

EDF Torness Power Station

Minutes of the fiftieth meeting of the Torness local liaison committee held via Zoom on 17 March 2022

Members in attendance

Dr Charles Veitch City of Edinburgh Council
Russell McLauchlan, City of Edinburgh Council
Councillor Russel Imrie, Midlothian Council
Councillor Sandy Scott, Scottish Borders Council
Councillor Norman Hampshire, East Lothian Council
MSP Paul McLennan, East Lothian Council
Sandy Baptie, East Lothian Council
Lynn Crothers, East Lothian Council
Alasdair Swan, Dunbar Community Council
Rosemary Laird, Cockburnspath Community Council
Kelvin D'Arcy, East Lammermuir Community Council
James Wyllie, National Farmers' Union for Scotland
Isabelle Watson, Scottish Environment Protection Agency
Diane Hamilton, Scottish Government
Craig Purves, Police Scotland
David Ward, Fire Scotland
Chris Allan, Borders Health
Shaun McKenna, ONR
Lorraine Jay, Civil Nuclear Constabulary
Paul Forrest, Torness Station Director
Alastair Brockie, Torness Technical and Safety Support Group
Brian Hood, Torness Site Head of Security
Ashleigh Dickson, Torness Community Liaison Officer
Fiona McCall, EDF External Communications Manager

629. Welcome

Mr Paul Forrest welcomed everyone present to the fiftieth meeting of the Torness local liaison committee. He went round the call and asked everyone to introduce himself or herself to the meeting. Mr Forrest introduced himself as the new station director.

Paul was involved in the commissioning of the station back in the 1980s and have worked at Torness in various roles. While he spent much of the last decade working at Hunterston B, most recently as Station Director, his family home has been in Dunbar for more than 20 years.

630. Apologies for absence

Paul Young, City of Edinburgh Council
Councillor Maureen Child, City of Edinburgh Council
Councillor Denis Dixon, City of Edinburgh Council
Councillor Steve Burgess, City of Edinburgh Council
Russell McLauchlan, City of Edinburgh Council
Deputy Provost Margot Russell, Midlothian Council
Jane Young, Midlothian Council
Councillor Sue Kempson, East Lothian Council
Sharon Saunders, East Lothian Council
Councillor Helen Laing, Scottish Borders Council
Jim Fraser, Scottish Borders Council
Kirsty McCrae, Scottish Ambulance Service
Nicola Page, Police Scotland
Lori Shaw, Police Scotland
Quintin Donald, Scottish Executive Rural Affairs Department
Richard Othieno, Lothian Health
David Girrity, Fire Scotland
Ross Smith, Police Scotland

Paul Hammond, Police Scotland

Members' replacements

Dr Charles Veitch, City of Edinburgh Council replaced Robbie Beattie.
Councillor Steve Burgess, City of Edinburgh Council replaced Councillor Gavin Corbett.
Kelvin D'Arcy, East Lammermuir Community Council replaced Julia Harrison.
Rosemary Laird, Cockburnspath Community Council replaced Kevin Craig
Paul Forrest has replaced Tam Al Bishawi as Torness power station director.

631. Minutes of previous meeting

The minutes of the forty-ninth meeting of the committee were approved and accepted as an accurate record.

There was an outstanding query from 2021 regarding NNG and the substation, which was delivered in 2021. The onshore substation is nearly finished and there was minimal disruption to the A1.

632. Matters arising

None.

633. Station overview

Paul returned to the station at the beginning of February as we brought Reactor 1 back online following a month long graphite inspection outage.

Inspections, modelling and operational experience tell us this with this amount of generation we can expect to start seeing some of the changes to the graphite reactor cores that we have been talking to you about for the past few years.

During the inspection of Reactor 1, we identified three keyway root cracks (KWRC). This was well within our expectations and we have a safety case, supported by the independent regulator, which allowed the reactor's return to service. We understand this issue well. We observed the first KWRC at Hunterston B back in 2014 and the station continued to operate until 7 January this year. During that time, we carried out extensive inspections that helped us to build a clear picture of the natural aging these stations experience.

The cracks do not affect normal operational safety of the plant. As a responsible operator, we need to satisfy ourselves and the independent regulator, that we would be able to shut the reactors down following a major fault, specifically an extreme seismic event, many times larger than the UK has ever experienced. We do this by inspecting the graphite and carrying out physical and computer modelling so that we can write evidence-based safety cases for review and assessment by the independent regulator.

In December, EDF confirmed a change to the expected end of generation dates for Torness and Heysham 2. They are now expected to continue generating until 31 March 2028. This decision was informed by inspection, modelling and operational experience from other sites which gave a clearer picture of lifetime expectations. Operational dates are under constant review and will depend on a range of factors including future inspections.

We will continue to regularly inspect the graphite in the reactors and will share those results with the regulator, the ONR. Part of the inspection strategy includes going back to previously observed cracks to check whether they have changed between inspections.

We have also learned from experience at Hinkley Point B in Somerset and from our sister station, Heysham 2 in Lancashire. Heysham 2 identified the first keyway root crack there last year so this discovery shows our modelling is accurate.

There is no challenge to the safe operation of the power station. We have been able to show the regulator that we can shut the station down safely in the event of an earthquake much larger than the UK has ever experienced.

Mr Norman Hampshire: Around a fifth of the UK's electricity is generated by nuclear. Once Torness and Heysham 2 shut down there will only be one station left. How will this generation be replaced? What will provide a base load?

Mr Paul Forrest: EDF is currently building Hinkley Point C in Somerset. We also have plans for Sizewell C in Suffolk. A decision on the Development Consent Order for Sizewell C is expected by the end of May 2022. Energy mix is a political decision and we have to respect it.

Mr Hampshire: The use of oil and gas is very expensive and we will need more electricity as we move to Net Zero, will there be enough generation.

Mr Forrest: Society is moving towards electric cars etc. and I would not be surprised if hydrogen becomes more commonly used

Mr Russell Imrie: Thinking about the Torness closure date of 2028 and the current energy crisis with Russia and Ukraine, can we extend Torness's life until Scotland becomes more self-sufficient?

Mr Forrest: 2028 is an estimate. We have to demonstrate to ourselves and the ONR that the reactors are safe to operate. We need to satisfy ourselves and ONR, that we would be able to shut the reactors down following a major fault, specifically an extreme seismic event, many times larger than the UK has ever experienced. Our range is +/- two years.

Mr Shaun McKenna: ONR continue to engage with the graphite inspections and work very closely with the station. We attend different panels, which EDF run.

a. Zero Harm

Mr Alastair Brockie spoke to the reports in the pack.

Our aim is to have zero harm to our people. Torness's nuclear safety performance is at best ever levels. There have been no nuclear reportable events for over 10 years. The station has also gone over 10 years without a significant environmental event. That is all very positive progress.

With our strong focus on safety we have a very tight definition of harm so we report even the very minor injuries, for example a back injury or a cut to the hand. All events are investigated to ensure we learn from them and are treated seriously.

During 2021, the station had 11 accident book entries, minor in nature (cut to finger) and one recordable accident when a member of staff pulled a muscle in his thigh after tripping over a hose.

Emergency Preparedness

Despite the pandemic, the station carried out a full training and exercise programme by adapting both the method of giving training and the method of carrying out the exercises. Both the Performance Assessed and the Level 1 Regulatory Demonstration exercises were carried out in full. The Level 1 Regulatory exercise carried out in July 2021 was redemonstrated successfully in December 2021 following additional training. All three emergency services participated in these exercises.

There have been no site events whereby the emergency arrangements were invoked since the last meeting. Operational alert was invoked three times during 2021. We had two separate issues with the water makeup plant in January and July 2021, and made use of it once again during Storm Arwen in November 2021.

Mr Brockie thanked the emergency services for their support during exercises and throughout the year.

Mr McKenna: During 2020 there was a dropped load incident which occurred in the new fuel cell at Torness, the incident was reported to ONR. ONR's follow up, and the Torness investigation report, identified a number of compliance gaps relating to UK legislation, which resulted in an enforcement letter being issued by ONR. The station was very responsive and the action has been closed out. The station went over and above to increase the safety around that particular operation.

Mr Sandy Baptie: The Council work very closely with the station. We are completing our Lev 2 exercise (9 June & 23 June) on a modular basis. ONR looked at the gap analysis and feel East Lothian Council demonstrated an adequate response to emergency during Covid. A full exercise will take place in 2023 to ensure we abide by Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR 19). The Emergency Plan is available on the council website and all libraries.

b. Strong Finance and Ethics

Mrs Ashleigh Dickson spoke to the reports in the pack.

Extended outages reduced the amount of power we generated from our plants. In addition, in order to fulfil sales commitments under our responsible hedging policy, we had to buy additional power to make up the shortfall, and this had to be done in a market where prices were higher than they were when the sales had been agreed.

The nuclear fleet produced 41.7TWh in 2021, 4TWh less than the previous year, due to unplanned outages. The lost output had to be bought back at high market prices.

The business confirmed the end of generation at Dungeness B in 2021 and Hunterston B in January 2022. The nuclear decommissioning arrangements signed between EDF and the UK Government provide long-term certainty for the Generation business' important role in UK decommissioning.

c. Generation

Torness generated 6679 GWh during 2021; this is enough low carbon electricity to power over 1.6 million homes.

At Torness, we normally reduce power to refuel our reactors but during 2021, we took the conservative decision to change to off-load depressurised refuelling (ODR). The alteration was due to operational changes in our fuelling machine and the requirement for increased graphite inspections. This change means that we shut down our reactors every time we need to refuel. The move to ODR is planned in advance with the National Grid to ensure that there is no impact on the national electricity supply. The other reactor at Torness operates normally throughout refuelling campaigns. Throughout 2021, we have delivered five successful ODR campaigns – each one becoming more efficient as we adjusted to a new rhythm of working.

The change in refuelling did have a major impact on plant performance in 2021 (lower than expected generation). During the year, we successfully refuelled 69 channels and 25 flasks containing spent fuel were safely transported to Sellafield.

During 2021, we shut down Reactor 1 for its statutory outage. This happens once every three years and is like an MOT for the unit allowing work that cannot take place while the reactor is switched on to be carried out. It is a statutory requirement to allow continued generation of low carbon electricity from the site.

During the outage, we delivered a £25m investment programme during which more than 14,000 separate pieces of work were carried out. A number of important projects were successfully completed including the replacement of the low-pressure turbine rotor, turbine valve inspections and detailed inspections of the graphite core. At its peak, more than 850 people were present on site including visiting contractors. Despite this, both industrial and Covid safety were maintained during the outage.

Mr Forrest: Torness is a Covid safe site. We currently have approx. 30 staff self-isolating which is a reflection on the community rates.

Radioactive waste and discharges

Mr Brockie spoke to the information contained in the pack.

We held the LLC Technical sub group meeting on 24 February where this information was covered in detail. We have the detailed reports if anyone wishes to have a copy. If you would like more information, please contact Ashleigh Dickson.

We have a relatively small amount of waste stored on site; only about 12.6% of our onsite storage capacity is used and we have a process of periodically sending waste away for incineration or other disposal routes.

We have a preference for recycling; we separate out waste and send things like metal away for cleaning and recycling. As a result, we keep our solid waste and arisings to landfill minimal.

The radiation dose of each worker is assessed individually by an electronic personal dose meter. A computer database keeps records for each worker. The average annual dose per worker is 0.053 mSv, which is less than

what you would receive on a transatlantic flight.

Torness monitors and records all of the discharges and best practicable means are applied to minimise them. All our discharges are within allowable limits. A report which is a useful reference is the Radiation in Food and the Environment (RIFE) report which is available on the SEPA website and shows all the information for Torness as well as other sites it shows that the dose to a member of the public is almost below the limit of what is measurable.

Ms Isabelle Watson said that SEPA continue to be present on site. Radioactive substances remain legal. The RIFE report is SEPA's equivalent to the site survey report and is available on SEPA's website. There have been some issues around F-gases but SEPA are working closely with the station.

F-gases are used in coolant systems such as air conditioning units for offices and computer rooms.

Torness outage

We will take one of the two units offline in May for around 10 weeks. This happens once every three years and is like an MOT for the unit allowing work that cannot take place while the reactor is switched on to be carried out. It is a statutory requirement to allow continued generation of low carbon electricity from the site.

More than 800 extra workers will join the 750 strong workforce for the maintenance period, which is known as a "statutory outage". During the outage workers will carry out more than 12,000 separate pieces of work – each carefully planned during the last two years of preparation.

We are very well practised at outage and over the years, we have built great relationships with the extra workers who come and support us during the outages. These workers will be staying in local hotels and B and B's, eating in the area's restaurants and using taxi firms. It is great that our investment in the power station can also benefit our local community.

Mr Alastair Swan: Thank you for bringing business to hospitality sector during the 2021 outage. There is however, a concern for the future, as more workers will come to the area for other industrial projects (SSE, Scottish Power). We are concerned that it will damage the tourism industry as hotels are filled with workers.

Mr Forrest: We can flag when our outages will take place and advise our contract partners on where to stay.

Mr Paul McLennan: I have a meeting with Scottish Power to discuss when the work will be starting. They need to advise on the construction timelines.

Mr Hampshire: I have held discussions with SSE and Scottish Power. Perhaps a temporary campsite would be a viable option? We realise there will be many workers in the area and it should be part of planning.

Mr Chris Allan: Where will they be coming from and will they be registered with GPs?

Mr Forrest: Doosan Babcock mainly come from Renfrew, GE from Rugby, Altrad from across the UK and Equans are mainly local. They travel back to their homes on their days off.

Mr Paul McLennan left

d. Hinkley Point C

EDF are building two new nuclear reactors at Hinkley Point C in Somerset, the first in a new generation of nuclear power stations in the UK providing low-carbon electricity for around six million homes. It is currently the biggest infrastructure project in Europe. Hinkley Point C made good progress in 2021, passing the "halfway" mark of construction – the project is 52% completed. The schedule for the project remains unchanged with planned electricity generation from Unit 1 in June 2026.

e. Customers

As we continue to recover from the pandemic - the biggest economic challenge in centuries – we are now gripped by another crisis situation – the energy affordability crisis. The wholesale price of gas has increased by over 500% in a year, leading to 31 suppliers to fail, and driving the costs up for customers of all energy suppliers. There is a risk that global emissions continue to increase if countries turn to other fossil fuels, like

coal, to generate power. More reliance on fossil fuels is not the answer and we must find a solution to both spiralling customer prices, and global emissions as we strive for Net Zero. We know the steep price increases announced by the regulator will be concerning for many and we will continue to provide as much support to our customers as we can.

f. Renewables

EDF Renewables UK and Ireland, a joint venture between EDF UK and EDF Renouvelables, develops, builds, operates and maintains wind farms and other renewable technologies such as battery and solar throughout their lifetime.

- EDF Renewables operates 37 onshore wind farms including our largest European onshore wind farm
- We're developing two major offshore wind projects in Ireland and Neart na Goaithe in Scotland and have plans for a floating offshore wind development at Blyth
- In Wales we're developing a 22 turbine onshore wind farm
- EDF Renewables added two battery sites to its growing portfolio, which are providing much needed flexibility to balance electricity supply and demand, stabilise the grid and enable mass EV charging.
- Work got underway building the 30 MW onshore wind farm in North Lanarkshire.
- To support our ambitions growth plans, we successfully grew the headcount of the business by adding another 70 people.

NnG's two offshore substations will soon be commissioned. Onshore, the project's new substation will be finished in 2022, as will the new Operations and Maintenance Building at Eyemouth in the Scottish Borders where there will be 50 new jobs. The first turbines will be operational in time for the wind farm to begin generating power in 2023, with completion scheduled for 2024.

Mr Hampshire: There is a lot of talk in the press on Rolls Royce small modular reactors (SMRs). Is EDF looking at SMRs to replace some your retiring stations?

Mr Forrest: As a company, we are focussing our efforts on Hinkley Point C and Sizewell C. There is a research arm in the company (France) researching a small AGRs (advanced gas reactor) including the commercial viability. It is a slightly different technology to the Rolls Royce SMR.

Mr Hampshire: Have you discussed SMR use with the Scottish Government? The potential to use at Torness or elsewhere.

Mr Forrest: Not to my knowledge. On a similar topic five sites have been shortlisted as the potential future home of the UK's prototype fusion energy plant. Ardeer (North Ayrshire) is the only Scottish site.

Mrs Fiona McCall: SMRs have gone into the generic design process with the regulator and are not ready for deployment. Rolls Royce are looking for sites to locate the factory, which will fabricate the SMRs and are also looking at sites. They are looking at NDA owned sites. EDF believe Heysham may be a potential site for the SMR and Hartlepool for the small AGR. There is no discussion for Scottish sites in line with Scottish government policy.

Mr McKenna: ONR have received a letter regarding the generic design and are pulling together a team.

Mr Hampshire: I would like to think East Lothian Council would be interested in joining a meeting with Scottish government and civil servants. I would be happy to set it up if the company would be interested in coming along. The political situation is changing due to the escalating energy prices and we need to find ways to generate more electricity in Scotland. In terms of going carbon neutral if were to all move to electric boilers tomorrow there would not be enough electricity to supply us.

Mrs McCall: Let us follow this up off line. I know Craig Hoy recently brought it up in Parliament.

Mr Hampshire: It can be difficult when you standing up in Parliament but I think we need a closed-door round table discussion. 2028 is only six years away and potentially 750 jobs and 45 million to the local economy will go with the station.

Mr Forrest: We are a private company but will be happy to give my view.

Mr Sandy Scott: I agree with Norman that we have to be prepared for the next stage, as there will be a big void when Torness closes.

g. People and Community

We aim to inspire and enable our people to perform as a force for good, driving progress at work and across the communities we serve.

People management is as important to the success of the station as engineering and science. We place strong emphasis on managing the succession of roles and ensure suitably qualified and experienced personnel are available to fill vacancies - guaranteeing continuity of the business.

The station continues to recruit to plan and currently has 500 full time employees. Our training programmes are in excellent shape and are working with our leaders at all levels to strengthen leadership and accountability.

Torness currently has 10 recruits in our four-year Advanced Nuclear Apprentice Scheme and one chemistry apprentice.

Our people are a corner stone of EDF. At Torness, we have a great record of regularly seeking feedback from our employees and responding to it. During 2021, we have had to deal with a lot, the technical challenges and Covid pressure made the challenges unique and significant. Over a three-month period, we spoke to members of team Torness with our 'Time to Talk' sessions. These engagement sessions enabled staff to have their say and the management team have agreed on focus areas for 2022.

We had a few changes on our management team. Paul Forrest took over as station director in February from Tam Al Bishawi. We welcomed Steve Houghton, Greig Elliot and Susan Fisher onto the management team as finance & supply chain manager, fuel route manager and HR manager. Jamie McKenzie moved into the role of maintenance manager, Kevin McGill moved into the role of strategic outage manager, Angus Finnie moved into the role of performance improvement manager and Gordon McLuckie took on the role of defueling preparation and graphite programme manager.

634. Regulatory updates

Shaun McKenna: ONR had a presence on site for the whole pandemic. Even though there has been a pandemic, we just want to reassure the public that we have still managed to carry out our work. There are links in the pack to our reports.

635. Any other business

Mr Baptie: Reminder to community councils to invite me to your meetings if you want an update on protection measures relating to Torness.

Mr Swan: Thank you for the explanation on 2028, I am pleased employment will run onto 2032. I endorse Norman's views. If nothing more was to happen what would employment numbers look like post 2032.

Mr Forrest: As you approach end of generation (2028) we will move into a period of defueling our reactors which will take 3-4 years. Once we have removed all the fuel from our reactors, we will hand the plant over to NDA, which is a government body. Magnox will decommission the station. They will require staff and employment will continue to decommission starting with demolishing the buildings and I am not sure which strategy Magnox will take (time scales vary).

Mr Swan: When would the site be available for reuse?

Mr Forrest: The timescales to get the site down to a small footprint is not that long and it depends on the Magnox strategy. Reuse of the site could happen quite quickly

Mr Sawn: Would Skateraw Harbour still be available?

Mr Forrest: Yes, it would.

Mr Baptie: How long would REPIRR still be required?

ACTION: Mr Forrest to provide info to Mr Baptie

636. Date of next meeting

Paul Forrest: I propose we increase our meeting frequency to two meetings per year. We are open to suggestions from face to face to virtual or take the meeting to the community.

Action – Ashleigh to send out a survey to gather feedback from community

Could all members please complete the survey monkey questionnaire [here](#)