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Central Europe goes for pumped storage plants development

An European initiative signed by Germany, Austria and Switzerland calls for the development of more pumped-storage power plants.

Those plants are the only existing mean to store large quantities of electricity. Beside playing a crucial role for stabilizing the network frequency by easing the supply-demand balance, power storage is becoming absolutely necessary because of the rapid development of intermittent renewable energies like wind or solar.

This is recognized by the three signatory ministers: Phillipp Rosler of the Austrian Republic's Ministry of Economy and Technology; Reinhold Mitterlehner of Germany's Ministry of Economy, Family and Youth; and Doris Leuthard of the Swiss Council for the Environment, Transport, Energy and Communications. They declare pumped storage is essential if Europe wants to reach its energy and climate policy objectives. Those objectives are often familiarly called the "20-20-20 targets".

A view of the Emosson dam in Switzerland. It will be used as the lower reservoir for the 600 MW Nant-de-Drance pumping storage plant being built there.

European countries have agreed in 2008 to lower their greenhouse gas emissions 20% by the year 2020 below 1990 levels. That would be accomplished by investments in renewable electricity generation like wind and solar power : 20% of European energy is to come from renewable resources. The third objective is to increase overall energy efficiency by 20%.

As the initiative notes, however, "pumped storage power plants are the only industrially available storage technology present," and their development is essential to "offset the volatile supply of wind and solar systems."

The agreement not only calls for the expansion of existing pumped-storage facilities but also cross-border transmission of energy currently being produced. But the agreement does not mention the obstacles to the use of pumped storage plants, like the rates applied to electricity transport which make the operation much less profitable (utilities operating a pumping storage station have to pay twice for electricity transport).