



## Saft energy storage system will smooth grid integration for Côte d'Ivoire's first solar plant

- Intensium Max High Energy system will provide capacity firming and smoothing for the Boundiali solar power plant
- Project is integral to Côte d'Ivoire's plans to be the energy hub of West Africa by 2030

**Paris, May 11<sup>th</sup>, 2022** – Saft, a subsidiary of TotalEnergies, has won a major contract from Eiffage Energie Systèmes to deliver a 10 MW energy storage system (ESS) that will ensure smooth grid integration for the Boundiali solar photovoltaic (PV) power plant. The 37.5 MWp (megawatt-peak) plant, owned and operated by CI-Energies (Côte d'Ivoire Energies), will be the first large-scale solar project in Côte d'Ivoire.

The primary role of the ESS will be capacity firming and smoothing of the solar plant's inherently intermittent output to ensure a predictable and reliable feed into the local grid. The fully-integrated lithium-ion ESS will comprise six Saft Intensium Max High Energy containers, providing a total of 13.8 MWh (megawatt-hour) energy storage, together with power conversion and medium voltage power station systems.

“As the main contractor for the Boundiali project, it was vital to find an ESS partner that could not only meet the technical requirements, but would also ensure that the system would operate reliably throughout a 10-year life,” said Ludovic Bavière of Eiffage Energie Systems. “The



quality of our discussions and a previous experience reassured us of Saft's ability to carry out this strategic project for our client, CI-Energies".

Côte d'Ivoire had an installed electricity production capacity of 2229 MW in 2019 and is expected to double its production by 2030. Electricity supply is currently largely provided by thermal energy and hydroelectric dams. The government aims to make the country the energy hub of West Africa by 2030 with an energy mix of 42 percent renewables.

Boundiali, a city of around 40,000 in the north of Côte d'Ivoire, will soon be home to the country's first solar power plant. It will produce clean electricity for around 30,000 households, avoid the emission of 27,000 tonnes of CO<sub>2</sub>, and will help create 300 jobs in the region.

The area is classified as a semi-arid zone with a hot and very dry climate. In addition to ensuring reliability and long-life in ambient temperatures that can reach 37°C, the battery containers are designed to resist hot and dusty winds.

The ESS will rapidly charge or discharge its lithium-ion batteries to accommodate the intermittent output from the solar power plant. It then provides a smooth generation profile, equivalent to the plant's output averaged over 30 minutes, that can be easily accepted by the local grid. This ensures most effective use of valuable decarbonized electricity

CI Energies is also planning to test the ESS in other network support options such as ramp rate control, frequency support, reactive power support and black start. This will provide useful data on the aging of the battery in different service stacking scenarios.

The Saft ESS is scheduled for commissioning at the Boundiali site in September 2022.

## About Saft

Saft specializes in advanced technology battery solutions for industry, from the design and development to the production, customization and service provision. For more than 100 years, Saft's longer-lasting batteries and systems have provided critical safety applications, back-up power and propulsion for our customers. Our innovative, safe and reliable technology delivers high performance on land, at sea, in the air and in space. Saft is powering industry and smarter cities, while providing critical back-up functionality in remote and harsh environments from the Arctic Circle to the Sahara Desert.

Saft is a wholly owned subsidiary of TotalEnergies, a broad energy company that produces and markets energies on a global scale: oil and biofuels, natural gas and green gases, renewables and electricity.

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