



Honeymoon Uranium Project, South Australia

Honeymoon EFS progressing well with key milestones completed

Enhanced Feasibility Study on track for June Quarter release

Highlights

- Enhanced Feasibility Study (EFS) on the Honeymoon uranium project now 75% complete
- Process engineering studies completed incorporating Ion Exchange (IX) columns, which has the potential to increase nameplate capacity to 2.45Mlbs per annum
- The IX system is material as it is anticipated to increase capacity and reduce operating costs
- Site infrastructure and development timelines are well advanced with tender packages for process equipment issued for pricing
- EFS documentation, which will incorporate updated engineering and pricing information into the financial model, is expected to commence in May

Boss Energy Limited (ASX: BOE) (**Boss** or the **Company**) is pleased to advise that it has passed a major milestone on the path to completion of the Enhanced Feasibility Study (EFS) on its Honeymoon Uranium Project, with the process engineering studies completed.

The work completed continues to indicate that the Ion Exchange (IX) columns, which will replace the existing Pulsed columns, have the potential to increase production throughput and nameplate capacity at Honeymoon to 2.45 million pounds per annum.

The introduction of the IX columns is a key piece of the EFS which aims to deliver significant reductions in operating costs. With the process design completed, the EFS is now 75 per cent done and on track for completion in the June quarter of this calendar year.

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The Honeymoon EFS builds on cost and operational improvements identified following the completion of the FS in January 2020¹. As previously advised, the EFS covers all aspects of the project, including mining and civil works requirements, processing plant design and analysis, metallurgy, logistics, power, water, environmental and comprehensive analysis of capital requirements.

Boss Managing Director Duncan Craib said: *"The latest engineering studies continue to improve the positive outlook our team has for the Honeymoon Project. As we move to the finalisation and announcement of the EFS, we are growing even more confident in the economic and technical strength of Honeymoon, with the added benefit of an improving Uranium market."*

The EFS should further articulate Honeymoon's potential to become Australia's next uranium producer and allow detailed financial modelling to facilitate project finance evaluation. The EFS study promises to be a defining event for Boss as we look to fund and develop this high-quality clean energy project".

Below is a brief update on some of the key Honeymoon EFS workstreams.

Process Design

Following the announcement of the significant result of the Ion Exchange optimisation work completed and announced to the ASX on 20th August 2020, the Company engaged GR Engineering Services to complete the EFS utilising the following process design:

- Removing the previously installed SX Pulsed Columns in favour of new NIMCIX Ion Exchange columns within the existing footprint, concrete and steel structures;
- Standardising the staged expansion of IX capacity aiming to achieve an enhanced nameplate capacity of up to 2.45Mlb/annum;
- Removing requirement to heat the IX eluant (announced to the ASX on 25th September 2020) offering reduction in IX operating and capital costs; and
- Reagent costing optimisation.

Site Infrastructure and Development Timelines

The completion of the process design has allowed the site layouts and general arrangements to be finalised. The team has been able to utilise much of the existing structural steel and concrete in incorporating the new equipment layouts and remain largely within the existing bunded area. The mechanical and structural design is progressing well with all vendor packages in the market for pricing.

The Company is also considering where it may be appropriate to engage key technology vendors ahead of an expected re-start decision to reduce the project delivery timeline.

Completion of the EFS

Boss anticipates receipt of a draft EFS document, and associated financial modelling, for internal review and analysis during May 2021 with finalisation and announcement to follow in the June quarter.

¹ Refer ASX announcement dated 21 January 2020. All material assumptions underpinning the forecast financial information (and the production targets on which such forecast financial information is based) continue to apply and have not materially changed.

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

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Reference to previous ASX announcements

In relation to the results of the Feasibility Study announced 21 January 2020, 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. Nothing in this announcement pre-empts the findings of the Enhanced Feasibility Study currently being undertaken.

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 Energy, which could cause actual results to differ materially from such statements. Boss Energy 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.