

9.6 MWRC Solar Array - Market Participation Update

REPORT BY THE CHIEF FINANCIAL OFFICER
TO 15 MARCH 2023 ORDINARY MEETING
GOV400103, ENE100032

RECOMMENDATION

That Council:

1. **receive the report by the Chief Financial Officer on the MWRC Solar Array - Market Participation Update; and**
2. **approve going to tender for a less restrictive market participation model, instead of limiting Council to a Revolving Offtake Agreement.**

Executive summary

At the 9 December 2020 Council Meeting, Council provided endorsement of the use of a Revolving Offtake Agreement market participation model for procurement purposes in the proposed MWRC Solar Array.

This report seeks to update Council on the progress of the Solar Array and obtain an amendment to the market retail model to be tendered.

Disclosure of Interest

Nil

Detailed report

PROJECT SCOPE

The project has been broken into 4 stages:

- **STAGE 1:** Concept design, community consultation, capital expenditure reporting, Development Application, and engineering and grid connection approval.
- **STAGE 2:** Detailed design and construction trade package tender process
- **STAGE 3:** Onsite construction, commissioning and energisation
- **STAGE 4:** System operation, tuning and maintenance

STAGE 1 PROGRESS

- ✓ PROJECT TEAM ESTABLISHMENT
- ✓ CONCEPT DESIGN & FEASIBILITY CONFIRMATION
- ✓ DEVELOPMENT APPLICATION

The DA has now been approved through the Regional Planning Panel.

➤ CONNECTION INVESTIGATION SERVICES AGREEMENT (CISA)

Council holds a current CISA for the site. Written confirmation from Essential Energy that the studies to determine whether the project is allowable have been approved, now awaiting formal Offer to Proceed.

After Offer to Proceed is obtained, Council will progress towards an Offer to Connect.

➤ CONFIRM COMMERCIAL & INDUSTRIAL (C&I) CUSTOMER UPTAKE LEVELS AND PRICING, AND MARKET PARTICIPANT PROVIDER

Further C&I customer interest consultation is on hold until the project progresses to construction.

Council requires a Market Participant to facilitate the sale of energy from the array and purchase of same at council sites. An EOI was run to confirm if the Revolving Offtake Agreement (ROA) model identified in the initial modelling stages was still available and/or to identify an alternate model. The EOI was also used to update indicative pricing to inform the business case and to establish retailers that could address the gap between end of the current contract and project energisation.

A project memo on the commercial in confidence result of the EOI is included as Attachment 1 (Confidential).

The EOI was successful, with 6 responses received. Of the 6 responses received, 4 have provided workable models for Council Market Participant model. It is recommended that these 4 responders are invited to a selective tender to be Councils Market Participant.

STAGE 2 PROGRESS

Given the positive modelling results from Stage 1, Stage 2 was endorsed by Council on 20 October 2020:

➤ DETAILED DESIGN

The detailed design is progressing with delays based on finalisation of the connection path to the grid.

➤ CONSTRUCTION TRADE TENDER PACKAGE DEVELOPMENT

Tender packages have been prepared and the procurement process is progressing, with packages currently being assessed.

Investigation is ongoing to add Sewerage Treatment Plant 'behind the meter' for further Council savings, and to determine the case for inclusion of battery storage. Currently, this work is excluded from DA approvals and engineering designs.

➤ BIODIVERSITY CORRIDOR (TREE PLANTING)

Tree planting can now progress, as the DA has been approved. The biodiversity corridor is currently included in a procurement package for civil and landscaping works. The biodiversity corridor is required to be planted before solar panel installation can occur, under the construction certificate conditions.

STAGE 3 UPDATE

After confirmation of updated design and cost estimates, and a review of the pricing model, council staff will report back to Council to obtain endorsement, or otherwise, for Stage 3.

Community Plan implications

Theme	Good Government
Goal	An effective and efficient organisation
Strategy	Pursue efficiencies and ongoing business improvement

Strategic implications

Council Strategies

Operational Plan and Development Plan

Council Policies

Local Preference Policy

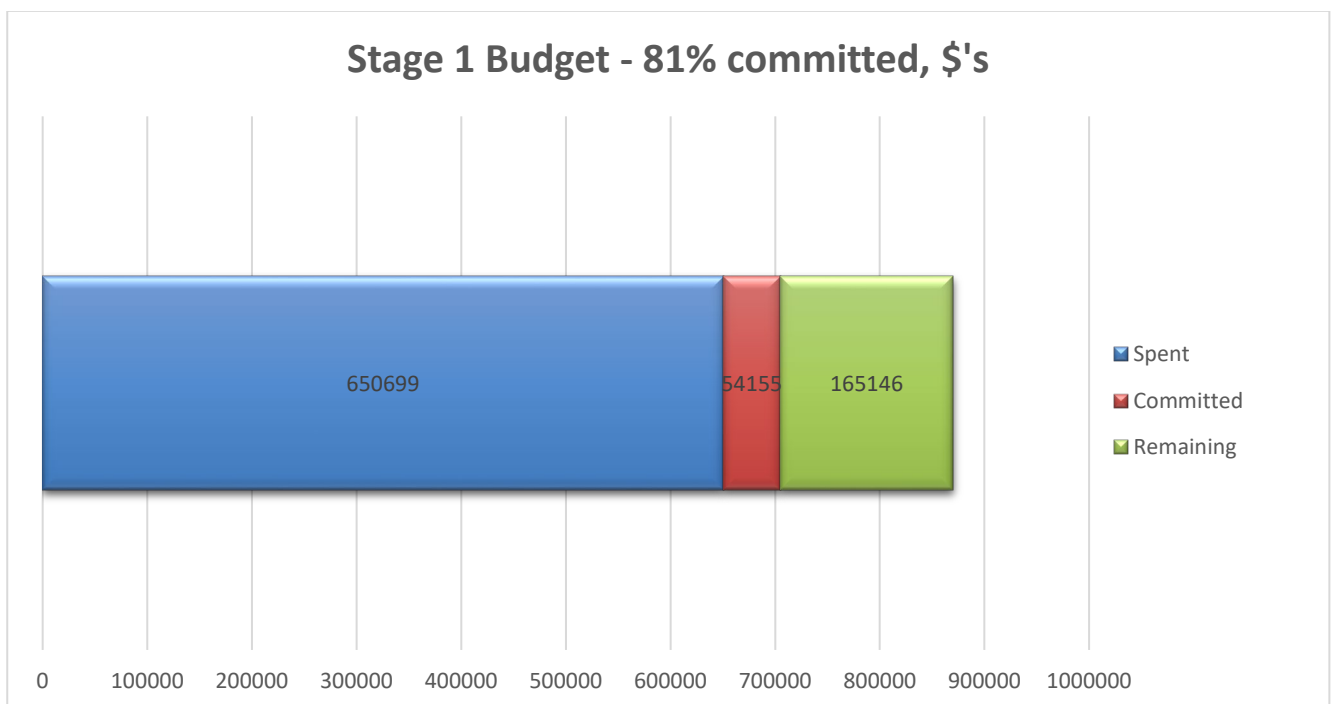
Legislation

In accordance with Section 23A of the Local Government Act 1993, Council is required to undertake a capital expenditure review when it spends money to buy, construct, renovate or acquire an asset.

The NSW Office of Local Government's Capital Expenditure Guidelines apply to capital projects for infrastructure facilities, expected to cost in excess of council's annual ordinary rate revenue or \$1 million whichever is the greater amount (GST exclusive). As the estimated construction price of the solar array is \$8.8 million, a capital expenditure review has been completed and noted by the Office of Local Government.

Financial implications

STAGES 1&2 BUDGET UPDATE



A budget of \$870,000 was approved for Stages 1 & 2, including biodiversity corridor works. So far, \$650,700 has been spent with an additional \$54,155 committed, leaving \$165,000 remaining. Network design rework may result in a variation which will be processed through the QBR if required.

STAGE 3 BUDGET

A further \$8.08 million has been allocated for the completion of Stage 3. Nothing has been committed against this budget, and a report to Council to approve progression to Stage 3 is still required.

It should be noted that prices for components and shipping increased in 2021 but have been stable in 2022. A review of total costs for construction will be included in the Stage 3 progression report.

Timing of this budget is required to be pushed back as construction is anticipated to start in the second half of 2023.

FUNDING BUDGET ALLOCATIONS

In the December 2022 QBR, a budget variation for the allocation of grant funding was processed. The budget funding for Stage 3 is currently:

GRANT FUNDING RECEIVED	\$4,500,000
TRANSFER FROM CAPITAL PROGRAM RESERVE	\$3,581,696
TOTAL STAGE 3 BUDGET	\$8,081,696

The proposed change in funding source will positively impact the business case for the construction of the Solar Array, by reducing the amount of interest expense and reducing the payback period for this project. An updated business case will be provided to Council with the Stage 3 progression report.

Associated Risks

Risks have been identified and actions are being taken to mitigate projects risks, as a part of Stage 1 and continuing. At this stage, the notable risks are:

- **Estimates for connection and construction are incorrect** - it should be noted that the estimates for network connection and construction are on the conservative/high side, and contingency has been built in. However fluctuations in import pricing over the recent year or so, means this risk remains relevant and is being constantly monitored.

LEONIE JOHNSON
CHIEF FINANCIAL OFFICER

30 November 2022

Attachments: 1. Market Participation CR December 2020.
2. Market Participation EOI CE memo. (Confidential - separately attached)

APPROVED FOR SUBMISSION:

BRAD CAM
GENERAL MANAGER

9.8 MWRC Solar Array - Market Participation Model

REPORT BY THE CHIEF FINANCIAL OFFICER
TO 09 DECEMBER 2020 ORDINARY MEETING
GOV400087, ENE100032

RECOMMENDATION

That Council:

1. receive the report by the Chief Financial Officer on the MWRC Solar Array - Market Participation Model; and
2. approve the use of a Revolving Offtake Agreement market participation model for procurement purposes in the proposed MWRC Solar Array.

Executive summary

At the 21 October 2020 Council Meeting, Council provided endorsement of Stage 2 of a 5 MW (battery ready) solar array.

Stage 1 was previously approved by Council in November 2019, and included completion of a concept design, community consultation, capital expenditure reporting, Development Application, and engineering and grid connection approval.

Stage 2 endorsement included completion of a detailed design and completion of the construction trade package tender process.

Works in both stages are now continuing. Before going to market, it is recommended to make a decision on the preferred market participation model for selling energy from the proposed Solar Array to go to market with. We may get alternate options from the open market, and if that occurs, those options will be assessed and any recommendation for change brought back to Council.

Disclosure of Interest

Nil

Detailed report

Under the proposed new 5MW solar generator, MWRC will be in a position to:

- sell the generated energy into the National Energy Market (NEM) – also referred to as “the Grid”; and
- Purchase utility (or “grid”) energy for use at the various MWRC sites and infrastructure, including street lighting.

It is expected that Council will consume approximately 2/3 of the energy produced leaving the balance as excess which can be sold to the market.

MARKET OPTIONS

Under the Stage 1 business case two options were considered:

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- Pool Pass Through and
- Revolving Offtake Agreement

Both models resulted in the project achieving a simple payback of approximately 10 years (excluding Cost of capital/finance, annual maintenance costs and ignoring the potential uplift from LGCs). The intention is to market test the preferred model to ensure competitive pricing and contract arrangements are achieved.

POOL PASS THROUGH

This is the model originally proposed in which the selected Retailer (Market participant) agrees to purchase electricity from the array under the following arrangement:

- The Retailer will purchase from the solar array at an agreed price for those times that the array is generating and for the volumes of consumption at MWRC facilities during that same time.
- The Retailer will purchase from the solar array at an agreed price for those times that the array is generating and for the volumes of consumption at (Commercial & Industrial) C&I Customer facilities during that same time.
- The Retailer, on behalf of MWRC will trade the excess generation (not taken up by MWRC or C&I customers) in the electricity Spot market at the Spot market price at that time.

In addition, at times when the MWRC solar array is not generating energy, the Retailer will:

- Provide MWRC sites and facilities with a wholesale market electrical supply agreement for purchasing energy from the market at the available Spot price.
- Provide C&I customers with a fixed tariff electrical supply agreement for purchasing energy from the grid. This latter option could also be provided to MWRC if required.

REVOLVING OFFTAKE AGREEMENT

Under the alternative model known as a Revolving Offtake Agreement, the Retailer agrees to purchase 100% of the solar array export, to effectively manage the portfolio on behalf of MWRC, such that the retail component of Council's bill is zero and any excess volume is sold on behalf of Council to the Spot market or C&I customers.

This is achieved through the Retailer purchasing the full annual equivalent of MWRC consumption, plus a top-up percentage to account for transaction costs and costs for managing the balance of the market position between generating / non-generating periods over the course of the year.

Through this mechanism, the Retailer manages the market position on behalf of MWRC between the annual generation of energy during daylight and purchasing from the Wholesale market for non-generating times. Essentially the Retailer removes the need for MWRC to participate in the Wholesale Energy market (Spot market) for the full value of all energy used by MWRC during the course of the year. The Retailer levies a "top up", taken from the "excess" generation of energy from the solar array.

MARKET MODEL ASSESSMENTS

The confidential attachment to this report further discusses the benefits and failings of each model, as well as the model assumptions. This assessment is confidential due to its protected commercial nature. The assessment shows that the Revolving Offtake Agreement is Council's preferred method. The reduced risk, reduced resources and increased certainty are the reasons the Revolving Offtake Agreement method is recommended to pursue for procurement.

Community Plan implications

Theme	Good Governance
Goal	An effective and efficient organisation
Strategy	Pursue efficiencies and ongoing business improvement

Strategic implications

Council Strategies

Not applicable

Council Policies

Not applicable

Legislation

Not applicable

Financial implications

There is no budget variation recommended in this report. The budget for Stage 1 and Stage 2 of this project has previously been approved by Council.

Financial implications of the 2 models are further discussed in the confidential attachment.

Associated Risks

There are risks within both models, around low performance. The revolving offtake agreement is the preferred model due to the reduced risk of exposure through lower poor performance. On the opposing side, there is less benefit during high performance.

LEONIE JOHNSON
CHIEF FINANCIAL OFFICER

25 November 2020

Attachments: 1. solar array market participation model. (Confidential - separately attached)

APPROVED FOR SUBMISSION:

BRAD CAM
GENERAL MANAGER