COPYRIGHT AND DISCLAIMER

Copyright

© 2015 Australasian Health Infrastructure Alliance

The Australasian Health Facility Guidelines (AusHFG) and the information in them are the copyright of the Australasian Health Infrastructure Alliance (AHIA). The information in the AusHFG is made freely available.

Australasian Health Facility Guidelines

Address: PO Box 1060, North Sydney NSW 2059
Website: http://www.healthfacilityguidelines.com.au
Email: webmaster@healthfacilityguidelines.com.au

The AusHFGs are an initiative of the Australasian Health Infrastructure Alliance (AHIA). AHIA membership is comprised of representatives from government health infrastructure planning and delivery entities in all jurisdictions in Australia and New Zealand.

Disclaimer

AHIA gives no warranty or guarantee that the information in the AusHFG is correct, complete or otherwise suitable for use. AHIA shall not be liable for any loss howsoever caused whether due to negligence or otherwise arising from the use of or reliance on this information.

AHIA recommends that those seeking to rely on the information in the AusHFG obtain their own independent expert advice.
Index

03 ELECTRICAL  4
   03.01 Scope  4
   03.02 General  4
   03.03 Design  4
03 ELECTRICAL

03.01 Scope

The following electrical supply services should be considered in the Design Brief including:

- general services;
- critical care services;
- essential services;
- UPS and Standby Power;
- electrical equipment;
- emergency lighting and signage;
- heating and cooling;
- lighting, including site and security lighting;
- patient protection systems;
- supply and distribution;
- switchgear and circuit protection;
- transformer equipment; and
- strategy for expansion.

03.02 General

Electrical services should be designed to provide:

- safety and reliability;
- capacity for all equipment and plant;
- capacity for expansion;
- flexibility for isolation, shutdown and maintenance;
- compatibility with existing on-site and facility systems;
- compatibility with provider network;
- cost efficiency;
- minimise electromagnetic interference; and
- distribution systems that will not see all modules of any critical service affected by any one interruption event e.g. modules of intensive care services should not be off a common sub main or one switchboard.

Lightning protection although a requirement, is not usually a design issue for consideration in the preliminary design stages.

03.03 Design

Consideration should be given to the location and requirements for:
• cabling;
• emergency battery supply;
• standby generating plant and fuel supply;
• substations and transformers;
• switchboards; and
• switch rooms.

Electrical supply is governed by supply authority regulations, standards and client policy. Sub stations are generally owned by the supply authority. Easements, substation location, security, access and egress for personnel and equipment should be considered.

Attention should be paid to the placement of sub stations and electrical mains as the former may provide a fire hazard, and both can adversely affect electrical and communications equipment. Later relocation or rectification can be costly.