

SSE plc AGM 2024

Pre-submitted shareholder questions





The following questions from shareholders were submitted in advance of SSE plc's Annual General Meeting held in Perth and online on 18 July 2024.

Please note: Answers to questions regarding specific shareholdings, customer relations and any other personal matters have been communicated directly with the relevant individuals.

Decarbonisation pathways

The following question was submitted in advance on behalf of CA100+ and read out at the meeting by Ashley Thomas of Schroders.



Chairman, members of the Board, fellow shareholders, both in person and online, I'm Ashley Thomas and I'm an equity fund manager at Schroders.

I've spent this week travelling up from London visiting a number of critical infrastructure projects across the country and it's a privilege to be here in Perth this morning, particularly given the contribution SSE makes to the UK's energy system.

I am here today to make a statement on behalf of Schroders plc, also my fellow co-lead investors, Rathbones Group plc, Abrdn plc, AIM BV and Aegon Asset Management UK and Guy's and St Thomas' Foundation.

CA100+ is the world's largest investor-led initiative, with over 700 investors across 33 markets, that aims to ensure that the world's largest corporate greenhouse emitters take necessary action on climate change. The initiative aims to mitigate investment exposure to climate risk and secure ongoing sustainable returns for our beneficiaries.

As signatories to CA100+, we aim to support investee companies such as SSE in cutting emissions and accelerating the transition to a net zero carbon economy. Specifically, we wish to commend the Company for remaining committed to delivering against your climate change ambition in challenging inflationary environment building key renewables, transmission, and network infrastructure, whilst providing new job opportunities through Scotland, England and Ireland.

For example, we look forward to the upcoming completion of the first Shetland HVDC link this summer. This link will bring onshore wind power from the island. Additionally, we are happy to see progress with the second Shetland HVDC link, which will transfer offshore wind power from near the island. This progress has supported the construction of a new HVDC cable factory at Nigg.

We also welcome the consistent positive engagement we've had with the Company over many years and in the last 12 months.

As a society we continue to be faced with the energy trilemma – we need to provide affordable, secure and clean energy. While SSE is planning to add up to 5GW of renewable assets over the five-year period from 2022 to 2027, flexible power generation will remain key to help manage intermittent renewables.

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From SSE's Net Zero Transition Plan update most emission reductions by 2040 are achieved through reduced load factors and plant end of life. The role for CCS and hydrogen blending seems limited.

- Does this imply that net zero generation at SSE can be achieved using current technologies and considering the current economic conditions?
- How much of your Net Zero by 2040 emission reduction target is dependent on new technologies and considering the current economic conditions?
- What additional conditions, in your view, will you be asking our new government to enable SSE to deliver a fully decarbonised flexible power generation in the 2030's ahead of your 2040 target?
- What specific strategies do you have in place to influence policy or other dependencies and avoid the risk of locking-in unbated emissions?

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Thank you for your question, and the ongoing engagement between CA100+ and SSE. Taking each of those questions in turn:

This year SSE published its transition pathway levers to meet its 2040 Scope 1 and 2 net zero target. The key to meeting that target is by substituting high carbon electricity generation with renewable energy. Roughly 80% of the target will be met that way with around 15% being met Carbon Capture and Storage, or hydrogen for power generation. And we expect 5% to be residual emissions that will be to be neutralised.

That means 95% will be achieved from current, or well understood technologies.

Neutralising the remaining emissions in 2040 will be achieved through either engineered or nature-based solutions. It is in this area we would hope to see further regulatory and technological developments in the next decade and beyond.

With respect to the policy development necessary for us to fulfil our plan, there are some key interventions we think are important. The first is to speed up the planning system – it can take 12 years to build offshore wind farms and overhead lines too. It's in society's interest to do this more efficiently. Secondly, it is well understood that offshore wind is very good value for the consumer – the more there is, and the quicker it's deployed, the better. We believe the next CfD auction needs to be done very quickly, followed by a 'mega auction' to meet the new Government's 55GW target. And, finally, we need accelerated delivery of the supporting infrastructure necessary for flexible low carbon (i.e. hydrogen and CO2 pipes and storage sites).

With respect to the Company's strategy for avoiding locking in carbon emissions in the long term – and we do understand the UK may need new generation capacity in the early 2030s – our approach is to pursue decarbonised generation from day 1. If there is need for a short period of unabated output, our approach is to make the case for regulatory conditionality. What that means is that any generator, not just SSE, would need to meet important conditions before developing new thermal generation. For example, that it's able to connect to a planned hydrogen network and can access a grid connection by the early 2030s.



The following questions were submitted in advance by retail shareholders.

Transmission upgrades

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Over 20GW of offshore wind is due to be exploited off the coasts of Northern Scotland in the seas stretching from the north of the Hebrides round to Aberdeen. The demand in the 'Hydro' area is unlikely to exceed 2-3GW and therefore 17GW will need to be transferred south. The circuit from Beauly to Denny is due to be upgraded to twin 400kV and the circuits from Beauly to Blackhillock are to be upgraded to 400kV and then south towards Dundee. However it seems as though any and all circuits leading towards the Central Belt will need to be upgraded to 400kV to carry this power south. What plans are being made, what are the costs implications of these upgrades and what revenue will shareholders see from these.

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In July 2022, the ESO published the Pathway to 2030 Holistic Network Design. This set out the blueprint required to upgrade the electricity transmission network across the north of Scotland to deliver the UK Government's 50GW offshore wind by 2030 target, which included around 11GW of output from ScotWind. In December 2022, Ofgem approved the need for these reinforcements through its Accelerated Strategic Transmission Investment (ASTI) framework decision. For SSEN Transmission, these reinforcements total around £17bn of capital expenditure.

In March 2024, the ESO published Beyond 2030, which sets out what is required to deliver a decarbonised electricity system. This includes the connection of the remaining ScotWind generation not captured in the Pathway to 2030 Holistic Network Design. For SSEN Transmission, this confirmed the need for at least £5bn of additional investment in new and upgraded electricity transmission infrastructure. Progression of these investments will require an appropriate regulatory framework, including early confirmation that SSEN Transmission will be the Delivery Body, alongside securing all planning and regulatory approvals.

All these network investments will be subject to extensive public consultation to help inform the development of these new and upgraded network infrastructure requirements.

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Is there an opportunity to use the paths of railway lines in Scotland to carry power from the north of Scotland to the Central Belt of Scotland and further south? Would it not be possible to link Aberdeen to Edinburgh and further south; Inverness, Perth, Glasgow and further south by ground cables thus saving the cost of planning issues and wayleaves with more than one organisation? The Grid are using 400 kV cables across South London, so it seems worth consideration if such power transfer could be instigated quickly.

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Network upgrades generally follow existing network corridors and there would be significant technical and operational constraints following the same routes as Scotland's railways, which means this option would not be viable.



Local area energy plans

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SSE is the DNO for central southern England and there appears to be massive opportunities to increase solar generation across Hampshire and Oxfordshire and the rest of the region. Yet there is no concerted effort to place solar panels across acres of business and shopping park roofing. Whilst structural issues might be a bar to completely covering many roofs there must be a benefit to the country for SSE to coordinate the mass installation of such solar panels. With the inside knowledge of the distribution system it ought to be possible to encourage businesses and landlords to accept solar installations. For example there are acres of roofs around Eastleigh and the old railway works, around Alton and the SSE substation, Station car parks, Reading South industrial park and many sites across Southampton including the dock vehicle parks.

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While responsibility for incentivising the increased uptake in low-carbon technologies, such as solar, sits with policymakers and delivery of installations will be market-led, we recognise the role we play as the DNO in encouraging further opportunities in this area. To this end, SSEN Distribution has established a dedicated team to support the development of Local Area Energy Plans, including the roll out of an innovative geo-spatial planning tool – LENZA – which allows local authorities to overlay energy choices (such as siting of heat zones, EV and Solar rollouts) with network capacity and utilisation data. This process, coupled with our collaborative and partnership working within the energy and third sectors, is driving efficient decision making and will help enable a greater retrofit opportunity for solar – particularly at a scale above domestic level.

Dogger Bank wind farm

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The Dogger Bank wind farms A and B seem to be behind schedule. Jan de Nuul's heavy lift ship the Voltaire arrived in Able Seaton in July of last year with a great fanfare that this was the ship to deploy to erect the wind farm quickly. There was a simulator built for training and it set sail for the wind farm with 5 turbines on it at the beginning of last August. However, as at 30 June, only 19 turbines have been installed when there was published information that Dogger Bank A ought to be finished and working by early January and Dogger Bank B should be nearing completion now. How much revenue has been lost by this delay, who is to blame and is any compensation due to the benefit of shareholders.

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As reported May in our Preliminary Full-year Results for the year ending 31 March 2024, SSE had a strong performance in the year where we have delivered essential energy infrastructure, benefited from the resilience of our business model, and made disciplined investment in our excellent growth opportunities.

One measure of the strategic progress we are making is the various milestones reached in the year on major infrastructure projects, including within one of SSE's two growth engines: renewables.



Working with our joint venture partners, the construction of SSE Renewables' flagship projects continued to progress. Construction remains ongoing at all three phases of the world's largest offshore wind farm at the 3.6GW Dogger Bank (each 1,200MW, SSE share 40%) off the coast of England, which will be the world's largest offshore wind farm when complete.

Whilst phase one, Dogger Bank A, is behind original schedule, we delivered first power on this phase during the year. Construction delivery has been impacted by poor North Sea weather, installation vessel availability and supply chain delays. The return of the installation vessel back to site in early May has meant that turbine installation has now resumed and, assuming continued clear weather conditions, it is expected that installation activity will continue uninterrupted over the summer months, with the project targeting full commercial operations during the first half of 2025.

It is expected that the delays seen on Dogger Bank A will impact the Dogger Bank B timetable, with completion of that phase expected in early 2026. Dogger Bank C works are under way with completion of that phase expected in early 2027.

It is not expected that the delays noted will materially affect project returns, and Dogger Bank is expected to deliver full value in line with FID.

European interconnectors



Are there any plans to renegotiate the interconnector from Stonehaven to Norway? Given that Norway has the tools in place to offer what is effectively pumped storage for the benefit of the UK and the rest of Northern Europe surely some government intervention and sweet pricing deals for Norway would be cheaper than trying to find locations for battery and pumped storage in the UK?



We have been assessing interconnector options within our SSE Enterprise business unit (which is outside the regulated networks business). This is an important part of the future electricity mix in which SSE has skills and experience, so it is an area of interest.

But given the huge growth that we have in the other areas of SSE Group, we will only pursue strategically aligned and value accretive opportunities. At the moment, we aren't actively progressing any specific projects (including the Norway interconnector) but would not rule out future growth into the interconnector space providing the conditions were right and met our strict criteria for disciplined investment.