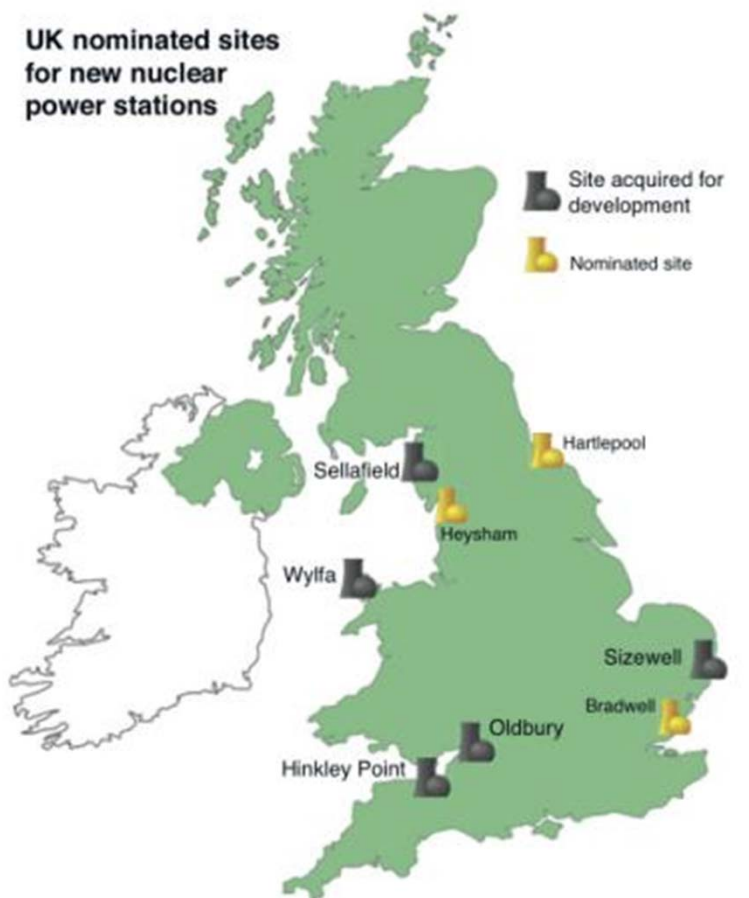


Hinkley Point Nuclear Power Point



MEGAPROJECT Case Study

Case compiled by: Naomi Brookes

Contact details: n.j.brookes@leeds.ac.uk

Basic Project Information

Project Title	Hinkley Point
Location	Somerset, United Kingdom
Purpose	To produce electricity for the UK's National Grid
Scope	Hincley Point C Unit 1 and Unit 2 reactors. All power generation and connections to the National Grid
Contractual Framework ^{1 2}	Nuclear New Build Holding Company Limited an equity joint venture (20% Centrica 80% EDF) to construct, operate and decommission 4 nuclear powerplants in the UK. EPCPM contract with AMEC. Nuclear Steam Supply system to be provided by AREVA.
Relevant Physical Dimensions	3200MWe
Status	In Planning to be completed 2020

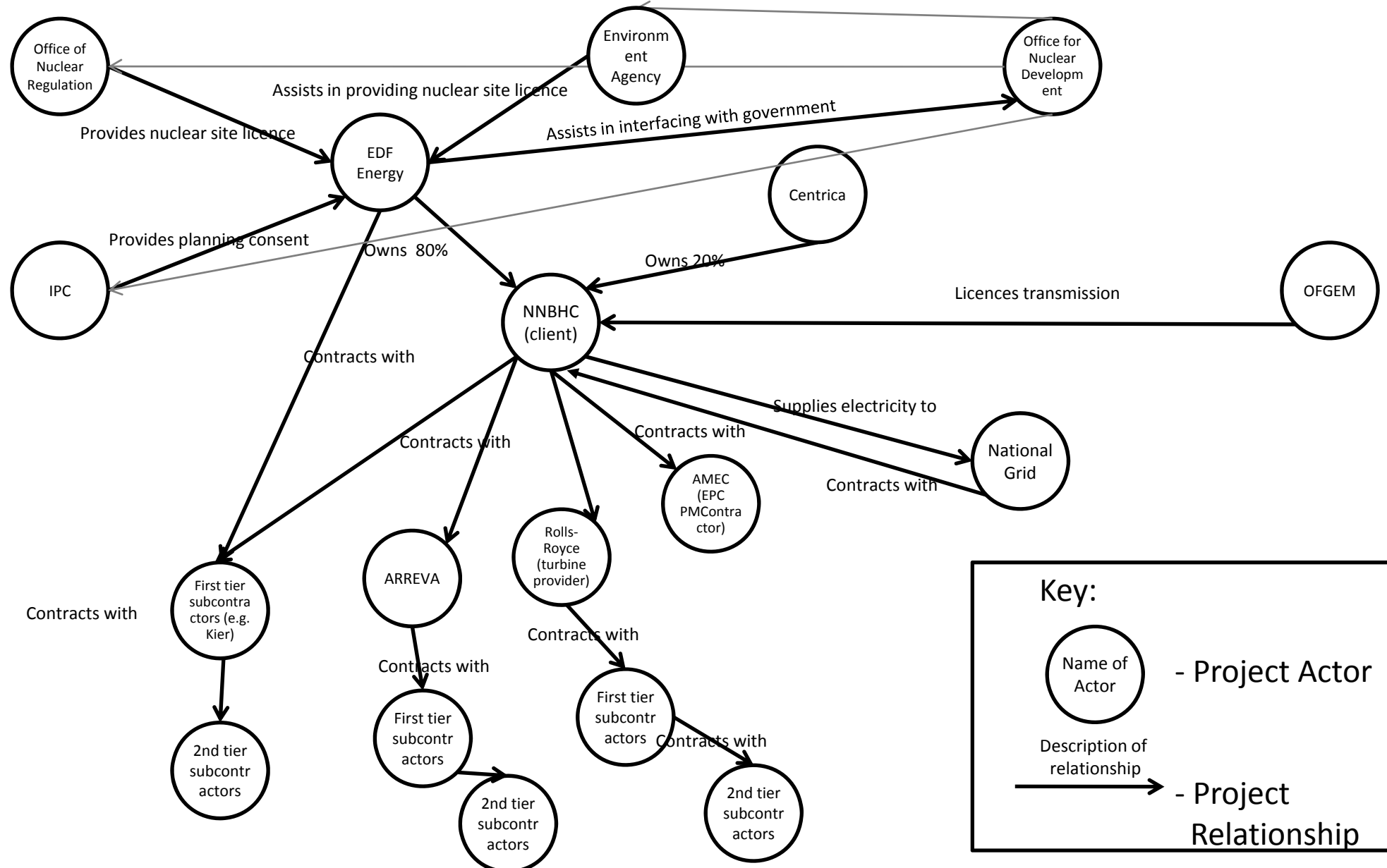
MEGAPROJECT Stakeholder Identification (Internal)

	Stakeholder Category	Case-Study	Comments (e.g. maturity, previous experiences of stakeholders, skills, influence on project)
Supply-Side	Client	Nuclear New Build Holding Company Limited (NNBHC)	<i>Equity joint venture specifically formed for this project</i>
	Financiers	n/a	
	Sponsors	n/a	
	Client's Customers	National Grid plc (through wholly owned subsidiary National Grid Energy Transmission plc) ¹⁷	
	Client's Owners	80% EDF Energy 20% Centrica	
	Other internal supply-side categories (please specify)	Category	Case-Study
other procurement stakeholders		EDF Procurement, Paris	
Demand Side	Principal Contractors	AMEC is responsible for the architectural engineering and project management.	
		ARREVA is responsible for the provision of the nuclear steam supply system.	
		Rolls-Royce is responsible for the turbine equipment ³	
	First Tier Contractors	Kier & BAN Nuttall – earthwork construction services	
	Professional Services Providers		
Other internal supply-side categories (please specify)	Category	Case-Study	

MEGAPROJECT Stakeholder Identification (External)

	Stakeholder Category	Case-Study	Comments (e.g. maturity, previous experiences of stakeholders, skills, influence on project)
Public	Regulatory Agencies	Office for Nuclear Regulation, (part of the Health and Safety Executive)	Responsible under Nuclear Installation Act to provide a single site licence for all activities relating to the site. Likely to become a statutory corporation.
		Design and Quality Standard Producers (RCC & ASME)	French RCC – M/RCC-E American - ASME Section 111
		Infrastructure Planning Commission	Responsible for granting planning applications to strategic infrastructure project as defined by the National Policy Statement (will be changing very soon under the new Localism Act)
		Environment Agency	Involved in Generic design Assessment
		OFGEM	Licences Energy producers
		International Atomic Energy Authority	Set up a series of treaties and agreements to promote peaceful use of nuclear energy
	Local Government	Sedgemoor District Council, Somerset County Council	
	National Government	Department of Energy and Climate Change	
		Office for Nuclear Development	UK government department responsible for 'smoothing the path' for nuclear development
	Others	Nuclear Decommissioning Authority	A strategic Authority set up by UK Government to be responsible for the disposal of all Nuclear Waste
Private	Local residents	Sedgemoor, Taunton Deane, West Somerset	Think it will have a positive impact on the area -4 (House prices will rise – 5, EDF energy community fund)
	Local Landowners		EDF spending money on mitigation for local landowners - 7
	Local Business Organisations	Somerset Chamber of Commerce	
	Environmentalists	Greenpeace, Friends of the Earth, Stop New Nuclear Alliance 6	
	Conservationists	Severn Estuary Conservation group	
	Archaeologists	n/a	
	Other External Private stakeholders (please specify)	Nuclear Industry Association	
URENCO		Uranium fuel provider partially owned by UK Government	

MEGAPROJECT Stakeholder Relationship Maps



MEGAPROJECT External Stakeholder Attitude Analysis

External Stakeholder	External Stakeholder's Attitude to this Project	External Stakeholder's Influence on project	Impact of Project on External Stakeholder
Greenpeace, Friends of the Earth, Stop Nuclear new Build Alliance	Highly Unfavourable	Ability to Lobby Government Organisations, civil disruption	Opposition to this type of project is their raison d'être
Local residents and landowners	Concerned about risk but also welcoming new jobs and potential property boom	vote for local government and national government	Potentially (and v. remotely) substantively harmful but in reality may imake significnat imporvement to standards of living
Local Business Organisations (e.g. Somerset Chamber of Commerce	Very happy to see new business opportunities but want to see these available locally	General ability to lobby government (especially local)	if successful may increase growth substantially
Nuclear Industry Association	Very favourable and supportive	None identified	PSCC survey identifies this as neutral or potentially beneficial
URENCO	Happy for new business	General ability to Lobby Government Organisations	More gowth
Severn Estuary Conservation Group	worried about effect of development on habitats	Ability to Lobby Government Organisations, civil disruption	could be beneficia if EDF provides extra funding

MEGAPROJECT Project Management

Project Organisation

Client Project Team Size & Structure	
Contractor Project Team Size and Structure	
Sub-Contractor Project Team Involvement	

Project Tools and Techniques

Please ✓ if present, x if absent , leave blank if unknown

Life-Cycle Costing Approaches

Project Management Software

Lessons Learnt Transfers

Stakeholder Involvement

Relationship Management Tools

Team Building Tools

Building Information Modelling (BIM)

Project Knowledge Management Tools

Competency framework

Project Processes

Risk Management Processes ²⁹	Present (<i>describe below</i>) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/>
HR Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Procurement Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> <i>See previous statement</i>
Integration Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Scope Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Time Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Cost Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Quality management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>
Communications Management Processes	Present (<i>describe below</i>) <input type="checkbox"/> Not Present <input type="checkbox"/> No Information <input checked="" type="checkbox"/>

MEGAPROJECT Project Performance

Aspects of Performance Concerned with Doing the Project Right

	Original Targets and changes to targets	Actual Achievements Against Targets
Performance relating to time		
Performance relating to cost		
Performance related to specification		

Aspects of Performance Concerned with Doing the Right Project

Stakeholder	Original Aims of Project Involvement and Changes to these Aims	Achievement of these Aims
UK Government	Greater Gabbard will contribute 5% of the UK's 2010 renewable energy target of 10%. This target is raised to 20% by 2020 and 60% by 2050 ²²	Failure against 2010 target as not delivered on time. Unknown success of future targets
Airtricity	To develop a portfolio of projects to make it an attractive acquisition target ²³	Initial market capitalisation in 1997 was €625K sold for €2.2bn to SSE and Eon in 2008.
RWE	Creating a diverse portfolio of energy generating resources ²⁴	Should succeed as long as Gabbard meets generation targets
SSE	Creating an investment portfolio that delivers a significantly-enhanced asset base (consistent with returns greater than the cost of capital), additional fuel for energy in the form of renewables and additional cash flows and profits to support future dividend growth. ²⁵	Should succeed as long as Gabbard meets generation targets
Siemens		
Fluor	Profit on contract	Earnings on contract considerably less than expected

MEGAPROJECT Project Environment

Legal and Regulatory Environment

<p>Legal and Regulatory Project Environment (regionally, nationally and Europe wide)</p>	<p>The UK energy market is regulated by the Office of the Gas and Electricity Markets (OFGEM) ²⁶ and is responsible for the regulating monopolies in energy supply. It also helps to secure UK's energy supplies by promoting competitive gas and electricity markets - and regulating them so that there is adequate investment in the networks, and contributing to the drive to curb climate change and other work aimed at sustainable development.</p> <p>Planning regulations for large projects deemed to be of national importance have been changed under the 2007 planning reform bill with a particular stance towards easing the ability of nuclear and renewable powerplant to get planning permission. The EU has no formal authority for spatial planning.</p> <p>The European Commission Energy Directorate has an energy strategy "Energy 2020" which identifies the energy priorities for the period up to 2020, i.e. to reduce energy consumption, implement the internal market, develop infrastructure, improve technology, protect consumers and reinforce the external dimension of energy policy. These goals will be achieved through a series of legislative proposals.</p> <p>All nuclear energy programmes take place under the auspices of the Department of Safeguards at the International Atomic Energy Authority</p>
<p>Specific Legal and Regulatory events impacting on the project</p>	<p>Planning Act 2008 and Localism Act 2011 Energy Act 2008 Climate Change Act 2008 Nuclear Installations Act 1965 Ionising Radiations Regulations 1999 Nuclear Generating Stations (Security) Regulations 1996 Radioactive Material(Road Transport Act) 1991 Radioactive Substances Act 1993</p>

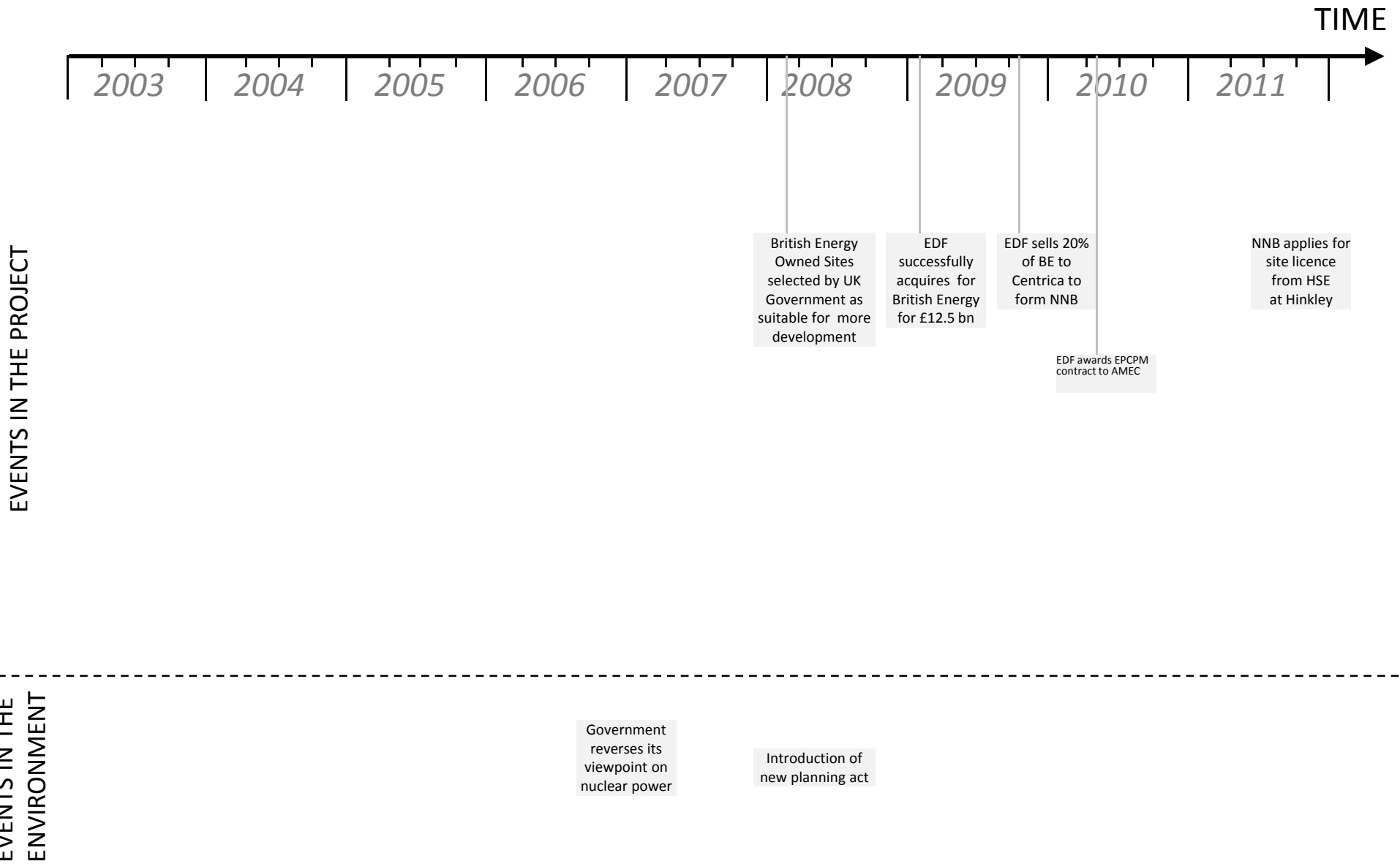
Economic Environment

<p>Economic Project Environment</p>	<p>Late 2000 recessions (beginning December 2007)</p>
<p>Specific Economic Events impacting on the project</p>	<p>Financial Collapse of British Energy in 2002</p>

Political Environment

<p>Political Project Environment</p>	<p>Growing interest in carbon emission reductions. EU Emissions Trading Schemes. Powerplant reaching the end of its life in the UK. Nuclear disasters (Chernobyl, Fukushima)</p>
<p>Specific Political Events impacting on the project</p>	<p>2006 reversal in previous anti-nuclear energy policy by Labour government.</p>

MEGAPROJECT Project Key Events and Activities Timeline



- 1- <http://www.edfenergy.com/about-us/about-edf-energy/our-structure/>
- 2 - <http://www.edfenergy.com/media-centre/press-news/AMEC-awarded-11-year-contract-with-EDF-for-new-UK-nuclear-power-stations.shtml>
- 3 - <http://www.publicserviceeurope.com/article/1517/french-and-british-to-seal-nuclear-power-deal>
- 4 - <http://www.british-energy.com/article.php?article=418>
- 5- <http://www.thisissomerset.co.uk/Hinkley-Point-staff-influx-Somerset-residents/story-14304950-detail/story.html>
- 6 - <http://www.guardian.co.uk/environment/2011/oct/03/hinkley-point-protest-nuclear-power>
- 7 - <http://hinkleypoint.edfenergyconsultation.info/newsroom-faqs/press-releases/972>