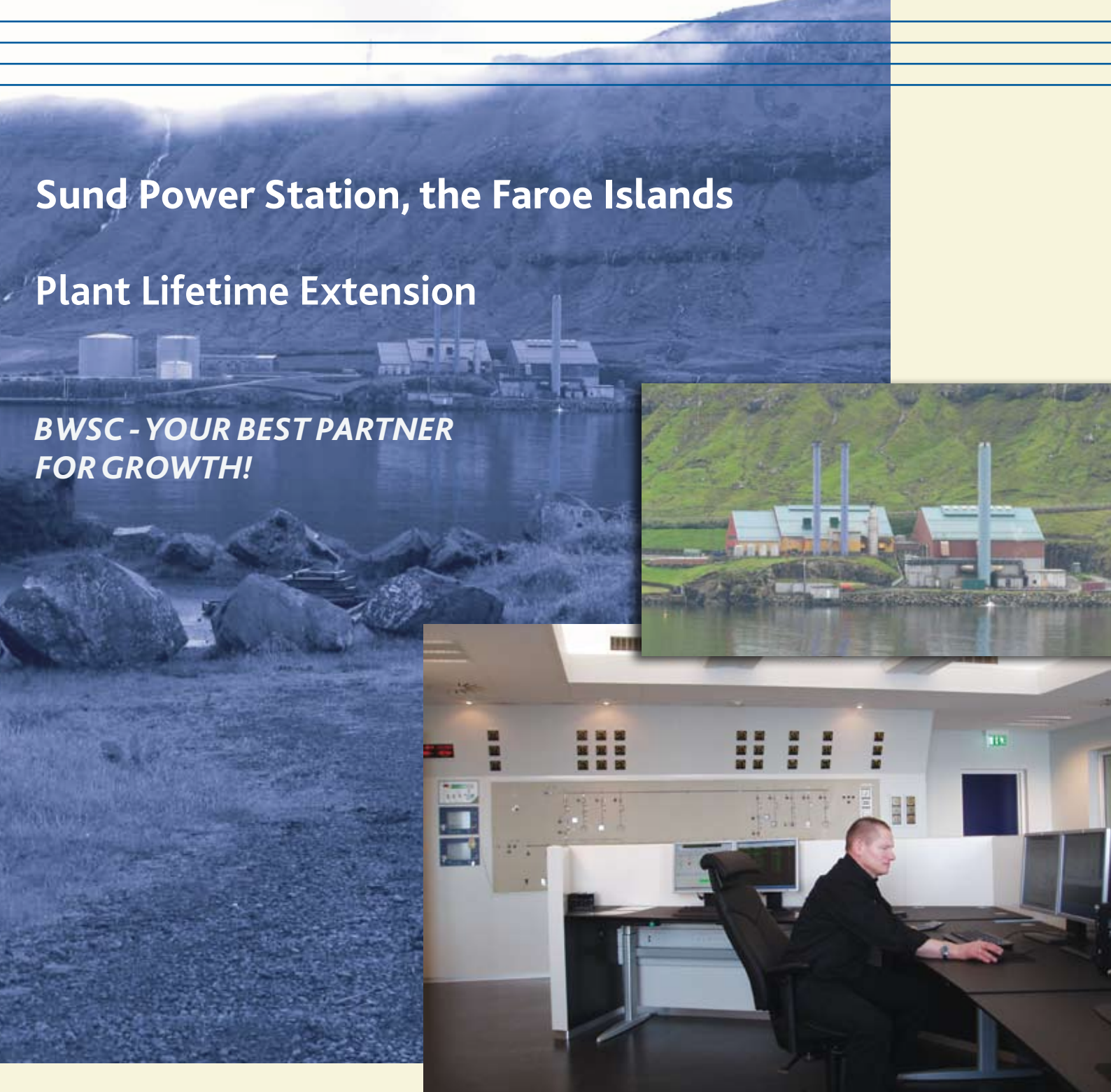


Sund Power Station, the Faroe Islands

Plant Lifetime Extension

***BWSC - YOUR BEST PARTNER
FOR GROWTH!***



Executed in 2008 / 2009

FOR



BY



Burmeister & Wain Scandinavian Contractor A/S

The power production on Sund Power Station is based on two 2-stroke diesel engines installed in 1983/1985 and three 4-stroke diesel engines installed in 1977/2002/2003. Therefore, to secure continued reliable power supply from the ageing plant, SEV management decided to carry out a lifetime evaluation of the plant in 2008.

The result was that the five diesel engines were found fit for at least another decade, but the electrical systems were gradually becoming obsolete, and it was increasingly problematic to get spare parts, thus lifetime extension would be required. As the five diesel engines and auxiliaries were operated by several individual control systems, it was further decided to install one common control system.

BWSC was chosen as the turnkey contractor for the works which in addition to the new common control system also included new electronic governor actuators, automatic voltage regulators, and renewal of all LV switchboards designed with motor control centers using intelligent motor starters. Further, 80 new transmitters were established on the engines and auxiliaries in order to improve the monitoring of generating equipment conditions. All critical systems and maneuvering devices are supplied from a double 230V UPS system, or from 24V DC or 220V DC systems, which have improved safety and reliability as well.

The new control system, based on a redundant Blade center and redundant PLC's, was installed in phases over a period of approximately one year and was finally commissioned in 2009. As Sund Power Station provides the base load on the Faroe Islands, it was very important that the power plant maintained full capacity to the largest extent possible. While carrying out the work, downtime of the engines was kept at a minimum, and outage of never more than two engines at the same time was less than 6 hours in total and only occurred outside peak hours.

Technical Data

Make of SCADA System:..... ABB 800 x A
Make of PLC System:..... ABB AC800M
Make of AVR system: BASLER DECS 300
Make of Governor Actuator:..... MES
Make of LV Switchboards:..... CUBIC
Make of Intelligent Motor Starters: ABB UMC22-FBP

Benefits:

The new control system and electrical equipment provides:

- Simple, SCADA based control with all details and with improved alarm handling for all the main engines.
- Screen presentation of all systems and key functions in the control room and on chosen locations in the power plant; thus reducing operations costs.
- Improved data collection involving reporting facilities, event logging and trend curves.
- Significantly improved reliability as spare parts and technical support are guaranteed for at least 10 years.
- Reduced outage as a result of easier and faster fault finding through improved logs and trend curves combined with updated as built documentation.



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