



Saft delivers final lithium-ion batteries for catenary-free CAF Urbos trams in Birmingham, UK

- Battery systems will enable catenary-free operation over several kilometers, enabling city to extend its tram network without the cost of overhead wires.
- Lifetime costs and environmental footprint optimized by aligning battery life with at least seven-year intervals for major overhauls of tram fleet.

Paris, November 26 2019 – Saft has shipped its final delivery of lithium-ion (Li-ion) batteries to [CAF Power & Automation](#) (P&A) for integration into CAF Urbos trams, called Second Generation Trams (2GTs), to power catenary-free operation in Birmingham, the UK's second largest city.

As a leading developer of advanced electrical, control and communication systems for railways, CAF P&A selected Saft Li-ion battery modules for its Onboard Energy Storage Systems. These are currently being retrofitted onto the roofs of 21 of the city's 2GTs. During operation, the batteries will charge on sections of the route that are served by catenaries. They will then provide traction power over distances of several kilometers on new sections of track without catenary wires.

By adopting battery-powered traction, Birmingham's transport agency [Network West Midlands](#) has reduced the cost of extending its tram network by eliminating the need to invest in overhead catenary wires.

Jean-François Reynaud, Project Manager at CAF P&A said: *"While CAF Power & Automation's role is to provide systems to support electric traction, energy storage, control and communication, our customers are really buying reliability. We select technology partners such as Saft because of their proven technology and ability to meet our delivery schedules."*

Jose-Maria Carrasco, Saft's Area Sales Manager said: *"CAF's Urbos trams will be in operation for decades and it is essential that the batteries provide reliability and safe operation over a service life of at least seven years. Saft's ability to provide expert technical support from our rail center of excellence in Bordeaux was a key deciding factor in CAF P&A's selection of our technology."*

Saft designed the batteries to match CAF's at least seven-year intervals for major overhauls for these second trams generation. This will enable Network West Midlands to optimize the fleet's maintenance and operational schedule.

Saft delivered battery modules for each of the 21 trams, as well as electronic Battery Management Units (BMUs) and support to CAF P&A for battery module integration. CAF P&A has integrated these components into battery systems at its facility in San Sebastian, Spain.

The project builds on Saft's long track record of working with CAF P&A, as well as its experience of delivering high-performance Li-ion battery systems for catenary-free operation.

Saft's lithium-ion cells are designed and manufactured in Saft's Nersac factory in France.



*For more information
on Saft's 100 years
experience in rail, click
[here](#) and watch our
video.*

About Saft

Saft specializes in advanced technology battery solutions for industry, from the design and development to the production, customization and service provision. For 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 Total, a leading international oil and gas company and a major player in low-carbon energies.

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