

# Control Success Story

Distributed Control System (DCS) for a new gas-fired combined cycle power station



## Challenge

As owner of one of the biggest gas turbine, combined-cycle power plants in Bangladesh, the customer is relied on to help the country address severe power shortages. The plant operator required high safety, stability and reliability of the DCS system to ensure operations were always available. In addition, the DCS system needed to integrate with the gas turbine and external auxiliary system for monitoring and control.

## BHGE As Part Of The Solution

BHGE provided the Nexus Control System as well as engineering design and site commissioning for the DCS and DEH solution. This became the first operational unit to successfully test the automatic plant start-up and shut-down system (APS) in Bangladesh.

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The Nexus Control System helped:

- Maximize the availability of the power plant
- Increase reliability and sustainability to ensure production continuity and reduce complexity and impact to operations from loss of system components
- Enable a full diagnostic review of operations and tripping events
- Improve unit efficiency and reduce forced and unplanned outages
- Extend the maintenance cycle, minimizing operation costs

## Technology Highlights

- Increases operation productivity due to fewer failures and improves system running reliability
- Reduces the power plant start-up time, decreasing the operation workload and erroneous probability via the APS function implemented in software
- Integrates the gas turbine historian feature in the Nexus Control System's redundant historian station to help reduce cost and increase stability

BHGE Installs Nexus Control System for DCS/Digital Electro-Hydraulic (DEH) Solution in Power Station



### CUSTOMER

Large gas-fired combined cycle power station in Bangladesh



### MINIMIZED

Downtime due to fully supported parts from BHGE



### SHORTENED

Lead time for spare parts



### AWARDED

Best power gen unit in the country by bangladesh president