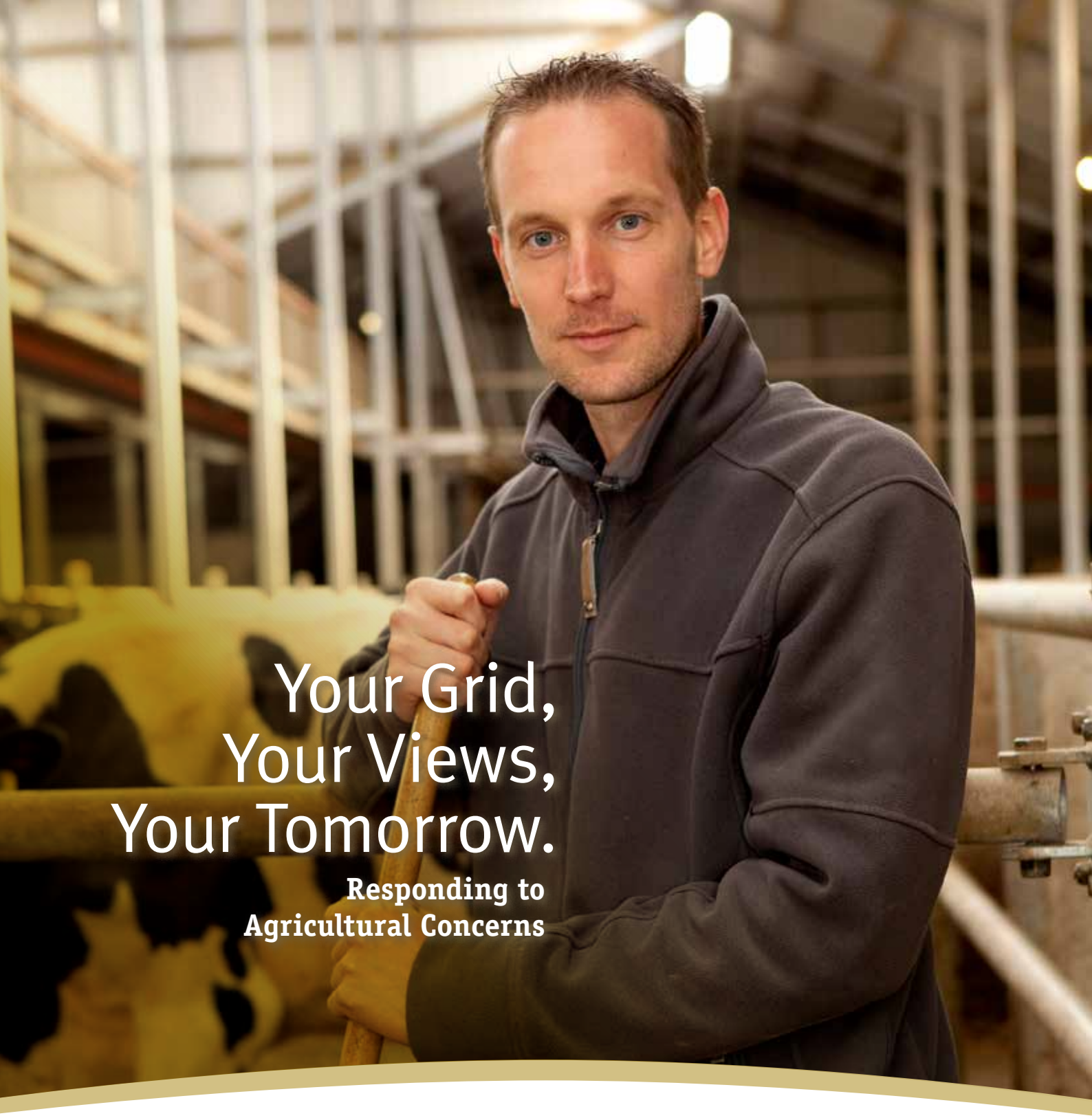

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Responding to Agricultural Concerns

EIRGRID

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Executive Summary

In January 2014, as part of the Grid25 Initiatives, EirGrid committed to comprehensively address the concerns from the agriculture sector in response to consultations on the major projects. This commitment was made in recognition of the many submissions received from farmers and landowners. As hosts of electricity infrastructure on their land, farmers and landowners play an important role in the development and successful operation of the electricity transmission system. This report is EirGrid's delivery on that commitment.

EirGrid, in its role as the state-owned operator and developer of the national grid, recognises the importance of landowners to the development and operation of the grid. We look forward to their continuing support as we seek to deliver the network necessary to help secure Ireland's energy needs now, and for future generations.

As we strive to achieve this aim, we also recognise the importance of the agriculture and food sector as Ireland's largest indigenous industry. The agri-food and drink sector accounts for 7.2% of Ireland's economy-wide GVA, 12.3% of Ireland's exports and 8.8% of total employment.[1] We are committed to ensuring that our work to develop the grid has the minimum possible impact on farms that host new infrastructure. In that regard, we welcome all of the submissions received. They inform us of the concerns landowners have, and give us the opportunity to review our practices for consultation with farmers and works on farms.

The submissions received regarding agriculture cover a broad range of issues. These issues have been grouped under 15 main headings and are set out in section 3. Findings and recommendations are set out in sections 4 and 5. However, overall we have identified 3 key themes where significant improvements can be made to the way we develop the electricity transmission network and how we can work better with key farming stakeholders to ensure their interests are considered in a more substantive and meaningful way from the outset.

The 3 key themes are as follows:

- Provide Greater Recognition
- Initiate Increased Engagement
- Develop a Package of Measures

From the feedback we received it is clear that stakeholders from the agriculture sector believed that there was a lack of recognition for their sector in our consultative process. It was felt that EirGrid's engagement was inadequate, and lacked information on what was being proposed. They felt EirGrid failed to listen to or understand their concerns, and failed to develop a package of measures to address these concerns.

We have looked into these criticisms, and have developed commitments to address these concerns which are set out below.

1 Factsheet on Irish Agriculture - October 2014, Department of Agriculture, Food and the Marine.

Theme 1 – Provide Greater Recognition

Landowner Charter
EirGrid, with the assistance of key stakeholders, will develop a Landowner Charter. This Charter will clearly outline the level of professionalism and the response time by which landowners can expect to have their queries answered.

It is important to note that there are existing codes of practice that apply to the relationships between landowners and the development of the electricity network. EirGrid's Landowner Charter will build on the success of these codes.

Theme 2 – Initiate Increased Engagement

Process for Consultation in Project Development
In line with the commitments made within our report 'Reviewing and Improving Our Public Consultation Process',[2] we will improve the effectiveness of our consultation process to clearly define consultation opportunities, to explain how feedback can be provided and to efficiently assess feedback received.

EirGrid is committed to specific improvements in our approach to consultation that reflect the importance of landowners and the wider farming community to the development of the transmission network.

Agricultural Liaison Officers
EirGrid will appoint Agricultural Liaison Officers. The liaison officers will be located regionally and will liaise with landowners on all agricultural matters.

Landowner's Handbook
EirGrid will develop a Landowner's Handbook, which will contain a full suite of information and provide clarity as is necessary to landowners and farmers to address the issues raised during consultation with them.

Theme 3 – Develop a Package of Measures

EirGrid will work to develop a package of measures to address the practical concerns for landowners and farmers resulting from the construction of electricity transmission infrastructure on their land. These include measures to minimise impact on the land and farm enterprises and will include clarity around compensation.

2 Report available at www.eirgrid.com

Taking the above as a set of proposed recommendations, we welcome input from agriculture sector stakeholders to help shape this new approach. We want to agree an approach to agriculture that enables EirGrid to develop the electricity transmission infrastructure necessary for this country's economic progress.

EirGrid is committed to working constructively with landowners and farmers. This section of our community has always played a key role in the development and successful operation of the electricity transmission system, and they will continue to do so.

1. Introduction

This report is EirGrid's response to the commitment made in January 2014 to comprehensively address the major issues arising with regard to agriculture from the submissions received in response to consultations on the major projects.

Many of the submissions we received from members of the agricultural community raised concerns regarding the impact our projects could have on the agriculture sector. In producing this report, EirGrid reviewed all of the submissions, and identified the issues raised. In order to address the issues and concerns in a comprehensive manner, we commissioned an expert report along with a survey of best practice among other European transmission system operators (TSOs). These are included in the appendices and referenced in the document where appropriate.

Both EirGrid and ESB Networks play important roles in the transmission system and it is worth setting out the respective roles of EirGrid and ESB Networks in order to understand the different responsibilities and how we work together.

EirGrid plc is a state-owned commercial company with full responsibility for the Transmission System Operator (TSO) and Market Operator (MO) functions. EirGrid's role is to operate and ensure the maintenance of and, if necessary, develop a safe, secure, reliable, economical, and efficient electricity transmission system and to explore and develop opportunities for interconnection of its system with other systems, in all cases with a view to ensuring that all reasonable demands for electricity are met and having due regard for the environment. EirGrid is also tasked with implementing aspects of Government energy policy.

ESB Networks is the licensed Transmission Asset Owner (TAO), with responsibility for the management of capital work programmes related to transmission. This includes the construction of new high voltage substations, and their associated overhead lines and underground cables. Their responsibility also involves responding to network faults and carrying out planned maintenance and refurbishment on these assets.

Where stakeholders raised issues pertaining to construction and maintenance activities, we sought the input of ESB Networks for this report.

A number of submissions related to quite specific agricultural matters for individual stakeholders and these are being responded to directly with the individuals concerned.

To address concerns in relation to noise from overhead lines, we have commissioned a survey to measure noise. This will require measurements over a prolonged time period in different weather conditions under one of our 400kV lines. This research has commenced, but at time of going to print, the study has not been completed. The findings from this survey will be published in due course.

The report contains a number of key recommendations: We hope that when these are implemented, they will address the concerns expressed in the submissions we received. In addition to this report on the concerns of the agriculture sector, we have also produced a report that specifically deals with our consultation process when developing new transmission lines. Our consultation report titled "Reviewing and Improving our Public Consultation Process" addresses concerns expressed by many, including landowners and farmers, on how EirGrid engages with stakeholders during project development. The report is published on EirGrid's website.[3]

EirGrid recognises the value and important role of the farming and food industries to the Irish economy. We see this report as the start of a dialogue with the agricultural community to help shape an approach to agriculture that can enable the continuing development of our electricity transmission infrastructure. This is essential to this country's economic progress, and we are committed to working with farmers and landowners to achieve this goal.

3 www.eirgrid.com

2. Landowner engagement: EirGrid's approach to date

For new transmission developments, EirGrid is responsible for all engagement with landowners[4] and farmers during the pre-planning stage. During the construction stage, EirGrid is also responsible for the landowner relationship and together with ESB Networks, who are responsible for construction, we work to deliver infrastructure with the least impact to the landowner. At the time of writing we are working on a new project development framework and therefore the description below reflects the approach to date.

Our consultation process commences when we define a study area where new transmission lines are needed, and identify any potential constraints that are specific to this area.

What are constraints?

In the development of EirGrid's transmission projects a 'constraint' is something that limits or restricts where infrastructure can be built.

There are many different kinds of constraint. They can be physical, such as the presence of a large town or an airfield, or geographic, such as a wide river or a steep slope. There are also locations that are protected in law, like Special Areas of Conservation or UNESCO heritage sites.

During the early stages of a project we work to identify potential constraints. This is based on site visits, desktop studies and feedback from the relevant local authorities and statutory bodies, various stakeholders and, through consultation, members of the public.

Not all constraints are treated the same. Cities and towns, for example, are classified as primary constraints. National parks and locations that are protected for environmental reasons are also primary constraints. We do our utmost to avoid locating infrastructure where it could impact on a primary constraint.

Following this, we can identify potential route corridors and then select the least constrained corridor. At this point, we have an indicative route for the transmission line, and so we now consult directly with landowners.

Landowners are identified in the first instance from a search of the Property Registration Authority of Ireland (PRAI) database of registered lands. This returns the name and address of the current registered owner of the lands. Based on this, the PRAI map outlining the lands is retrieved. This becomes the basis for the generation of landowner mapping for the project, as it shows the extent and boundaries of the land registered to a landowner.

4 The term "landowner" in this context refers to the owner(s) of land, over which the proposed line route crosses, regardless of the activity that takes place on that land.

On completion of this task for the entire line route, we prepare a pack for each individual landowner whose lands are crossed by the indicative line route. The pack contains a map that shows the route of the indicative line across the individuals land. This line, drawn on the basis of the information gathered up to this point, represents the line that has the least impact across all of the constraints previously identified.

This pack is either posted or hand delivered to each landowner and a meeting organised to discuss the proposals. This meeting begins the process of landowner engagement. This lasts through the pre-planning stage and right through the construction phase. At this first meeting, we confirm land ownership details, and we then outline the details of what is proposed for the individual's lands. This is generally done by walking the lands with the landowner to show the proposed route. This provides the landowner the opportunity to raise any initial concerns and make practical suggestions. Landowner responses vary greatly at this point: Some question the alignment, or outline how it would impact on their land. Others propose alternative alignments, and indicate where the siting of pylons would be most or least favourable with respect to the activities they undertake on their land.

We recognise that farms are businesses and that it is important to minimise any impact to the business. These initial meetings also offer landowners the chance to tell us about any local constraints or restrictions that we may not be aware of, but that could impact on the route of the line.

At the end of this first meeting with the landowner, we consider all suggestions made about the alignment of the line, in the context of the overall route. Where possible, we facilitate suggestions of alternative alignments. However, we will only do so when this change does not cause an unduly adverse affect to another landowner, resident or to a previously identified environmental constraint. As soon as a decision has been reached with regard to the proposed changes, we contact the landowner to inform them of the decision, and to explain whether the change was possible or not.

On completion of the route's path, the next task is to progress the design of the line. In this task, we identify locations for supporting structures such as steel towers or pylons. The location of towers is driven by technical requirements. Specifically, we must achieve a minimum ground clearance for the conductor, based on the tower design chosen for the individual project. However, during this process we also facilitate requests from landowners to change tower locations, if they have concerns about obstruction or disruption. These requests will, however, always be bound by technical limitations. A common request from landowners is to place towers on or close to hedgerows to minimise the impact on fields. EirGrid can do this where technically possible, but we require the co-operation of the landowner and access to the land to carry out walkover environmental surveys.

The next step is to issue a map of the revised line route showing structure locations to each landowner, and to seek their comments. Again, all landowner requests are considered and implemented where possible.

Impact on agriculture is considered in the Environmental Impact Statement or Environmental Report that is prepared and lodged with the planning application. Throughout the process, landowner representatives locally are briefed on the project. On lodgement of the planning application, landowners are issued with a map showing the line route and structure locations on their land as submitted for planning.

After planning permission is granted for a new transmission line and prior to construction, EirGrid and ESB Networks will meet to discuss and agree details of the construction phase. Prior to construction, wayleave notices are served on all landowners and EirGrid will meet with these landowners and farmers to discuss the construction programme, access and agree compensation. EirGrid and ESB Networks will meet to discuss and agree details of the construction phase. New transmission lines are constructed subject to the landowner's entitlement to be paid compensation.[5]

Closer to the start of construction the access officer on behalf of ESB Networks will visit the landowner to assess access routes and to give a definitive date for the commencement of works having regard to the landowner's wishes in respect of silage or other crops approaching harvest.

All planned maintenance works on existing lines is carried out by ESB Networks, landowners are consulted in advance to discuss the works.

5 Landowners are entitled to compensation for the placing of an electric line on their lands according to section 53 of the Electricity (Supply) Act, 1927 as amended by section 1 of the Electricity (Supply) (Amendment) Act, 1985. EirGrid seeks to agree a package of measure with landowners and their representatives to compensate for losses arising as a result of works on their lands. This is a very important element, which gives landowners assurance that they will not be at a loss resulting from the works. If compensation cannot be agreed landowners can refer the issue of compensation to arbitration under the provisions of the Acquisition of Land (Assessment of Compensation) Act, 1919.

3. Issues raised with respect to agriculture

We reviewed the submissions received in response to our project consultations. The following is a list of the broad issues that we identified as being of concern to the agriculture sector.

3.1 Undergrounding

Many submissions from stakeholders in the agricultural sector acknowledge the importance of developing the country's electricity infrastructure but ask that it be delivered by undergrounding new 400kV lines. It is the view of these stakeholders that because of the many concerns they have regarding the impact of overhead transmission lines on agriculture, that it is better for the lines to be undergrounded.

3.2 Avoidance of Agricultural Land/Farms

Many farmers who made submissions set out specific agricultural reasons why their individual farms should be avoided when routing overhead transmission lines. Reasons cited include: Highly productive fertile lands producing premium quality product, impact on the green image of Irish agriculture, impact on health and performance of animals on farms, and a negative impact on the overall farm business.

3.3 Consultation

Many of the submissions expressed disappointment that farmers are not consulted earlier - even though their land is considered during the corridor selection stage.

3.4 Animal health, welfare and performance

A large number of submissions raised concerns in relation to impact on animal health, welfare and performance in relation to Electric & Magnetic Fields (EMFs). There were also concerns expressed about the increased risk of electrocutions and stray voltage impacts. Specific issues raised included: Reduction in dairy cow milk yield, reduction in milk butter-fat content, increase in somatic cell counts (SCC)[6] in dairy cows, increase in animal stress levels resulting in a decrease in productivity and increased fertility problems. All of these factors would reduce the performance, and ultimately the profitability, of farms.

6 Somatic cell count (SCC) refers to the quantity of leucocytes per mL of milk and is an indicator both of udder health, particularly mastitis, and milk quality.

3.5 Health & Safety

Health & Safety concerns were raised regarding the construction and operational phases of overhead lines. Some submissions expressed fears about the security risk during the construction stage – raising specific concerns about accident or injury to persons or livestock.

When an overhead line is completed and operational, the following Health & Safety concerns were raised:

(a) Risks of accidents and electrocution, especially during lightning storms

(b) Risk of conductors falling to ground; especially in times of high winds or extremely severe frost.

(c) Risk of contact with overhead power lines, or the risk of arcing to overhead power lines from large agricultural machinery or high loads.

3.6 Impact on property

Many submissions contend that the construction and long-term presence of new overhead transmission lines would have a negative impact on the value of farms. Additionally, if the line was sited close to the farmyard, there were concerns that this could impact on the ability to develop the farmyard, and thus the farm. Many farmers are concerned that prospective buyers of a farm would view the overhead transmission line as a negative, thus reducing the sale price that could be achieved.

3.7 Construction and maintenance related issues

A large number of issues of concern to landowners during the construction and maintenance stages of overhead line projects were raised in the submissions. We have discussed these issues with ESB Networks. Some of the issues include; soil compaction & disturbance, crop loss, disturbance to field drainage systems, spread of animal diseases, noise, dust, vibrations, restricted access to fields, straying of stock, requirement for increased supervision of fences, gates, livestock, helicopter patrols, etc.

3.8 Restrictions on farming activities

A concern expressed by many of the submissions was that the presence of overhead transmission lines on farmland would cause a restriction to farming activities as practiced presently in the absence of such lines. Examples of such concerns include restrictions on slurry spreading, irrigation of crops, restrictions on the use of large machinery, restriction on the development of farm yards and overall farm development, restrictions on the running of electric fences parallel to the overhead line etc.

3.9 Obstruction to farming activities

Issues raised under this heading include: pylons causing an obstruction to activities such as spraying, fertilizer spreading and other field activities (making these activities more troublesome and time consuming), pylons and lines interfering with GPS signals, certain irrigation systems not working around pylons, and the number and position of pylons causing a significant disruption to field systems and generally hindering the operation of a farm.

3.10 Farm Produce Quality

A significant number of submissions expressed concerns that high voltage lines could damage Ireland's "clean and green food" image, and so create a negative perception of farm produce and food quality.

3.11 Impact on Farm Profitability

The following individual issues have been grouped under the heading of farm profitability: Loss of land, waste of good fertile farmland, negative impact on farm management practices, structures as an obstruction to the use of farm machinery, impact on Single Farm Payment, tax, erosion of farm income, impact on farm employment, threat to expansion of the farming business, impact to Food Harvest 2020 targets.

3.12 Forestry

Landowners with forestry on their land expressed concern that if an overhead transmission line was to be routed through their forestry, there would be a forced change to the land use from forestry - and that there would be significant financial losses as a result.

3.13 Noise

Many farmers expressed concern that the noise from the overhead line could cause animals in fields under the line to take fright. This could result in livestock breaking out of fields, or causing injury to themselves or their keepers.

3.14 Insurance

Some of the submissions raised concerns about any potential loss that might occur in the case of fallen lines or faults. In particular, they sought clarification and reassurance about where liability lies in the event of such an incident.

3.15 No Package of Measures

Some submissions noted that there is currently no package of measures in place with EirGrid regarding major projects.

4. Response to the Issues Raised

Where we have responses to the issues raised, we have provided them below. Other issues have led to a number of recommendations that we intend to implement following consultation with key stakeholders. The recommendations are listed in chapter 5.

4.1 Undergrounding

In response to calls for the projects to be undergrounded and as a separate initiative, EirGrid has committed to conduct a comprehensive underground analysis for the Grid Link and Grid West projects. We will work with the Government appointed Independent Expert Panel to review underground and overhead options before the projects proceed to the next stages of project development.

As outlined in our recently published 'Draft Grid Development Strategy'[7], that while underground technology has always been considered during initial project scoping and technical analysis, in future we will always publish underground options for public consultation. We also commit to engaging with the public before we identify a preferred technology. This consultation will explain the transmission technology options, and then seek feedback from stakeholders.

This will assist us in determining the best transmission technology for future projects. We are committed to looking for alternative options that may avoid, or reduce, the necessity for new overhead lines.

4.2 Avoidance of Agricultural Land/Farms

Agricultural land is currently not identified as a primary constraint to be avoided at the corridor selection stage of new overhead electricity transmission lines. This is because there are no statutory designations or protections applying to agricultural land in Ireland.[8] This is not to suggest that the issue is unimportant, but that there are other issues that also need to be considered in the overall development of the project at the corridor identification stage.

However, farming enterprises on agricultural land are considered at the line routing stage of projects. At this stage, EirGrid works to minimise any impact on farms.

To address this concern, and to discover whether EirGrid was treating the agriculture sector in line with international practice, we sought to learn more about how this issue is handled elsewhere. In particular, we wanted to understand how other countries treat farming enterprises when developing new electricity transmission lines, and to see if these learnings could improve EirGrid's approach.

7 www.eirgrid.com

8 Some land that is designated as Special Area of Conservation (SAC) or Special Protection Area (SPA) is farmed.

A survey questionnaire was prepared to obtain the relevant information and circulated to other European grid operators through the representative body ENTSO-E.[9] The complete report from the survey can be seen in Appendix 1. The responses to the questionnaire show that none of the TSOs that responded have a policy of avoiding agricultural land or farming enterprises when routeing new transmission lines. However, EirGrid recognises that agriculture as practiced in Ireland has unique differences from the way it is practiced in other European countries - owing to farm size, field size, land quality, climate and culture. While we have not assigned constraint status to these enterprises, EirGrid is committed to working with farmers earlier in the project to minimise the impact on farms throughout the route selection and construction process.

4.3 Consultation

As one of the commitments outlined in this report, EirGrid will engage with key farming stakeholders to agree principles of engagement for future contacts with landowners to improve the effectiveness of our consultation process. As stated earlier, EirGrid is committed to the development of a Landowner Charter.

This Charter will clearly outline the level of professionalism and the response time by which landowners can expect to have their queries answered.

In response to concerns regarding consultation, we have produced a separate report titled 'Reviewing and improving our public consultation process' that specifically deals with our consultation process when developing new transmission lines. Our consultation report addresses concerns expressed by many, including landowners and farmers, on how EirGrid engages with stakeholders during project development. The report is published on the EirGrid website.[10]

EirGrid is also committed to specific improvements in our approach to consultation that reflect the importance of landowners and the wider farming community to the development of the transmission network.

As outlined in more detail in section 5, we are appointing Agricultural Liaison Officers (ALOs). The liaison officers will be located regionally and will liaise with landowners on all agricultural matters.

4.4 Animal health, welfare and performance

In response to concerns that overhead lines will impact on animal behaviour, health and performance, EirGrid commissioned external research on this topic. We asked engineering and scientific consulting group Exponent[11] to undertake a comprehensive review of the scientific research on livestock in relation to electric and magnetic fields from high voltage transmission lines. This is included in Appendix 2. The report concludes that *"the available scientific evidence summarised in the current report does not provide consistent or convincing evidence that either electric or magnetic fields associated with the Irish electric transmission system may adversely affect the livestock*

9 The European Network of Transmission System Operators for Electricity). Responses were received from most of the major TSOs operating in Western Europe including RTE (France) who operate the largest grid among ENTSO-E members at 104,684km, and our nearest neighbours in England and Wales (National Grid).

10 www.eirgrid.com

11 www.exponent.com

or crops produced on Irish farmlands". In relation to crops including grass produced on farms the report states *"The levels of electric fields associated with transmission lines at voltages up to 400kV have not been reported to produce even minor damage to plants"*.

We are committed to a process of on-going monitoring of research on EMF, and we will provide the latest information to the general public on the issue. We will also continue to design and operate the transmission system in accordance with current international guidelines on EMF (ICNIRP), as reviewed by the World Health Organisation, and as endorsed by the EU and the Irish Government.

4.5 Health & Safety

Safety is a core value for EirGrid and safety is never compromised. All construction and maintenance work is carried out in compliance with all legislation and Health and Safety Authority guidelines. The lines themselves are designed and constructed to the highest national and international standards and follow best practice in relation to construction and maintenance.

Electricity is a powerful and safe energy when it is treated with care and with a common-sense attitude to safety. Just like other aspects of farm life – such as handling animals, working with machinery, handling chemicals - an awareness of safe practices is essential in order to minimise the risk of injury or death.

Any person working near overhead lines has a responsibility to prevent dangerous contact with the overhead line. The Health and Safety Authority publication, Guidelines for Safe Working Near Overhead Electricity Lines in Agriculture[12] outlines the control measures applying to the party in a position to implement the precautions specified therein. In addition, two further publications are available from ESB Networks that provide guidance to farmers. These are *Farm Well… Farm Safely* and the second, published this year, is *Farm Safely with Electricity*.[13]

As part of the commitments outlined in this report, EirGrid will develop a Landowner's Handbook, which will contain a full suite of information and provide clarity as is necessary to landowners and farmers to address the issues raised during consultation.

4.6 Impact on property

There is a statutory entitlement to compensation for directly affected landowners. The statutory entitlement to compensation is considered to offer an appropriate mitigation to landowners in respect of the impact, if any, upon property arising from the development of strategic transmission infrastructure.

As part of the commitments outlined in this report, EirGrid will work to develop a package of measures to address the practical concerns for landowners and farmers resulting from the construction of electricity transmission infrastructure on their land. These include measures to minimise impact on the land and provide clarity around compensation arising from the location of high voltage power lines.

12 www.hsa.ie
13 www.esbnetworks.ie

4.7 Construction and maintenance related issues

A number of issues of concern to landowners during the construction and maintenance stages of overhead line projects were raised in the submissions as outlined in section 3.7. As ESB Networks are responsible for construction and maintenance, we have discussed these issues with them. We recognise that these works will impact on farmland and on normal farming activities.

EirGrid endeavours to minimise these impacts by:

1. Having the right people at the interface between construction teams and landowners. These are people who understand farmers and farming, who can understand the issue from the landowner's perspective and work to resolve any issues that arise.
2. Good communications between the parties involved.
3. Ensuring that landowners are fully compensated for any losses legitimately arising due to activities associated with the line.

Many of the issues that have been raised by farmers about construction and maintenance are addressed in existing codes of practice. Additionally the EirGrid Code of Practice in Relation to Access to Land and/or Premises (Appendix 3) and the ESB Code of Practice in Relation to Access to Land and/or Premises[14] set out the principles and procedures followed when accessing land and/or premises.

Concerns regarding helicopter patrols were raised in a considerable number of the agricultural submissions. In accordance with EirGrid instructions, it is the ESB that undertakes all maintenance work on the transmission network. The ESB have notification procedures in place and these procedures have worked well in the past. The ESB will ensure that all farms affected by the new Grid25 lines are facilitated with the opportunity to be included in their database. This will ensure that there is appropriate consultation and notice in relation to any maintenance work on lines and, in particular, to the annual helicopter inspections.

Recognising the significance of construction and maintenance issues for landowners, it is EirGrid's intention to produce a 'Landowner Handbook' to address in detail the specific issues that have been raised. This is outlined in section 5. Additionally a 'Package of Measures' is required to be put in place, of which compensation is an important element. This would also be consistent with findings from the ENTSO-E Survey of TSOs (Appendix 1) in that most TSOs have codes of practice or packages of measures setting out how works on lands will be undertaken. As stated in section 2 of this report, landowners are entitled to compensation for any losses arising as a result of works on their lands.

14 www.esbnetworks.ie

4.8 Restrictions on farming activities

Making contact with overhead electricity wires, or even coming close to them, puts you at serious risk of injury or death from electrocution. Water from irrigating equipment or rain guns and slurry can also conduct electricity if it hits an overhead line, also putting the operator of such equipment at risk of electrocution. Persons working in fields with overhead lines need to be aware of the presence of the line and undertake a risk assessment of their activities prior to commencement. Risk assessment of activities to be undertaken in fields with overhead lines may cause a restriction to the use of certain equipment or practices so as to prevent contact or even coming close to the conductors. If a landowner has any concerns with regard to clearances to the line they should make contact with ESB Networks at 1850 372 757. ESB have also published a booklet entitled *Farm Well… Farm Safely* (www.esbnetworks.ie) that deals with the main risks on farms associated with electricity including precautions to be taken with regards to electric fences in close proximity to overhead transmission lines.

Having regard to the presence of the overhead line, farming activities can continue as they did prior to the construction of the line, as is the case with the existing transmission system, which extends to 6,400km much of it across farmland. However, if the presence of the line results in a loss to their activities, landowners are entitled to compensation for the loss.

Many farmers expressed concern that the route of the overhead line would be so close to farmyards as to limit the opportunity for developing the farmyard facilities threatening the development of the farm. EirGrid recognises both the opportunities for growth in farm output and the targets for same that are in place presently and in no way wishes to impede the growth and development of the sector. It is our view that by working constructively with farmers the necessary improvements to the grid can be brought about at no loss to the agriculture sector. As part of the commitments outlined in this report, EirGrid, with the assistance of key stakeholders, will develop a Landowner Charter. We commit to avoiding farmyards when routing new overhead lines so as not to in any way impact the development of the farmyard facilities.

Restriction in respect of forestry is dealt with later in this report.

4.9 Obstruction to farming activities

The presence of pylons on farmland represents an obstruction to the use of farm machinery requiring greater vigilance and can result in an increase in the time required to undertake mechanical operations in fields. For this reason we make every effort to engage with landowners at the pre planning stage to consult on the route alignment as it crosses their land and on the location of structures. Where possible, structures are placed on field boundaries to minimise the impact on fields. As part of the commitments outlined in this report, we are appointing Agricultural Liaison Officers whom will be located regionally and will liaise with landowners on all agricultural matters. This liaison will take place at each stage of the process, from initial landowner identification, through construction and finally to the reinstatement of the land. Following construction, they will ensure all matters are closed out to the satisfaction of landowners and farmers.

In addition EirGrid is currently reviewing pylon design for 400 kV structures and welcomes the views of farmers. Alternative pylon designs for consultation have been published on www.eirgrid.com

The Mast Interference Payment is a payment made annually by ESB Networks in respect of each transmission structure as compensation for the losses associated with the presence of a structure in farmland. Details of payment rates are set out at www.esbnetworks.ie.

4.10 Farm Produce Quality

EirGrid recognises the high standing that has been achieved by the Irish agri-food sector for the quality of the food produced and the hard work that has been put in by so many in the sector to achieve this standing. EirGrid does not wish - in any way - to damage the reputation of the agri-food sector or its produce. As part of the commitments outlined in this report, we are committed to working closely with farming representatives and the food industry to ensure that new electricity lines will not impact the public and international perception of Irish food quality.

4.11 Impact to Farm Profitability

EirGrid is committed to minimising any impact on farm profitability and we will work to develop a package of measures to address the practical concerns for landowners and farmers resulting from the construction of electricity transmission infrastructure on their land. These include measures to minimise impact on the land and will include clarity around financial compensation.

4.12 Forestry

Landowners are restricted from using the land underneath transmission lines for forestry. In the case of 400kV lines, a 74m corridor - centred on the line - must be clear of trees. Where 400kV lines are routed through existing forestry a corridor extending to this width is cut to protect the line from damage from tree fall. It is accepted by EirGrid that where a landowner has forestry along the corridor of high voltage lines, this forestry restriction will lead to financial loss. This loss can only be dealt with via compensation. Forestry owners are compensated for any losses arising as a consequence of these restrictions on the basis of existing agreements with landowner representatives and we are committed to reviewing this as part of the proposed package of measures we will be developing.

4.13 Noise

To address concerns in relation to noise from overhead lines, we have commissioned a survey to measure noise. This will require measurements over a prolonged time period in different weather conditions under one of our 400kV lines. This research has commenced, but at time of going to print, the study has not been completed. The findings from this survey will be published when available.

4.14 Insurance

Some of the submissions raised concerns in relation to where liability lies in the case of fallen lines. The position with respect to indemnification is clearly outlined as follows, (the Board refers to the Electricity Supply Board);

The Board shall indemnify and keep indemnified the landowner, his servants, agents, licensees and invitees against all sums in respect of loss or damage, claims, demands, costs and expenses which the landowner shall become legally liable to pay as compensation for any illness or accidental bodily injury or accidental loss of or damage to property where such injury or damage is caused by, arises from, is traceable or connected with the works or equipment other than in consequence of any malicious act or omission on part of the landowner.

The Board shall pay compensation to the landowner, his servants, agents, licensees and invitees in respect of any illness or bodily injury or loss or damage to material property suffered by him or them (together with all consequential loss arising there from) where that same is caused by, arises from, is traceable to or connected with the works, or equipment other than in consequence of any malicious or criminally reckless act or omission of the landowner and except insofar as the same has been made good by the Board without loss to the landowner.

The above is without prejudice to the Board's and Landowners' Statutory and Common Law rights. Illness in this context is understood to mean damage to the personal health and well-being of the landowner or his animals or his agents, servants, licensees and invitees. It is noted and agreed that the ESB will issue, to any individual landowner requiring same, a letter of acknowledgement that the Board's wayleave over his land is subject to the provisions of the code of practice, including specifically the indemnity clause.

4.15 Develop a Package of Measures

EirGrid acknowledge the need for a 'Package of Measures', and this is addressed further in section 5.

5. Commitments

Taking into account the concerns raised, EirGrid is now proposing a series of commitments. EirGrid would welcome a dialogue with our stakeholders to help shape our relationship with landowners and the farming community. This will ensure that the electricity transmission infrastructure - necessary to this country's economic progress - can be put in place.

Theme 1 – Provide Greater Recognition

- EirGrid recognises the value and important role of the agriculture sector to the Irish economy.
- EirGrid recognises that farmers and landowners are key partners for grid development.
- EirGrid recognises that transmission infrastructure impacts on farmland and on farming.

1. Develop a Landowner Charter

EirGrid, with the assistance of key stakeholders, will develop a Landowner Charter. This Charter will clearly outline the level of professionalism and the response time by which landowners can expect to have their queries answered.

It is important to note that there are existing codes of practice that apply to the relationships between landowners and the development of the electricity network. EirGrid's Landowner Charter will build on the success of these codes.

Theme 2 – Initiate Increased Engagement

- EirGrid will engage with key farming stakeholders to agree principles of engagement for future contacts with landowners to improve the effectiveness of our consultation process.
- EirGrid recognises the need to engage with farmers and landowners at a local level through personnel who understand the concerns of farmers, and those of the broader farming sector.
- We will improve the quality and delivery of information to landowners.

2. Improve our Process for Consultation during Project Development

In line with the commitments made within our report 'Reviewing and Improving Our Public Consultation Process'[15], we will improve the effectiveness of our consultation process to clearly define consultation opportunities, to explain how feedback can be provided and to efficiently assess feedback received. In addition, we will review the approach to the various considerations (constraints) that must be taken into account in routing a power line or cable.

15 Report available at www.eirgrid.com

3. Appoint Agricultural Liaison Officers

EirGrid will appoint Agricultural Liaison Officers. The liaison officers will be located regionally and will liaise with landowners on all agricultural and equine matters. This liaison will take place at each stage of the process, from initial landowner identification, through construction and finally to the reinstatement of the land. Following construction, they will ensure all matters are closed out to the satisfaction of landowners and farmers.

4. Develop a Landowner's Handbook

EirGrid will develop a Landowner's Handbook, which will contain a full suite of information and provide clarity as is necessary to landowners and farmers to address the issues raised during consultation.

Theme 3 - Develop a Package of Measures

5. Develop a Package of Measures

EirGrid will work to develop a package of measures to address the practical concerns for landowners and farmers resulting from the construction of electricity transmission infrastructure on their land. These include measures to minimise impact on the land and farm enterprises and will include clarity around compensation.

6. Implementation

EirGrid is committed to working collaboratively with farmers, landowners and their representatives in the development and construction of a stronger electricity transmission system.

It is currently envisaged that the majority of these commitments will be implemented during 2015 recognising that a number of them will require further discussion and agreement with stakeholders to bring about their implementation. It is our intention to continuously review our approach to consultation to meet the evolving needs of those who participate in and engage with our projects.

Appendices

1. ENTSO-E survey regarding 'Approach of European Grid Operators to Agricultural and Equine Land Uses'.
2. Exponent Review of Research on Livestock and Crops in Relation to Electric and Magnetic Fields from High Voltage Transmission Lines.
3. EirGrid Code of Practice in Relation to Access to Land and/or Premises.

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