CLIFFORD
CHANCE

July 2010

Understanding the UK's agenda for promoting investment in new nuclear power

There is currently much talk of a renaissance of nuclear power in the UK, as the country faces a looming energy gap. Estimates suggest that the UK may need to replace around a third of its generating capacity by 2015 and some analysts believe the crunch could come sooner.

The potentially disastrous consequences of such an outcome have lent new urgency to the discussions about how best to address the energy gap facing the country and the role that nuclear power should play in the energy mix alongside renewables and other energy sources.

Issues such as security of supply, carbon reduction targets and consumer pricing will determine the priority to be given to fuel sources and the technology required to replace existing plant. Certainly there have been positive developments in the field of renewables – especially offshore wind – but it remains the case that many of the current projects under development are for gas fired plant, which still appears to be the quickest and easiest solution to the immediate need for additional capacity. However, these technologies alone are unlikely to enable the UK to meet its international obligations or its national policy commitments.

The renaissance of a new generation of nuclear power stations was foreshadowed in the 2008 Nuclear White Paper. At present two main players (Horizon, the joint venture between E.ON and RWE, and EDF/Centrica) are developing plans for new nuclear power stations in the UK. The first EDF plant may potentially start commercial operation in 2017/18. A consortium comprising SSE, GDF Suez and Iberdrola has also recently announced that it is looking to start building a nuclear power plant in 2014.

However, the way forward for new nuclear is not yet entirely clear. There are significant issues that need to be resolved to enable successful development to proceed, despite the UK's stated intention to create a legislative and regulatory programme to deal with the challenges that arise from making new nuclear a core component of the country's energy policy.

As things stand, no developer has yet made a final investment decision to push ahead in the UK. Given the long lead time required for planning and construction, work needs to start soon if nuclear is to be part of a future energy mix.

For its part, the new coalition government – comprising Conservatives and Liberal Democrats – has formally given its support to the development of new nuclear so long as there are no public subsidies, despite the Liberal Democrats' long-held opposition to nuclear power. The government has also stated its intention to establish a floor price for carbon, which would help to create a more favourable financial framework for nuclear investment.

Facilitative actions

New nuclear was put on the energy agenda by the last Labour government which introduced a programme of facilitative actions in support of its decision in 2008 that new nuclear does have a role to play in the next generation of power plant.

The facilitative actions cover a range of issues such as planning, licensing and waste and decommissioning and are designed to bring about changes to the legislative and regulatory framework to remove potential barriers to investment in new nuclear. They are also intended to subject high-level policy and regulatory issues to debate and consultation at a national level, so that they would not need to be reopened each time an individual project was considered at a particular site.

We have set out below an analysis of the various facilitative actions and a review of their progress.

Planning

There has been long-standing criticism of the planning system in the context of large infrastructure projects. Applications can sometimes take years, and the consent process often involves lengthy discussions over the need for a particular type of infrastructure, rather than focusing on the specifics of a proposed project. It took six years and cost £300 million to secure planning permission for Sizewell B.

Authors

Andrew Grenville
Partner
T : +44 (0) 20 7006 2644
E : andrew.grenville@cliffordchance.com

Ingrid Booth
Senior Associate
T : +44 (0) 20 7006 2645
E : ingrid.booth@cliffordchance.com

The reforms to the planning system for nationally significant infrastructure were introduced by the Planning Act 2008 and were intended to give investors greater confidence on the outcome of the consenting process through the introduction of a more efficient, transparent and accessible system. At its heart was the establishment of an independent body, the Infrastructure Planning Commission (IPC). The IPC is responsible for making planning decisions on major projects and applying the relevant National Policy Statements (NPS). The changes are intended to improve the speed and efficiency of the planning system for nationally significant infrastructure, such as new nuclear power stations, and give local people a greater opportunity to be involved in the process.

The coalition government's policy is to retain a fast-track planning process for major infrastructure projects. It has recently been announced that the IPC will be disbanded in 2011 and that final planning decisions will in future be taken by the relevant Secretary of State. These decisions will, however, be subject to the same statutory time limits that currently govern the Chair of the IPC and will be made on the basis of the same assessment criteria and advice.

It remains to be seen what impact these changes will have on the timing of planning decisions. Although the expressed intention is to keep the pace going, it may be questioned whether a ministerial decision on a controversial planning matter will be capable of being taken within the same fixed time-frame as that of an independent planning commission.

National Policy Statements

Another criticism of the planning regime was that it did not set out principles of

national policy and, in particular, address the need for major infrastructure at a national level. This meant that the need for such infrastructure was considered at a local level with every planning enquiry, creating complexity, inconsistency and delay. The government has sought to address this issue through the setting of NPS. These policy statements will eventually form the primary basis for decisions on planning applications for nationally significant infrastructure to be considered by the IPC.

The proposed Nuclear NPS is part of a more general National Policy Statement for Energy Infrastructure on which there has recently been a consultation. The coalition government has stated its intention to complete the drafting of the NPS and put these to a vote before Parliament, with the Liberal Democrats being allowed to speak against the statements but abstaining from the vote. The reasoning behind this proposal is that parliamentary approval will go some way to remove the risk of a successful judicial review action, although this would not necessarily rule out such actions being brought.

Regulatory justification

The need for regulatory justification arises because of an a European Council directive that, before any new class or type of practice involving ionising radiation can be introduced, it must first undergo a high-level, generic pre-optimisation assessment of whether the social, economic or other benefits produced outweigh the health detriment it may cause. The most recent consultation on this topic was brought in relation to the Westinghouse and Areva nuclear reactor designs and closed in February 2010. The final decision was initially scheduled for the second quarter of 2010. Although there has been some delay in this part of the timetable the

coalition government has confirmed that it wishes to see a decision taken on justification.

Generic Design Assessment

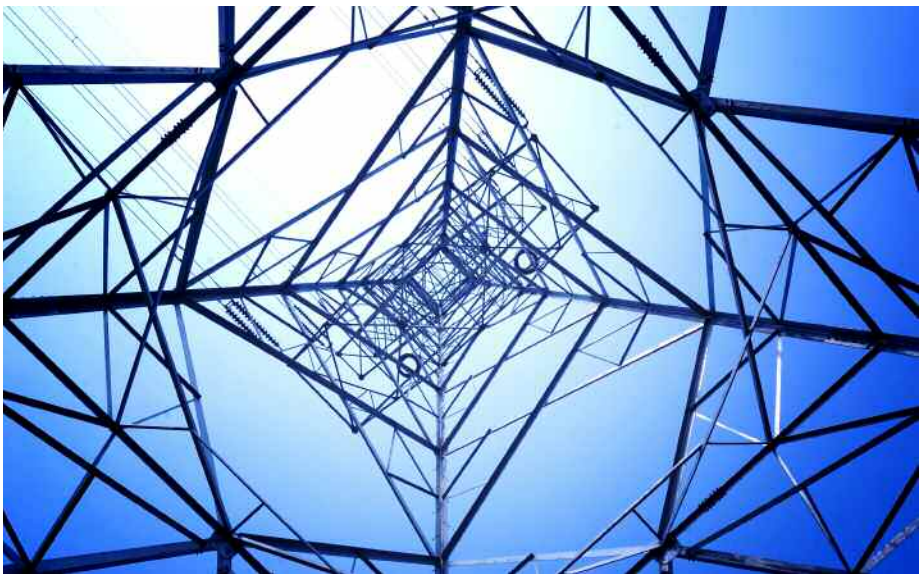
Generic Design Assessment is also referred to as pre-licensing. This is a four-step process leading to the advance approval by the Nuclear Directorate of the Health and Safety Executive (HSE) of specific reactor designs with a view to speeding up the nuclear site licensing process, the successful outcome of which will take the form of the issuance of a Design Acceptance Certificate for the relevant technology.

Under the current process the Westinghouse AP1000 and Areva EPR reactor designs are being considered. It is currently anticipated that these certificates will be issued in June 2011. There may still be outstanding items to be satisfied, however, in relation to the design itself, and there may also be site specific issues on the nuclear site licence application.

The value of pre-licensing from the developer's point of view is to reduce the risk of the nuclear site licence application process overrunning with issues relating to technology, with the consequential cost implications. It remains to be seen, however, how definitive any Design Acceptance Certificate will be, and, consequently, how much further work is required to be carried out to a particular reactor design during individual site licence applications. The most recent progress report from the HSE suggests that there may remain a number of issues that have to be dealt with under separate processes, extending the generic design acceptance work beyond the June 2011 deadline.

Waste and decommissioning

Government policy is that operators of new nuclear power stations must have secure financing arrangements in place to meet the full costs of decommissioning new nuclear power stations and their full share of waste management and disposal costs. The Energy Act 2008 has placed a requirement on operators of new nuclear power stations to accumulate funds to meet these costs through the implementation of a Funded Decommissioning Programme (FDP), which must be approved by the Secretary of State before a new nuclear site can be used or construction commenced.



The FDP will set out the technical and preparatory steps for managing and disposing of any radioactive waste and spent fuel and for the actual decommissioning of the station. It will also require the operator to provide estimates of the costs of such activities, and show how it will accrue the money to meet the costs and the operator will be required to provide security to meet these costs.

It is the overriding aim of the government to minimise the risk of the taxpayer having to fund any nuclear costs. The Energy Act permits the Secretary of State to impose wide reaching obligations on "associated bodies corporate" of the nuclear operator - an expression in this context comprising any person with at least a 20 per cent interest in the operator – to take on obligations of the nuclear operator associated with waste and decommissioning. This rule illustrates the tougher government stance on nuclear power when it is compared with the decommissioning position in other industries, for example, the offshore oil and gas industries, where "associated bodies corporate" are required to have an interest of at least 50 per cent in the relevant operator.

Two consultations on aspects of the waste and decommissioning programme, relating to the price for disposal of spent fuel and waste and detailed regulations relating to the FDP, have recently closed. It is intended that these will be followed by the publication of formal guidance on funded decommissioning programmes.

Is there a need for financial support?

The previous Labour government clearly stated that new nuclear power should compete with other forms of energy generation with no subsidy or financial support and this appears to be supported by recent statements of the coalition government. The Conservative Party's energy policy states that "taxpayer and consumer subsidies should not and will not be provided – in particular there must be no public underwriting of construction cost overruns".

Chris Huhne, the new Energy Secretary, has also conceded that the government will take a pragmatic approach to new nuclear as long as it can go ahead without public subsidy.

Recently industry views appear to confirm that new nuclear can go ahead without nuclear-specific direct subsidy, but only if it is able to compete on a level playing field with other sources of low carbon generation. This is backed up by data published by consultants Parsons Brinckerhoff which indicates that with typical levelised generation costs in the range of £55-£86 per MWh, new nuclear will be well placed to help keep low carbon energy affordable in the long term. At this level, Parsons Brinckerhoff believes new nuclear compares favourably with other low carbon technologies, with offshore wind representing a "true" generating cost of up to £204 per MWh and carbon capture and storage technology up to £154 per MWh.

Government plans to create a level playing field

The policy of the UK government is to establish a carbon floor price. This system is not without its critics and the introduction of a price in the UK potentially has wide-ranging implications for the evolution of the European-wide Emission Trading Scheme including areas such as the auctioning of credits. Others have voiced fears that a carbon floor price might make the UK's industrial sectors less competitive than those in the rest of Europe and elsewhere. Finally, there is the question of whether the floor price currently being envisaged is going to be high enough to create the level playing field sought by new nuclear developments.

An alternative solution might be to re-include nuclear in the Renewables Obligation structure (as was previously the case under the Non-Fossil Fuel Obligation), but this would go against the views of both coalition parties which are not in favour of the provision of subsidies to the nuclear sector.

Future of new nuclear power in the UK

The energy gap is an issue that the government cannot ignore. It has made significant progress during the past few years to address some of the legislative and regulatory obstacles facing the development of a viable new nuclear power programme.

However, there are still outstanding issues that need to be addressed before any private sector investor is likely to make a final investment decision to go ahead with a new nuclear project in the UK. A prospective new nuclear operator will not just be looking for a clear path through the legislative and regulatory woods but also for certainty that new nuclear will be able to compete on a level playing field with other forms of low carbon power generation, and that, on this basis, it will be an economically viable prospect.

J201007050036625