURCE** | For consistency with the proposed new Section 2.1.5 (Definition of Market Resource) |  |  |
| 6.6.1 | A customer node is the point where energy is withdrawn by the WESM participant and the direction of the power flow is from the network operated by the Network Service Providers, including the System Operator, to the energy consuming apparatus or equipment (i.e. load) owned by or connected to the customer trading participant. | ~~A customer node is the point where energy is withdrawn by the WESM participant and the direction of the power flow is from the network operated by the Network Service Providers, including the System Operator, to the energy consuming apparatus or equipment (i.e. load) owned by or connected to the customer trading participant.~~**Should there be limitations for a customer resource to be modelled at the *connection point* (e.g. availability of real-time monitoring facilities), the *Market Operator* may implement simplifications and approximations to its representation in the *market network model* while still ensuring its consistency and accuracy with its actual connection to the grid.** | For deletion since the definition is already indicated in Section 6.3.1To reflect current modelling practice for customer resources. |  |  |
| 6.7 | BATTERY ENERGY STORAGE SYSTEM MTN | BATTERY ENERGY STORAGE SYSTEM ~~MTN~~ **MARKET RESOURCE** | For consistency with the proposed new Section 2.1.5 (Definition of Market Resource) |  |  |
| 6.7.1 | A MTN is considered a battery energy storage system node if energy is injected or withdrawn through that node and the direction of the power flow is from the apparatus or equipment operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator. | ~~A MTN is considered a battery energy storage system node if energy is injected or withdrawn through that node and the direction of the power flow is from the apparatus or equipment operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator.~~ | Propose to delete original provision since definition is already indicated in section 6.3.1. |  |  |
| 6.7.2 | 6.7.2 During the submission of offers to supply or consume electricity, the participant battery energy storage system shall specify the location of the connection point and the relevant market network node. | ~~6.7.2 During the submission of offers to supply or consume electricity, the participant battery energy storage system shall specify the location of the connection point and the relevant market network node.~~**6.7.1 During the registration of the *battery energy storage system resource*, the *Trading Participant* shall specify if the *scheduling point* should represent the gross MW output of the generator or at the same location as the *market trading node*, which is at the connection point and net of its station use. The location of the *scheduling point* shall be the reference point for the *registered capacity*, submission of *generation offers* and self-scheduled nominations, scheduling, dispatch, and dispatch compliance monitoring.** | Re-numberedRevised for clarity where the scheduling point shall be the reckoning or reference point capacity registration until dispatch compliance monitoring. Settlement is reckoned at the market trading node. |  |  |
| 6.7.3 | 6.7.3 xxx | ~~6.7.3~~ **6.7.2** xxx | Re-numbered |  |  |
| 6.8 | PUMPED-STORAGE UNIT MTN | PUMPED-STORAGE UNIT ~~MTN~~ **MARKET****RESOURCE** | For consistency with the proposed new Section 2.1.5 (Definition of Market Resource) |  |  |
| 6.8.1 | A MTN is considered a pumped-storage unit node if the facility is a pumped-storage plant where energy can either be injected or withdrawn through that node and the direction of the power flow is from the apparatus or equipment operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator. | ~~A MTN is considered a pumped-storage unit node if the facility is a pumped-storage plant where energy can either be injected or withdrawn through that node and the direction of the power flow is from the apparatus or equipment operated by the Trading Participant to the network operated by the Network Service Providers, including the System Operator.~~ | For deletion since the definition is already indicated in Section 6.3.1 |  |  |
| 6.8.2 | 6.8.2 During the submission of offers to supply or consume electricity, the participant battery energy storage system shall specify the location of the connection point and the relevant market network node. | ~~6.8.2 During the submission of offers during generation mode, the participant pumped-storage unit shall specify the location of the connection point and the relevant market network node~~**6.8.1** **During the registration of the *pumped-storage unit* resource, the *Trading Participant* shall specify if the *scheduling point* should represent the gross MW output of the generator or at the same location as the *market trading node* (i.e. at the *connection point*, which is at the connection point and net of its station use. The location of the *scheduling point* shall be the reference point for the *registered capacity*, submission of *generation offers* and self-scheduled nominations, scheduling, dispatch, and dispatch compliance monitoring.** | Re-numberedRevised for clarity where the scheduling point shall be the reckoning or reference point capacity registration until dispatch compliance monitoring. Settlement is reckoned at the market trading node. |  |  |
| 6.8.3 | 6.8.3 xxx | ~~6.8.3~~ **6.8.2** xxx | Re-numbered |  |  |
| 6.9 | PROCEDURE FOR MTN IDENTIFICATION | PROCEDURE FOR ~~MTN IDENTIFICATION~~ **REGISTRATION OF MARKET RESOURCES** | Revised to better describe the section |  |  |
| 6.9.2 | The Market Operator and the System Operator, in coordination with the Trading Participant, shall determine the MTN based on the criteria set out in Section 6.4 - Criteria For Definition of MTN of this document. | The Market Operator and the System Operator, in coordination with the Trading Participant, shall determine the ~~MTN~~ ***market resource* model** based on the ~~criteria~~ **guidelines** ~~set out in~~ of Section 6~~.4 - Criteria For Definition of MTN~~ of this document. **The agreed *market resource* model shall be determined in accordance with the procedures under the *WESM* *Market Manual* on Registration, Suspension, and De-Registration Criteria and Procedures.** | For consistency with the proposed new Section 2.1.5 (Definition of Market Resource) |  |  |

**Appendix A.** Illustration of Simplified Model for Embedded Generators



1. 5.5.1 Within two (2) working days from deployment, the Market Operator shall publish advisory on the MNM updates deployed in the production system. Consistent with the provisions of Section 4.5.7 of this Market Manual, the Market Operator shall prepare a monthly report containing all MNM updates deployed in the production system. This report shall be provided to the DOE, ERC, and the PEM Board, and shall be similarly published in the market information website ten (10) working days after the end of the billing period. At the least, it shall contain the following:

a) Summary of MNM Updates during the month

b) Latest Bus-Oriented Single Line Diagram [↑](#footnote-ref-1)
2. 5.3.2. The MNM may contain simplifications related to the representation of Generation and Customer Trading Nodes upon request of a Trading Participant and approved by the Market Operator, System Operator, and if necessary, the Network Service Provider. Such simplifications are listed, but not limited to the following conditions

a) xxx;

b) xxx;

c) xxx; and

d) Single Customer Trading Nodes representing an aggregate of multiple customers maybe disaggregated into several Customer Trading Nodes corresponding to the customers represented in that Trading Node. It is provided, however, that such disaggregation shall be allowed only in cases where there are appropriate real-time monitoring points that can account for the real-time withdrawal of energy in each disaggregated individual customer trading node.*(emphasis supplied)* [↑](#footnote-ref-2)