Risk Communication Case Study
Nuclear New Build

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NEA Workshop on Stakeholder Involvement: Risk Communication
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Horizon Nuclear Power

- Established in 2009 and acquired by Hitachi in November 2012
- 2 sites – 2x Hitachi-GE ABWR
- c.£20billion investment in the UK
- Well progressed to pre-construction phase
- Activity suspended pending finance resolution
- Pre-suspension Approx. 370 staff at HQ and Wylfa and 1000 contractors in UK, plus US and Japanese supply chain
1. What is the status of the UK Nuclear New Build programme?
2. Who are the stakeholders?
3. How prominent is nuclear risk in the debate?
4. What are the promoters’ key messages?
5. How was a new build programme facilitated?
6. What have been the main risk communication activities?
7. What does the broader landscape of communications activity look like?
8. What lessons have we learned?
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UK Nuclear New Build Projects

- 8 Nominated sites, 5 Projects
- **Hinkley Point C: 2x1600MW EPR in Construction**
- Sizewell C: 2x1600MW EPR in pre-construction
- Wylfa Newydd: 2x1350MW ABWR in pre-construction (suspended)
- Oldbury: Likely 2x1350 ABWR in early development (suspended)
- Bradwell C: HPR1000 – 1150MW in early development
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Who are the stakeholders?

- EU, and National, Regional and Local Governments
- Influencers and opinion formers, supportive and opposed, political, academic, business and industry, NGOs
- The environmental, safety and planning regulators/authorities
- Host Community and its representatives
- The supply chain and workforce (current and future)
- Investors
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The nuclear debate...advantages

Nuclear energy is essentially carbon free, no carbon dioxide is produced in its operation.

Nuclear power boosts security of supply in a diverse and balanced energy mix.

Nuclear power represents approximately 20% of the power being put into the UK grid at any one time and over a third of the UK’s low carbon electricity.

Investing in low carbon technologies will create jobs and boost the UK skills base, new nuclear alone will create up to 60,000 new jobs.

Source: Nuclear Industry Association – Nuclear Energy Facts, 2017

Source: Digest of UK Energy Statistics (DUKES) 2017
Questions…

Nuclear energy is essentially carbon free, no carbon dioxide is produced in its operation.

Nuclear power boosts security of supply in a diverse and balanced energy mix.

Cost and deliverability

Decommissioning

Spent fuel and waste disposal

Operational radiological risk

Accidents

Impact on local communities

Investing in low carbon technologies will create jobs and boost the UK skills base, new nuclear alone will create up to 60,000 new jobs.

Source: Nuclear Industry Association – Nuclear Energy Facts, 2017
More people support nuclear as part of the low carbon energy mix

Source: YouGov survey, 29 November to 6 December 2018
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Promoter - Key messages

- Helps reduce carbon emissions
- Creates prosperity
- Consultative process
- Tried and tested
- Will fill growing energy gap
- Robust safety regime and track record
- Downward cost trajectory

WYLFA NEWYDD
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Facilitative activities

- Electricity Market Reform
- Planning reform and strategic siting assessment
- (EU) Regulatory Justification
- UK Regulatory Reform
- Generic Design Assessment
- Environmental Permits (Radioactives Substances Regulation)
- Nuclear Site Licence Process
- Funded Decommissioning Plan
- Geological Disposal Facility
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Risk communication

• **Built on the past.** Legacy of open communications (BE speaker programme, Magnox outreach, visitors centres)

• **Talked to anyone, anywhere.** Extensive meetings and correspondence programme deploying trained company safety/risk experts as required – safety and security representation in full suite of comms channels.

• **Deferred to the independent experts.** (COMARE, Regulators, Weightman Report, Academia)

• **Earned the right to be heard.**

• **Consulted and changed, didn’t decide and defend.** (Strategic Siting and development consent applications; Generic Design Assessment).
Example: GDA communications

Generic Design Assessment of the UK ABWR
Comments Process - Public Digest

A significant aspect of Generic Design Assessment has been Hitachi-GE’s formal “GDA comments process”.

Alongside publication of major regulatory submissions, public documents and lay summaries, the comments process provided the highest possible level of transparency around assessment of the UK ABWR - inviting comments and questions relating to the technology and its assessment for use in the UK.

Implemented in line with the regulators’ guidance, the process received 83 meaningful inputs between 6th January 2014 and 15th August 2017. Each of these was reviewed by Hitachi-GE, before both the question and our response were shared with the regulators.

Below is a summary of major themes raised through the process (and via associated engagements), and our responses thereto.

Note: this publication is not part of the GDA process, but is a voluntary publication made by Hitachi-GE – in agreement with the regulators – to further support GDA transparency.

Use of ‘Single circuit’ reactor designs, and a concern this could lead to contamination of the turbine.

BWRs are the second most common reactor type globally, so there is nothing unusual about this.

Alongside publication of the comments process relating to the UK ABWR, there is some minor transfer of radiation from the reactor to the turbine - primarily via Nitrogen-16 in the steam, or trace particles of activated corrosion products which are carried in the steam. These decay very quickly after shut down however, so the turbine does not remain contaminated after the end of operations and is not a decommissioning concern.
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Public Consultations

- 3 stages of major public consultation on proposals:
  - hard copy materials
  - dedicated website www.horizonnuclearpower.com/consultation
  - public events
  - media relations and advertising

- Increased awareness of the project across the community and a consistent flow of questions and correspondence via the dedicated Wylfa Enquiries email inbox.

Final phase consultation

- More than 1,000 people got involved across more than 20 events

- Hundreds of pieces of feedback from the public and stakeholder organisations
Stakeholder Engagement:
Welsh Government, Local Councils & Regulators

- Welsh Government – First Minister/Ministers, four or five times a year
- North Wales Economic Ambition Board, quarterly
- Gwynedd and Conwy Councils – political and officer briefings, twice a year
- Isle of Anglesey County Council (IACC) – political briefings, three or four times a year plus officials meetings, weekly
- Joint Communications and Engagement meeting with ‘statutory bodies’. IACC, Welsh Government, Natural Resources Wales, Horizon, National Grid, monthly
Community engagement

Meetings

- Project Liaison Group, quarterly
- Very local council meetings, monthly
- Community groups, four or five per month
- Open surgeries, monthly
Community engagement

Jobs, Skills, Education, language and community

• Strong apprenticeship support
• “FUTURES” schools programme, college and university partnerships
• £1 million invested in the new Grŵp Llandrillo Menai Engineering Centre at Llangefni, Anglesey
• Community good causes programme – small scale and National (e.g. Eisteddfod: Europe’s largest cultural festival)
Other communications channels

- Community Update – Newsletter – all Anglesey
- Neighbour News – aimed at nearest neighbours, focused on site works that may impact them.
- Social media channels used extensively to communicate with local and regional audiences.
- All public communications bilingual in Wales
Implementation Challenges

• Long timescales for new build, and uncertainty surrounding projects in development phase
• Complexity of the subject matter (science, technical and planning consent process)
• Early community suspicions of an “outsider” company
• High expectations for project benefits + low tolerance for community disruption from huge labour intensive construction phase.
• Unexpected, non-traditional challenges to the case for nuclear (for example fall in the cost of renewables)
• On-site Spent fuel storage and GDF
Resource

- Horizon: Corporate Affairs team of 20 plus local agency support at both sites and nationally
- Significant resource required to build local presence, especially hiring of local employees and use of local companies.
- Very large resource required by formal statutory and regulatory consultation processes.
Most people in local community support the project

- Statements of Common Ground signed with 20 major local representative groups and bodies (including local government, emergency services etc) in 2019 as part of planning approval process

- 83% agree that the power station would provide opportunities for local people.
- (71%) stated that they supported having nuclear power on Anglesey.
- (68%) stated that they feel positive about the Wylfa Newydd power station.

*Beaufort Research telephone research - 500 randomly selected people across Anglesey between late September and October 2016:*
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Lessons Learned

• Trust must be earned *before* people are prepared to believe the science, in the UK this has been achieved through:
  • a legacy of safe operation and open, expert communication from the previous local nuclear power stations.
  • Continued openness, localisation of the company, and shared values and goals (empathy).
• New build nuclear is a collaboration: it needs many facilitators, sponsors and ambassadors, critical friends, and independent expert voices.
• A robust independent regulatory regime involving generic and site specific safety assessments is essential in tackling perceptions of risk.
Thankyou

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