

<b>Board Meeting:</b> September 2018	<b>Agenda Number:</b> 12 (vi)	<b>Record Number:</b> ED18/8075
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# **LORD HOWE ISLAND BOARD**

## **Business Paper**

### **OPEN SESSION**

#### **ITEM**

Renewable Energy Program Update

#### **RECOMMENDATION**

It is recommended that the Board note the renewable energy program update.

#### **BACKGROUND**

Funding for the LHI Renewable Energy project is provided through a \$4 million grant from the Federal Government via the Australian Renewable Energy Agency (ARENA), a \$5.9 million loan from NSW Treasury (to be paid back via diesel fuel savings), and \$0.5 million from the Board.

Consultants Jacobs were engaged by the Board in 2014 to lead the technical elements of the project, and community consultation. Jacobs completed a Technical Feasibility Study which showed that using 450 kW of solar panels, a 400kWh battery and two small 275kW wind turbines, would reduce the Island's diesel fuel consumption from 541,000 litres per year to around 180,000 litres per year, a 66% reduction. This combination would also provide 67% of the Island's annual electricity needs. In May 2017, the Federal Minister for the Environment and Energy decided that the "proposed action of constructing and operating two wind turbines on Lord Howe Island would have unacceptable impact on World Heritage values and the National heritage values of the Lord Howe Island Group". This means that it is not possible to proceed with the wind turbine component at this stage. In June 2017, ARENA representatives indicated that they did not believe that the ARENA Board would support continued funding for the project in its current form. Without the wind turbine component, the project with just solar and battery storage, saving 35% of diesel fuel was not seen as sufficiently innovative and would not serve as a demonstration case for other remote areas. After extensive negotiations, ARENA approved the funding for the development of further options, comprising solar and other renewable approaches, which may be acceptable to their Board and lead to a variation in the Board's funding agreement with ARENA.

Consultants Jacobs completed their other Options Analysis Report on the project economics and potential demonstration value in December 2017.

The Options Report was presented to the Board in March 2018, with the Board endorsing Option 4 – Optimised Solar and battery configuration with enabling technologies, as the preferred option. Jacobs prepared an addendum to the tender documents to include the changes for the optimised solar and battery configuration ready for the repricing by the two successful tenderers and timelines to award the contract and complete the works, based on the tenderers' response.

## **THE WAY FORWARD**

### **Solar, Battery and Control System**

The ARENA Board considered the response from Jacobs and the Board based on the tenderer's submission to the addendum for the Solar, Battery and Control System (SBC). At the ARENA Board meeting on 10 August 2018 the recommendation to vary the project to solar and battery only subject to conditions and a variation to the current funding deed was approved.

### **SBC System Contract**

The tender for the solar, battery and control system contract package of work was advertised on NSW e-tendering between 15 June and 24 August 2016. The assessment of the tenders by Jacobs and the Board is complete. However, with the latest addendum it will require re-assessment based on the current submissions and approval from ARENA. This timeframe is expected to be approximately 4 weeks, which is about the same timeframe for the variation in the funding deed to be finalised.

ARENA's Board have approved the project to continue, subject to:

- the winning solar and battery tender achieving a minimum renewable energy factor of 67%
- confirmation of site availability based on the final design
- establishing a Project Control Group
- ensuring LHIB has an appropriately skilled & experienced Project Manager
- the review and acceptance of final costs and timeframes
- the finalisation of funding variation agreement

ARENA also want to ensure the final plant design and roll out provides the simplest system for LHIB to manage and that LHIB are provided with the appropriate training and support by the winning solar and battery tenderer, to allow for the best ongoing maintenance.

At this stage there does not appear to be any technical reason why this project should not proceed and Jacobs have been requested to complete the final tender assessment report. Once this is complete the final budgeting will be undertaken to ensure that sufficient funding is available.

## **RECOMMENDATION**

It is recommended that the Board note the above information.

**Prepared:** John Teague, Manager, Infrastructure & Engineering Services

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