



MEDIA STATEMENT

Eskom appoints service providers for its battery energy storage project

Friday, 29 July 2022: Following a competitive and transparent bidding process, Eskom has awarded contracts to two successful bidders – Hyosung Heavy Industries and Pinggao Group – for the provision of battery storage solutions in terms of its flagship Battery Energy Storage System (BESS) project. The contract is for design, supply and installation as well as operating and maintenance for a 5-year period. This is the first part of the 500MW BESS initiative announced by President Cyril Ramaphosa as part of the government's measures to address South Africa's long-running electricity crisis.

The Eskom BESS project will act as a proof of concept on the delivery of the first battery energy storage project in South Africa. The project supports transformational aspects by demonstrating large-scale deployment in support of South Africa's renewable energy strategy and addresses local overall system challenges.

It is envisioned that gains from the BESS project will help to alleviate the pressure on the national electricity grid. The project will be used primarily for national peak shaving (managing demand) purposes for four hours a day for at least 250 days of the year. It will also be used secondarily for ancillary services and local network support. There are also several technical applications and benefits that will be quantifiable over time. Charging of the batteries will take place during off-peak periods or when the network conditions permit.

The project is designed to utilise large scale utility batteries with the capacity of 1 440MWh per day and a 60MW solar photovoltaic (PV) capacity to be implemented in two phases.

Phase 1 includes the installation of approximately 199MW additional capacity. With four hours of storage, this equals 833MWh storage of distributed battery storage plants at eight Eskom Distribution substation sites. This phase also includes about 2MW of solar photovoltaic (PV) capacity.

Phase 2 includes the installation of a total of 144MW which is equivalent to 616MWh at four Eskom Distribution sites and one Transmission site. The solar PV capacity in this phase is 58MW.

To maximise benefits, the distributed battery storage sites are strategically situated at remote areas with limited access to our distribution networks, but close to renewable independent power producers' (IPPs) plants.

All Phase 1 sites are planned to be commissioned by 30 June 2023 and Phase 2 by December 2024.

“Through the BESS project, Eskom aspires to diversify the existing generation energy mix by pursuing a low carbon future to reduce the impact on the environment. The 1 440MWh distributed BESS with 60MW Solar PV represents a giant leap forward in achieving this



aspiration, as it will be one of the largest BESS projects to be developed and implemented in South Africa,” said Velaphi Ntuli, Eskom’s General Manager Coal & Clean Technology.

Approval for the BESS implementation has been obtained from the World Bank. The project is co-financed by the African Development Bank, New Development Bank, the World Bank and the Clean Technology Fund (CTF).

The electricity grid will continue to incorporate energy from renewable sources, and this will require energy storage in large quantities. To this end, the organisation operates the largest testing facility for large-scale energy storage in the southern hemisphere, at its Research, Testing and Development (RT&D) facilities in Rosherville, Gauteng. Eskom continues to explore bulk energy storage solutions for grid strengthening as well as small-scale, behind-the-meter storage solutions for customers to store their own generated power.

“The project is one of many ways Eskom can partner with various players in finding alternative, innovative and lasting solutions and is also consistent with Eskom’s Just Energy Transition (JET) strategy, and storage is one of the key initiatives to assist in addressing the country’s electricity challenges in the long-term,” said André de Ruyter, Eskom’s Group Chief Executive. The Eskom BESS project incorporates transformational aspects by demonstrating large-scale deployment of storage abilities in support of South Africa’s Integrated Resource Plan.

Eskom views the development of local industry as a critical part of South Africa’s socio-economic and transformation developmental agenda and has identified the BESS project as an opportunity to advance these imperatives. Accordingly, a preliminary localisation and industrialisation study has been conducted on the BESS and Eskom will continue actively engage stakeholders to ensure that maximum benefits are derived from all the project sites.

The sites for Phase 1 are as follows:

Name	Distribution OU	MW Output	MWh capacity	PV capacity
Skaapvlei	WC	80	320	0
Melkhout	EC	35	140	0
Elandskop	KZN	8	32	0
Pongola	KZN	40	160	0
Hex	WC	20	100	0
Graafwater	WC	5	30	0
Paleisheuwel	WC	9.5	45	0
Rietfontein	NC	1.54	6.16	2.04
Total Phase 1		199.04	833.16	2.04



The sites for Phase 2 are as follows:

Project Name	Distribution OU	MW output	MWh Capacity	PV capacity
Witzenberg	WC	17	68	0
Ashton	WC	17	68	0
Cuprum	NC	70	280	0
Kiwano	NC	40	200	58MW
Total Phase 2		144	616	58MW

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