

16th July 2014

Chair: Lord Hutton

MINUTES OF THE FIFTH MEETING OF THE NUCLEAR INDUSTRY COUNCIL

Summary of actions

| | Who | Action | Date |
|----|---------------------------------------|--|---------|
| 1. | All | Nominations for an Industrial Chair for the employer Steering Group, that sits under the NIC Skills Workstream, for the development of the National College for Nuclear to be made to Jean Llewellyn or Roger Hardy | 8 Aug |
| 2. | All | Industry representatives to join the Trailblazer Apprentice working group | 31 July |
| 3. | All | Feedback on Export Strategy to Clive White | 31 July |
| 4. | Peter Greenhalgh and developers | To discuss providing data to the Cost Reduction work stream | 31 Aug |
| 5. | All | To feedback on the Code of Participation | 15 Aug |
| 6. | Work stream leads | New key performance indicators to be agreed by each work stream where actions have changed | 15 Oct |

Attendees

See Annex A

1. Michael Fallon was promoted to the Cabinet as Defence Secretary the previous day to the meeting as part of the Prime Minister's ministerial reshuffle, with Matthew Hancock named as the new Minister of State for Business, Enterprise and Energy. Unfortunately pressing parliamentary business meant that Matthew Hancock couldn't attend and Edward Davey was overseas. Lord Hutton of Furness therefore chaired the meeting.

Item 1: Opening Remarks

Lord Hutton welcomed members to the fifth meeting of the council. He said that it was clear that a lot of progress was being made in all working groups, and welcomed that. The order of items in the agenda had been revised, and the latest version had been tabled for the meeting.



Item 2: Research and Development, Dame Sue Ion, NIRAB

- Dame Sue Ion referred the council to the interim report NIRAB has drafted in advance of
 its annual report which will be published in January 2015; she welcomed the views of the
 council before it is submitted to Government.
- 4. The report has been timed to meet certain timescales around preparing for the Autumn Statement, next Comprehensive Spending Review (CSR) and DECC budget priorities. Dame Sue highlighted that the report been produced by extensive work in 3 subgroups of NIRAB and involved a great deal of goodwill. She noted that the subgroups and NIRAB itself are unfunded. The only dedicated resource NIRAB has is the small 4 strong NIRO secretariat. The aim has been to put more cohesion into the R&D landscape and to concentrate initially on identifying gaps which would prevent realisation of the Nuclear Industry Strategy.
- 5. Dame Sue emphasised that funding is needed for programmes of work, otherwise there is a danger that the UK will lose rather than gain capability leaving significant capital assets under-utilised because we cannot fund the programmes to use them.
- 6. In prioritising activities, NIRAB has focussed on areas with the potential to create jobs and growth and where with appropriate investment the UK can take a niche leading role internationally. The priorities identified included the development of accident tolerant fuels, new capabilities in reactor system and component design, modelling and simulation, robotics and remote handling and links to big data management.
- 7. The interim report on the SMR Feasibility Study, undertaken at the request of the former Science Minister, David Willetts, concluded that there is significant potential for SMRs to reduce the cost of nuclear generation and create jobs in the UK but further work is required before a realistic business case can be built to justify significant Government investment. Additional funding of up to £5m is sought to continue the work on this. UK government funding is required for this because of the uncertainties and risks associated with such technologies in the USA DoE has provided significant funds to progress two SMR projects.
- 8. Lord Hutton thanked Sue for the work NIRAB have done so far and her summary for the council. The report has a good balance of research for today's priorities whilst also looking to the future. Lord Hutton opened up the council for discussion on the paper and asked members to indicate if they supported the recommendations.
- 9. The council were very supportive of the paper and the balance between short and long term needs. They supported the request for significant funds for programmes of work to utilise the capital assets and underpin the strategy
- 10. On SMRs, the goal is to have a deployable design for the UK, not just a test or prototype. No system has been picked which is why funding is crucial to get to the next phase which is to look at designs which already have test beds in other countries and work with them to finish and create UK IP. Vincent de Rivaz, CEO of EDF Energy, indicated that



there is potential for Franco-British cooperation on SMRs, as in defence, but it is essential to be clear that there is in fact a market for the technology.

- 11. The message to government was clear: the vision set out in the NIS cannot be achieved unless the Government is willing to increase the amount of money it spends on nuclear R&D. Deployment of Gen 3 systems would be necessary to generate the required 75GW of new nuclear energy by 2050. For SMR's to have any role it is essential that decisions are taken quickly to provide clarity about the future direction.
- 12. Other comments supported that view. SMRs were felt to be practical and make plausible sense but only if properly funded. The right levels of funding needs to be spent to allow the UK to become a partner and to add value through the supply chain through design and/or manufacturing. There is a short window of opportunity to make the UK credible.
- 13. It was also noted that in the US support for SMRs is cooling and investment is slowing down. The low price and abundance of shale gas was cited as the reason for this. This could bring a bigger opportunity for the UK as there is no little scope for US design assessment if there is no investment and therefore no market.
- 14. Lord Hutton thanked the Council for the helpful discussion and support and wished Sue well for her discussions with government.

<u>Item 3: Business Capability, Jason Smith, Rolls Royce</u>

- 15. Jason Smith informed the council that the Business Capability work stream had stripped out completed actions from their plans and added new ones to reflect current priorities. He acknowledged that there was still more of this to do and in co-ordination with other groups.
- 16. In acknowledgement of where we are with the new build programme there will be an increased focus on some activities over the next 12 months, principally through the NIA's Readiness Group which will include an assessment of equipment qualification needs. It was helpful that EDF Energy had provided further contract information which would allow targeting of some UK companies for intensive support to help them win business in the short term that would extend into the wider new build programme.
- 17. Discussion among members demonstrated that there was lots of good engagement to support business capability through schemes, including the facilities at NAMRC and good progress was being made to engage with the supply chain in the south west. NAMRC will maintain a part time presence in the Taunton area through the NAMRC Local initiative beginning this summer.
- 18. Equipment qualification was raised as an area where a real difference could be made to benefit UK businesses. Currently this has to be done overseas, eg, US, Korea. A UK based operation in this area is also critical for exports.



Item 4: Skills, Roger Hardy, Cavendish Nuclear and Jean Llewellyn, NSAN

- 19. Roger Hardy updated the council on three areas of interest. Firstly, the proposed National College for Nuclear. An employer steering group had been formed to take this work forward and had met once so far, and had a vibrant debate about what the college should look like. Industry would like a curriculum base approach and BIS are supportive of this. There needs to be an industry figure to lead the steering group for the college, nominations needed by end August, or sooner.
- 20. The second area of interest is apprenticeships. These are changing soon. There will be new standards and funding from 2017 and employers must be aware as they will not be able to recruit an apprentice onto the old framework from September 2017.
- 21. Sellafield are leading on behalf of employers on the development of trailblazer apprenticeship standards for nuclear; these must be an industry wide standard so if Council member companies wants to be involved they will need to get in touch with Jean Llewellyn in the first instance by 31 July.
- 22. Thirdly, Roger Hardy informed the council that there has recently been a worrying downward trend in recruitment to the sector. One comment was that the nuclear industry faced a challenge in retaining older, more experienced workers, and needed to have better knowledge retention arrangements in place. The council agreed this ought to be measured more frequently. At the next meeting Roger Hardy will present a long term workforce graph. This will show industry workforce demand and supply figures with the key pinch points and skills issues that this identifies plus examples of action being taken to address capability gaps. Latest new build information and MOD information will be included.
- 23. All work stream leads were invited to notify the skills leads of any skills issue raised in their own work stream as it could be that there was already work underway to address it.
- 24. Jean Llewellyn informed the council that the Nuclear Industrial Partnership has now been approved by BIS bringing an extra £4m of support for skills in the industry from government. The partnership includes an element of employer match funding.
- 25. This extra funding will support skills development at every level from entry into the industry to knowledge transfer and retention initiatives. Further detail will be presented at the next Council meeting.

Item 5: Public Understanding of Nuclear Energy, Professor Andrew Sherry

26. Professor Sherry presented to the council an outline of the communication strategy developed by the PUNE work stream and asked the council to indicate their support for the recommendations made.

- 27. Nuclear is 'reluctantly accepted' by the public with only shale gas having lower popularity among energy generation sources. If we are to achieve the ambition of increasing the share of the UK energy produced by nuclear by the middle of the century then we need public support.
- 28. Professor Sherry showed over 100 initiatives on public engagement across the sector, and acknowledged that this list was not exhaustive. However, the initiatives are fragmented and need to be co-ordinated better to share best practise and give clear, common messages. A nuclear narrative should be developed for this purpose.
- 29. The strategy document included the following recommendations:
 - A small senior communications steering group is set up for public engagement.
 - A communications charter should be agreed to give guidance to leaders, managers and the workforce who are the best ambassadors to the public.
 - Research is undertaken to feed into and inform the strategy
- 30. Lord Hutton thanked Professor Sherry and work stream members for concluding this piece of work. It is an excellent report, he strongly supports the recommendations and the subject matter is very important for the sector.
- 31. Council members concurred with this view although it was noted that the same dialogues have been on-going for a long time in the sector with limited success. There was no magic bullet. We should try to learn from overseas experience where possible. The question was also asked about what we want to achieve is reluctant acceptance enough, or do we want more support?
- 32. NIA also have a communication role and overlap should be avoided. Professor Sherry recognised this and confirmed that work is on-going with NIA to work out the boundaries.
- 33. The idea of aligning communication messages across organisations is a huge step in the right direction. This should help avoid mixed messages and begin to build trust. It was suggested that the Financial Sector tends to disbelieve the Nuclear Sector's information resulting in potentially reduced investment. Only 1% of the £3 trillion UK pension fund is invested in UK infrastructure. On the issue of decommissioning, the financial sector's view is that a long-term solution has not yet been found, so that risks continue to appear significant.
- 34. The most trusted people to give messages about nuclear are scientists and academics. NNL, therefore, felt they had an important role to play. Laboratory staff could have some training to help them explain where they fit into the sector. This may help them to speak on a social or public platform. The vision for the future should link to research and development.
- 35. Professor Sherry thanked the council for their feedback and support for the recommendations. Joint work in schools on the national curriculum to engage children



with the energy sector is being discussed with the oil and gas and offshore wind sectors and the Education Department. Work on building media relationships is also underway with the help of the Science Media Centre.

36. The approach to research and funding needs some more thought, some avenues are being investigated.

Item 6: Trade and Investment, Clive White, AMEC

- 37. Clive introduced an Export Strategy paper to the Council; it prioritises countries into categories for new build or decommissioning. The paper is a snapshot of the market as it currently stands. The market is constantly moving so flexibility is required. The example of the recent deals with China show that a strong UK plc approach pays dividends. Council members to feedback comments to Clive by end of July.
- 38. A comment was raised that exports are important but the priority is to deliver in the UK.
- 39. A companion strategy on inward investment will be put to the council in November along with a UK industry model which is a pictorial map.

Item 7: Cost Reduction, Peter Greenhalgh, M&W Group

- 40. Peter thanked those members of the council who have offered to provide data to the group. He feels the work stream are getting closer to the point of being able to quantify the value of cost certainty and will present a paper to the council in November. However, to give meaningful information he needs more data.
- 41. Certainty of delivery and the ability to make savings on existing programmes are key areas for cost reduction i.e. capacity and capability. Also at the next meeting the work stream will present data linked to skills to show the impact on costs that capacity to deliver can have on an individual person basis.
- 42. Some members expressed concerns about providing the data requested but agreed to discuss with Peter to look for a way forward.

Item 8: Integration and Monitoring, Adrian Worker, CH2M Hill

- 43. Adrian commented that we are moving toward the completion of the set up phase and asked the council to agree the success factors.
- 44. Actions in work streams are, rightly, being reviewed and changed to reflect new priorities and/or as a result of preliminary work. This is good and should continue but it is important to capture it in the progress reports. New key performance indicators to be in place for November's report.



- 45. Council members were generally content with the Code of Participation, but if there were any further comments they should be submitted to the secretariat by 15 August so that any revisions can be included in the final version to be ratified at the next meeting in November.
- 46. Council members discussed the progress report and agreed that it gives a good summary of the work streams, however it is acknowledged that measuring the 'vision' is difficult. There is recognition and agreement that there must be a clear set of progress measures, the question is how to frame and construct these to demonstrate that all of the activity is leading to something.
- 47. The Notable Events Chart was discussed. There is a feeling that to put down key actions and publish it would open the sector to criticism and harm investment prospects if the target dates were missed for whatever reason.
- 48. Further work to be undertaken outside council, a decision for the way forward will be taken in November's council meeting

Item 9: AOB, Lord Hutton

49. Lord Hutton thanked the council for their participation. There was no AOB

Next Meeting: 26 November 2014, time and venue to be confirmed.



Annex 1: Attendees

Lord John Hutton Chair of Nuclear Industry Association

Clive White President, Clean Energy – Europe, AMEC

Robert Davies CEO, Areva

Martin Grant Managing Director, Atkins Energy

Roger Hardy Managing Director, Cavendish Nuclear

Greg Ashley President, Nuclear Power, Bechtel

Adrian Worker Vice President, CH2M Hill

Andrew Sherry Director, Dalton Institute

Douglas McQueen Director Major Projects, Doosan

Vincent De Rivaz CEO, EDF Energy

Olivier Carret Vice President, GDF Suez

Christian Blessing Vice President, Hitachi

Alan Raymant Chief Operating Officer, Horizon

Phillip Cartwright Director of Electrical Engineering, Laing O'Rourke

Mamdouh Elshanawany Vice President Nuclear, Lloyds Register

Peter Greenhalgh CEO EMEA region, M+W Group

Mike Tynan CEO, NAMRC

Adrian Simper Director of Science and Technology, NDA

Jean Llewellyn Chief Executive, NSA Nuclear/NESA

Keith Parker Chief Executive, NIA

Paul Howarth Managing Director, NNL

Mike Clancy General Secretary, Prospect

Sandy Rupprecht CEO, NuGen

Jason Smith President – Nuclear, Rolls-Royce

George Beveridge Deputy Managing Director, Sellafield Ltd

Lady Barbara Judge UKTI

Kevin Coyne National Officer, Construction, UNITE

Helmut Engelbrecht CEO, Urenco Ltd Keith Cochrane CEO, Weir Group

Dave Unsworth Vice President, Westinghouse

Dame Sue Ion Chair of NIRAB



<u>Observers</u>

Andy Hall Office for Nuclear Regulation

Andy Mayall Environment Agency
Ron Loveland Welsh Government

Andy Stevens MoD

BIS Officials

Simon Carter UKTI

DECC Officials

Liz Keenaghan-Clark Deputy Director, Nuclear Electricity Generation &

EU/International

NIC Secretariat

Patrick Walsh (BIS) Bob Bish (BIS) Jay Bhart (DECC)

Dom Scullard (BIS) Clare Bayley (DECC) Rachel Dowling (NIA)

Niki Comer (BIS) Chris Savage (NIA)