

4 ALTERNATIVES

4.1 Background

A planning application and accompanying EIS for the Bellanaboy Bridge Gas Terminal was submitted to Mayo County Council in April 2001. Following appeal to An Bord Pleanála the development was refused planning permission due to concerns about the stability of the proposed peat storage on the site. The original Terminal proposal had envisaged storing all peat excavated during construction activities on site within bunded areas. Following an An Bord Pleanála decision, the project was re-examined and alternatives, as well as other options for peat management, were considered.

This re-examination resulted in a new planning application to Mayo County Council in December 2003, which proposed the removal of approximately 448,000m³ of peat from the Bellanaboy Bridge Gas Terminal Site with subsequent deposition of the peat in the Bord na Móna cut over peat land at Srahmore. This proposal was acceptable to Mayo County Council, An Bord Pleanála and the EPA, with Planning Permission granted by An Bord Pleanála in October 2004 and a Waste Licence issued by the EPA in October 2004.

Subsequent to the successful deposition of approximately 448,000m³ of peat at the Srahmore Peat Deposition site in 2005 and 2007 by Shell E&P Ireland Limited and Bord na Móna a study was commissioned into the remaining void space within Srahmore and the feasibility of transporting excavated peat from the construction of the onshore pipeline development and transport to, and depositing on, the Bord na Móna cutover peatland at Srahmore.

The Srahmore Peat Deposition site has proven to be an effective and sustainable solution to the question of peat deposition from the Bellanaboy Bridge Gas Terminal site.

Peat from Bellanaboy Bridge has been safely transported to Srahmore Peat Deposition and placed there in an orderly manner. The resulting landforms have, as predicted, revegetated successfully and no deleterious matter has been released to the surrounding environment.

Consequently, it is proposed to utilise the unused and available storage capacity at the Srahmore Peat Deposition site to deposit the excess peat from the proposed onshore pipeline development. This deposition will employ similar operating and management techniques used during the previous peat deposition activities carried out in 2005 and 2007.

4.2 Need for the Scheme and Potential Alternatives

The Corrib Gas Field is in the process of development. An integral aspect of the scheme is the proposed onshore pipeline link between the Corrib Gas offshore pipeline and the Bellanaboy Bridge Gas Terminal site.

Volume 1 & Volume 2 of this EIS details the environmental impact of the construction of the onshore pipeline development.

This Volume of the EIS, in respect of the Srahmore Peat Deposition site element, details the environmental consequences of depositing up to 75,000m³ of peat. This Volume of the EIS is prepared so that the environmental consequences of the peat transport and deposition at the Srahmore Peat Deposition site can be assessed in the context of the overall proposal.

The Srahmore Peat Deposition site was designed and was constructed for the deposition of the envisaged 450,000m³ of peat from the Terminal site. Upon final deposition from Bellanaboy Bridge Gas Terminal site, approximately 448,000m³ of peat had been successfully imported and spread within the site.

During the previous operation, peat was deposited within Bay 2 (20-25% of potential area currently occupied), Bay 3 (100% occupied), Bay 4 (100% occupied) and Bay 5 (100% occupied). No peat from the Terminal site was deposited in Bay 1, Bay 6 or Bay 7. Therefore, remaining void space exists. A smaller area than predicted in the original infilled bay design was required to accommodate the peat from the Terminal site. The reasons for the smaller area is most likely attributable to conservative design assumptions and the fact that the peat was better drained when imported than originally anticipated, resulting in a lower moisture content/higher density, thereby reducing the required infill area.

Under the current development proposal it is proposed to utilise the remaining void space within the permitted activity boundary of the Srahmore Peat Deposition site to accommodate up to 75,000m³ of peat from the construction of the onshore pipeline development.

Ultimately, it will be a decision of An Bord Pleanála to confirm the Approval for the Srahmore Peat Deposition site as part of and in order to facilitate the construction of the onshore pipeline development. Should Approval for the proposed onshore pipeline be granted by An Bord Pleanála, an appropriate deposition and storage facility is required for up to 75,000m³ of peat.

In terms of potential alternative disposal sites to the Srahmore Peat Deposition site, there are two licensed landfill disposal facilities in I gContae Maigh Eo (County Mayo) that could potentially accept the peat from the onshore pipeline development. These licensed landfills are located at Doire an Iomaire (Derrinmera) (north of Castlebar) and Ráth Ruain

(Rathroeen) (north of Ballina). Export of the peat to these facilities, while technically feasible, would require significantly greater haul distances (40-50km in the case of Ráth Ruain (Rathroeen) and 80-90km in the case of Doire an Iomaire) (Derrinnumera) and would also occupy up to 75,000m³ of landfill capacity, thereby reducing the available capacity for residual municipal waste. The utilisation of municipal waste void space at these facilities is not considered an appropriate solution for peat deposition and is not considered an improved alternative solution to the use of the Srahmore Peat Deposition site.

Investigations were undertaken to identify and assess alternative means of utilising the excavated peat from the onshore pipeline development. These are described below:

Fuel in Power Stations

The use of the excavated peat as a fuel in power stations has been investigated in discussions with Bord na Móna. It was determined that the peat would be too wet to be used directly as fuel and a complex and time consuming procedure of drying the large volumes would be required. In addition, there would be the issue of very large haulage distances from the site to available peat fuelled power stations, e.g. Lough Ree Power, Béal Átha Liag (Lanesborough) (i gContae Ros Comain) (Co. Roscommon), West Offaly Power (Droichead an Sionainne, i gContae Uibh Fhaili) Shannon Bridge, Co. Offaly) Edenderry Power (Éadan Doire, i gContae Uibh Fhaili) (Edenderry, County Offaly). These issues determined that it would not be feasible to use the peat as a fuel.

Gardens / Horticulture

The type of peat used for horticultural purposes is termed Younger Sphagnum Moss Peat. The peat present along the onshore pipeline development is Blanket Bog Peat, which has been humified too much and its structure broken down. It is therefore not suitable as a horticultural material.

There is the possibility that the peat could be used to improve soil texture in agricultural land. However, the very large quantities of peat to be excavated make this alternative impracticable due to the infinite variety of potential locations and the uncertainty over the timescales in which the peat could be removed.

Fuel for Domestic Use

Market demand was deemed too small relative to the quantities of peat involved. Use as domestic fuel would also entail a lengthy process of drying, as well as the difficulty of distributing the peat as discussed above.

Summary

The potential alternatives explored do not provide a compelling argument for alternatives to the proposal of peat deposition at the Srahmore Peat Deposition site. The availability of an EPA Waste Licensed facility for Peat Deposition, which was previously granted planning

permission by An Bord Pleanála for deposition of 450,000m³ of peat, at an approximate distance of 15-20km from the onshore pipeline, is considered the most appropriate solution.

4.3 Assessment of Transport Methods

Consideration was given to the method of transporting the peat to determine if any improvements could be made to the previous deposition operation. No improvements or refinements were identified.

4.4 Peat Spreading Method

Two methods of peat transfer were considered:

1. Direct transfer of peat onto the peatland by road haulage vehicles; and
2. Transfer from road haulage vehicles to low ground bearing pressure trailers or rail for dispersal on the peatland.

Direct Transfer

This involves the direct transfer of peat onto the peatland using the road haulage vehicles. This would be used to transport the excess peat from the onshore pipeline development. These vehicles would be required to travel on a higher standard and significantly stronger internal road infrastructure, which would have to be constructed.

This method has the advantage that there is no requirement for secondary transport equipment, as the road trucks travel into the peat spreading area. However, this option would involve construction of significant length of internal roads of appropriate strength.

This option was deemed inappropriate in that it involved the removal of a significant amount of construction materials and surfacing of roads. This would (a) alter the physical character of the site and (b) prove to be a less environmentally sustainable activity.

Transfer via reception area

This option involves the transport of the peat by road trucks to the existing reception/transfer facility, within Area 5. The peat would then be loaded into low ground bearing pressure trailers (Haku trailers). These trailers would then transport the peat to Area 6 via the existing internal roadways. This method was successfully utilised in the previous operation and no significant problems arose in the on-site transport operation.

Conclusion

It is proposed to adapt this same methodology in the transport and deposition of the peat derived from the onshore pipeline development as used in the deposition of peat from the Terminal site.