

## Deeside Power Station begins world first power system stability contract with National Grid ESO

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- Triton Power's Deeside Power Station's two gas turbines have been repurposed to provide National Grid ESO with vital system support services as part of a six-year contract.
- Deeside will provide inertia and reactive power to keep power supplies secure without generating any electricity, reducing the need for carbon emitting generators to come online and enabling the generation of more wind and solar power.
- It is believed to be the first conversion of a gas turbine rotor to provide standalone inertia and stability services anywhere in the world



Triton Power's Deeside Power Station, a combined Combined Cycle Gas Turbine power plant in Flintshire, has begun supplying critical system support services to keep Britain's power system secure.

The new six-year partnership with National Grid Electricity System Operator (ESO), which is responsible for balancing supply and demand for electricity in Great Britain, is part of a world-leading approach to managing the decarbonisation of the grid – securing electricity supplies, saving consumers money and helping to enable more zero carbon power such as wind and solar.

Deeside Power Station, which began providing stability services on Friday 18<sup>th</sup> June, originally consisted of two Alstom 13E2 gas turbines, two CMI Heat Recovery Steam Generators HRSG and an Alstom steam turbine, and has been shut down and in preservation since March 2018.

Under the terms of the stability contract, awarded in January 2020, the two gas turbines will provide the grid with support services including inertia and reactive power, which helps to keep the electricity system running at the right frequency to reduce the risk of power cuts. The steam generators and turbine will remain in preservation.

It will achieve this through using a small amount of power from the grid to spin the rotors and provide stability. This service was traditionally a by-product of the kinetic energy in the

spinning parts of large traditional power stations. As the country's electricity system has transitioned from traditional sources of power like coal to renewables, such as wind and solar, there has been an increased need to separately procure inertia to maintain stable, secure supplies of power.

Through the stability tender the ESO has procured the equivalent amount of inertia as would have been provided by around five coal-fired power stations – and in the process will save consumers up to £128 million over six years.

Work to repurpose the gas turbines began in March 2020 with specialist new turbine blocks designed, manufactured and installed. Seven new colleagues have been recruited by Triton to manage the operations of the site through the contract, including a number of engineers who worked at Deeside when it was a gas plant.

Deeside is the latest a line of developments triggered by the ESO's pathfinder contracts which are offering stability services to the grid. Welsh Power is installing a synchronous condenser and flywheel at its site at Rassau in Ebbw Vale. Statkraft is developing two "Greener Grid Parks" in Liverpool and Keith, Scotland, and Drax has begun providing inertia through its Cruachan hydroelectric pumped storage plant.

**Mick Farr, Chief Executive Officer at Triton Power, said:**

"The conversion of an aging traditional fossil fuelled power plant to provide grid stability services is what the energy transition is all about. It is so satisfying to see the same assets reused in a way that enables the transition and can be considered recycling in its purest form.

"Our team have worked tirelessly along with key engineering partners to make this innovative solution work in a way that provides the maximum value to the grid operator.

"I am sure we will see more of this approach as businesses react to the net zero targets but further clear policies with underpinning support mechanisms will be needed to deliver this goal across the sector."

**Julian Leslie, Head of Networks at National Grid ESO, said:**

"Seeing Triton Power's transformation of Deeside Power Station – from burning gas, to just providing stability services to the grid – is incredibly exciting.

"Innovations such as this, part of our new approach to system stability, are cheaper and greener than the alternative, reducing emissions and saving money for electricity consumers.

"Our stability pathfinder – creating a market for inertia and other stability services – is the first of its kind anywhere in the world and is a huge step forward in our ambition to be able to operate the GB electricity system carbon free by 2025."

**ENDS**

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## Notes to editors

### About Deeside Power Station and Triton Power

Deeside Power Station was originally built by ABB for National Power and commenced commercial operations in November 1994. Ownership transferred to International Power, the new-formed company of National Power in 2001. In 2012, the plant became wholly owned by GDF Suez.

GDF Suez was rebranded as Engie in 2015. On October 31, 2017, Engie and Mitsui announced the signing of an agreement with Energy Capital Partners (ECP) for the sale of their 75% and 25% respective shareholdings in the UK generating assets at Saltend, Deeside and Indian Queens representing a total gross capacity of 1,841 MW.

Energy Capital Partners are a private equity firm focused on investing in energy infrastructure. Since 2005, the firm has raised over \$13 billion in commitments, utilizing this capital to build and acquire investment platforms across multiple energy sub-sectors. With offices in Short Hills, New Jersey, Houston, Texas and San Diego, California, Energy Capital Partners seeks to leverage its team's decades of energy experience in investing and managing energy infrastructure assets and businesses to serve its investors and portfolio companies. For the UK assets, a private power generating company named Triton Power was established.

Further information can be found at [www.tritonpower.co.uk](http://www.tritonpower.co.uk) and [www.ecpartners.com](http://www.ecpartners.com)

### About National Grid ESO

National Grid Electricity System Operator – a legally separate business within the National Grid Group – operates the electricity transmission system in Great Britain, balancing supply and demand for electricity 24/7.

It does not own or operate any electricity generation or transmission but its engineers and National Electricity Control Centre play a central role in managing electricity, liaising with generators and regional distribution networks operators. Central to this is managing key properties of electricity such as frequency and voltage ensuring a safe, secure and reliable supply across Great Britain.

Further information can be found at [www.nationalgrideso.com](http://www.nationalgrideso.com)

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