



## **Nuclear and Power Generation**

**Solutions in Steel**

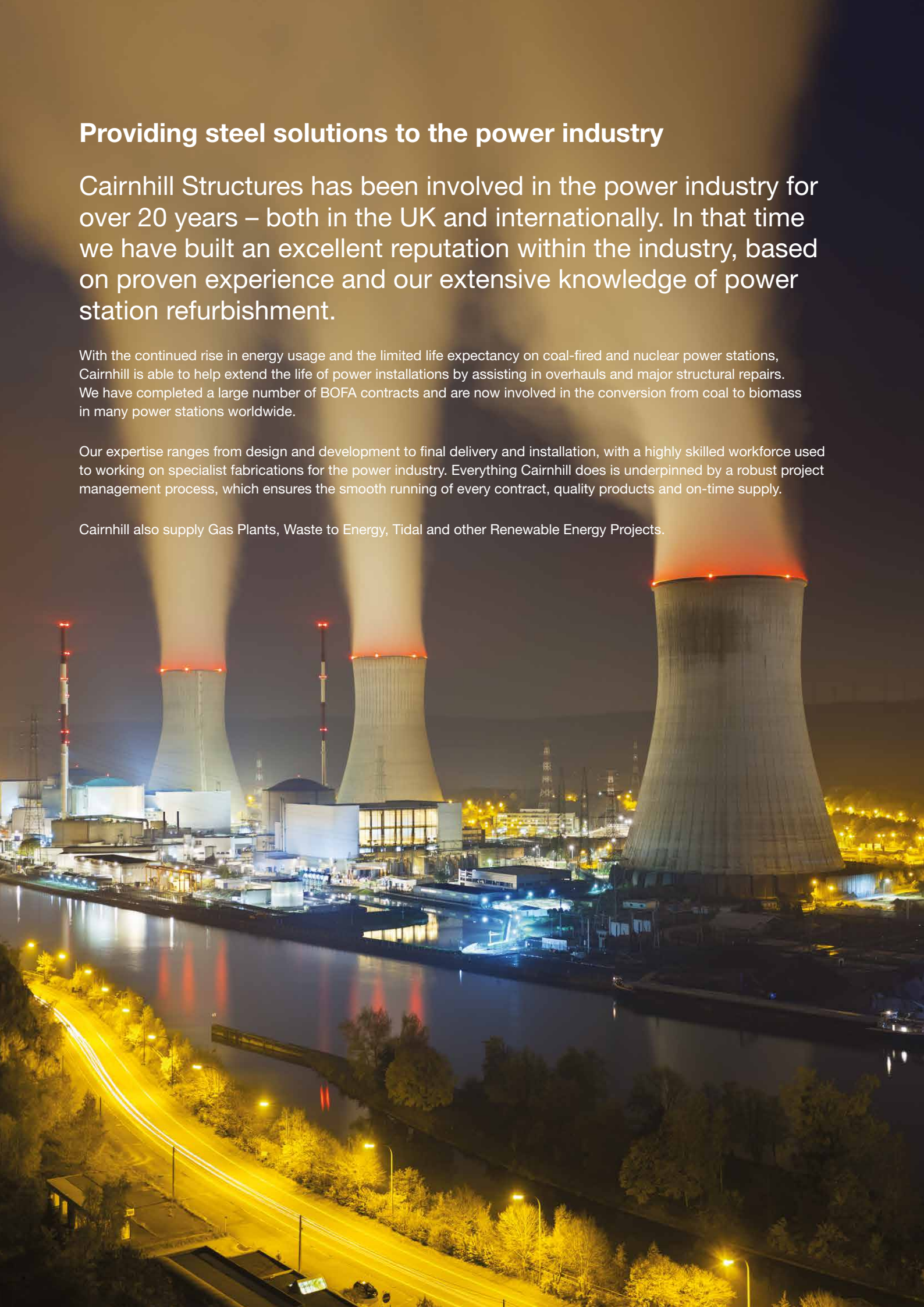
## Providing steel solutions to the power industry

Cairnhill Structures has been involved in the power industry for over 20 years – both in the UK and internationally. In that time we have built an excellent reputation within the industry, based on proven experience and our extensive knowledge of power station refurbishment.

With the continued rise in energy usage and the limited life expectancy on coal-fired and nuclear power stations, Cairnhill is able to help extend the life of power installations by assisting in overhauls and major structural repairs. We have completed a large number of BOFA contracts and are now involved in the conversion from coal to biomass in many power stations worldwide.

Our expertise ranges from design and development to final delivery and installation, with a highly skilled workforce used to working on specialist fabrications for the power industry. Everything Cairnhill does is underpinned by a robust project management process, which ensures the smooth running of every contract, quality products and on-time supply.

Cairnhill also supply Gas Plants, Waste to Energy, Tidal and other Renewable Energy Projects.





Completed contracts include:		Size of contract
Cottam - CHATS	Support steelwork, stairs, walkways & ventilation ducts	£1.2m
Didcot	Steelwork ducting, inspection doors, air duct damper modules, sidewall & feedwater supports, BOFA ports, bar angle supports, general steelwork supports	300 tonnes
Drax	Stool assemblies, ladders, steel supports, swirlers & air barrels	600 tonnes
Dungeness	5 tonne doors	£75k
Ferrybridge	Chiller Platforms, support steelwork	300 tonnes
Heysham	Steelwork Restraints	£125k
Hinkley	Fabrication of pipework and stools	£106k
Hunterston A	SAWBR waste building encapsulation	£1.5m
Ironbridge	Support Steelwork Biomass Conversion	£1.5m
Longannet	Strengthening rods, yoke protection plates, ladders & platforms, support steelwork	600 tonnes
Ratcliffe-on-Soar	Layer steelwork, ash hoppers and backpass hoppers	700 tonnes
Sellafield (SAV)	High quality grade inspection level. Manufacture of Pipebridges & Towers, PAU build up. Storage & close client inspection. Ongoing	£4.3m

#### Other contracts include:

Cockenzie: Strengthening works. Rugeley: Frames, fan support structures, stairs, duct flanges. Moneypoint: Tank Shell Plates. Vasilikos (Cyprus): Support steelwork for biomass mills, ducting steelwork, PA cooler ducts, CA tube tips. Castle Peak (Hong Kong): Fabricated ventilation ducts. Langerlo (Belgium): Fabricated core air tubes. Bandel (India): Fabricated burners. Trimble County (Kentucky, USA): Transition Pieces. Sines (Portugal): Fabricated burner components.



We have also provided many other products, from large fabricated ducts to platforms, furnace steps, handrails, standards, fan blades and large lifting frames. Cairnhill is responsive to needs and we are committed to meeting the industry's demanding deadlines, ensuring that all products are turned around within very short time scales.

If you would like to discuss any future contracts or partnering arrangements, please call **01236 449 393** or email [enquiries@cairnhillstructures.co.uk](mailto:enquiries@cairnhillstructures.co.uk)



## Case Studies

### Separation Area Ventilation, Sellafield

**Client** Doosan Power Systems for Sellafield Ltd

**Value** approx. £4.3m of a £225m project

**Contract duration** 2010 - 2015

**Scope** Design of pipe-bridge connection, 3D modelling, fabrication, paint and supply.

In advance of the decommissioning of the stack associated with the primary separation and head-end facility, a new, seismically qualified stack with large filter and fan house had to be built, with ventilation re-routed around the site. This involved the fabrication of a vast network of 3000 metres of ductwork installed onto new high-level steel pipe bridges (approx. 600 tonnes) supplied by Cairnhill.



#### Main Project Elements

##### Street 49

Contract Value = £1.43m

##### Street 14

Contract Value = £630k

##### Street 20

Contract Value = £1.04m

##### Street 10

Contract Value = £530k

### Main Feed Pipework, Heysham



"The supply of the goods was the fundamental starting point in massively satisfying our client EDF here at Heysham 1 Power Station. If you had not taken direct ownership of the situation and provided the depth of support then the work on site would never have been completed. I would like to personally thank you and your company for reacting in the manner which I witnessed first-hand."

Scott Foster, *Site Manager*  
Doosan Babcock





## Cottam (CHATS) Clean Hot Air to Stack

**Client** Doosan Babcock

**Value** £1.2m

**Contract duration** 2015 - 2016

**Scope** Supply of steel stair towers, walkways & ventilation ducts.

UK based energy engineering firm Doosan Babcock have been awarded the contract for the CHATS project. Cairnhill carried out design of connections, fabrication and supply of stair towers, walkways and heavy steel ventilation ducts for this project. Installation and commissioning of an improvement to the HATS system, clean hot air to stack (CHATS) is to be completed which consists of new heat exchangers, fans and ductwork to introduce clean heated air into the stack to increase the temperature of the chimney exhaust, in order to prevent water droplets being emitted from the chimney and also prevent the occasional discharges of particulate matter.



### Main Project Elements

Critical dates for completion

## 5 Tonne Syphon Recovery Gates for Dungeness Nuclear Power Station



## Cairnhill Sun Works factory

120,000 square foot facility with crane capacity of 100 tonnes



Cairnhill operate within a number of market sectors



**Storage tanks  
& Petrochemical**



**Oil & Gas**



**Nuclear & Power**



**Rail**



**Steel Framing**



**Bridges**



**Transmission  
& Distribution**



**Subsea**



**Piling**



**Renewables**

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Cairnhill are CE Marked to BS EN 1090-2 up to Execution Class 4. The Highest Class Achievable.  
Cairnhill are also certified to BS EN ISO 3834. Continual Investment in Quality Requirements for Welding.

