

March 2023 Quarterly Report

Boss firmly on track for production this year following strong construction progress

Honeymoon project running on time and on budget

Boss Energy Ltd (ASX: BOE; OTC: BQSSF) is pleased to report that it is set to realise its goal of starting uranium production later this year after making rapid construction progress at its Honeymoon uranium project in South Australia.

Boss Managing Director Duncan Craib said: "It was an outstanding quarter which ensured Boss continues to be on track for uranium production in the December quarter of this year.

"During the quarter, we achieved all our key objectives. We took delivery of critical equipment and we made significant progress on development of the wellfield and the evaporation pond.

"The project's committed expenditure now totals A\$65 million, which represents 62 per cent of the total capital cost budget.

"We are implementing our long-standing strategy of being in production at the start of the next uranium cycle and we are comfortably on track to achieve this, with first production set for later this calendar year"

Key Achievements in March Quarter

Committed expenditure under the Honeymoon re-development program totals A\$65M (or 62%) of the budgeted ~A\$105.4M CAPEX, excluding a A\$7.6M contingency, with incurred costs amounting to A\$28M.

All critical path items remain on track for delivery in line with the project schedule. More than 123 procurement packages have been issued. The packages awarded to date are in line with the front-end engineering design (FEED) released to the ASX on 31 March 2022.

This includes the most significant piece of equipment, being the Ion Exchange columns, which remain on track to be fabricated and delivered on time. This order consists of approximately 500 tonnes of fibreglass custom-designed for the Honeymoon processing plant.





Image 1: First Ion Exchange cylinder winding complete



Image 2: Elution columns



Image 3: Top section of the absorbtion column

The recruitment program for a highly experienced operational and project team continues to progress to plan. All senior positions have now been filled, with the exception of those relating to the processing plant, which are yet to be advertised. In total, Boss Energy has grown its full-time employees to 62.



Mobilisation of construction personnel continues. Contractors are assisting with specific activities under the management of the Boss Energy employees, including drillers, earth moving, and specialised SMP technicians for electrical works.

Recent construction milestones include:

(i) Wellfield

Construction of the three start-up wellfields is now ahead of schedule. All significant procurement items have been delivered and installed, with cold commissioning on target for June 2023. Raw water supply and liquid disposal lines (180mm poly pipe of approximately 5,800 metres) have been welded, completed and ready for use.



Image 4: Construction of the three start-up wellfields is ahead of schedule

(ii) Gypsum Pond

The 60,000 cubic metres excavation earthworks for the 25,000 ton gypsum pond is now complete, shaped ready for lining to be installed. The lining material has been delivered to site and the responsible contractor mobilised to site on 26 April 2023. Once finalised, the gypsum pond has an expected operational life of 5 years.





Image 5: 60,000 cubic metres excavation earthworks for the 25,000 ton gypsum pond now complete

Uranium Market Analysis

The number of global utilities looking for new long-term contracts from secure sources such as Australia has increased significantly in recent months, and several have indicated a desire to encourage new production and increase the supplier base. Boss Energy as an Australian supplier which is coming into production in 2023, is ideally positioned to take advantage of a strong rising market.

The fundamentals for the uranium market are some of the most positive experienced in the past 40 years, and the sentiment at the World Nuclear Fuel Cycle Conference in the Hague last week was overwhelmingly optimistic. The key takeaways from the conference were:

- Nuclear power is firmly entrenched as a critical part of the strategy to reduce carbon emissions and the debate is now on how fast the industry can build new reactors and introduce Small Modular Reactors (SMRs);
- Demand for nuclear fuel is rising in the near, mid and long term on a global basis;
- The Russian invasion of Ukraine has resulted in concerns about energy independence and security
 of fuel supply. There are concerns about the imposition of sanctions against Russian nuclear fuel
 but the impact of utilities imposing their own limits on Russian supply or 'self sanctioning' is causing
 regional imbalances with near term shortages of enrichment and conversion services;
- A paper by UxC highlighted the implications of these regional imbalances on uranium quoting a need for 33 to 44 million lbs of U₃O₈ to compensate for the reduction in uranium supplies from



Russia, increased demand from higher western tails assays and a severe curtailment of underfeeding;

- To reduce dependence on Russian supply utilities have been flexing up delivery quantities in their non-Russian contracts, reducing uncommitted supply available to the market from Western sources;
- There is a clear mismatch between current market conditions and future supply needs in all markets and the necessary investment will need utilities to provide long term commitments at sustainable prices;
- Inventories and secondary supplies have been reduced; and
- Demand for all nuclear fuel components is increasing due to regional imbalance driven by geopolitical concerns and by the unforeseen increase in nuclear power growth.

Strong Balance Sheet

As at 31 March 2023, the Company held unrestricted cash and cash equivalents of A\$103M, which excludes a fully cash-backed environmental bond of A\$8.9M. Cash balances are being managed with a term deposit program to take advantage of the higher interest rate environment.

The Company also holds inventory of 1.25Mlb of U_3O_8 , which has a current spot market value of A100.8M^1$. Combined with unrestricted cash, Boss has liquid assets of A\$203.8M, no long-term debt obligations, and a remaining estimated CAPEX spend of A\$84.8M, leaving it well-positioned to transform Honeymoon into production.

Appendix 5B disclosures

In line with its obligations under ASX Listing Rule 5.3.5, Boss notes that the only payments to related parties of the Company, as disclosed in the Appendix 5B (Quarterly Cashflow Report) for the period ended 31 March 2023, consist of executive director, company secretary and chief financial officer salaries and wages (including superannuation) and payment of non-executive director fees.

During the quarter ended 31 March 2023, the Company spent approximately \$13.1M on project and exploration activities relating to its Honeymoon Project. These activities included:

- Technical studies costs
- Construction equipment;
- Wellfield drilling and development costs;
- Engineering and construction consultant expenses.

In addition to these activities the Company continued to incur costs relating to the ongoing maintenance activities required at Honeymoon. The expenditure represents direct costs associated with these activities as well as capitalised wages which can be directly attributable to Honeymoon.

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¹ Strategic uranium stockpile valued at A\$100.8M based on a spot price of US\$53.50/lb as at 26 April 2023 at an exchange rate of US\$0.66 to A\$1.00.



This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

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Appendix One:

Schedule of Mining Tenements

The following information is provided pursuant to Listing Rule 5.3.3 for the quarter ended 31 March 2023.

Tenement Name	Location	Licence Number	Interest
Yarramba	South Australia	EL6510	100%
South Eagle	South Australia	EL6081	100%
Gould's Dam	South Australia	EL6512	100%
Katchiwilleroo	South Australia	EL6511	100%
Ethiudna	South Australia	EL6020	100%
Gould's Dam	South Australia	RL83-85	100%
Honeymoon Mine	South Australia	ML6109	100%

There were no mining tenement acquisitions or divestments during the quarter. EL6512, 6511, 6020, 6510 and 6081 are subject to an earn-in agreement with FQM in respect to the base and precious metal rights. Refer ASX release dated 10 February 2022 for further information.

Honeymoon's Mineral Resource (lower cut-off of 250 ppm U₃O₈)

Classification	Tonnage (Million Tonnes)	Average Grade (ppm U₃Oଃ)	Contained Metal (Mkg, U₃O₃)	Contained Metal (Mlb, U₃O ₈)
Measured	3.1	1,100	3.4	7.6
Indicated	18.4	630	12.0	25.5
Inferred	30.9	570	18.0	38.5
Total	52.4	620	32.5	71.6

Reference to previous ASX announcements

In relation to the results of the Enhanced Feasibility Study announced on 21 June 2021, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

The mineral resource estimates in this announcement were reported by the Company in accordance with listing rule 5.8 on 25 February 2019. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcement and that all material assumptions and technical parameters underpinning the estimates in the previous announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Boss, which could cause actual results to differ materially from such statements. Boss makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.

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