ABB completed the HMI upgrade for the 2 x 20 MW diesel-fired open cycle gas turbines for Pulau Seraya Power Station on Jurong Island.

Owned and operated by YTL PowerSeraya, the units were commissioned in year 1986 for black start ancillary services, thus the timely upgrade is critical to ensure the availability and reliability of power restoration in the case of unforeseen power outages.

For the past 10 years, YTL PowerSeraya’s gas turbines had operated with ABB’s INFI 90 / Symphony Harmony control system. Their HMI, Process Portal B (PPB) was based on the Windows 2000 platform, which Microsoft had obsoleted. With no extended support possible from Microsoft, ABB replaced the existing HMI with their latest offering from Symphony® Plus – S+ Operations the powerful and intuitive HMI based on the Windows 7 platform.

With ABB’s long standing “Evolution without obsolescence” strategy of backward compatibility, the customer was able to protect their intellectual investments made in their Symphony Harmony / INFI 90 HMI. The step-wise evolution approach gave the customer the flexibility to maintain or improve the plant operations over time. In addition, human knowledge gained and invested in the existing DCS carries forward as the system evolves, thus reducing resource allocation required by a rip-and-replace alternative.

**Project name**  
Black Start GT Unit 1 & 2 EWS & HMI upgrade

**Location**  
Jurong Island, Singapore

**Customer**  
YTL PowerSeraya Pte. Ltd

**Completion**  
April 2014

**ABB solution**  
– Supply of complete system design, engineering, project management, testing and supervision of installation and commissioning of the Symphony® Plus HMI system.

**System benefits**  
– Stepwise evolution approach provides customer the flexibility to maintain or improve plant operations over time  
– Human knowledge gained and invested in the existing DCS carries forward as the system evolves, thus reducing the resource allocation required by a rip-and-replace alternative.
ABB is responsible for complete system design, engineering, project management, testing and installation supervision, and commissioning of the S+ Operations upgrade project. To ensure a smooth operational transition during the upgrade process, ABB will provide training to enhance operator skills.

ABB worked closely with YTL PowerSeraya throughout the entire project phase, starting from planning to testing and commissioning, enabling a smooth execution and a successful completion within a short timeframe of 4 months.

S+ Operations is an intuitive, easy to use HMI designed for high performance in every aspect involved: human machine interface, integrated operations, seamless life cycle management, information management, alarm management, security, process optimization, and with flexible, scalable fault-tolerant design.

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