



Regional Inspectorate,
Inniscarra,
County Cork, Ireland
Cigireacht Réigiúnach, Inis Cara

By email to: GridPlan@Eirgrid.com

Maeve Flynn
EirGrid Plc.
The Oval,
160 Shelbourne Road,
Ballsbridge,
Dublin 4,
D04 FW28.

T: +353 21 487 5540
F: +353 21 487 5545
E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99

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Our Ref: SCP161103.2

Re. *Draft Grid Implementation Plan 2017-2022 and Strategic Environmental Assessment (SEA) Environmental Report*

Dear Dr Flynn,

We acknowledge your notice, dated 3rd May 2018, regarding the *Draft Grid Implementation Plan 2017-2022 for the Electricity Transmission System in Ireland* (the Plan) and associated Strategic Environmental Assessment (SEA) Environmental Report.

We welcome the opportunity to provide comments on the Plan and associated SEA at this stage in the process. Our role, as one of five statutory SEA Environmental Authorities, focuses on promoting full integration of the findings of the SEA into the Plan and advocating that the key environmental challenges for Ireland are addressed. It is not our function to either approve or enforce the Plan or SEA. This submission is intended to strengthen the Plan and support the integration of environmental considerations and related commitments into the Plan.

We acknowledge that our SEA Scoping submission has been considered in preparing the draft Plan and SEA ER. This is attached for information and the relevant aspects should be treated as part of this submission. Additional key comments to consider in finalising the Plan are provided below. Specific comments on the Plan and the SEA Environmental Report are provided in Appendix I and II respectively.

Overall Strategy for Grid Development

We welcome the acknowledgement in *Ireland's Grid Development Strategy – Your Grid, Your Tomorrow* (EirGrid, 2017) of the need to achieve a balance between social, environmental and economic factors. In particular, we note the recognition that an essential component of grid development is to understand how developing the transmission system might affect the environment and that the consideration of the environment is central to EirGrid's planning and implementation. The strong emphasis on public consultation and engagement in



EirGrid's approach to grid development and related decision making is a positive development. This is in keeping with the Community Engagement Action of the seven key environmental actions in Ireland's Environment - An Assessment 2016.

We acknowledge the commitments in EirGrid's three Strategy Statements:

- Inclusive consultation with local communities and stakeholders
- Consideration of all practical technology option
- Optimisation of the existing grid to minimise the need for new infrastructure

which form the basis of the Strategy, reflecting the need for a balanced and sustainable approach to grid development. We note these are captured in the relevant approaches outlined in Part B: Implementation of the Plan.

EirGrid's Approach to the Environment

We welcome the proactive approach adopted by EirGrid in implementing the recommendations and environmental mitigation measures arising from the SEA process carried out for the previous *Grid 25 Implementation Programme 2011-2016*. We welcome the resulting positive changes in EirGrid's approach to the planning and development of transmission systems. This will contribute significantly to ensuring that all aspects of the environment including communities are now key considerations in EirGrid's decision making process from early on in grid planning and development through to implementation.

The update on progress in implementing the SEA mitigation measures provides a very useful overview of how consideration of the environmental issues has become a core part of grid planning and development. The following in particular are acknowledged and welcomed:

- The development of a new Framework for Grid Development with environmental considerations at the core. The specific focus on human and social environment is acknowledged.
- The development of an updated environmental mapping system.
- Completion of evidence based environmental studies
- Preparation of evidence-based environmental guidelines for assessing EMF, Cultural Heritage and Ecology as part of electricity transmission projects.

It will be important that EirGrid's updated approach continues to evolve alongside a greater understanding of the electricity transmission grid and how it interacts with human, built and natural environment. This will be informed by the outcome of the series of 10 evidence based environmental studies and on-going Plan and project related monitoring of the receiving environment. We note that provisions are made in the Plan for the continued preparation and update of the Evidence Based Guidelines. These along with related monitoring will provide the basis for informed environmental planning and decision making for the on-going development of the grid.

Mitigation Measures and Recommendations

We acknowledge the proposed mitigation measures and recommendations in Section 13 of the Plan. The proposed modifications to a number of the Policies and Objectives which have been informed by the SEA should be reviewed and the agreed text included in the final Plan. Suggested rewording and additional Polices/ Objectives are also included in Appendix I and Appendix 2 of this submission and should also be considered in finalising the Plan.



Plan Implementation, Review and Reporting

We welcome that the Environmental Advisory Group will continue to function during the second cycle of the Plan to review SEA related monitoring and progress made in implementing the recommendations and mitigation measures. The role of the Advisory Group in relation to the annual Transmission Development Plan Environmental Appraisal Reports (EAR) will need clarifying.

There would be merit in agreeing the Terms of Reference of the Advisory Group during Plan Implementation Stage. Opportunities to extend the membership of the Group to include additional relevant expertise should also be explored.

SEA related environmental monitoring and Plan implementation review and reporting should be linked.

EPA's Remit in relation to Public Exposure to Electromagnetic Fields (EMF)

The EPA's remit is to be extended to include public exposure to EMF. Our specific functions have yet to be set out. This is a new development as to date no statutory agency in Ireland has had this role.

We anticipate that our role will include some degree of measurement or monitoring of public exposure to EMF. In this regard, we welcome EirGrid's commitment to independent EMF monitoring and compliance as well as compliance with relevant international guidelines as set out in the Monitoring Framework.

We will engage with EirGrid during implementation, through the Advisory Group, as appropriate, once our remit on EMF is confirmed.

Future Amendments to the Draft Plan

Where amendments to the Plan are proposed, these should be screened for likely significant effects in accordance with the criteria as set out in Schedule 1 of the SEA Regulations and should be subject to the same method of assessment applied in the "environmental assessment" of the Draft Plan.

SEA Statement – "Information on the Decision"

Following adoption of the Plan, EirGrid should prepare an SEA Statement that summarises the following:

- How environmental considerations have been integrated into the Plan;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- The measures decided upon to monitor the significant environmental effects of implementation of the Plan.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

Should you have any queries or require further information in relation to the above please contact me directly.



I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to: sea@epa.ie.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Tadhg O'Mahony', enclosed in a thin black rectangular border.

Tadhg O'Mahony
Senior Scientific Officer
SEA Section
Office of Evidence and Assessment
Environmental Protection Agency
Regional Inspectorate
Inniscarra,
County Cork



Appendix I - Comments on the Draft Plan

Links with Grid Development Strategy and Transmission Development Plan

While we note that the Plan has had regard to the 2016 Transmission Development Plan (TDP), it should also take into account key relevant aspects reflected in the Draft TDP 2017, as appropriate. Subject to the timing of the finalisation of the 2017 TDP, the Plan and in particular *Part C: Projects* should be updated to reflect the relevant aspects of the TDP.

Reference to the relevant section of the Draft TDP which addresses “*Changes since the previous TDP*” and in particular the Section which outlines “*Projects with a Change of Scope since the previous TDP*” should be considered.

We note that the rolling 10-year TDP, which is updated annually, includes an Environmental Appraisal Report (EAR) which considers whether the TDP is consistent with the provisions of the SEA. Consideration should be given to the actions required and criteria to be considered where aspects of the TDP are not consistent with the Plan SEA. The Advisory Group should be informed of the required contents and reporting criteria for the EAR Reports should be advised to.

We note the commitment to prepare of an SEA Compliance check within the six-step framework for grid development. The Advisory Group could inform the development of this compliance check. The extension of the compliance check into the construction phase is noted and welcome.

The link between the EARs and the SEA monitoring should be clarified, including, where relevant, the thresholds which would trigger remedial action in the event that adverse environmental impacts are detected.

Relationship with key relevant Policies, Strategies, Plans, Programmes

There would be merits in including a figure/ schematic showing links between the Plan and other key relevant Policies, Strategies, Plans and Programmes (including for example energy, land use planning, climate etc.) in Section 1 - Introduction to the Plan.

Policies and Objectives

Consider distinguishing between Policies and Objectives under the range of Approaches considered under PART B Implementation. Under Environment a number of topics include both Policies and Objectives and others Policies only. There would be merits in reviewing all Approaches in Part B, as appropriate, in this context for consistency.

There are a number of links between policies and objectives for the different categories of approaches in Part B. There would be merit in considering the inclusion of a matrix showing these linkages in Part B. Alternatively, this could be included in the environmental monitoring programme framework as appropriate.

General

ENVP2 – consider rewording to “..*continue* to develop..” to reflect the on-going development of EirGrid’s approach to the protection of the environment in “..transmission *planning* and development..”.

Environment

Environmental Constraints Mapping (EMM2)



EMM2 - As a key component of the Framework for Grid development, consideration should be given to the inclusion of relevant sample outputs from the environmental mapping system in the Plan.

We recommend that a commitment is made to the on-going maintenance and updating of the environmental constraints mapping system, to ensure that it reflects the most up-to-date environmental information.

Climate Resilient Transmission System

In Section 4- Our Approach to the Environment under Climate Change (or as appropriate in Section 5 Our Approach to Technology), the inclusion of a commitment to a climate resilient transmission system should be considered.

Population and Human Health

Consider the inclusion of a specific policy/ objective, or as appropriate cross referencing, on Population /Human Health and EMF.

Population and Community

Consider cross referencing Human Beings and Society Policy and Objectives under a heading Population / Community.

Tourism

Consider as appropriate, a possible additional objective related to tourism which reflect the planning and development of transmission related projects so as not to impact adversely on the tourism potential of an area. This could be linked to landscape and cultural heritage policies/ objectives. This could be developed in discussion with relevant stakeholders.

Technology

In the context of Ireland's targets for renewable energy and the associated increased contribution of renewable energy to our overall energy demand, the "*Delivering a Secure, Sustainable Electricity System*" DS3 is a significant programme and one that will become increasingly important with the increased development of renewables.

The four energy scenarios – Steady evolution, Low Carbon Living, Slow Change and Consumer Action developed by EirGrid as part of Tomorrow's Energy Scenarios are relevant to and have the potential to inform the further development the DS3 Programme.

The continued examination of the performance of underground cables is welcome. The potential adverse impact of underground cables on sensitive environmental and ecological areas is noted. The potential benefits and effects in terms of visual impact on sensitive landscapes should be considered, where relevant, in considering feasible technological alternatives for grid planning and development in sensitive landscapes. The relevant on-going evidence based studies and where relevant, Guidelines will be relevant in this context.

Project Development

We welcome the integration of EirGrid's environmental and planning expertise into all stages of grid development projects through the new six-step "*end to end*" Framework for Grid Development. This is an important mechanism in ensuring key planning and environmental issues are considered from the outset. The recognition of the need to ensure opportunities and provision for public participation is also welcome.



PDP1 Consider replacing “*To have regard to EirGrid’s approach..*” with “*Fully implement...*”.

Consider including cross reference(s), as appropriate, with relevant Consultation and Engagement related Policies and Objectives.

Consultation and Engagement

We acknowledge the 12 positive commitments set out in “Reviewing and improving our public consultation process”. The establishment of Consultation Fora and the appointment of Agricultural and Community Liaison Officers are particularly welcome.

The creation of a Multi-Criteria Decision Making Analysis (MCDA) process for use in grid development projects, the development of a methodology for Social Impact Assessment (SIA), and the development of Engagement Handbook and Toolkit are positive developments.

There would be merit in considering including an objective to implement/ pilot, review and update, as appropriate, the MCDA process, the Toolkits. This could also be considered in the context of the SIA template methodology and linked with HBSO1 under Human Beings and Society.

In addition, consideration should be given to capturing the development of the 12 commitments set out in the review of the public consultation process as an overall policy/objective.

A separate objective should be considered to reflect the commitment to independent EMF Monitoring and Compliance. This commitment could also be linked with relevant environmental monitoring indicator under Population, Human Health and the Economy. (PHH1_12).

Human Beings and Society

The inclusion of specific policies and objectives related to social impact is acknowledged. Cross reference(s) should be made between this section and Environment to reflect the link with Population and Human Health under the SEA environmental topics for consideration.

The specific consideration of Social Impact Assessment as an integral part of decision making in grid infrastructure development is welcome. The linking of EirGrid’s SIA Methodology with EirGrid’s six-step Framework for Grid Development will provide the basis for a consistent approach to considering and addressing potential impacts on human beings and communities.

We note the requirement to link specific findings from community engagement /public participation aspects of project development with environmental impact assessment and landscape and visual assessments. This will contribute to informing a wider understanding of the relevant community assets, environmental sensitivities, land use and amenities and the potential implications of grid development on these.

As the application EirGrid’s SIA Methodology is still at the early stage of development, there would be merit in considering including an objective to implement/ pilot, review and update, as appropriate SIA template methodology. The SIA Methodology, once tested and established, may, as appropriate, have potential to supplement information considered in the application of EirGrid’s Community Fund and Proximity Payment initiatives.



Human Beings and Society- for HSBO1 consider the need for the following text in this objective “on the receiving environment”.

Monitoring under population and Human Health (PHH1 –T3/ I3 clarification should be provided on the following

- the significance of a 50 m distance from overhead transmission line
- the typical EMF (for different voltages) at 50m from transmission line
- where a 50m is not feasible, in these cases, what would be the recommended distance or what decision criteria would be used to determine the most appropriate distance.

SEA Recommendations

Environmental Enhancements

Consideration should be given to the merits of preparing a Guide/ Tool Kit for natural Environment Enhancement / Management Measures. This could be informed by the relevant EBESs and related guidelines. It could also assist in the identification of potential enhancement opportunities and inform site specific/ project specific enhancement and management measures. There would be merits in piloting agreed measures across a range of habitat types, where appropriate, in consultation with key stakeholders.

Monitoring Framework

The proposed monitoring for the Plan as set out in Section 13 Table 13-1 - Monitoring Framework should be included in the final Plan. The monitoring programme should inform when remedial action might be required. Consideration should be given, where relevant, to threshold levels for specific environmental parameters which would trigger remedial action. This aspect is also of relevance at project level implementation and should be considered for project related monitoring where appropriate.

A specific objective should be included in the Plan setting out a commitment to implement the environmental monitoring programme. This objective should also include a commitment to report on the results of the monitoring. Where relevant, provisions should be included to report on any instances where remedial action was initiated based on the results of monitoring.

Appendix II - Comments on the SEA Environmental Report

Environmental Baseline

We welcome that EirGrid has incorporated many relevant elements of our State of the Environment Report (EPA, 2016) into the SEA. This is particularly evident in *Chapter 6 – Baseline information*. The environmental criteria provided in this chapter set the Plan in the context of the relevant national environmental baseline.

The key interactions between the Plan and the various environmental topics described would be useful to include in Chapter 6 (Baseline Information) also. We recognise the role of EirGrid's Evidence Based Environmental Studies (EBES) in providing an evidence base that helps assess how the existing transmission system interacts with the natural and human environment. It would be useful to refer to the relevant EBES associated with the different environmental criteria with each of the subsections of chapter 6, as appropriate.

In *Table 8.1 – Environmental Issues relevant to the draft Grid IP* for the climate change theme, we recommend including an additional bullet point on the need for climate resilience should also be considered. This should address climate resilience in the wider sense, not just flooding but also temperature extremes, more intense storms, high winds, lightning strikes, mud slides, wild fires etc.

Relationship with other plans and programmes

The relationship between the Plan and the National Planning Framework (DHPLG, 2018), which seeks to cater for an additional million people and increased economic growth out to 2040, could be described in more detail, in terms of the impacts of continued economic and population growth and associated energy requirements on the existing and future grid infrastructure.

In relation to biodiversity, the National Peatland Strategy and associated National Raised Bog SAC management plan should also be considered, where potential infrastructure or upgrades may potentially impact on national or European designated sites, including candidate sites.

On air quality, including a reference to the National Clean Air Strategy (DCCAE) should be considered.

Objective ENVO4 of the Plan refers to EirGrid's Climate Change Adaptation Plan. It would be useful to describe how the climate change adaptation plan has informed the preparation of the Plan. Where infrastructural improvements are needed to improve climate resilience, this could be considered in the prioritisation of projects, as appropriate.

The reference to the draft Flood Risk Management Plans can now be updated to reflect that the finalised plans and maps are now published and available on www.floodinfo.ie.

The reference to the draft River Basin Management Plans should also be updated to reflect that the National River Basin Management Plan for Ireland 2018-2021 has been finalised and published.



The status of Plans referenced in the Plan should be reviewed and updated where relevant.

Assessment of Environmental Effects

Chapter 11 of the SEA assesses the policies and objectives of the Plan against the Strategic Environmental Objectives. We welcome the level to which the key relevant recommendations of our State of the Environment Report (SoER) (EPA, 2016) are included. Table 11.14 shows the SoER themes and which Plan policies / objectives support these EPA actions. These are also presented in Appendix D: Policies and Objectives and the EPA Key Actions.

EirGrid's Evidence Based Environmental Studies (EBES) show how environmental effects arising from different aspects of the Plan have been considered based on previous iterations of the Plan. We note the commitment to continually review and update these EBES, when required, to ensure they are fit for purpose and help to inform development of projects. There may be further opportunities to prepare additional environmental guidance based on these EBES, where relevant.

With regards to the assessment effects, we recommend that a distinction should be made between *neutral* effects and *uncertain* effects.

With regards the regional grid development solution proposed in Table 11.9, including a link with the Shannon Integrated Framework Plan would be considered. This provides a coordinated plan for the development of the Shannon estuary and associated SEA ER and AA. Aspects to consider may include potential for cumulative effects, as well as seeking to align with any relevant mitigation measures and policy commitments.

Mitigation Measures

Chapter 11 – Assessment of the draft Grid IP sets out the mitigation already in place:

- compliance with statutory requirements applicable to planning or consent process,
- application of six-step framework for grid development process
- draft Grid IP policies / objectives,
- application of consultation / engagement guidance,
- use of guidelines documents (EMF, Ecology, Cultural Heritage, construction best practice etc.)

Table 4.1 – Grid 25 Implementation Programme 2011-2016 SEA mitigation update, provides eight specific mitigation measures and an update their implementation. This clearly shows how EirGrid are continuing to develop the environmental evidence base and implement the necessary mitigation measures identified previously, where still fit for purpose.

Chapter 12 -SEA Recommendations sets out the key recommendations to be considered and integrated into the Plan. We acknowledge that the SEA has identified proposed additional changes to existing policies / objectives as well as the proposed new policies / objectives to help strengthen the Plan from an environmental perspective. While we note, that the changes have been agreed by EirGrid, the current draft Plan includes the existing text without the changes included. These should be addressed prior to finalisation of the Plan.

We recommend that the proposed amended wording of policy TP3 (*"To continue to be proactive in the development of emerging or innovative technical solutions for the*



development of the transmission grid with regard to the environment") could be strengthened.

We welcome the commitment to continue to review and update EirGrid's Evidence Based Environmental Studies (EBES) and environmental guidelines. The practice of developing an SEA Compliance check within the six- step grid development framework is acknowledged. We also note that this will be utilised in the construction of transmission assets by ESB Networks.

The commitment to considering (where practicable) to enhance the natural environment and improve biodiversity in areas where transmission or related infrastructure are sited is noted.

Evolution in absence of the plan

EirGrid should consider providing further information on the evolution of the Plan area, in the absence of the Plan. This would set the context for the need for the Plan and feed into the consideration and developments of alternatives.

Consideration of Alternatives

There would be merits in including further information on the plan level alternatives. The SEA should show how the preferred alternative has been selected. While the comments included in the assessment of alternatives (Table 11.21) describes some differences, these don't appear to be reflected when the alternatives are assessed against the SEOs.

It may be useful to consider separating out the common elements to both alternative 2 (Continuation of previous plan-Grid25 Implementation Programme) and alternative 3 (New and updated Implementation Plan, Ireland's Grid Strategy, and additional strengthened environmental policies etc.). The alternatives assessment of Alternative 3 could focus on what the potential implications will be associated with these improvements / additions etc.

A possible approach to consider could be highlighting the assessment aspects of Alternative 3 where SEOs might benefit from additional support. Additional aspects to consider might also include technology improvements/advancements, spatial location differences or timing aspects.

The use of scenario planning could also help inform how robust the preferred alternative will be in catering for any of the individual scenarios that may arise over the lifetime of the Plan.

These and future scenarios could also be examined, as appropriate, in the context of relevant national policy commitments (and international commitments) in terms of population and economic growth, climate change adaptation / mitigation, energy security etc. The likelihood of each scenario occurring could be further considered during each review period. Each reporting period could include a review of the current and likely scenarios envisaged for the next reporting period.

Monitoring Measures

We acknowledge that a review of the previous monitoring programme was carried out. We note this review assisted in preparing and updating the proposed monitoring framework, as well as taking account of new and updated information and resources since the last plan was prepared.



Table 13.1 – SEA Objectives, Target and Indicators Monitoring Framework provides a useful overview of the objectives, targets, indicators and sources of monitoring information associated with each environmental theme.

There is merit in linking the SEA monitoring with any Plan-related monitoring, where possible. This will show how effective the SEA (and AA) mitigation measures are at protecting environmental sensitivities in implementing the Plan over its lifetime.

Reporting

We acknowledge that ‘Environmental Appraisal Reports’ are prepared on an annual basis over the lifetime of the Plan. These will help determine and monitor how effective the Plan is at implementing the recommendations and mitigation measures outlined in the SEA.

Links with project level EIA

We note that the initial project assessment process has helped identify those grid-related projects to be incorporated into the SEA. The assessment of the projects within the SEA (Tables 11.15 – Table 11.19) is acknowledged, in terms of consideration of project alternatives, project environmental baseline and mitigation. We further note that section *11.6.4 – Cumulative Effects with other Projects* includes a list of other projects and describes the potential for cumulative effects that may arise.