

## The role of the gas turbine in the energy transition

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Editor

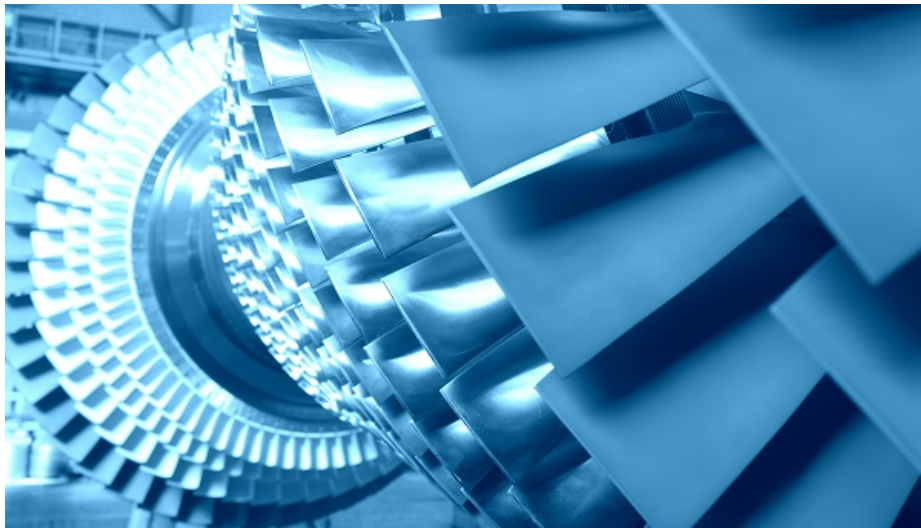
With so many new and developing technologies jostling for space in the power sector, the importance of the [gas turbine](#) in the European energy transition has often been overlooked.

Yet this backbone of baseload electricity is constantly evolving to meet [Europe's](#) ever-changing energy demands. Most people in the power sector realize that gas will be the long-term partner of renewables, whether it is to 2030, 2050 or beyond, and also that the gas turbine has a vital role to play in this partnership.

However, getting policymakers to buy-in to that pathway is an educational campaign being fought on several fronts – and one of its key spokespeople is Christer Björkqvist.

As Managing Director of turbomachinery trade organisation [ETN Global](#), he and his organisation are the voice of 108 members from 23 countries and it works to strengthen the market for the global gas turbine industry and its users.

ETN develops best practise technical solutions and runs R&D working groups to improve energy efficiency, operational flexibility, reliability, availability and emission reduction. It also analyses market trends, policy and legislation to develop a strategic energy technology roadmap that addresses both the needs of its community and the wider energy sector.



“We look at where the market is going and listen to our users’ needs,” says Björkqvist. On topics such as [additive manufacturing](#) and extending the fuel spectrum to carbon-neutral fuels like [hydrogen](#) and ammonia – which are the focus of ETN’s two new working groups – he says ETN “looks at it from a holistic perspective” to identify potential barriers to these developing technologies.

On additive manufacturing (3D printing), he says it is “too early for any standardization, but we have created a document of best practices and we can share a lot and learn from each other to make faster steps in this area”.

He says Europe has been a very tough market for the gas turbine industry in recent years, mainly due to cheap coal and a low carbon price and adds that “we will probably continue to suffer in the coming three-to-four years”.

However, a combination of stricter climate legislation, a gradually-climbing carbon price, an accelerated phase-out of coal plants, and strong public environmental pressure, means that the market is slowly recovering and there is now “more visibility” of gas turbines and the flexible role that they can play in Europe’s future energy mix.

“We have to play our cards right and demonstrate to policymakers and the European Commission that gas turbine technology can be an enabler in meeting the climate and energy targets in the energy transition up to 2030 and beyond, but continuous research and development efforts are of vital importance”, says Björkqvist.

“We already have a reliable, flexible technology base that we can build on. In the short-term, gas turbine and micro-turbines can both help with the integration of renewable energy sources into the energy system by absorbing the fluctuations of renewables in the grid, as well as provide immediate emission reductions, using low or carbon-neutral fuels like natural gas, biogas, industry waste gas and hydrogen-enriched fuels.”

“In the medium and long-term perspective, numerous promising pathways exist for the development of carbon-neutral technology solutions for our technology to play an important role all the way up to 2050.”

One area that is adding value to gas turbine users is [digitalization](#), with data analytics being used to increase the reliability and availability of turbines. Björkqvist (pictured) welcomes the benefits of digital offering, however he cautions that he expertise of the hardware engineer should not be lost among software solutions.



“The challenge is to find the right balance – to not rely completely on digitalization, and to take a stepwise approach and keep involved the people that know the engines and have a great deal of experience.”

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ETN is a key partner at this year’s [European Utility Week](#) and **POWERGEN Europe** in Paris, where the future role of gas and gas turbines in Europe’s energy mix will be a hot topic, including Knowledge Hub sessions on the exhibition floor examining Gas Turbine Digital Solutions, Flexible Gas-Fired Operation, and O&M excellence in Gas Plants. [Click here for details.](#)