



SAFE ENERGY E-JOURNAL No.82

May 2019

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This briefing does not necessarily deal with the UK Government's proposed new reactor programme. For an update on developments to do with new reactors see here:

<http://www.no2nuclearpower.org.uk/wp/wp-content/uploads/2019/04/NuClearNewsNo116.pdf>

Stop Press:

The Scottish Government has lodged amendments to the Climate Change Bill which will set a legally binding target of net-zero greenhouse gas emissions by 2045 at the latest after accepting the recommendations of the Climate Change Committee (CCC). (1)

Under the new plans Scotland will reduce emissions by 70% by 2030 and 90% by 2040. The CCC's recommended targets for Scotland are contingent on Britain as a whole adopting a net-zero greenhouse gas emission target for 2050. "Every one of us needs to take more action - not just the government but all businesses, schools, communities, individuals and organisations," Roseanna Cunningham, the climate change secretary, said. (2)

The CCC urged Scotland to set the target five years ahead of the UK as a whole. The panel says Scotland has more potential sites for carbon capture and a greater landmass for tree planting. Roseanna Cunningham said "Having received independent, expert advice that even higher targets are now possible, and given the urgency required on this issue, I have acted immediately to set a target for net-zero greenhouse gas emissions for 2045 which will see Scotland become carbon neutral by 2040." (3) NB – Just to be confusing the 90% cut by 2040 is being called "carbon neutral"

Disappointingly the CCC's Technical Report (page 41) says: "A 3.2 GW nuclear plant is currently under construction at Hinkley Point C and can be expected to operate well beyond 2050, implying a minimum nuclear contribution of 26 TWh (4% of generation) in 2050. New nuclear sites at Sizewell C and Bradwell could increase this to 11%". It also says (page 43) "a greater share for nuclear and renewable generation or production of hydrogen from electrolysis could avoid ... residual emissions" from carbon capture and storage. (4)

The Main Report, however, says "There is still some flexibility in means (e.g. whether low-carbon power is from offshore wind or nuclear; whether buildings are heated by heat pumps or hydrogen), but not in ends – where low-carbon options are available, one of them must be used." (5)

The Committee assumes that nuclear costs will fall from £98/MWh in 2025 to £71/MWh in 2050. Low carbon generation (renewables plus nuclear) is assumed to grow from a 50% share of 310TWh of electricity produced in 2017 to as much as 100% share of 645TWh in 2050.

1. The National 2nd May 2019 <https://www.thenational.scot/news/17611722.scotland-unveils-blueprint-for-climate-revolution-with-warning-to-uk/>
2. Times 2nd May 2019 <https://www.thetimes.co.uk/article/e7ddcc9e-6c59-11e9-bf02-7f5aa383779f>
3. BBC 2nd May 2018 <https://www.bbc.co.uk/news/uk-scotland-48123960>
4. Net zero Technical Report, CCC, 2nd May 2019 <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-report-CCC.pdf>
5. Net Zero The UK's contribution to stopping global warming, CCC 2nd May 2019 <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

1 Hunterston – not all it's cracked up to be?

Plans to restart two cracked and ageing reactors at Hunterston B have been delayed yet again. In March, EDF Energy postponed the restart date for reactor three by two months to 30 June 2019, and for reactor four by one month until 30 April 2019. (1) Then as 30th April approached the re-start of Reactor 4 was postponed until 14th May, and then 30th May. (2) The Office for Nuclear Regulation (ONR) is meeting with North Ayrshire Councillors on 3rd June. One would hope that this meeting would take place before Reactor 4 is given the go-ahead to restart. Critics want both reactors to remain closed.

Reactor 3 was closed in March 2018 for a scheduled outage. EDF Energy subsequently discovered a higher number of keyway root cracks than predicted by its computer models. Consequently in May 2018, it was announced that R3's shutdown would be extended for further investigation and revised modelling. By the end of December 2018, EDF had "observed around 100 keyway root cracks in Reactor 3". This is from inspecting just over a quarter of the reactor. Using modelling to project the number of cracks across the whole reactor the current number of cracks is estimated at around 370. This takes the core over the operational limit of 350 contained in the existing safety case for that period of operation. (3)

Reactor 4 (R4) was closed down on 2 October 2018. Around 30 keyway root cracks have been observed which suggests around 200 across the whole core.

ONR was presented with a safety case for a return to service of R4 in November 2018. But it requested further information from EDF in respect of multiple cracked bricks. A revised safety case was then presented in March 2019.

Residents living near Hunterston have been expressing alarm at the proposals to re-start the two reactors. Rita Holmes, chair of the Hunterston site stakeholder group chair, said that personally she had no doubt that ONR would take time to scrutinise EDF's safety cases. "Some people find the delays reassuring because EDF is sparing no expense, leaving no stone unturned, consulting the experts in order to build a robust safety case," she said. "Some feel the opposite – if it takes EDF that

long to provide a robust safety case then maybe there is something far wrong. The safety case might or might not satisfy the regulator. I have every confidence that ONR will make the right decision.” (4)

In March EDF released a video of the cracked graphite bricks. According to the company tests and modelling have been undertaken to ensure that an earthquake would not distort the control channels and prevent the power station being shut down. Station Director Colin Weir told BBC Scotland: “We’ve carried out one of our biggest ever inspection campaigns on reactor three, we’ve renewed our modelling, we’ve done experiments and tests and we’ve analysed all the data from this to produce our safety case that we will submit to the ONR.” (5)

The BBC article, though, claimed, incorrectly, that early decommissioning could cause serious energy supply problems. This is simply not the case. The reality is that Scotland has, if anything, an oversupply of electricity. Both Hunterston and Torness could be closed without causing problems for Scotland’s electricity supplies. The BBC article also states that “Concerns have also been raised about the consequences for local jobs if Hunterston closed early.” In fact, few if any jobs would be lost if the reactors Hunterston B were closed permanently: dealing with the immense heat rates from radioactive decay even from closed reactors will guarantee jobs there for the first 2 to 3 years. After that decommissioning could provide more jobs than when the reactors operated, just as is occurring at the closed reactors at Dounreay. (6)

Closing down Hunterston is likely to substantially reduce the amount of wind power that is currently being forced off the grid. There is controversy surrounding Scottish windfarms being paid ‘constraint payments’ at some times to avoid the Scottish electricity network becoming overloaded. Because it is windfarms that receive the payments, windfarms have, in reports carried by right wing newspapers, been singled out for sole blame for spending money on ‘constraint’ payments. This is despite the fact that it is the nuclear power stations’ inability or refusal to reduce production when the Scottish part of the grid is overloaded which contributes greatly to the problem. This problem of system overload is the reason that the recently completed transmission line linking Wales to Scotland was built. As Jonathan Marshall, Senior Analyst at the Energy and Climate Intelligence Unit put it recently: ‘On top of reducing constraint payments, the link will reduce the cost of accommodating Scotland’s 2.6 GW inflexible nuclear power stations that work most efficiently when operating at full output’. (7)

Jobs Worry

Concerns have been voiced at a full North Ayrshire Council meeting over the future of jobs if Hunterston is not allowed to re-open. All 33 North Ayrshire councillors are to meet with the nuclear regulator to discuss the issue. Hunterston B is due to close for good in 2023 anyway. A statement from the Conservative group said: “We also proposed that the council should set up a task force to look at future job prospects for the Hunterston workforce given that at some point in the future the station may stop generating.” Labour Councillor Alex Gallagher, however, dismissed these fears saying employment would remain steady until we are well into the decommissioning. (8)

Green MSP Ross Greer has called on Scottish ministers to secure work for every worker at Hunterston B ahead of its planned closure, whether it’s now or in 2023. The process of shutting down the reactor and making it safe will provide some work for the first few years, but that is no

substitute for a long term plan. “You can’t just switch to a greener economy overnight. A Just Transition guarantees employment for all workers, makes use of their skills, provides training to those who need it and promises good wages and conditions. We know that transitioning to green industries will create more jobs than currently exist in industries like nuclear power but only if we put the plans in place now. Otherwise, we risk a repeat of what happened at Longannet, where the power station closed, leaving workers with no real plan for jobs. That’s not good enough for me and it’s not good enough for the community at Hunterston.” (9)

Caithness & North Sutherland

The kind of ‘social interventions’ being looked for in Ayrshire are perhaps best illustrated by what is going on around Dounreay/ The Caithness and North Sutherland Regeneration Partnership has made a range of infrastructure improvements, including to ports and harbours at Wick and Scrabster. It has helped to fund educational facilities. So far it estimates 106 jobs have been created. It expects to see another 160 jobs at the Beatrice Offshore Wind Farm and 250 at the Moray Offshore Wind Farm. The firms involved in the Dounreay Cavendish Partnership have offered all 1,100 employees jobs within partnership companies. And training is available to allow employees to apply for the strongest possible position within local companies. (10)

The proposed £17.5 million spaceport project in north Sutherland would also give a huge boost to the drive to replace the high-quality jobs being lost as the nuclear plant at Dounreay runs down. According to the public sector group paving the way for the venture, there would be other valuable spin-offs for existing businesses, tourism and inward investment. The creation of a vertical launch pad on crofting land at the Moine, near Melness is in line to generate 40 jobs locally by 2023 with a further 400 due to come on stream throughout the Highlands and Moray. Lockheed Martin and Orbex are committed to the enterprise which would see small commercial satellites being launched into space. (11)

Ayrshire Growth deal

A multi-million pound transformational growth deal for Ayrshire has been agreed between the three Ayrshire local authorities the UK and Scottish Governments. It is hoped the deal will create approximately 7000 jobs across a wide range of sectors. The investment will be delivered over a 15-year period. Included in the deal will be £14m tourism investment at Irvine Harbourside and Ardeer Peninsula, £18 million for the Centre for Research into Low Carbon Energy and Circular Economy (CECE) at the Hunterston Strategic West Scotland Industrial Hub and £11 million for a subsea fibre optic cable to have its landing point in Irvine, as well as massive projects in South and East Ayrshire. (12) Turning the Isle of Cumbrae into a major sailing centre is one of the specific projects listed and will provide berthing for a community-run facility, supporting the local economy. (13)

In 2018 it was announced that coal port at Hunterston, vacant since 2015, could be transformed into and oil rig decommissioning site. The Port is a unique economic asset for Ayrshire, offering the unrivalled combination of deep-water, extensive land and transport links. The proposal was hoping to provide hundreds of jobs for local people, but the community appears to be reluctant to accept yet more dirty industry back to the area. The port is a 380 acre brownfield site. But in the summer of 2018 a petition to stop the oil decommissioning gained traction. It expressed concern over the

environmental hazards that a decommissioning site would present. A local protest group called the Friends of the Firth of Clyde was set up to demand an environmental impact assessment be carried out, and local marine wildlife experts have voiced concerns. Marine Biologist, David Nairn, says an EIA is necessary particularly because of proposals to dredge a site which is designated as a Site of Special Scientific Interest. The Friends of the Firth of Clyde say the proposals have been 'salami sliced' in order to avoid the need for an EIA. Residents are particularly concerned about the impact the development will have on cetaceans and basking sharks which have begun to return to the area in the last few years. Peel Ports, the port owners, say they do not anticipate any environmental impact from the works. Peel Ports says as many as 500 jobs could be created and expect there to be some skills transfer from Hunterston B as the nuclear station closes. Friends of the Firth of Clyde are highly sceptical about these job numbers. Many local people would prefer a focus on promoting tourism and are concerned that work done so far will be undone if the oil decommissioning goes ahead. (14)

Making the most of nuclear skills

The plan at the moment for Hunterston B is, once the station has ceased generation, is to prepare the site over the subsequent 10 years for a period of care and maintenance. Final dismantling wouldn't take place until around 2108 – 2118.

The Nuclear Decommissioning Authority (NDA) says it is increasingly questioning whether the baseline strategy – of deferring reactor dismantling for around 85 years following shutdown -is appropriate as a blanket strategy for all reactors. Deferred reactor dismantling means workers can benefit from radioactive decay enabling dismantling to be undertaken with significant worker access, and reduced dose rates. On the other hand the lengthy deferral period means there is likely to be a loss of skills, knowledge and capability to carry out final site clearance. With advances in robotics that have been made in recent years the lengthy deferral period is no longer necessary. International experience demonstrates that reactors can be dismantled promptly without the need for significant worker access. (15)

It is not clear, yet, what role the NDA might play in the decommissioning of EDF Energy's AGR nuclear stations. Financially speaking it will be in EDF's interests to delay final dismantling as long as possible so that the money they have set aside for decommissioning can accrue in the bank for half a century. But this might not be the best thing for the Ayrshire economy, so could be something the Scottish Parliament wants to look at.

The Nuclear Liabilities Fund (NLF) is worth approximately £9bn to meet cost of decommissioning AGRs & the Sizewell PWR. EDF Energy makes regular payments into the fund. It estimates that the cost of decommissioning its 7 AGRs and one PWR would be £19.9bn. It will rely on accrued interest up to 2090-2100 to fund much of these liabilities. (16)

It's worth noting that the NLF paid for the Sizewell B Spent Fuel Dry Store. (17) If Hunterston B were to go for prompt decommissioning it could foster a new robotics industry, and make the most of the nuclear skills we already have available rather than making those skills redundant and then having to create them all over again in 85 years' time.



1. The Ferret 19th March 2019 <https://theferret.scot/cracked-reactors-force-further-delays-at-hunterston/>
2. EDF Energy 25th April 2019 <https://www.edfenergy.com/media-centre/news-releases/community-update-5>
3. EDF Briefing Note December 2018
https://www.edfenergy.com/sites/default/files/hunterston_december_update_final.pdf
4. The Ferret 19th March 2019 <https://theferret.scot/cracked-reactors-force-further-delays-at-hunterston/>
5. BBC 8th March 2019 <https://www.bbc.co.uk/news/uk-scotland-47485321>
6. Dave Toke's Blog 8th March 2019 <https://realfeed-intariffs.blogspot.com/2019/03/the-real-story-about-stricken.html>
7. Dave Toke's Blog 3rd February 2019 <http://realfeed-intariffs.blogspot.com/2019/02/why-closing-down-hunterston-b-nuclear.html>
8. Daily Record 4th April 2019 <https://www.dailyrecord.co.uk/news/local-news/big-meeting-arranged-future-power-14236047>
9. Largs & Millport News 12th April 2019 <https://www.largsandmillportnews.com/news/17569036.green-vision-for-hunterston/>
10. Press and Journal 27th April 2018
<https://www.pressandjournal.co.uk/fp/news/highlands/1462931/dounreay-public-sector-taskforce-spearheading-the-drive-to-replace-jobs-is-hopeful-of-success/> and Dounreay Socio-economic Plan 2018/19 to 2021/22 Nuclear Decommissioning Authority, Cavendish Dounreay Partnership and Dounreay Site Restoration Ltd, March 2018
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717619/Dounreay_Socio_Economic_Plan_2018_-_2021.docx.pdf and BBC 22nd Oct 2018
<https://www.bbc.co.uk/news/uk-scotland-highlands-islands-45939260>
11. Press & Journal 30th March 2019 <https://www.pressandjournal.co.uk/fp/news/highlands/1711594/more-benefits-to-highland-spaceport-than-just-jobs-according-to-public-sector-group/>
12. Irvine Times 12th March 2019 <https://www.irvinetimes.com/news/17494628.massive-irvine-investment-in-ayrshire-growth-deal/>
13. Largs & Millport News 23rd February 2019 <https://www.largsandmillportnews.com/news/17433445.100-ayrshire-growth-deal-could-create-new-marina-for-millport/>
14. Largs & Millport News 17th March 2019 <https://www.largsandmillportnews.com/news/17487064.fierce-debate-was-inspiration-behind-budding-journalists-hunterston-movie/>
15. NDA Strategy Effective April 2016
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/518669/Nuclear_Decommissioning_Authority_Strategy_effective_from_April_2016.pdf
16. Nuclear Liabilities Fund Annual Accounts 2017 page 4 <http://nlf.uk.net/media/1072/nlf-annual-accounts-31-march-2017.pdf>
17. See <http://nlf.uk.net/news/nlf-to-pay-for-building-of-new-dry-store-at-sizewell-b/>

2 Dounreay

Contracts worth an estimated £400 million have been awarded by Dounreay as part of ongoing decommissioning. The work, which will last four years initially but could be extended for an additional three, will include major projects such as the demolition of historic laboratories and the retrieval of radioactive waste from the shaft and silo and the low level waste pits. Nuclear material was dumped in the shaft and silo from the 1950s until an explosion in the shaft ended the practice in 1977. The material will be repackaged and consigned to modern waste facilities.

Six framework contracts have been awarded which bring together the capabilities of at least 28 companies and their supply chains to contribute to delivery of major projects in the years ahead.

In addition to technical submissions, bidders were required to consider how they can help create a positive legacy in Caithness and north Sutherland with a number of plans put forward, including support for Stem (science, technology, engineering and mathematics) initiatives and small and medium enterprise development schemes. (1)

Meanwhile a lengthy debate at Highland Council on potential membership of the Nuclear Free Local Authorities (NFLA) has provoked a bizarre decision by councillors to call for new nuclear power stations. Some councillors argued that joining the NFLA would show disrespect to the people of Caithness, many of whom have been employed in the nuclear industry. However, not only did they reject a move to sign up to the group, the council went further, accepting a Tory amendment to call on the Scottish Government “to withdraw the outright rejection of new nuclear plants in Scotland”. (2)

John Deighan, the branch secretary of the Unite union at Dounreay joined the call for nuclear power stations to be part of the UK’s future energy mix at a reception held by Trudy Harrison, the Conservative MP for Copeland in west Cumbria in Westminster. The event followed a Westminster debate, secured by Mrs Harrison, which discussed the future role of small modular reactors. (3)

- The Scottish Government mistakenly revealed that Nicola Sturgeon refused to meet an Aboriginal nuclear waste protestor in an attempt to avoid political damage. The government stressed that it had “very limited scope” to address the issues raised. Nuclear fuel was sent from an Australian research reactor to Dounreay on the north coast of Scotland for reprocessing in the 1990s. The resulting radioactive waste, amounting to 51 cemented drums, was originally due to be returned to Australia for disposal. But under the terms of a waste substitution deal in 2014, Scottish and UK governments agreed that the drums should stay at Dounreay. Instead, the plan is to send four containers of “radiologically equivalent” waste to Australia from Sellafield. Two sites have been identified for a planned store for the waste in South Australia both of which face opposition from indigenous communities. The Ferret reported in February that Scottish ministers had been advised that they had powers to prevent the waste being exported to protect human rights. (4)

1. John O’Groat Journal 26th April 2019 <https://www.johngroat-journal.co.uk/news/dounreay-awards-400-million-contracts-for-decommissioning-work-at-site-177206/> and DSRL 23rd April 2019 <https://www.gov.uk/government/news/supply-chain-to-play-key-role-in-decommissioning-projects-at-dounreay>
2. The National 11th March 2019 <https://www.thenational.scot/news/17490613.highland-council-slammed-over-calls-to-withdraw-rejection-of-nuclear-power/>
3. John O Groat Journal 30th March 2019 <https://www.johngroat-journal.co.uk/news/nuclear-should-be-part-of-the-future-energy-mix-says-john-deighan-176302/>
4. The Ferret 14th March 2019 <https://theferret.scot/sturgeon-nuclear-waste-protestor/>

3 Scotland’s Climate Change Targets

The Scottish Parliament’s Environment, Climate Change and Land Reform Committee’s report on the Climate Change (Emissions Reduction Targets) (Scotland) Bill has called for greater urgency to stop global temperatures rising to dangerous levels. The Bill sets a target of a 90% reduction in all greenhouse gases by 2050 and allows for a target of 100% reduction in greenhouse gas emissions (known as a net zero target) from the baseline to be created at a future date. It also introduces more challenging interim targets, including a 66% drop by 2030 rising to 78% by 2040.

The Committee’s recommends a net-zero target for all greenhouse gas saying that although challenging the benefits and cost savings of early action outweigh the effect of the costs of climate change. The Committee wants the Bill to reflect the most ambitious targets set out in the forthcoming advice by the Committee on Climate Change (CCC). (1)

Much of the debate about the targets set in the Climate Bill passing through Scottish parliament has been about whether the 90% reduction on 1990 levels by 2050 should be increased to 100%. In her response to the Parliamentary Committee, Cabinet Secretary Roseanna Cunningham re-iterated that the targets are based on expert advice from the UK Committee on Climate Change, which described them as at "the very limit of feasibility". But the Government has asked the CCC to look at this again, in light of the IPCC's Special Report. "If the Committee advises that it is now credible for Scotland to set a date for us to become net-zero - a 100 per cent reduction - then that is exactly what we will do."

Professor Jim Skea, the Scottish sustainability expert who co-chairs the IPCC, says the philosophy of carbon target setting is "quite different in Scotland than the UK. The UK approach is very much, 'What can we do on the basis of current knowledge?' But there appears to be a much bigger appetite in Scotland for stretch-targets, in which you cross the fingers and trust the ingenuity." (2)

Richard Dixon of Friends of the Earth Scotland points out that, "2030 is more important because it is asks what policies do you need to enact tomorrow to reduce emissions over the next decade?" Caroline Rance, climate campaigner at Friends of the Earth Scotland and member of Stop Climate Chaos Scotland said: "It's clear from the evidence given to the committee that there is plenty of opportunity for Scotland to do more in the vital period before 2030 and the public support for

urgent action is loud and clear. By taking positive action in the next few years we can secure warmer homes, better public transport and deliver the support to enable climate-friendly farming." (3)

The Scottish Government's draft Climate Bill proposes a 66% reduction by 2030. Stop Climate Chaos Scotland has called for a 77% reduction by 2030, as well as the necessary strong policies to deliver on these targets. SG says "We are currently awaiting advice from the UK Committee on Climate Change, which is due on 2 May. If the committee advise that we can now set even more ambitious targets, we will act on that."

Roseanna Cunningham adds: *"It is worth noting that the reach and pace of Scotland's ambition is dependent on a number of the policy levers which remain reserved to Westminster. Decarbonisation of heat, for example, depends on UK Government decisions on the future of the gas network."* (4) (5)

At a protest held outside Parliament when the Bill was being debated, it was clear that activists from Stop Climate Chaos and other environmental groups were keen to shift the focus from the 2050 target to the 2030 target. SCCS chairman, Tom Ballantine, said the Bill going through Parliament currently commits to almost no increase in action between now and 2030. "MSPs must use this debate and the forthcoming parliamentary process to increase Scotland's action, particularly in the next decade, and map out the concrete measures that will cut climate emissions from transport, housing and food production over the next 10 years." (6)

A large display and information stall for Oil & Gas UK, the trade body representing the offshore industry, next to the Parliament's debating chamber over the week of the Climate Change Bill Debate, angered environmentalists. Dr Richard Dixon, FoE Scotland Director, said: "This is sadly symptomatic of the many MSPs who apparently see no contradiction between supporting the expansion of oil and gas extraction and action on climate change. The extraction and burning of fossil fuels is the key driver of climate change." (7)

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1. Scottish Parliament 4th March 2019 <https://www.parliament.scot/parliamentarybusiness/CurrentCommittees/111273.aspx>
 2. Herald 7th April 2019 <https://www.heraldscotland.com/news/17556405.right-target-wrong-year-where-to-aim-to-save-the-planet/>
 3. BBC 4th March 2019 <https://www.bbc.co.uk/news/uk-scotland-scotland-politics-47415764>
 4. Scotsman 2nd April 2019 <https://www.scotsman.com/news/opinion/how-scotland-is-leading-the-world-in-fight-against-climate-change-roseanna-cuningham-1-4899616>
 5. Government response to the committee's recommendations 1st April 2019 https://www.parliament.scot/S5_Environment/General%20Documents/ECCLR_2019.04.01_RC_CCBill_Stage_1_report_response.pdf
 6. The National 2nd April 2019 <https://www.thenational.scot/news/17543113.msps-face-calls-for-more-urgent-action-on-climate-change-ambitions/>
 7. Herald 2nd April 2019 <https://www.heraldscotland.com/news/17543102.labour-accused-of-hypocrisy-over-big-oil-ahead-of-climate-vote/>

4 Balancing Renewables

April saw the longest period yet of UK electricity generated without coal with a coal-free period lasting more than 90 hours. The grid is now expected to start dropping its need for natural gas power for short periods from about 2025, coinciding with coal's complete phase-out. The National Grid Electricity System Operator (ESO) wants the system to be "zero-carbon capable" by then. Increasingly wind and solar power output makes the need for the fossil fuel sometimes very low, so to keep the system balanced, the network may need new technology such as flywheels and supercharged capacitors. (1) ESO says the electricity grid will be able to operate 'safely and securely at zero carbon' by 2025 whenever there is sufficient renewable generation online and available to meet demand. (2)

Responsive Flexibility

Meanwhile the European Marine Energy Centre (EMEC) has announced the first phase of a £28.5m ReFLEX (Responsive Flexibility) project to create a Virtual Energy System in Orkney. The 'first-of-its-kind' project will interlink various energy assets and services into one controllable system. The project is funded by UK Research and Innovation through the Industrial Strategy Challenge Fund and is being led by the EMEC. It also brings together a consortium of Orkney-based partners, including: Solo Energy, Aquatera, Community Energy Scotland, Heriot-Watt University and Orkney Islands Council. (3)

The scheme includes plans for a locally-powered electric bus and electric bike "integrated transport system" on the islands, as well as the mass roll-out of electric vehicles. Meanwhile, up to 500 domestic and 100 large-scale batteries will be used to store renewable energy, allowing it to be pumped into the grid when winds drop or the sun disappears.

Orkney has a very high level of renewable generation from wind and solar, and other forms of generation such as wave and tidal, but also the highest level of fuel poverty in the UK. Orkney Housing Association, has 772 tenants, 66 percent are in fuel poverty, with 22 percent in "extreme fuel poverty" where more than 20 percent of their income is spent on fuel costs. (4) There is no gas grid on Orkney and the electrical supply can cost as much as 17p per kWh, making it among the highest in the UK.

Yet community owned wind turbines often sit idle due to a lack of grid infrastructure to export the electricity to the mainland. The ReFLEX project involves deploying battery systems and smart electric vehicle charging to balance the intermittency of renewables. Solo Energy provides the software platform to control battery systems across the grid to respond to the intermittency of renewable generation.

Orkney is already a world-leader in wave and tidal technology and boasts a high uptake of electric vehicles. The latest project aims to deploy up to 600 extra electric vehicles and 100 flexible heating systems, as well as a Doosan industrial-scale hydrogen fuel cell which produces eco-friendly energy and heat. Once demonstrated in Orkney, experts hope the "virtual energy system" - which aims to

link up local electricity, transport, and heat networks into one controllable, overarching system - will be rolled out across the UK and internationally. (5)

The carbon intensity of the electricity that Orkney generates and feeds into the main grid is almost the lowest anywhere in the world, at just 13g CO₂/kWh. Only El Hierro, in the Canary Islands, beats it. Hydrogen is Orkney's latest possible game-changer. Orkney Islands Council, a significant force in the developments, is running a fleet of hydrogen-fuelled vans. EMEC is a key player in these changes. Hydrogen technology has developed in Orkney, in part, because the islands had a problem. This archipelago has more than 500 wind turbines and developing tidal renewables, so it is generating too much electricity for its own needs – it now produces the equivalent of 120% of its electricity demand – and wasn't able to send more down the line to the grid. Communities had erected wind turbines but were not seeing the expected revenue returns, and were having their generation curtailed, some to just 50% of what they could generate. So great is the problem that currently there is a moratorium on further wind development.

As part of EMEC's European Union and Scottish Government-funded Big Hit project, hydrogen heating boilers are being fitted in a school on the Orkney island of Shapinsay. Meanwhile, a car ferry is under construction which will run on hydrogen, and this year will see the installation of a hydrogen system into one of the ferries currently running between Shapinsay and Kirkwall. (6)

Batteries

Scottish Power has announced plans for a 50 megawatt battery storage facility at its Whitelee wind farm on Eaglesham Moor outside Glasgow. And another company, RES, is managing a 20 megawatt storage centre at Broxburn, West Lothian, the first of its type in Scotland, on behalf of The Renewables Infrastructure Group (TRIG).

National Grid calculates that battery technology will save it some £200 million, which will ultimately feed through in lower costs to the end user. This is because this stored and readily available green energy avoids having to use other, more expensive generating options to keep supply stable. "Because the batteries can respond in super-quick time, the grid does not have to switch into these other sources," The combination of renewable power and flexible storage is reckoned to provide the most cost-effective low carbon solution for consumers. Another Scottish energy giant, SSE, is also trialling lithium-ion storage including for solar panels, researching if it could be a cheaper solution than building new transmission lines. The main reason battery storage is now revolutionising the market is cost, which has come down by as much as 50 per cent in the last three or four years. (7)

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1. Bloomberg 8th April 2019 <https://www.bloomberg.com/news/articles/2019-04-08/u-k-power-grid-getting-ready-for-life-without-gas-power-plants>
 2. Environment Journal 2nd April 2019 <https://environmentjournal.online/articles/uk-power-grid-could-be-zero-carbon-by-2025/>
 3. Scottish Energy News 3rd April 2019 <http://www.scottishenergynews.com/first-phase-of-orkney-virtual-energy-system-launched/>

4. De Smog 10th March 2019 <https://www.desmog.co.uk/2019/03/10/Orkney-Energy-Islands-Penalised-Too-Clean-Too-Soon>
5. Herald 4th April 2019 <https://www.heraldscotland.com/news/17548722.pioneering-orkney-energy-project-offers-glimpse-of-fossil-fuel-free-future/> Heriot Watt University 3rd April 2019 <https://www.hw.ac.uk/about/news/2019/energy-system-of-the-future-demonstrated-in.htm>
6. Herald 24th March 2019 <https://www.heraldscotland.com/news/17523258.how-orkney-reinvented-the-future-with-hydrogen/>
7. Herald 14th March 2019 <https://www.heraldscotland.com/news/17500712.storing-energy-with-lithium-ion-batteries-moves-us-closer-to-2030-targets/>

5 Scottish Hydrogen Plan

A new blueprint has been drawn up to turn Scotland into a global powerhouse for green energy – a move which economists and scientists say would be transformative when it comes to the wealth and standing of the nation. The study lays the ground for Scotland to take full advantage of the hydrogen revolution. Renewable hydrogen would not only satisfy all our domestic energy needs, but it could also be exported.

The HIALba-Idea think tank says Scotland could effectively fuel the proposed European supergrid, and generate so much money for the economy that the nation could establish a Sovereign Wealth Fund, as Norway did with North Sea oil. HIALba-Idea is run by the economist Professor Ronald MacDonald, and the mathematician, scientist and engineer Dr Donald MacRae. MacDonald is professor of macroeconomics at Glasgow University’s Adam Smith Business School. The blueprint is called Hydrogen Scotland: A Route to Export Powerhouse and Maximising Scotland’s Wellbeing While Bravely Innovating. MacDonald says the energy revolution would solve the “tail-off in productivity of the Scottish and UK economy”, which came about with the shift from manufacturing to services. Renewable hydrogen is “the big transformative idea”, he says, which would “take us back to being a manufacturing economy and an export power house”.

While Scotland – and Orkney in particular – are making good progress with the technology, Australia has already created a “roadmap” for commercial use of renewable hydrogen. South Korea plans to convert its 26,000-strong fleet of buses to hydrogen, and Australia is eyeing the market for exports. Japan is also moving toward the use of more hydrogen vehicles.

HIALba-Idea is calling on the Holyrood Government and the big players in the oil industry, who want to move away from carbons to green energy, to work with them to create a Scottish roadmap. Norway is also starting to explore the exploitation of renewable hydrogen. MacDonald and MacRae say that if the new industry is handled properly by the Government, Scotland could also become a centre for manufacturing and exporting the equipment and technology associated with renewable hydrogen, as well as a global hub for the financial services needed to fund it. (1) (2)

1. Herald 24th March 2019 <https://www.heraldscotland.com/news/17523282.plan-to-make-scotland-a-green-energy-superpower-thanks-to-hydrogen/>
2. Herald 2nd April 2019 <https://www.heraldscotland.com/opinion/17543607.hydrogen-proposal-a-better-investment-than-prolonging-the-life-north-sea-oil-and-gas/>

6 Target for Offshore Wind could be 50GW rather than 30GW

In March, the UK government signed a deal for offshore wind to produce 1/3 of the country's power by 2030. Greenpeace's Unearthed spoke with Scottish Power's chief executive Keith Anderson. Though the target in the offshore wind sector deal is significant, concerns over the viability of the nuclear power pipeline has prompted the question: Is it enough?

Anderson isn't calling for a higher target, but insists "we can do more". He said: "I think having a target of 30GW by 2030 is good by any stretch of the imagination. Now could you push it harder and further to 50GW by 2050." Does that ambition suggest Scottish Power sees the possibility of an all-renewables energy system in the future? "I think anything is possible," he said, "if you go back 10 or 15 years we used to get people worrying about getting to 10% penetration of onshore wind on the system! Could we deal with 100% right now today? I think we would probably struggle. Do I believe in the future that we'll have the capability of doing it? Yes."

Scotland's energy minister says "patience is running thin" with the industry - wind power companies need to generate greater return for the local economy. ScottishPower prides itself on its commitment to get 50% of its content from the UK for the most recent projects it has launched. The government has demanded firms go one step further: 60%. Anderson is careful not to criticise a government which has just given him and his industry a real show of confidence, but even he can't pretend the UK has done enough to develop the industry and infrastructure needed for a domestic supply chain, and all the good that comes with that. "The one thing that absolutely has to happen is that there needs to be investment into some of the supply chain facilities in the UK, into things like harbour facilities, into some of the big fabrication yards," he said. "They are behind the curve in terms of the way we're doing things, the way we're manufacturing things and they need to be competitive." (1)

The chairman of the National Infrastructure Commission (NIC) has called on local businesses and council leaders on Humberside to "seize the opportunity" and ensure the region leads the way on green energy. On a visit to Siemens Gamesa's wind turbine facility at Green Port Hull, Sir John Armit said green energy was already "a game-changer" for Humberside as it continued to prove its potential in boosting the local economy and bring high-skilled jobs to the area. The region which is home to several major low carbon and renewables projects, including the Siemens Gamesa site, has already created over 1,000 jobs, with the sector estimating that offshore wind could support 27,000 jobs across the UK by 2030. The site provides blades for Orsted's Hornsea One offshore windfarm, the world's largest of its kind, which is located off the East Yorkshire coast and operated from

Grimsby. In July, the NIC published its National Infrastructure Assessment – the first ever for the UK – which recommends that 50% of the UK’s electricity should come from renewable sources, such as solar and wind, by 2030. (2)

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1. Unearthed 27th March 2019 <https://unearthed.greenpeace.org/2019/03/27/interview-scottishpower-ceo-offshore-wind-energy-uk/>
 2. Infrastructure Intelligence 27th March 2019 <http://www.infrastructure-intelligence.com/article/mar-2019/humber-has-opportunity-become-green-energy-leader-armitt-says>

7 Electricity Supplies

The amount of electricity generated from renewable energy sources in Scotland has reached a record high. Official data showed there was 26.7 terawatt hours of electricity produced last year from wind, solar, hydro and bioenergy technology. The Scottish government said that meant the equivalent of 74.6% of the gross electricity consumption in the nation could have been provided by renewables last year.

The headline figure was an increase of 6.1%, or 1.5 terawatt hours, on the previous record which was set in 2017. The Department for Business, Energy and Industrial Strategy said Scotland provided about 24% of all renewable generation in the UK last year. England was responsible for 66.2%, Wales 6.2% and Northern Ireland 3.6%. The SNP government’s energy strategy has laid out ambitions to have 50% of the energy (electricity, heat and transport) produced through renewable sources by 2030. To meet that target the strategy assumes Scotland’s renewable energy-generating capacity will be 17 gigawatts by then. Capacity rose last year by 9 per cent to 10.9 gigawatts with much of that coming from offshore wind.

WWF Scotland said “if Scotland’s full renewables potential is to be unleashed to power our economy, heat our homes and charge our cars, then the UK government needs to unlock support for cheap, popular and effective renewables like onshore wind.” (1)

Threats to Renewables

Renewable energy in Scotland is facing multiple threats including the end of subsidies, rising planning fees and a shortage of viable new technologies. There is a “perfect storm” of challenges approaching, according to Scottish Renewables. UK government feed-in tariffs, which support small-scale and household generators such as solar panels or wind turbines, have now come to an end. The Scottish government will also increase fees for planning applications, up to a maximum of £280,000 for the largest projects.

The last of the wind farms approved in 2015, when the Conservative government announced that onshore wind would no longer be eligible for subsidies, is due to be completed this summer. Scottish Renewables said this would have “enormous implications” for the supply chain, which would have to find new ways to make money. The onshore wind sector supports 8,000 jobs, amounting to half of

Scotland's total renewables workforce. Some of those jobs will be maintained operating and maintaining existing wind farms, but many will be at risk when the last new project is completed. Ageing wind farms are reaching the end of their operational life with no support for replacement. About 10 per cent of Scotland's large wind farms will have reached 20 years of life by 2025, and will probably be lined up for decommissioning, according to Scottish Renewables. This will rise to about a third of onshore wind farms by 2030. (2)

So long solar?

Despite the closure of the feed-in tariff, which according to Scottish Renewables is "endangering" Scotland's active domestic solar market, (3) a consortium of companies is preparing to start building solar-powered car parks across Scotland featuring both EV charging points and battery storage. The six trial sites will also include vehicle-to-grid facilities (V2G) so EVs can feed energy back into the grid when necessary.

Flexitricity, Turbo Power Systems, Flexisolar and Smart Power Systems are looking for sites for special solar-powered car parks where electric vehicles can be charged. The consortium behind the pioneering project is already considering several potential sites across the country, including council facilities, park and ride schemes, airports, offices and train stations. The group has now secured millions of pounds in funding for the scheme, which will use solar panels and battery storage to charge cars and buses. Revolutionary vehicle-to-grid (V2G) technology will also be employed at the hubs, allowing charged cars to feed electricity back to the smart grid where it can be used to power homes and businesses. (4)

Flexitricity chief strategy officer Alastair Martin said: "Having the ability to recharge in a short time using a grid-friendly infrastructure will have a huge impact on the electric vehicles market – it really is a question about how quickly we can deliver this capability. (5)

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1. Times 29th March 2019 <https://www.thetimes.co.uk/article/9422b168-5193-11e9-a278-59bc5c47bf2d> and Herald 28th March 2019 <https://www.heraldscotland.com/news/17533801.renewable-electricity-generation-hits-record-high-in-scotland/>
 2. Times 12th Feb 2019 <https://www.thetimes.co.uk/edition/scotland/perfect-storm-of-obstacles-ahead-for-renewable-energy-8n7v0pt92>
 3. Solar Power Portal 28th March 2019 https://www.solarpowerportal.co.uk/news/farewell_fits_scottish_solar_market_endangered_by_fit_collapse_trade_body_w
 4. Scotsman 27th March 2019 <https://www.scotsman.com/news/environment/solar-car-parks-across-scotland-to-charge-electric-vehicles-1-4896311>
 5. BBC 26th March 2019 <https://www.bbc.co.uk/news/uk-scotland-scotland-business-47654821>

8 Island Energy

Nicola Sturgeon has said she is “very concerned” after Ofgem signalled that it will reject proposals for a 600MW cable linking the Western Isles to the Grid. The first minister said her government would make every effort to resurrect the project. However Ofgem said it was “minded” to give the go-ahead for the Scottish and Southern Electricity Networks (SSEN) Shetland subsea project, which would allow the archipelago to benefit from billions of pounds from wind farm revenue. (1)

Ofgem has suggested a smaller, 450MW cable for the Western Isles. SNP MP Angus MacNeil, who represents the Outer Hebrides, said he was dismayed by the decision, adding: “It would be a mistake to build 450MW instead of 600MW. This would mean that the project would be unlikely to go ahead in an area which has the strongest wind resource in Europe.”

Shetland is now preparing for a second energy boom as the 600 megawatt link will allow new wind farms on Shetland to export renewable electricity to the rest of the UK and help ensure security of supply on the islands. (2)

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1. Energy Voice 22nd March 2019 <https://www.energyvoice.com/otherenergy/195371/nicola-sturgeon-pledges-action-on-western-isles-electricity-link/>
 2. Herald 19th March 2019 <https://www.heraldscotland.com/news/17512436.shetland-prepares-for-second-energy-boom-after-green-light-for-subsea-cable/>

9 Scottish Energy Company

A PUBLICLY owned energy company (POEC) as proposed by the Scottish Government presents significant opportunities to show leadership in developing renewable and low-carbon energy supplies, as well as tackling climate change and other environmental issues, according to a new report. But it would be a “serious missed opportunity” if the POEC was simply seen as a supply company, which would have “limited opportunities” to tackle such problems and only a “slight effect” in lowering retail fuel costs.

The report - Powering Our Ambitions, from the Common Weal think tank - also suggested the new company could address the need to provide low-cost, low or zero-carbon energy to Scotland’s fuel poor and other vulnerable householders. The report’s authors are – Dr Keith Baker, Gordon Morgan, Dr Ron Mould and Iain Wright.

The authors want to see a Scottish Energy Development Agency (SEDA) set up as a commercial entity alongside the POEC, which would be regulated by Ofgem until a Scottish regulator was established. “This dual approach should largely mirror the successful approach adopted by the Danish Energy Agency”. A fundamental aim of the POEC should be the strategic development and delivery of new zero or low-carbon energy supplies to the fuel-poor or otherwise vulnerable households, and to rural, remote and disadvantaged communities. This would bring the development of local,

sustainable fuel supply chains – which included solar, wind, solar thermal, geothermal, suitable biomass and hydro – into the NEC’s remit. The authors suggested that the new company should seek to enable, “rather than compete with”, other non-profit and community-controlled energy companies. They added: “But the Scottish Government should, with urgency, look at the assets and infrastructure of the recently closed down Our Power business to see if these might be purchased or acquired to form some of the necessary infrastructure.” (1)

The SEDA would prioritise and co-ordinate the distribution of funding related to energy R&D, strategic planning and overcoming the rural-urban fuel divide. These sums are considerable and may amount to over £500 million in 2018/19 and a further £1.25 billion in affordable housing and energy efficiency over four years, which must increase to meet climate change objectives. It would prioritise the training of experts in district heating technologies which have the potential to decarbonise heat in homes, offices and hospitals, alongside insulation where appropriate. It would work with local authorities, health boards, housing associations and other agencies to identify fuel-poor and vulnerable households and ensure schemes which meet their needs are prioritised. This would end the present system whereby authorities, in effect, bid for funding. A more holistic approach should enable the wider government’s social and economic objectives to be better incorporated. The SEDA would report directly to the Scottish Government. (2)

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1. The National 8th Feb 2019 <https://www.thenational.scot/news/17417404.new-report-hails-potential-of-scottish-national-energy-company/>
 2. The National 8th Feb 2019 <https://www.thenational.scot/news/17417414.without-this-a-scottish-national-energy-company-risks-failure/>

10 Submarines

A report by the National Audit Office (NAO) found that delaying the disposal of the retired submarine fleet was costing the taxpayer £900 million. Each decommissioned submarine costs £12 million a year to store and maintain. In 1995 the MoD pledged to dispose of retired submarines "as soon as reasonably practicable", the NAO noted, a pledge that it had not fulfilled. The total bill for maintaining and disposing of the 20 stored and 10 serving submarines comes to £7.5 billion over 120 years, the time needed to deal with the nuclear waste.

Two submarines, Swiftsure and Resolution, are being dismantled but the MoD does not have a fully funded process to remove, transport and store all types of radioactive parts, the NAO said. It added that the department also lacked a fully developed plan to dispose of Vanguard and Astute class submarines or the future.

The Geological Disposal Facility will not be available to accept submarine related Intermediate Level waste until the 2050s

The Department has not defueled any submarines since 2004 and does not have a fully funded plan to re-start defueling. 9 of the 20 out-of-service submarines contain irradiated fuel, which needs to be removed using dock facilities that have been approved by the nuclear regulator. In 2004, the Office for Nuclear Regulation found that facilities at Devonport did not meet the latest required standards and the Department stopped defueling submarines.

In December 2016, the dismantling of Swiftsure began with removing its low-level waste. It completed this in August 2018, on time and within the £13 million budget, and in December 2018 started a similar process for Resolution. Following its 2011 and 2014 public consultations on the dismantling approach, the Department committed to removing the intermediate-level waste, such as the Reactor Pressure Vessel (RPV), from the submarine intact and then transporting it to an interim store in Cheshire. To date, it has not yet approved the technical processes for removing and transporting this waste. It is paying an estimated £1.5 million a year to reserve storage at the Cheshire site which it currently expects to use from the mid-2020s.

In order to dismantle its first submarine by 2023, the MoD says that by December 2019 it needs to have decided its approach to removing and transporting intermediate-level waste. It will then design the process, and demonstrate it can do this work, alongside contracting for the transport and ensuring it has the budget in place.

The MoD wants to remove the intermediate-level waste from Swiftsure between 2023 and 2024 to test its chosen approach to dismantling and then roll out the approach to other submarines in 2026. It expects to formalise this date by summer 2020. (1)

The 9 submarines at Devonport which still contain nuclear fuel must be continually cooled using external power and water to avoid overheating, which could lead to a fire, meltdown or a release of radioactive particles and gases. The risks involved in defuelling nuclear reactors are considerable – that’s why the MoD has felt unable to do so safely for 15 years. A release of highly radioactive fission products from the reactor core would be a public safety hazard “out to 1.5 kilometres” (almost a mile) from the submarine affecting an estimated 32,000 residents in Plymouth. (2)

The MoD said in December 2018 that over 70 tonnes of radioactive and non-radioactive waste had been removed from Swiftsure, and that dismantling of a second submarine, Resolution, would start in 2019. But now future plans have been thrown into confusion by the MoD reportedly having second thoughts. The change of heart was disclosed by the Nuclear Legacy Advisory Forum (NuLeAF), an expert group working with 113 local planning authorities in England and Wales.

The solution to dealing with the radioactive waste from submarines took years to agree upon, so it is disappointing to say the least that the MoD is changing its mind without discussing this matter with the stakeholders.” Campaigners have reacted angrily. “Given the amount of time, effort and public money that went into the consultation process, it is alarming to hear that the MoD now appear to be changing its mind,” said Jane Tallents, who was an advisor to the MoD’s submarine dismantling project. (3)

In information provided to the NuLEAF meeting in Manchester of 22nd March, it was reported that the MOD were in discussion with nuclear regulators on a potential change to its submarine

dismantling policy, and had contracted the Nuclear Decommissioning Authority (NDA) to lead a consultation process on it. In contrast to the previous openness and transparency of the latter part of the SDP process, little else has been forthcoming from the MOD, and no direct communication has been provided to the NFLA, despite efforts to get further confirmation from both the MOD and the NDA. (4)

Unions claim the redundant hulks are hampering the fight to retain skilled workers at the Fife yard, where a raft of redundancies have been announced in the last year. Deputy general secretary Garry Graham said: *“We are at risk of permanently losing skills and jobs which could easily be safeguarded if we just got on with the job of decommissioning these vessels. We also have more subs about to come out of service and we simply do not have space to put them anywhere.”*(5)

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1. NAO 3rd April 2019 <https://www.nao.org.uk/wp-content/uploads/2019/04/Investigation-into-submarine-defueling-and-dismantling-Summary.pdf>
 2. Morning Star 3rd April 2019 <https://morningstaronline.co.uk/article/britain%E2%80%99s-ageing-nuclear-submarines-are-dangerous>
 3. The Ferret 2nd April 2019 <https://theferret.scot/mod-rethink-nuclear-submarines-waste/>
 4. NFLA 2nd April 2019 <http://www.nuclearpolicy.info/news/nfla-frustrated-delays-idealing-ministry-defences-radioactive-waste-legacy-rosyth-devonport-dalgety-bay/>
 5. Dundee Courier 5th April 2019 <https://www.thecourier.co.uk/fp/news/local/fife/864043/rosyths-redundant-nuclear-submarine-fleet-standing-in-the-way-of-jobs-union-claims/>

11 Renewable Jobs

Union officials have expressed their anger that UK Energy Minister Claire Perry will not attend the offshore wind summit in Edinburgh May 2nd. (Probably because that’s the day that the Climate Change Committee report on net zero carbon emissions is due to be published).

The summit was called in March after Burntisland Fabrication (BiFab) was overlooked in favour of two foreign rivals for a multi-million contract for a giant 100-turbine Moray Firth wind development. Unite Scotland secretary Pat Rafferty described Ms Perry’s non-attendance as “unforgivable”, because billions of work has already been lost to Europe and the Middle East, and more will be lost unless politicians get their act together and treat this issue with the seriousness it deserves.

Those invited to the summit include Vattenfall, EDP Renewables, Deme Offshore (formerly GeoSea), Scottish Power Renewables, Equinor, Red Rock Power and Seaway Heavy Lifting. GMB and Unite unions will also be at the meeting. (1)

The contractor building a multi-billion pound offshore wind farm in the Moray Firth confirmed in March that BiFab’s Fife yards had not won any of the work. The Methil and Burntisland fabrication yards are mothballed, having been close to financial collapse last year. Their revival depended on a

contract to build some of the platforms for the Moray East offshore wind farm. Last week trade unions said they expect the work to go to Belgian and Spanish yards. They claimed there was not a level playing field for bidding. A statement by Deme, the Belgian company in charge of procurement for Moray East, emphasised the role of a Belgian-owned yard near Newcastle in having “a major portion” of the work, but did not offer details of how much of the work will be at continental yards. The statement emphasised the role of Bifab’s yard near Stornoway in making equipment, and Invergordon and Peterhead harbours as supply bases. The order on which BiFab was pinning hopes of a return to production at Burntisland and Methil in Fife was for 100 steel jackets on which turbines will sit, off the east coast of Caithness. (2)

Paul Wheelhouse, Scotland’s energy minister said his “patience was wearing thin” with wind developers who take Scottish Government support, only to hand construction contracts to foreign suppliers.

In December, it was announced that Dubai-headquartered Lamprell had won a £160 million deal to construct 45 jackets for the 100-turbine Moray East project, which is being built under a partnership between Spanish-owned EDP Renewables and France’s Engie. A separate deal for a further 55 jackets, was awarded to Belgian company Smulders. Mr Wheelhouse questioned whether the Contracts for Difference (CfD) scheme for supporting low-carbon electricity generation was having “unintended consequences”. CfDs guarantee energy producers a “strike price” for every megawatt per hour (MWh) they supply to the grid over a period of time. Mr Wheelhouse said: “We need to understand what’s happened from a developer perspective. “I think the CfD is a good process, broadly, but it is working with unintended consequences in terms of the pressure it puts on developers to go for the cheapest supplier and not necessarily one which generates the greatest return for the treasury.(3)

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1. Energy Voice 25th April 2019 <https://www.energyvoice.com/otherenergy/197877/union-anger-as-uk-energy-minister-unable-to-attend-wind-summit/>
 2. BBC 13th March 2019 <https://www.bbc.co.uk/news/uk-scotland-scotland-business-47561886>
 3. Energy Voice 13th March 2019 <https://www.energyvoice.com/otherenergy/194734/patience-wearing-thin-with-opportunistic-wind-developers-warns-wheelhouse/>

12 Scottish National Investment Bank (SNIB)

A plan to create a national investment bank in Scotland has taken a “significant step” after legislation was published to enable the move. The Scottish National Investment Bank (SNIB) Bill was introduced to Holyrood in February and grants the powers required to establish the bank. It is expected the bank, which will be a public limited company, will provide financing for businesses and important infrastructure projects in order to boost private sector investment. Ministers will be given the power to guide its strategic direction by setting missions that will address socio-economic challenges. (1)

The Scottish Parliament Economy Committee have published a call for evidence on the SNIB Bill with a deadline of 3rd May 2019. (2)

FoE Scotland wants SNIB to put the transition to a zero carbon economy at the heart of the Bank's work and rule out investing in fossil fuels. The draft vision of the Bank, published in 2018, was to "accelerate the move to a low carbon, high-tech, connected, globally competitive and inclusive economy" but this vision is absent from the Bill, which states the Bank's main objective is "promoting or sustaining economic development or employment." The SNIB Bill could be a key opportunity for Parliament to unlock investment for green jobs. The Bill should set objectives for the Bank which more clearly focus on financing the transition to a zero carbon economy, and rule out fossil fuel investment as part of a world-leading ethical investment framework. (3)

In 2016, working with the New Economics Foundation and Common Weal, FoE Scotland published 'Banking for the Common Good' which proposed a return to publicly-owned and orientated banking for Scotland, including the establishment of a Scottish National Investment Bank (SNIB). In 2017 the Scottish Government accepted this recommendation and in 2018 it published an implementation plan and earmarked £2 billion over 10 years in the budget for such a Bank.

The Scottish Government expects the Bill to progress through the Scottish Parliament by the end of 2019 so the Bank can be operational in the second or third quarters of 2020.

Scotland's climate targets necessitate a rapid increase in finance for low carbon parts of the economy at a time when support from the European Investment Bank has plummeted, and the UK Government has privatised the Green Investment Bank.

Unfortunately the Bill prohibits the Bank from lending to public bodies such as local authorities because according to the terms of the Scotland Act such lending would count against the Scottish Governments borrowing and therefore not result in an increase in finance available to the public sector. Given the vital importance of public sector investment for achieving the low carbon transition it is hoped this will be addressed with the infrastructure commission with some urgency.

(1) The National 28th Feb 2019 <https://www.thenational.scot/news/17466750.scotland-takes-significant-step-towards-opening-national-bank/>

(2) Scottish National Investment Bank Bill – Call for Views, Economy, Energy and Fair Work Committee, 8th March 2019 <https://www.parliament.scot/parliamentarybusiness/CurrentCommittees/111340.aspx>

(3) FoE Briefing, Divest Scotland: Briefing for MSPs. 22nd March 2019 <https://foe.scot/wp-content/uploads/2019/03/Divest-Scotland-MSP-Briefing-22032019.pdf>