# Global After-Sales Energy Expertise & Services



# Technical expertise

- Dry Ice Cleaning by CO<sub>2</sub>
- Remaining Life Time Assessment (RLTA)
- Training



# Engineering & executing services

- Cycling operation capability analysis
- Energy saving and performance upgraded
- Customized services for feasibility study



# Revamping & Repair

- Re-engineering of existing designs
- Engineering and installation of specific equipment

Your Partner All the World



#### A team of experts at your service

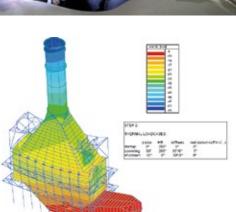
John Cockerill Energy offers a wide range of technical services and advices to modernize, repair or overhaul boilers of all power ratings and from all boiler manufacturers; including conventional drum type boiler and once through boilers.

#### **Technical expertise**

- Boiler inspection allows the best diagnosis and draws up the most adequate durable corrective solutions
- HRSG Dry Ice Cleaning by CO<sub>2</sub> helps to improve efficiency of your equipment and to reduce any risk of corrosion or tube damage
- Remaining Life Time Assessment (RLTA): operation parameter analysis, replica, inspections, calculations diagnostics and evolutions
- Qualified supervision to follow implementation of revamp work or on turnkey basis solution
- Trainings: maintenance and inspections, process, water chemistry, life time extension

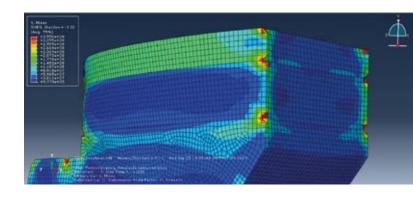


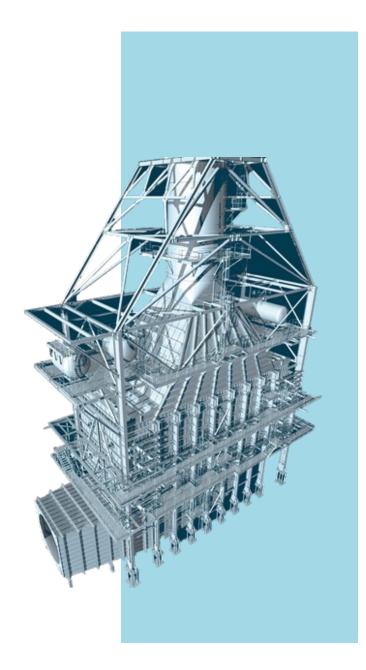




#### Revamping and repair

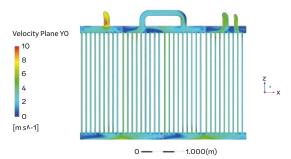
- Re-engineering of existing designs from any boiler manufacturer: ducting, insulation and expansion joint redesign, diverter damper, diffuser, silencer, including Computer Flow
- Dynamics (CFD), burner upgrades
- Pressure parts improvements for recurrent failures occurring on any boiler including complete heat exchangers replacement and performance upgrades
- Engineering and installation of specific equipment on any boiler in operation, e.g. adding SCR, burners, a lift, sootblowers...





### **Engineering & executing** services

- Calculation of boiler new performances with gas turbine upgrades, process modifications, thermal performance calculations, customized services for feasibility study...
- Seismic design, piping behavior analysis and flexibility analysis
- Cycling operation capability analysis



#### Spare parts

- Supply of genuine spare parts
- Recommendations for strategic spare parts storing
- Interchangeability customized solutions
- Frame agreements for spare parts supply





#### The Power to Change the World

It is from the heart of its history stretching back more than 200 years that John Cockerill Energy draws its expertise in the production of steam, which has led to it being recognized worldwide on the market for the conception and supply of heat recuperation boilers.

Resolutely turned towards the future, we proudly incarnate the bold spirit of an entrepreneur and we have extended our know-how in order to respond to the needs of our times, by developing innovative solutions to encourage access to energy, just like our founder in his own times.

It is from this knowledgeable mix of tradition and innovation that we draw our own energy. And it is across the whole world that John Cockerill Energy makes its mark through its technological know-how and its mastery of project management thanks to our Belgian, American, Canadian, Chinese and Mexican teams and our recuperation boiler licensees, Wuxi, S&T and Larsen & Toubro which respectively cover China, South Korea and India.

#### Together, we all work to facilitate access to green energy!



Heat Recovery Steam Generators



Solar Tower Receivers & Steam Generators



**Industrial Boilers** 



**Energy Storage** 



Hydrogen



AfterSales



Welding Expertise Center

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