NUCLEAR

Summary

Nuclear is a leader in propulsion system design and development for the Royal Navy's nuclear submarine fleet and is the sole provider and technical authority, managing all aspects of plant design, safety, manufacture, performance and through-life support.

In civil nuclear we provide nuclear reactor vendors and utility operators with integrated, long-term support services and solutions spanning the whole reactor lifecycle, from concept design through to obsolescence management and plant-life extension. Safety-critical systems have been supplied to around 50% of the global nuclear power plants in service. We have been a key player in the nuclear industry for more than 50 years.

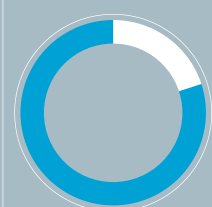
Key highlights

- Underlying revenue 9% higher; strong service revenues led by increased submarine work.
- Underlying profit before financing unchanged, excluding the benefit from a £19m R&D credit; volume benefit offset by lower margins.
- 2016 outlook steady; focus on improving delivery performance and developing civil nuclear opportunities.
- Investing in the business to extend systems offering and increase service scope.

Underlying revenue mix

OE revenue	37%
Services revenue	63%

Underlying revenue by sector



Submarines	80%
Civil	20%

Potential for OE and services in civil nuclear over the next 20 years

£360bn

Submarine nuclear power
The Royal Navy Astute class is the latest to enter service with a Rolls-Royce designed nuclear propulsion plant.

OPERATIONAL REVIEW

Underlying revenue increased 9% on a constant currency basis, led by growth in both original equipment and services. In particular, growth in submarine activities was strong. Revenue growth for our instrumentation and controls businesses was also good, particularly in Europe.

Despite the growth in revenue, gross margin declined by 240 basis points to 16.2% or £111m. This was largely due to increased costs on a number of projects with lower margin. Gross margin was also impacted by a reclassification of site costs from commercial, administration and other of around £7m. This favourably benefited costs below gross margin which also benefited from lower R&D charges as a result of an R&D credit of £19m which covered the current and the two previous years. Excluding this, underlying profit before tax was £50m, in line with the prior year. After the release, underlying profit of £70m is 40% up on the prior year.

Investment and business developments

The order book fell around 13%, reflecting delivery of our long-term contracts across both submarines and civil nuclear businesses. New orders were biased to the second half of the year, benefiting from the expansion of our business reach and capabilities.

Our civil nuclear business focuses on multi-year projects and specialist services for what is a growing global industry. We were selected as preferred bidder by EDF to work on heat exchangers and waste treatment for the Hinkley Point C project in the UK and we were selected by Hitachi to be part of the Wylfa power station delivery team, the second nuclear power station scheduled in the UK's new-build programme. We also won a contract to supply safety measurement systems for the entire French fleet of 900MW reactors. These mandates help to further consolidate our significant position in the European marketplace and position us well to seek further opportunities for partnerships in growing nuclear markets.

In the US our acquisition of R.O.V. Technologies Inc. in March 2015 expanded our nuclear services portfolio, bringing complementary Boiling Water Reactor expertise and broadening our existing Pressurised Water Reactor remote inspection capability.

Our submarine activities have concentrated on delivering against long-term contracts for the Royal Navy's nuclear submarine fleet, including delivery of the nuclear propulsion system to power HMS Artful, the third Astute-class submarine, which was launched in August 2015. Our work on the Vanguard class included work on a refuelling programme and also the first successful upgrade to the reactor control and instrumentation update for HMS Vengeance. At the Naval Reactor Test Establishment, HMS Vulcan, the PWR2 test facility reactor was safely shut down having completed its prototyping role. Development work on the new PWR3 power plant for the Successor submarine fleet continues with contract extensions agreed in preparation ahead of the government final investment decision.

Nuclear outlook

The outlook for Nuclear remains steady. Both submarines and civil nuclear enjoy long-term secure aftermarket revenues. While business development opportunities remain modest in the near-term, new power plants for the Successor together with long-term opportunities to develop relevant products for civil nuclear applications should provide incremental growth.

MARKET REVIEW

All respected global energy forecasts predict that nuclear power will continue to play a significant role in providing low-carbon, continuous and secure power. The demand for mission-critical equipment, systems and engineering services and the associated reactor support services for the civil nuclear market is forecast to be £360bn over the next 20 years.

Market dynamics

- Population growth and improved living standards in emerging markets are driving a rise in demand for electricity.
- Within the future energy mix, low-carbon energy is expected to increase, with nuclear energy accounting for a significant share.
- Growth in nuclear power generation is predominantly driven by non-OECD countries; strong growth is expected especially in China.
- Solid growth in mature markets based on current operations and plant life extensions.

Competition

- In civil nuclear the competitor landscape is fragmented and comprises reactor vendors, original equipment manufacturers, multi-skilled companies and nuclear operators in service.
- Plant operators increasingly outsource service activities.

Business risks

- Delivery: failure to meet customer expectations or regulatory requirements.
- Markets: if nuclear markets do not grow as anticipated due to external or other political events then business will be diminished.
- Customer strategy: if programmes are cancelled as a result of strategic decisions, such as abandonment of the UK nuclear deterrent, or vertical integration by reactor vendors, then future revenues will be diminished.
- If we experience a major product failure in service, then this could result in loss of life and critical damage to our reputation.
- If we suffer a major disruption in our supply chain, then our delivery schedules may be delayed, damaging our financial performance and reputation.

Opportunities

- Increasing the pace of growth of the civil nuclear business.
- Focusing on growth regions beyond current core markets.
- Strengthening our position with the rapidly growing importance of China in the civil nuclear market.
- Capturing a higher share of the nuclear service market through extension of our geographic reach.

Key Rolls-Royce differentiators

- Unique key technology capability in defence and civil nuclear with substantial credibility (more than 50 years' experience); broad mix of offerings over the whole lifecycle; reactor independent portfolio, capable of global reach.

NUCLEAR / KEY FINANCIAL DATA

£m	2014	Underlying change	Acquisitions & disposals	Foreign exchange	2015
Order book	**2,499**	(331)		–	**2,168**
Underlying revenue	**638**	56	–	(7)	**687**
Change		*+9%*	–	*-1%*	*+8%*
Underlying OE revenue	230	27	–	(6)	251
Change		*+12%*	–	*-3%*	*+9%*
Underlying services revenue	408	29	–	(1)	436
Change		*+7%*	–	–	*+7%*
Underlying gross margin	**119**	(6)	–	(2)	**111**
Gross margin %	*18.7%*	*-240bps*	–	–	*16.2%*
Commercial and administrative costs	(61)	6	–	2	(53)
Restructuring costs	(1)	(1)	–	–	(2)
Research and development costs	(7)	21	–	–	14
Underlying profit before financing	**50**	20	–	–	**70**
Change		*+40%*	–	–	*+40%*
Underlying operating margin	**7.8%**	+230bps	–	–	**10.2%**