In 2019, 21% of the UK’s electricity is expected to be generated from the country’s 15 nuclear reactors, according to the World Nuclear Association. Although regulations pertaining to greenhouse gas emissions have made nuclear energy an increasingly attractive option, industry demand has been hit by weak confidence in nuclear power following the Fukushima disaster in 2011, which caused a number of EU nations to reduce their reliance on nuclear energy, leaving wind the major beneficiary of government investment.

The performance of the Nuclear Fuel Processing industry is naturally dependent upon demand for nuclear-generated electricity, and concerns over the potentially catastrophic risk of nuclear power generation have contributed towards revenue declining at a compound annual rate of 0.1% over the past five years. The closure of a significant amount of the UK’s nuclear generating capacity by 2025 is expected to exacerbate this trend over the shorter term. However, the long-term performance of the industry is set to benefit from the opening of a number of new power plants.

Nuclear energy’s share of UK electricity generation peaked in the late 1990s, reaching 27% in 1997. However, this figure has fallen since, compounded by declining confidence in the nuclear sector following the Fukushima disaster. In March 2011, following the Tohoku earthquake and tsunami, the Fukushima Daïichi nuclear power station in Japan released a large amount of radioactive material into the Pacific Ocean, sparking a reduction in...
demand for nuclear fuel rods across the European Union. Reduced confidence in nuclear power prompted Germany to permanently close eight of its 17 reactors, whilst the remaining plants are expected to cease operations by 2022. Similarly, Switzerland and Spain banned the construction of new reactors. This caused industry exports to decline significantly from 2011-12, and though export revenue is expected to grow at a compound annual rate of 3.8% over the five years through 2019-20, it remains significantly lower than the levels recorded prior to the Fukushima disaster. The effects of the disaster spilled into the United Kingdom, and plans to open new generating capacity were halted; SSE backed out of a deal to build a new power station in September 2011, while both E.ON and RWE npower (Now Npower Ltd) also dropped out of developments in March 2012. A lack of new capacity has restricted industry revenue over the past five years.

Over the five years through 2024-25, the Nuclear Fuel Processing industry’s revenue is anticipated to fall at a compound annual rate of 3.2%. Almost half of the UK’s nuclear generating capacity is set to close by 2025, having critical knock-on effects on nuclear fuel processors. Following the cessation of operations at its THORP reprocessing facility in November 2018, the 2020 closure of Sellafield Ltd’s Magnox reprocessing facility is set to reduce the number of companies in the industry from five to four. IBISWorld analyst Lawrence Thomas states ‘the closure of the plant will incur widespread redundancies, reducing industry employment figures’. As there will be no reprocessing capacity left in the United Kingdom after this date, the government is currently searching for a location for a geological disposal facility for spent fuel from nuclear power stations. The industry is further threatened by the UK’s forthcoming exit from the European Union, which is set to result in its exit from the European Atomic Energy Community (Euratom). This would cause the United Kingdom to lose free movement of nuclear fuel with EU nations. Given the industry’s heavy reliance on exports, which are projected to generate £1.3 billion in 2019-20, this could have disastrous consequences for nuclear fuel processors.

Although the government remains supportive of nuclear power, there have been numerous delays to new-generation plants that were set to come online by 2023. For example, EDF Energy has announced that Hinkley Point C will not start generating until at least 2025. However, once the plant becomes operational it will be capable of supplying approximately 7% of the UK’s electricity requirements. The opening of Hinkley Point C is therefore expected to increase domestic demand for nuclear power.

**What is Euratom?**

Euratom was established by the Euratom Treaty in 1957 with the aim of creating a specialist market for nuclear power in Europe. It allows the free movement of nuclear fuel across borders and also enables British research facilities to collaborate on projects with other European institutes. It also aims to pursue nuclear power research and training activities while ensuring safety, security and radiation protection with a centralised monitoring system.
In addition to the widely discussed Hinkley Point C project, EDF Energy has also announced plans to construct a further two nuclear plants: Sizewell C in Suffolk and Bradwell B in Essex. Though they are currently only in the planning stage, it was announced in October 2017 that the projected completion and first generation of Sizewell C would be 2031, while Bradwell B would also be expected to come online in the early 2030s. Despite a somewhat bleak outlook for the industry for the next five-year, the opening of new generating capacity is anticipated to support industry revenue over the long term.