Prime Mover Control Solutions delivered across Europe and The Middle East

Turner ECS is an official Woodward Channel Partner with offices located in:
- The Netherlands
- The United Kingdom
- United Arab Emirates

Turner ECS also operate and manage an extensive network of official agents and Authorised Independent Service Facilities throughout Europe and the Middle East.

Turner Engine Control Solutions (Turner ECS) is an official Woodward Channel Partner with responsibility for sales and service in the United Kingdom, Benelux and The Middle East.

Reciprocating Engines

Offshore / Onshore Oil & Gas and Marine Propulsion

Turner ECS delivers reliable retrofit and upgrade solutions for a wide range of prime mover applications ranging from offshore platforms, onshore processing plants to diving support vessels.

We have many years experience of upgrading both electrical and mechanical control systems installed on all types of reciprocating engines. This also includes the design and build of control panels / cabinets which is done in-house. We are fully equipped with the latest calibrated test benches, test simulators and special tools. A database of software, drawings & test procedures are maintained at our head office. Our service engineers and technicians are factory trained with many years experience on all types of Woodward products.

Gas and Steam Turbines

Why Retrofit or Upgrade

Control systems tend to age faster than the equipment it is controlling. The rapid advancements in electronics and software are compelling reasons to upgrade. Retrofitting an old control system will lead to a more efficient, accurate and reliable installation while lowering the cost of ownership. This can also provide better information about the operation of the installation and thus allowing equipment to operate closer to maximum efficiency without affecting turbine life, consequently enhancing the overall performance of your plant.

Knowledge and Experience

As a Woodward recognised turbine retrofitter (RTR), Turner ECS has the knowledge and specialised experience to offer solutions for speed / load controls, generators, extractions, compressors, excitation controls and integrated turbine compressor controls. We utilise Woodward’s control, actuation and valve technologies, and can integrate other brands of controls to fulfil your requirements.

Turner ECS owns key competences in control systems for steam turbine installations, reciprocating engines, gas turbines, station control systems and power management systems, this applies to the complete spectrum of specification, software and hardware design, parts procurement, in-house and on-site testing, subcontracting and supervision for on-site construction, commissioning, handover, customer training and support.

Field Service Support

Turner ECS provides support ranging from 24-hour technical phone support to on-site field service to provide diagnostic, repair and upgrade services. Our turbine field service team provides top-level problem solving capabilities and expertise to support Woodward components and entire systems.

Our service engineers and technicians also offer integrated, comprehensive solutions for commissioning and on-site repair. They have the knowledge to effectively solve problems and ensure equipment is running properly, ensuring system quality and reliability.
Diving Support Vessel Upgrade – Diesel Electric Propulsion

**Speed Control, Synchronisation, Load Sharing, Diesel Protection & Sequencing**

Built in 1981 this 112 x 21 meter vessel with a Gross Tonnage of 6987T is equipped with five Nohab diesel generators, each generator capable of producing 2.5MW of power. Turner ECS were commissioned to carry out a complete turnkey project to upgrade of all Electronic Actuators, Speed Controls, Synchronisation, Load Sharing and Diesel PLC Modules. This consisted of; engineering, delivery of hardware, installation of hardware and commissioning of the complete system, including FMEA – Classification and DP trials.

This was an extremely challenging project to undertake due to the tight timescale set by the customer and dry dock constraints. As all five diesel generators were being overhauled simultaneously by another contractor the cramped conditions and workspace added to the challenge.

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Refinery Steam Turbine Power Management Upgrade

**Bump less control mode transfer, Minimize process over/undershoot, On-line configuration of tuneable parameters, On-line repair and replacement, Automatic and/or manual transfer, first out problem indicator logics**

This refinery had four steam turbines fitted with Woodward 505 steam turbine controls. Following a catastrophic mechanical failure on one of the turbines in 2009 the plant almost shutdown.

Turner ECS were commissioned to rectify this problem and provide a workable solution that would need to be delivered while the turbine remained on line.

On successful completion of this rectification TECS recommended that the client reconsider their plant philosophy in order to increase availability of the steam turbine driven compressor. As a result, the existing simplex Woodward 505 steam turbine controls were upgraded to a Woodward 505 Enhanced redundant configuration.

A new control cabinet was designed, installed and commissioned by Turner ECS during the plant shutdown January 2010. As the existing control cabinet also included other control components, modifications were made to the existing cabinet to act as a marshalling cabinet for the newly installed control cabinet.