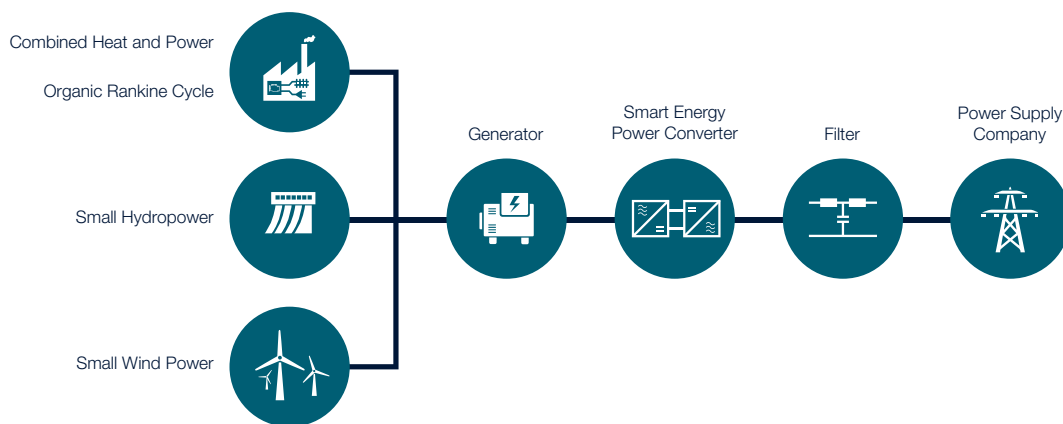


Smart Energy Conversion

Power and intelligence combined.



Flexible energy generation using SEC.



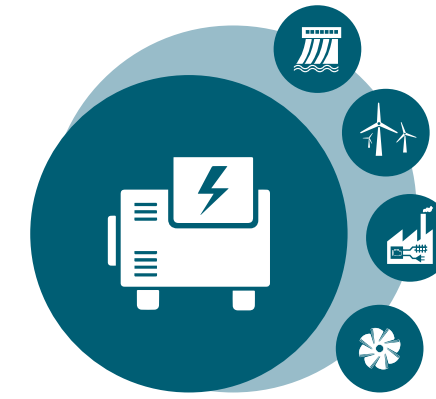
Throughout the world, power generation is undergoing a major transformation. Due to the limited availability of fossil fuels and rising energy demand, the need for efficient and intelligent energy production plants is increasing.

As a result, the generation and production of energy from renewable resources will rise in future. A large share of energy generation from renewable sources will be based on decentralised power plants in the low and medium power ranges.

With Smart Energy Conversion (SEC) technology, the energy of a moving electric machine is fed into a power grid, independent of the machine's speed and frequency. The electric machine can be a rotating generator or one that moves linearly. Due to its high flexibility, the SEC system is used in cogeneration plants, small hydro and wind power plants, in a wide variety of turbine applications, and in regenerative power generation facilities.

» Optimal operation that fits to your needs at any time and at the lowest operating costs. «

Benefits from SEC.



Fast construction of your plant while minimising planning efforts.

In the area of Smart Energy Conversion (SEC), LTI ReEnergy offers an intelligent inverter system for regenerative energy production and feeding to a power grid. With the current systems, innovative solutions in the power range of 12 - 305 kVA can be implemented. LTI ReEnergy has a professional and proven switch cabinet design and offers complete turnkey system solutions from a single source on request. Thanks to decades of professional experience, you can expect minimal planning efforts and fast construction of your plant.

It is possible to decouple the system frequency from the rotational speed of the generator. You can thus individually control your system speed at any time. This permits optimal operation that can be fit to your needs at any time and at the lowest operating costs. This decoupling also leads to a significantly longer service life and higher yields. The overall efficiency of your plant is permanently enhanced by these benefits. When used in combined heat and power plants, the maintenance intervals and the service life of internal combustion engine components can also be extended due to significantly fewer restarts.

Another advantage is the compliance with the requirements of DIN VDE-AR-N-4105 and the guidelines of the German Association of Energy and Water Industries (BDEW). The inverters monitor the relevant grid parameters at all times

and provide integrated grid and plant protection, as well as reliable power system detection. An additional advantage is thus that external monitoring systems are not needed, thereby reducing procurement costs. The system also supports the common network access conditions found throughout the world and can be used internationally.

Further benefits:

- 1 Encoderless control**
Cost savings with reduced application complexity and increased user-friendliness.
- 2 Flexible power factor (cos phi)**
Optimum grid stability by providing reactive power.
- 3 Static and dynamic grid support, even with low-voltage ride-through ***
Significant cost savings because the oversizing of various components is not required.
- 4 Multitude of integrated interfaces**
Worldwide plant monitoring and perfect integration into the overall system.
- 5 Excellent architecture & optimised compactness**
Cost savings as the generator can also be used as a starter.

* according to the VDE-AR-N-4105 and BDEW standards



Innovative technology.

Sophisticated developments, perfect results and individual solutions.

As part of the Business Area Automation of the international technology Group Körber, LTI ReEnergy has been working in the renewable energy field for more than a decade. With years of experience and technological expertise in electrical inverters, high quality products and the financial power of the Körber Group, the company is in a position to give the right answers to the growing demands of the energy industry: Focusing state-of-the-art developments, perfect results and customized solutions in two key areas of photovoltaics and wind energy.

The Group comprises leading-edge technology companies and over 100 production, service, and sales entities. At locations around the globe, Körber combines the benefits of a globally-present organization with the strengths of highly-specialized, flexible, medium-sized enterprises that offer their customers solutions, products, and services in the Business Areas of Automation, Logistics Systems, Machine Tools,

Pharma Systems, Tissue, Tobacco and Corporate Ventures. The Group with nearly 12,000 employees generated sales of over € 2.3 billion in fiscal year 2014.

LTI ReEnergy has a range of services

- Central inverters and turnkey solutions for photovoltaic parks
- Robust pitch systems for wind turbines
- Feed-in systems for small hydropower stations
- Regenerative energy generation systems for district heating plants and ORC systems
- Bidirectional battery inverters for intelligent storage systems

LTI ReEnergy GmbH
Heinrich-Hertz-Str. 18
59423 Unna · Germany
Phone: +49 2303 779-0
Fax: +49 2303 779-397
E-mail: pvmaster@lt-i.com
www.lti-reenergy.com

