



Syrah approves Balama solar and battery system final investment decision

Highlights

- **Syrah Board approves final investment decision for solar and battery system at Balama**
- **Solar and battery system will reduce Balama CO2 equivalent emissions and operating costs**
- **Attractive financial returns from low upfront capital intensity and BOOT structure.**

Syrah Resources Limited (ASX: SYR) ("Syrah" or "Company") is pleased to announce its Board has approved a final investment decision ("FID") for the installation of a solar and battery hybrid power system ("Solar Battery System") at its Balama Graphite Operation in Mozambique ("Balama"), taking advantage of the high solar irradiation potential of the site location.

Following execution of a memorandum of understanding with Solar Century Africa Limited ("Solarcentury Africa")¹ in December 2020, Syrah and Solarcentury Africa completed the design, detailed engineering and procurement of, and structured and arranged the funding for, the Solar Battery System. The Company selected a 11.25 MWp solar photovoltaic ("PV") installation combined with an 8.5 MW/MWh battery energy storage system to be integrated with Balama's existing diesel power generation plant. Extensive due diligence was undertaken on equipment selection and suppliers of the solar PV modules, battery energy storage technology and hybrid control system. Funding for the project is being provided by CrossBoundary Energy ("CBE").

The Solar Battery System will be delivered under a build-own-operate-transfer ("BOOT") arrangement, comprising a 10-year operating lease and an operating and maintenance contract with a Mozambique incorporated project company to be wholly owned by CBE. This project company will construct, own and operate the Solar Battery System over the BOOT term. Operations and ownership of the Solar Battery System will be transferred to Syrah at nil cost at the end of the 10-year BOOT term. Solarcentury Africa will continue to work closely with Syrah and CBE during the construction, delivery and installation of the Solar Battery System and up to commercial operation. Syrah and Solarcentury Africa have obtained all required licenses to commence construction of the Solar Battery System. The Solar Battery System is scheduled to be commissioned and operating before the end of the March 2023 quarter.

On average, the Solar Battery System will supply approximately 35% of Balama's site power requirements, yielding an approximately 35% reduction in diesel consumed for power generation. During peak daylight times, the Solar Battery System will be able to supply up to 100% of Balama's power requirements. Presently, Balama is solely powered by a 15MW on-site diesel generation power plant, which is 100% Syrah owned and operated, originally selected as a low-risk power option for the Balama development. Grid electricity is not currently available for Balama's power requirements due to

¹ Refer ASX release "Syrah signs MOU for solar and battery project at Balama" on 22 December 2020.

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the lack of proximate high voltage transmission infrastructure.

Syrah Managing Director and CEO Shaun Verner said, “The installation of a large-scale solar and battery hybrid power system is expected to reduce operating costs at Balama and further strengthens the ESG credentials of Balama’s natural graphite products. This project represents an initial step in reducing the Global Warming Potential (“GWP”) of Balama and the Vidalia active anode material facility in Louisiana, USA.”

The Solar Battery System is forecast to derive C1 cost savings of ~ US\$8 per tonne at a 15kt per month production rate², which is incorporated in Balama C1 cash cost (FOB Nacala) guidance of US\$430–470 per tonne at a 15kt per month production rate. The project is forecast to generate an attractive return on capital due to the low upfront capital costs, fixed costs payable by Syrah under the 10-year BOOT arrangement and the significant cost savings from reduced diesel consumption.

The Solar Battery System will reduce the Global Warming Potential, or product carbon equivalent emissions, of Balama natural graphite products. Syrah’s independent lifecycle assessment estimated that the Solar Battery System would reduce the GWP of producing natural graphite from Balama mine and transporting it to Nacala port from 0.48kg to 0.42kg CO₂ equivalent per 1kg natural graphite³, representing a 12.5% reduction. The Solar Battery System is estimated to reduce Balama’s GWP by 18kt CO₂ equivalent per annum, on average, over the life of the operation.

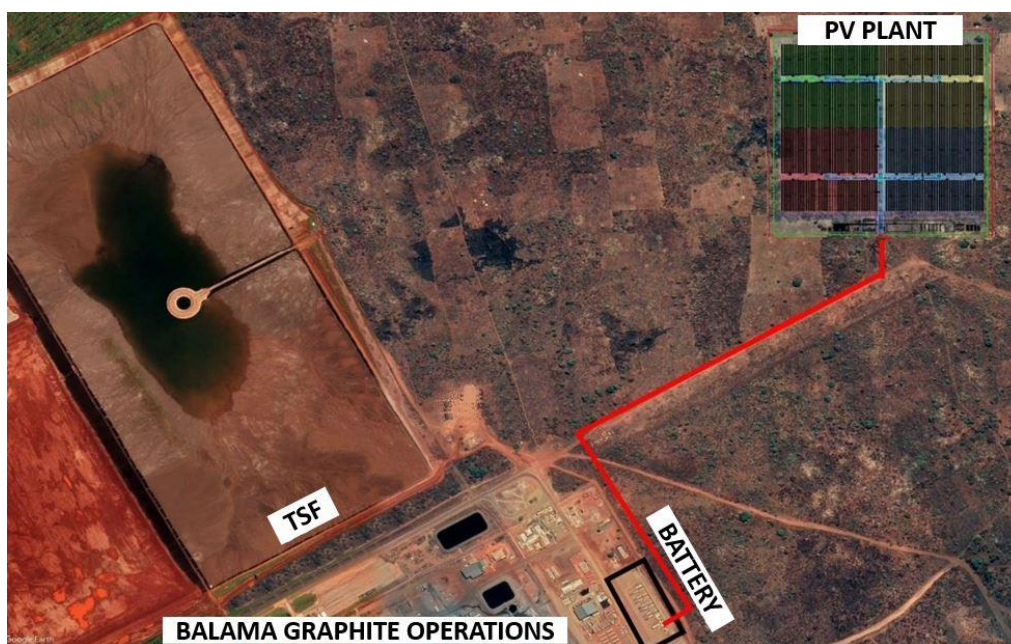


Figure 1: Schematic layout of solar and battery installation.

² Costs saving during the 10-year lease term with CBE’s project company, including fixed costs payable to CBE’s project company. Cost savings from the Solar Battery System are expected to increase following the 10-year lease term.

³ GWP is defined as the cumulative radiative forcing, both direct and indirect effects, over a specified time horizon resulting from the emission of a unit mass of gas related to some reference gas [CO₂: (IPCC 1996)]. GWP shown are a forecast life of operation average for Balama (full natural graphite production) and include scope 1, scope 2 and scope 3 greenhouse gas emissions.

This release was authorised on behalf of the Syrah Board by

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About Syrah Resources

Syrah Resources (ASX code: SYR) is an Australian Securities Exchange listed industrial minerals and technology company with its flagship Balama Graphite Operation in Mozambique and a downstream Active Anode Material Facility in the United States. Syrah's vision is to be the world's leading supplier of superior quality graphite and anode material products, working closely with customers and the supply chain to add value in battery and industrial markets.

About Solarcentury Africa

Solarcentury Africa is a market leader in the development of solar PV and storage projects with a decade of experience across multiple African countries. Headquartered in the UK, Solarcentury Africa has been operating in Sub-Saharan Africa since 2012 and has projects in Kenya, Nigeria, Ghana, and Eritrea. Solarcentury Africa is a vertically integrated developer using cutting edge design, smart technologies and robust controls to generate clean and economical power for businesses, communities and investors. Solarcentury Africa is part of the BB Energy Group. BB Energy was established in 1937 and today is one of the world's leading independent energy trading companies, with a fast-growing renewable energy and emission reduction division. The company has over 400 employees in 16 offices spanning five continents, with key trading hubs in London, Dubai, Singapore and Houston.

About CrossBoundary Energy

CrossBoundary Energy was launched in 2015 as Sub-Saharan Africa's first dedicated investment platform for commercial and industrial renewable energy systems. CrossBoundary Energy is currently active in more than 10 African countries and is operating or delivering a portfolio of over US\$135 million of renewable energy projects for commercial and industrial clients across the continent. CrossBoundary Energy is a direct investment platform of the CrossBoundary Group and is funded by ARCH Emerging Markets Partners' Africa Renewable Power Fund. For additional information, visit www.crossboundary.com/energy.

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