

## Case Studies



**Site:** Premier Inn, Green Hotel, Centurion Park, Tamworth

**Remit:** To set new standards for sustainable design and construction in the hotel sector. The aim was to **cut carbon emission by 80%** during construction of the building and in the provision of heating, hot water and cooling of the hotel

**Solution:**

- To supply spatial heating, cooling and hot water for the hotel via **three phase 400V Heat Pump, 32.2kW.**
- **Solar thermal panels** to provide hot water and during the summer months connected to heating and hot water via 3 x 800l Thermal Stores.
- **Rainwater harvesting** to provide 100% of the hotel's water use saving 20% of the hotel's entire water use

- 12 volt DC fan coils
- Low energy **motion sensor LED lighting**
- High efficiency **thermal and acoustic insulation.**



**Source taken from collectors using 4 x 100 m boreholes. Identifying sites for drilling the holes**



**Insulated piping**



**Plant room**