Atoms for the Future 2014 - New Build

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Building a better working world

EU approves Hinkley Point C State Aid case

- 8 October 2014 - A hugely significant step….2 years after Generic Design Assessment approval and Site Licence granted
- Achieving financial close has further to go
- Being carefully watched by many other European projects

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What attracts investors, vendors and suppliers?

Factors influencing appetite to pursue opportunities in given countries:

Size	Prospect of multiple nuclear new build projects
Imperative	Capacity issues expected this decade
Immediacy	Opportunity is more pressing in some markets
Experience	Replacement more attractive than green field – ‘maturity’
Carbon	Commitment to low carbon agenda
Transparency	Doing business in jurisdiction is understood and lower risk
Consensus	Political and public perceptions vital
Process	Leadership, consultation, intention
Planning	Visibility and predictability of regime – applies to regulatory regime too

Source: Ernst & Young study for UK Government

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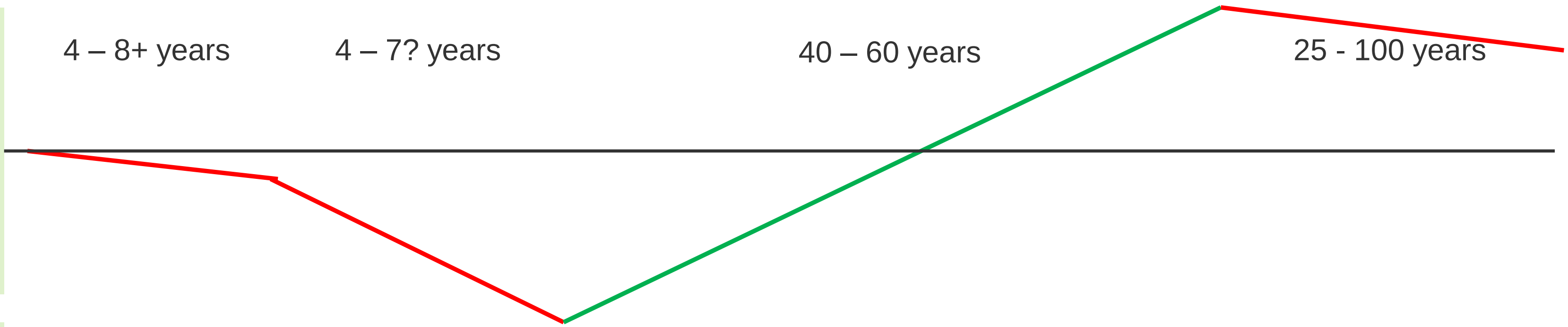
NNB Project Lifecycle: issues and risk

Cash flow



	Development	Construction	Operations	Decommissioning
Issues	• Planning • Siting • Design assessment • Environmental • Public	• Skills • Regulatory • Overruns • Project mgt • Deliverability	• Price visibility • Volume security • Policy consistency • Regulatory changes • Externalities • Competition • Safety and compliance	• Waste strategy • Funding • Ownership
Risk mitigant	Government Developer	Lenders EPC Contract Government? Developer	Lenders / 3rd Parties Insurance / O&M Consumers Owner	Equity Recourse Government Decom fund

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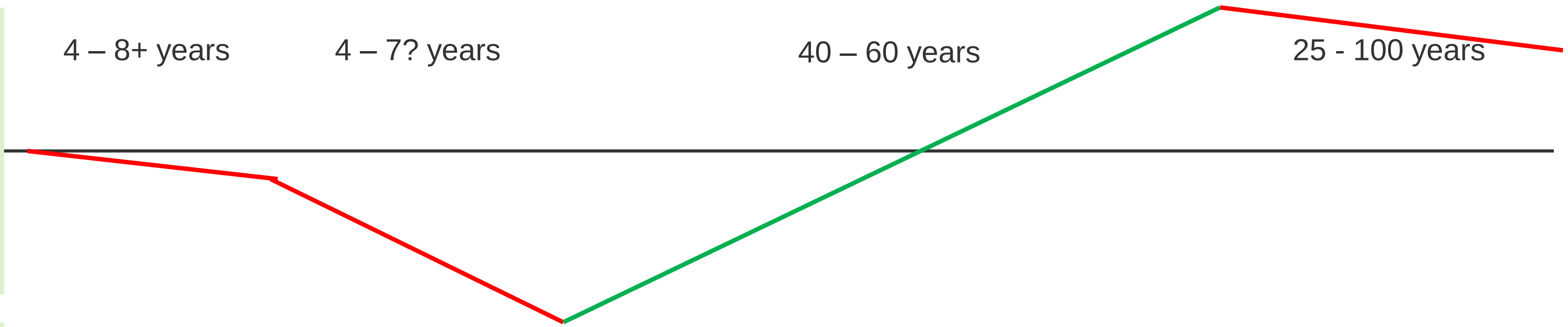
NNB Project Lifecycle: consequences for financing

	Development	Construction	Operations	Decommissioning

Cash flow



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Finance	**S/H debt** **Equity**	**Credit support** **Bank debt** **Vendor** **S/H debt** **Equity**	**Credit support** / **Structured fin.** **Bank debt** / **Bonds** **Vendor** / **Re-finance** **S/H debt** **Equity**	**The State** **Equity Recourse** **Decom fund**

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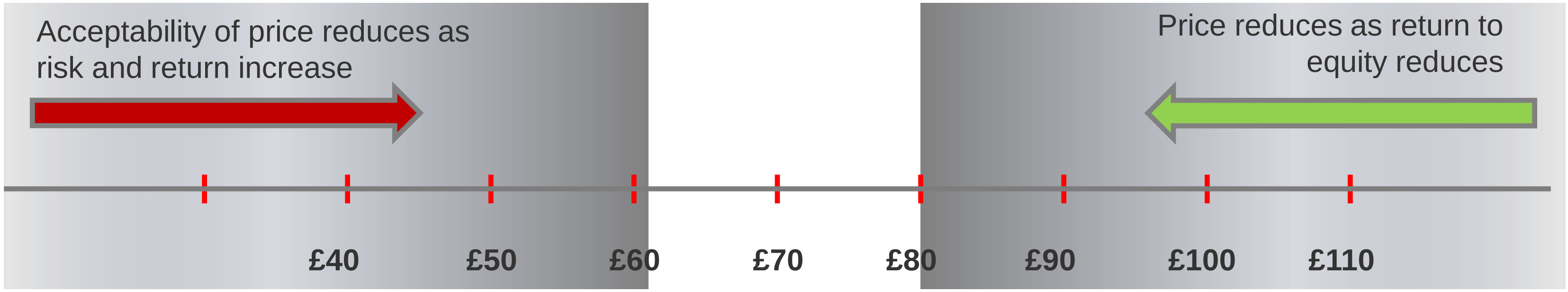
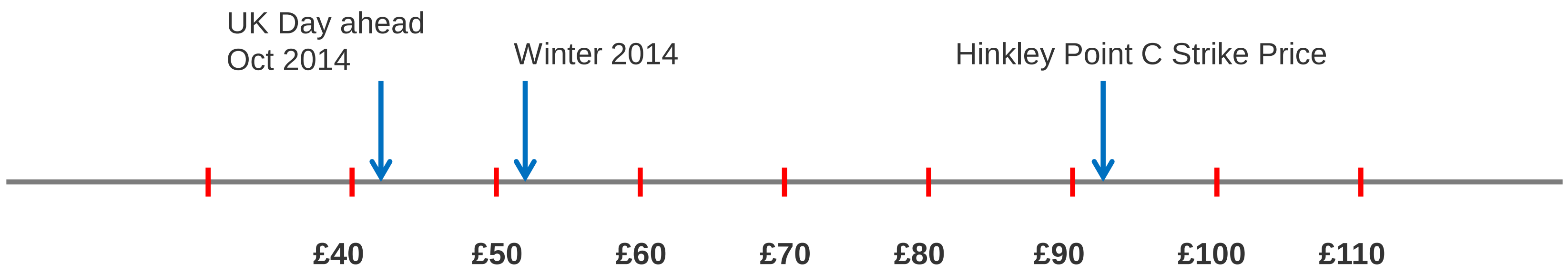
The financing gap



Illustrative effective cost per MWh

- Typical WACC for lower risk projects are 10% – 12% through construction, 7% - 9% during operation: Nuclear required returns are higher
- If Governments wish projects to be majority financed by third parties, they must accept that those finance providers need to earn a return of, and a return on, their investment
- This in turn leads to a need for long term output price certainty, at an acceptable level
- In all European projects, there is no readily acceptable overlap between the required returns to finance and the consequent price of output

The financing gap – UK example



Illustrative effective cost per MWh

- Levelised cost of output taking all project risks and required returns into account requires sustained “price” materially above today’s market price
- Solutions need to act to:
  - Lower the project’s cost
  - Deliver a higher achievable price for output
  - Enable risks to be borne by parties best able to bear them
  - Mitigate risks where possible
- But fundamentally – mechanism needs to bridge price AND time gap

Key factors for investors

The global view on opportunities

- Pays attention to government positions:
  - Changing public opinion or fiscal position can move support quickly
  - A well developed regulatory regime takes longer to put in place
- Market framework - electricity market and broader economic environment

Issues around access to capital

  - Mobility of capital – many alternate investments available
  - Plenty of capital in market, but not necessarily with traditional investors
  - Need for openness to international investment: China, Russia etc
  - Leverage of State balance sheet in optimal ways
  - High up-front capital costs + long pay-back periods

Determinants of profitability

  - Support mechanisms and security of returns: Bridging the gap
  - An urgent need for the output makes a difference

Thank you

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