

SCOTTISH ENERGY ADVISORY BOARD
Thursday 17 December 2020

MINUTES OF MEETING

Co-Chairs

- Paul Wheelhouse, Minister for Energy, Connectivity and the Islands
- Professor Sir Jim McDonald, Principal & Vice-Chancellor, University of Strathclyde

Members in Attendance

- Keith Anderson, Chief Executive, ScottishPower
- Andrew Jamieson, Chief Executive, ORE Catapult
- Claire Mack, Chief Executive, Scottish Renewables
- Alistair Philips-Davies, Chief Executive, SSE
- Deirdre Michie, CEO, Oil and Gas UK
- Damien Yeates, CEO Skills Development Scotland
- Frank Mitchell, CEO, SP Energy Networks (ESAG)
- Dick Winchester, Managing Director, Pipistrelle Ltd
- Graeme Sweeney, Chairman, The Chopping Company
- Jim McColl, Founder & CEO, Clyde Blowers Ltd
- Melfort Campbell, CEO, IMES Group
- Andy McDonald, Head of Low Carbon Transition, Scottish Enterprise (substituting for Linda Hanna, interim Chief Executive)
- David Sigsworth, Chair of Energy Technology Partnership Advisory Board, University of Strathclyde
- Audrey MacIver, Energy Director, Highlands and Islands Enterprise
- Sam Ghibaldan, Director of Customer Forum at the Water Industry Commission For Scotland, Citizens Advice Scotland
- Angus McIntosh, Director of Energy Futures, SGN
- Lewis Shand Smith, Chair, Energy Consumers SLG
- Roy MacGregor, Chairman, Global Energy Group
- Charles Hammond, CEO, Forth Ports
- Paul Forrest, Station Director Hunterston B, EDF (ESAG) (substituting for Matt Sykes, Managing Director)
- Fintan Slye, Director Electricity System Operator, National Grid
- Rozanne Foyer, General Secretary, Scottish Trades Union Congress

Scottish Government

- Kersti Berge, Director of Energy and Climate Change
- Sue Kearns, Scottish Government
- Gareth Fenney, Scottish Government
- Suzanne Le Miere, Scottish Government
- Madeleine Plater, Secretariat
- Jill Rosie, Secretariat
- Lewis Todd, Secretariat
- Michael Reilly, Secretariat

WELCOME AND INTRODUCTIONS

Paul Wheelhouse, Minister for Energy, Connectivity and the Islands opened the meeting thanking all members for attending the final SEAB meeting of 2020 and made the following opening comments:

- Passed on the First Minister's apology for being unable to attend and conveyed her thanks for their input to the board over the last year, and the ongoing commitment to the group especially during these trying times.
- Acknowledged the essential role the energy sector has played throughout the pandemic and expressed the Scottish Government's thanks for keeping our country going.
- The Scottish Government wants Scotland to emerge from the pandemic as a stronger, fairer greener country, and a just transition to net zero, is at the very heart of that.
- The Programme for Government was published in September and had the Green Recovery at as a main focus with:
 - a £1.6 billion investment in the decarbonisation of heat;
 - a Green Jobs Fund – to promote investment, and to support employment in low carbon sectors.
 - a £50m Green Recovery Low Carbon Infrastructure Transition Programme
- Possibility of No Deal Brexit – or the bare minimum of a deal – would have profound implications for the energy sector.

Sir Jim McDonald provided his opening comments:

- Advised the Task Force for Economic Recovery in the Energy Sector will report back to SEAB in the coming months, as will the work on the energy systems catapult.
- Noted apologies from the following members:
 - Ian Marchant, Dunelm Energy
 - John Morea, SGN, substituted by Angus McIntosh
 - Linda Hanna, Scottish Enterprise, substituted by Andy McDonald

STRATEGIC LEADERSHIP GROUP UPDATE

Sir Jim McDonald invited the Strategic Leadership Group (SLG) chairs who were in attendance to briefly highlight any important developments relating to their SLGs.

Renewable Energy Strategic Leadership Group (RESLG)

Claire Mack, co-chair of the RESLG provided the following update:

- The RESLG have worked on a Recovery pathway document and have conducted a deep dive into decarbonisation of heat.
- They will continue to explore these key themes with the focus being to support Scotland's economic strategy in the recovery from Covid.

Oil & Gas & Energy Transition Strategic Leadership Group (O&G & ET SLG)

Melfort Campbell, co-chair of the O&G & ET SLG provided the following update:

- He noted the need for establishing a balance between the negative impacts of Covid on the oil and gas industry during the pandemic, against future opportunities of the energy transition and the move towards net zero.
- This balance has been a consideration during the seven meetings of the SLG, with the last meeting focusing on jobs and talent retention within the industry.

- Future work will be to look at the North Sea Transition Deal and the future of Oil & Gas in context of the energy transition and driving opportunities forward for investors and the wider supply chain.

Energy Networks Strategic Leadership Group (EN SLG)

The Minister provided the following update:

- Scottish Government officials have done significant work on future energy scenarios and the needs of the grid which has helped form discussion for the group.
- There is a need to coordinate with other SLGs on the provision of skills ensuring sufficient skills are available to meet investments.
- Whilst transmission infrastructure has received £2 billion investment in recent years, moving towards 2030 further investment will be needed to see growth and achieve offshore wind targets.

Frank Mitchell also highlighted that by 2030 an additional 20-30 GW will be brought on to the grid which will help the economic recovery of the coming years.

Scottish Offshore Wind Energy Council (SOWEC)

The Minister provided the following update:

- SOWEC commissioned several pieces of work including looking at barriers to development and work on the Supply Chain.
- They have developed a good relationship with the Offshore Wind Evidence and Change Programme (OWEC) which is led by The Crown Estate, Together with programme partners, the Department for Business, Energy, and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra).
- Working with OWEC, the focus has been to build an understanding of supply chain opportunities.
- The next step is to become more forward facing and establish a reputation as an important forum for the development of the sector.

The Energy Consumer Commission (ECC)

Lewis Shand Smith, co-chair of the ECC provided the following update:

- The ECC completed a consultation on their action plan and has responded to two Ofgem consultations since being formed.
- They are currently procuring research projects which focus on vulnerable consumers and with different parts of the country being involved in different green activities, the ECC is building a network to understand the needs of consumers across Scotland.
- They are also working on a program of advocacy, with Citizen's Advice Scotland and with Consumer Scotland being set up soon. In January 2021 they will be looking at Heat in Buildings, the Scottish Government's Climate Change Plan update, and are looking for speakers to attend meetings.

MINUTES AND MATTERS ARISING

Sir Jim noted no matters arising.

The draft minutes of the previous SEAB meeting held on 16 July 2020 were approved as an accurate record of the meeting.

ENERGY SECTOR DEVELOPMENTS UPDATE – Minister for Energy, Connectivity and the Islands

- The Minister thanked the SLGs for their work over recent months and highlighted the work of the Oil and Gas SLG which played an intrinsic role in designing the £62 million Energy Transition Fund in June 2020 to protect and create jobs as well as aiding the North Sea Transition Deal.
- The minister provided a general update on developments within the energy sector by making the following points:

Climate Change Plan Update (CCPU)

- The CCPU was published on 16 December 2020. Building on the Climate Change Plan published in 2018, this update sets out new and ambitious policies designed to place us on the right pathway towards our ambitious net zero targets
- The plan is intended to provide businesses with the confidence they need to invest in the low carbon economy, whilst enabling us to deliver emissions reductions in a way that is fair and includes more than one hundred new policies and forty boosted policies from the 2018 plan.
- The new £180 million Emerging Energy Technologies Fund (EETF) will support the development of Scottish Hydrogen and Carbon Capture and Storage industries over the next 5 years
- The fund also supports the development of Negative Emissions Technologies (NETs), on the phasing out of the need for petrol and diesel vehicles by 2030, and on the transformation of heat in buildings.
- Scotland's journey to net zero is very much a national endeavour and the Climate Change Plan is a key example of this.
- The Committee on Climate Change published advice on 9 December which highlighted a strong economic case for taking ambitious action to reduce emissions.
- The Scottish economy has decarbonised more quickly than the rest of the UK, and faster than any G20 economy since 2008. Emissions have fallen rapidly while the economy has grown. The Minister made it clear that whilst this is impressive, there is clearly still more to do.
- As the Scottish Government move into the implementation stage of the Climate Change Plan update, they will look to both the Advisory Board and the Strategic Leadership Groups for their expert advice and input.

Annual Energy Statement

- The annual energy statement published on 18 December 2020 acknowledged there are challenges to overcome in the journey to net zero, it highlights positive achievements in areas such as renewable electricity.
- In 2019, Scotland's renewable electricity generation met the equivalent of 90.1% of Scotland's gross electricity consumption which collectively is an achievement Scotland should be proud of.

Local Energy Position Statement

- The Scottish Energy Strategy included a commitment to develop a Local Energy Systems Policy Position Paper published on 6 January 2021.
- It sets out the key principles that the Scottish Government want for an inclusive energy transition - one that has consumers at its centre and is supported by strong partnerships at a local level.

Hydrogen Policy Statement

- Hydrogen Policy Statement published on 21 December 2020 outlines how the Scottish Government will continue to support the development of our hydrogen economy. This was a particularly well drafted and thorough piece of work which the Minister hoped would attract a lot of interest from SEAB
- The statement gives the Scottish Government's response to the extensive Hydrogen Assessment Report carried out this year by Arup.
- This was a wide ranging assessment on hydrogen and its potential to contribute to achieving Scotland's target of net zero by 2045 and was published alongside the report.

Energy Strategy Refresh

- The Energy Strategy refresh is being delayed to later in 2021 due to the impact of Covid limiting the amount of time available to carry out the relevant and essential consultations and impact assessments in 2020.
- With the election in May 2021, the Minister could not comment on the intentions of any future administration
- If the current administration is re-elected it is their intention to refresh the Energy Strategy in 2021, after appropriate consultation with SEAB, the Strategic Leadership Groups and other stakeholders.
- An Energy Policy Position Statement is scheduled for publication in early 2021 to demonstrate how the core principles from the 2017 Strategy underpin the programme of work the Scottish Government is currently delivering
- The statement will coherently set out how our policy actions across the energy sector collectively support the Scottish Government's efforts to ensure a green economic recovery and remain aligned to our net zero ambitions.

UK Government Energy White paper and The Ten Point Plan for a Green Industrial Revolution

- Scottish Government officials are working to analyse the content of the paper and the implications it will have on Scotland. The Minister expressed disappointment that the devolved nations were not more fully engaged in its development.
- The UK Committee on Climate Change has been clear that Scotland's net-zero target is contingent on policy areas which currently remain reserved being fully utilised.
- The Minister noted that the paper still provides little certainty on many of the policy areas Scotland will rely heavily upon as we strive towards our net zero target.
- The Scottish Government welcome the ambition set out in the Energy White Paper and UK Government's recent 10 point plan to decarbonise energy and invest in areas such as hydrogen and carbon capture utilisation and storage.
- The Minister was also glad to see the UK Government is catching up with the forward looking position we have adopted to decarbonising transport in Scotland.
- The Scottish Government's commitment to an ambitious agenda for decarbonising the transport sector was reflected in the Climate Change Plan Update which states we will now phase out the need for new petrol and diesel vehicles by 2030.
- It is the Scottish Government's intention to respond formally to the UK Government's White Paper in the new year and the Minister noted he would be happy to share the response with SEAB.

Sir Jim thanked Mr Wheelhouse for his update on energy sector developments and invited members to add any comments.

- **Deirdre Michie** commented that she was pleased with the interim targets and appreciated the recognition of role of the Oil & Gas sector during the pandemic, and with the UKG Energy White Paper. Support for North Sea Transition Deal is key as it is a catalyst for moving at pace. Noted that the UKG consultation on export finance is looking to withdraw support for the supply chain. This will impact projects abroad in the coming years.
- **Melfort Campbell** commented that the whole transition will be achieved with enterprise investment and asked whether an industrial strategy can be created which focuses on the energy transition and move towards Net Zero to accelerate our ambitions.
- **Rozanne Foyer** agreed with the need for an industrial strategy, and highlighted it is not just about investment opportunities but also the need to create jobs. Opportunities around Hydrogen and CCUS need to be explored, and there is a requirement to learn lessons from BiFab and offshore wind.
- There is a need to look at regulation and licencing and the prioritisation of keeping local jobs and local supply chains. STUC also advocate the establishment of a national Energy infrastructure company to effect the changes required. Perhaps this is a model the government could actively consider.

The Minister responded to these points:

- Agreed that North Sea Transition Deal needs to come in quickly – Alok Sharma, previous Secretary of State for BEIS, put forward that this should come in during Q1 of 2021.
- Concern has been raised around the lack of consultation and engagement with the Scottish Government and industry on impact on supply chain regarding the UKG consultation on export finance. We will be looking to work with industry to inform Scottish government consultation response.
- Highlighted the need for visibility in the supply chain and for more planning ahead on the energy transition and noted the work being done by SOWEC, the Marine Energy working group, the heat sector, and the Climate Emergency Skills Action Plan.
- Whether the sector work-streams on the supply chain work come together as an overarching industrial strategy remains to be seen, however the Minister agreed to feed this back to Fiona Hyslop, Cabinet Secretary for Economy, Fair Work and Culture.
- The Minister noted that some businesses in mainland Europe can combine contracts which supports a diverse income base, and reiterated that there is a pressure to reform CfD – Scottish Government is keen to work with stakeholders to address any issues.

HEAT IN BUILDINGS

Sue Kearns, Deputy Director of Consumers and Low Carbon at the Scottish Government, opened the Heat in Buildings plenary session by summarising the highlights of the paper provided to members:

- Meeting emissions targets will require changing the way heat is used in more than 2 million homes, and half of all non-domestic buildings in Scotland.
- Zero emission heating system installations will need to increase from 3000 per year, to 100,000 per year at peak. To achieve interim statutory target of 75% emissions reduction by 2030, means 1 million need to convert to zero emission heating in the next 10 years.
- This needs to be achieved alongside our fuel poverty targets, including aim by 2040 that no more than 5% households are fuel poor.
- Mixed technology the most credible pathway to achieving targets, tailoring needs to buildings and local circumstances. Strategically important technologies are fabric energy efficiency measures, heat pumps, and heat networks.

- Blue and Green Hydrogen may be able to make useful contributions to heat however will not be at scale until 2030 at the earliest. Until then Hydrogen contribution will most likely be from blending in the grid.
- Non grid bioenergy will have niche role and could be used in buildings which may not be suitable for heat pump installations.
- 24,000 jobs in Scotland could be supported by the roll out of low emissions heat. Likely to be displacement of existing trades in the future with retraining and reskilling required to support this transition.
- Scottish Government has committed to investing £1.6 billion over the next 5 years to expand and accelerate heat and energy efficiency programmes as part of the Green Recovery.
- Climate Change Plan Update and Heat in Buildings Strategy highlight the need for robust regulation, which is important to provide certainty and drive change. Development will be challenging and it needs to avoid putting burdens on individuals and organisations.
- There is a need to be mindful that Heat is a grey area, some aspects are devolved and other aren't – further devolution may be required for optimal results.
- The key message is the Scottish Government cannot deliver the heat transition alone and requires industry and the general public to be on board to meet the challenge ahead – Would be helpful to have the views of SEAB on:
 - Scale of the challenge and how it can be delivered effectively
 - £1.6 billion is not the total sum which will be needed to meet targets, how do we get more private investment?
 - What new business models are needed to help consumers meet upfront costs?
 - This is different from the electricity transition, as it will affect people directly in their homes. How can private businesses support behaviour change to bring public with us?

Sir Jim thanked Sue for her contribution and noted that he would send some information to Sue on work which the Royal Academy of Engineering has recently done on Heat in Buildings.

The Minister made the following points on 'Heat in Buildings':

- Scottish Government targets are particularly stretching and highly ambitious – these will be difficult to deliver in practice, and significant private investment will be needed.
- Transformation will be different from electricity sector installations as will involve going into people's homes. Changing public perception and bringing awareness to new technologies will be key to making targets.

SEAB members made the following points on 'Heat in Buildings':

- **Lewis Shand Smith** commented that regulation is important with the other side of this being consumer protection – has thought been given to having ombudsman in this area? Having an ombudsman increases consumer confidence.
- **Charles Hammond** stated the Heat in Buildings issue cannot be divorced from the property market or from affordable house building. Start with new developments from outset, and work with pensions industry who have a weight of money to get good design.
- **Claire Mack** comments that with a complete overhaul of energy supply and how energy is paid for it is really important to have the general public on board, and have regulation at the heart of the changes. The public have to be in a place where they recognise they will end up with a more stable energy market with possibly completely different suppliers than those they are used to.

- **Angus McIntosh** stated that local authorities will be key partners in the rollout of heat, need to be clear on what this will be for them and how resourcing will work.
- Consumer protection comes under a wider requirement for consumer value proposition which needs to look at the disruption different technologies will create for consumers and what do customers actually want. When shifting customer technologies, need to ensure security of supply.
- **Sam Ghibaldan** commented that shifting to zero emission heat technologies needs to be aspirational and as simple as possible.
- **Keith Anderson** noted the balance between market and regulation is critical to the success of zero emission heat. The best way to tackle this would be to use a controlled regulatory environment to get investments in place during the development stages. If the frameworks are in place then investment will follow.
- Implementation in new housing is a good starting point, easier to install and maintain. For example retrofitting heat recovery systems in old sewers difficult, much easier in new builds.
- Ownership of assets will need to be considered, along with overall maintenance and advancements in technology.
- Working projects will show there is a market and will drive innovation and investment which will lower costs and make the technology more accessible for everyone.
- Blue hydrogen is potentially half to a quarter of the price of Green hydrogen currently. Transportation of Hydrogen could potentially be through the existing gas network to power homes and businesses.
- It is likely production will be near industrial processes and generation where it is produced hence the focus on low carbon clusters in current thinking.

The Minister commented on the points raised by members:

- Consumer protection being explored with the Heat Networks Bill where the Scottish Government have put a proposition to UK Ministers for a UK wide framework for the regulation of consumer protection standards. This would involve devolution of powers to allow the Scottish Government to appoint Ofgem as new regulator of the Heat Networks industry in Scotland.

ACTION – Sue Kearns Director of Consumers and Low Carbon at the Scottish Government will work with Charles Hammond on exploring heat network investment opportunities.

- Local Heat & Energy Efficiency Strategies will help consumers, giving confidence that technology in their area is the optimum solution for decarbonisation of heat in their community.
- Welcomed the trailblazing 100% hydrogen based home project in Fife.
- Agreed the need for the general consumer to think the zero emission heat technology as being aspirational. Highlights EV technology is already in that space, and appreciates the different market but believes something similar can be done with Heat.
- Heat as a service could be a solution, allowing businesses to take the strain.

AOB

Sir Jim thanked the Minister and Sue Kearns for laying out the Scottish Government position on Heat in Buildings, and the members who had the opportunity to comment, and makes the following points:

- The need for the next meeting to be longer.

- A review of the SEAB structure and its membership has concluded and Sir Jim will be in touch with members early 2021 to notify of any changes.

ACTION – Secretariat to ensure a longer meeting is scheduled for the next SEAB

- **Andrew Jamieson** notified members that ORE Catapult and OGTC have published a joint vision for the North Sea by 2050.
- **Damien Yeates** notified members that the Climate Emergency Skills Action Plan (CESAP) was published in December 2020.

ACTION – Secretariat to contact Damien Yeates regarding a CESAP update at a future SEAB meeting.

- Sir Jim and the Minister thanked everyone and closed the meeting.

Table of actions

Action	Progress	Status
Sue Kearns Director of Consumers and Low Carbon at the Scottish Government to work with Charles Hammond on exploring heat network investment opportunities.	Meeting to be scheduled following passage of Heat Networks (Scotland) Bill.	Ongoing
Secretariat to ensure a longer meeting is scheduled for the next SEAB	The next SEAB is scheduled for 2 hours	Complete
Secretariat to contact Damien Yeates regarding a CESAP update at a future SEAB meeting.	To be scheduled for a meeting later in 2021	Ongoing