

Multiple Points of Supply Guideline Guideline V1

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Executive Summary

The Service and Installation Rules (Rules) of New South Wales (NSW SIRs) cover the requirements for the connection of electrical installations to the distribution network. Under the current NSW SIRs, only one connection point per electrical installation or Lot is normally permitted. Essential Energy, as the electrical distributor may vary these arrangements in certain circumstances and allow more than one connection per installation ('multiple points of supply').

This Guideline has been developed to help prospective connecting customers, service providers and landowners, prior to lodging any formal requests, to understand:

- Arrangements where multiple points of supply are likely to be allowed
- Arrangements where multiple points of supply are **not** likely to be allowed
- > The process for lodging a request for multiple points of supply
- The appropriate supporting documentation required for Essential Energy to review a request for multiple points of supply
- > The labelling requirements where multiple points of supply are allowed

Background

The NSW SIRs 1.12.3.2 currently allow for one connection point per electrical installation or Lot, with discretion given to the electrical distributor to vary these arrangements (see Figure 1).

This Guideline has been developed to ensure:

- consistent practices across Essential Energy's footprint thereby minimising inconvenience, project delays, cost increases and customer frustration
- safety is prioritised
- adherence to the NSW SIRs
- regulatory compliance

Essential Energy's preference is for a single point of supply as the standard connection method. In circumstances when all standard solutions have been explored a customer can request more than one electricity network connection per installation ('multiple points of supply') in accordance with the NSW SIRs. Each request will be assessed by Essential Energy on a case-by-case basis and requires approval in writing from Essential Energy prior to designing the connection.

This Guideline has been developed for LV connecting customers and does not apply to HV customers. HV connections please email queries to - Networkconnections@essentialenergy.com.au

Connection types that typically seek approval for multiple points of supply include:

- Public electric vehicle chargers
- Mobile telephone transmitting towers
- Radio communication towers
- Telephony cubicles and compounds
- NBN cubicles and compounds
- Isolated pumping stations

1.12.3.2 Number of Services

Only one connection point will normally be provided to each electrical installation. A strata title development will normally be considered as one installation. The electricity distributor may vary these arrangements.

An electricity distributor may allow more than one electricity network connection per installation if the distributor considers that to do so would be sound engineering practice after taking into account any or all of the following:

- (a) The magnitude of the customer's load;
- (b) The distance between 'sub installations' within an installation;
- (c) The nature of the customer's activities
- (d) The site conditions; and
- (e) The ongoing segregation of the separate parts of the installation.

The customer may be required to pay the cost involved in providing an additional supply. Before starting work, the electricity distributor must be consulted.

Figure 1: NSW Service Installation Rules (NSW SIRs)



Arrangements where multiple points of supply are likely to be allowed

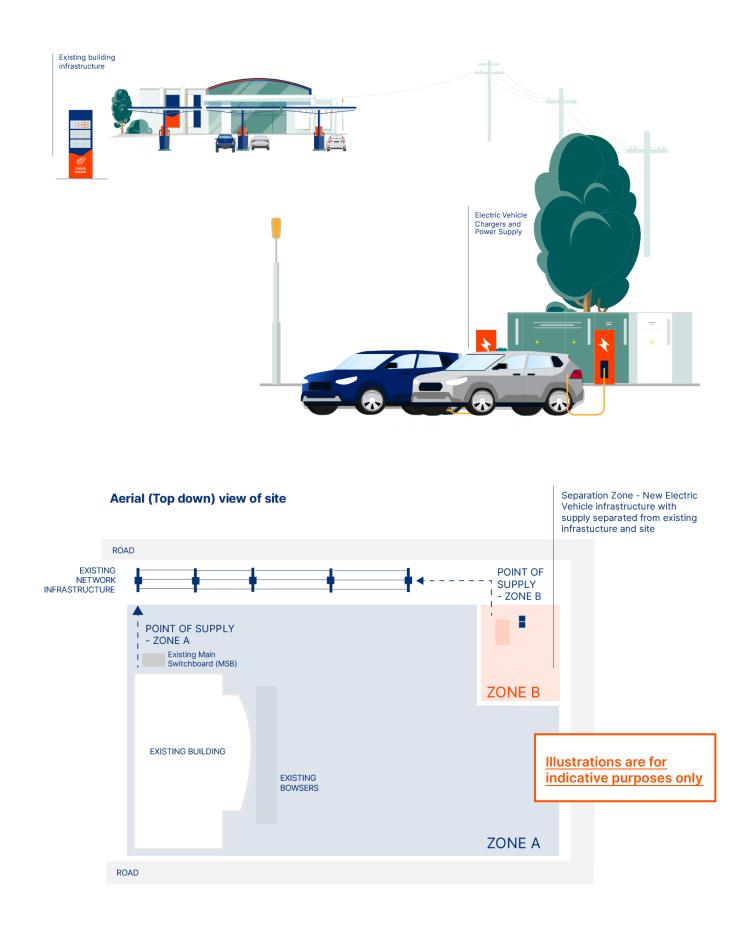
- Installations that remain physically separated and electrically isolated from the existing installation and buildings including any sub circuits e.g. external lighting
- Installations are easily recognisable as separate on the property
- Installation complies with industry standards and rules, including the current NSW SIRs and AS/NZS3000
- Installations include appropriate warning labels and signage at the generation source(s), network point(s) of supply and at the main switchboards, informing operational and emergency services staff of:
 - the existence and location of each source of supply;
 - type(s) of supply;
 - point(s) of isolation; and
 - safe shutdown and isolation procedures.
- Design to minimise or preclude the need for distribution network or the creation of easements in favour of Essential Energy in accordance with CEOP8046
- Where Essential Energy electrical assets need to traverse the landowner's property, Easements will be required back to the Point of Common Coupling

Arrangements where multiple points of supply are <u>not</u> likely to be allowed

- Installation is not physically separate and electrically isolated from other installations/buildings
- Any situation where a potentially unsafe situation could be created
- Pre-existing site Main Switchboard (MSB) can support the requirements for the additional load and accommodate multiple customers
- Earthing and touch potential hazards may be created
- Greenfield sites where there is opportunity for the electrical installation to be planned and built to meet the NSW SIRs
- Where site conditions or point of connection arrangements are not suitable for multiple supplies; a central metering point may be an alternate solution. It shall be established at or near the front boundary or adjacent to the Point of Common Coupling

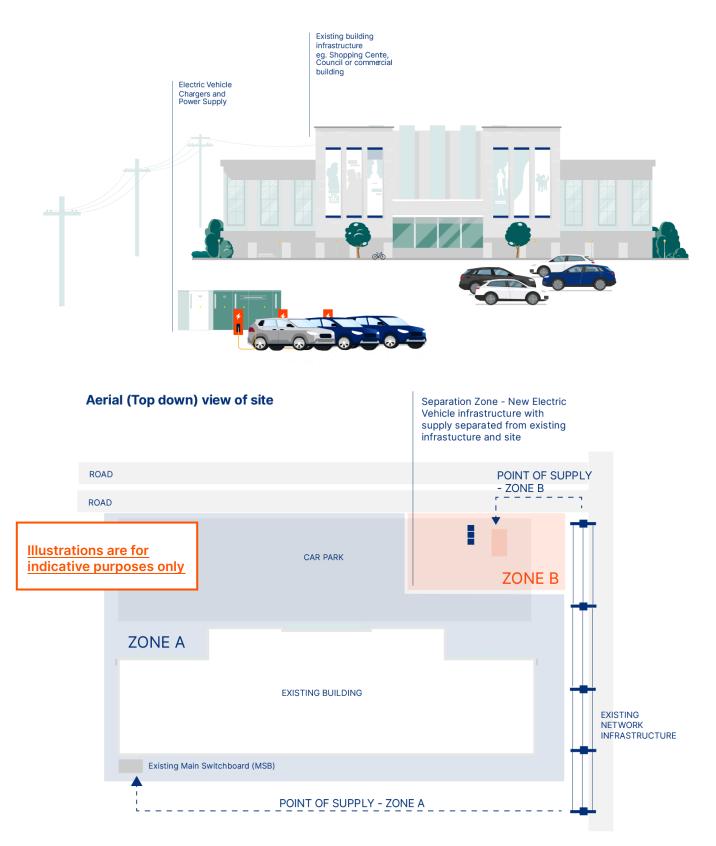


Example Illustration - Public EV Fast Chargers at Brownfield Service Centre





Example Illustration - Public EV Fast Chargers at Brownfield Shopping Centre





The process for lodging a request for multiple points of supply



***Connection Enquiry** is not a mandatory step. Connection Enquiries are often used by customers as part of project feasibility activities prior to lodging a formal Connection Application. Connection Enquiries do not substitute the requirement for a Connection Application and Non-Standard Approval.

Note - Essential Energy review services will be charged as per current Ancillary Network Services Rates (ANS rate). Current ANS rates can be found on the Essential Energy website here <u>Network Pricing</u> (essentialenergy.com.au)



The appropriate supporting documentation required for Essential Energy to consider a request for multiple points of supply

MULTIPLE POINTS OF SUPPLY REQUEST- CHECKLIST OF REQUIRED SUPPORTING DOCUMENTATION		
Item	Description	Completed
Electrical Concept Plan	Plan to outline the proposed connection and all existing connections on the site, including details of the existing and proposed connection points and property boundaries. Plans clearly show how the multiple supplies will be segregated on site, including all sub installations such as car park lighting assets.	[]
Site Photos	Photographs of the current site and Main Switchboard(s)	[]
Existing MSB details	Details of the existing site Main Switchboard (MSB) - Including Service Protection Device (SPD) settings	[]
Single Line Diagram	Diagram showing existing and proposed electrical connections	[]
Maximum Demand Determination	Determination of maximum electrical demand for the existing site and the proposed secondary supply site.	[]
Feasibility* *Not a mandatory checklist item	Any supporting evidence to show that an additional point of supply is a more viable option than consolidating with the existing infrastructure. For example, cost estimates of establishing a new dedicated MSB vs upgrading the existing MSB.	[]
Labelling	 Provide details and examples of how warning labels and signage will appropriately identify the generation source(s), network point(s) of supply informing operational and emergency services staff of: the existence and location of each source of supply; type(s) of supply; point(s) of isolation; and safe shutdown and isolation procedures. 	[]

Table 1 - Provides a checklist of the required evidence to be submitted with any request for multiple points of supply.



The labelling requirements where multiple points of supply are allowed

In situations where multiple points of supply are allowed, it is essential that at a minimum, generation source(s), network point(s) of supply, main switchboards and distribution boards are correctly labelled and that these labels are kept current.

Proper labelling is a fundamental safety measure and a legal requirement, ensuring clear identification of circuits and supply points to help prevent serious errors, safety hazards, or other issues.

The NSW SIRs 1.17.9 - b (see Figure 3) provides minimum requirements with respect to these labelling requirements.

In addition to the NSW SIRs, all applicable Australian Standards, including AS/NZS 3000 and any other relevant standards, must be strictly adhered to.

Electrical contractors and property owners are obligated to ensure that all labelling practices comply with these requirements to maintain safety and ensure regulatory compliance.

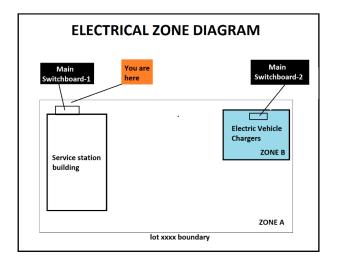


Figure 2 - Example "Electrical zone diagram"

1.17.9 Identification

The electricity distributor requires marking on electrical installations to identify the purpose and relationship of equipment. The marking may be in addition to that required by AS/NZS 3000 where:

- (a) Premises are subdivided into multiple occupancies with separate electricity supplies. The marking is used to identify the occupancy and the switchboard that supplies it. This will involve corresponding legible and durable marking at both the main entrance of the occupancy and the corresponding meter and distribution board, or switchboard.
- (b) Installations are supplied by more than one service. The marking is used at the service and metering equipment and the main switchboards to identify the portion of the premises being supplied and the presence, location or operation of any alternative source of supply. In addition, a diagram showing the segregation arrangement must be attached to each main switchboard. All distribution boards must be labelled to indicate from which service they are supplied.
- (c) Installations are supplied from the rail network distribution system. The markings on the main switchboard must indicate that the installation is supplied from the rail network distribution system.

Refer to Section 4 which provides a guide to acceptable equipment labelling and identification procedures for large installations.

Figure 3-NSW SIR extract on labelling requirements



WARNING

MULTIPLE SUPPLY POINTS (GRID) EXIST AT THIS LOT SHUTDOWN PROCEDURE AND ELECTRICAL ZONE DIAGRAMS LOCATED AT MAIN SWITCHBOARDS

Figure 4 -Example Warning label



Frequently Asked Questions

Q. Where can I go to find out more information on Essential Energy connections?

A. Further information can be found on our website <u>Connections (essentialenergy.com.au)</u>

Q. Do I need to be an Accredited Service Provider (ASP) to lodge a connection enquiry?

A. No. You can submit a connection enquiry if you are not an ASP or registered in the Essential Connections Portal. Just go to Essential Connections Portal - <u>Connections</u> (essentialenergy.com.au) and fill out a new connection enquiry under "Unregistered users".

Q. Do I need to be an Accredited Service Provider (ASP) to lodge a Non-Standard Approval request?

A. Yes. Only an ASP can currently lodge a Non-Standard Approval request in the Essential Energy connections portal.

Q. Why do I need to lodge a Non-Standard Approval request if I was given approval as part of a Connection Enquiry?

A. Connection Enquiries are used by customers as part of project feasibility activities prior to lodging a formal Connection Application. Connection Enquiries do not substitute the requirement for a Connection Application and Non-Standard Approval.

Q. Who at Essential Energy can I contact to discuss this Guideline?

A. If this Guideline does not answer your question, you can either add the question to any multiple points of supply request or email it to: Connection.enquiries@essentialenergy.com.au

Q. Will Essential Energy review and update this guideline?

A. Yes. Essential Energy strives to constantly evaluate and enhance our processes, practices and guidelines to make sure they are in line with industry standards and evolving customer expectations.

Q. Will Essential Energy assess requests for multiple points of supply on a case-by-case basis

A. Yes, Essential Energy will assess all requests for multiple points of supply on a case-by-case basis using the information provided at the time of request and site visits as necessary.

Q. How long does it take to receive an outcome on a request for multiple points of supply with Essential Energy

A. We will endeavour to provide an answer within 21 calendar days. These requests are nonstandard and may need our staff to visit site. If you provide all the required information in your original enquiry (see table 1 above) this will speed up the process.

Q. What happens if a sub-circuit installation is found during construction to be encroaching on separation of installations.

It is the responsibility of the customer or accredited service provider to halt works and promptly notify Essential Energy in the Essential Connections Portal of any changes or hazards that may arise at any time, which could create an unsafe situation or contradict any information previously provided to Essential Energy. This may result in the customer needing to take necessary steps to make the site safe and compliant



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