

MINUTES

Attendees: Ed Rollings (ER) MeyGen
 Dan Pearson (DP) MeyGen
 Prof. Ian Bryden (IB) Chairman – UHI
 David O’Sullivan (DOS) MSLOT
 Roger May (RM) MSLOT
 Nicola Bain (NB) MSLOT
 Billy Harris (BH) MSLOT
 Kate Brookes (KB) MSS
 Ross Gardiner (RG) MSS
 Chris Eastham (CE) SNH by TC
 George Lees (GL) SNH by VC
 Toby Gethin (TG) TCE by TC

Date: 07/03/2014

Chaired by: Prof. Ian Bryden

Time: 10:00

Location: Marine Scotland,
Aberdeen

SUBJECT: MeyGen Advisory Group (AG) Meeting 3

Agenda

No.	Subject	Time (min)
1	Project Update	10
2	Minutes of last meeting	5
3	Terms of Reference	15
4	Discussion paper – Monitoring Objectives	15
5	SNH – Draft PEMP	45
6	PEMP steering document summary	5
7	PEMP steering document	45
8	Next Steps	10
9	AOB	5

No.	Subject	Action
1	Project Update	
1.1	ER – 4no. turbines (3 AHH and 1 ARL). HDD is now included in the project plan for Phase 1a. This is based on a review HDD costs and a desire to use the solution in the long term.	
1.2	ER – MeyGen are currently undergoing due diligence by a number of the Phase 1a funders. The target is to have this complete by the end of March, which would mean that following the funding bodies internal processes, financial close should be complete by May and contracts signed with principle contractors and supplies soon after. This is aligned with the programme that was presented at the workshop (27 th January 2014). DP provided greater detail on the progress of due diligence process at the end of the meeting.	
2	Minutes of last meeting	
2.1	Minutes of the last meeting approved	
3	Terms of Reference (ToR)	
3.1	DOS asked for any further comments on the ToR before they are approved, noted that Information Dissemination section might require some discussion.	
3.2	The AG agreed that information disseminated to the Liaison Group should be any approved documents from the AG (no drafts etc.)	
3.3	ER raised that MeyGen would like to see some wording in this section to note that commercially confidential documents, sections of documents or data would not be published publically. This is generally a concern for when monitoring is producing data and reports.	
3.4	AG agreed and did not see the purpose of publishing the current documents, which could produce more questions than answers to those interested in the project. The agreed PEMP should be a good starting place for publically available information	
3.5	RM noted that the MS website is going to be reviewed regarding the publishing of project information. Protocols will be put in place regarding what documents will be published and where on the website – MSLOT page and MSi. Details of these changes will be passed on to the AG	
3.6	IB noted that the issue of confidentiality and publishing information to the public gets difficult when there are impacts found or speculation surrounding an impact. There is an importance to providing monitoring results to the wider industry and public however this must only be done when these are robustly understood.	
3.7	ACTION – Re-word Information Dissemination section of ToR	DOS
3.8	ACTION – Send out final ToR via email for sign off by the AG	DOS
3.9	TG – asked if there should be a sentence to cover the expected lifetime of the AG	
3.10	DOS – there is a meeting frequency section and review of the function of the AG	
3.11	RM – it is anticipated that once the details of the PEMP are known there will be a greater understanding of the likely timescale for monitoring. The PEMP should indicate the data requirements and estimated timescales for delivery.	
3.12	RM- there is also a concern from MSLOT and TCE that they could be in the situation of having 10-15 AG's for different projects in the near future. Could see that in a few years there is a merger of these groups to tackle the issues as a collective. This is already happening with the Moray Firth windfarms.	
3.13	RM- noted that MS want a suitable level of monitoring and to limit the length of the monitoring period as much as possible.	
4	Discussion paper – Monitoring Objectives	
4.1	RG would like to see the inclusion of CFD modelling to help identify the whether some species, size, density of individuals would not be at risk of collision with the blades and would be pushed around the blades instead. This could eliminate some targets from the monitoring programme (e.g. smolts). Given that this is a document is a marker in the sand and outlines the thoughts on monitoring at the start of the AG, then it should be included so that at least it's recognised that it was discussed and not overlooked once the PEMP has moved forward.	
4.2	ID – this is something that the XMED programme is looking at. Noted that there was an indication from	

	SMRU's research that seals were moving against the flow, which if true would be very difficult to model. RG thought that Atlantic salmon would either hold station or move with the tide.	
4.3	ER believed that this is something that is more strategic research rather than project specific monitoring.	
4.4	GL – agreed. There was a project that MSS had scoped similar to this.	
4.5	ER – suggest that the idea of this research should be noted in the Steering Report as it was discussed at the Workshop.	
4.6	ACTION - Add CFD modeling of receptor/blade interactions to the Discussion Paper	DOS
4.7	ACTION – Add CFD modeling of receptor/blade interactions to the Steering Report	ER
4.8	GL –Is the paper suggesting a MeyGen specific strandings scheme?	
4.9	ER – a stranding scheme has been discussed further in the Steering Report. There is a question as to whether a specific scheme for MeyGen Phase 1a (4 turbines) is feasible or whether a wider industry scheme is more valuable.	
4.10	GL-SNH are planning (in March/April) to draft a proposal for a Pentland Firth and Orkney Waters Strandings Scheme. Will need partnership funding and ownership to progress.	
4.11	KB – requests a copy of the proposal.	
4.12	ACTION – GL provide a copy of the stranding scheme proposal to KB, once drafted.	GL
4.13	ER – requested that the wording around benthic surveys is relaxed. Currently there is a question mark regarding the feasibility of benthic surveys to provide useful data for Phase 1a monitoring.	
4.14	DOS – understands but it is specified in the consents. Has requested the input of benthic specialist in MSS on the matter.	
4.15	ACTION – DOS to change wording for benthic surveys in discussion paper	DOS
5	SNH – Draft PEMP	
5.1	ID suggested that the main table has been incorporated in the Steering Report so this would probably be easier to discuss it there in the context of the report.	
5.2	ER would like the SNH document to be re-named from draft-PEMP as the objectives within the document are not necessarily MeyGen project specific and contain some wider strategic work.	
5.3	AG agreed.	
5.4	ACTION – CE to change the title of the document	CE
6	PEMP Steering Document	
6.1	ER – the steering report has taken the consent conditions, the SNH document objectives, knowledge of the current and planned research and workshop recommendations to come to a refined list of operational objectives for the MeyGen PEMP. Given the scope of the MS Demonstration Strategy the document currently relies heavily on this. MeyGen have been approached by MS to be involved in the Demonstration Strategy; whilst this is a very good opportunity for both MS and MeyGen, there are some issues that need to be resolved. If MeyGen were to be part of the Demonstration Strategy, the company would be reliant on the results of the project to be fit for purpose to be used and applicable to the monitoring of Phase 1a. This would mean that there is a risk to MeyGen being able to meet the consent conditions. As such, MeyGen would like to be involved in the project as soon as possible to ensure that the risk is minimised as far as practical. It is acknowledged that tenders have been received and it would be MeyGen's request that they have some involvement in that process.	
6.2	KB – there is a review of the Demonstration Strategy tenders scheduled for 19 th March for a hopeful contract award by the end of March.	
6.3	ER – given the timescales we'd reiterate the urgency of having a call to discuss MeyGen's involvement	
6.4	ACTION – organize a call with MS (Elaine Tait etc.) for next week.	ER
6.5	GL – the SNH objectives do contain some aspirational targets for the industry, e.g. quantifying collision rates, which need to be considered in terms of practicality later in the development of the PEMP.	
6.6	CE – agree, whilst they are aspirational, any monitoring should working towards these but also the results should be assessed to give a level of confidence in the data, so that the risks can be fully understood when trying to move forward. This was done for the SeaGen EMP.	
6.7	KB – the Demonstration Strategy should provide technology/techniques that when incorporated into the PEMP, can be assessed to give a level of confidence in the likely data output and then the data can	

	be reviewed when available.	
6.8	GL – the table (taken from SNH objectives) are the primary objectives it would be good to see an indication of what is important for MeyGen consent in the table	
6.9	DOS – there are some areas that need to be included for validating the conclusions of the ES	
6.10	RM – Harbour seal are the main concern but in monitoring this there should be ‘opportunistic’ monitoring for other species. Data on Harbour seal will be required for a new Appropriate Assessment to move the project forward. GL agrees with this.	
6.11	ID – suggests that the table should highlight the critical requirements (3 levels of importance)	
6.12	KB – there is also the need to prioritise those areas that require a baseline – where there’s a requirement to move a little quicker e.g. tagging breeding bird.	
6.13	ER – that’s ok but to date we’ve been going with the process that has been set out for us.	
6.14	DP – If there’s a need to move quicker then that’s ok, but it shouldn’t at MeyGen’s risk if decisions are made quickly regarding getting survey work done this year.	
6.15	KB – agreed, we just need to consider this baseline as soon as possible.	
6.16	ER – we can organize a call to discuss this further next week with SNH and Jared Wilson	
6.17	ACTION – organize call with SNH/MSS/MSLOT regarding breeding bird tagging	ER
6.18	GL – Should it not be MSLOT with advice from SNH and MSS that prioritise the objectives and provide this to MeyGen?	
6.19	RM – the AG should guide the process and MSLOT make a decision.	
6.20	DOS – this is the general idea of the Steering Report, it has taken the overall objectives and identified what is important for the consent of the project and what is covered by other strategic research.	
6.21	ER – Section 5 of the Steering Report identifies the areas that need to be covered by the PEMP. This could be further refined as discussed to show what is a priority and what is opportunistic. For example, the priority is to monitor Harbour seal collision risk. If active sonar is used then you have the opportunity to monitor the other species, such as Grey seal. When developing the PEMP it might be concluded that to help monitor Harbour seals it would be best to tag a proportion of the population; however, a tagging study for Grey seal might not be considered feasible (given their greater range) which, could be accepted, given its lower priority status.	
6.22	TG – the data column in the table should be regularly reviewed when the PEMP is being developed to ensure it is in line with technology development.	
6.23	GL – can the AG help ER prioritise other species/impacts now?	
6.24	ER – The obvious one is the priority between collision and disturbance and displacement. Can there be a distinction between the two?	
6.25	All – Agreed the priority should be on collisions given the uncertainty regarding monitoring disturbance and displacement for 4 turbines.	
6.26	GL – Do other receptors need to be considered? Atlantic salmon?	
6.27	KB - Atlantic salmon is a very strategic issue, it has to be considered what exactly can be done at the MeyGen site?	
6.28	RG – We’re almost certain that salmon pass through the Pentland Firth so it has to be considered of importance to monitor the first turbines. All –agreed	
6.29	GL – Cetaceans, from a PR perspective as much as from a nature conservation perspective.	
6.30	DP – suggest an AG Recommendations section at the end of Section 5. All - agreed	
6.31	ACTION – ER to update the Steering Report; provide some prioritization of receptor/impact monitoring in Section 5. The Steering Report should be distributed for comments again before being finalized.	ER
7	Next Steps	
7.1	ER – no immediate requirement for another AG meeting. There are a number of documents to sign off, which can be done via email. A 2 nd draft of the Steering Report will be circulated as soon as possible.	
7.2	DOS – regular updates to the AG on the progress of the PEMP and Demonstration Strategy. Initial thoughts are a meeting in 2/3 months.	
7.3	ACTION ER/DOS to keep the AG updated on progress and arrange the next meeting when necessary.	ER/DOS
8	AOB	

8.1	RG – EIMR conference, can GL give us more detail on the Friday workshop?	
8.2	GL – it's still being planned however, It's being split into 3 themes: modelling, behavioural responses and documenting strikes. It's being organised by Ben Wilson, Beth Scott and George. There has been great deal of interest in this workshop so there may be changes required to accommodate everyone.	
8.3	RG – There's a partnership called IBIS (Integrated Aquatic Resources Management Between Ireland, Northern Ireland and Scotland) between University of Glasgow, Queen's University, Belfast and the Loughs Agency. It includes a project on collision and strike in a hydro turbine, using dummy fish. May be of interest to the AG. http://www.loughs-agency.org/ibis/the-project/ IB – XMED using similar dummy seals.	

ACTION REGISTER

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4	ACTION – Add CFD modeling of receptor/blade interactions to the Discussion Paper	DOS	
5	ACTION – Add CFD modeling of receptor/blade interactions to the Steering Report	ER	
6	ACTION – GL provide a copy of the stranding scheme proposal to KB, once drafted.	GL	
7	ACTION – DOS to change wording for benthic surveys in discussion paper	DOS	
8	ACTION – CE to change the title of the document	CE	
9	ACTION – organize a call with MS (Elaine Tait etc.) for next week.	ER	
10	ACTION – organize call with SNH/MSS/MSLOT regarding breeding bird tagging	ER	
11	ACTION – ER to update the Steering Report; provide some prioritization of receptor/impact monitoring in Section 5. The Steering Report should be distributed for comments again before being finalized.	ER	
12	ACTION ER/DOS to keep the AG updated on progress and arrange the next meeting when necessary.	ER/DOS	