Is Trident Influencing UK Energy Policy Part 2

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This concluding part of a two-part article series continues the discussion on the UK's naval nuclear power programme and its potential impact on Britain's energy policy. Read part 1 here.

In Part 1, we described the intensity of UK commitments to new civil nuclear power and why this is so hard to fully explain. The proposed 16GWe of new nuclear capacity is a difficult policy to justify based on economics, energy security and conventional approaches to understanding innovation and technological transitions. There are serious problems with the UK nuclear power programme, including significant delays, rising costs, and uncertainty surrounding essential foreign investment. The UK government's own figures show renewables, including onshore wind and solar, to be cheaper than nuclear. As the prospects of resolving underperforming nuclear plans get ever more distant and unlikely, increasingly favourable renewable projects remain ever more threatened by cut-backs. This has led to serious problems in that sector. Taken at face value, these patterns are very difficult to explain.

What drives these counter-intuitive trends? Many factors will be at play, but, as discussed in Part 1, there is a particular major driver that remains almost entirely unexamined in analysis of UK energy policy. This concerns the pressure to sustain UK nuclear submarine infrastructures by maintaining more general national reservoirs of specialist nuclear expertise, education, training, skills, production, design and regulatory capacities.

Could these pressures to maintain capabilities, perceived to be necessary for the country's naval nuclear propulsion programme, be influencing the intensity of UK commitments to new civil nuclear power? We now examine a crucial

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period in UK civil nuclear policy during which concerns around defence-related nuclear skills came to the fore shortly after a key policy moment when, for the first time since 1955, UK policy was considering an energy trajectory that did not include new nuclear.

2003–2006: the unexplained nuclear 'U-turn'

For a brief period between 2003 and 2006, nuclear energy seemed to fall out of high-level favour in the UK. The nuclear firm, British Energy was bailed out and brought back into state control in 2002 and nuclear privatisation was widely recognised to have failed. The UK civil nuclear industry was dogged by scandals and cases of costs overrunning. . Meanwhile, New Labour's earlier efforts to democratise decision-making helped free one initially minor policy initiative from the shackles of bureaucratic inertia and industrial interests. For the first time, nuclear energy strategy escaped the domain of the dedicated ministry.

Approaching energy policy by the indirect route of "resources", the new Performance and Innovation Unit (PIU) – reporting directly to the Cabinet Office – was charged with undertaking an extensive reappraisal. This marked a significant departure from the traditional practice where energy policy assessments were closely guarded by the relevant ministry. The PIU review was staffed entirely by civil servants, with half of the review team comprised of leading independent energy analysts recruited from outside government. Freed from the incumbent pressures which constrained earlier UK energy reviews, the 2002 PIU study found that unresolved nuclear waste and economic problems meant that the UK should move towards a more decentralised electricity grid based around renewables and energy efficiency. The February 2003 White Paper *Our energy future: Creating a low carbon economy*upheld these

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recommendations. While it did not entirely rule out future investment in nuclear energy, it did find nuclear power to be economically and environmentally "unattractive" for Britain.

What came next was one of the most abrupt policy turnarounds in UK history. For reasons never officially declared, Prime Minister Tony Blair launched another energy review in November 2005. This second review was not conducted in a transparent and independent way like the PIU process. Instead, it was undertaken by a few partially identified individuals inside the Cabinet Office under the leadership of Blair's close personal associate, John Birt. According to nuclear advocate Simon Taylor, this involved a select group that most other civil servants in the Cabinet Office did not know even existed, working "in secret" to "re-examine" the case for nuclear energy. Managed by the former Atomic Energy Authority, the consultative part of this exercise was much shallower and shorter than before. Amid other widespread criticism, Greenpeace successfully took the Government to the High Court, where this second review was declared *"unlawful"* and *"deeply flawed".* Yet Blair's reaction was that this court ruling would *"not affect policy at all"*. With a further round of consultation, again alienating NGOs, the January 2008 White Paper *Meeting the Energy Challenge* duly announced a British 'nuclear renaissance'.

Among those questioning these events was the Parliamentary Environmental Audit Committee, which in March 2006 asked(without receiving an official answer) why a second energy review was deemed necessary so soon after such a comprehensive predecessor. Four months later, the House of Commons Trade and Industry Select Committee branded the second review a "*rubber*

stamping" exercise designed to give legitimacy to a pre-ordained decision rather than being an 'open' consultation.

It still remains unexplained what (or even who) could have driven this rethink. It is in this light that nuclear expert Steve Thomas has highlighted the ambiguities around exactly what 'the UK nuclear lobby' consists of. With the UK civil nuclear engineering industry so weak and historically unsuccessful (as discussed in part 1), it is unclear where in this languishing domestic sector sufficient political-economic capital might have accumulated to force such an unprecedented and poorly justified national policy turnaround.

Investment and skills concerns around the UK's Naval Nuclear Propulsion Programme

This is where the imperatives around national submarine capabilities comes into play. It is in exactly this same critical juncture between 2003 and 2006 that an unprecedented intensification can be observed in concerns around the UK's nuclear submarine capability. Significant problems emerged with the construction of British 'Astute' class of submarines. Policies related to nuclear submarines were unveiled in rapid succession – with the December 2003 Defence Review White Paper followed by the December 2006 White Paper on the Future of the UK's nuclear deterrent, leading up to the 'initial gate' House of Commons vote to proceed with a replacement to the nuclear-powered Vanguard-class ballistic missile submarines in March 2007. Inconveniently, it was just prior to this marked intensification of activity on the military side, that civil nuclear power was officially acknowledged to be "unattractive".

One notable development emerging at the beginning of this period was an intense lobbying campaign started in March 2004. The well-funded Keep Our Future Afloat Campaign (KOFAC) emanated from the Barrow shipyards, BAE Systems' construction site for all UK submarines. Trade unions, local councils, county councils and KOFAC relentlessly targeted politicians, party conferences and governmental consultations. Closely connected with KOFAC and lobbying in support of the submarine industry at this time was then MP for Barrow-in-Furness and close ally of Tony Blair, John Hutton, also one of the most significant supporters of civil nuclear power. KOFAC's lobbying campaign was recognised by parliamentarians as being *"one of the most effective"* ever seen. Focusing resolutely on how to protect UK nuclear submarine manufacturing interests, KOFAC highlighted the importance of supporting integrated civil and defence-related nuclear capabilities. For its part, BAE Systems was also evidently busy in other ways behind the scenes – positioning itself (rather extraordinarily) in a memorandum of understanding of 2006 with the ailing US civil reactor vendor Westinghouse to extend its own military submarine focus to a role in civil nuclear supply chains.

Although internal government reactions to this pressure were invisible, the public response was strikingly accommodating. In 2005, the MoD funded the RAND Corporation to conduct an in-depth two-volume report: "*The United Kingdom's Nuclear Submarine Industrial Base*". The report endorsed crucial links between key skills and capabilities relevant both to submarine and civil nuclear industries. A series of Select Committee consultations and reports ensued, with influential stakeholders in the nuclear submarine supply chain raising many concerns. Lead submarine nuclear propulsion contractors, Rolls Royce, claimed that the depletion of nuclear skills in the civil sector would *"reduce the support network available to the military*

programmes". The Royal Academy of Engineering noted that *"the skills required in the design, build, operation and disposal of Naval Nuclear Propulsion Plant … are in short supply and increasingly expensive… Overall, the decline of the civil nuclear programme has forced the military nuclear programme, and in particular the nuclear submarine programme, to develop and fund its own expertise and personnel in order to remain operational"*.

Recognising that *"links between the civil and naval sector need to be encouraged"* , a key witness to a 2008 Parliamentary Innovation and Skills Select Committee inquiry noted: "*The UK is not now in the position of having financial or personnel resources to develop both programmes in isolation"*. In a rare acknowledgement of this relationship from the civil energy side, a detailed low-key Government consultancy report later amplified the same message: "*the naval and civil reactor industries are often viewed as separate and to some extent unrelated from a government policy perspective. However, the timeline of the UK nuclear industry has clear interactions between the two, particularly from a supply chain development point of view."* It was apparently in this crucial period 2003-2006 that this longstanding but under-appreciated industrial dependency between military and civil nuclear sectors finally commanded intense – albeit undeclared – attention at the highest political levels.

It is remarkable that these patterns were so obvious to see on the military side of UK policy making, but so virtually invisible on the energy side. Yet this selective discretion is hardly surprising. There are strong incentives to keep these kinds of links as invisible as possible. As the National Audit Office has ominously noted of the costs of Trident: "[o]*ne assumption of the future deterrent programme is that the United Kingdom submarine industry will be*

sustainable and that the costs of supporting it will not fall directly on the future deterrent programme." Acknowledging this – and reflecting implied industrial practice in the military sector – a seconded BAE Systems Submarine Solutions employee writing in a 2007 report for the Royal United Services Institute, discussed the desirability and difficulty of absorbing or 'masking' costs of submarine construction in ostensibly civilian supply chains. Connections between civil and military nuclear infrastructures are also sensitive internationally, with serious tensions surrounding global nuclear proliferation regimes. This is why one Parliamentary witness emphasised that civil-military nuclear links must be *"carefully managed to avoid the perception that they are one and the same".*

It was arguably for such reasons that the UK Government response to the nuclear policy crisis of 2003-2006 was so fast and energetic – with the reasons well acknowledged on the defence side, but virtually invisible on the energy side. Corresponding with the unprecedented U-turn on civil nuclear power was an equally unprecedented intensification in efforts to preserve nuclear skills for the military sector. In 2006, a key suppliers group was set up by BAE Systems involving firms in both military and civil nuclear supply chains. The following year the Department of Trade and Industry expanded the National Nuclear Laboratory (NNL) and established a new National Nuclear Skills Academy.

Since then, the UK Government has gone on to reserve key parts of the HPC contracts for Rolls Royce. BAE Systems has consolidated its interest in civil nuclear construction as well as defence. A huge programme of publicly-funded research has been announced in small modular civil power reactors to build on Rolls Royce's experience with submarines. And most recently – against

a backdrop of massive overcapacity among global nuclear power vendors in what is evidently one of the most economically perilous of sectors – Roll Royce has announced an especially remarkable initiative. Notwithstanding strong pressures for international integration in this overcrowded sector – and a national history in this field of sustained industrial failure – Rolls Royce is now seeking to lead an entirely new industrial consortium branded as distinctively British and dedicated to an untested submarine-derived civil power reactor design. Despite the acknowledged incentives for concealment, these clear linkages between submarine and civil nuclear reactor construction interests provide a key missing link to decipher the otherwise unexplained abrupt reversal in UK nuclear power policy in 2006.

Submerged drivers of UK energy policy?

So, what is the role of UK military nuclear commitments in driving a national low-carbon energy strategy that is manifestly more costly and less effective than it otherwise could be? The complexity and secrecy in this field inevitably makes it difficult to be definite. Nevertheless, the wealth of official documentation on the military side and the remarkable conjunction of events around and beyond the period 2003-2006 do seem to present a plausible case. The UK Government's commitments to military nuclear capabilities do seem to be a significant (albeit undeclared) factor in civil energy strategies, and of industrial policy more generally.

There are broader questions here over what the military influences on wider British Government policy say about the current state of the UK's democratic system. It is not necessary to invoke simplistic "conspiracies". Just as iron filings line up in magnetic fields, so these kinds of institutional pressures can – without any single controlling actor – instil exactly these kinds of patterns. If

massive UK civil infrastructure investments really are being shaped to the degree implied by these kinds of perceived military imperatives, then the most important issue is why they are almost completely absent from any kind of discussion or scrutiny – let alone accountability – either in energy policy literatures, or in wider political and media debates. If these institutional forces are as powerful and concealed as they seem, then very serious questions are posed for the health of British democracy in general.

Image credit: Thomas McDonald/Flickr.

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