



Press Contact Project SYNCHRONVERTER:

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Synchronverter - renewable energy meets grid stability

The proportion of renewable energy in the power grids worldwide is increasing. In order to sustainably curb CO2 emissions and escape the drawbacks of nuclear energy, large industrial nations in particular are relying more and more on alternatives.

However, the power grids, evolved over decades, are exclusively based on generators that supply the energy in the form of alternating current. Renewable electricity is, for the most part, fed into the existing network via electronic converter technology. Because of the increasing use of this technology, the networks are increasingly lacking the momentum of the generators that keep them stable during natural fluctuations. It can therefore be assumed that from a share of around 30% renewable electricity, a grid loses stability considerably. An extensive and uninterrupted power supply is then no longer possible.

Synchronverter solves this problem! With a highly complex algorithm, a power inverter with Synchronverter technology can behave as though it were a classic generator with momentum. The network therefore regains stability and the proportion of renewable energy can then be increased without worry. The path is therefore free for a future in which electricity can be produced and distributed largely in a clean, safe and resource-saving manner.

Synchronverter - the consortium behind it

The actual Synchronverter algorithm was developed by Israeli company Synvertec within the framework of a research programme with the support of "HORIZON 2020", and successfully brought to prototype stage. In another project funded by the EU, the algorithm was integrated in classic PV inverters together with the two German companies Solutronic Energy GmbH and Q3 ENERGIE GmbH & Co. KG, and tested in practice as well as being presented and marketed as a product worldwide.