

**Stronger Together - Many New Partnerships Are Forming In Solar And Wind Microgrid Markets**  
*Microgrid consultancy THEnergy sees increasing interest in strategic partnerships for both main segments of the microgrid market: remote solar- or wind-diesel hybrid and utility microgrids*

Munich, October 2016 - Microgrids are one of the hottest topics in the renewable energy world. Solar and wind energy are changing the paradigms of electricity generation toward more decentralized solutions. The utility microgrid segment is mainly driven by autarky and reasons related to supply security, while solar- or wind-diesel hybrid microgrids are mainly driven by cost reductions. In remote locations, in particular, diesel is an extremely expensive source for electricity generation and renewable energy is typically competitive without additional incentives.

Recently, though more and more projects are being realized, the bottleneck is still on the market side. Many players have formed or are in the process of forming partnerships. “We see two main targets for these partnerships: market access and technology enhancement by pooling complementary solutions”, says Dr. Thomas Hillig, Managing Director of THEnergy.

Partner	Partner	Year	Partnership focus
Schneider	Green Energy Corp	2014	Technology
Caterpillar	First Solar	2015	Market access + technology
ABB	Samsung	2015	Technology
Northern Power Systems	ELVI	2015	Market access + technology
LG Chem	Ideal Power Inc.	2015	Technology
WindStax	Aquion Energy	2015	Market access + technology
Enerdeal	Henri Fraise	2015	Market access + technology
KACO New Energy	Nixon Power Services	2016	Market access + technology
Fronius	Victron	2016	Technology
ViZn Energy	Jabil Inala	2016	Market access + technology
Renova	CleanSpark	2016	Market access + finance
Aquion	Ideal Power Inc.	2016	Technology
JuWi	KPS (Pacific Energy)	2016	Market access + technology
Schneider Electric	DEIF	2016	Technology
GE	LSIS	2016	Technology
Wärtsilä	Greensmith Energy	2016	Market access + technology
IBC Solar	DHYBRID	2016	Market access + technology

Table: Major microgrid partnership announcements (selection)

On the technology side, ABB has teamed up with Samsung and Ideal Power with LG Chem and Aquion Energy in order to provide tailor-made microgrid solutions featuring energy storage systems. The inverter manufacturers Fronius and Victron have also joined forces in a strategic partnership for smaller microgrids. For larger plants, Schneider Electric has developed a control solution in cooperation with DEIF.

Sometimes the objectives of the partnership are twofold. For microgrids, Caterpillar has lined up with First Solar. From a technology perspective, Caterpillar covers diesel genset expertise, while from a market perspective, Caterpillar is a leading supplier in the mining industry – a key target sector of many microgrid players. First Solar contributes photovoltaics expertise. Sometimes the collaboration goes beyond pure strategic partnerships. The French utility ENGIE has invested USD 6 million in the California-based company Advanced Microgrid Solutions (AMS) targeting utility microgrids. The French oil and gas major Total SA has acquired majority and minority stakes in several renewable energy and storage companies that cover key aspects of the microgrid value-chain. Among the investments are Sunpower, Saft, Aquion Energy, STEM, LightSail Energy, EnerVault, Ambri, Offgrid Electric, Powerhive, and DP Energy. It will be interesting to see if Total SA intends to integrate these investments in the future.

“We have been working with several companies in screening the microgrid market landscape for potential partners and have assisted them in setting up partnerships. Especially for smaller players, strategic partnerships are an important vehicle for entering new markets”, says Hillig. “We are

constantly looking at growing our network of microgrid players in emerging markets. At this stage, many of our European and American customers intend to access new markets through strategic partnerships. We also help them to design and implement these new partnerships. Often the beginning of a partnership paves the way for how successful the collaboration will be long-term.”

For more information, have a look at [www.th-energy.net](http://www.th-energy.net).

**About Dr. Thomas Hillig Energy Consulting (“THEnergy”)**

THEnergy assists companies in dealing with energy-related challenges. Renewable energy companies are offered strategy, marketing and sales consulting services. For industrial companies THEnergy develops energy concepts and shows how they can become more sustainable. It combines experience from conventional and renewable energy with industry knowledge in consulting. In addition to business consulting, THEnergy advises investors regarding renewable energy investments in changing markets. It is also active in marketing intelligence and as an information provider in select fields, such as renewables and mining, through the platform [th-energy.net/mining](http://th-energy.net/mining) or renewables on islands through the new platform [th-energy.net/islands](http://th-energy.net/islands). For more information, have a look at [www.th-energy.net](http://www.th-energy.net).

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