

Power security for Liechtenstein in times of crisis



In light of the serious risks that blackouts and power shortages pose to communities, EBP was commissioned to help the Liechtenstein Office of Civil Protection (OCP) and the Liechtenstein Power Company (LKW) develop corresponding prevention and mitigation plans.

As we become ever more dependent on an uninterrupted supply of power, large-scale blackouts and extended power shortages can pose a threat to our safety and have a devastating economic and social impact on our communities.

Supplying power in times of crisis

EBP has helped Liechtenstein's OCP and its public power company (LKW) to develop prevention and mitigation plans aimed at securing the country's power supply in times of crisis. Working together with the OCP, the LKW and the Liechtenstein Department of Economics, we created a map of Liechtenstein's power grid, drafted specific reference scenarios for blackouts and shortages and developed various power management strategies for implementation in times of crisis.

Power blackouts

To address the issue of blackouts, we examined the possibility of establishing a micro-grid. While power plants capable of island-mode operation represent a viable solution, they introduce a number of challenges, including: decision making with respect to island-mode activation; human resources; and the necessary technology. We also investigated whether the country's own power production could be made to suffice for

Client

Liechtenstein Office of Civil Protection /
Liechtenstein Power Company

Facts

Period	2017 - 2019
Project Country	Liechtenstein
Annual power	400,000 MWh
Share of imported power	78%
Stand-alone power plants	1

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all critical infrastructures.

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Power shortages

In the context of considering power shortages, we assessed the viability of implementing provisions issued by OSTRAL (Organization for the Efficient Use of Power in Times of Crisis). Power distribution during power shortages introduces numerous challenges, including technical implementation; real-time communication; and equitable distribution. In addition to this, we also examined the option of prioritizing the supply of critical infrastructures.

Recommendations

Using EBP's final report as a basis, the project team formulated a number of recommendations that would help Liechtenstein to complete its planning for the risk of blackouts and power shortages. The relevant agencies will now continue to help ensure the Principality's capacity to secure its power supply in times of crisis.