

# Energy storage in the communications industry

Which telecommunications networks are deploying energy storage?

Image: CC. This year has seen major energy storage deployment plans announced by telecommunications network operators in Finland and Germany, and substantial fundraises by ESS firms targeting the segment. Finland's Elisa announced a 150MWh rollout across its network in February while Deutsche Telekom began a 300MWh deployment the same month.

Which telecommunications companies are investing in energy storage?

Finland's Elisa announced a 150MWh rollout across its network in February while Deutsche Telekom began a 300MWh deployment the same month. This year has also seen US\$50 million fundraises by Caban and Polarium, both energy storage system (ESS) solution providers which have made the telecommunications segment a key focus.

How does data storage affect energy consumption?

Digital information is recorded following a binary state of 0 and 1 formed by two different spin configurations. However, this increase in data storage capacity has come with a significant increase in energy consumption.

How much energy does a data centre use?

In a typical data centre, cooling infrastructure accounts for about (50%) of energy consumption, while servers and storage require about (26%) combined<sup>7</sup>. Beyond the challenge of energy supply for the ICT sector, there are also increasing concerns regarding the predicted environmental impact, such as the greenhouse gas emissions<sup>8</sup>.

How has data storage capacity changed in our society?

Data storage capacity in our society has drastically increased so to keep up with ever-increasing data generation. Simultaneously, memory devices have reduced in size.

How much electricity does a big data centre use?

Cloud data storage and sharing information online are powered by big data centres, which in 2010 were estimated to consume 1-1.5% of the global electricity usage<sup>3,4</sup>, with predictions of increment from 3 to 13% consumption by 2030, depending on the measures taken to reduce electricity expenditure<sup>5</sup>.

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Energy storage plays a vital role in the communications industry, serving as a backbone for continuous

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operation, especially as reliance on digital connectivity escalates. ...

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