

**ITEM 10. TENDER - IAN THORPE AQUATIC CENTRE COGENERATION  
PROJECT - DESIGN AND CONSTRUCT AND OPERATE AND  
MAINTAIN**

**FILE NO: X005199**

**TENDER NO: 1609**

**SUMMARY**

This report provides details of the tenders received for the Ian Thorpe Aquatic Centre cogeneration project.

Trigeneration and cogeneration have been demonstrated to be an effective method of providing low emission pool heating and electricity to aquatic centres by other councils in NSW, including North Sydney, Willoughby, Hornsby and Wagga Wagga.

On 14 September 2015, Council resolved to approve incorporating a cogeneration plant with a maximum electrical output of 180 to 240 kWh in the Ian Thorpe Aquatic Centre.

This report recommends that Council accept the tender offer of Tenderer 'E' for the design, construction, operation and maintenance of the Ian Thorpe Aquatic Centre Cogeneration project for a period of two years, with an option to extend for a further two years.

The project will contribute to Sustainable Sydney 2030 by reducing the emissions at the Ian Thorpe Aquatic Centre by over 500 tonnes of CO<sub>2</sub> per year.

A final business case based on the offer from Tenderer 'E' demonstrates that their cost of carbon abatement is much lower than the benchmark cost of carbon abatement from GreenPower.

**RECOMMENDATION**

It is resolved that:

- (A) Council accept the tender offer of Tenderer 'E' for the design, construction, operation and maintenance of the Ian Thorpe Aquatic Centre Cogeneration project for a period of two years, with the option of an extension of up to two years;
- (B) authority be delegated to the Chief Executive Officer to negotiate, execute and administer the contracts relating to the tender; and
- (C) authority be delegated to the Chief Executive Officer to exercise the option referred to in clause (A), if appropriate, and negotiate the terms of the extension, including but not limited to, any variations to the contract price.

**ATTACHMENTS**

**Attachment A:** Tender Evaluation Summary (Confidential)

**(As Attachment A is confidential, it will be circulated separately from the agenda paper and to Councillors and relevant senior staff only.)**

**BACKGROUND**

1. Trigeneration is a key initiative to deliver greenhouse gas emission reductions in accordance with the Green Infrastructure Plan master plans, and a 70 per cent reduction in greenhouse gas emissions can be achieved (both in the organisation and across the Local Government Area) as per the targets set for Sustainable Sydney 2030.
2. Trigeneration and cogeneration have been shown to be an effective method of providing low emission pool heating and electricity to numerous aquatic centres in NSW, eg, North Sydney, Willoughby, Hornsby and Wagga Wagga.
3. On 24 February 2014, as part of a trigeneration update, Council endorsed proceeding with a technical assessment of trigeneration and cogeneration for the City's indoor pools, including the Ian Thorpe Aquatic Centre.
4. In September 2014, Pitt & Sherry were appointed to undertake the technical assessment. They found that a cogeneration plant would be technically feasible at a cost of abatement which is lower than the benchmark cost of GreenPower. A suitable configuration was identified that meets the project brief and can be integrated into existing operations. Impacts during the installation phase can be satisfactorily mitigated and relevant regulatory requirements can be met.
5. The size of plant that was found to achieve the greatest level of emissions reduction at the highest abatement and lowest unit cost of abatement was a plant with a maximum electrical output of between 180 kW and 240 kW. Also, the level of emissions reduction was found to exceed 500 tonnes per year, based on the preferred engine size and operating regime (15 hours a day, 7 days a week).
6. On 14 September 2015, Council resolved to approve incorporating a cogeneration plant with a maximum electrical output of between 180 kWh and 240 kWh into ITAC.
7. The Ian Thorpe Aquatic Centre Cogeneration project is planned to be operational in 2017. It is estimated that project will reduce emissions at the aquatic centre by over 500 tonnes of CO<sub>2</sub> per year.
8. A final business case summary has been prepared from information contained in the preferred tender and taking into account industry standard gas and electricity commodity price forecasts provided by ACIL Allen.
9. The final business case summary is included in the confidential Tender Evaluation Summary – Attachment A. The figures in the final business case have also been compared to the figures in the Pitt & Sherry feasibility study. The achieved cost of carbon abatement is somewhat lower than the cost estimated by Pitt & Sherry. This is accounted for by the better-than-anticipated outcome from the tender process.
10. The cost of carbon abatement from GreenPower is applied as a financial benchmark to evaluate the cost-effectiveness of on-site energy investments. The final business case summary indicates that the cost of installing cogeneration in the Ian Thorpe Aquatic Centre will be much less than the cost of abatement using GreenPower.

11. Business case assumptions and price forecasts are based on reputable industry forecasts. However, it should be noted that there is ongoing uncertainty over energy policy in general and on carbon pricing in particular. Accordingly, the City has taken a conservative approach with assumptions in the project business case, by not including a price on carbon into the future.

### **INVITATION TO TENDER**

12. Tenders were advertised in The Daily Telegraph, The Sydney Morning Herald, The Courier Mail, The Melbourne Age and on the City eTendering website on 9 February 2016 and closed on 22 March 2016.
13. Site visits were provided during the tender process.

### **TENDER SUBMISSIONS**

14. Six submissions were received from the following organisations (listed alphabetically):
  - BroadAir Mechanical
  - Evo Energy Technologies Pty Ltd - EvoHeat
  - Goldman Energy Pty Ltd
  - Process Engineering Technologies Pty Ltd
  - Simons Green Energy Pty. Ltd.
  - Total Energy Solutions
15. No late submissions were received.

### **TENDER EVALUATION**

16. All members of the Tender Evaluation Panel have signed Pecuniary Interest Declarations. No pecuniary interests were noted.
17. The relative ranking of tenders as determined from the total weighted score is provided in the confidential Tender Evaluation Summary – Attachment A.
18. All submissions were assessed in accordance with the approved evaluation criteria being:
  - (a) cost of carbon abatement in comparison to the City's benchmark cost of GreenPower;
  - (b) carbon abatement potential;
  - (c) track record in the delivery of similar projects;
  - (d) demonstrated capability and experience of the proposed project team;
  - (e) program;

- (f) the methodology for the construction, operation and maintenance of the proposed system;
- (g) control strategy;
- (h) Work Health and Safety;
- (i) financial and commercial trading integrity including insurances; and
- (j) lump sum price and schedule of prices.

**FINANCIAL IMPLICATIONS**

- 19. A summary of the project business case is included in the confidential Tender Evaluation Summary – Attachment A.
- 20. There are sufficient funds allocated for this project within the capital works budget.
- 21. The works may be completed sooner than originally anticipated.

**RELEVANT LEGISLATION**

- 22. The tender has been conducted in accordance with the Local Government Act 1993, the Local Government (General) Regulation 2005 and the City's Contracts Policy.
- 23. Attachment A contains confidential commercial information of the tenderers and details of Council's tender evaluation and contingencies which, if disclosed, would:
  - (a) confer a commercial advantage on a person with whom Council is conducting (or proposes to conduct) business; and
  - (b) prejudice the commercial position of the person who supplied it.
- 24. Discussion of the matter in an open meeting would, on balance, be contrary to the public interest because it would compromise Council's ability to negotiate fairly and commercially to achieve the best outcome for its ratepayers.

**CRITICAL DATES / TIME FRAMES**

- 25. The cogeneration system is forecast to commence operation in mid-2017.

**PUBLIC CONSULTATION**

- 26. Wide ranging public consultation was undertaken for the Trigeneration Master Plan adopted by Council in June 2013.
- 27. No further public consultation has been undertaken on this project.

**KIM WOODBURY**  
Chief Operating Officer

Chris Collins, Manager, Green Infrastructure Implementation