

### 4.3 Sustainability Criteria

Project architects, Gardner Wetherill & Associates endorses ESD principles and endeavours to provide sustainable solutions which achieve an optimal balance of financial, environmental and social factors.

In all design and construction decision making processes, consideration is given to:

- Minimising water, air and soil pollution
- Minimising consumption of non renewable resources
- General environment issues
- Use of materials that have health and safety aspects eg. Using water based rather than solvent based paints
- Minimisation of waste
- Reduction in energy consumption
- Reduction in on-going maintenance requirements
- Appropriate and efficient external sun shading devices

Apart from employing ESD principles on projects, the firm has adopted strategies within our office to minimise use of energy and depletion of finite resources.

During the design development and documentation of the projects particular care will be taken in the selection of materials, systems and equipment in order to conserve energy and resources. Items that are considered include:-

- Orientation of buildings and windows
- Passive sun protection
- Variable voltage, variable frequency (VVVF) – Lift drives and motors
- Glass selection
- Use of motion activated lights
- Roof mounted Photovoltaic panels for both HWS and direct current for building electricity.
- Water conserving sanitary ware, tap and shower ware
- Photo electric controls on all external lighting
- Low energy use rated whitegoods
- ~~- Use of gas fired boilers for condenser water and hot water supply~~ NOT APPLICABLE
- Use of heat recovery from substation equipment
- Selection of materials with low embodied energy
- NABERS certification and on going performance review

NSW Police Station projects in accordance with NSW Government Office Design Designs Guidelines Circ. 5.3 Jan 2011), are required to achieve a 4.5 star rating.

The proposal incorporates a central courtyard, which the building footprint is orientated around. This courtyard allows natural northern light into the building and improve amenity.