

Bord Gais Eireann (U.K.) Limited.

Proposed South-North Natural Gas Pipeline

Report on Oral Hearing into:-

- (a) Applications to the Commissioner for Energy Regulation for consent to the construction of a natural gas transmission pipeline.**
- (b) Application to the Commissioner for Energy Regulation for the relevant Acquisition Orders.**
- (c) The Environmental Impact Statement.**

Michael Ward

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Report Contents

1.0	Preliminary	3
2.0	The Proposed Scheme	5
3.0	Location/Description	9
4.0	The Oral Hearing	10
4.1	Appearances on behalf of BGE	
4.2	Objectors	
4.3	Preliminary/Procedural Announcements	
4.4	Bord Gais Eireann Evidence.	
4.4.1	<i>Introduction</i>	
4.4.2	<i>Evidence of J. Barry</i>	
4.4.3	<i>Evidence of Ms. G. Glasgow</i>	
4.4.4	<i>Evidence of K. Partridge</i>	
4.4.5	<i>Evidence of E. Halpin</i>	
4.4.6	<i>Evidence of P. Trundle</i>	
4.4.7	<i>Evidence of R. Knott</i>	
4.4.8	<i>Evidence of D. Barr</i>	
4.4.9	<i>Evidence of M. Barber</i>	
4.4.10	<i>Evidence of E. J. Bolger</i>	
4.4.11	<i>Evidence of D. Healy</i>	
4.4.12	<i>Evidence of B. Barry</i>	
4.5	Objector's Evidence	
4.5.1	<i>Evidence of P. McDonnell</i>	
4.5.2	<i>Evidence of W. Martin (on Behalf of Lord Ballyedmond)</i>	
5.0	Assessment of Evidence and Recommendations	70

1.0 PRELIMINARY

1.1 The Oral Hearing

As directed by the Commission for Energy Regulation, I held an Oral Hearing arising from objections received in relation to:-

- (a) Applications for consent to the construction of a natural gas transmission pipeline.
- (b) Applications for the relevant Acquisition Orders.
- (c) The associated Environmental Impact Statement.

1.2 Venue and Dates

The Oral Hearing was held at the Grand Hotel, Malahide, commencing on Tuesday 27th September, 2005, and ending on the following day.

1.3 Site Inspections

Site inspections were carried out in the weeks preceding the Oral Hearing, particularly of those sites for which objections were received. An aerial inspection of the proposed pipeline route was also undertaken on 14th September, which was followed by a ground inspection of specific sites for which objections had been received. Further ground inspections of particular sites were undertaken on 21st September, 2005.

- 1.4** All of the statutory requirements appear to have been complied with. These include the preparation of an Environmental Impact Statement, public consultation, appropriate notices to affected parties, submissions to prescribed bodies, etc.

- 1.5** A transcript of the proceedings of the Oral Hearing has been prepared and is contained in one volume, extending to 85 pages.

2.0 THE PROPOSED SCHEME

2.1 South-North Natural Gas Pipeline

It is proposed to construct a natural gas pipeline with a diameter of 450 millimetres, over a distance of 56 kilometres between Gormanston at the southern extremity of County Meath and the border with Northern Ireland at Dungooly, just south of Forkill.

2.2 Acquisition Orders

A total of 42 no. Acquisition Orders in respect of wayleaves and lands were applied for by BGE (UK) Limited to the Commission for Energy Regulation (the 'CER') on the 11th day of April, 2005, comprising lands for 3 no. Above Ground Installations (AGIs), 1 no. cable wayleave and 38 no. other wayleaves. These are listed hereunder.

No.	Townland(s)	County	Reputed Owner
SN.001	Irishtown and Gormanston	Meath	Patrick J. and Hilda McDonnell
SN.003	Richardstown	Meath	Christina Ferris and Others
SN.005	Gormanston	Meath	Reps. Of Oliver Collins, deceased
SN.006	Gormanston	Meath	Sean Newcomen
SN.007	Gormanston	Meath	Seamus McGreevy
SN.009	Sarsfieldstown	Meath	Eamon & Eileen McCullough
SN.017A	Raholland	Meath	Ita, Derville and Elaine Hoey
SN.025	Annager	Meath	Seamus and Shelagh Bellew

SN.029	Platin	Meath	Anne Frances Murray and Others
SN.030	Platin	Louth	Patrick & Alica McCabe
SN.032	Platin	Meath	Gerard Curran
SN.033	Platin	Meath	Leo Reilly & Others
SN.034	Platin	Meath	Laurence & Margaret Drew
SN.035	Donore	Meath	John Drew & Gerard Drew
SN.036	Donore	Meath	Gerard Drew & John Drew
SN.037	Donore	Meath	Reps. of Thomasina Kathleen Smith, deceased
SN.038	Sheephouse	Meath	(The Secretary) Triton Exports Limited
SN.038B	Oldbridge	Meath	Paul Murray
SN.038C	Between Oldbridge and Mell	Meath and Louth	River Boyne Crossing
SN.039	Tullyallen and Mell	Louth	John Francis Oliver Tuite & John Tuite
SN.040	Tullyallen	Louth	Patrick Murphy
SN.041	Tullyallen	Louth	Bernadette Byrne
SN.043	Tullyallen	Louth	Thomas Cooney
SN.044	Tullyallen	Louth	Joseph Murphy
SN.045	Tullyallen	Louth	Patrick James Oliver Tuite
SN.046	Tullyallen	Louth	John & Anne Berrill
SN.048	Tullyallen	Louth	Albert Murray
SN.049	Hill of Rath	Louth	Nicholas Carolan
SN.050	Hill of Rath	Louth	Terence King
SN.051	Hill of Rath	Louth	Jerona Jackson

SN.087A	Richardstown	Louth	Brian & Linda McCabe & Kathleen Campbell
SN.089	Dromgodestown	Louth	Reps. of Patrick A. Reilly, deceased
SN.117A	Walterstown and Rossmakay	Louth	Various occupiers
SN.122	Knockattin and Cavan	Louth	Mary Murphy c/o Cathal Murphy
SN.127	Ballybarrack	Louth	Gerard Brennan
SN.148	Drumbilla and Ballinful	Louth	Elizabeth & Gerard McShane
SN.154	Dungooly	Louth	Lord Ballyedmond & Edward Haughey
SN.155	Dungooly	Louth	Patrick and Mary O'Reilly
SN.AGI.1	Gormanston	Meath	P.J. and Hilda McDonnell
SN.AGI.2	Knockatober	Louth	Patrick A. Brennan
SN.AGI.3	Donaghmore	Louth	Seamus Lambe
SN.C133	Donaghmore	Louth	Seamus Lambe

2.3 Environmental Impact Statement

The Environmental Impact Statement comprises a non-technical summary, and the principal report containing appendices, two of which are set out in separate volumes, i.e. appendices 4 and 6. In addition, an addendum report to the Environmental Impact Statement has been prepared which relates to the River Boyne Crossing.

The EIS is presented in the form of text, maps, photographs, illustrations, etc. The topics addressed include flora and fauna, soils and geology, agriculture,

landscape and visual, fisheries, architecture, archaeology and cultural heritage
of noise assessment.

3.0 LOCATION/DESCRIPTION

3.1 Location

Commencing at Gormanston, the proposed pipeline is to extend westwards gradually altering to a north-western and then a northern direction west of Drogheda and in the direction of Dunleer. It will lie along the recently completed M1 motorway for part of its length. At the crossing of the Boyne River the pipeline will closely adjoin the motorway bridge (revised location and alignment arising from the addendum report) before resuming its original line northwards, the proposed diversion being of the order of 3.3 kilometres long.

In the vicinity and to the west of Dunleer the proposed pipeline will cross the White River, extending northwards to the west of Dundalk before reaching the border just south of Forkill.

3.2 Description

The pipe will be located underground with a minimum ground cover of 1.2 metres. It will be designed in accordance with IS328 (2003) 'Code of Practice for Gas Transmission Pipelines and Installations', with requirements relating to design, construction, operation and safety. The wall thickness of the pipe will vary between 7.1 millimetres and 16.1 millimetres, depending on ground conditions. The heavier thickness pipes will also be used at road, rail and other sensitive crossings as well as locations below the Building Proximity Distance of 45 metres, reducing the BPD to 3 metres. A maximum operating design pressure of 85 barg is envisaged for the pipeline.

The route of the pipeline is stated to have been selected to provide the most economic alignment between the two terminal points which usually equates to the shortest practical route which results in least overall disturbance and associated environmental impact.

4.0 THE ORAL HEARING

4.1 Appearances on behalf of BGE:-

1. Mr. D. Gleeson - Senior Counsel, instructed by O'Flynn Exhams Solicitors.
2. Mr. J. Barry - Engineer
3. Ms. G. Glasgow - Engineer.
4. Mr. K. Partridge - Ecologist.
5. Mr. E. Halpin - Archaeologist.
6. Mr. P. Trundle - Engineer.
7. Mr. R. Knott - Engineer.
8. D. Barr - Engineer.
9. Mr. M. Barber - Engineer.
10. Mr. E. Bolger - Agricultural Specialist.
11. Mr. D. Healy - Engineer.
12. Mr. B. Barry - Secretary BGE (UK) Limited.

4.2 Objectors

Objecting Landowners

Of the eight (8) original objections received in relation to wayleaves/acquisitions, a number of objections were withdrawn or not proceeded with both before and during the Oral Hearing. The remaining objectors who participated or were represented at the Oral Hearing were:-

1. Mr. P. McDonnell and Hilda McDonnell, represented by Mr. J. Smith, Barrister.
2. Lord Ballyedmond, represented by Mr. G. Compton, Barrister, with Mr. W. Martin, Agricultural Consultant, giving evidence.

4.3 Preliminary/Procedural Announcements

- 4.3.1** At the commencement of the Oral Hearing the Inspector identified himself and stated that he had been appointed by the Commission for Energy Regulation to conduct the Oral Hearing following objections to a number of Acquisition Orders in relation to the proposed Above Ground Installations (AGIs) and the pipeline for the South-North Gas Pipeline.
- 4.3.2** The days and sitting times of the Oral Hearing were indicated, together with some minor details.
- 4.3.3** A request was made that mobile phones should be turned off.
- 4.3.4** It was indicated that there were stenographers present who would prepare a transcript of the proceedings.
- 4.3.5** It was pointed out that the contributions of the parties at the Oral Hearing could be by way of evidence or submissions or both, with each party having an opportunity to cross-examine witnesses.
- 4.3.6** Only those objectors who had objected in time (by 26th August, 2005) would be permitted to participate fully. Late objectors would not be permitted to cross-examine witnesses, but would be permitted to make a submission.
- 4.3.7** Details of the order of business at the Oral Hearing were then outlined.
- 4.3.8** BGE was asked to prepare a statement of any additional mitigating measures (apart from those in the EIS) which BGE would consider to be appropriate arising from exchanges at the Oral Hearing, such measures to be set out and handed to the Inspector prior to the conclusion of the Oral Hearing. Copies should be made available to the objectors.
- 4.3.9** BGE was also asked to provide a list of witnesses, specifying both the order of witnesses and their areas of speciality/function.

4.3.10 The Inspector also indicated that it would not be possible to provide times or day slots for witnesses, having regard to the previously indicated order of business. The estimated time to complete the Oral Hearing could not be given either as this would depend on the time taken by the parties to conduct their cases.

4.3.11 The Inspector then indicated the order in which objectors would be heard, both in relation to cross-examination of BGE witnesses and their own evidence/submissions.

4.4 Bord Gais Eireann Evidence

4.4.1 Introduction

Following the listing of the names of participants by the Inspector, an opening submission was made by Mr. D. Gleeson, on behalf of BGE. He set out the position of the remaining objectors as matters stood at the commencement of the Oral Hearing as he understood and proceeded to outline the project as follows:-

Having regard to the objections received, the greatest concern appears to be the routing of the pipeline and its impact on individual holdings.

The pipeline will be 155 kilometres long, extending from Gormanston in County Meath to Ballyelbanagh in County Antrim with about 56 kilometres in the Republic and the balance in Northern Ireland. It will be a standard high pressure pipe with three above-ground-installations (AGIs) in the Republic.

It will serve to integrate an all-Ireland grid or network integrating supply sources from Kinsale and connecting sources from Scotland.

There are two systems in Northern Ireland. The proposed pipeline, the South-North Pipeline, will start in County Meath, pass through County Louth and

across the border of Forkill. It will then proceed through the Districts of Newry and Mourne, Banbridge, Craigavon, Lisburn, Antrim, Newtownabbey and Larne.

The pipeline is of standard design with a good safety record. It is a high pressure line, part of a 1,300 kilometre network in the Republic and about 1,800 kilometres on the island. It will be 450 millimetres in diameter and in agricultural areas will be 71 millimetres thick. It will comprise welded high tensile steel. The above ground installations represent control positions on the line.

The safety record of high pressure gas pipelines in Ireland is extraordinary. It is infinitely safer than electricity distributors or other forms of energy transmission.

The above-ground-installations may be used to isolate parts of the pipeline, to extract gas from the line, for the maintenance of the line, etc.

Construction is envisaged to commence in mid-year of 2006 with reinstatement extending into the spring and summer of 2007.

Wayleaves are required for a distance on either side of the pipeline so as to provide access to the pipeline. This is a permanent wayleave, 40 metres wide. A wide wayleave is required for construction purposes.

The project conforms with relevant national and local policies, e.g. the National Development Plan, 2000-2006, and the National Spatial Strategy. It also conforms with the Louth County Development Plan (2003), the Meath County Development Plan, 2000, and the East Meath Development Plan, 2000. These issues are dealt with in the EIS.

The integration of the energy systems north and south meets certain national objectives with multiple supply availability from the Kinsale and Corrib Gas Fields, as well as yet undiscovered fields.

The transmission of natural gas is heavily regulated both at national and European level and will be constructed to the relevant standards.

In identifying a line for the proposed pipe, one starts at the macro level, with general corridor considerations, e.g. east or west of Louth Neagh in Northern Ireland, or east or west of Drogheda. More detailed routeing maps are then prepared in an economic and efficient way. Considerations would include the avoidance of mountains, marshy areas, dumps, etc. The preferred route goes through sound agricultural land where there is minimal interference with existing habitation. It is difficult not to impinge on land that is either developed or has development potential. The shortest route is not necessarily the most economic.

The gas itself is colourless and odourless. An odorant is added to assist detection. It comprises between 80% and 95% methane with some other hydrocarbon components. The products of combustion are carbon dioxide and water. It burns cleaner than other fossil fuels.

Construction involves providing a continuous roadway through agricultural land, fenced on both sides with work taking place within these fences. This corridor provides access for machinery from road crossings. Topsoil stripping is undertaken with soil set down on one side and other excavated material placed on the other side. Pipes are delivered, which have already been coated with three protective layers of material. They are strung together, welded and tested. Welds are tested and coated again.

The pipe is then lowered and tied in with a minimum coverage of 1.2 metres. Careful backfilling is undertaken with yellow tape placed above the pipe in the event of any unforeseen excavations taking place over the pipe. Surface markers are also used at intervals at ground level to indicate the presence of a pipe. Regular inspections on land and in the air are also undertaken to ensure that no unauthorised works take place.

Corrosion protection is provided firstly by the pipe coatings referred to earlier, but also by a cathodic protection system utilising electric current to repel moisture.

The pipe is tested for leakages, using water, prior to commissioning.

The Gas Acts of 1976 to 2002 provide the legislative framework for the project. The monopoly held by BGE originally in terms of compulsory acquisition, consent applications, wayleaves, etc. no longer exists and other entities have been authorised to pursue similar applications, acquisitions, etc. Section 8 of the 1976 Act, as amended, sets out the authorisation procedure for projects such as the current proposal. It also identifies to whom the Environmental Impact Statement should be submitted as well as bodies which the Board is obliged to consult. These include local authorities, the Heritage Council, etc.

Section 5 of the Gas Act, 2002, gives the CER the function to regulate gas effectively, taking over the Minister for Energy's previous role.

Section 32 of the original Act as amended allows persons other than the Board to exercise compulsory powers and apply for consent.

BGE (UK) Limited is a wholly owned subsidiary of BGE.

The construction standards to be adopted for the pipeline will comply with the 2003 edition of IS328, the Code of Practice for Gas Transmission Pipelines. The standards set out in IS EN 1594 will also be complied with. Pipe manufacturing standard (European) EN 10208 will also be complied with. In addition, the CER produced a paper relating to gas pipelines embracing IS328 and International Gas Engineers Standards, TGI.

Lands are classified in relation to the above standards: - 'R' for rural, 'S' for semi-rural and 'T' for town. There are no 'T' sections in the current proposal.

'R' is the preferred routing where pipe wall thickness of 7.1 millimetres may be used. In 'S' areas 16.1 millimetre pipes are required.

For line pipe the proximity criteria (for buildings or inhabited dwellings) is 45 metres. It is much less for heavy walled pipe. The permanent wayleave must also be kept free, even where heavy walled pipes are to be used.

It is open to the Board to upgrade the lighter walled pipe with the heavier walled pipe in the event of a planning permission being secured for a development less than 45 metres from the pipe.

The laying of a gas pipeline is exempted development under the Planning Acts. However, AGIs require planning permission and permission has been secured for each, apart from one which is subject to appeal.

The European Community's, EIA Regulations, 1989 to 1999, require an Environment Assessment for certain infrastructure. The current proposal exceeds the threshold in terms of gas pressure and pipe length and therefore requires the preparation of an Environmental Impact Assessment which has been undertaken and the document produced and circulated. It addresses all of the required environmental impact topics. It was prepared by a firm of consulting engineers and environmental scientists. The statement was made available and circulated in accordance with the Gas Acts.

The CER sought and obtained an independent assessment of the EIS which was found to have been undertaken with reliability and quality. The report is available for scrutiny.

The Department of the Environment wrote a letter on 8th June, 2005, to CER, setting out certain concerns and making certain recommendations. These concerns have been or will be met.

The application is for consent under Section 39(a) as inserted by Section 12 of the 2002 Act, for acquisition of wayleaves under Section 32 of the 1976 Act

and for acquisition orders in respect of AGIs. There are 160 wayleaves in the Republic and approximately 130 are by consent.

The scheme will be part of the National Grid, which started in 1977 with undersea connections to Scotland in 1993/94 and again in 2002. Internal pipelines extend from Gormanston to Galway, Clare and Limerick and the Mayo/Galway pipeline is under construction. Some smaller lines have also been undertaken.

Permanent wayleaves will secure permanent rights of access to the pipeline for which confirmation by the Commission is sought. Ministerial consent will also be required under Section 21 because the Board is required to obtain consent for capital projects over a certain level.

The pipeline will be undertaken by experienced contractors with European experience. It will be a speedy process which is well tested.

About one-third of the pipeline will be heavy-wall pipe. Proper reinstatement of the ground will be undertaken.

4.4.2 Evidence of J. Barry

The witness is an engineer and Capital Projects Manager for Bord Gais.

The company is licensed by the Commission for Energy Regulation (CER) in the Republic and by the Northern Ireland Authority for Energy Regulation in Northern Ireland. The licence in Northern Ireland requires the company to build a South-North pipeline subject to regulatory, statutory and financial approval. Approximately 150 kilometres of pipeline will be added by the proposal to the 800 kilometres already in existence. Northern Ireland is currently fed from infrastructure in Scotland. The northern licence covers two projects, i.e. the North-West pipeline and the current proposal, the South-North pipeline. The latter will serve Newry and areas of Armagh, Portadown and Lurgan as well as Antrim.

As a fuel, gas is very environmentally friendly and provides consumer choice, enhancing energy competition. Apart from local supply from Kinsale, gas is imported from the UK and Europe to the extent of 75% to 80%, the balance coming from Kinsale.

Following the discovery of gas in Kinsale in 1973, the Gas Act of 1976 was enacted. Subsequently gas was piped to Cork and then to Dublin. In 1986/87 Bord Gais took over the Town Gas companies. In 1993 the first inter-connector to the UK was laid as the Kinsale field was unable to meet demand. In 2002 the Gas Interim Regulation Act was put into place and in 2003 the blueprint for full gas market opening was established. In 2004 the Belfast to Derry pipeline was completed and commissioned.

Domestic demand has grown from 150,000 customers in 1987 to an expected 500,000 customers in the current year. Demand is expected to grow significantly in the period up to 2011 and 2012.

In relation to market regulation, third party access for larger customers occurred in 1999 and 85% of the market is now open to full supply competition with full market opening planned for 2005/2006.

The CER produces a Gas Capacity Statement annually which looks at gas supply and demand and draws conclusions in relation to requirements for infrastructure.

In relation to an all-Ireland market, both Governments agree on such a safe and secure market with all of its benefits. In 2004 a Development Framework document was published, looking at the concept of an all-Ireland energy market. The South-North pipeline was seen as a strategic gas element of policy.

The pipeline itself is 156 kilometres in length, about two-thirds of which will be in the north and one-third in the south. Design pressure is 85 barg with a pipe diameter of 450 millimetres. There will be seven stations (AGIs) and 497

wayleaves. A total of 145 road crossings, 18 river crossings and five rail crossings. The projects both north and south are grant-aided to a significant extent.

The proposed pipeline will provide additional capacity for Northern Ireland and will provide security of supply. It will have potential to attract industry and for power generation along the route.

Approximately 700 people will be employed, generating €70 million to the local economy.

Whilst Bord Gais has an in-house capacity to design and develop such projects as this, on this occasion it appointed a firm of consulting engineers.

The role of the Agricultural Liaison Officer is to contact affected landowners and to maintain contact during and following reinstatement. Matters arising in relation to design, routing or otherwise are dealt with by this officer.

In relation to standards, the pipeline will be built to recognised standards. In the South it is IS328 (2003). A licence has been obtained from the CER in the South and a similar licence in the North.

The safety/integrity of the pipeline commences at design stage following through to construction and thereafter following the commissioning stage. This is a 24-hour, seven days a week task. Condition and protection systems monitoring is undertaken and maintenance programmes are in place. Full emergence response procedures are also in place and are regularly tested.

Approved suppliers and contractors only are used with exhaustive pre-qualification for contractors prior to engagement. Every item of high pressure material goes through a rigorous testing process by third parties employed by BGE. The Engineering Requirement Document is a set of standards to which systems are designed and a certificate of fitness is required to be produced by

an independent evaluator in relation to the design, construction and subsequent operation of the pipeline.

The starting point of the pipeline is Gormanston, ending in Ballyalbanagh in County Antrim. The consultants were briefed to keep the pipeline as economic as possible, taking account of towns which could be fed off it later.

A full EIS was prepared and mitigating measures identified. All of these will be undertaken by the appointed contractor.

An extensive public consultation process was undertaken. Public bodies were also consulted both North and South.

It is hoped to construct the pipeline in March 2006. Two contracts are envisaged. Reinstatement will run into 2007.

In the South planning permission for three installations (AGIs) has been obtained, one of which has been the subject of appeal.

The construction process involves the preparation of the right-of-way, the construction of the pipeline and finally reinstatement. The right-of-way preparation involves fencing, topsoil stripping and pipe stringing. The working spread will be 30 metres wide with topsoil deposited on one side and excavated material from the trench on the other, permitting heavy machinery to track up and down. During topsoil removal, archaeological monitoring is conducted. Following topsoil stripping the pipe is strung out ready for welding which is then proceeded with. Up to 1.2 kilometres of pipework per day can be achieved. Trench excavation is largely conventional. Following appropriate trench bedding the pipework is lowered into the trench. Backfilling is conventional with sand used occasionally. Reinstatement, which is important to landowners, includes the reinstatement of any disrupted drains.

Responses to Questions

1. The above ground installations (AGIs) will form part of the project. There are three of these and they were the subjects of planning applications. They are mentioned in the EIS. Apart from these and the markers there will be nothing visible above ground. There is an acquisition with respect to one AGI. The pipework underground is exempted development.
2. The report which evaluated the Environmental Impact Statement (the Kelly Report) on behalf of the CER is available.
3. The EIS for the project was not submitted with the original planning application.

Exchanges

Counsel for An Taisce raised concerns about their property rights. Counsel for BGE indicated that no notice had been given in relation to the asserted property right concerning a property right over a towpath. An Taisce had received a full set of documents for the project in may 2005 and it was difficult to see how the issue could be raised on the morning of the commencement of the Oral Hearing.

Counsel for An Taisce indicated that An Taisce have a statutory easement on the Boyne Canal. BGE is aware of this. Modifications were made in the EIS to facilitate An Taisce's concerns. It would seem that the matter could be resolved.

- Copies of the Kelly Report made available.

Interjection

Mr. Coffey, solicitor, formally withdraws the objection of Mr. J. Murphy - No. 044.

Mr. O'Donnell, Barrister, formally withdraws the objection of Mrs. Tuite subject to agreement between the parties modifying the line of the pipe to a minor degree - maps to be submitted to the Inspector (subsequently received). Counsel for BGE agreed with this. The lands referred to are in the name of Patrick James Oliver Tuite.

Mr. O'Donnell, Barrister, also indicated that the concerns of An Taisce had been resolved over lunch. He requested the Commission to give his clients the cost of their appearance, but indicated that the Commission would be formally written to at a later stage.

The Inspector indicated that it was outside his remit to deal with the issue.

Mr. O'Donnell then withdrew from the Oral Hearing.

The Inspector clarifies the position with regard to outstanding objections as follows:-

1. The McCulloughs represented by Gaynor Corr do not intend to participate at the Oral Hearing.
2. The McDonnells and their representative remain as objectors and will participate at the hearing.
3. Lord Ballyedmond remains as an objector and will continue to be represented by his counsel.

4.4.3 Evidence of Ms. G. Glasgow

The witness is an engineer and a chartered environmental scientist.

The witness was responsible for the preparation of the EIS and Non-Technical Summary, having been involved in the project since November 2003. Both documents were prepared in accordance with European and Irish legislation, the Gas Acts and the Planning Acts. Strategic policies were also consulted, including the National Development Plan, the National Spatial Strategy, EPA Guidelines on EIS's, etc.

A scoping exercise was undertaken initially in order to identify the key environmental issues. Consultations with over 70 organisations were also undertaken. In particular consultations were undertaken with the relevant planning authorities to establish the location of future development lands. At this stage the relevant information and constraints were fed into the pipeline routing.

Following the scoping exercise each area was examined in detail in terms of environmental impact. A multi-disciplinary project team was appointed to deal with some specialist issues, i.e. archaeology, fisheries, flora and fauna, etc.

Mitigation measures were identified on a hierarchical basis. These were avoidance (pipeline routeing), reduction (re-routeing, etc.), remedy (post-construction, etc.). The main focus was on avoidance.

Consultations continued throughout the project. In particular 30 consultees were involved in the Republic who were invited to comment on the project as it progressed. Requests for follow-up meetings were accommodated.

Landowners along the proposed pipeline had agricultural liaison officers available to them as a first point of contact to discuss the implications of the

project. Requests by landowners for meetings with project team members were accommodated.

Part of the consultation process involved presentations to elected members of affected Councils. Roadshows were also held for a wider audience.

The consultation process helped to identify appropriate mitigation measures which were assembled into an overall matrix of environmental considerations. A key site along the route of National/European environmental significance, a Special Area of Conservation is the River Boyne crossing. Trenchless construction techniques are proposed to be used for the pipeline in this location. This may be undertaken by either drilling horizontally under a river or other obstacle, and exiting on the other side or the use of tunnelling where pits on either side of an obstacle are excavated in advance of tunnelling from pit to pit. Another environmentally sensitive area is the Stabannon-Broganstown Special Protection Area. In order to avoid any impact on the winter bird population, work will be undertaken in the summer months. The pipeline has also been routed away from the monastic site of Monasterboice because of its archaeological potential.

Overall the project is of significant scale with sections of it in both jurisdictions north and south. Both Departments of the Environment are required to consult their counterparts and both have been kept fully informed of the project team's activities.

The basic legislation under which Environmental Statements are prepared stem from European directions so that a single statement could be provided for both jurisdictions. This single statement was submitted to the CER for approval in the Republic of Ireland and to local authorities in Louth and Meath in support of the applications for above-ground installations.

The CER undertook formal consultations relating to the project and the project team dealt extensively with the Department of the Environment, Heritage and Local Government in relation to archaeology and nature conservation

concerns. All of the mitigation measures identified will be undertaken in the construction process.

The Environmental Statement submitted to the CER was independently reviewed in June 2005. Bord Gais is committed to undertaking the recommendations of the review.

The re-routeing of the pipeline at Monasterboice takes it out of an area of key archaeological importance. BGE is also undertaking recommendations of the CER in relation to formalising environmental procedures which have been incorporated into an Environmental Management System.

The letter from the Department of the Environment dated 8th June, 2005, makes reference to a number of environmental issues. The concerns expressed will be addressed, as will those in the EIS appraisal report of the Kelly Consultancy.

Responses to Questions

1. The Department of Defence is not a statutory consultee but they were consulted via another route.
2. Trenchless construction is more expensive than trenching construction.
3. In relation to the McDonnell lands (map and letter referred to - Drg. No. 5566/92 dated December 2004, issued by consultants for BGE - also marked 'A') the red route was indicated as the selected route, in preference to the blue route as it is more direct and maximises the use of State-owned property. Comments on the choice of line at this point will be addressed by another witness.

Interjection on Behalf of Lord Ballyedmond

Outline of Impacts on Lord Ballyedmond's Lands

The pipeline route will have severe injurious effects on the lands, in particular two fields of high quality and the proposed dwellinghouse as well as the future development of the lands. There is an alternative route which has been put forward. A third route was proposed by the consultants. (Reference document 'Report on the Pipeline Routes Considered at Wayleave 154 - June 2005). The preferred route is shown as 'A', the objector's preferred route is shown as 'B' and the compromise route is shown as 'C'. The alternative routes are shown in the report referred to above.

Another map, Ref. EIG 154, is also submitted and contains the same route descriptions as the earlier referred to report. It also shows the lands belonging to Lord Ballyedmond outlined in a heavy black line.

The report referred to purported to look at the three routes under three specific headings. Route A was confirmed as the choice of route, notwithstanding the acceptability of Route 'C'.

4. In relation to route selection on page 3 of the report, the factors considered in evaluating the alternative routes (A, B and C) were engineering feasibility, pipeline length and therefore cost. A second factor was additional impact on ecology and sensitive habitats (surveyed by a specialist). A third factor was impact on archaeological heritage, together with any additional effects from either one of the three routes as well as other general environmental factors. Whilst the alternative route lengths are dealt with in the report, the actual costs are not dealt with. The three issues dealt with in the report are engineering, ecology and archaeology.

Paragraph 4.1 of the report describes the location of the original route. It would go through good arable land, providing a good surface for

pipeline construction and could be quickly reinstated. The fields to be crossed are large with few field boundaries to be crossed. No heavy walled pipes will be required. It is the most straightforward option which, with its shortest length, will involve least disruption during construction.

Paragraph 4.2 describes Route B. It departs from the proposed BGE route to the south, crossing an undulating field to a road crossing where the working area would be restricted by a well and pump and a substantial hedge of high ecological value. The route would cross two fields to low-lying land along the Forkill River, following the river for 500 metres and crossing drainage ditches. The water table is high in this area, leading to difficulties with trench excavation and plant movement during construction. The remaining 300 metres also adjoins the river, but is on higher and better drained land. The route would be 244 metres longer than the original route, crossing 12 field boundaries compared to seven in the original. These facts reinforce the opinion that the B route is not practical. The original route remains the preferred route from an engineering and construction viewpoint.

The report is an accurate reflection of the findings for Route A (paragraph 4.1). The report is a comparative one, pointing out the differences in the different routes. Comments in the report in relation to topography are intended to be factual. There are no negative connotations in the descriptions. Route A was described previously and the description of Route B is of a new route for completeness of information.

Paragraph 3.3 of the report (page 3) refers, inter alia, to the original and shortest route (1,063 metres). The pipeline was adjusted so as to cross the road in a perpendicular fashion. This latter point is an important factor in routeing.

In relation to the map in the report showing three alternative routes, all three routes show the proposed pipeline perpendicular with the more major road. The question of referring or not referring to the laneway (parallel with Route A) was a matter for the writer. The presence of the laneway was known when the report was being compiled. The routeing engineer would be the best person to respond to routeing questions. The issue of the laneway was not one that was struck or deleted from the report. It would not have been in the engineer's original report to the witness.

The conclusions in the report (page 6, paragraph 4.4) with regard to Route B is that it is the least preferable of the three considered, Route A being the preferred route, with Route C being the second preference. The reasons for not preferring Route B are the extended length of the pipeline and the 500 metres of pipe location in ground with a high water table.

The ecological walkover study highlights the preferred option Route A. Negatives in relation to this route would include hedge crossings and some tree removal. The magnitude of the impact of the pipeline on the three routes followed the same method by identifying how many trees and hedgerow crossings would be involved.

Judgements were made on the ecological issues. Not all of the specialists' reports would have been discussed by the project team. The style of the report in relation to the negatives associated with Route A was not discussed. No mention was made of some negatives associated with Route A not being dealt with in the narrative of the report.

With reference to the steel structure, it has been ascertained what the proposed use is to be. As it is outside the 45 metre proximity distance it was not given consideration. It is understood that it will be a dwelling. If the structure had been known to be a dwelling it would

not have changed the order of the options dealt with or the routing of Route A.

Route 'C' was a route which the project team developed after initial approaches from the landowner to try and reach an accommodation. Route A is the preferred option and is the one to which the CPO relates. There are other landowners affected by the alternative routes which were not pursued when Route C was rejected by the main landowner. Two other properties were involved. Alternative B would also have implications for other wayleaves. This was not pursued either.

There was no deliberate omission in the report adverse to Lord Ballyedmond.

4.4.4 Evidence of K. Partridge

Dr. Partridge has a degree in Natural Sciences and a doctorate in Marine Biology. The witness was responsible for the flora and fauna aspects of the EIS during 2003/2004 for the proposed South-North Gas Pipeline, carrying out a survey of the entire route.

The most significant issues are loss of hedgerows, loss of mature trees, potential loss or damage to unimproved grassland or other semi-natural habitats crossed by the pipeline. There is also the issue of possible impact on protected fauna (badgers), nesting birds and possibly bats.

The pipeline crosses three designated sites of conservation importance, two SACs at the River Boyne and the SPA, Special Protection Area, at Sabannon-Broganstown, County Louth. However, with drilling techniques to be adopted under the Boyne, there will be no direct impacts on this site and in the SPA work will be done in the summer, avoiding impacts on wintering geese.

The methodology for the project was set out in four phases with ecological inputs from the start. Care was taken to avoid habitats of nature conservation interest, including wetlands, moorland, etc., visible from aerial maps. Environmental constraint maps were drawn up which were used to produce a preliminary route later refined and adjusted. Finally, a team from the consultants checked the entire route from environmental and engineering perspectives by walking the entire route.

The ecological survey resulted in certain re-routes to avoid badger setts and other habitats. Re-routes also occurred for other reasons. As a result, 15 kilometres of re-routed sections were re-surveyed in July 2004. A further survey of the River Boyne at a new crossing was carried out in late September 2004 and additional surveys were undertaken south of Forkill on Lord Ballyedmond's lands early in 2005.

91% of the route falls into non-sensitive habitat, the remaining being sensitive habitats, mostly grassland. There are also very small areas of scrub and woodland. The greatest impact of the pipeline is on hedges. The total number of trees to be felled has not yet been established, but is likely to be fewer than 100 trees in the southern section.

20 sites or features of nature conservation interest were found in Meath and Louth which merited re-routes or special mitigation methods. These included the SACs and SPA referred to earlier.

Four wetland areas, which are non-designated sites, were identified, three of which were avoided. The fourth could not be readily avoided. Mitigation measures will be adopted to minimise impacts. Re-routes were also arranged for the five badger setts identified in the Republic.

Otters were found in one location but no breeding sites were found. Hares were discovered to be quite plentiful. Ground nesting birds and those nesting in hedges occur throughout the route which are protected by wildlife legislation. The main method of dealing with these birds is to remove

vegetation prior to the bird breeding season. There was no evidence of bat roosting habitats but further investigation requires to be undertaken in trees which may have to be felled. No newts were found, but frogs were found in places.

Re-routes will avoid most of the sites of nature conservation interest. Other mitigation measures include the use of trenchless techniques in the Boyne SAC, reducing working width, etc. Hedgerows will be replanted with a similar species mix.

Special measures will be taken to safeguard protected species of fauna and licenses will be sought from the National Parks and Wildlife Service where appropriate.

At the road crossing 46/47 (RDX) just south of Forkill, three route options (previously described) were considered using the same survey methodology in each. Route A (Map No. 154) was surveyed on 8th June, 2004. The impact (of the pipeline) is mostly on improved grassland of low conservation value. Seven hedges will be breached. All are of medium quality. No mature trees or wet ditches will be affected. A number of young trees, 2-4 metres high, have been planted along two hedges within the Lord Ballyedmond estate. A small number of these will have to be removed.

Route 'B' takes a wide swiipe to the east and is 244 metres longer than the original route. It was surveyed on 19th April, 2005. This route would require the breaching of 11 hedges, one of which is high quality, five of medium quality and five of low quality. It would cross two wet ditches and put two mature trees at risk. There will be a greater impact on unimproved and semi-improved grassland, habitats of higher nature conservation value.

Route 'C' is approximately 90 metres longer than the original route and was surveyed on 25th February, 2005. It crosses mostly improved grassland with a small percentage of unimproved grassland. 11 hedges would be breached, all of which are of medium quality. One mature tree would be at risk.

In terms of ecological impact, Route A is the best as it will affect a smaller number of hedges, very little habitat and no mature trees. Route C is also acceptable from an ecological viewpoint, even though more hedges would have to be breached and one mature tree would be at risk. Route B is the least favourable as it would result in damage to 11 hedges, one of which is high quality. The pipeline would pass through damp unimproved grassland, wetland habitat and affect two mature trees. There would also be an increased risk of damage to the network of drainage ditches along the Forkhill River and possible silt run-off into the river.

Responses to Questions

1. One route only (Route A) was examined in the original survey.
2. With reference to the ecological section of the Report on Wayleave 154, there is a comparison of Routes A, B and C. Whilst equal impacts with that of Route B may be found elsewhere on the pipeline route where there is no good alternative, in this case taking the pipeline through improved ground is the least damaging in ecological terms.
3. The impacts of the routes could be regarded as being in the middle zone of a scale of impacts.
4. There are sections of lands south of the Lord Ballyedmond lands where severance impacts need to be mitigated (Ref. Map No. 5564/92/5/14). There are other sections where the impact is less because it is improved or arable land. There is an area identified on the map as 'Species-Rich Damp Grassland'. This was considered an important site and caused the pipe to be routed to the south-east. The witness is not in a position to grade it.
5. The table on page 7 of the report states that 47% of the route goes through semi-improved grassland with 6% going through unimproved grassland. That represents 53% of a longer route than the original

route. It would represent a moderate ecological impact compared with other parts of the pipeline route. In this context it would be the most damaging option. Route A would have a low ecological impact because it involves crossing mostly improved grassland, a lower number of hedges are affected and no trees. The land through which Route 'B' would pass is not 'protected' or designated.

6. In relation to Route 'C', it is shorter than Route 'B' 86% is though improved ground as against 47% in Route 'B'. The hedge impacts could be regarded as equivalent. Two trees are affected on Route B. One tree is affected on Route C. Route C is acceptable from an ecological viewpoint. Route B is the least acceptable. The acceptability of Route B is dependent on facts other than ecology. Route B is not a favourable route by comparison with Routes A and C.
7. If Route 'B' was on another piece of land and the only route available, one would look to securing better routeings with a lesser impact on ecology. In the current case with the availability of Route 'A' there was no need to look at an alternative route.
8. A survey in respect of Route 'A' only was carried out originally.
9. Working width for hedges can be reduced in order to minimise impacts. Hedge recovery varies depending on height. Shorter hedges recover more quickly. Route 'A' hedges are well-clipped hedges which should recover. Four are medium height hedges and one is tall. (Appendix B2 'Field Survey Results'). A₂ is a clipped medium hedge of which there are four on Route A. A₃ is a clipped low hedge. B is an unclipped tall hedge. A low hedge would recover in 10 years and a medium hedge 15 to 20 years. On Route 'B' there are seven A₂ hedges and a B hedge (an unclipped tall hedge). There is also one 'E' hedge, a chopped hedge and an 'F' hedge (the remains of a hedge).

10. In Route C there are two B hedges (i.e. tall unclipped hedges) with one chopped hedge 'E'. Hedge comparisons are not the only issue of ecological interest.
11. Grass seed can be selected to reduce to a certain extent the impact of the pipeline on semi-improved ground. If accompanied by fully implemented mitigating measures the issue can be dealt with (i.e. reducing working width, using special bog mats, etc.).
12. Whilst Route 'B' is through semi-improved ground for 47% of its length and the impacts could be mitigated with seeding and other mitigating measures, it would be better not to enter the ground in the first instance if possible. It is an objective of route selection to try to avoid the more sensitive ecological habitats.
13. Route B is not acceptable from an ecological viewpoint. It is not acceptable because there are less damaging routes available. Routes are compared in the selection process. With respect to findings on Route B, such findings have been accepted in places where there is no better alternative. However, one cannot evaluate routes independently. They should be compared.
14. Replacing trees along the hedge with native species would be beneficial to the ecology because native species are of higher ecological value.
15. Page 8 of the proof of evidence (of the witness) largely recreates the findings of the wayleave report. However, at paragraph 7.2 of the proof of evidence it is stated that 'a small number of these trees will have to be removed in order to install the pipeline and a 40 metre wide corridor kept free of all tall trees'. This is not referred to in the earlier report. The proof of evidence was being amended up until the eve of the Oral Hearing. The information was known originally but the witness was asked to record it in order to make the point.

4.4.5 Evidence of E. Halpin

Mr. Halpin is an Archaeologist.

An archaeological survey was undertaken on the route from Gormanston to Antrim. The Oral Hearing is concerned with the line from Gormanston to Dungooly (at the border).

The study was carried out under a number of headings including journal and documentary search, cartographic search, aerial search, Sites and Monuments Record, etc. Field inspections were also undertaken, an Impact Assessment made and mitigation measures proposed. Only one known site of archaeological interest would be impacted upon, i.e. a plough truncated earthwork at Deerpark west of Dundalk. One significant site of architectural potential was noted, a walled garden again at Deerpark.

The archaeological potential of rivers and streams is recognised. Ten rivers and streams will be crossed. Wade surveys will be conducted, as well underwater archaeological surveys if necessary. During the walkover two further potential sites were noted, none of which is of certain archaeological origin.

The area of greatest archaeological potential is an area west of Drogheda. It crosses the valley of the River Boyne close to the extreme eastern margin of the buffer zone associated with the UNESCO World Heritage Site of the Battle of the Boyne. Following significant and detailed discussions with the DOEHLG and subsequent geophysical surveys, a route was agreed running parallel and adjacent to the line of the M1 Motorway.

The mitigating strategy will involve two elements. One will involve pre-construction testing, i.e. geophysical surveys, wade and other surveys, test trenching and topsoil stripping. This work will be targeted in areas considered to be of pre-construction value. Pre-construction work associated with the

route within the World Heritage Site and Bru na Boinne consisting of the 30 metre wide corridor will be staked out and a metal detector survey undertaken.

All anomalies will be tagged as ferrous or non-ferrous and the distribution will be surveyed. Sample excavations will be undertaken which will be followed by advanced topsoil stripping of the entire length of the route within the buffer zone of the World Heritage Site. The second phase will be during construction known as a watching brief. There will be an archaeological presence during all stages of construction works. All archaeological works will be fully recovered and reported upon and a report will be submitted to the relevant heritage authorities and BGE.

In relation to the archaeology involved in the Lord Ballyedmond lands, the three routes, A, B and C, have already been appraised in ecological terms. Route B runs in a gap between the Forkill River and Urney Churchyard. The witness required that the pipeline should be placed as far away as possible from the churchyard because of 'potential' archaeology associated with the graveyard which would not necessarily be confined to the graveyard boundaries. There is also a potential of archaeology associated with the unimproved agricultural ground along the river, as well as potential archaeological sites along the river itself.

On the other hand, Route A runs reasonably close to a Rath, an isolated feature defined by a bank and ditch. Route B would, however, have a higher archaeological potential than Route A.

In the wayleave report, paragraph 6.2, Urney Church is designated LH 04006 and Dungooly Rath is designated LH 04005.

Responses to Questions

1. The known archaeology of Urney Church will not be affected by Route 'B' but there is archaeological potential associated with the graveyard extending beyond its limits. It is a factor which should be taken into

account. It is not mentioned in the report. At paragraph 6.2 of the report (page 8) the known archaeological site of Urney is mentioned and the witness was aware of the potential (archaeology).

2. There is archaeological potential associated with LH 04005, Dungooly Rath. The routeing of A is sufficiently far away that any potential associated that the route is unlikely to impact it. The space between the graveyard and the river is relatively narrow with potential for finding archaeology.
3. At paragraph 6.4 of the report under the heading of 'Conclusion', it is stated that provided the routes are a sufficient distance from Dungooly Rath and Urney Church and the right-of-way to the Church is maintained, the re-route will not have a significant impact on known archaeology. There is no evidence of previously unknown archaeology in any of the routes analysed. 'Potential' archaeology is based on experience.
4. There will be no impact on known archaeology by Route B at Urney Church or by Route A at Dungooly Rath. If Route B gets the go-ahead it will be subject to intensive investigation, topsoil stripping, etc., because of its archaeological potential - a mitigation measure.
5. With regard to distinguishing between known and potential archaeological sites, it is a standard practice to avoid known archaeological routes. As in the World Heritage Site, where mitigating measures were adopted because of the significant archaeological potential, it is anticipated that if Route 'B' is chosen, pre-development works will be required. This was not referred to in the conclusions because of the absence of impact on the known archaeology.
6. Routes A and B will not have any impacts on the known archaeology. Because of the intensive agricultural ground along Route A a considerable distance from the Rath, the archaeological potential need

not be highlighted. Its archaeological potential is less than the potential between the site of Urney Graveyard and a notional border.

7. Route A will not have a significant impact on known archaeology. That is also true of Route B. One should not disturb ground unless one needs to. If Route B gets the go-ahead, a geophysical survey would have to be undertaken, followed by archaeological test trenching followed by topsoil stripping.

4.4.6 Evidence of P. Trundle

Mr. Trundle is a mechanical engineer with an M.Sc. in material selection. He is the project manager for the joint venture responsible for the design and management of the project on behalf of BGE.

The North-South pipeline will start at Gormanston and terminate at the existing facility at Ballyalbanagh in Northern Ireland. It will permit gas to flow in both directions. The pipeline design pressure will be 85 barg which, with planned controls, will not be exceeded.

The principal design code for the pipeline is IS328 (2003), an Irish National Standard which is recognised internationally. It addresses all aspects of design and operation for each section of the pipe in order to calculate the design requirements of each area. Population location and density throughout the area was established, as was potential future development, factors which contributed to the design of the pipeline in terms of wall thickness and material grade. The two main wall thicknesses of pipe will be 7.1 millimetres and 16.1 millimetres using a Grade X65 pipe. The thinner wall pipe will be used where population density is low and is not close to occupied dwellings. Where the pipeline crosses major infrastructure, is nearer to occupied dwellings or close to towns, villages and other developed areas, the thicker wall pipe will be used. Depth of cover is also specified. Additional calculations have been undertaken to ensure that additional loads at roads and railway crossings do not impose unacceptable stresses on the pipeline.

Three Above Ground Installations (AGIs) are to be located on the line south of the border. The first will be located at Gormanston where the gas is supplied from the 'Second Interconnector'. At this location the gas pressure will be regulated and meters will be installed to control gas flows. The other two AGIs are to be spaced at 25 kilometre distances. Each AGI will contain a mainline block valve. These may be used to isolate particular sections of line to facilitate maintenance and in the event of emergencies. The line will be connected to the main Control Centre in Cork which monitors the pipeline system on a 24-hour, 365 days per year basis.

To avoid corrosion the pipe is factory coated with three layers of anti-corrosion coating materials. Pipe joints are also coated and the pipeline is checked for defects before lowering into the ground. Following the backfilling of trenches, a survey is undertaken to locate any outstanding defects which, if found, would result in the pipe being excavated and repaired. Additional protection to the pipe is provided by a cathodic protection system. Continuous maintenance of the system ensures the effective protection of the pipeline at all times. The pipeline has also been designed to allow for periodic on line inspections using electronic 'pigs' to check for corrosion or other damage to the pipeline.

Inspections and tests are undertaken during construction and during manufacture. Inspections and tests are also undertaken by third party inspectors to ensure compliance with specifications and manufacturing procedures. Prior to construction, weld procedure tests are conducted and each weld is inspected using x-ray techniques.

Following construction of the pipeline, it is hydrostatically tested as a final test of its integrity and fitness for purpose.

Gas pipelines are considered to be a very safe way of transporting natural gas. There are 1,800 metres of pipeline in Ireland and there has never been a safety incident on the high pressure transmission system since 1979, when pipelines were first introduced.

Responses to Questions

The pipe to go through the McDonnell lands will be the heavy walled pipe.

4.4.7 Evidence of R. Knott

Mr. Knott is a chemical engineer and a consultant in gas engineering.

The brief from BGE was to carry out an independent overview of procedures, standards and practices relating to the design, pipeline routeing and the acquisition of easements for the South-North Pipeline.

Proper design, material selection and sound construction practices establishes the initial integrity of a pipeline. A programme of condition monitoring and maintenance ensures its integrity once the pipeline is commissioned and operational. BGE has adopted Irish Standard 328. This Code of Practice sets out the engineering requirements for the safe design, construction and operation of pipelines and associated equipment. This standard is similar to the one which applies in Great Britain, the ISO 13623, and the European Standard (EN 1594).

It is considered that BGE is taking all reasonable steps to ensure the overall integrity of the pipeline and the overall approach by BGE and its consultants in relation to planning, design and routeing of the South-North Pipeline is in accord with principles set out in IS328.

No questions arose.

4.4.8 Evidence of D. Barr

Mr. Barr is a mechanical engineer, having commenced his career with a trade apprenticeship. He has worked extensively in the gas/oil industry.

By letter dated 4th February, 2005, written by the witness to Lord Ballyedmond, the process of route development for the pipeline was set out, including a reference to a BGE meeting attended by the witness and other BGE staff. The question of a proposed meeting with Lord Ballyedmond was raised. A further letter issued on 1st March, 2005, referring, inter alia, to the earlier letter concerning wayleaves through the Lord Ballyedmond lands. The meeting took place and a further letter issued on 4th April referring, inter alia, to drawings showing A, B and C options for the pipeline through the lands. Permission was sought for a survey by BGE through the lands, programmed for 19th April, 2005. A letter dated 14th April, 2005, from Lord Ballyedmond, with a postmark of 15th April, 2005, was received on 20th April by BGE. By that time the scheduled inspection had been undertaken (the previous day). The letter from Lord Ballyedmond referred to the meeting of 24th March with BGE where BGE had indicated it would not accept the Lord Ballyedmond alternative route in the interest of economy. No agreement was reached at the end of the meeting. In a later telephone conversation BGE indicated that it was prepared to consider the alternative route but was asked by Lord Ballyedmond to accept the route subject to satisfactory survey. As the BGE letter of 11th April did not confirm this, BGE was asked to confirm acceptance of the route prior to authorisation of entry on lands for the purposes of survey. Consent to enter the property was withheld.

BGE wrote again on 9th May denying that it had rejected the alternative route proposed by Lord Ballyedmond. The land ownership of Lord Ballyedmond had been identified at the meeting. A number of other points were raised in the letter by BGE which attempted to explain the reasons behind its choice of route. BGE also requested permission to enter lands to survey the 'B' option. A determination could not be made for or against the route prior to survey. The survey had been carried out (on Route 'A') on 19th April prior to receipt of the Lord Ballyedmond letter (dated 14th April) on 20th April. It had been date-stamped 15th April. The letter from BGE of 9th May also indicated that an application to the CER for compulsory acquisition orders under the Gas Acts had been made for lands, including those of Lord Ballyedmond.

In a further letter from Lord Ballyedmond dated 3rd June, among the points made were that at the meeting of 24th March, BGE had indicated that it was obliged to take the shortest possible route as cost was of the essence, in other words, overriding other considerations. Permission to enter lands for survey purposes was not sought at the meeting but BGE was informed that it could not enter land without permission. The letters of 11th and 14th April followed. The letter of 3rd June also referred to the entering of Lord Ballyedmond's lands by BGE on 19th April to conduct a survey without permission.

Responses to Questions

1. The witness is the project engineer. One of his duties is to obtain consents from landowners to enter land.
2. The witness is not familiar with details of the Gas Acts but was aware of the required 14 days' notice required, assuming the landowner had refused access. The letter dated 14th April, postmarked 15th April, from Lord Ballyedmond, was not received in the project office in Belfast until 20th April. It was believed that there was consent to enter the land. In the absence of refusal, the 19th April was identified for survey.
3. At the meeting of 14th March, BGE was asked to notify Lord Ballyedmond if it was intended to survey his lands for his preferred route option. His letter indicated that it was a question of securing formal permission and this is accepted. It is not accepted that there was no consent because a date for survey had been notified to Lord Ballyedmond. This was considered to be reasonable to assume.
4. The witness would be one of the participants of weekly meetings held in Belfast at which routeing concerns would be aired.
5. The purpose of the report referred to during the Oral Hearing (Wayleave 154 - June 2005) was to determine the feasibility of Lord

Ballyedmond's preferred route. It was provided to him. It was not the case that BGE was going through the motions in examining the feasibility of Route 'B'.

6. It was not premature of BGE to make an application to the CER for a CAO in respect of Route A whilst still evaluating the three routes, because of time constraints involved in other parts of the scheme. The report had been finalised and the stated options made, including the optimum route (Route A) and the compromise route (Route C). If the compromise route was not accepted then the formal application was going to be proceeded with.
7. The report details were not available when the application in respect of Route A was made. The final report in relation to alternative route 'B' was not available. There was however information available from aerial photographs. At the time of application (to the CER) it was also known that Route C was an acceptable route. Route A was regarded as the optimum route. The report was received in June 2005.
8. In a letter dated 1st July, 2005, from T. Considine (BGE) there was reference to the alternative route being 244 metres longer than the original route and that it would have a considerably greater impact upon the ecology than the original route applied for in the compulsory acquisition application. The witness believes that the archaeology and ecology does not favour Option 'B', which would take the route very near to an old graveyard.
9. At page 9 of the report, paragraph 6.4 (received in June 2005) and in the last paragraph it states that provided the routes are a sufficient distance from Dungooly Rath and Urney Church and the right-of-way to the Church is maintained, the re-route will not have a significant impact on archaeology. There were not at that time archaeological issues but there is the possibility of encountering some archaeology. This was the view of the witness following the report's availability.

The witness did not act on this viewpoint as he is not an archaeologist. There was no mention in the letter of 1st July (from BGE) of significant archaeological impacts in respect of Route B. The mention of potential significant archaeological impact was not intended to bolster the case against Route 'B'.

4.4.9 Evidence of M. Barber

Mr. Barber is a civil engineer employed by the consultants, Penspen, with wide experience of major pipeline projects.

The objective in routeing a cross-country pipeline is to provide the most economic alignment with least overall disruption whilst minimising associated environmental impacts.

The process commenced with an area of search investigation through which a pipe might go using a variety of maps with different scales. Preliminary data on archaeology and ecology was plotted on maps as an exercise in identifying constraints. Feasible corridors were then plotted on a single sheet map and later transferred to larger scale sheets. Field visits followed.

Planning authorities along the route were consulted and advice was sought on possible trends in the development of areas. Following this a single corridor was identified for the greater part of the route. Aerial photography was commissioned for this corridor and for alternative sections. Digital mapping was obtained and all the data was assembled, enabling a single provisional route to be plotted.

The names and addresses of landowners and occupiers were obtained and permission was sought for walkover surveys for engineering and environmental purposes, the vast majority being granted. The route was established in detail on 1:5000 scale plans and discrete markers left on the ground to indicate a centreline. This was followed by the ecologist and archaeologist who would prepare the relevant sections of the Environmental

Assessment. A 100 metre corridor was adopted for investigation, in order to provide some leeway. Advice was received in relation to the avoidance of features found as a result of surveys. The most frequent causes for minor adjustments to the alignment were the presence of badger setts, the avoidance of marsh and wetland, suspected archaeological sites and the minimisation of damage to trees and hedgerows.

At this point landowners and occupiers were appraised of the preferred route. Many re-routes were suggested by them and a formal re-route procedure was initiated which also made provision for applying special conditions. Decisions on these were made at the weekly wayleave meetings by the routeing team. These re-route requests were generally concerned with development proposals. Others related to problems associated with farming during pipeline construction. Most requests were agreed to. Generally if a re-route could be accommodated by a minor addition to the pipeline length or cost, it would be accepted. If it involved considerable cost or rendered the construction work unsafe it would be refused.

In relation to costs, open-bore techniques where ground is not disturbed usually works out at 1.5 times the conventional cost of cutting a trench. It is used for road and rail crossings, etc. 70 metres in length is considered the practical maximum for this. The horizontal drill technique can be used for greater distances and costs up to 2.5 times the conventional cost of cutting a trench.

In relation to the McDonnell objection and using aerial photograph BGE/92/01, the first photograph in the strip-map booklet (together with the compulsory acquisition and wayleave maps), BGE elected to extend the site of the existing AGI northwards for two reasons. One was that the pipeline was going northwards in any event and secondly to make the best possible use of natural screening and because of the proximity of dwellings south of the site. In addition BGE is acquiring temporary land to the south, east and north of the AGI in order to undertake works. The access to the existing AGI goes through 'O' (on the OS Sheet) extending southwards to the public road. The 'yellow'

coloured area is where the new AGI is to be located. The 'green' areas are where construction materials would be stored, to provide access for construction, etc. It is understood that the McDonnells would prefer an access to the west side of the site to access the area of new construction. This would not be practical as it would compromise the existing access which is required for operational reasons to the existing site. An access to the west would also likely damage existing hedge screening and cross the wayleave of the proposed pipeline and the existing pipeline.

- Exchanges between parties and Inspector in relation to maps put on display.

Aerial Photo No. BGE/92/01 of the strip-map booklet also shows the existing high pressure gas pipeline with black dots to the east of and parallel with the proposed high pressure line coloured solid red. The black dotted line goes to the sub-sea interconnector.

Responses to Questions

1. It is BGE policy in crossing roads to place a pipeline at a right angle with the road.
2. With regard to the suggestion that the pipeline might preferably be located differently to that proposed to the north and north-west of the Gormanston AGI by way of a more direct line into the Gormanston Army Camp, thus discommoding the McDonnells to a lesser extent, it would be an unnecessary longer route. It was an economic decision and not an engineering one.
3. Whilst it is not impossible to use the west side of the AGI as a traversing area to undertaken works to the north of the AGI, there are several reasons why it is not preferable. The lands to the west referred to are in the ownership of BGE. There is a 33 feet wide strip of land between the west of the AGI and the ditch which was acquired in the

original take. The lands to the west of this are not in the ownership of the McDonnells.

4. It is proposed to have a temporary access alongside and parallel to the existing access. Because of the reasons given earlier it is not possible to use the existing access, primarily because of the need to maintain access associated with the operation of the existing AGI, which requires maintenance and monitoring. The station is unmanned.
5. In relation to the Lord Ballyedmond case a special booklet/report was prepared in connection with it. Such a booklet was prepared in connection with a few other properties, but this was the only one for private landowners. It was undertaken so as to clarify the reasons, pros and cons for all the routes under consideration. The Wayleave 154 booklet shows the three routes.
6. Route A was proposed by the witness in the first instance using the principles of routeing described earlier in evidence and using the techniques described by others in their evidence. The route in this case is constrained between two pinch points or physical features (shown on the aerial photo map on Report 154). There is a bog at the centre of the bottom (south) of the photograph and to the north is the village of Forkill and a series of hills which act as constraints.
7. Route A was adopted as the optimum route because it crosses good arable land which would provide a good working surface for pipeline construction activities, will take reinstatement well and will be quick and effective in the reinstatement of the land. Route 'B' was proposed by Lord Ballyedmond. It was studied by the witness, the ecologist and the archaeologist and notes taken on the basis that this would be the built line. This was done in effect for all three routes. Route 'B' cannot be recommended. Route 'C' was offered to Lord Ballyedmond as a compromise by BGE, thinking that it would ameliorate fears associated with Route A.

8. The principles of routing are to provide the most direct line whilst minimising disruption to the landscape. Safety and practicality to build and operate, and environmental issues are also factors. Route A was chosen because it lies on good agricultural land providing a good working surface. There are no features along the line which would cause concern. The two dominant features are the practicality of construction and the directness of the line. The straightest route would have been the starting point. Impacts on landowners are considered, e.g. planning applications, etc., but in this case the land is open agricultural land. Landowners are appraised early of the route and have an opportunity to respond initially and then formally.

9. Concerns of a landowner could lead to minor amendments to suit landowners depending on intended use of land, to preserve drainage systems or, say, passing close to a stockyard. In the current case Route 'C' was put forward as an alternative route, although no specific reasons for objections were put forward to the primary route. Route 'A' remains the optimum route, and is being pursued as no indication had been received from the objector (Lord Ballyedmond) that the original route would be less favourable to him than Route 'C'. As no reason(s) had been given for objecting to Route 'A', it was chosen. However, had Lord Ballyedmond accepted alternative Route 'C' at the time BGE would also have accepted it. It was not chosen with a view to applying punitive effects. It is not punitive if a landowner's rights are affected to a greater extent than necessary.

* Interjection by Counsel for BGE to state that even at this stage no reasons have been advanced by Lord Ballyedmond as to why the Route A is objectionable.

* Exchanges between Inspector and Counsel for Lord Ballyedmond.

Counsel for Lord Ballyedmond does not accept alternative Route 'C' as Route 'B' is his preferred route. Evidence will be given in relation to each route. It

is the objector's contention that Route 'B' was never properly considered. Counsel has no instructions on the acceptability of Route C. The application before the Inspector is undermined by the infringement of BGE's policy because the landowner will be affected to a greater extent than he should be. BGE identified a route (Route 'C') which it considers is more suitable for the landowner and itself.

With regard to the Inspector's query as to the reasonableness of BGE being informed of the reasons why the different alignments are unacceptable by the objector, it was indicated that this was a different point as it is more a comment on the process itself.

Route 'C' is acceptable to BGE and in its view better suits the landowner's needs.

10. Route 'A' was offered to Lord Ballyedmond initially, to which there was no response. Route 'C' was then offered but there was no response. It was considered that the reasons for objecting to both had equal weight. It was not known which of the two routes affected him most. Persisting with Route C might affect him to a greater extent as it is marginally longer than Route A. It was decided therefore to pursue Route A.

When Route 'C' was being offered it was hoped that it would be accepted. Rejection without explanation did not permit BGE to assess the worst of Routes A and C for the objector and so the shortened Route A was adopted. Route 'C' was considered by the witness to represent less of an infringement of landowner's rights and was also acceptable to BGE. That was considered to be the situation up until it was not occupied. BGE now considers that Routes A and C were rejected with equal weight.

11. Route 'B' was properly considered, 500 metres of which is through wetlands. Mitigation measures would include reducing the working

width in the interest of ecology. Drainage of the trench would be required to install the pipeline. Artificial supports for plant working in the area would be required, all unnecessary when a better route is available. The problems are alluded to in Section 4.2 (Route B) of the report, although the mitigation measures are not discussed and there is no written record of such. When the land was inspected it was known what would be required in relation to construction.

12. Two additional landowners would be affected by Route 'C' apart from Lord Ballyedmond. They are Elizabeth Gartland and Peter McDonald, with a third portion of land affected also belonging to Elizabeth Gartland (shown on Map 'X').

The effects of Route 'B' on other landowners was established. There are four involved. Requests for information on land ownership were made. The Agricultural Liaison Officer talked to the landowners but did not pursue wayleaves. It was not established if there was any opposition to any such proposals which might arise. Route 'B' was examined from an engineering, ecological and archaeological perspective as set out in the report. In relation to Route 'C', the affected landowners were contacted. The offer of Route 'C' to Lord Ballyedmond was on the basis of securing agreement by the other affected landowners, who showed no negative attitudes to the proposal.

13. In route selection one has to consider all information. The engineering consideration for Route 'B' was the increased length representing a 25% increase over that of Route 'A'. However, the points made in the report (154) are valid. Engineering is a serious factor of equal importance with the other factors.
14. In relation to the three grounds of engineering, ecology and archaeology, one cannot look at the negative aspects of Route 'B' out of context with the route as a whole, but only in comparison with Routes 'A' and 'C'. The problems associated with Route 'B' are not

minor in nature but significant despite the availability of mitigation measures. Route 'B' is as sensitive as some of the most sensitive sites (on the line) for the reasons given. The expert's views in relation to ecology were taken on board.

4.4.10 Evidence of E.J. Bolger

Mr. Bolger is a professional agricultural consultant with a Masters Degree and a Ph.D.

At the beginning of a project landowners are approached to identify boundaries and to confirm Land Registry information.

A pre-entry record is undertaken to determine landowner requirements, including the fencing required during construction, access across the pipe workings, water supply, electric fencing, etc., so that the contractor knows what is required on entering the site. On coming to the site the contractor fences off the working area. Topsoil is stripped and placed on one side of the working spread and subsoil on the other. When the pipeline is ready for laying it is lifted into the trench. Occasionally special operations are undertaken to maintain cross pipeline access. Following the laying of the pipeline and backfilling operations, any drainage interfered with is reconnected where required. Following this, topsoil along the working areas of the spread is ripped to offset any compaction during construction. This may be up to a depth of 18 inches. Any large stones appearing are removed. The area is then stone-raked or the stones may be hand-picked. The ground is then made ready for final reinstatement and seeded or left as required by the landowner.

Internal field boundaries are then reinstated. Once the land is ready for reoccupation the temporary fences are taken down or, by agreement, may be removed by the landowner himself.

The Gas Board always tries to reinstate lands as far as possible on first attempt but where there are problems they do return to rectify any problems.

With regard to the McDonnell lands and in relation to the unsatisfactory experience in relation to the first acquisition, there was a problem with land reinstatement, especially adjacent to the AGI. Compaction would have occurred due to excessive traffic at the AGI Station, which appeared during the reinstatement process in 2002. Some extra work was done by bringing in some topsoil and redoing it. There is still a problem with part of the area. There was also a serious drainage problem in the Spring of 2005 in relation to the wayleave itself and that was discussed with the McDonnells by the Agricultural Liaison Officer working on that part of the project.

The Gas Board has taken the view that as the drainage may be disrupted again within the next 12 months it would not be appropriate to reinstate drains at this time and that any crop loss on these lands in the intervening time would be paid for arising from the drainage problem. It is still the Board's intention to go back and reinstate the lands properly. There is a letter acknowledging the drainage problems dated April 2005 from the Board.

Responses to Questions

1. The witness is aware of the problems associated with the harvesting of potatoes. The drainage problem in the area was not notified until 2004 or early 2005, when an inspection was carried out. It is recognised that there is a drainage problem requiring rectification and this was conveyed to the McDonnells.
2. Whilst there is a drainage problem, it does not mean that all wayleave lands were discommoded. It was possible to sow the potatoes so the land could not have been that bad then. It is accepted however that there is a drainage problem. Drainage was put in around the AGI in 2002 and 2003 and an area may have been missed. There is a low-lying area to the south of the AGI and that is where it is proposed to

have a working area for the current project. There will now be a further opportunity to reinstate the land.

3. The McDonnells had a proposal to undertake the drainage themselves but because of difficulties with the contractor it was not possible and it was considered by the Gas Board to postpone reinstatement until the new works are completed. One would also require proper weather conditions prior to embarking on a drainage project. The Board accepts full responsibility that there is a drainage problem and it has undertaken to rectify this in writing. A photographic record of the ground conditions has been shown of part of the potato crop. It is accepted that there were no drainage problems prior to the works on the land.

4.4.11 Evidence of D. Healy

Mr. Healy is a civil engineer with a diploma in mechanical engineering.

It was requested by the landowners, the McDonnells, that the western side of the AGI adjoining their lands would be used as a construction access. This would require using the existing operational access. The operations team have requested a clear and unobstructed access at all times to the current and operational AGI. There would be potential to obstruct operations. The western access referred to is 33 feet in width approximately. A 40 metre width is required for construction.

The site is visited twice each week. Emergencies are not expected to occur. However, mechanical and operating equipment need to be maintained.

Photographs being referred to show black smoke coming from the AGI. This was coming from a boiler and occurred in May. The boiler is used to heat the gas which cools as a result of a lowering of pressure. The boiler is similar to a domestic boiler fuelled by gas. The black smoke emission indicates an inappropriate mix of air and gas, i.e. the boiler burning rich. Repairing this

would involve turning a screw to balance the mix. The products of combustion are carbon dioxide (CO₂) and water (H₂O).

Responses to Questions

1. The witness is not aware that it took six weeks to resolve the boiler problem. The incident was notified to BGE on Friday 13th May and was corrected on 14th May.
2. The driveway up to the existing AGI is 10 to 15 metres wide. If one were to continue beyond the driveway the width extends to 33 feet (10 metres).
3. The 40 metres width is necessary to construct the new AGI because of the nature of the plant. There would be traffic moving in and out, including people walking to and from the site. There could be an array of construction equipment at any point.
4. With regard to using the west side of the existing AGI as an access, there will be tie-ins with the existing AGI on the west side during the period of construction. It would require the use of the 33 feet wide strip which would not be available for access at that time. The timing of the tie-in would depend on the contractor's schedule.
5. It would not be fair to say that BGE does not want to 'muck up' its existing tarmac road. This road is sufficient for maintenance purposes. It would not be possible to devote a 3 metre wide part of this for existing maintenance, using the remainder (7 metres) for construction rather than take 40 metres as proposed. It would only provide access to the gate of the AGI, but not beyond to the north side of the AGI where construction work is to take place.

4.4.12 Evidence of B. Barry

Mr. Barry is Secretary of BGE (UK) Limited. The statement relates to formal proofs.

1. On 31st March, 2004, BGE (UK) Limited applied to the Commission for Energy Regulation (the CER) for consent pursuant to Section 39(A) of the 1976 Act (as inserted by Section 12 of the 2002 Act) for consent to the construction of the South-North Natural Gas Transmission Pipeline.

[Application letter produced].

2. On 11th April, 2005, BGE applied to CER for Acquisition Orders in respect of wayleaves and lands to be acquired in respect of the proposed natural gas pipeline. These were in respect of reputed landowners, details of which were set out.

[Application letter produced].

3. Each application referred to was accompanied by:-

- (i) A draft of the Acquisition Order applied for.
- (ii) Plans showing the situation of land area.
- (iii) Specification.
- (iv) Statement of nature of estate of interest in such land or right over land.
- (v) A book of reference.

[Copy of each application produced].

4. The documents as listed were drafted in accordance with Article 1 of the Second Schedule of the 1976 Act and contain all the matters required by sub-paragraphs (b), (c) and (d) of Article 1. The CER, on 28th April, 2005, issued general directions and directions pursuant to Article 3(1)(a) of the Second Schedule to the Act.

[CER's directions produced].

5. Advertisements were placed in a series of newspapers on specified dates in May of 2005. One advertisement - 'the Consent Notice' - gave details of the application for consent and a second indicated the making of the application to the CER for Acquisition Orders.
[Copies of newspapers produced].
6. Copies of all documents which accompanied BGE's application to the CER for Acquisition Orders and Consent were kept at BGE's office in Cork and Dublin for the required period in May/June 2005 and were available for inspection on stated days and during stated period. These included details of the Acquisition Orders and application for consent, together with copies of all documents submitted to the CER in support of the application. Copies of all documentation were also forwarded to two Garda Stations in May of 2005, as required by the CER.
[Receipts from Garda Stations produced].
7. As required by the CER, copies of newspapers referred to were forwarded to the CER in May 2005.
[Copy of letter produced].
8. In accordance with Article 3(1)(d) of the Second Schedule of the 1976 Act and CER's directions, copies of documentation which accompanied the application to the CER for Acquisition Orders and Consent were forwarded to 14 no. public bodies/local authorities as detailed. This was undertaken between 11th and 13th May, 2005.
[Receipts from bodies produced].
9. Documents were served on each landowner in respect of whom an application for an Acquisition Order is sought. They comprised:-
 - (i) A Notice in respect to both wayleaves and AGIs.
 - (ii) A Notice in respect of wayleaves only.
 - (iii) A copy of the application by BGE to the CER in respect of the Acquisition Order sought in respect of each individual.

These were served by registered post between 16th and 24th May, 2005.
[Copy of covering letter and notices served produced].

10. In relation to the Environmental Impact Statement an advertisement was placed in three newspapers in July 2005 as required by Section 40 of the Act in the required form. It set out details in relation to the pipeline, that an EIS had been prepared, where a copy could be inspected or bought and the times and periods available to so do and stating that any person could make submissions or observations in relation to the effects on the environment of the proposed pipeline.
[Copies of newspapers produced].

Copies of newspapers were forwarded to CER on 11th August, 2005.
[Copy of accompanying letter produced].

11. The EIS documentation was deposited for inspection at BGE's offices in Cork and Dublin for a one-month period at specified times and on specified days. It was also deposited at the two specified Garda Stations.
[Copies of receipts produced].

12. Copies of the EIS were also forwarded to named local authorities and other statutory bodies in accordance with regulation.
[Receipts produced].

13. Copies of the EIS were also forwarded to other persons/bodies as named.
[Receipts produced].

14. BGE is not required to apply for planning permission for the proposed pipeline project.

* Interjection by Mr. Compton reserving his client's position with regard to the process adopted by BGE, including the making of acquisition orders. There was an initial letter to the Commission in this regard.

* Document presented by BGE (two pages), representing responses from the Department and CER.

4.5 Objector's Evidence/Submissions

4.5.1 Evidence of P. McDonnell

The witness is present largely because of his experience with BGE previously. The concern is that BGE will disrupt the land and he would not be happy with a repeat of what happened previously. A contractor was secured to fix the land on the previous occasion but the cost was considered excessive by BGE and the land was left for 2-2.5 years without fixing it. A crop of potatoes was planted in it that year but the contractor could not harvest them. A bill was sent to BGE which has not been paid. Compensation has not been paid for the loss of the land. When using this area as a working area originally, the soil became so compacted that it is impossible for grass to grow properly and water lies on the ground. (Photographs submitted to show the affected areas marked 'Y' in a folder). Photo No. 3 shows the detail. Photo No. 4 shows a view looking east where access for the current proposal is sought. The photographs were taken on 5th May in 2003. The crop was sown in March and it had started to germinate.

Photographs 6 and 7 show land east of the AGI and slightly to the south. This is required for the working area.

Photograph 8 shows the field north of the existing AGI. The drains in that field were damaged. The drainage should have been repaired and a peripheral drain placed to pick up the drainage. This photograph also shows the reconstituted boundary. It is not the standard that one would expect to find on

a farm with sheep on it. It could not be depended upon to contain stock. In the field which was flooded, potatoes remained in the ground for two years. Maize had since been grown but not where the water lies. As one gets closer to the water area the maize deteriorates. (In the area where the offshore line lies - the black dotted line on the map).

Another photograph shows the smoke issuing from the boiler referred to earlier. It continued for six weeks. It came from three chimneys and was blowing across the lands, where there is a herd of pedigree cattle. This occurred in April/May. This was the first occasion that there was trouble with the fertility of the cows.

A prize bull is also kept and has won many prizes at shows.

Responses to Questions

1. It would be possible to see water in the fields currently. There was no water in the field on the previous Sunday. Water was last observed during the spring. The real wet patch is 4 acres in extent, which may be observed in the winter.
2. The smoke from the boiler was observed in April/May of this year.

Submission from Mr. Smyth (Counsel)

The objector's contacts with BGE on the previous occasion resulted in the ground being left in an unsatisfactory condition as the photographs indicate. The screening that was proposed for the installation at that time does not seem to have been successful. The issue of smoke emission is also of concern. There is the other issue about crossing the road at a perpendicular angle which the Board itself considers preferable and the preferable use of state land rather than using private property in which to locate the pipe.

There is concern about further damage to property. A damage deposit to be placed with a third party is suggested pending the completion of works.

The surrounding lands have all been zoned. It is likely that the McDonnell lands will also be zoned for development. BGE have left the place in a mess and the objector wishes to avoid this in the future.

A request for costs is recommended for consideration.

* The Inspector notes that in relation to the maps received, Ordnance Survey Maps (Scale 1:25000), the drainage is indicated as running north to south and that there is nothing to indicate water or soft ground on the maps.

* Interjection by Mr. Gleeson (for BGE) to the effect that a condition of the planning permission received in relation to the AGI requires the submission of a landscaping scheme around the perimeter of the proposed AGI for the written agreement of the Planning Authority.

4.5.2 Evidence of W. Martin (on behalf of Lord Ballyedmond)

Mr. Martin has been an agricultural consultant for the past 30 years.

The BGE report (154) was examined and the lands inspected. A detailed inspection of the lands was carried out on 25th August, 2005. The property is outlined on a map (marked 'X') handed in at the Oral Hearing earlier. It contained 120 acres and is divided into three sections by a local road and laneway.

One section contains 60 acres of excellent quality land in three field divisions, with 34 acres in tillage and the balance in grassland. The south-western holding contains 42 acres of excellent quality land and is laid out in two fields. The north-eastern holding contains 18 acres and is separated from the main holding by a narrow laneway. It is in two field divisions, one is in newly reseeded grassland. A river borders the property to the north-east.

A substantial residence is under construction on the site of the original Dungooly Lodge. A new entrance has been created and some landscaping undertaken.

Three pipelines are considered in the report of June 2005, listed as A, B and C with lengths of 1,063 metres, 1,307 metres and 1,152 metres. At paragraph 3.2 the report explains how Route A was selected, and paragraph 7 concludes that Route A is the best available route in relation to engineering and ecological issues. This route has been retained as the preferred option.

The reasons given for selecting Route A seem shallow with low level ecological reasons cited such as the number of field hedges breaches and semi-improved and unimproved grassland traversed by the pipeline. Breaching of significant hedges can be minimised by restricting the width of construction.

There is no economic assessment of the three routes. The engineering reasons for rejecting Route 'B' relate to construction difficulties in laying the pipeline on lands not as dry as other lands. This could be addressed by scheduling the works outside the winter months.

Paragraph 3.2 refers to a partly constructed structure which indicates that the assessor did not realise that a residence was being built.

Route A, which has a length of 1,063 metres, will have a major impact on the property due to the fact that it runs close to the eastern laneway and is as close as 15 metres to the laneway. It will be 100 metres from the new house and runs diagonally across a field of 21 acres on the southern holding. The land traversed is of excellent quality. Development of a considerable length of roadway and laneway frontage of approximately 900 metres will be seriously damaged by Route A.

Route 'B' is 1,265 metres and the farm length is 600 metres. The lands affected are of good quality and despite proximity to the Forkill River, the lands are dry with some low-lying lands further to the east. This route will

have least impact on the property and is far removed from the main farm and new house. The development of the main farm will not be hindered.

Route 'C' has been proposed as a compromise route by BGE. It traverses good quality land across three fields. The total length is 1,125 metres and the length of the farm is 615 metres. This route will have a significant impact on the property as it runs close to the laneway on the eastern holding for approximately 330 metres. Development in this area will be restricted in future.

Route A is 1,005 metres long as measured from the map, of which 880 metres lies on the farm. The general impact is 'major' and 'severe' on both the house and development potential.

Route B is 1,265 metres, of which 600 metres is on the farm. The general impact is 'moderate'. There is no impact on the house and the development impact is 'slight'.

Route C is 1,125 metres, of which 615 is on the farm. The general impact is 'significant' 'slight' on the house and significant on development potential.

The house referred to is Dungooly House - a three-storey steel-framed house currently under construction.

The pipeline will give rise to a general devaluation of the farm because of the wayleave and the level of devaluation will vary between the three routes. Route A will have a serious impact on the value of the dwellinghouse, an avoidable impact when there are two others available.

An economic assessment of the relative costs of the routes should have been done to compare with the increased damage to property.

The ecological factors highlight a slight ecological benefit of Route A over Route B and one mature tree being at risk. This is a very minor issue when suitable mitigation measures are adopted.

In conclusion, route options should be limited to a choice between Routes B and C, with the selection taking due account of the economic cost of each, as well as ecology, archaeology and constructibility.

Responses to Questions

1. The witness would not be in a position to respond to questions in relation to IS328. He has not read the standard and knows nothing about it.
2. Advice has been given in relation to the overall project and reinstatement.
3. No advice has been given on engineering or archaeological aspects. No ecological surveys were conducted.
4. The witness was retained in July 2005 and inspected the site on 25th August.
5. No auctioneering work is undertaken by the witness. However, an eye is kept on market prices for land/farmhouses. The practice of the witness extends south of a line from Kinnegad to Galway. Hundreds of properties would have been looked at over the years. There would be a familiarity with the prices of land and farm residences.
6. Whilst the witness believes that the proximity of a gas pipeline to a house would devalue it, he was never asked to carry out an assessment in the context of a house 100 metres from a gas pipeline.

7. The issues were never discussed with Lord Ballyedmond. The points at paragraph 9.13 are the witnesses' points.
8. The witness is aware of Lord Ballyedmond's objections to Route 'A', namely proximity to the dwellinghouse and proximity affecting the future potential of the lands, a less damaging alternative route having been proposed.
9. In relation to the request to point to any conversation Lord Ballyedmond had with the Gas Board, any letter written by him or on his behalf or anything at the inquiry that would make clear that the problem was proximity to the dwellinghouse, it was understood that Lord Ballyedmond and Bord Gais had a meeting and it is assumed that that meeting had a purpose. It must have been clear to Bord Gais what the objections were, although the witness was not at the meeting. Lord Ballyedmond is entitled to object to Route A and put forward an alternative on his property. A cursory look at the map would make it glaringly obvious why Route A is disadvantageous to his property.
10. The witness does not wish to be associated with the suggestion that the 154 report was in some way not 'bona fide'.
11. It is accepted that the Code adopts international standards in terms of distances which are completely safe. Lord Ballyedmond's house is outside the limits as mentioned at the Oral Hearing.

* Inspector requests Counsel for BGE to allude to the McDonnell lands in relation to the use of the temporary access and what assurances could be given to minimise the impact on the lands and how that might be done if the issue arises.

Submission by Counsel for Lord Ballyedmond

There has to be a balancing of rights between the applicant and Lord Ballyedmond. The applicant has relied on three factors in support of his case, namely engineering, ecology and archaeology.

Route 'A' is the preference of the applicant. A dwellinghouse is however affected and was not considered.

A 900 metre laneway frontage would be effectively sterilised by Route 'A'. This was not considered by the applicant. Route 'A' traverses lands of excellent quality and runs diagonally through a field with serious effects. The alternative route would, in running closer to the boundaries, have a less injurious effect. There are also mitigating effects available.

Route 'A' was chosen by the applicant as it was the direct line between two points. Route 'B', chosen by the landowner, was not properly considered by the applicant. In the report (154) only negatives of the route are considered but the effects on the landowner are not addressed. Possible landowners along Route 'B' were not contacted whilst they were along Route 'C'.

The wayleave for the lands was applied for before the survey of Route 'B' was undertaken (11th April, 2005).

Some of the applicant's evidence was contradictory, especially in relation to archaeology. The report (154) stated that the three routes did not have a significant impact on known archaeology. However, problems were identified with Route 'B' because of unknown archaeology. Whilst there are unknown elements associated with Route 'A' because of the presence of a Rath, the evidence suggested that this was not a problem for Route 'A' but is a problem for Route 'B'. This was only raised in the evidence but not in the report. Correspondence from the applicant earlier had indicated that the problem was ecological, together with pipe length. No archaeology issue was raised.

The evidence tendered by the applicant suggests that in relation to engineering the real issue with Route 'B' is that it is longer, together with the 500 metres of badly drained land. The length of the pipeline and therefore cost has never formed part of the issue. The only real issue is the engineering one of drainage. Mitigation measures are available in this regard. The engineering issue is a low-level one and does not pose a problem in the context of the entire line.

The ecological issue is minor, with minor differences between Routes 'A' and 'B'. Route 'B' has less medium quality hedges affected and more low quality hedges affected than Route 'A', despite the effects on one high quality hedge affected by Route 'B'. Grassland affected by Route 'B' can easily be dealt with. It is not protected. It can lawfully be farmed at any time. Indeed, all three routes have minor impacts from a ecological viewpoint.

In balancing rights, the applicant's factors are of a minor significance and the applicant should not always be allowed to take the shortest route. In this regard the applicant recognised this by putting forward an alternative, i.e. Route 'C' considered to be, by the applicant, a route meeting the needs of both the applicant and the landowner. The only reason Route 'C' was not pursued through the process was because Route 'A' was already being processed for a wayleave. The applicants were clearly not going to reapply.

There is no consent for Routes 'A' or 'C'. Route 'B' was considered by the landowner to have less injurious effects on lands. It should not have been rejected because the applicant did not fully investigate it. Conclusions in relation to it should not have been made without proper investigation.

A series of significant injurious effects have been identified on behalf of Lord Ballyedmond, the most significant of which relate to Route 'A'. No great importance has been shown to have arisen in respect of the three routes from the applicant's perspective.

The sterilisation of 900 metres of laneway was not considered by the applicant in respect to Route 'A'. Lord Ballyedmond had objected to Route 'A' at all times.

The legislation (quoted) clearly sets out what the considerations are in respect of the appropriate order. Route 'A' only has been put forward. If there was a preferred route that meets with responsibilities and obligations under the Act, the appropriate conclusion to draw would be that Route 'A' should be rejected. Proper consideration should then be given to Route 'B'.

Costs of landowner applied for.

Closing Submission by Counsel for BGE

It is regretted that reinstatement of lands on the last occasion was not done properly. (McDonnells). BGE will fix that and compensate appropriately for crops.

It is also regretted that the boiler should have smoked, but it is not an issue in relation to land acquisition. There are other remedies available.

With regard to any mitigation, at some stage a proposal was put before Mr. McDonnell which did not find favour with him. With reference to map BGE/92/01 CTA 01 (the CPO Map), the words 'Gormanston TD' appear towards the top of the map. In this area to the north of the proposed AGI (coloured yellow), it would be possible to relocate the temporary working area from east of the AGI as proposed, to the north. A temporary stone road 6 metres wide along the eastern boundary would then suffice as a temporary road (instead of the 40 metre wide working area). This has already been offered and declined. In addition, this proposal would be on unworked ground. This might not be acceptable.

With regard to Lord Ballyedmond's lands, his preference is clearly for Route 'B'. No engineering, archaeological or ecological case has been made for this route. No gas engineer has indicated that this is a desirable route.

The issue of the validity and legality of this process and possibly the Oral Hearing was raised, but these are confirmed by the participation of Lord Ballyedmond's representative. The legality of the material gleaned in the survey of Route 'B', although conducted in the middle of a misunderstanding about permission, was confirmed by the adoption in the evidence of the report. It is not open to the landowner to participate at the Oral Hearing and at the same time say it is a nullity.

The evidence of the applicant's experts in relation to Routes B and C was both invoked and sought to be excluded. A point was made about entry on the lands by the engineer, the archaeologist and the engineer, but at the same time their evidence was quoted by the objectors.

In relation to the contention that priorities between the routes had not been established at the time of the acquisition application, Route A has always remained the optimum. The investigation of B and C permitted an evaluation which would have relegated Route 'A'. It did not. No engineering case was advanced for Route 'B'. Route 'C' was made available by the applicant to the landowner as an option, despite it being a slightly more costly option. However, no response was received to indicate a preference between Routes A and C, making it impossible for the applicant to give further consideration or take further steps. Steps were however taken in relation to Route C. This has been rendered a non-viable alternative because of an absence of preference by the landowner in relation to Routes 'A' and 'C' or the reason(s) why 'A' was found to be unsatisfactory. No reasons for objection other than a statement of preference were ever advanced and the landowner did not attend the hearing. It would appear that it was a case of either the landowner's route or no route.

The evidence of BGE has been sustained in terms of the criteria set out in the Act and there is no reason why the Commission should not confirm the

disputed acquisition orders and give consent to the construction of the gas pipeline.

The cost per metre of the standard line pipe in this sort of land is £500 (Sterling) per metre. The incremental length of Route 'B' is about 220 metres, costing about £110,000 (Sterling) or €160,000 and about an additional cost of €60,000 for Route 'C'.

The only application before the Commission is in respect of Route 'A'. The only objection to this is the proximity of the fine house to be built nearby. This is not a sustainable objection. The notion that the landowner is going to construct dwellings along the laneway beggars belief. It is not a credible intention. The laneway is a track, an agricultural lane.

With regard to the assertion that development potential would be compromised, it is not clear what development potential is intended, apart from the fine house being built.

It is submitted that it be recommended to the Commission that consent be granted.

5.0 ASSESSMENT OF EVIDENCE AND RECOMMENDATIONS

BGE Evidence

1. Proposal Outline of Project

BGE gave evidence to the effect that the South-North pipeline, the current proposal, will add approximately 150 kilometres of pipeline to the 800 kilometres of pipeline already in existence with one-third of the proposed pipeline in the Republic and the balance in Northern Ireland. Gas is environmentally friendly, provides consumer choice and enhances energy competition. It is imported from the UK and Europe to an extent of between 75% and 80%, the balance coming from the Kinsale field.

Domestic demand has grown from 150,000 customers in 1987 to an estimated 500,000 customers in the current year. Demand is expected to grow significantly in the next six/seven year period.

In relation to the all-Ireland market, both Governments are in agreement in relation to a safe and secure gas market with all its benefits. In 2004 a Development Framework document was published, looking at the concept of an all-Ireland energy market. The South-North pipeline was seen as a strategic gas element of policy.

The proposed line will provide additional capacity for Northern Ireland and will also provide security of supply. It will have potential to attract industry for power generation along the route.

Questions which arose in relation to this evidence were confined to matters of detail and seeking information. The broader issues relating to the provision of the pipeline were not raised.

The information disclosed by BGE in relation to the project from a policy and broad framework perspective appears to fully support the project. The project is therefore satisfactory and acceptable from this perspective.

2. Safety/Integrity Considerations

In relation to safety, evidence was given by BGE that the pipeline will be built to recognised standards, namely Irish Code of Practice IS328 (2003) and with both UK and EU standards. The safety/integrity of the pipeline commences at design stage, following through to construction and thereafter the commissioning stage. Condition and protection systems monitoring are undertaken and maintenance programmes will be put in place. Full emergency response procedures are also in place and are regularly tested.

Approved suppliers only are used with exhaustive pre-qualification for contractors prior to engagement. Every item of high pressure material goes through a rigorous testing process by third parties employed by BGE. The Engineering Requirement Document is a set of standards to which systems are designed and a certificate of fitness is required to be produced by an independent evaluation in relation to design, construction and subsequent operation of the pipeline.

The pipe itself, which will have a diameter of 450 millimetres, will have wall thicknesses of 7.1 millimetres in rural areas not in close proximity to occupied dwellings. In other areas near occupied dwellings, crossing roads/railways close to towns and villages the heavier gauge pipe will be used with a wall thickness of 16.1 millimetres. The IS Code specifies ground coverage. The pipe pressure will operate at 85 barg.

Corrosion protection in the form of several layered pipe coatings and cathodic protection should ensure the long-term integrity of the pipe.

An independent overview of the procedures, standards and practices relating to the design, pipeline routing and the entire project was undertaken by an independent consultant. His findings were that the project is in compliance with the principles set down in Irish Standard 328, a comparable benchmark with International Standards.

No issues of safety/integrity were raised by objectors.

The project appears to be satisfactory under this heading.

3. Construction Details

Evidence in relation to construction described the preparation process for pipe laying. This involves the fencing of lands, topsoil stripping and subsoil excavation. Pipe stringing is then undertaken and welding of the pipework follows. Trench bedding precedes pipe laying, following which backfilling is undertaken with eventual reinstatement of land.

Trenchless methods of pipeline construction are proposed in environmentally sensitive areas, i.e. the River Boyle Crossing.

Apart from some minor queries, the evidence relating to the above topic was not contested and no contrary evidence was offered.

The construction techniques appear to comply with accepted practices and are therefore satisfactory.

4. Environmental Impact Statement - Broad Parameters

The EIS was prepared by a project team which included specialist consultants who addressed specific topics. Account was taken of European and Irish legislation and strategic policies both in relation to national and local planning were consulted. Widespread consultations

were undertaken with public bodies, organisations, landowners and the public at large.

Topics dealt with in the EIS include archaeology, flora and fauna, etc. Mitigation measures were identified following detailed surveys. These mitigation measures were based on the criteria of avoidance, reduction and remedy, with the main focus on avoidance. A key site along the route of European/National environmental significance is the River Boyne crossing. Trenchless construction techniques are proposed under the river as a significant mitigation measure. Other mitigation measures included the re-routing of the pipeline away from the Monastic Site of Monasterboice because of its archaeological potential.

The EIS was appraised by an independent consultant and was found to be satisfactory. A number of recommendations made in that report will be implemented by BGE, as will the recommendations in a letter addressed to BGE dated 8th June, 2005, from the DOEHLG.

Apart from particular issues relating to specific sections of the project, addressed later in this report, there were no objections to the EIS in broad terms and no evidence to the contrary was offered.

The project appears to be satisfactory under this heading.

5. EIS Ecology - Flora and Fauna

In the BGE evidence on flora and fauna the loss of hedgerows, mature trees and possible loss or damage to unimproved grassland or other semi-natural habitats crossed by the pipeline were cited as the most significant issues in relation to impacts on flora. Impacts on badgers, nesting birds and possibly bats were mentioned in the context of impacts on fauna.

With the pipeline crossing designated sites of conservation importance, two SACs at the River Boyne and an SPA at Stabannon-Broganstown, drilling techniques using trenchless methods will ensure no impacts on the River Boyne and the SPA will not be affected with work undertaken in the summer months, thus avoiding any impact on wintering geese.

A significant re-route of the pipeline followed detailed surveys set out in the Addendum to the Environmental Impact Statement in relation to the River Boyne Crossing. The environmental issues were examined in detail in this document, culminating in a river crossing located close to the crossing of the river by the M1 Motorway.

In relation to fauna the evidence indicates that pipe re-routes were arranged to avoid a number of badger setts. No evidence of bats was found but further investigation will take place where trees may be felled.

The ecology issues relating to lands for which specific objections have been received and which were discussed at the Oral Hearing will be dealt with later in this report. Apart from these, no objections in relation to ecological issues were raised at the Oral Hearing and no evidence to the contrary was offered.

The project is satisfactory in relation to this topic.

6. EIS - Archaeology/Architectural

The BGE evidence in relation to archaeology identified one known site of archaeological interest which would be impacted upon, i.e. a plough truncated earthwork with associated limekiln. One significant site of architectural potential was identified, a walled garden.

The area of greatest archaeological potential is west of Drogheda. The pipeline was intended to cross the valley of the River Boyne close to the extreme eastern margin of the buffer zone associated with the UNESCO World Heritage Site of the Battle of the Boyne. Following significant and detailed discussions with DOEHLG, the revised route was agreed close to and parallel with the bridge on the adjoining M1 Motorway. As indicated earlier, a separate Addendum to the Environmental Statement for this crossing was prepared.

A mitigation strategy has also been identified which will involve pre-construction testing and a watching brief during construction.

The archaeological issues relating to lands about which specific objections have been received and which were discussed at the Oral Hearing will be dealt with later in this report. Apart from these objections, no objections in relation to other archaeological issues were raised at the Oral Hearing and no evidence to the contrary was offered.

The project is satisfactory in relation to this topic.

7. EIS - Agriculture

The BGE evidence in relation to agriculture focused on the process of identifying land ownership and explaining pipeline operation procedures. During the construction phase individual landowners are to be visited with a view to meeting their requirements during construction and to identify services which may need protection in preparation for the contractor entering the site.

The evidence also set out the construction process and the reinstatement programme, including both underground and above ground works and grassland reinstatement where required. The agricultural issues relating to lands about which specific objections have been received and which were discussed at the Oral Hearing will

be dealt with later in this report. Apart from these, no objections relating to other agricultural issues were raised at the Oral Hearing and no evidence to the contrary was offered.

The project is satisfactory in relation to this topic.

8. Statutory Procedures

The evidence in relation to procedures was to the effect that all of the statutory procedures had been complied with. These included the appropriate Consents, Acquisition Orders, etc., sought from the Commission for Energy Regulation in relation to the pipeline. Other requirements of the legislation were also undertaken. Other tasks included the preparation of plans, the placing of advertisements/notices in the press, the deposition of documents for public scrutiny, etc. Advertisements were also placed in the press in relation to the EIS.

The appropriate documentation was made available at the Oral Hearing.

No questions arose at the Oral Hearing in relation to this topic.

The project appears to be satisfactory under this heading.

Objectors' Evidence

The following is a summary of the position with regard to objectors prior to the commencement of, and during the Oral Hearing and at its conclusion.

1. **SN.AGI.3**
SN.C.133 **Seamus Lambe**
Inspector notified by Mr. Corr (of Gaynor Corr) at the Oral Hearing that this objection was withdrawn.

2. **SN.AGI.2** **Patrick A. Brennan**
Inspector notified by Mr. Corr (of Gaynor Corr) that this objection was withdrawn.

3. **SN.009** **E. McCullough**
Inspector advised that the objection stands but no formal evidence (participation) will be given at the Oral Hearing.

4. **SN.044** **J. Murphy**
Inspector advised by objector's Counsel during the Oral Hearing that the objection was being withdrawn.

5. **SN.045** **Patrick Tuite**
Inspector advised by Counsel for the objector during the Oral Hearing that the objection was being withdrawn subject to agreement between the parties - costs of appearance requested from CER.

6. **SN.142** **Francis Gregory**
No appearance at the Oral Hearing. 'Objection' not pursued.

7. **SN.001**
SN.AGI.1 **P. and H. McDonnell**
Represented at the Oral Hearing by J. Smyth, barrister.

8. **SN.154** **Lord Ballyedmond/Edward Haughey**
Represented at the Oral Hearing by G. Compton, barrister. W. Martin, expert witness.

The Outstanding Objections

1. **SN.009 - E. & E. McCullough**

There was no active participation by or on behalf of Mr. McCullough at the Oral Hearing. The written objections, by letter dated 7th June, 2005, and addressed to the CER were not objections of principle but related to perceived defects in mapping, requirements with regard to access, ducting under the motorway, the question of other services being installed along the wayleave, the situation following the redundancy of the pipeline, should it arise, and possible pollution threats. CER sought a response to the points from BGE which was duly given in a letter dated 1st July, 2005.

Assessment

It is not proposed to comment on the objection in the absence of the objector's participation at the Oral Hearing where the issues could have been discussed. It is recommended that an Acquisition Order should be granted with respect to these lands as requested.

2. **SN.01**

SN.AG1.1

P. & H. McDonnell

Assessment

The main reason for the objectors' participation at the oral hearing was stated to be the previous experience the objectors had in dealing with BGE for the existing AGI, following which four to five acres of land became subjected to bad drainage and flooding. It would not be acceptable to leave the land in the same state as the other lands were left previously. Efforts to resolve the drainage problems have not succeeded to date. The drainage appears to have failed in the 'working

area' which was used at that time. Photographic evidence was submitted in support of this. Some of area, where the drainage is now poor, lies directly to the east of the existing and proposed AGIs, and is intended for use as a working area for the current project.

BGE appear to have accepted that a drainage problem arose on the McDonnell lands as a result of the previous works undertaken and had discussions with the objectors concerning means of addressing the problem. It was regretted that the drainage was not undertaken fully, properly and comprehensively. BGE gave an undertaking to address the problem.

Whilst the above issue appears to be a serious and live issue between the parties, it is not one which lies within the remit of the current process either to address or resolve. The current process has a remit only to deal with the issues involved with the current project and especially the properties affected by the current proposals in relation to the McDonnell objections. This also applies to the complaint with regard to boilers within the existing AGI which were observed to be 'smoking' over a period of days.

The issue about temporary access/working area is of concern to the objector. He believes that a working access/working area to the new AGI and pipeline could be provided along a 10 metre wide strip which is available to the west of the existing AGI in the control/ownership of BGE. The latter, however, considers this to be too restrictive and have instead indicated a requirement for temporary access of 40 metres closely bordering the east side of the existing AGI, but widening as it extends southwards towards the public road.

The BGE evidence was that the temporary working area would be used for plant and machinery. It will flow in both directions. Some of it may be parked. Turning movements may be required. Materials will be required to be moved/stored. Given requirements such as these, a

10 metre wide strip such as that suggested by the objectors to the west of the existing AGI would not be sufficient for operational and safety reasons. The 40 metre wide strip required is much more practical. It is very similar in width in relation to the wayleave width being sought for the pipeline throughout the route which is 14 metres, added to which is the 'deviation area' or temporary working area, giving a total in excess of about 30 metres generally and wider in some locations. The full width which is contained between fences is described in the EIS as 'working width', 'spread' or 'right-of-way'. Given this requirement, it is not unreasonable that a temporary working width of 40 metres or more should be made available as set out in Drawing No. BGE/92/01/CPA/01.

In relation to the issue raised by the Inspector with BGE as to whether or not it would be possible to minimise the impact on the lands subject to temporary acquisition, it was pointed out by Counsel for BGE that a mitigation measure in relation to landtake had been put before the objector, who found it to be unsatisfactory. The thrust of the offer was to relocate the proposed temporary working area to the north of the location of the proposed AGI and have a 6 metre wide, stone constructed road along the eastern boundary (in place of the 40 metre wide strip). There is a disadvantage in this offer in that the 'northern' operation would be on 'unworked' ground as opposed to the eastern option which is on 'worked' ground, the area already affected by poor drainage.

This option was not alluded to by the objector in his evidence or in submissions on his behalf. It is presumed, therefore, that it is not an option which he favours. In the absence of a practical alternative, it is accepted that the requirements of BGE in relation to the temporary working area is justifiable in relation to the objector's lands.

In relation to Drawing No. 5566/92, dated December 2004 - marked A, the 'red' route for the pipeline is the selected route. This route is also

shown on the aerial photograph in the 'Strip Map' volume Drawing BGE/92/01 (Rev. O). Whilst BGE accepts that crossing roads with a pipe at right angles to it is generally preferable, in this case it would not be preferable to lay the pipeline northwards from the AGI until it reaches the public road north of the road instead of the north-west change of direction. This is based on economic considerations.

The objectors' request that the line be altered in location/direction in this location does not appear to be warranted.

It is recommended that Acquisitions Orders be granted with respect to the lands as requested.

3. **SN.154 - Lord Ballyedmond/Edward Haughey**

The objections to the route of the pipeline across Lord Ballyedmond's lands were contained in a letter from his solicitors dated 17th June, 2005. It was suggested, inter alia, that it would have an injurious effect thereon. A proposal had been submitted to BGE for an alternative route through the lands which would greatly reduce the injurious effects both in terms of potential development value and in terms of potential utility to the objector. The CER was requested to vary or amend the application.

In response to this objection and on 1st July, 2005, BGE explained to the CER, inter alia, that an alternative route was investigated in an effort to accommodate the landowner's concerns resulting in an offer of an alternative route. This could be 90 metres longer (annotated Option C in Appendix A of the routing report). This was not acceptable. Instead, Option B, in Appendix A, was indicated as the choice. This route is 244 metres longer than the original route and would have a greater impact on the ecology than the original. A comprehensive report and analysis had been prepared to assess all three routes, which resulted in the report favouring the original route.

The report referred to is entitled 'Report on the Pipeline Routes Considered at Wayleave 154' and is dated June 2005.

During the course of the oral hearing and arising from evidence tendered and submissions made by a number of contributors, it was explained how the three alternative routes emerged, i.e. Routes A, B and C.

Route A was chosen by BGE because it represents a direct line between two constraining points on the pipeline route. It crosses good arable land which would give a good working surface and would permit rapid and effective reinstatement of the land. Route C was offered as a compromise, despite not receiving specific reasons for rejecting Route A.

Counsel for the objector indicated that the question of Route A running adjacent to a laneway for 900 metres, which would sterilise frontage, is a reason for resisting Route A. Route 'C' is not acceptable to the objector. It is his contention that Route 'B' was not properly considered.

It is clear from the evidence/submission that the shortest route is Route A at 1,063 metres, followed by Route C at 1,152 metres and Route B at 1,307 metres. The greatest difference lies between Routes A and B at 266 metres or 25% longer. On the other hand 'C' is longer than 'A' by 90 metres or 8.5% approximately. From an economic viewpoint relating to pipe length, Route A is the most economic and Route B the least economic. It is equally clear that the unit construction cost of the pipeline along both Route A would be less than Route 'B' because the land is good agricultural land along Route A, whilst there are sections of poorly drained land along Route B which would increase construction costs. There are no normally occupied buildings within 45 metres of the pipeline of Route A so that no heavy wall piping will be required, apart from crossing a road, common to all three

alternatives. Apart from economic issues, the 'B' route will lead to engineering problems of crossing drainage ditches, trench excavations, plant movement, etc., all of which can be overcome but with some difficulty and cost.

Route C does not appear to be acceptable to the objector as a compromise and is the second choice only of BGE and does not therefore warrant further appraisal.

Two environmental issues were raised in appraising the alternative routes, namely Ecology and Archaeology.

Ecology: In relation to ecology the expert witness pointed out that Route A would pass through improved grassland of low nature conservation value. Seven hedges would be breached but no mature trees or wet ditches would be affected. A number of young trees planted along the hedges would be affected and would have to be removed. Along Route B, 11 hedges would be breached, one of which is of high quality. Five are medium quality and five are of low quality. Two wet ditches would require to be crossed and two mature trees would be put at risk.

There would be a greater impact on unimproved land and some grassland, which are habitats of higher nature conservation value. No opposing expert evidence was tendered in this regard but submissions made suggested that the differences between Routes A and B in this regard are of a minor nature which can be addressed by mitigation.

Whilst Route A appears to be more acceptable from an ecological viewpoint than Route B, the differences do not appear to be significant or material. Allowing for mitigation opportunities, it would be difficult to sustain an argument for one choice against the other if this was the only issue. The impact on Route B ecology could not be regarded as significant either in relative or absolute terms.

Archaeology: The archaeological assessment of Route A in the Wayleave 154 Report was to the effect that there was no evidence of any archaeologically significant sites directly impacted by the route of the pipeline. Dungooly Rath will not be impacted as it is over 100 metres from the pipeline.

With regard to Route B and apart from a reference to a deserted farmhouse along a road and a manhole associated with a cast iron pump, the only material reference to archaeology in the Wayleave 154 Report is the proximity of Urney Church (RMP Louth 004:005) at 50 metres. It is suggested that the Church should not be affected by Route B. No upstanding or previously known archaeological features were noted during the survey. The pipeline would pass close to a known archaeological site but would be at least 50 metres from it.

At the oral hearing expert archaeological evidence suggested that there is 'potential' archaeology associated with Urney Graveyard and with agricultural ground along the river.

The question of 'potential' archaeology was not raised in the 'Wayleave 154 Report', although it is accepted that this is an issue when addressing archaeological issues. In this instance if, on pursuing the 'B' route archaeology of significance or otherwise was discovered, it would not be a major task to re-route the pipeline to avoid such archaeology. Whilst it would be logical to avoid known archaeology in the circumstances of placing a gas pipeline, it would not seem reasonable to select an alternative line without some indication of archaeology, especially in a situation where mitigation is available without serious consequences. It is not therefore accepted that archaeology is a material or significant factor in reaching a choice between lines A and B.

In conclusion, and despite the considered views expressed above that neither ecological nor archaeological factors are in themselves of

sufficient substance to make a choice between Routes A and B, the engineering/cost issues are significant when the differences in the additional costs of pipe length are taken into account as well as the engineering difficulties and therefore costs associated with Route B as against Route A.

It is recommended that an Acquisition Order should be granted with respect to these lands as requested.

Overall Recommendations

1. Having regard to the above assesement, it is recommended that the Commissioner for Energy Regulation should grant consent to the construction of the South-North natural gas transmission pipeline as sought by BGE (UK) Limited subject to the conditions set out in the report entitled "Assessment of the EIS for the Proposed South-North Natural Gas Pipeline" and dated 15th June, 2005, and the requirements of the Department of the Environment, Heritage and Local Government as set out in the letter of 8th June, 2005, addressed to the Commission for Energy Regulation.

2. It is also recommended that the Commissioner for Energy Regulation should make Acquisition Orders in respect of wayleaves and lands comprising lands for three number Above Ground Installations (AGIs), one number cable wayleave and thirty-eight other wayleaves as listed in the application made by BGE (UK) Limited to the CER on the 11th day of April, 2005.

Signed: _____

Date: _____