

FREMANTLE PORTS

2015 ELECTRICAL PLANNING FACT SHEET

PLANNING BRANCH



Application

This fact sheet applies to all Fremantle Ports tenants, particularly those requiring new or increased electrical supply or multiple electrical supplies to a lot.

General electrical installations

Tenants requiring a new or increased electrical supply at low voltage (LV) in excess of 399A are required to be fed at high voltage (HV) from Fremantle Ports.

All costs associated with a new and/or improved electrical supply from Fremantle Ports will be met by the tenant.

Under the existing West Australian Electrical Requirements (WAER) - January 2014 all high voltage customers are required to provide their local network operator with a HV Submission before purchasing electrical equipment. Upon request Fremantle Ports will provide a letter of authority to a HV tenant which will allow their electrical engineer direct access to Western Power for this purpose.

Please note that Fremantle Ports' electrical installation at the Inner Harbour is part of the South West Interconnected System (SWIS). Western Power is the Network Operator for the Inner Harbour and not Fremantle Ports.

All electrical work carried out at the Inner Harbour by a tenant at low voltage and/or high voltage is subject to all relevant Australian Standards and the Network Operator's Rules and Regulations.

Fremantle Ports must determine what impact the tenant's electrical equipment will have on the surrounding electrical infrastructure. To meet this need a copy of the tenant's HV Submission is to be sent to the electrical department at Fremantle Ports for its perusal and comment.

Fremantle Ports conducts an annual energy compliance audit to aid in planning for the future electrical requirements of the port. The tenant will receive an annual request from Fremantle Ports to provide information regarding their existing After Diversity Maximum Demand (ADMD) and any future changes to their ADMD.

In some circumstances, to improve the security of supply to HV customers, Fremantle Ports may provide an alternative point of electrical connection. The alternative supply will be termed a back-up supply and be solely controlled by the electrical department at Fremantle Ports. The cost of installing a back-up supply shall be met by the tenant.

Multiple electrical supplies to a lot

The following information for the segregation of electrical power between lots located at Fremantle Ports' Inner Harbour is based on the Western Australia Electrical Requirements (WAER) - January 2014.

Crossing electrical supplies over lease boundaries within an area should be avoided where possible. This is because multiple electrical supplies to an area can compromise safety when isolations are required by electrical workers and/or emergency services.

In general, Fremantle Ports will only provide one point of connection to each lot. The exceptions and clarifications to this rule are as follows:

1. When Fremantle Ports is required to cross a leased area, with a HV or LV cable.

These underground cables can be used to provide power to other tenants in the locality which may be via a Fremantle Ports controlled HV substation. Fremantle Ports shall make available, at its request, the records of where Fremantle Ports' electrical cables and substations are located within leased areas.

2. When an enterprise takes over the lease of an adjacent lot or lots and requires one power supply for the total area concerned.

In this case the tenant will usually have just one point of attachment to Fremantle Ports' electrical network and one set of revenue meters. It should be noted that power supplies in excess of 399A at 415V require the tenant to be a HV customer.

3. Under no circumstances will a tenant be allowed to transfer electrical power between lots that are not adjoining.
4. When a tenant requires more than one LV supply to an area that contains more than one lot.

The tenant must, at their own cost, establish electrical zones to clearly identify the extent of the electrical zone to the emergency services, electrical workers and Fremantle Ports.

5. At the tenant's cost the electrical zones must be established and maintained as follows:
 - a. Planning Approval to establish/change electrical zone/s must be first obtained from Fremantle Ports.
 - b. Electrical zone boundaries must follow easily recognisable boundaries such as buildings, fences and driveways.
 - c. Electrical zone boundaries shall be established following a straight line between two points.
 - d. Electrical zone boundaries must not intermingle, zigzag or cross over in any way.

- e. The electrical zones must be controlled by a tenant's zone main switchboard. This switchboard shall clearly identify the zone that it controls.
- f. A computer-generated electrical zone diagram showing both the geographical and electrical layout must be attached to every main zone switchboard and a certified copy shall be provided to Fremantle Ports.
- g. Unique labels shall be affixed to the main zone switchboards that correspond with the identification on the electrical zone diagram.
- h. To provide information to both emergency and operational staff the tenant shall supply and install an indelible weatherproof sign of minimum size of 1m x 1m located at each entrance to the site. This sign must clearly show the electrical zones in the area and where each zone can be isolated. The sign shall be clearly visible at all times and be kept clear of all obstructions, such as vehicle parking, trees and shrubs.
- i. All updated zone diagrams, signs and labelling shall be made at the time of the zone change.
- j. The zone diagram must be annually certified as complying with all electrical standards by a licensed electrical contractor or engineer.
- k. A certified copy of the electrical zone diagram is to be sent to Fremantle Ports every year, even if it has not been amended in the previous 12 months.
- l. In addition to the above requirements, the electrical installation must comply with all Australian Standards, WAER and Regulations as required by the Network Operator.



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