Enel SpA

Enel chief forecasts green revolution to charge ahead

Francesco Starace says renewable power will be cheapest way to produce electricity

Francesco Starace, chief executive of Enel © Bloomberg

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Renewable power is becoming the "cheapest and most convenient way of producing electricity" and battery technology will gradually reduce the importance of natural gas to energy security, according to the head of Europe's largest power company by market capitalisation.

Francesco Starace, chief executive of Enel of Italy, said it was "obvious" that renewables were winning the battle for competitiveness against fossil fuels and nuclear power. "It is a matter of fact," he told the Financial Times. "There is no discussion any more."

His comments, ahead of his appointment on Monday as the new president of Eurelectric, which represents the European power industry, demonstrated the extent to which the region's utilities are embracing the shift towards green energy as the cost of renewables plummets.

Mr Starace said the green revolution would be accelerated by faster than expected development of battery technology as a way to store electricity — a crucial step towards solving the

problem of intermittency in wind and solar power generation.

"In the next two to three years battery storage prices will go down and battery performance will go up so these will come more and more into the picture," he said. "We will see batteries much more frequently than people think today."

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> **Francesco Starace**

This would reduce dependence on natural gas, which is currently used by many European countries to plug the gap when renewable power supplies falter. "Gas will become less important than it is today but it will take time," said Mr Starace. "It will evolve over 10 years but it is definitely going to happen."

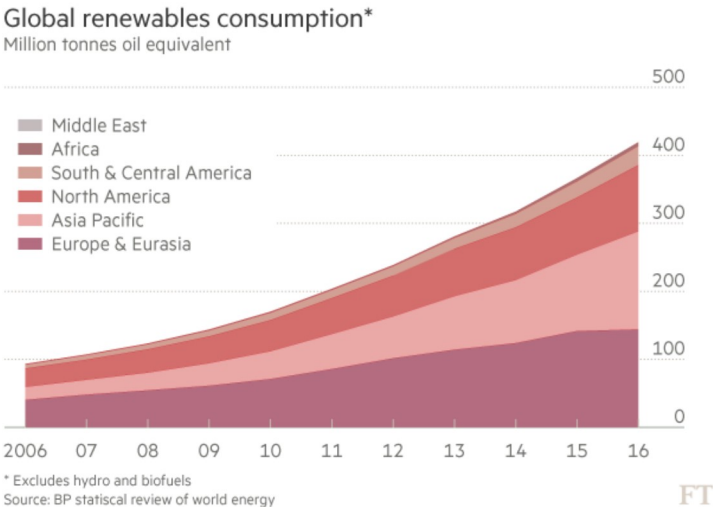
Replacement of gas with battery storage would aid the fight against climate change by reducing carbon emissions but it would be bad news for gas suppliers such as Russia, which relies on European demand for most of its gas exports.

Large oil groups such as Royal Dutch Shell and BP are also investing heavily in gas in the belief that its cleaner characteristics compared with coal will make it a "bridging fuel" between the hydrocarbon and renewable eras. But this transitionary role could turn out to be shorter than gas producers are counting on if Mr Starace's prediction of rapid advances in battery storage prove correct.

There is still a long way to go before fossil fuels are displaced as the dominant form of energy. Renewables last year accounted for only 4 per cent of global primary energy consumption — encompassing electricity, heating and transportation — compared with about 85 per cent for oil, gas and coal combined.

However, renewables were responsible for a third of global growth in primary energy consumption in 2016, according to data published by BP last week. Europe is leading the way, with renewables responsible for about a quarter of electricity

generation in Germany, Spain, the UK and Italy last year. In Denmark, the figure was 59 per cent.



Hefty subsidies designed to incentivise the shift from fossil fuels are gradually being reduced as the cost of wind turbines and solar panels fall owing to economies of scale. Dong Energy, the Danish wind power company, in April announced plans to build two offshore wind farms in Germany without subsidies — a first for the industry.

However, Mr Starace warned that power companies would not invest if returns were left entirely to the mercy of an increasingly volatile wholesale electricity market. It has become common to see negative power prices in northern Europe on windy days when supplies outstrip demand — meaning that generators must pay to offload electricity on the transmission system.

“Long-term pricing signals are needed in Europe that will take the anxiety out of negative pricing,” said Mr Starace. “[That] can only happen with long-term [supply] contracts.”

Green energy advocates have long argued that the problem of spikes and troughs in

renewables output would eventually be overcome by batteries embedded in the electricity system to absorb surpluses to be discharged when subsequently needed.

Sceptics point out that such technology is still in its infancy; all the world's large battery systems in use today would together only store enough power to meet global electricity demand for a few seconds, according to the International Energy Agency. However, the price of lithium ion batteries of the kind being developed by Tesla and Panasonic have halved since 2014 and Mr Starace sees further falls ahead.

Battery technology is expected to give consumers a bigger role in the energy system as rooftop solar panels and electric vehicles allow households and businesses to generate, store and consume their own power. Some analysts see this as a

mortal threat to incumbent electricity companies but Mr Starace says there will still be a role for utilities in helping consumers harness new technology.

"Consumers, large, medium and small, are going to be the major players in transforming the value chain of our industry," he said. "It is extremely important that we get close to them and do not fear them. They have big power but they need us to allow them to express that power."