



Channel Tunnel, the longest undersea tunnel in the world, reaches a technological grid milestone with GE

- *The world's largest and most powerful Static Synchronous Compensator (STATCOM) solution in a railway environment was developed by GE Grid Solutions and adapted to the Channel Tunnel in collaboration with Eurostar*
- *Eurotunnel will be able to run up to 16 trains simultaneously in the Channel Tunnel— up to 1,000 trains per day—confirming Eurotunnel's status as the busiest and most heavily used rolling motorway in the world*
- *GE continues as a leader in the industry with the development of high-voltage grid solutions that result in project cost savings, increased quality, greater reliability, and lower environmental impact*

Paris, FRANCE, February 1, 2023 – Today the Channel Tunnel, the longest undersea tunnel in the world, reached a technological milestone with [Getlink](#)'s commissioning of a high-voltage grid solution from GE Renewable Energy's Grid Solutions business [NYSE:GE]. GE's flexible Static Synchronous Compensator ([STATCOM](#)¹) solution delivers the fast voltage support [Eurotunnel](#) requires to be able to run up to 16 trains simultaneously in the Channel Tunnel—a 60% increase in maximum capacity or as many as 1,000 trains per day.

The busiest and most heavily used rolling motorway in the world, Eurotunnel decided to increase the power and stability of its network to ensure a constant flow of traffic and meet peak demand when multiple trains run simultaneously. The STATCOM solution, developed by GE and adapted to the Channel Tunnel in collaboration with [Eurostar](#), supports voltage stability, grid resilience, and enhanced power transfer capability.

The solution stabilizes the voltage of the power network—a major problem for power systems—with its ability to either absorb or generate reactive power in synchronization with demand. The STATCOM solution will double the reactive compensation power flow as well as improve stability even during peak periods and deliver enhanced quality of service, by enabling optimized regularity of the freight and passenger shuttle service.

“Faithful to its pioneering spirit, the Channel Tunnel welcomes the world's largest and most powerful STATCOM solution in a railway environment. This state-of-the-art technological system reinforces the reliability and capacity of our infrastructure and ensures optimal operational performance for our customers,” said [Nicolas Brossier](#), Engineering & Projects Director for Eurotunnel.

“Providing a stable and consistent flow of electricity to this vital link is critical. We are proud to have collaborated with valued customer Getlink to facilitate the successful upgrade of the traction network for the Channel Tunnel, which will ensure that millions of passengers continue to travel safely and efficiently between the UK and France,” added [Johan Bindele](#), Grid Systems Integration Business Leader, GE Grid Solutions. *“GE's STATCOM technology is the prime solution to ensure power stability*



in the Tunnel and help navigate the complex environment that our customers are facing today.”

GE’s STATCOM technology will enable the Channel Tunnel infrastructure to remain in place for the long term. Expected traffic growth will facilitate the access to a new generation of speed trains, which will support the development of new cross-Channel services.

[Amar Chaabi](#), Chief Operations Officer of Eurostar Group, stated: *“As pioneers of high-speed rail transport in Europe, Eurostar Group is proud to be part of this adventure that pushes the boundaries of cross-Channel travel. By improving the efficiency of the infrastructure and increasing the number of trains running through the tunnel, this new technological advance will support our ambitious target of carrying 30 million passengers a year by 2030, across our network.”*

GE custom-designed and supplied the entire STATCOM system, including its adaptive SmoothSine control system, which provides the Eurotunnel with reactive power compensation and an improved range of operational voltage, leading to faster response times. Additionally, this technology has a smaller physical footprint than traditional Static Var Compensation (SVC)² systems.

GE is a leader in the industry in developing high-voltage grid solutions, including STATCOM, SVC, Series Compensation Systems, and Synchronous Condensers—resulting in project cost savings, increased quality, greater reliability, and lower environmental impact.

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Notes to the Editor:

1. STATCOM = Static Synchronous Compensator, technology allowing voltage stability, power transfer capability and reactive power balance in a grid
2. SVC = Static Var Compensation, technology used since the early 1970s, reliable means of controlling voltage over transmission lines and improving network dynamic stability while increasing power transfer capability.

About Getlink

Getlink SE (Euronext Paris: GET) is, through its subsidiary Eurotunnel, the concession holder for the infrastructure of the Channel Tunnel until 2086. Eurotunnel operates Truck and Passenger Shuttle services (cars and coaches) between Folkestone (UK) and Calais (France). It provides the fastest, most reliable, easiest and most environmentally friendly way across the English Channel. Since its opening in 1994, more than 476 million people and 98 million vehicles have travelled through the Channel Tunnel. Carrying 25% of UK-EU trade, this unique land connection has become a vital link between the Continent and the United Kingdom. This performance is reinforced by ElecLink, the new electrical interconnector installed inside the Tunnel. Getlink’s sustainable mobility services offering is completed by its rail freight subsidiary, Europorte, which offers a wide range of integrated rail services. Committed to "low-carbon" services and reduced environmental impact (the Group prevents the equivalent of 2 million tonnes of CO₂ emission per year through its activities), Getlink puts people, nature and territories



at the heart of its concerns. <https://www.getlinkgroup.com>

About Eurostar Group

- Initiated in September 2019, the proposed alliance between Eurostar and Thalys, received approval from the European Commission at the end of March 2022 giving rise to holding company Eurostar Group on May 1, 2022.
- Eurostar Group is owned by SNCF Voyages Développement (55.75%), CDPQ (19.31%), the SNCB (18.50%) and funds managed by Federated Hermes Infrastructure (6.44%).
- The holding company is based in Brussels and holds 100% of the shares of Eurostar International Limited (Eurostar) and THI Factory SA (Thalys), which remain full-fledged railway companies and are headquartered in London and Brussels respectively.
- The ambition is to provide an attractive alternative to road and air transport and to accelerate the modal shift from 19 million passengers carried in 2019 to 30 million within 10 years.
- The new entity will offer the largest international high-speed network in Western Europe and has set itself the objective of deploying an ambitious environmental policy over the next few years.

About GE Grid Solutions

Grid Solutions, a GE Renewable Energy business, serves customers globally with over 12,000 employees. Grid Solutions provides power utilities and industries worldwide with equipment, systems, and services to bring power reliably and efficiently from the point of generation to end power consumers. Grid Solutions is focused on addressing the challenges of the energy transition by enabling the safe and reliable connection of renewable and distributed energy resources to the grid. We electrify the world with advanced grid technologies and accelerate the energy transition. For more about GE's Grid Solutions, visit <https://www.gegridsolutions.com>.

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