

Sydney Olympic Park - Aquatic Centre, NSW

PROJECT SUMMARY

The Sydney Olympics Park Aquatic Centre (SOPAC) is a world class aquatic facility that was designed and built as the premier NSW venue for swimming, diving, water polo and synchronized swimming competition for the Sydney 2000 Olympic and Paralympic Games.

Today SOPAC continues to host international, national, state and local community aquatic and fitness competitions, and is also a popular venue for social recreation activities throughout the year.

The aquatic centre is situated in the centre of the Sydney metropolitan area at Homebush Bay where it averages 50,000 visitors each day and is open all year round. The aquatic centre/fitness centre averages between 3,000 – 8,000 visitors per day during competition events.



The facilities include:

- " Competition Pool - 50m, 10 lane Olympic Pool
- " Training Pool - 50m, 8 lanes
- " Utility Pool - diving pool
- " Splashers' Water Playground
- " Water Slides
- " Rapid River Ride

Project Type

Cogeneration based Energy Centre, under an Energy Performance Contract Return on Investment
5.6 years (SPB)

Facility Type

Olympic Standard Aquatic Centre Energy Consumption Savings
2,767,284 kWh per year

Project Cost

\$1,724,894 Greenhouse Gas Emission Savings

1,250 tonnes of CO2 per year which is the equivalent to taking

6,280 cars off the road each year

Project Savings

\$304,000 per year Site Savings

45% of total site electricity consumption

TECHNICAL SUMMARY

TES was selected to undertake the design, specification and construction of an Energy Centre comprising 2 x 260kWe packaged cogeneration plants to supply the electricity and heating requirements of Sydney Olympics Park Aquatic Centre under an Energy Performance Contract (EPC) commercial framework.

As part of the environmental plan at this facility and with the goal of significant reduction of the facilities carbon footprint and energy costs, Sydney Olympic Park Authority decided to install the low carbon Energy Centre which uses natural gas to produce an estimated 45% of the electricity required for the SOPAC site, and heating approximately 1 million litres of water every day, across all of the multiple pool sites.

The installation provided the TES Construction Team with a number of challenges, such as lifting the Cogeneration Plants into SOPAC's plant room on level 5 of the facility.

TES also solved a WH&S issue during the construction of the plant radiator platform on the roof of the facility. TES engineers designed and constructed a system involving a roof access ladder, man-hatch, roof walkway and work platform with guard rails, toeboards and safety mesh to meet Australian Standards such that the need for harnesses, static lines and other high work restrictions were not needed for maintenance workers.

Ultimately, TES has installed and commissioned the Energy Centre to provide highly efficient, low carbon electricity and hot water for the SOPAC, on time and to the satisfaction of the client.

Please feel free to contact SOPA directly to arrange a site visit of the Cogeneration Plant.

Opening Ceremony. Starting the Cogeneration Plant. Shown from left to right:

The Honourable Stuart Ayres
MP, Minister for Sport &
Recreation and Assisting the
Premier on Western Sydney
Denis Fitzgerald AM, SOPA
Board Member
The Honourable Michael Knight
AO, SOPA Chairman

