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SWISS MADE

Are we running out of electricity?

Article

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UPS solutions are a sustainable answer to cope with power outages.

Filippo Marbach
Founder and CEO
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For the coming winter, the president of the Federal Electricity Commission Werner Luginbühl predicts possible interruptions in the electricity supplies, blackouts which could last for hours.

A realistic forecast, or unneccesary pessimism?

We have to remember that during the cold period, electricity is imported from France. Depending on how much is needed, Germany and Italy could become alternative suppliers. Here's why: we are at the dawn of a potential international energy crisis, and as a result, neighbouring countries might decide not to export their energy to our country. The Swiss dams, primarily an emergency reserve, may not be enough to deal with this possibility.

The government is working hard to ensure that sufficient electricity is supplied to cover the needs of the entire nation. In the case of an emergency, the priority in distributing energy would be given to essential activities, and decreasing it for less essential activities, such as the lighting of streetlamps or shop windows.

As Yves Zumwald, Chairman of the Executive Board of Swissgrid, a company that manages the electricity grids, says, the time has not yet come to prepare candles and blankets. "We haven't reached this point yet. All the partners in the sector are currently collaborating intensively with the federal authorities to avoid an electricity shortage, and to be deal with one should it occur.".

Not all blackouts can be predicted

So far, we have talked about blackouts that are predictable - so predictable, in fact, that damage containment measures can be studied and implemented in advance. However, not all blackouts are predictable. We are referring to a kind of disruption caused by sudden technical problems. It should be considered that the electricity grid is constantly evolving and is subject to many major variables capable of causing instability, such as the introduction of new energy sources from private individuals, and energy consumption patterns different from those of years gone by (the di fusion of electric machines, for example). This isn't a phenomenon that only affects our country, but it's a global energy crisis that has Europe as its epicentre. The international tension sparked by the war in Ukraine has worsened the situation, but at the root of the problem there are, among various factors, the exhaustion of fossil fuels, electricity infrastructures that are more and more obsolete, rising populations, and global warming.

All of these elements only increase the likelihood of unpredictable blackouts occurring.

A sudden power outage, even if brief, may not seem like such a problem. But just think about if there was

a lack of energy in the operating theaters, or if the instruments in the control rooms of the airports went off even for a few minutes. Not to mention a brief outage of the servers that now manage the current accounts of millions of people.
During the summer of 2018, two blackouts hit several districts of Lugano, causing a technical defect in a machinery in a Cornaredo substation of the AIL. On the morning of July 24, the whole of Southern Ticino went without energy for 40 minutes! Several companies suffered losses of tens of thousands of francs.
Therefore, it is clear that, for certain installations, blackouts simply aren't an option, even ones that last just a few seconds.

What solutions do we have?
Damage to the electricity grid can result in huge economic costs and severe inconvenience to the population, who have already been severely tested in the last few years by covid-19 and all of its consequences. Good network management is needed and targeted investments in highly reliable Uninterruptible Power Systems (UPS) are imperative. The UPS obviate sudden anomalies in the electricity grid, and supply energy stored in special batteries in the event of a power failure.
Filippo Marbach, founder, and CEO of Centiel, states: "UPS solutions must stand out for their quality and the highest levels of reliability. They are a sustainable response needed for coping with predictable or unpredictable, short or long-lasting power outages".
Gerardo Lecuona, co-founder and Global Sales Director of Centiel adds: "UPS systems must be efficient systems in order to avoid wasting energy for its operation, and to ensure that the stored energy is used to its full potential. In short, they must protect the load connected to the machine, avoiding material and vital damage. "

UPSs must be efficient systems that avoid wasting energy.

Gerardo Lecuona
Co-founder and Global Sales Director
CENTIEL

The good news?
Blackouts can be beaten.

On 2 June, a malfunction in the distribution centre of the Chodov power plant, Czech Republic, caused a blackout of almost 60 minutes in Prague (800,000 people!). Among many problems reported, metro and urban transport lines were disrupted, with witnesses claiming to have seen trams completely stopped at junctions. And yet, during the long blackout, the TTC TELEPORT data centre, on which almost 60% of all Czech Internet traffic depends, carried on working thanks to Centiel's modular UPS, Swiss-made CumulusPower.

This is just a simple demonstration that UPS devices can act as a barrier against sudden blackouts. It is important to never let your guard down, to continue the path of fighting energy waste, and to invest in reliable and quality technology.

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