St Helena's Fibre Optic Cable Project

Key Information

What is St Helena's Fibre Optic Cable Project?

St Helena Government (SHG) in December 2019 signed a contract with Google to connect St Helena Island to the Equiano undersea fibre optic internet cable – and thus, St Helena's Fibre Optic Cable Project was born.

The project was awarded funding under EDF11 and supports St Helena's 2017 Digital Strategy.

The project should deliver St Helena's first high-speed, fibre-optic connectivity (currently connection is via satellite).

- The landing of St Helena's branch of the Equiano cable on 26 August 2021 marked the first shore cable-landing in the entire Equiano project.
- St Helena's cable branch (linking the island to the main trunk of the Equiano cable) should be around 1,154km long;
- The main cable trunk should link to Europe and southern Africa.

Connecting isolation

The fibre optic cable should deliver high-speed broadband connectivity to the British Overseas Territory of St Helena Island, South Atlantic Ocean – one of the remotest islands on Earth.

Speeds should range from a few hundred gigabits per second up to multiple terabits, as demand varies.

This would be the first time St Helena has been connected to the outside world via a fibre-optic cable: Currently, customers pay per megabyte of data for broadband (and mobile phone) options, with listed upload speeds between 512kbps and 768kbps and download speeds between 1,024kbps and 2,048kbps. Broadband packages range from £13.31/month for 1.1gbs of data, to £160.06/month for 31gbs, and data does not shut off at package limit but automatically allows overages, charged at 5p/mb. Internet usage is free between midnight and 6am.

Therefore, enhanced digital connectivity has the potential to hugely benefit the island and its residents, businesses and visitors (including benefits to education and healthcare opportunities).

Further information

The below sections provide key definitions and dates; important further details about the main aspects of the project; and quotes gathered throughout the project. This information will be consistently updated as the project evolves.

For higher-resolution images and video, contact SHG's Digital Media Officer or Marketing Manager (+290 24470; kimberley.peters@sainthelena.gov.sh; emma.weaver@sainthelena.gov.sh).

Definitions

Alcatel Submarine Networks (ASN): In charge of landing the cable at St Helena.

American Manufactured Structures & Services (AMSS): Designers and fabricators of the Modular Cable Landing Station.

European Development Fund 11th Round (EDF11): Funder of cable project.

Equiano: Google's undersea fibre optic cable, being laid between Europe and southern Africa, to which St Helena has signed up to connect.

Marine Contractors & Consultants, Ltd (MCC): Contracted to undertake the marine-based portions of the Cable Project at St Helena, including laying of the cable on the seabed at Rupert's.

Modular Cable Landing Station (MCLS): The MCLS is a major part of the project, essentially being the point at which the Equiano cable links into the island's digital infrastructure. It is a small building located at Rupert's Valley, where the end of the Equiano cable connects to the island.

Power Feed Equipment (PFE): Based within the MCLS, the PFE supplies a constant, ultra-high-voltage current to power the component equipment mounted in the submarine cable; and supports long-period operations.

Public Communications Networks & Services provider (the local provider): St Helena's signed-monopoly provider for local communications networks and services. Until 31 December 2022, this is SURE St Helena. The local provider beyond that period should be announced in late 2021. It is the local provider that is in charge of the connectivity coming out of the cable end at the MCLS, and delivering connectivity as a monetised service to the island.

St Helena Government (SHG): Leading St Helena's Fibre Optic Cable Project**.**

St Helena's Fibre Optic Cable Project (the project): Delivery of a branch of Google's Equaino undersea fibre optic cable to St Helena, improving internet capabilities accessible to the island.

Submarine Line Terminal Equipment: Allows the front-haul link to be interconnected to the respective internet service provider's backhaul infrastructure.

Telecom Egypt: In charge of connecting St Helena to Telecom Egypt's subsea system over the Equiano submarine cable system; assisting SHG in design, installation and configuration of the submarine and network equipment; and interfacing the cable with the system of the local Public Communications Networks & Services provider. Telecom Egypt (generally) is establishing new subsea landing stations and crossing routes and investing in new subsea systems and solutions that will cater to the new global wave of international capacities.

Teliri: The cable landing ship that brought St Helena's branch of the Equiano cable to the island.

Modular Cable Landing Station (MCLS)

The MCLS is where the end of St Helena's cable branch connects into the island's infrastructure. It is located in Rupert's Valley.

St Helena's MCLS and associated components were designed and fabricated in the United States by AMSS, and arrived to St Helena via the MV Helena on 16 March 2021. The MCLS was offloaded, transported, and carefully positioned just above the Rupert's Valley beach, ready for installation works.

In May and June 2021 two ASN engineers arrived and installed PFE and associated telecoms equipment within the MCLS.

On 2 August 2021 four ASN and eight MCC personnel arrived via charter flight to facilitate landing of the cable and test the power feed equipment within the MCLS.

Cable landing and facilitation

From 16 August 2021 excavation and other preparation works were taking place at Rupert's Beach for the arrival of the cable landing ship. Divers placed and secured articulated piping onto the seabed floor at Rupert's - the cable would later be placed and enclosed within that piping.

Teliri arrived 25 August 2021 for marine and shore landing works. The cable was dropped over the side of the ship on 29 August 2021 and placed into the piping that had been laid. The end of the cable was installed at the MCLS, where it will link into the island's digital infrastructure.

After landing of the cable, training occurred consistently with Google to enable local staff to manage the MCLS in readiness for when the branch was connected to the main trunk. The PFE inside the MCLS was tested, and Submarine Line Terminal Equipment was installed.

Going 'live'

The cable will be able to 'go live' once both the St Helena branch and the main trunk of the Equiano cable are laid, powered and tested; and once the local infrastructure and provider are in place and ready to go live at St Helena.

The latest indicative timetable for the provisional acceptance of the Equiano Cable Project suggests the cable in its entirety may be ready for service around the second half of 2022. Noting the constantly changing nature of the COVID-19 pandemic, the scale of this project and the amount of entities and moving parts involved, it is hoped the cable could go live in St Helena at the beginning of 2023.

One of the 'moving parts' of this project is that the local provider post-2022, and the prices for cable-based local internet services, are yet to be announced.

St Helena has a current local provider, whose contract ends 31 December 2022. This local provider has not stated whether, if the cable is ready to 'go live' before the end of their contract, they intend to use the cable or to continue using satellite service until the contract's end date.

The service provider beyond 31 December 2022, and prices for cable-based internet provision, should be announced in late 2021.

Project benefits

SHG hopes that St Helena's Fibre Optic Cable Project will:

- Provide faster and more affordable internet connectivity to St Helena;
- Encourage new and increased investment opportunities from a variety of sectors;
- Enable construction of satellite ground stations;

- Enable further internet-based technologies, such as international banking capabilities;
- Enhance private-sector development opportunities, including work-from-home options;
- Increase capabilities for online/distance learning, telemedicine and e-commerce;
- Boost tourism appeal, as well as visitor and returning Diaspora experience.