

Media release 2 June 2021 Swissgrid Media Service Bleichemattstrasse 31 P.O. Box 5001 Aarau Switzerland

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Old overhead line over the Gotthard Pass to be relocated to the new road tunnel

Bundling of infrastructures frees up the Alpine landscape

The extra-high-voltage line over the Gotthard Pass is being relocated to a special service duct as part of the construction of the second road tunnel. The Swiss Federal Office of Energy (SFOE) has given Swissgrid confirmation that no sectoral plan procedure needs to be carried out for this project. Several agreements have been concluded with the Federal Roads Office (FEDRO) in connection with the service duct. Over the next few years, Swissgrid will prepare the cabling of the extra-high-voltage line on the Gotthard Pass between Airolo and Göschenen. Measuring around 18 kilometres in length, this will be the longest cabled extra-high-voltage line in Switzerland.

In future, the Airolo – Mettlen 220 kV extra-high-voltage line will be laid underground in the Gotthard road tunnel between Airolo and Göschenen over a distance of approximately 18 kilometres. This is possible thanks to synergies created by the construction of the second Gotthard road tunnel by the Federal Roads Office (FEDRO). The cables of the line will be laid in a separate service duct (WELK HS) beneath the hard shoulder. The new line is expected to go live in 2028. The line between Airolo and Mettlen is a vital part of the north-south connection for the electricity supply in Switzerland and Europe.

Line routing unclutters the Alpine landscape

The cabling of the line will make it possible to dismantle the existing overhead line over a distance of 23 kilometres. This currently consists of more than 60 pylons running over the Gotthard Pass and through the Schöllenen Gorge in the canton of Uri. The cable lines will be laid underground in a cable conduit block along 300 metres between the substation in Airolo and the entrance to the new road tunnel. From this conduit block, the cable will then run for 17 kilometres beneath the hard shoulder of the road in a separate service duct, where the cables will be fixed onto metal racks. From the north portal in Göschenen, the cables will again be laid over 800 metres in a service duct as far as the end mast. From here, the line will continue unchanged as an overhead line to the Mettlen substation.

Bundling of infrastructures

The Swiss Federal Office of Energy (SFOE) has commissioned Swissgrid to determine the bundling potential for each grid project and to analyse it in detail through feasibility studies. Swissgrid is required to examine various options, taking into account aspects such as technology, functioning, environment, spatial planning and economic viability. In this project, all aspects were considered in full. The synergy effects created by the construction of the second



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tube of the Gotthard road tunnel by FEDRO and the necessary replacement of the section from Airolo to Göschenen in the next few years has resulted in a favourable cost/benefit ratio for the cabling. This was confirmed to Swissgrid by the regulator ElCom.

Swissgrid has evaluated both the costs and benefits of a partially underground line and those of renovating the existing overhead line. This evaluation revealed that the cabling of the line is the most suitable option today, despite costing three times more. Swissgrid's investment of 107 million Swiss francs includes the costs for the acquisition and laying of the cables as well as the construction of the connecting lines.

Waiver of the requirement for a sectoral plan procedure

The transmission lines sectoral plan (SÜL) is the federal government's overriding planning and coordination tool for the expansion and construction of high-voltage lines. The sectoral plan procedure involves assessing the requirements and variants of the planning corridor for transmission lines. In the process, any conflicts are identified and possible solutions are determined, and the appropriate corridors for transmission line projects are defined. After consultation with the responsible federal offices as well as the cantons of Uri and Ticino, the SFOE came to the conclusion that the legal criteria for waiving the requirement for a sectoral plan procedure had been met. In the view of the federal offices consulted, carrying out this procedure would not result in any additional useful findings. In its decision, the SFOE also noted several points which will need to be taken into account in the subsequent approval procedure.

Dialogue with the public

Detailed information on the grid and motorway projects is available on the Swissgrid and FEDRO websites. In addition, Swissgrid will have stands at the FEDRO information centres in Airolo (TI) and Göschenen (UR). These will open on 1 August 2021.

Information about the grid project: www.swissgrid.ch/gotthard

FEDRO website: www.gotthardtunnel.ch



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Technical details	
Voltage of existing line:	220 kilovolts (kV)
Length of earth line section between Airolo and Göschenen:	18 kilometres
Dismantlement of the overhead line:	23 kilometres
Underground cable voltage:	220 kV
Number of cables in the tunnel:	3
Diameter of cable:	approx. 150 mm
Investment by Swissgrid:	CHF 107 million

For more information, visit media@swissgrid.ch or call +41 58 580 31 00.

Powering the future

Swissgrid is the national grid company. As the owner of Switzerland's extra-high-voltage grid, it is responsible for operating the grid safely and without discrimination and for maintaining, modernising and expanding the grid efficiently and with respect for the environment. Swissgrid has about 600 highly qualified people from 22 countries at its sites in Aarau, Prilly, Castione, Landquart, Laufenburg, Ostermundigen and Uznach. As a member of the European Network of Transmission System Operators for Electricity (ENTSO-E), it is also responsible for grid planning, system management and market design in the European exchange of electricity. The majority of Swissgrid's share capital is jointly held by various Swiss electricity companies.