Metering Contestability Network Standard

Standards for Retailers, Metering Coordinators, Metering Provider, Metering Data Provider and Embedded Network Managers operating in Endeavour Energy's Network Area

Effective 21 July 2020

Version 2.3



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1. Document Amendment History

Version	Effective Date	Comments
1.0	1 August 2016	Document created to support the closure of the solar bonus scheme
2.0	1 December 2017	Document updated to align with the Power of Choice reform
2.1	14 February 2019	Document updated based on questions received since start of Power of Choice reform
2.2	1 August 2019	Updated with new requirements for Allocate NMI Clarified that unmetered connection points are not allowed without our prior agreement Clarified that if a MP has an agreement with us to use their meter as a controlled load device then all metering installations requiring controlled load must be wired to their meter's controlled load functionality Clarified that the responsibility for detecting illegal reconnections when the site is de-energised and delivery of metering data is with the metering coordinator Minor grammatical and formatting changes
2.3	21 July 2020	Updated the sections on temporary isolation group supply, notification of remote disconnection and reconnection and controlled load; and minor changes within the document



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2. Definition and Terms

Term	Definition
ASP	Accredited Service Provider
Endeavour Energy Authorisation	Authorisation is a method of ensuring that people who do work on our network have the necessary competency demonstrated by training, qualifications, experience and knowledge to carry out their work in a safe manner
ENM	Embedded Network Manager
eNOSW	An Endeavour Energy solution that allows the ASP to electronically complete and submit a NOSW
FRMP	Financially Responsible Market Participant or a retailer who has nominated themselves as the Financially Responsible Market Participant for a NMI
MC	Metering Coordinator as defined in the Rule
MDP	Metering Data Provider as defined in the Rule
MP	Metering Provider as defined in the Rule
NMI	National Metering Identifier as defined in the Rule
NOMW	Notification of Metering Work as defined in the B2B Procedure. This notification also includes network devices and is to be completed by the MP.
NOSW	Notification of Service Work. This notification is to be completed by the ASP using the eNOSW solution



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Term	Definition
NUOS	Network Use of System
Rule	National Electricity Rules, National Energy Retail Rules



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3. Introduction

This document describes the standards for FRMPs, MCs, MPs, MDPs and ENMs when working in Endeavour Energy's network area and for interactions between Endeavour Energy as a LNSP.

Endeavour Energy's MC Agreement should be referenced for interactions between Endeavour Energy as a MC and the FRMP.

This document may be updated as national, jurisdictional and company policies and requirements change. It is the responsibility of the reader to reference the latest version of the document.

Endeavour Energy does not accept any responsibility for:

- the design, operation or failure of any metering installations or electrical installation work;
- any loss or damage occasioned to any person or property; or
- non-compliances to any regulatory obligations, commercial contracts or customer contracts
 Any reference to MC includes their appointed MP, MDP and any sub-contractors.

In this document the term 'we', 'our' or 'us' means Endeavour Energy.

Regulatory instruments and documents that are authorised by a regulatory instrument shall prevail for the extent of any inconsistencies with this document.



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4. Information for Retailers

4.1 Introduction

This section applies to all retailers who are operating, or intending to operate, in our network area.

In this section the term 'you' or 'your' means FRMP.

4.2 Network Bills

4.2.1 Invoices

Where an interval meter is installed the NUOS billing cycle will be monthly and may include temporary substituted or final substituted metering data.

When we are not the MC then you must not dispute the network bill because you did not receive the latest metering data. It is expected that a Provide Meter Data request will be raised by you before disputing a network bill where there is a mismatch of consumption.

4.2.2 Network tariffs

You may change the network tariff by following the process and rules published in our Network Price List. A copy of our Price List is available on our website www.endeavourenergy.com.au under Have your say/ For industry professionals.

Please note that combination tariffs published in our Network Price List do not apply to interval meters and all changes to network tariffs for interval meters can only apply from the 1st day of the next month.

It is your responsibility to provide the MC or their appointed MP with the network tariff to be populated in MSATS when you request for a meter change or meter reconfiguration.

Note that a condition of network tariff approvals is that the installed metering installation must be able to support the requested network tariff.

It is your responsibility to be aware of the needs of your customer at any time, and apply for a tariff request promptly and in accordance with the process outlined in Endeavour Energy's Network Price List.



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4.2.3 Changes to the primary network tariff

Arrangements for residential customers with type 4 meters

We expect network tariff changes for residential customers with type 4 meters to be managed between you and your MC. You are responsible for informing the MC of the new network tariff and ensuring that the metering details, including the new network tariff, are correctly updated in MSATS.

Upon notification of a network tariff change from MSATS we will validate that the network tariff complies with our Network Price List. Where an invalid network tariff was used we will revert the network tariff to what it was previously or apply the default network tariff. Where the proposed network tariff complies with our price list we will accept the nominated network tariff.

Arrangements for business customers with type 1, 2, 3 or 4 meters

Prior approval is required for network tariff changes for all existing or intending business customers. Approval can be sought by submitting a completed FBS3000 Form as per our Price List.

Upon receipt of the completed FBS3000 Form, we will validate that the proposed network tariff complies with our Network Price List. Where an invalid network tariff is provided the request will be rejected. Where the proposed network tariff is approved the request will be accepted and we will update MSATS with the network tariff code.

Arrangements for all customers with type 5 meters

Prior approval is required for network tariff changes with type 5 meters. Approval can be sought by submitting a completed FBS3000 Form as per our Price List.

Upon receipt of the completed FBS3000 Form, we will validate that the proposed network tariff complies with our Network Price List. Where an invalid network tariff is provided the request will be rejected. Where the proposed network tariff is approved the request will be accepted and we will update MSATS with the network tariff code.

Arrangements for all customers with type 6 meters

Prior approval is required for network tariff changes with type 6 meters. Approval can be sought by emailing MassMarketTariffChanges@endeavourenergy.com.au nominating the proposed network tariff.



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Upon receipt of your email, we will validate that the proposed network tariff complies with our Network Price List. Where an invalid network tariff is provided the request will be rejected. Where the proposed network tariff is approved the request will be accepted and we will update MSATS with the network tariff code.

Tariff Requests for Embedded Networks

You may apply for a specific network tariff to be assigned on the Parent NMI from the commencement date of an embedded network by submitting the electronic form FBS4000 as per our Price List.

4.2.4 Changes to the network off peak tariff

Where our controlled load equipment is installed.

We only accept requests to change the network off peak tariff via a B2B Service Order where our controlled load equipment is installed. You must raise a Metering Service Works Meter Reconfiguration request as per the B2B Service Order Procedure. We expect you to provide the proposed network off peak tariff in the field called Proposed Tariff.

Where our controlled load equipment is not installed

We will not accept a Metering Service Works Meter Reconfiguration transaction to change the network off peak tariff where our controlled load equipment is not installed.

You must arrange with the MC for the settings to be changed in the meter and for the new network off peak tariff to be updated in MSATS.

4.2.5 Off peak tariff

To be entitled to the off peak tariff you must ensure that the metering installation is configured as per our Price List. If the customer wishes to have an off peak network tariff then the Retailer must arrange for the controlled load service by engaging a MP who has an agreement with Endeavour Energy to use their meter as a controlled load device, and the MP must install their meter to provide controlled load services as per the agreement with Endeavour Energy. This also applies for existing type 4 metering installations with an Endeavour Energy controlled load device that has failed. For the latest listing of approved MPs please contact Endeavour Energy's Metering Coordinator as per the Retail



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Operations Contacts List. Refer to "Section 7 Appendix A – Controlled Load" for requirements regarding Controlled Load in the MP's meters.

Existing type 5 and 6 metering installations can continue to be controlled by an Endeavour Energy controlled load device.

If an MP's equipment is used as a controlled load device and the MP's agreement has ended or is revoked then the controlled load network tariff will no longer be allowed.

Note that we reserve the right to assign the customer connection services to a noncontrolled load tariff if the conditions for the controlled load tariff are not met.

4.3 Connection Services

If you are arranging a new connection or upgrading an existing connection for your customer then you need to determine which connection services are required and submit the relevant application to connect to our network. More detail can be obtained from our website. Note that in some circumstances our electrical infrastructure may need to be extended or upgraded to accommodate your customer's additional electrical load. If this is the case, you may be required to arrange for and contribute to the costs involved.

A Permission to Connect letter from us is required before any new metering installation is allowed to be connected to our network or for any alteration to the connection point – see appendix G. The Permission to Connect letter can be obtained by following our Connection of Load process. More details on this process and the required forms can be found on our website. Note that a NMI is required before starting this process.

In NSW most connection and service works are provided under a contestable scheme called the Accredited Service Provider (ASP) scheme. When engaging an ASP it is your responsibility to engage the appropriate ASP for the connection and service works that you require.

4.3.1 Arranging a new connection point

To arrange a new connection, either temporary or permanent supply, the following activities must be completed:

1. Obtain a NMI using the Supply Service Works Allocate NMI transaction as per the B2B Service Order Procedure.



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 - 2. Obtain a Permission to Connect letter from us. This can be obtained by following the Connection of Load process. More details on this process and the required forms can be found on our website
 - 3. Engage the appropriate ASP for the service work installation and connection. A Class 2B ASP must be used for underground service works and a Class 2C ASP must be used for overhead service works. A Class 2D ASP must be used to energise the new installation. Note that an ASP could hold all three accreditations.
 - 4. Engage the MC to install the metering installation.

We will activate the NMI in MSATS when the ASP submits their NOSW and the MP submits their NOMW. The NOSW and NOMW are to be submitted within 2 business days from when the work is completed.

See Appendix F for a high level process diagram.

4.3.2 Removal of connection point

To arrange the removal of the connection point, including the metering installation, the following activities must be completed:

- Engage the appropriate ASP for the service work removal. A Class 2B ASP must be used for underground service works and a Class 2C ASP must be used for overhead service works. Note that any removal of our controlled load equipment must only be completed by a Class 2D ASP. Note that an ASP could hold all three accreditations.
- 2. Engage the MC to remove a type 1-4 metering installation.

We will extinct the NMI in MSATS when the ASP submits their NOSW and the MP submits their NOMW. The NOSW and NOMW are to be submitted within 2 business days from when the work is completed.

4.3.3 Change a temporary supply to permanent supply

To change a temporary supply into a permanent supply at an existing site in our network area the following activities must be completed:





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 - 1. Follow the process for the removal of a connection point, then
 - 2. Follow the process for a new connection point

Note that you must arrange to extinct the NMI for the temporary supply and arrange for a new NMI for the permanent supply.

4.3.4 Upgrade connection point from single phase to multi-phase

To arrange an upgrade from single phase the following activities must be completed:

- 1. Obtain a Permission to Connect letter from us. This can be obtained by following the Connection of Load process. More details of this process and the forms can be found on our website.
- Engage the appropriate ASP for the service work installation and connection. A Class 2B ASP must be used for underground service works and a Class 2C ASP must be used for overhead service works. A Class 2D ASP must be used to energise the new installation. Note that an ASP could hold all three accreditations.
- 3. Engage the MC to upgrade the metering installation.

4.3.5 Installation or upgrading of generation at an existing site

To arrange the installation or upgrading of generation the following activities must be completed:

- 1. Obtain a Permission to Connect letter from us. This can be obtained by following the Connection of Load process. More details on this process and the required forms can be found on our website.
- 2. Engage the MC to upgrade the metering installation if required.

4.3.6 Installation of controlled load at an existing site

To arrange the installation of controlled load the following activities must be completed:



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 - 1. Engage an MP that has an agreement with us to use their meter as a controlled load device to upgrade the metering installation.

4.4 B2B Communications

4.4.1 Allocate NMI

To request the allocation of a NMI you must raise a Supply Service Works Allocate NMI B2B Service Order. We do not offer contestable metering services under the participant id of INTEGP, INTEGM or INTEGMP. If these participant ids are nominated we will reject the service order.

A valid Lot and DP Number must always be provided in a Supply Service Works Allocate NMI transaction. The Lot Number must be provided in the Lot field of the ServiceOrderAddress and the DP Number must be provided in the FormNumber field with the letters 'DP' appearing before the DP number (eg 'DPXXXXXXX). If there is a section number, please provide this in the FormReference field. We will validate the site address in Six Maps. Where the site address can be validated to be within the boundary of our network area a NMI will be provided.

To avoid receiving a rejection response to your Allocate NMI Service order, we encourage retailers to perform a NMI discovery in MSATS to confirm that a NMI is not already allocated, and to pre-validate the Lot, DP and if applicable Section details in Six Maps (https://maps.six.nsw.gov.au).

You must not object to being nominated in the role of FRMP when the NMI is created in MSATS because of the completion of an Allocate NMI B2B Service Order that you initiated.

4.4.2 Temporary Isolation-Group Supply

Supply interruptions for a NMI with a shared isolation point must be requested using the Temporary Isolation-Group Supply Service Order as per the B2B Service Order Procedure and the steps detailed below.

To avoid incurring delays and cost, you should request your MP to scope the work required for the metering installation and to help you confirm if you are the retailer for all impacted customers prior to raising a Temporary Isolation-Group Supply Service Order. Note that we have the right to not complete your request and charge you a fee for the work we have already completed if we identify that you are the retailer for all the impacted customers.



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In the interest of the customer we may not complete the temporary isolation, even if we had agreed to a date, when we become aware of situations where the temporary isolation will impact customers who are sensitive to supply interruptions and who was not appropriately consulted. We reserve the right to charge you a fee for the work we have already completed. To avoid incurring delays and cost we suggest that you have processes in place to identify and appropriately consult with customers who may be sensitive to supply interruptions prior to raising a Temporary Isolation-Group Supply Service Order.

You should also consider the option of working with other retailers to coordinate retailer planned interruptions. However, we are not able to inform you who is the FRMP for a NMI because information on the FRMP is not within scope of NMI Standing Data.

We offer appointments at 8am on working days and for some areas we may offer more appointment times throughout the day. You must obtain our approval for a specific date and time prior to raising the temporary isolation service order, otherwise we will determine the date and time for the isolation. We encourage you to work with your customers and your MP to confirm a date and time that is most suitable for the temporary isolation prior to contacting us.

If you expect to raise a large volume of Temporary Isolation-Group Supply Service Orders, especially for family failure meter replacements, then we suggest you contact us at groupisolation@endeavourenergy.com.au to develop a schedule for managing these scenarios. This will allow for better coordination to determine suitable date and time slots. If we are not contacted prior to you raising the service order then we will determine the date and time for the isolation.

If you do not obtain our approval for a specific date and time prior to raising the temporary isolation service order then we will notify you and your nominated MC/MP of the date and time for the isolation after we have notified the customer. You must have processes in place to meet your obligations in a timely manner and ensure that your MP is available for the date and time we determine.

We will not complete the Temporary Isolation-Group Supply Service Order when you are no longer the FRMP for the NMI you raised the Service Order under and will charge you a fee for the work we have already completed.

To arrange a temporary supply interruption with an agreed date

 If you want to nominate a specific date/time then you must email groupisolation@endeavourenergy.com.au to obtain our approval. You must include in the email the NMI and at least 3 of your preferred date/time listed in



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 - your preferred order. We will endeavour to accommodate your request and will provide an approval number if we agree to a nominated date/time.
 - 2. You must inform your MC/MP of the agreed date and time
 - 3. You must raise the Temporary Isolation-Group Supply Service Order within 1 business day of receiving the approval number otherwise we will deem that you no longer want the agreed date/time and may allocate the date/time to others.
 - 4. When you raise the Temporary Isolation-Group Supply Service Order you must:
 - a. include the approval number in the field called AppointmentReference
 - b. populate the fields called Co-ordinatingContactName and CoordinatingContactTelephoneNumber. We suggest that this be the MP's scheduler, not the meter technician's, contact details. We will contact this person if there are any issues. If you do not provide contact details then we will contact you.
 - 5. If you want to change the isolation date after you have raised the Temporary Isolation-Group Supply Service Order then you must cancel the Service Order and start the process again. Note that this will be taken as a new request and therefore our timeframe obligations will restart.

To arrange a temporary supply interruption without an agreed date

- 1. If you want us to perform a temporary isolation without an agreed date/time then you must raise a Temporary Isolation-Group Supply Service Order and you must:
 - a. not populate the field called AppointmentReference
 - b. populate the fields called Co-ordinatingContactName and CoordinatingContactTelephoneNumber. We suggest that this be the MP's scheduler, not the meter technician's, contact details. We will contact this person if there are any issues. If you do not provide contact details then we will contact you.
 - c. populate the SpecialInstructions field with your nominated MC/MP's email address so we can communicate the date/time of the temporary isolation
- 2. We will inform you of the date/time of the temporary isolation after we have notified the impacted customers.
- 3. If you provided us with your nominated MC/MP's email address in the service order, then we will also inform your nominated MC/MP of the date/time of the temporary isolation when we inform you. If you did not provide your nominated MC/MP's email address in the service order, then you must inform your MC/MP of the agreed date and time
- 4. If you want to change the isolation date or nominate a date after you have raised the Temporary Isolation-Group Supply Service Order then you must cancel the Service Order and start the process again. Note that this will be taken as a new request and therefore our timeframe obligations will restart.



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Notification of interruption

We will notify impacted customers of the planned temporary isolation being undertaken by us. This notification will only cover the length of time required to install the meter protection device.

You must separately notify your customer, who is impacted by the meter change, of the additional supply interruption period required to install and commission the meter. You should obtain confirmation of the additional supply interruption period for the meter change from your nominated MP.

Interrupting the supply

We will be on site at the agreed date and time. It is expected that the MP will be at the metering installation, have completed any necessary pre-work activities and ready to install the meter protection device at the agreed date and time. If the MP is not on site within 15 minutes of the agreed date and time then we will not perform the supply interruption. We will leave the site, close the service order as not completed and charge a 'no show fee' to you. You must raise a new service order request if the interruption to the supply is still required.

To minimise the length of the supply interruption to customers the MP must install the meter protection device first when the supply is isolated. This will allow us to restore the supply to other affected customers when the meter protection device is installed. The MP can then safely install and commission the meter at the MP's own pace.

4.4.3 Notification of remote disconnection and reconnection

The moratorium on remote disconnection and reconnection is expected to be lifted on 1 September 2020.

Once remote disconnection and reconnection is allowed you must notify us of all remote disconnections and remote reconnections. We only accept this notification via the Notified Party transaction as per the B2B Procedure. Should you want to use a different format or channel then prior written agreement is required.

The notification should be sent prior to and after the completion of the remote disconnection/reconnection and must contain the reason for the disconnection. It is expected that you will provide the proposed date that the remote disconnection/reconnection will occur when provided prior to the



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 - disconnection/reconnection or the actual date of the remote disconnection/reconnection if provided after the disconnection/reconnection.

It is expected that you will provide a new Notified Party transaction if the date of the proposed remote disconnection/reconnection changes.

Where you fail to advise us of the remote disconnection, and a no supply call is received from a customer, we will attend the site, restore supply by bypassing the meter, issue a Meter Fault and Issue Notification transaction via B2B to you and charge you a fee.

Where you advise us of the remote reconnection, and a no supply call is received from a customer, we will refer the customer to you.

4.4.4 Meter fault and issue notification

When we identify that a metering installation requires replacement we will issue a Meter Fault and Issue Notification transaction, via B2B, to you. This may include defects that require a meter change to resolve and meter fault scenarios. Note that we will send the Meter Fault and Issue Notification transaction to you only and not to your MC or MP.

It is expected that you will prioritise fault rectifications as follow:

Priority	Description	Value in ReasonForNotice field in Meter Fault and Issue Notification
1	SupplyOn is 'No'	Any
2	Theft or tamper has been detected at the metering installation	Theft/Tampering
3	The meter has been bypassed enabling customers to remain on supply	Meter Bypassed
4	The metering installation is classified as faulty	Malfunction



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Priority	Description	Value in ReasonForNotice field in Meter Fault and Issue Notification
5	The metering installation is declared to be statistically non-conforming	Meter Family Failure

Type 5 or 6 metering installations.

The Meter Fault and Issue Notification transaction will be sent to you, as the FRMP. Where you become the FRMP for a NMI we will re-issue the Meter Fault and Issue Notification to you if the type 5 & 6 metering installation has not been replaced.

All other metering types

The Meter Fault and Issue Notification transaction will be sent to you, as the FRMP, once only.

4.4.5 Planned Interruption Notification

You must notify us of a planned interruption. We only accept this notification via the Planned Interruption Notification as per the B2B Procedure. Should you want to use a different format or channel then prior agreement is required.

If we receive the Planned Interruption Notification and later receive an enquiry about no supply we will provide details from your Planned Interruption Notification and refer the customer to you.

It is expected that you will provide a new Planned Interruption Notification if the date of the interruption changes.

If we do not receive the Planned Interruption Notification or subsequent updates and receive an enquiry about no supply we will attend to the site. A fee will be charged to you



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if the outage was caused by you or work done on behalf of yourself, this includes accidental interruptions.

4.4.6 Meter Investigation-Meter Test

On request, we will provide the results of the meter test. To request the details please email mibschedulers@endeavourenergy.com.au.

4.4.7 Local Meter Disconnection

We only perform a local meter disconnection for type 6 meters that we own. To request for this service you must raise a De-energisation service order with a sub-type of Local Meter Disconnection. Note that we will no longer look for the term 'DMLT' or 'MLT' in the service order to determine if a local meter disconnection is requested.

4.4.8 B2B services not offered

We do not offer the following B2B services:

Service Type	Service Sub Type
Supply Service Works	Tariff Change
Supply Service Works	Supply Alteration
Supply Service Works	Supply Abolishment
Supply Service Works	Establish Temporary Supply
Supply Service Works	Establish Temporary in Permanent
Supply Service Works	Establish Permanent Supply



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Supply Service Works	Temporary Isolation
Re-energisation	Remote
De-energisation	Remote
Metering Service Works	Exchange Meter
Metering Service Works	Install Meter
Metering Service Works	Move Meter
Metering Service Works	Remove Meter
Metering Service Works	Install Controlled Load
Metering Service Works	Change Timeswitch settings
Miscellaneous	

The above B2B transactions will be rejected when we are nominated as the recipient

4.5 Metering Installations

4.5.1 Meter reversion

As per the Rules all new or replacement meters for a small customer must be a type 4 or 4A meter, consequently once a type 4 or 4A meter is installed we will not replace it with a type 5 or 6 meter.

Once a type 4 or 4A meter has been installed, any future metering requirements must be managed between the customer and you.



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To help customers understand their obligations we expect you will assist your customers with ongoing education on the process for new, changes to and removal of metering installations.

4.5.2 Remote disconnections and reconnections

Once remote disconnection and reconnection is allowed it is expected that you will communicate and educate your customers about this method and to instruct the customers to first contact you for no supply enquiries. The communication should be included in any notices that may result in a remote disconnection, for example reminder notice for overdue payments.

4.5.3 Physical disconnections and reconnections

Requests for physical disconnections will cause the MC's meter to become de-energised. It is expected that you will notify the MC of all physical disconnection requests.

We will not disconnect using the meter load tail method on a meter that does not belong to us.

As per the Rules you can only request an MC to perform remote disconnection and you must continue to send physical disconnection requests to the network service provider only.

If the sub type of the De-energisation Service Order is Recipient Discretion then we will use the De-energisation Reason to determine the disconnection process we would follow and will charge the corresponding fee. The table below defines the disconnection process we will attempt when the subtype of Recipient Discretion is raised:

De-energisation Reason	Disconnection process we will attempt
Customer Requested	Remove Fuse
Move Out	Remove Fuse
Non-Payment (DNP)	Remove Fuse



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Unauthorised Usage (DNI)	Remove Fuse
Illegal Usage	Pole Top / Pit
No Access	Pole Top / Pit
Safety	Pole Top / Pit
Defect	Pole Top / Pit
Site Works	Service Order will be rejected. We do not provide this service.
Breach Of Contract	Remove Fuse
Other	Remove Fuse

Note that we will only attempt the disconnection using one process. If the disconnection cannot be completed, for example the metering installation does not allow for the method associated with the disconnection process, then the service order will be closed as Not Completed and a site visit fee will be charged. To arrange a different disconnection process, you must raise a new service order with a different sub type. Also note that we will disconnect at main switch if we can access site but not remove the service fuse (eg shared fuses, fuses not labelled correctly on board)

4.5.4 No supply

We are committed to providing a safe and reliable power supply at all times. However for various reasons – both planned and unplanned – power for some customers can be interrupted.

If we receive a no supply call we will check for a Planned Interruption Notification or Notified Party transaction for a remote disconnection.



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If we received a Planned Interruption Notification or Notified Party transaction and the interruption date or date range is the same day as the customer call, we will refer the customer back to you. If we are unable to determine the actual date of the interruption or disconnection we will respond by visiting the site and if necessary bypassing the electricity meter to restore supply to the customer in which case we will send a meter fault and issue notification to you. A service fee may be levied to you in these situations.

The meter fault and issue notification can be used by you to make the necessary arrangements for the metering installation to be corrected and to have the metering data substituted accordingly.

The above process also applies to a type 5 and 6 metering installation except that we will arrange to substitute the metering data.

Note that we will only by-pass meters. We will not bridge meters. We will not install a network device as a temporary means to restore supply.

If we are unable to restore supply then the customer will be informed of the outcome of our investigation and if required to contact you or their electrical contractor. In addition, life support customers will be advised to make any necessary arrangements during the supply outage.

Every metering installation connected to our network has a NMI and the NMI is always populated in MSATS. We will identify you via MSATS.

4.5.5 Planned and unplanned interruptions

We currently advise you of planned and unplanned interruptions via our website. This notification method will continue from 1 December 2017.

4.5.6 Combination meter

A combination meter is a meter that measures both general supply and off peak services and has an inbuilt controlled load functionality. When arranging for a new meter, you must engage an MP that has an agreement with us to use their meter as a controlled load device where our combination meter is installed. The combination meter must be removed when a type 4 meter is installed.

4.5.7 No hot water complaints

Where our controlled load device is installed at site



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We will attend the site to restore hot water. We may by-pass the controlled load device or an MC's meter if the issue is within the meter. We will issue a Meter Fault Notification transaction, via B2B, to you if we by-passed the meter.

Where our controlled load device is not installed at site

We will refer the customer to you where we determine that the controlled load device is not owned by us. It is expected that you will have systems and procedures in place to manage these complaints.

4.5.8 Adding a new service for an existing type 5 or 6 metering installation

The Rules do not allow for a metering installation to have a mix of meter types. If there is an intention to add a new service (for example solar, controlled load etc) to an existing type 5 or 6 metering installation then the existing type 5 or 6 meter must be replaced with a type 4 meter.

4.5.9 Upgrading from single phase to three phases for an existing type 5 or 6 metering installation

The Rules do not allow for a metering installation to have a mix of meter types. If there is an intention to upgrade from single phase to three phases for an existing type 5 or 6 metering installation then the existing type 5 or 6 meter must be replaced with a type 4 meter.

4.5.10 Replacing switchboards of type 5 and 6 metering installations

When a meter switchboard for a type 5 and 6 metering installation is replaced then the existing type 5 or 6 meter must be replaced with a type 4 meter.

4.5.11 Moving switchboards of type 5 and 6 metering installations

You may only arrange moving a switchboard for a type 5 or 6 metering installation if the NMI for the metering installation is not changing and if the meters are not removed from the switchboard panel. Prior to arranging the move you must change in MSATS the MC from Endeavour Energy to your nominated MC. Note that an ASP is not allowed to move the switchboard.



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If the type 5 or 6 meter will be removed from the existing switchboard then it must not be reinstalled on another switchboard, instead a type 4 meter must be installed.

4.5.12 Installing and removing controlled load devices

If the controlled load device and the off peak meter is owned by us then a Class 2D ASP or an MP must be engaged to remove the device.

To install a controlled load device you must engage an MP that has an agreement with us to use their meter as a controlled load device to upgrade the metering installation.

4.5.13 Current Transformers

You may arrange to remove or continue to use current transformers that belong to us. If the current transformer is removed then we do not require them to be returned. If the current transformer is continued to be used then ownership and responsibility will transfer to you when the interval meter is installed. However note that we will not supply any test or compliance certificate for the current transformers.

4.5.14 Unmetered connection points

You must not arrange for a connection point to be connected to our network without a compliant meter unless you obtain our express prior written agreement.

4.6 MSATS

4.6.1 Nominating us as MC, MP or MDP

We do not offer contestable metering services under the participant id of INTEGP, INTEGM or INTEGMP. Change requests nominating us as the MC, MP or MDP where we are not the current participant for these roles in MSATS will be objected.

Where we are no longer the MC for a type 5 or 6 metering installation we will not accept a reversion of the MC role back to us unless you obtain our express prior written agreement.



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4.6.2 Changing the MC, MP and MDP roles

The meter churn procedure, which is incorporated in the Metrology Procedure Part A, only allows for meter churn to be initiated by the current MC. Change requests nominating a new MP and/or new MDP with a new MC in a single change request for a type 5 or 6 metering installation will be objected.

4.6.3 Changing the MP or MDP roles

A prospective change request nominating a new MP or new MDP must not be raised while there is an installed type 5 or 6 meter unless the FRMP intends to replace the type 5 or 6 meter.

A retrospective change request nominating a new MP or new MDP must not be raised while there is an installed type 5 or 6 meter.

4.7 Metering Data

4.7.1 Substituting the final type 6 meter read

The Service Level Procedure for MPs stipulates that the NOMW must be provided within 2 business days of the metering work. We will temporary substitute the metering data on the meter removal date for a type 6 meter if the MP does not send a NOMW or sends invalid data in the NOMW. At our discretion we will make the substitution final if a valid NOMW is not received.

4.7.2 Substituting meter reads for illegal tampers

We will provide you with the extra estimated daily kwh consumption due to illegal bypass or meter installation tamper. It is expected your Metering Data Provider will make the necessary adjustments to the interval data and send to market participants within 10 business days of our notice.



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- Information for Metering Coordinators and their Metering Service Providers

5. Information for Metering Coordinators and their Metering Service Providers

5.1 Introduction

This section applies to all metering coordinators who are operating, or intending to operate, in our network area. Any reference to MC includes their appointed MP, MDP and any sub-contractors.

In this section the term 'you' or 'your' means MC including their appointed MP, MDP and any sub-contractors.

5.2 B2B Communications

5.2.1 Notification of works

You must send us the Notification of Metering Works as defined in the B2B procedure for all new, altered or removed metering installations within two business days of completing the metering work. You must indicate on the NOMW details of our load controlled devices at the metering installation.

Our eNOSW application must not be used for the installation or removal of interval meters. Our eNOSW application is only for an ASP to use when they perform service work.

5.2.2 NEM12 file format

As required by the AEMO meter data file format specification, the file must contain the face plate serial number for each installed meter and must align with the meter serial number in MSATS. This is important to allow tariffs to be correctly assigned and to allow us to identify metering installations, via the meter number, for no supply enquiries and B2B service order requests.

5.3 Metering Installations

5.3.1 NSW Department of Fair Trading

In addition to being accredited by AEMO you must be registered and compliant with the NSW Department of Fair Trading's requirements before you are allowed to operate in NSW.



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5.3.2 Removing network metering assets

Under the amendments to the Electricity Supply Act that became effective in July 2016, you and your contractors must be working under a safety management system approved by the Office of Fair Trading. You and your contractors may remove our metering assets without an Endeavour Energy Authorisation provided you are working in accordance with your approved safety management system.

5.3.3 Service and Installation Rules

You must comply with the Service and Installation Rules. A copy of the Service Installation Rules can be obtained from <u>http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/pipelines-electricity-gas-networks/network-connections/rules</u>

5.3.4 Adding a new service for an existing type 5 or 6 metering installation

The Rules do not allow for a metering installation to have a mix of meter types. If you want to add a new service, for example solar or controlled load, to an existing type 5 or 6 metering installation then the existing type 5 or 6 meter must be replaced with a type 4 meter.

5.3.5 Moving switchboards of type 5 and 6 metering installations

You may only arrange moving a switchboard for a type 5 or 6 metering installation if in MSATS you are the MC for the NMI and if the meters are not removed from the switchboard panel. If the type 5 or 6 meter will be removed from the existing switchboard then it must not be reinstalled on another switchboard, instead a type 4 meter must be installed.

5.3.6 Upgrading from single phase to three phases for an existing type 5 or 6 metering installation

The Rules do not allow for a metering installation to have a mix of meter types. If you want to upgrade from single phase to three phases at an existing type 5 or 6 metering installation then the existing type 5 or 6 meter must be replaced with a type 4 meter.



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5.3.7 Network devices

The following devices are deemed to be network devices in our network area:

- 1. Relays for controlled loads
- 2. Time switches for controlled loads
- 3. Neutral integrity monitors
- 4. Sample meters
- 5. Any device that is labelled as "network device"

5.3.8 Neutral integrity monitors

You must wire your meter after our neutral integrity monitors. See appendix C for the wiring diagram.

You are only allowed to remove the neutral integrity monitor if there is insufficient space on the switchboard. If you remove the neutral integrity monitor then it must be returned to:

Senior Engineer - Communications & Control Development

Endeavour Energy

51 Huntingwood Drive

Huntingwood NSW 2148

The following information, as per clause 7.8.6.h of the NER, must be provided with the returned neutral integrity monitor:

- 1. the address from which the neutral integrity monitor was removed;
- 2. the date and time of removal of the neutral integrity monitor; and
- 3. photographs and measurements of the neutral integrity monitor, the metering installation and the metering facility



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5.3.9 Sample meters

Under the Metrology Procedure we are obligated to have sample meters. These meters are interval meters that are remotely read with the interval metering data provided to AEMO only. The same meter is also read as an accumulation meter and the accumulation metering data is provided to AEMO and the retailer for the purpose of market settlements and customer billing.

All of our sample meters are owned and remotely read by PlusES.

To arrange the removal of a sample meter, you must contact PlusES on 02 4951 9906 Monday to Friday (excluding public holidays) between 7am and 5pm immediately prior to the removal so that a final read can be obtained remotely.

You must also send us the Notification of Metering Works with the final read of the removed meter.

5.3.10 Net solar installations

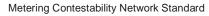
Where interval meters are installed for a net solar installation then the meter must be configured to net the energy instantaneously and not average the energy over the half hour data interval. The net energy calculation must be done within the interval meter i.e. the metering data from the meter cannot be adjusted outside the meter in a post data processing method.

5.3.11 Red seals for life support customers

We use red seals to flag sites registered as life support. To avoid confusion you must not use red seals. Likewise you should avoid breaking a red seal.

Where you are required to break our red seal, you must notify us on 02 9853 6411 with the following information:

- NMI,
- full address of site,
- MC you are working for,
- your name,
- your contact phone number.





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5.3.12 Removal of type 5 meters

All of our type 5 meters are owned and remotely read by PlusES.

To arrange the removal of a type 5 meter, you must contact PlusES on 02 4951 9906 Monday to Friday (excluding public holidays) between 7am and 5pm immediately prior to the removal so that a final read can be obtained remotely.

5.3.13 Our type 6 metering assets

We do not require decommissioned type 6 metering assets to be returned. This includes decommissioned controlled load devices. You should follow your own procedure for disposal. You must not install the removed meter at any other premises.

5.3.14 Combination meter

A combination meter is a meter that measures both general supply and off peak services and has an inbuilt controlled load functionality. When a type 4 meter is installed the combination meter must be removed and the controlled load functionality must be provided by your meter.

5.3.15 Electricity theft or metering installation tamper

Where there has been suspected theft of electricity or suspected tampering of our meters, then you must not complete the meter change and must notify us via email at metrology.compliance@endeavourenergy.com.au with the following information:

- NMI,
- full address of the site,
- Retailer you are working for,
- your name,
- your contact phone number,
- meter number,
- date issue identified,
- description of the issue and any other information that may help with the investigation

We will notify you when the investigation is complete and the meter change can proceed.





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5.3.16 Defective controlled load devices

Note that our controlled load device may be;

- bridged;
- neutral removed; or
- forced non-auto

The existing status of the controlled load device is inconsequential to the metering works to be performed and it does not stop you performing a meter change.

5.3.17 Our controlled load devices

If you have an agreement with Endeavour Energy to use your meter as a controlled load device then you must remove our controlled load device and install your meter to provide controlled load services as per the agreement with Endeavour Energy.

If you do not have an agreement with Endeavour Energy to use your meter as a controlled load device and the customer or retailer has requested for controlled load services then you must inform the customer or retailer that you are unable to perform this service.

5.3.18 Dangerous installations

If you determine that the customer's installation is dangerous to the customer's immediate safety then you must make the installation safe which may include disconnecting supply to the installation. If you are unable to make the installation safe then you must notify us on 131 003 and take the necessary action to minimise any safety risk to the customer until our emergency service officer arrives.

5.3.19 Locked meter boxes

If you encounter a locked meter box then please consult with the customer or the retailer requesting the metering work to arrange the appropriate access to the metering installation.



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We will not unlock or remove locks that belong to the customer on request from you. This includes locks the customer may have purchased from us because these locks are the customer's property.

The customer's industry lock is required to be reinstated after completion of the work to provide around the clock access by Endeavour Energy to perform network services.

5.3.20 Incorrect metering

Where you suspect that a metering installation with our meters are incorrectly identified in MSATS or is metering the incorrect customer installation (eg. flat 1 is metering flat 2), then you must not complete the meter change.

You must contact the FRMP who can raise a metering investigation service order. The service order should articulate clearly what the metering issue is. For example, Meter A appears to be crossed with Meter B. Upon completion of the service order the FRMP should inform you that the meter change can proceed.

5.3.21 Certificate of compliance of electrical works

A certificate of compliance electrical works (CCEW) is not required to be submitted to us for installation of interval meters. See appendix E for when a CCEW must be submitted to us.

5.3.22 Fuses with friable asbestos

You should note that service fuses may contain friable asbestos and that you should follow your procedure for managing friable asbestos. Appendix B lists known friable and non-friable service fuses.

5.3.23 Radioactive off peak relays

You should note that Zellweger ZE 22/3 relays contain small quantities of radioactive material. You should follow your procedures for management and disposal of these relays



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5.3.24 Remote disconnection and reconnection

You are not allowed to perform remote disconnection or reconnection until it is approved by NSW state regulators.

5.3.25 Physical disconnection and reconnection

You are not allowed to interrupt the supply of electricity on behalf of a FRMP unless it is for installing, maintaining, repairing or replacing an interval meter. It is expected that you have arrangements in place to confirm that the customer is notified of supply outages prior to you interrupting the supply.

You are not allowed to interrupt the supply of electricity if it will impact a customer who is not the customer of the FRMP you are working for.

5.3.26 Connection of controlled loads

You must ensure that our controlled load device is removed when you use the controlled load functionality within your meter. Note that you require approval from us prior to using the controlled load functionality within your meter.

If you have an agreement with us to use your meter as a controlled load device then all metering installations requiring controlled load must be wired to your meter via your meter's controlled load functionality.

If you identify any load that is not wired via our controlled load device then this must be corrected by wiring the load to:

- your meter via your meter's controlled load functionality if you have an agreement with us to use your meter as a controlled load device; or
- the general supply meter

5.3.27 Isolation point shared with multiple customers

To avoid incurring delays and cost, we suggest that you have processes in place to scope the work required for the metering installation, such as confirming that there is sufficient space on the board and whether there are any other factors that need to be considered such as asbestos, type of meter to install etc, and help confirm if the FRMP is the FRMP for all impacted customers prior to the FRMP raising the temporary isolation service order to us.



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We may inform you of the date and time of the temporary isolation, but it is your responsibility to obtain or confirm the date and time of the temporary isolation with the FRMP. You must be at the metering installation, have completed any necessary pre-work activities and ready to install the meter protection device at the nominated date and time. If on the isolation date you are unable to make the appointment time then you should contact us on 02 9853 6181. If you are not on site within 15 minutes of the nominated date and time then we will not perform the supply interruption, will leave the site, close the service order as not completed and charge a 'no show fee' to the FRMP. The FRMP must raise a new service order request for a future date if the interruption to the supply is still required.

If prior to the isolation date you are unable to attend the nominated date and time then you must inform the FRMP so that they can cancel the existing service order and arrange for a new service order to be raised. We will not change the date and time or cancel the service order if you contact us directly.

You should inform the FRMP of the additional supply interruption period required to install and commission the meter so that the FRMP can notify the customer receiving the meter change.

You must not perform the supply interruption yourself. It is your responsibility to test and prove that the circuit or electrical equipment intended to be worked on or near is deenergised when the supply is isolated.

It is expected that you will complete the installation of the meter protection device as a priority. This approach minimises the length of the supply interruption to customers and allows for you to safely install and commission the meter at your own pace by using the meter protection device as the supply isolation point for the meter change. You must not perform the reconnection of the shared isolation point yourself.

5.3.28 Level 2 ASPs

All service work, including new network connections, upgrades to the existing connection point and physical disconnections/reconnections at the connection point must be completed by an appropriate level 2 ASP. You are responsible for arranging these ASP services when required.

Upon completion of the service work a NOSW must be submitted by the ASP, using our eNOSW mobile application, within 2 business days of completing the work.

The NOSW cannot be combined with the NOMW.



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5.3.29 Unmetered connection points

You must not arrange for a connection point to be connected to our network without a compliant meter unless you obtain our express prior written agreement.

5.3.30 Detecting illegal reconnections when the site is de-energised

You must have processes in place to detect illegal reconnections when a site is deenergised. This could include periodically, e.g. monthly, turning on the collection process to check if the site is energised, have meters installed that can provide an indicator/alarm when supply becomes available, have meters installed that automatically pushes the metering data to the MDP's MDM system when supply becomes available.

5.4 MSATS

5.4.1 Nominating us as MP or MDP

We do not offer contestable metering services under the participant id of INTEGM or INTEGMP. You must not nominate these participant ids in a change request when there is an intention to install a type 4 meter. We will object to change requests where we are nominated as the MP or MDP but we are not the current participant for these roles in MSATS.

5.4.2 Changing the MP or MDP roles

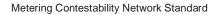
A prospective change request nominating a new MP or new MDP must not be raised while there is an installed type 5 or 6 meter unless the FRMP intends to replace the type 5 or 6 meter.

A retrospective change request nominating a new MP or new MDP must not be raised while there is an installed type 5 or 6 meter.

You must ensure that a CR1500 is not submitted to change the MC, MP or MDP roles while a metering installation is a type 5 or 6 metering installation.

5.4.3 MSATS standing data

We will use the MSATS "Controlled Load" field to determine the correct network tariff for each meter register. When populating MSATS, the value must be set to:





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"YES" if the meter register is measuring a load that is controlled by your approved meter.

"EXTERNAL" if the meter register is measuring a load that is controlled by a device that is owned by us.

"NO" if the meter register is not measuring a load that is controlled by us or your approved meter.

5.4.4 Network tariffs

The FRMP should provide you with the network tariff applicable for the NMI. You are responsible for correctly mapping the network tariff to the corresponding meter register in MSATS. To ensure that the network tariff aligns with the retailer's tariff you must request the network tariff from the FRMP if you do not have or you are unsure of the network tariff for the metering installation.

5.5 Metering Data

5.5.1 Delivery of metering data

You must deliver all valid metering data collected regardless of the NMI Status in MSATS.



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- Information for Embedded Network Managers

6. Information for Embedded Network Managers

6.1 Introduction

This section applies to all embedded network managers who are operating, or intending to operate, in our network area.

In this section the term 'you' or 'your' means embedded network manager including their sub-contractors.

6.2 Establishing an embedded network connection

To establish a new connection for the incoming supply or gate metering point, or to carry out any subsequent upgrades to the incoming supply, you will need to lodge a connection of load application. This allows us to determine the method of supply and any specific terms and conditions of connection. More details on this process and the required forms can be found on our website.

The establishment and operation of the network connection point for the embedded network is consistent with a single occupancy site, however the NMI will have an embedded network parent code registered with AEMO and if the embedded network operator has embedded customers wishing to have retailer of choice these will also have on-market child NMIs. Endeavour Energy will register the embedded network parent code with AEMO. On-market child NMI's will be issued by you when requested by the retailer following registration and normal NMI allocation processes. On-Market child NMI's will be linked to the parent code NMI.



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7. Appendix A – Controlled Load

7.1 General controlled load approach

Endeavour Energy's current requirement is that if the customer wishes to have the off peak network tariff then the Retailer must arrange for the controlled load service by engaging an MP who has an agreement with Endeavour Energy to use their meter as a controlled load device, and the MP must install their meter to provide controlled load services as per the agreement with Endeavour Energy. This also applies for existing type 4 metering installations with an Endeavour Energy controlled load device that has failed. Existing type 5 and 6 metering installations can continue to be controlled by an Endeavour Energy controlled load device.

In addition, if a MP's equipment is used as a controlled load device and the MP's agreement has ended or is revoked then the controlled load network tariff will no longer be allowed. Note that we reserve the right to assign the customer connection services to a non-controlled load tariff if the conditions for the controlled load tariff are not met.

Endeavour Energy has developed a controlled load requirement for use by MPs, refer below. The MP must obtain written approval from Endeavour Energy prior to applying the controlled load requirement. The MP must submit a specification for approval of how their solution will comply with the controlled load requirement and their acceptance of the conditions outlined in the requirement. If the MP has approval to use their meter as a controlled load device then all controlled load devices that belong to Endeavour Energy must be removed when the MP installs their meter.

It should be noted that some controlled load devices are used for multiple NMIs. MCs must ensure that the removal of a controlled load device does not affect the operation of another controlled load circuit for another NMI for which they are not responsible. If this cannot be achieved then the existing Endeavour Energy controlled load device must remain but must not be used for the NMI you are installing a new meter for.

If a metering installation has an Endeavour Energy controlled load device and the FRMP has indicated that they do not want a controlled load network tariff then the MC must arrange for the removal of the controlled load device.

7.2 Compliance with Australian Standards

The MC must ensure the controlled load device meets or exceeds the existing device on the customer's installation in regards to safety and functionality. The device must comply with AS 62052.21 Electricity metering equipment (ac) — general requirements, tests and test conditions Part 21: Tariff and load control equipment.



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7.3 High level controlled load requirements

For customers with controlled load tariff and the MP is replacing the existing meter or removing the existing relay/time switch, then the replacement controlled load device must have the following functionality:

Function	Endeavour Energy Requirement	Functional Rationale
Clock	Clock must be maintained within ±20 seconds of local time	Time must be synchronised to the local time
Controlled load schedules	Minimum of two controlled load schedules (see section 7.4 below). Schedules must be re-configurable. 99% of devices updated within 24 hours after initiation by Endeavour Energy	Support for current controlled load schedule and future controlled load schedule to be activated on a specified date
Switching programs	See section 7.4 for switching times	Support for up to ten ON/OFF commands based on day of week and defined seasons
Switch time randomisation	180 minute randomised delay on start only	Avoid synchronised switching of loads throughout the network area using a random delay.
Randomisation method	Randomly generated at configuration and shall achieve statistically rectangular distribution	Randomisation method will be selectable between (1) randomly generated during configuration, (2) at every switching event.
Loss of supply switching	Switch position is set to OFF	On detection of meter loss of supply, the controlled load device will be switched to the specified position
Restoration of supply switching	10 minute delay prior to randomised delay start 30 minutes returning to current schedule	On power restore the recorded random delay will be applied before (1) returning to current schedule or (2) previous state of the controlled load device prior to loss of supply
Priority override	Immediate ON/OFF and scheduled priority override when required. 80% of required devices will complete action within 5 minutes after initiation by Endeavour Energy	Current controlled load schedule can be interrupted with priority override to turn ON/OFF immediately, or start and end times with duration settings





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7.4 Controlled load switching times

The current controlled load schedule will have the following switching times:

Controlled load 1

Switching Program	ON/OFF Times	Randomisation
Weekdays	ON 22:00 OFF 07:00	180 minutes
Weekends - Winter	ON 22:00 OFF 17:00	180 minutes
Weekends - Summer	ON 22:00 OFF 15:00	180 minutes

Controlled load 2

Switching Program	ON/OFF Times	Randomisation
Weekdays - Winter Period	ON 22:00 OFF 07:00 ON 09:00 OFF 17:00	180 minutes
Weekdays - Summer Period	ON 22:00 OFF 13:00	180 minutes
Weekends - Winter Period	ON 22:00 OFF 17:00	180 minutes
Weekends - Summer Period	ON 22:00 OFF 15:00	180 minutes

NOTE:

- 1. All times are in local time.
- 2. Summer Period is from 1 November 31 March Winter Period is from 1 April – 31 October
- 3 Controlled Load "ON" status must not extend past switch "OFF" time. Unless prior written approval is obtained from Metering Asset Engineering Manager.

7.5 Additional requirements

7.5.1 When you have approval to utilise your meter for controlled load

When you have approval to utilise your meter for controlled load then:

- 1. You must provide controlled load that will match or exceed the Endeavour Energy controlled load device at the customer installation.
- 2. You must not change any controlled load switching times without prior written consent from Endeavour Energy.



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- 3. You must notify Endeavour Energy of any change from Controlled Load 1 to Controlled Load 2 or vice versa. This is to be achieved by updating the network tariff code in MSATS within 2 business days of the change.
- 4. You must accept and work with Endeavour Energy to develop a "shared market protocol" for controlled load to enable market interoperability including updating schedules, carry out immediate on/off commands etc.
- 5. You must allow Endeavour Energy to utilise priority override and updates of controlled load schedules as required.
- 6. You must refer to and adhere to Endeavour Energy's Network Price List for details on controlled load appliances and terms and conditions for controlled load.
- 7. You must install a smart meter that utilises the inbuilt controlled load functionality for new and existing metering installations where the customer wishes to have or maintain the network controlled load tariff. You must not utilise existing Endeavour Energy's controlled load devices.
- 8. You must comply with Endeavour Energy's emergency priority procedure with regards to controlled loads.
- 9. You must provide a report on a quarterly basis, on the first working day of January, April, July and October, detailing the complete listing of metering installations utilising the controlled load functionality within a smart meter. This report must include NMI, meter serial id, NMI suffix, network tariff and start date of the network tariff. The report is also to advise the ON and OFF switch times of each of the individual controlled loads for network planning purposes. This report to be sent to: - meterae@endeavourenergy.com.au
- 10. You acknowledge that it is your responsibility to extend the approval prior to the approval expiring. It is suggested that you allow 4 weeks for the processing of the extension request.
- 11. You acknowledge that each request to extend your Controlled Load Approval will be considered on their merits and that a previous Controlled Load Approval does not create a binding precedent on Endeavour Energy.
- 12. You must immediately advise Endeavour Energy in writing when you become aware of any non-compliance with the requirements and conditions of the Controlled Load Approval.
- 13. You acknowledge that Endeavour Energy may revoke a Controlled Load Approval via written notice.
- 14. You acknowledge that if a Controlled Load Approval expires or is revoked then that you will not install any smart meter that utilises the controlled load functionality from the date of expiration or revocation.
- 15. You acknowledge that if your Controlled Load Approval is not maintained (eg it has expired or has been revoked) then Endeavour Energy may deem metering installations with your smart meter that are utilising the inbuilt controlled load functionality to be non-compliant with the conditions of the controlled load tariff. This applies even if you had a Controlled Load Approval at the time of installing



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the smart meter that utilises the controlled load functionality. Note that as per the Endeavour Energy Price List, Endeavour Energy reserves the right to assign the customer connection services to a non-controlled load tariff if the conditions for the Controlled Load tariff are not met.

16. You acknowledge that if your Controlled Load Approval is not maintained (eg it has expired or has been revoked) then the metering coordinator or retailer may seek to have your meter replaced in order to meet the conditions of the controlled load tariff.

7.5.2 When you do not have approval to utilise your meter for controlled load

Where you do not have approval to utilise your meter for controlled load, or your approval has expired or is revoked, then you must advise the customer or retailer requesting controlled load functions that you are unable to perform this service.



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8. Appendix B – Asbestos Fuses

8.1 Known friable asbestos service fuses

Supplier	Details	Photo
Federal	30A, 500V AC	O BELINGER
Henley	Black plastic clad fuse	
Henley	Green metal clad fuse	



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Supplier	Details	Photo
Henley or Federal	Black metal clad fuse	
Energex	Energex type service fuse	
ISCO	250V	
В	20A, 500V	



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Supplier	Details	Photo
ISCO (Henley, Type M)	Metal clad service fuse	
E.C.E. Sydney	E.C.E. Sydney	

8.2 Known non-friable (bonded) asbestos service fuses

Supplier	Details	Photo
Federal	60 A Re-wireable fuse cartridge	'Short 60' Federal 63A Not sure but we
Short	60 A Re-wireable fuse cartridge	Henley 63A
Henley	63 A Re-wireable fuse cartridge	



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Supplier	Details	Photo
Henley	60 A 43011 Re-wireable fuse cartridge	
GE	60A, 500 V Fitted with re- wireable fuse containing bonded asbestos	A La contracta contracta de la



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9. Appendix C – Network Devices

9.1 Neutral Integrity Monitor

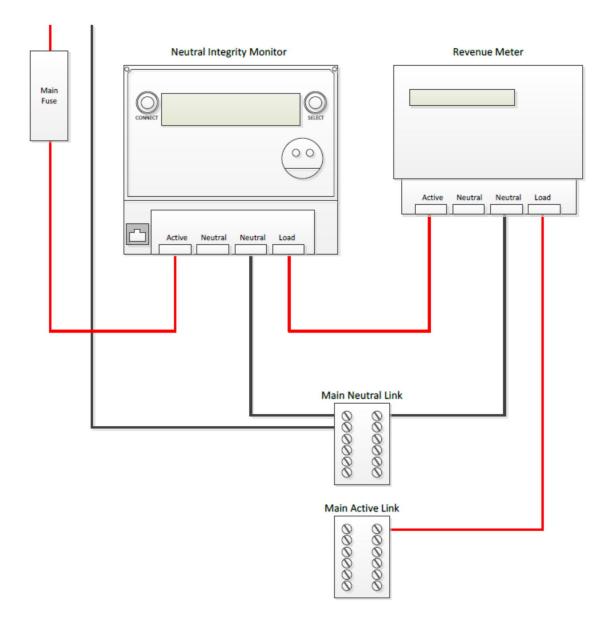
Below is what the neutral integrity monitor looks like. Note that the name plate states that it is a network device:





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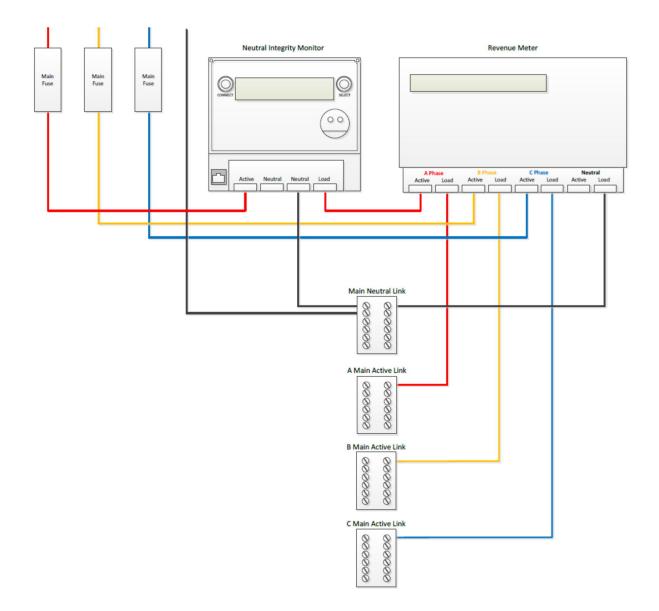
Below is the wiring diagram of the neutral integrity monitor for single phase premises:





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Below is the wiring diagram of the neutral integrity monitor for multi-phase premises:





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9.2 Relays

All relays in Endeavour Energy's network area are deemed to be network devices. Below are examples of relays in Endeavour Energy's network area:







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9.3 Zellweger ZE 22/3 relays

You should note that Zellweger ZE 22/3 relays contain small quantities of radioactive material. You should follow your procedures for management of these relays. Below is a picture of a Zellweger ZE 22/3 relay.





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10. Appendix D – Example Sample and MRIM Meters

All of our sample and MRIM meters are owned and remotely read by PlusES. Below is an example of these meters.

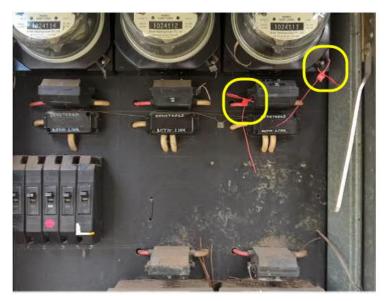


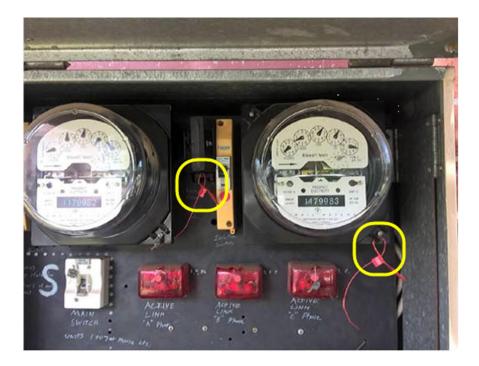


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11. Appendix E – Example of Red Seals

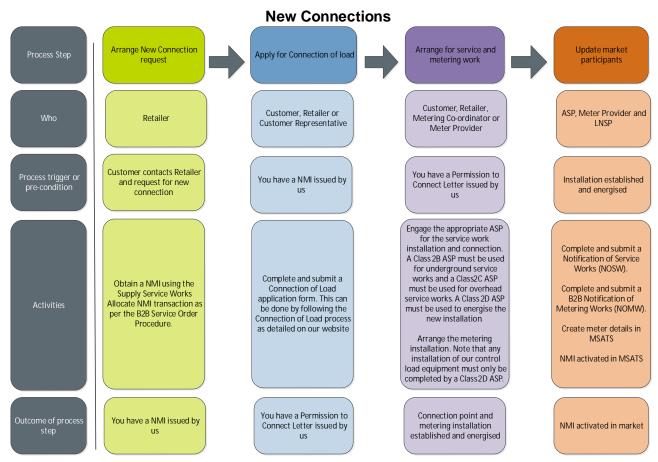
Red seals are used to flag sites registered as life support. Below are examples of these red seals.







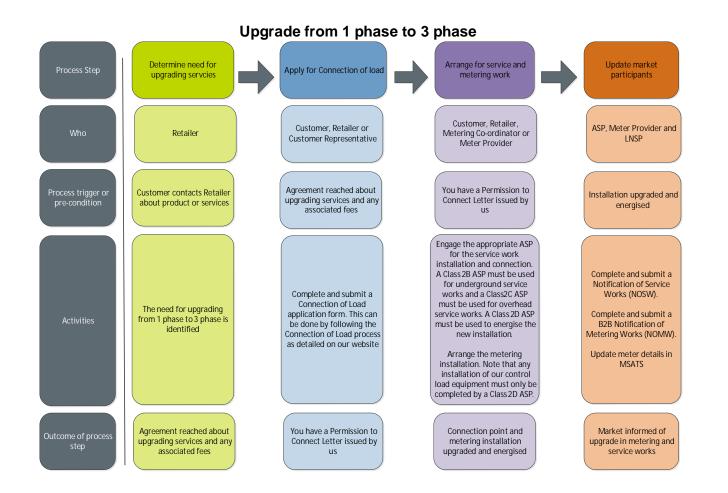
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12. Appendix F – High Level Process Diagrams

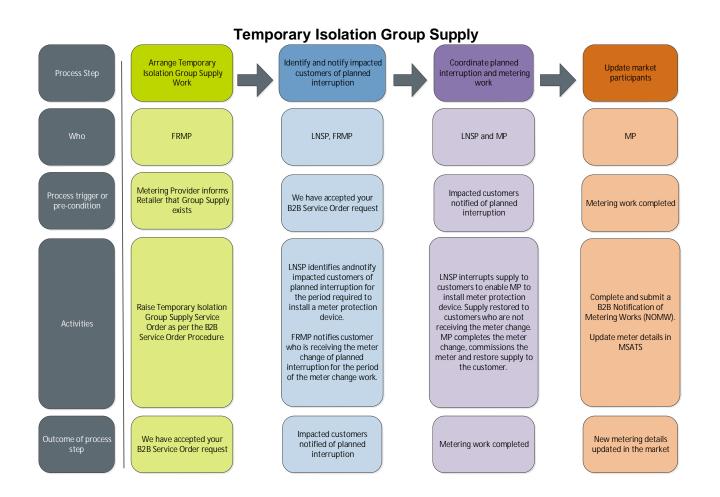


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13. Appendix G – Permission to Connect Requirements

This table defines when a Permission to Connect letter is required before service or metering work can start.

Scenario or activities		PTC required	NOMW required – to be provided by the MP via B2B	NOSW required – to be provided by ASP via eNOSW app	CCEW required
	New services connections	Yes	Yes	Yes	Yes
	New embedded generator system	Yes	Yes	No	Yes
New	New standby generator not permanently connected to the network	No	No	No	Yes
Ne	Install new off peak service to an existing dwelling	No	Yes	No	Yes
	Install new meter with no load increase	No	Yes	No	No
	Install new meter with load increase	Yes	Yes	Yes	Yes
	Add new power or lighting circuits with no load increase	No	No	No	Yes
Jpgrade	Upgrade mains switchboard or service mains for additional load	Yes	Yes	Yes if service work performed	Yes
Upgu	Upgrade solar system for larger capacity	Yes	Yes if metering work performed	Yes if service work performed	Yes if switchboard work performed
	Single phase to three phase upgrade	Yes	Yes	Yes	Yes
Mainten ance	Replace service mains like with like	No	Yes if metering work performed	Yes	No
Mair an	Replace overhead service mains with underground service mains or vice versa	No	Yes if metering work performed	Yes	Yes



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Scenario or activities	PTC required	NOMW required – to be provided by the MP via B2B	NOSW required – to be provided by ASP via eNOSW app	CCEW required
Main switchboard replacement or repairs with no new electrical works	No	Yes if metering work performed	Yes if service work performed	Yes
Relocate main switchboard with no service mains upgrade works	No	Yes if metering work performed	No	Yes
Disconnection or reconnection of services from main switchboard	No	Yes if metering work performed	Yes	No
Service connections reconnections associated with Level 1 construction works	No	Yes if metering work performed	Yes	No
Meter replacement only	No	Yes	No	No
Replace invertor or solar panel in a solar generator system	No	No	No	Yes





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14. Appendix H – Combination to Individual Network Tariff Codes

This table defines the mapping from a combination network tariff code to the equivalent individual network tariff code.

Combination			uivalent Indivi etwork Tariff C	
Network Tariff Code	Combination Network Tariff Name	Domestic	Controlled Load	Generation
NS70	Domestic (BT) Solar (Net)	N70		NESN
NG70	Domestic (BT) Solar (Gross)	N70		NESG
NS75	Domestic TOU Type 5 Meter Solar (Net)	N705		NESN
NG75	Domestic TOU Type 5 Meter Solar (Gross)	N705		NESG
NS76	Domestic TOU Type 6 Meter Solar (Net)	N706		NESN
NG76	Domestic TOU Type 6 Meter Solar (Gross)	N706		NESG
NS90	General Supply Non-TOU (BT) Solar (Net)	N90		NESN
NG90	General Supply Non-TOU (BT) Solar (Gross)	N90		NESG
NS84	General Supply TOU Solar (Net)	N84		NESN
NG84	General Supply TOU Solar (Gross)	N84		NESG
NS85	General Supply TOU, Type 5 Meter Solar (Net)	N845		NESN
NG85	General Supply TOU, Type 5 Meter Solar (Gross)	N845		NESG
NS89	Transitional General Supply TOU Solar (Net)	N89		NESN
NS19	LV Demand TOU Solar (Net)	N19		NESN
NS29	HV Demand TOU Solar (Net)	N29		NESN
NS39	ST Demand TOU Solar (Net)	N39		NESN
NFTL	Feed-In Credit (eligible customer) Gross DR meter [3] General supply TOU	N84		NFIT
NFTM	Feed-In Credit (eligible customer) Gross DR meter [4] General supply TOU	N84		NFT2



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Combination		Equivalent Individual Network Tariff Code		
Network Tariff Code	Combination Network Tariff Name	Domestic	Controlled Load	Generation
NFTP	Feed-In Credit (eligible customer) Gross DR meter [5] Domestic TOU type 5	N705		NFIT
NFTQ	Feed-In Credit (eligible customer) Gross DR meter [6] Domestic TOU type 5	N705		NFT2
NFTG	Feed-In Credit (eligible customer) Gross DR meter [7] Domestic BT	N70		NFIT
NFTH	Feed-In Credit (eligible customer) Gross DR meter [8] Domestic BT	N70		NFT2
NFTJ	Feed-In Credit (eligible customer) Gross DR meter [9] General Supply BT	N90		NFIT
NFTK	Feed-In Credit (eligible customer) Gross DR meter [10] General Supply BT	N90		NFT2
NFT5	Feed-In Credit (eligible customer) Net meter [3] General supply TOU	N84		NFT3
NFT6	Feed-In Credit (eligible customer) Net meter [4] General supply TOU	N84		NFT4
NFT7	Feed-In Credit (eligible customer) Net meter [5] Domestic TOU type 5	N705		NFT3
NFT8	Feed-In Credit (eligible customer) Net meter [6] Domestic TOU type 5	N705		NFT4
NFT9	Feed-In Credit (eligible customer) Net meter [7] Domestic BT	N70		NFT3
NFT0	Feed-In Credit (eligible customer) Net meter [8] Domestic BT	N70		NFT4
NFTA	Feed-In Credit (eligible customer) Net meter [9] General Supply BT	N90		NFT3
NFTB	Feed-In Credit (eligible customer) Net meter [10] General Supply BT	N90		NFT4
NFTC	Feed-In Credit (eligible customer) Net Combo meter [1] Domestic + C.L. 1	N70	N50	NFT4
NFTD	Feed-In Credit (eligible customer) Net Combo meter [2] Domestic + C.L. 2	N70	N54	NFT4



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Combination Network Tariff Code	Combination Network Tariff Name	Equivalent Individual Network Tariff Code		
		Domestic	Controlled Load	Generation
NFTE	Feed-In Credit (eligible customer) Net Combo meter [3] General Supply + C.L. 1	N90	N50	NFT4
NFTF	Feed-In Credit (eligible customer) Net Combo meter [4] General Supply + C.L. 2	N90	N54	NFT4
NC01	Domestic (BT) + Controlled Load 1	N70	N50	
NC02	Domestic (BT) + Controlled Load 2	N70	N54	
NC03	General Supply BT + Controlled Load	N90	N50	
NC04	General Supply BT + Controlled Load 2	N90	N54	



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