

SCOTTISH ENERGY ADVISORY BOARD
Monday 17 June 2019
Edinburgh

MINUTES OF MEETING

Ministers

- Rt. Hon Nicola Sturgeon, First Minister (Co-Chair)
- Paul Wheelhouse, Minister for Energy, Connectivity and the Islands

Members

- Professor Sir Jim McDonald, University of Strathclyde (Co-Chair)
- Keith Anderson, Scottish Power Renewables
- Claire Mack, Scottish Renewables
- Deirdre Michie, Oil and Gas UK
- Damien Yeates, Skills Development Scotland
- Frank Mitchell, Scottish Power Energy Networks
- Vinay Mulgundmath, Doosan Babcock
- Professor Alex Kemp, University of Aberdeen
- Dick Winchester, Pipistrelle Ltd.
- Roy MacGregor, Global Energy Group
- Jim McColl, Clyde Blowers Ltd.
- Melfort Campbell, IMES Group
- David Sigsworth, FPAG
- Ian Marchant, Dunelm Energy
- Audrey MacIver, Highlands and Islands Enterprise
- Sam Ghibaldan, Water Industry Commission for Scotland

Attendees

- Dr Stephen Wyatt, ORE Catapult
- Andy McDonald, Scottish Enterprise
- Julian Leslie, National Grid
- Robert Gunn, EDF Energy
- Kersti Berge, Scottish Government
- Sue Kearns, Scottish Government

Secretariat

- Jenna Williamson, Scottish Government
- Temeeke Linton, Scottish Government
- Sean Jamieson, Scottish Government

Welcome and Introductions

1. The First Minister opened the meeting by thanking all attendees for attending the first SEAB meeting of 2019. She welcomed:
 - Andy McDonald attending in place of Linda Hanna of Scottish Enterprise
 - Dr Stephen Wyatt from ORE Catapult in place of Andrew Jamieson
 - Julian Leslie attending in place of Duncan Burt, National Grid
 - Robert Gunn on behalf of Brian Cowell, EDF Energy.
2. The First Minister noted the mixture of real progress and the major successes since the previous SEAB meeting in November 2018:
 - The publication of the Scottish Government's Electricity and Gas Networks Vision, and our Energy Consumer Action Plan.
 - In addition to the publication of the first Annual Energy Statement; highlighting the progress against Scotland's Energy Strategy and the necessary steps for further achievement.
 - The UK Government has confirmed its intention to publish an Energy White Paper; although little information on this has been provided it comes at a vital moment in our transition.
 - The report published by the Climate Change Committee has made it clear that the UK Government needs to play its part if Scotland is to achieve zero net emissions by 2045.
3. The First Minister noted how valuable this board's advice is in achieving this 2045 target.
4. Sir Jim noted apologies from the following members:
 - Charles Hammond, Fort Ports
 - Graeme Sweeney, The Chopping Company
 - Grahame Smith, STUC
5. Before welcoming Vinay Mulgundmath on behalf of Doosan Babcock to the board.
6. Sir Jim provided the board short reflections on recent events within the industry noting:
 - The welcomed report published by the Climate Change Committee and its targets of Scotland's energy future.
 - The All Energy conference in May in which the First Minister outlined her commitment to this issue by declaring a Climate Change emergency.
 - The City of Glasgow's ambitions and commitment to become the UK's first net zero emissions city.
 - The energy blackout experienced by Argentina and Uruguay on Sunday 16 June.
 - The release of the Royal Society for Edinburgh's inquiry into Scotland's Energy Future on Monday 17 June.

- Work carried out by BEIS through catapults which provide demonstrators and the work of Strathclyde University in relation to this.
7. Despite various achievements within the UK's energy space, Sir Jim warned the board that this was no time for complacency and further work was needed.

Minutes and Matters Arising

8. Sir Jim noted no matters arising.
9. The draft minutes of the previous SEAB meeting held on Wednesday 6 November 2018 were approved as an accurate record of the meeting.

Energy Strategy Delivery and the Committee on Climate Change Report

10. The First Minister opened the discussion by welcoming the recent report produced by the Climate Change Committee setting the target for Scotland to become carbon neutral by 2045; five years ahead of the target set for the rest of the UK. The First Minister noted that such a target presents challenges going forward and with participation required by the private and public sector and ultimately every citizen; with effects and alterations upon all aspects of life.
11. The First Minister welcomed a strong dialogue with the UK Government in regards to achieving the targets set out by the Climate Change Committee; with action required both with reserved and devolved areas. The First Minister recognised the current lack of discussion between UK Government and Scottish Government as a result of other pressures facing the UK Government however made clear the need to ensure this transition would be an all-inclusive one and all its potential benefits be maximised.
12. The First Minister noted the work currently being carried out by the Scottish Government to ensure Scotland's transition is inclusive and beneficial to everyone; before welcoming the board for their views in how this could be achieved.
13. Sir Jim welcomed the Scottish Government's recent publication of the Annual Energy Statement; as it allows a clear measure of progress being made. Before directing the board's attention to the papers provided as a guide for today's discussion.
14. Sir Jim noted the importance of public and private collaboration in achieving Scotland's future transition as well as noting the vital role decarbonising heat will play going forward.
15. Additionally, Sir Jim raised the importance of cities within this challenge; with 70% of greenhouse gases being produced by cities and future estimates suggesting 80% of the population will live in urban areas.

16. Despite the challenge ahead the co-chair made clear that with Scotland's research and development capabilities could allow for economic opportunities within the international market when moving toward implementation; however noting potential risk that is accompanied by this.
17. Sir Jim opened the discussion to the rest of the board by suggesting the questions provided within their papers should act as the basis for the discussion.
18. Mr Wheelhouse references the recent Committee on Climate Change (CCC) report for its target of achieving net zero carbon by 2045 however noted that greater clarity is required for developers.
19. In face of the urgent challenge ahead, the importance of collaboration across reserved and centralised remits of Government to ensure success by members. As such the oil and gas industry must be part of this transition with the uptake of incentives by Government being promoted.
20. Sir Jim welcomed and encouraged the changing narrative within the oil and gas industry in the face of this transition and acknowledged the importance the industry has in shaping future change.
21. The urgency of the challenge ahead in achieving the target recommended by the CCC was noted. Comparing the time taken to achieve 2 MW capacity in Scotland's oldest wind farm (Black Law Wind Farm) first established nearly 25 years ago (in 2005); raised concerns of the immediacy and the speed of progress. Especially in relation to the decarbonisation of heat in which a more intrusive approach on people's lives will be required.
22. Concerns regarding achieving the correct balance within the Consumer Action Plan were raised. Greater clarity would be required on the future relationship between Consumer Scotland and the Energy Consumer Commission.
23. Current change was noted as being largely from big business and from the wealthier strata of society. The need to support all consumers will be required to compensate for the financial issues in promoting this transition; with work being required into how consumers can be influenced.
24. Biomass and the utilisation of the sewer system were raised as potential solutions for the transition of heat. It was noted that various estimates suggest that the heat from sewers has the potential to support many of Scotland's homes.
25. The changing landscape of the sector was recognised following the CCC report and intentions of government. The sector must therefore reevaluate its aspirations for future growth; offshore wind was suggested as a potential in achieving this.
26. The time in which projects can take to develop and be implemented was noted as lengthy and therefore action must be taken quickly. The timescale

for wind farm development was noted as up to 10 years; Scottish offshore wind must compete with the rest of the UK industry.

27. The economic opportunities of all projects being carried out by the oil and gas industry and its wider supply chain was recognised as lacking visibility. This visibility would be essential in ensuring more investment and involvement across the private sector. It was also recommended that greater engagement is required with companies carrying out diversification projects to ensure success.
28. Sir Jim recognised the diversification projects carried out by the oil and gas industry and agreed that it was important that investment is ensured.
29. The opportunities within the hydrogen field was recognised by the board. Small projects, such as the one currently being run in Orkney in which excess renewable energy is used to support the local island ferries with a source of hydrogen, were noted for their potential; due to the high level of emissions from sea-going vessels. Hydrogen fuel technology working with ferries, 50% of fuel is hydrogen is being used which will half the emissions from the diesel engine and this may be adaptable to heat system.
30. Additionally, wind projects around Scotland were raised for their potential. With St. Andrews University having 50 PhD students currently focused within this field there is potential for further hydrogen production as a result.
31. The potential for hydrogen across other areas of transport was also raised. An integrated system of power for bus and train services was suggested due to the inexpensive cost of hydrogen use on train lines (at points without electrification).
32. Finally the potential of hydrogen in achieving targets was raised in regards to heating. The cost of hydrogen compared with that of kerosene was noted with works currently being carried out by the UK Government in relation to this potential.
33. Sir Jim agreed that Scotland is in a good position to deliver these projects.
34. The lack of hydrogen implementation within the UK was noted compared with other areas of Europe. Comparisons with nations like Denmark being raised, despite a much lower population having comparatively similar numbers of hydrogen refuelling stations as the rest of the UK; at 11.
35. The First Minister provided the board her apologies before withdrawing from the meeting as a result of other pressing matters.
36. The Climate Change Committee Report was welcomed by the board however the technical planning to achieve these targets was noted as being absent.
37. Sir Jim, and Mr Wheelhouse left the meeting, for a short period, with Kersti Berge acting as chair in their absence.

38. Despite future potential the importance of previous successes and strengths was noted as an important pathway for this transition; the lowest cost option and other variables should be taken into account.
39. The importance of local content and opportunities for Scottish business was raised with a robust process which requires promotion of such projects to Scottish companies. It was also suggested there needs to be a UK wide promotion to ensure future success.
40. Kersti Berge noted the importance of making use of Scotland's resources, encouraging a balance of sources to be maintained.
41. Sir Jim informed members that the meeting would need to be concluded ahead of schedule following police advice given demonstrations in the local area. The chair suggested the meeting be continued by phone call at a later date. He invited Mr Wheelhouse to provide an update on the review of expert advisory groups under the board before the meeting is brought to a close.

Review of expert advisory groups under SEAB

42. Mr Wheelhouse acknowledged challenges and opportunities facing the energy industry in regards to innovation, transition and delivery:
 - Political
 - technical
 - regulatory
 - economic and
 - consumer
43. To ensure the board remains focused to tackle these challenges as effectively as possible it is proposed that the board is restructured into 4 main leadership groups:
 - Consumers
 - Energy Industry Transition
 - Energy Networks
 - Renewable Energy
44. The Minister noted that each group will take into account economic opportunities, skills and local energy systems to be provide an strong model for the board going forward. The Minister welcomed the board's comment and views on the proposed structure.
45. The role of oil and gas within the proposed model and overall transition was raised; a shift in focus from a victim of this change to a driver of change being promoted. Furthermore, consumer perception of the oil and gas industry was deemed necessary with current diversification taking place to be emphasised.

46. Mr Wheelhouse agreed that there are opportunities for the oil and gas industry to be included and they will be an important part.

47. Kersti Berge requested members continue this discussion through email contributions covering issues of delivery, local government input and influencing others.

ACTION: Board members to provide further comments of the material provided to them ahead of the meeting by email to Scottish Government colleagues.

48. Sir Jim thanked the board for their contributions and closed the meeting; apologising for its early conclusion and suggesting a follow up conference call be arranged.

ACTION: Scottish Government colleagues to arrange a conference call for the final items on the agenda to be discussed by the board.