

Hunterston Offshore Wind Turbine Test Facility

Community Liaison Group Meeting Notes

Largs Library on Monday 27th March 2017

Attendees

SK – Sean Kelly (SSE)	✓	PP – Patricia Pearman (Largs CC)	✓
CM - Claire McKeown (SSE)	✓	GW – Graham Wallace (Cumbrae CC)	✓
CB – Chris Bell (SSE)	✓	JR - John Riddell (Fairlie Community Trust)	✓
JL - John Lamb (West Kilbride CC)	✓		
DP - Douglas Penman (West Kilbride CC)	✓		

Apologies

Pauline Allison (SSE) – Project Liaison Manager

Rita Holmes – Fairlie CC

Format – This meeting was requested following the recent decision by North Ayrshire Council to defer the planning decision on the Hunterston S42 application until the next committee meeting, likely June. SSE gave a presentation and questions were asked throughout.

1.) Project update

SK - Existing planning permission expires October 2017. Siemens turbine commissioned and noise survey completed 2014. Mitsubishi turbine fully erected and connected to grid March 2015, not fully commissioned to date due to technical issues.

GW asked if two more years would be enough time and if the Siemens testing is now complete. SK highlighted that with initial delays there had only been three years of testing rather than five so far and an additional two years were needed to complete the work. SK also explained that although the Siemens turbine is commissioned it is undergoing an operational testing phase which is vital for the Beatrice project to learn what issues will be encountered offshore.

JL asked if the Mitsubishi SeaAngel technology is now redundant. SK replied that it is true that Mitsubishi are not taking the 7MW SeaAngel turbine to market because of their partnership with Vestas, the technology is still important for later generation turbines though.

JR asked why the Siemens turbine is still being tested here if the 7MW version is already being deployed in offshore wind projects in Denmark and elsewhere and why other test sites which are offshore cannot be used instead. SK explained that there is still a lot to learn operationally from the turbine for the SSE and UK application, for example Siemens are looking to test a UK grid compliance software update to comply with new UK grid code requirements. This will be extremely useful for SSE as it will allow us to anticipate what we will experience on the Beatrice turbines when they start to become operational next year. SK added that an onshore location for offshore testing allowed safer and most cost effective testing of new technology. SK also advised that while the Siemens turbine is in the ownership and operational control of SSE the Mitsubishi turbine is owned by Mitsubishi and they are responsible for the testing of the machine. Although the technical data from the testing is for Mitsubishi, SSE does get sight of some operational information.

2.) Planning Committee

SK – Committee meeting held on 8th March 2017, local community representatives and SSE had the opportunity to speak. Committee decided to defer the planning decision until after the election and would like SSE to re-measure background noise and undertake the post commissioning noise survey for the Mitsubishi turbine before the meeting. SK confirmed that if the planning application for the 2 year extension was refused by NAC it is likely that SSE would appeal the decision. SSE advised that Mitsubishi would like to continue testing for one further winter period, subject to the planning approval to spring 2018, and would thereafter remove its machine from site. SSE could not confirm that the present Siemens machine would be removed by 2020 even if the application was granted as there could be a further extension application.

JR asked for a definitive answer on whether a longer term application will be submitted for the Hunterston site after the current two-year extension application has been determined. CB explained that we have been honest and transparent on this issue and flagged up that a longer – term application is a possibility but this has not been decided yet and if we were to go ahead with this it would be subject to a completely new application process where all parties, including the local community, would get their chance to input. PP added that there is some local resentment because there are fears that the timing requested from applications will keep changing, i.e. from 5 years to 7 years to potentially longer.

GW asked about offshore wind manufacturing facilities which were mooted as part of the original application and have not materialised in North Ayrshire. SK advised that UK Government ambitions for offshore wind have been tempered in recent years which has had an effect on attracting the supply chain to the UK. Most of the offshore wind development in the UK has been in England, particularly the east coast, which means any manufacturing (such as the Siemens blade factory) has preferred to be based there.

3.) Next three months / noise concerns

CM explained that as per the planning conditions there will be a post commissioning noise survey commencing in April or May. This will assess noise levels from both turbines. We are working with Mitsubishi to agree the optimal time to do this, it will be after they undertake some work which should allow longer periods of running at full power. Locations for the survey will be agreed with NAC. To address local concerns SSE is also committed to undertaking a further low frequency noise survey, location again to be agreed and input from residents will be essential to completing it. Finally SSE is re-measuring the background noise levels without the turbines operating. CM also highlighted that although every effort is being made to undertake these surveys when the Mitsubishi turbine is fully operational we need to complete them to present the results at the committee meeting in June, which will be very challenging due to the requirement for suitable wind conditions as well as the requirement for the turbines to be operational.

GW and PP both separately raised concerns about these noise surveys potentially being done when the Mitsubishi turbine was not operating at full output (and impact). CM and SK both reassured that if the survey did not have the Mitsubishi turbine operating at 7MW for the required period then further survey work would be undertaken at the later date when this was possible so all of the data was completed, in line with the planning condition requirements for the site.

JL asked if we were measuring just noise or frequency too and if any low frequency noise had been recorded. CM replied that all surveys record both and that our previous low frequency survey was in line with DEFRA criteria and recorded all low frequency noise (not just from the turbines) at the receptors and found it was not at a level expected to cause disturbance.

JL highlighted that the construction of the base for the Mitsubishi turbine had been delayed due to the ground conditions found and a very large amount of concrete was used and asked if some

interaction between the tower and the base moving or twisting could be having any impact on the turbine operation and noise. SK said this was very unlikely as the base was engineered to suit the conditions and fit the requirements for the Mitsubishi components and was built with a large margin of tolerance. The base is much bigger than that which would be built for a standard wind turbine.

JL stated that onshore wind turbines usually have noise profiles and asked if this was the same for offshore turbines and specifically those at Hunterston. CM replied that this was not a standard criteria and we are not aware of any profiles. The design of offshore turbine blades is very similar to their onshore counterparts.

JR stated that recently a small number of local people are alleging health affects from the turbines at Hunterston. Given that most testing and methodology around impacts from turbines are based on onshore 2 or 3MW versions are we now in 'unknown' territory? Could there be something new here such as low frequency, vibration, different parts and materials or pressure fluctuations. Is there an opportunity here to investigate this? CM replied that we have tested Siemens wind turbine noise according to ETSU criteria and combined low frequency noise to DEFRA criteria and we will do this again but it is very difficult to undertake other surveys and tests where there are no defined criteria for acceptance. The DEFRA procedure for the assessment of low frequency complaints is not a wind turbine specific procedure, it is intended to measure the levels of low frequency noise from any source.

JL said he understood the Mitsubishi turbine needs to turn slowly or 'idle' for a period until the oil in the gearbox heats up and then it operates. It may be that some of the issues experienced from residents are from this start-up process and can we measure noise (low-frequency or otherwise) then. SK responded that we can check with Mitsubishi on the start-up process and if we have the timing of when any ill-health effects are experienced we can easily see exactly what both turbines were doing at that time. The importance of completion of a noise log focussing on the residents perception of the noise effects, rather than the operational status of the wind turbine which SSE have at their disposal, was stressed.