

Media release

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Power outage in Valais on 17 July 2020**The outage was triggered by a chain of technical and human factors****A chain of technical and human factors led to a supply disruption in Valais on 17 July 2020. This can be seen following investigations into this complex incident.**

In the Chippis region, several projects in the transmission grid are being implemented that required protection tests in the Chippis substation (VS). On Friday 17 July 2020 at 4.23 p.m., protection operation was unintentionally triggered for the 220-kV grid node Creux de Chippis. As a result of this, the substations in Chippis, Stalden, Zermeiggern, Bitsch and Mörel had no voltage, which led to a regional supply disruption in the distribution grid. Despite the incident, the grid stability of the Swiss extra-high-voltage grid was always guaranteed.

Investigations to date have shown that a chain of technical and human factors led to the event.

The transfer capacities in the affected region are not sufficient for the high electricity generation of the alpine hydropower plants during the summer. In order to guarantee grid security and transfer capacity in the region, Swissgrid has had to disconnect the transmission grid in Mörel in an east-west direction for about 15 weeks a year for some time now. This leads to lower fault tolerance in the transmission grid in the region.

On 17 July 2020, planned tests of the protection parameters took place at the Creux de Chippis substation. Swissgrid commissioned a service provider to carry out this work, as is usual in such cases, by a specialised company with qualified professionals. During these tests the system was not put into revision mode, which meant the protection system unintentionally detected the test signal. A protection operation was thus unintentionally triggered, causing the switching system in the Chippis substation to be de-energised. Combined with the special grid situation, the substations in Stalden, Bitsch, Zermeiggern and Mörel were also affected by the loss of voltage as a result of this technical fault. This led to a regional supply disruption in the distribution grid.

From 5.00 p.m. onwards, thanks to the good cooperation between the various network operators, it was possible to gradually restore the power supply. At 5.23 p.m., all affected substations and lines of Swissgrid were back in operation again as usual. At 6.15 p.m., almost all customers of the five lower voltage distribution grid operators which were affected by the outage could be supplied with electricity again. Such incidents are extremely rare. The Swiss transmission grid is one of the most secure and stable electricity grids in the world. In terms of supply quality, Switzerland occupies one of the top spots in a pan-European comparison. According to EICOM's «Energy Supply Quality Report 2019», the average interruption time per

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end consumer supplied and year in Switzerland was 19 minutes, of which only 0.2 percent was attributable to the transmission grid.

Modernisation of the grid infrastructure increases security of supply

The Swiss transmission grid already has structural bottlenecks that need to be eliminated in order to increase the security of supply throughout Switzerland and to secure it in the long term. The problems related to this tense grid situation in Valais have been addressed by Swissgrid with the network expansion projects in the «Strategic Grid 2025». The voltage increase to 380 kV in the projects «Chamoson – Chippis», «Chippis – Bickigen» and «Chippis – Lavorgo» will increase the robustness of the entire regional grid infrastructure of Swissgrid in Valais and Ticino, which is already operating at the limits of its capacity.

Safety has the highest priority at Swissgrid – for people, facilities and the environment. The safety-first approach is also firmly anchored within our service providers and embodied in the everyday activities. We continuously adapt our working methods and train our employees and subcontractors on an ongoing basis.

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 more than 500 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.