

Merus Power's energy storage system allows quick adjustability for Helen's hydropower plant

Merus Power and energy company Helen have signed an agreement about an energy storage system for Mankala's hydropower plant. The energy storage system is to operate alongside the hydropower plant in Fingrid's frequency reserve market.

Helen's goal is to achieve 100% carbon neutrality in its energy production by 2030. This pilot project between Merus Power and Helen about the cooperation of an energy storage system and hydropower is an actual step towards Helen's sustainability goals and will support the growth of renewable energy in the electricity grid.

"Electricity production and consumption must be in balance at all times. For this reason, the production and consumption of electricity are constantly forecasted. Maintaining this balance requires constant adjustments in electricity production. The deviation between production and consumption is noticeable in the frequency of the electricity network, which is balanced in Fingrid's frequency reserve market. The increase of renewable energy in the electricity grid also increases the need for control capacity." says **Heikki Ylänen**, Sales Manager of Merus Power.

"Hydropower control capacity plays a significant role in supporting the entire Nordic electricity system. Stricter technical requirements will however increase the wear and tear of the hydropower plant's mechanical parts and thus the need for their maintenance as the control volumes increase. In the worst case scenario, they can prevent hydropower from supporting the electricity system. Helen is exploring the possibility of profitably continuing to use the control power of hydropower plants in frequency support, and is developing new services to improve the serviceability and reliability of hydropower plants through this energy storage system pilot project. The service and maintenance costs of Helen's subsidiary Mankala's hydropower plant are expected to decrease due to the fast and precise control of the energy storage system and guidance of Merus Power in this pilot project." says **Kristiina Siili**, Business Development Manager of Helen.

In other words, Helen's hydropower expertise and Merus Power's advanced energy storage technology can support the electricity grid and enable the share of renewable energy in the electricity grid to be increased, thus reducing dependence on fossil fuels.

Additional information

Jonna Kannosto, Marketing and Communications Director, jonna.kannosto@meruspower.com

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