

Warrington Industrial Sectors: Energy & Nuclear

The Energy Sector

The energy industry has a significant presence in Warrington, with notable strengths in nuclear new build and decommissioning; electricity transmission & distribution; and water infrastructure. Sellafield Ltd, Electricity North West and United Utilities are all headquartered here which has in turn led to a deep and broad supply chain from Tier 1 to Tier 4 establishing in Warrington to serve these industries. United Utilities has an average annual supply chain expenditure of £1bn with requirements including electrical equipment such as motor control systems; systems integration and instrumentation.

Other companies with headquarters locally include MHI Vestas Offshore Wind, Certas Energy, Cavendish Nuclear and Nuvia UK. As well as a base of consulting engineering firms serving the T&D and smart grid industries, such as AECOM and Atkins, other companies in this industry include Schneider Electric and Boulding Group.

The Nuclear Industry

Warrington, in particular Birchwood, represents an internationally significant nuclear industry. The area has a long established nuclear industry dating back to the 1950s, when UK AEA (UK Atomic Energy Authority) had its Engineering, Production and Reactor Group headquartered in Birchwood.

Warrington's nuclear industry represents expertise across new build, plant life extension & decommissioning; representing an employee base of c6,000. There is depth of activity around engineering, design, R&D, Control & Instrumentation; project management, licensing and safety case; with businesses serving national and international markets from Warrington. Companies include Wood, Atkins (SNC Lavalin), Rolls-Royce Nuclear, AECOM, Jacobs Engineering and AREVA RMC. New investors to Warrington over the last year include Cavendish Nuclear and Mirion Technologies.

The presence of the Nuclear Decommissioning Authority (NDA) and Sellafield Ltd's Headquarters and Design Engineering Centre in Warrington has led to the development of this notable nuclear cluster. The collaborative nature of supply chain programmes and the length of contracts provide the potential to further deepen the cluster across Tier 2 to Tier 4 companies. The NDA's estimates of the discounted nuclear provision for the Authority's estate are £117bn; of which 70% is for Sellafield itself.

Warrington is also well placed for ease of access to the HQ of the Office for Nuclear Regulation, located only a 35 minutes drive away.

The depth of the nuclear industry has led to a strong local support base. This includes the North West Nuclear Forum and the nuclear industry led University Technical College in Science & Engineering which opened in Warrington in September 2016.

Nuclear Research, Development and Testing

National Nuclear Laboratory (NNL), the UK government owned and operated nuclear services technology provider is headquartered in Birchwood. Wood plc, employing over 1,000 staff in Birchwood; have considerable R&D expertise locally. Its Nuclear Analytical Services laboratory is Europe's largest commercial radiochemical analysis laboratory. The centre also include a recently established open access, high-temperature facility (HTF) for testing materials used in current and future nuclear reactors, including small modular reactors and Generation IV systems.

ESR Technology which emanated from the UK AEA's research division has its National Centre for Tribology in Birchwood. This Centre of Excellence provides engineering and technical support in areas including non-destructive testing, failure assessment and thermal hydraulics.

University R&D Strengths

The Dalton Nuclear Institute, University of Manchester, is only a 30 minute drive away. The Institute represents the largest nuclear academic research centre in the UK. Research expertise is across the full nuclear cycle; from new build to decommissioning and waste management.

Lancaster University's R&D expertise encompasses both fission and fusion technologies, covering a depth of expertise including: fuel cycle/reprocessing and decommissioning.

The University of Manchester's School of Electrical & Electronic Engineering is ranked 4th in UK in terms of its research quality (REF 2014). The School has significant R&D expertise in areas including high voltage and power system plant, protection, control and communications. The School incorporates the National Grid Power Systems Research Centre, one of the UK's largest high voltage university laboratories.