Srahmore Peat Deposition Site

1 QUALIFICATIONS/EXPERIENCE

1.1 My name is Aiden McGee. I am Head of Technical Services at Bord na Móna Energy. I manage a team of engineers and technicians who deliver Mechanical, Civil and Environmental Engineering services and research activities within Bord na Móna Energy. I also manage a number of projects for the company. I hold a First Class Honours Degree in Mechanical Engineering from DIT Bolton Street Dublin. I have over 26 years experience in the peat industry.

1.2 Inspector, the objective of my evidence today is to show how the Srahmore Peat Deposition Site is ideally placed to accept and store the peat from the on-shore pipeline development.

2 KNOWLEDGE OF THE SITE

2.1 Bord na Móna is the owner of a site located in Srahmore, Bangor-Erris, County Mayo. This site is known as the 'Srahmore Peat Deposition Site' or the 'Srahmore Site'. I have been involved in Bord na Móna's Srahmore Peat Deposition Project from the initial concept stage in 2003. I was Bord na Móna's Project Director for the original design, planning and development of the Srahmore Site and during the deposition of peat at the site during 2005 and 2007.

2.2 Likewise, I am Bord na Móna's Project Director for the proposed deposition of additional peat at the Srahmore Site.

3 SCOPE OF EVIDENCE

3.1 Today, my brief of evidence will cover the following areas:-

1. The context of the Srahmore Site.
2. A description of the proposed development.
3. Infrastructure and facilities at the site.
4. Operation and management of the site.

4.0 Context of the Srahmore Site

4.1 Bord na Móna Energy Limited provided fuel in the form of milled peat from the Oweninny Works to the ESB's peat-burning power station at Bellacorick, Co Mayo. The Srahmore Site is a subset of the Oweninny Works. This power station was closed at the end of 2004 and peat harvesting from the Oweninny Works also ceased. Details of the context of the site are provided in Sections 1 and 2, Volume 3 of the EIS. Volume 3 of the EIS was prepared for Bord na Móna by Tobin Consulting Engineers.

4.2 Bord na Móna submitted a rehabilitation plan for the cutover peatlands of the Oweninny Works to the Environmental Protection Agency (known as EPA) in June 2003. This plan, under IPPC Licence No. 505, outlined the criteria defining successful rehabilitation at the Oweninny Works. This includes both Bellacorick and Bangor peat extraction sites. The plan described a number of test programmes that incorporated the principles and methods of rehabilitation. The EPA approved the plan in June 2003. The condition that refers to cutover peatland rehabilitation within the IPPC Licence is Condition 10.

4.3 In 2003, the Srahmore Site was the subject of a Planning Application to Mayo County Council and a Waste Licence Application to the EPA, in relation to the deposition of peat from the Bellanaboy Bridge Terminal Site. A separate rehabilitation plan was submitted for the Srahmore Site with the Waste Licence Application and the Planning Application. Planning permission was granted by Mayo County Council and subsequently by An Bord Pleanála in October 2004. A Waste Licence was granted by the EPA in October 2004. The rehabilitation plan for the Srahmore Site was accepted by both An Bord Pleanála and the EPA. Therefore, the Srahmore Site rehabilitation plan supersedes the plan which was previously approved under the IPPC Licence.

5.0 Description of the Proposed Development

5.1 The Srahmore Site is situated approximately 1km northwest of the village of Bangor-Erris, County Mayo and comprises a cutover peatland [Slide 1].

5.2 The Srahmore Site was developed to receive up to 450,000 m^3 of peat from the Bellanaboy Bridge Terminal Site. During 2005 and 2007 approximately 448,000m^3 of peat was successfully excavated at the Terminal Site and transported to and deposited at the Srahmore Site. The deposition of peat from the Terminal Site was completed in 2007. The Srahmore Site continues to operate under the Waste Licence granted by the EPA. However, it should be noted that an application for the review of the current Waste Licence is necessary in order to facilitate the proposed development. Such an application has been lodged with the EPA.

5.3 The proposed development involves the use of the Srahmore Site for the deposition of up to 75,000m^3 of peat from the on-shore pipeline development. Further details of the proposed development are provided in Section 2, Volume 3 of the EIS.

5.4 Deposition of up to 75,000m^3 of peat at the Srahmore Site can be accommodated due to the existence of remaining void space within the original permitted deposition area. This void space exists because a smaller infill area was required to accommodate the peat from the terminal site than designs predicted. The reasons for the smaller infill area are attributable to conservative design assumptions and the fact that the peat was better drained when imported than originally anticipated. This was due to the extended delay in excavation between 2005 and 2007, resulting in a lower moisture content, thereby reducing the required infill area.

6.0 Infrastructure and facilities at the site.

6.1 The proposed activity at Srahmore is a continuation of the use of the site, with all activities located within the activity boundary of the Srahmore Site which was previously granted Planning Permission [Slide 2]. Details of the construction are provided in Section 2, Volume 3 of the EIS.

6.2 The enabling infrastructure required for peat deposition exists at the site, having been previously constructed prior to the import of the peat from the Terminal Site. The entrance to the site is from the R313 Regional Road. A security gate and fence exists at the entrance to the site to prevent unauthorised access. An access road exists from the R313 to the Peat Reception Area to facilitate traffic movements to and from the site. Other existing infrastructure includes an administration area, lighting standards, a wheel dip and parking areas for cars and trucks.

6.3 In the case of temporary facilities and structures which were removed after the completion of the previous peat deposition operation, such as the temporary wheel wash and weighbridge, these can be reinstalled at the site for the duration of the proposed peat deposition operation. The same applies in relation to temporary contractor accommodation facilities, which are proposed to be imported to the site for the duration of the deposition operations and removed thereafter.

6.4 Extensive water management infrastructure was constructed within the site prior to the previous peat deposition operation and remains in operation. This water management infrastructure is designed to control, manage and treat all water draining from the site, to ensure appropriate water quality standards prior to outfall to the receiving surface water environment. This infrastructure remains in operation as permitted under the existing planning permission and will continue to perform its existing functions during the deposition and stabilisation operations proposed as part of this application.

6.5 An internal access road will be constructed, within Bay 2 of the peat deposition area, using construction techniques previously used successfully at the Srahmore Site. This internal access road will be used to facilitate peat transportation and deposition. A series of temporary timber mat roads will be constructed within the peat deposition area to minimise peat handling. These timber mat roads will be moved as required to facilitate the deposition and shaping of the peat.

7.0 Operation and Management of the site

7.1 The activities at the Srahmore Site can be divided into two phases, namely Deposition and Stabilisation. An Environmental Management System and Environmental Monitoring have been put in place and are in operation at the site.

Deposition

7.2 The proposed deposition works at the Srahmore Site will be carried out by an approved contractor, under the management of Bord na Móna, and in accordance with the requirements of any Planning Approval, together with the requirements of the Waste Licence.

7.3 During the peat deposition operation, trucks (which will be managed by an approved contractor) will transport peat from the on-shore pipeline development to the Srahmore Site. Once the peat transport trucks enter the Srahmore Site from the R313 they will be managed in accordance with Bord na Móna requirements.

7.4 The peat will be unloaded from the peat transport trucks onto the Peat Reception Hardstand [Slide 3]. The unloaded trucks will then exit the Peat Reception Hardstand, pass through the wheel wash and exit the site onto the R313.

7.5 The peat will then be loaded into low ground bearing pressure trailers (known as Haku trailers) by loading shovels operating on the Peat Reception Hardstand [Slide 4]. The transfer of peat from road haulage vehicles to Haku trailers was the method used for peat transportation during the previous operations.

7.6 Operations within the Peat Reception Hardstand will be managed by a proven methodology which ensures that unloading and loading is carried out in a safe and efficient manner [Slide 5]. The peat transport trucks will deliver peat to one side of the Peat Reception Hardstand while the loading shovels load peat from the other side. Traffic management bollards will separate the unloading and loading operations. A managed change over will be implemented when loading is completed at the loading side of the Peat Reception Hardstand.

7.7 The Haku trailers towed by tractors will transport the peat into the deposition area via the network of internal haul roads and timber mat roads [Slide 6]. The Haku trailers will unload the peat using their side tipping operation. When unloaded, the Haku trailers will return to the Peat Reception Hardstand for their next load of peat.

7.8 The deposition operation will be completed using excavators which will place the peat in its final location within the peat deposition bay. The excavators will also be used to shape and grade the deposited peat into the final deposition shape [Slide 7]. The final deposition shape includes a graded surface which will facilitate surface runoff.

7.9 The proposed working methodology for peat deposition is similar to that which was successfully used in the previous peat deposition operation in 2005 and 2007.

Stabilisation

7.10 Following the deposition phase, a medium term phase of passive monitoring, together with minor remedial works, will be undertaken to ensure the peat is stable and drainage is maintained. This is required to ensure there is no potential for peat entrainment or mobilisation. This is known as the stabilisation phase.

7.11 It is anticipated that the stabilisation phase will be complete within 5 years following peat deposition. The stabilisation phase is currently being undertaken for the peat that was imported during 2005 and 2007.

7.12 The revegetation of the peat imported in 2005 and 2007 is considered a success and validates the design and proposals submitted in the original EIS in 2003.

7.13 Inspector, I would like to draw your attention to a series of slides which demonstrate the extent of revegetation which was achieved over a short time period.

7.14 [Slide 8] Slide 8 shows the Srahmore Site in 2003 before any peat was deposited.
Note the sparse vegetation cover.

7.15 [Slide 9] Slide 9 shows the Srahmore Site in 2005 immediately after peat was deposited.
You are looking at the top surface of peat which had been deposited after coming from the Terminal Site. In this slide you can see evidence of vegetation commencing.

7.16 [Slide 10] Slide 10 shows the Srahmore Site in 2006 one year after peat was deposited.
You can see from this image that a significant level of revegetation was achieved within one year of the peat being deposited.

7.17 Reinstatement of the site to natural conditions (for example: rewetting to enhance growth of peat-forming vegetation) is not possible during the peat stabilisation phase. It is not possible to allow impedance of drainage during the stabilisation phase as this could result in peat instability and would prevent remedial works being undertaken as required. However, once the stabilisation phase is complete potential reinstatement measures will be considered with a view to enhancing the biodiversity and the ecological value within the site.

7.18 The ecological aspects of the revegetation at Srahmore are discussed in more detail in a later brief of evidence.

8.0 Monitoring

8.1 Bord na Móna is the owner of the Srahmore Site. As such, Bord na Móna is responsible for the management and control of the site in compliance with the existing Waste Licence and Planning permission.

8.2 Bord na Móna seeks to conduct all aspects of its business in an environmentally sensitive manner. To this end, Bord na Móna has developed and implemented an Environmental Management System at the Srahmore Site.

8.3 Environmental monitoring has been established on-site and is on-going to assess the performance of the site, to review impacts and to assess other issues arising during the deposition and stabilisation phases.

8.4 The Environmental Management System is monitored and a system of regular environmental audits has been established.

8.5 The Environmental Management System and Environmental Monitoring will remain in place during the proposed deposition activities and until the surrender of the Waste Licence with the agreement of the EPA.

9.0 CONCLUSION

9.1 In conclusion Inspector,

9.2 The Srahmore Site was developed by Bord na Móna as a peat deposition facility in 2005. This development was previously granted Planning Permission and a Waste Licence.

9.3 During 2005 and 2007 peat from the Terminal Site was successfully excavated, transported and deposited at the Srahmore Site.

9.4 It is now proposed to use the Srahmore Site for deposition of approximately 75,000 m^3 of peat from the on-shore pipeline development. This peat can be accommodated within the remaining void space of the original permitted deposition area.

9.5 The proposed peat deposition is a continuation of use of the site, with all activities located within the original activity boundary.

9.6 The enabling infrastructure required for peat deposition is largely on site. In the case of temporary facilities and structures, these can readily be reinstated for the proposed activity.

9.7 The proposed methodology for peat deposition and stabilisation is similar to that used successfully in the previous operation.

9.8 With these factors taken into consideration it can be concluded that the Srahmore Peat Deposition Site is ideally placed to accept and store the peat from the on-shore pipeline development in a controlled and managed manner.

9.9 That concludes my evidence Inspector.