

Renewable Energy and Environmentally Sustainable Design Case Studies

Hobsons Bay Civic Centre - SHW

Site:

Council Office, Civic Parade, Altona

Dates:

- Design Phase Commencement: March 2006
- Installation Commissioning: June 2006

Client:

Hobsons Bay City Council

Project Goals:

- Provide the majority of the hot water for the Civic Centre.
- Reduce Council's greenhouse gas emissions.
- Provide leadership by demonstrating good practice in retrofitting solar hot water panels into an existing building.

Project Features:

The system consists of nine flat-plate copper panels mounted onto the roof of the Civic Centre, configured in three banks of three.

The panels circulate hot water into three upright stainless steel storage tanks which are located in the plant room at ground level. Due to the shallow pitch of the roof, the solar panels are mounted on angled frames.

These solar storage tanks act as pre-heaters to two existing gas-boostered storage tanks which originally supplied all the hot water requirements for the centre. The solar heated water reduces the amount of natural gas being consumed with a corresponding reduction in greenhouse gasses produced.

The solar system will provide around 70% of the required hot water with the gas boosting making up the balance. Around 20 tonnes of greenhouse gasses will be saved each year through this project.

Project Team:

- Rob McQueeney, Solar Hot Water Specialist, Going Solar
- Warwick Johnston, Project Engineer, Going Solar
- Stephen Ingrouille, Principal, Going Solar
- Mark Dwyer, Solar Installer

Further Information:

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Hobsons Bay Civic Centre



Solar Hot Water panels on the roof



Stainless steel solar storage tanks



Solar Hot Water panels on the roof showing mounting frames