ABB wins $60 million order to reinforce UK power network

New indoor high voltage substation at Shurton will feed electricity from Hinkley Point C power station into the national grid

ABB has been awarded a $60 million contract by the leading UK utility, National Grid, to build a new high voltage substation in Shurton, to integrate electricity produced by the new Hinkley Point C nuclear power station in Somerset, southwest England, and feed it into the power network. The order was booked in the third quarter of 2017.

Hinkley Point C will produce 3.2 gigawatt of power – enough low-carbon electricity for around six million UK homes – making it one of the largest single power generation source connected to National Grid’s system. The Shurton substation, located to the southeast of the main Hinkley site, is a vital element in National Grid’s program to reinforce and upgrade the network to accommodate additional power and ensure security of supply.

ABB will design, manufacture and install the new 400 kilovolt (kV) Shurton substation that will provide double circuit connections to the existing substations at Taunton and Melksham. It will feature ABB’s Gas Insulated Switchgear (GIS) that will enable the substation to be constructed indoors within a compact building to make optimum use of the restricted space available on the site. Gas Insulated Busbars will connect the switchgear to the overhead line and cable circuits. The project will also deliver advance digital control, protection and telecommunications systems based on ABB’s Ability™ platform.

“This project is an illustration of ABB’s capability to deliver a complete design and build solution for critical high-value and complex substation projects”, said Claudio Facchin, president of ABB’s Power Grids division. “We will combine advanced protection, control and communication systems with our GIS technology to deliver customer value, and reinforce our position as a partner of choice in enabling a stronger, smarter and greener grid.”

Sue Adam, National Grid’s Head of Major Infrastructure Development, said: “This is a significant project for National Grid. Connecting this new low carbon source of energy into our network will help meet the country’s increasing demand for sustainable energy. We are delighted to award the contract to build the new substation to ABB which will be a vital link between the new Hinkley Point C power station and the electricity network.”

The compact indoor design of ABB’s GIS technology allows a space saving of up to 70 percent compared to conventional AIS. This compactness also makes extensions and retrofitting possible in confined space conditions which would not be possible with AIS technology. Furthermore, GIS technology increases supply reliability and availability while reducing maintenance requirements.

ABB is the world’s leading supplier of substations with voltage levels up to 1,200 kV. These substations enable the efficient and reliable transmission and distribution of electricity with minimum environmental impact, serving utility, industry and commercial customers as well as sectors like railways, urban transportation and renewables.

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