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OFFICE FOR NUCLEAR DEVELOPMENT

Nuclear Power And The UK

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Overview

- **History**
- **Consultation**
- **Government role**
  - **White Paper & facilitative actions**
- **Office for Nuclear Development**
- **Risks and Challenges**
- **A new Department**

Brief history of nuclear in the UK

- Part of the mix since 1950s: a mixed picture
- In 1990s: 30% of electricity output
- Today: ten power stations across the UK
- Today: 15% of electricity output
- Without nuclear our total carbon emissions 5% - 12% higher
- All but one (Sizewell B) closed by 2025

Brief history of nuclear (continued)

- 2003 Energy White Paper: left door open but with promise of ‘fullest public consultation’ and further White Paper
- 2006: Energy Review
- February 2007: Greenpeace Judicial Review
- May 2007: Future of Nuclear Power Consultation
- January 2008: Nuclear White Paper

Consultation Process

- Full, open and transparent consultation
- 20 weeks - usually 12
- 3 main strands:
  - Consultation website: responses could be amended up to the end of the consultation
  - 20 meetings with 600 stakeholders and people who live near existing sites.
  - Listening to the wider public
- Awareness raising:
  - Copies and posters in all libraries
  - Mail to 5,000 organisations
  - Advertising
- Video

Consultation Process

Who responded?

- 4,000+ individuals and groups responded to the consultation or attended an event

- Over 2,700 written responses – no mass campaign

…….and what did we do with the results?

Consultation Process

Careful and thorough analysis

- We asked independent specialists to read through ALL of the responses
  - All of the written responses
  - All of the notes and the recordings from the stakeholder meetings
  - All of the notes from the meetings with the public
- Responses also read by the team at the department
- Transparent: responses available to be read by all on our website. Full report produced

Consultation Process

What did we hear?

- No shortage of strong views!
- Genuine concerns, not only among opponents
- For example: safety, waste, cost and time, room for alternatives
- Also support
- Many prepared to support nuclear only on the basis that these concerns were properly addressed

The Decision – Nuclear White Paper

- Considered evidence and took account of all concerns
- Concluded because nuclear is:

  Low-carbon

  Affordable

  Dependable

  Safe

  Capable of increasing diversity

- …that new nuclear power stations should have a role to play
- AND the Government should take active steps to facilitate this

Government Role

- White Paper makes the Government role clear: our job is to take active steps to open up the way to the construction of new nuclear power stations

- So what does this mean?

Government Role

- We're not building them
- We're not financing them
- We're not telling the market how many should be built

…so what are we doing?!

Government Role

- Reducing the regulatory and planning risks around new nuclear power stations

- Increasing certainty for investors

Facilitative Actions

- Generic Design Assessment
- Waste and Decommissioning Funding Arrangements (Energy Bill)
- Strategic Siting / Environmental Assessment
- Justification

In addition, Government is working on long-term waste management, supply chain and skills development and Planning Reform

Aim: nuclear feeding into grid by 2018 – or sooner

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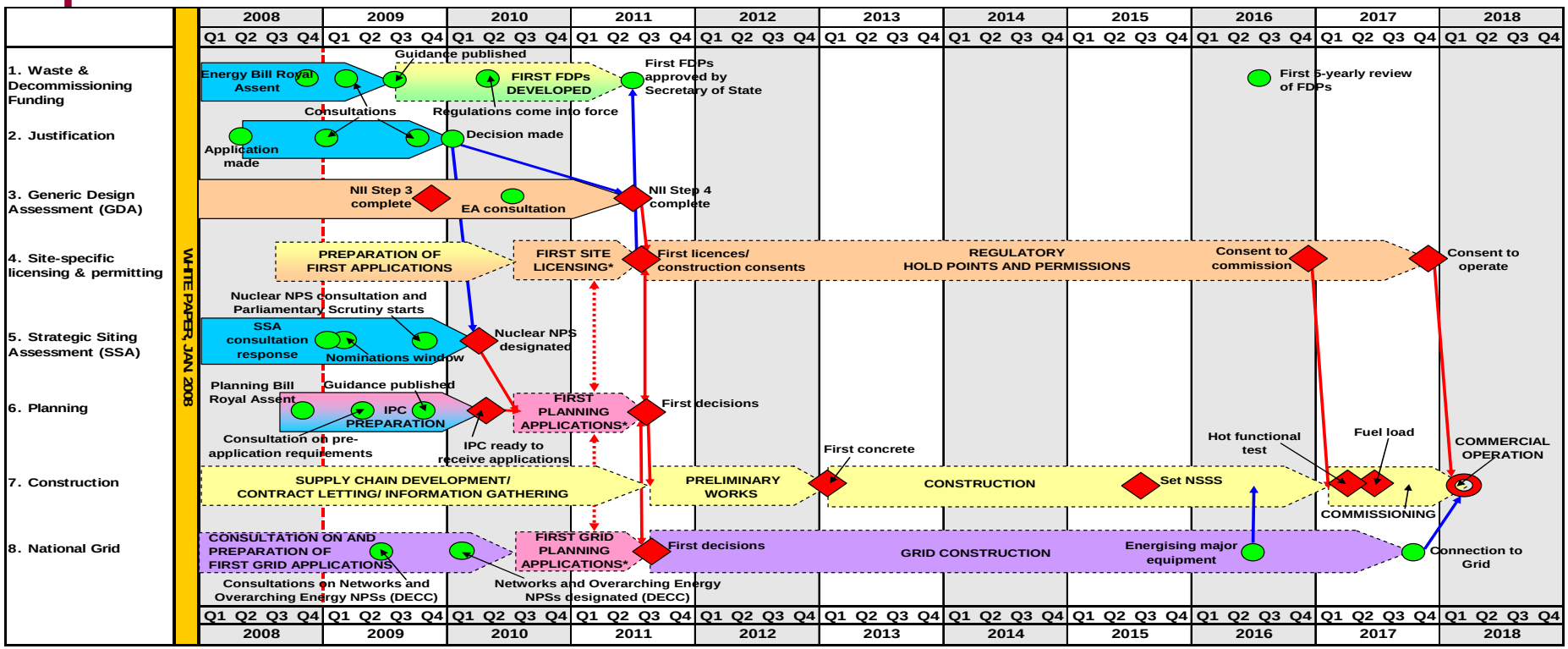
Indicative timeline for new nuclear power



KEY:

- Government
- Regulators
- Operators
- Infrastructure Planning Commission (IPC)
- National Grid
- Nuclear Liabilities Financing Assurance Board (NLFAB)
- Project-specific activity
- Milestone
- Critical path

INDICATIVE TIMELINE FOR FIRST NEW NUCLEAR POWER STATIONS

ACRONYMS:

EA	Environment Agency
FDP	Funded Decommissioning Programme
NII	Nuclear Installations Inspectorate
NPS	National Policy Statement
NSSS	Nuclear Steam Supply System

NOTES:

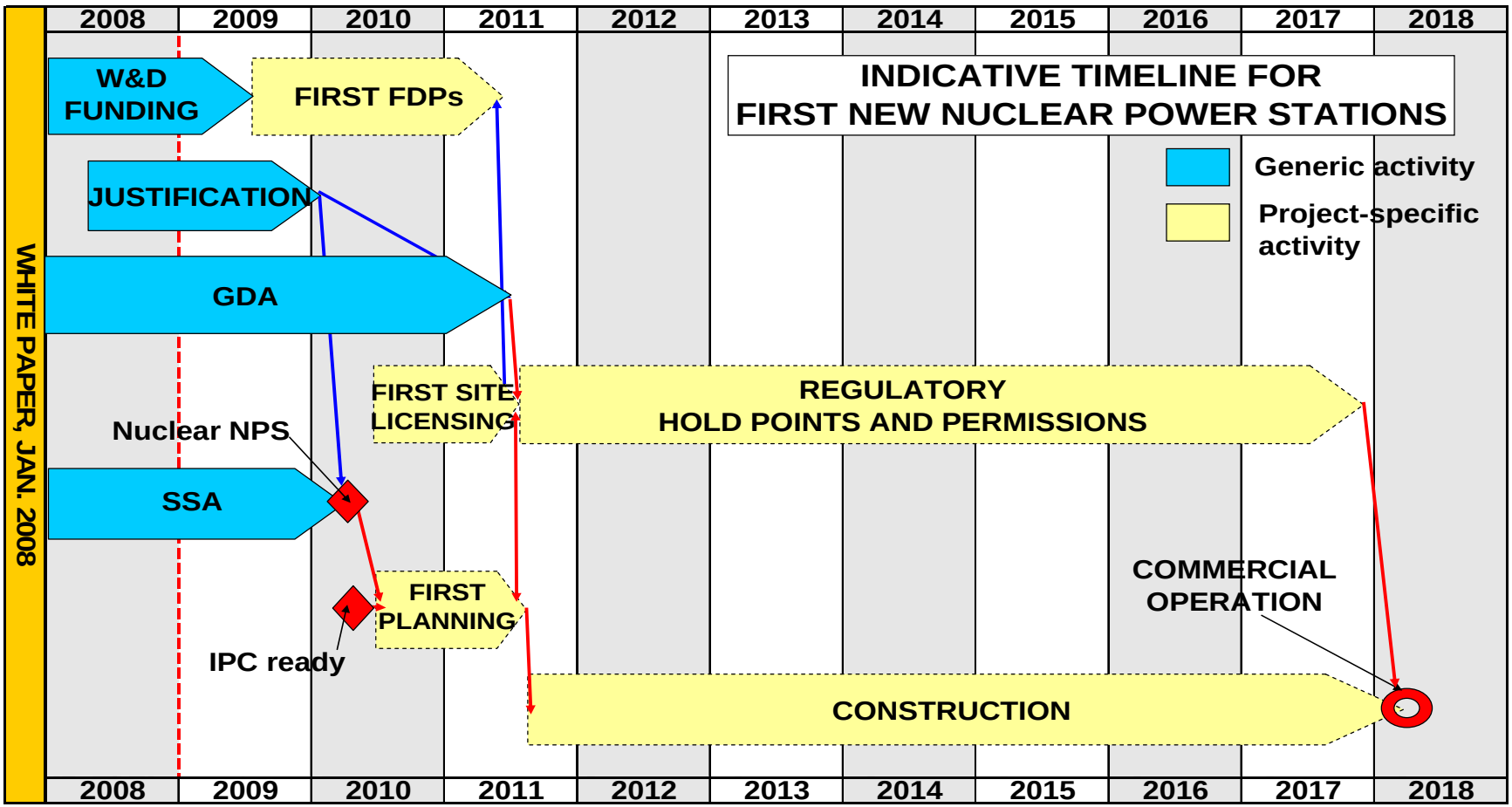
*The way in which the site licensing and planning processes inter-relate, and the timing of applications, will impact on the timing and duration of these phases: all assumptions here are given for illustrative purposes only.

IMPORTANT:

All timings given in this plan are indicative only. In particular, whilst the plan, and the 2008 White Paper on the Future of Nuclear Power, indicated first commercial operation occurring in 2018, the Government is committed to enabling nuclear new build as soon as possible, and will look for opportunities to accelerate timescales where possible.

This is a living document and subject to change. This version was current as of: JANUARY 2009

Simplified timeline



Progress since the White Paper

- Generic Design Assessment (GDA): regulators continuing with detailed assessments and ongoing dialogue with vendors on this
- Waste and Decommissioning funding arrangements: positive feedback on draft guidance; Royal Assent of Energy Act in autumn 2008. Publishing discussion papers on costs of waste disposal.
- Strategic Siting Assessment: consultation closed on 11 Nov; called for nominations for sites Jan 09 – deadline end March 09

Progress since the White Paper

- Planning reform: timetable on track; Royal Assent of Planning Act in autumn 2008. Work continues on secondary legislation and guidance
- Justification: consultation on NIA's application for justification began December 2008. Aim to take decision by early 2010.
- Progress on Managing Radioactive Waste Safely programme

Progress since the White Paper

- Supply Chain: Manufacturing Strategy Review in September 2008 confirmed that the we would work with the supply chain and industry to create and support a globally competitive nuclear supply chain, focusing on high value added
- Skills: We have established relationships across all elements of skills base, and are now represented on key strategic nuclear skills groups. Aim to ensure cross-Government working to address skills

Progress since the White Paper

- Signals from industry:
  - EDF take over of British Energy complete
  - Development of joint ventures by RWE & E.ON, and Iberdrola, GDF Suez and SSE – to develop new nuclear power in the UK.

Size and Timetable of task ahead

- All but one nuclear station will have closed by 2025
- Other plants (including non-nuclear) coming offline because of age or environmental regulation. In total energy companies will need to invest in around 30-35GW of new electricity generating capacity over the next two decades. This is equivalent to about one-third of our existing capacity
- Target of 80% emissions reduction

Worldwide Competition

- Global renaissance: supply chain orders increasing from 4 reactors per year to 12-20 reactors per year by 2020
- UK one of the best regarded markets. Need to stay there
  - HMG commitment / ministerial messages
  - Keep delivery on track
    - Office for Nuclear Development
    - Nuclear Development Forum

Office for Nuclear Development

- Mission Statement:
  - To facilitate new nuclear investment in the UK;
  - To advise the Secretary of State on the exercise of his regulatory and policy functions in relation to the nuclear industry.

Structure of the Office for Nuclear Development

- The Office for Nuclear Development (OND) sits within the new Energy Markets and Infrastructure Group in DECC
- Mark Higson is Chief Executive.
  Tim Stone is Expert Chair.
- The OND has staff drawn from both the civil service and from industry, brings together the relevant Government teams and resources to achieve its objectives.

Nuclear Development Forum

- The NDF has been established to lock in momentum to secure the long-term future of nuclear power generation in the UK.
- It supports and advises OND in its role to build and maintain the UK as the best market in the world for companies to invest in nuclear power
- It brings together Government with key industry stakeholders to ensure regular and high level contact between all parties on the issues that matter the most to potential investors and operators.

Creation of DECC

- An opportunity to demonstrate effective delivery as well as clarity of purpose, vision and commitment
- DECC brings arguments for nuclear together with climate change:
- Strengthens narrative with the public: ministers can sell the climate change message with more conviction
- Fully joined up working on waste

Key risks

Risk
Timely completion of GDA
Availability of sites
Legal challenge
Other countries become more attractive
Government commitment
Supply chain capacity

Challenges

- Maintaining confidence
- Regulatory resources
- Credible progress on waste management
- Managing threat of legal challenge
- Public opinion
- Delivering facilitative actions
- Supply chain and skills

Looking back and looking forward

Questions?

Department of Energy and Climate Change

Key Issues for New Nuclear Power in the UK

Presentation by Stefanie Murphy, Head of Strategy, Office for Nuclear Development

In January 2008 the UK Government published the White Paper on the Future of Nuclear Power[1]. The White Paper concluded that new nuclear power stations should have a role to play in this country's future energy mix. The White Paper set out the facilitative actions the Government planned to take to reduce regulatory and planning risks associated with investing in new nuclear power stations. The White Paper followed a lengthy period of consultation where the UK Government sought a wide variety of views from stakeholders and the public across the country on the future of nuclear power. 2008 was a year which saw considerable achievement of nuclear policy both on the facilitative actions set out in the Nuclear White Paper and more widely.

There were many achievements during the course of 2008 and early 2009 towards our goal of facilitating nuclear power. Some of these are listed below:

- Royal Assent of the Energy Bill to set out the process for ensuring that operators of new nuclear power stations pay the full costs of decommissioning and their full share of waste management and disposal costs to minimise the risk of those costs falling to the tax payer.
- Royal Assent of the Planning Bill to reform the planning process for large infrastructure projects
- Consultation on and finalisation of the criteria to be used to assess whether sites are strategically suitable for new nuclear power stations in the Strategic Siting Assessment.
- Consultation on the Industry application for the Justification process.
- The Nuclear Regulators have progressed with Step 3 of the Generic Design Assessment.

There have been other key developments in the wider nuclear policy.

In June 2008 the Managing Radioactive Waste Safely White Paper was published. This set out the UK Government's framework for managing higher activity radioactive waste in the long-term through geological disposal, coupled with safe and secure interim storage and ongoing research and development to support its optimised implementation. It also invites communities to express an interest in opening up without commitment discussions with Government on the possibility of hosting a geological disposal facility at some point in the future.

In September 2008, the Office for Nuclear Development (OND) was set up to ensure that the Government's work to facilitate nuclear power could be delivered effectively.

[1] http://www.berr.gov.uk/files/file43006.pdf

The OND, which is part of the Department of Energy and Climate Change, is committed to carrying forward the momentum of progress made in 2008. The Nuclear Development Forum was set up in September 2008 to lock in momentum to secure the long-term future of nuclear power generation in the UK. Its role is to support and advise the OND in its role to build and maintain the UK as the best market in the world for companies to invest in nuclear power. We aim to achieve this by bringing together Government with key industry stakeholders to ensure that that there is regular and high level contact between parties on the issues that matter the most to potential investors and operators.

The Manufacturing Strategy published in September 2008 set out the Government's aim that through the OND they will work with the supply chain and nuclear reactor vendors and operators to create and support a globally competitive supply chain.

But there remain many challenges ahead…

During 2009, there will be a shift from policy development to practical implementation. Whereas in 2008 much of the future rested in Government's hands, during 2009 we will start to hand the baton over to industry. An early indication of this change from policy to practical implementation is the successful British Energy takeover by EdF and the formation of a joint venture between RWE and E.ON and another between Iberdrola, GDF Suez Scottish and Southern Energy to progress new nuclear build in the UK. These are likely to be the first of many other industry developments which we expect will take place over the forthcoming year.