

5 HUMAN BEINGS AND POPULATION

5.1 INTRODUCTION

This section provides an appraisal of the likely significant effects of the proposed development with respect to Human Beings and Population.

A previous Constraints Report (included as part of the Phase 1 Lead Consultants Report May 2011 - Appendix D1 - and detailed in the planning application documents) identified the most significant constraints within the study area. A Phase 2 Report (Phase 2 Lead Consultants Report Feb 2012 – Appendix I1) considered the emerging preferred route corridor.

The project includes a number of components which are broken down into units for ease of description (Units 1 - 8). A description of each unit is presented in Section 2 of this EIS.

The purpose of this assessment is to identify any potential impacts on Human Beings and Population. It amalgamates desk-based research and the results of surveys of the proposed route.

A Report on Electro Magnetic Frequency (EMF) is included as an Appendix to this section (See Appendix 5.1).

5.2 METHODOLOGY

This section (with the exception of the Appendices which was prepared by ESBI in association with Bill Bailey for EMF) was prepared by Ciara Kellett, AOS Planning, BSc (Eng), MSc (SP), MIEI MIPI.

The following list of information sources were reviewed as part of the desk study:

- National Development Plan 2007-2013;
- National Spatial Strategy 2002-2020;
- Regional Planning Guidelines for the Midlands Region 2010-2022;
- Regional Planning Guidelines for the South East Region 2010-2022;
- Laois County Development Plan 2006 - 2012;
- Laois County Development Plan 2011 – 2017;
- Kilkenny County Development Plan 2008 – 2014;
- Ordnance Survey Mapping and Photography;
- Central Statistics Office data;
- Fáilte Ireland and Local Tourism websites.

A number of site visits were also undertaken, initially of the overall study area and subsequently of the emerging preferred route corridor and final route.

5.3 RECEIVING ENVIRONMENT

5.3.1 GENERAL PLANNING BACKGROUND

The area of the proposed route is located in the Laois County Council administrative area and the Kilkenny County Council administrative area and, at a county level, is subject to the provisions of the Laois County Development Plan 2011 – 2017 and the Kilkenny County Development Plan 2008 - 2014.

At a higher level in the land use planning hierarchy, the project falls within the provisions of the Regional Planning Guidelines for the Midlands (Laois) and the Regional Planning Guidelines for the South East (Kilkenny) 2010-2022, and the National Spatial Strategy 2002-2020. The policies and objectives for the

provision of infrastructure are set out and considered in the Planning Report which accompanied the application for planning approval made to the Board in January 2013.

All of the plans in the planning hierarchy support the development and reinforcement of the electricity supply network, subject to adequate protection of the environment.

5.3.2 SOCIO-ECONOMIC FACTORS

5.3.2.1 Population Structure and Change

In terms of the County, Region and State, population structure and change is strongly influenced by migration and emigration rates, rather than birth and death rates. The mid to late 1980's in Ireland was a period of heavy population outflow, mainly due to the poor economic and employment situation. Since 1990 there has been a large movement of people into the country due to the 'economic boom' in Ireland. The subject Region has experienced very high levels of population growth in the past 10 years. However, recent statistics from the CSO indicate that immigration is declining and emigration is increasing throughout the country, which has resulted in net outward migration for the first time since 1995. The Table below indicates the population change at state, region, county and town level since 2002.

Area	2002	2006	2002 – 06 % change	2011	2006 - 11 % Change
Ireland	3,917,203	4,239,848	8.2%	4,588,252	8.2%
SE Region	423,616	460,838	8.7%	497,578	7.9%
Midlands Region	225,363	251,664	11.7%	282,410	12.2%
Co. Laois	58,774	67,059	14%	80,559	20.1%
Co. Kilkenny	80,339	87,553	8.9%	95,419	9.0%
Ballyragget	821	1,014	23.5%	1,089	7.4%
Env. of Kilkenny	12,144	13,518	11%	15,712	16.2%
Stradbally	1,178	1,056	-10.3%	1,154	9.3%
Abbeyleix	1,383	1,568	13%	1,827	16.5%
Ballinakill	328	430	31%	435	1.2%
Ballyroan	142	189	33%	435	140.7%

Table 5.1 Population Structure at National, Regional and Local Level

[Source: ROI Census of Population 2002, 2006 and 2011]

As can be seen the population in Laois has continued to grow at some of the highest levels in the state - in excess of 20%. The environs of Kilkenny saw a population increase of 16.2% between 2006 and 2011. Of note is the fact that the Laois and Kilkenny areas experienced growth far in excess of the state at 20.1% and 9.0% respectively compared to the overall state increase of 8.2%.

The Department of the Environment, Community and Local Government set population targets for each of the eight regional Authorities up to 2022. Table 5.2 below illustrates the targets for the regions and the relevant counties of Laois and Kilkenny. According to the census of 2011, it is evident that Co. Laois has already surpassed its 2022 population target.

Area	2006	2016	2022	2006-22 % Change
Midlands Region	251,664	297,300	317,100	26%
SE Region	460,838	542,200	580,500	26%
Co. Laois	67,059	75,931	79,314	18%
Co. Kilkenny	87,558	105,598	111,903	28%

Table 5.2 RPG Population targets

[Source: Midlands and South East Regional Planning guidelines 2010 – 2022]

The latest population estimates 'Population and Migration Estimates April 2012 (with revisions from April 2007 to April 2011)' prepared by the CSO, indicated that the population of the state continues to grow from 4,574,900 in April 2011 to 4,585,400 in April 2012. Whilst there is net outward migration there continues to be an increase in births. The combined effect of natural increase and negative net migration resulted in an overall small increase in the population of 10,500 bringing the population estimate to 4.59 million in April 2012.

Continued population growth puts additional pressure on existing infrastructure. Effective infrastructure and in particular improvements in energy infrastructure are identified as being essential for achieving growth as described in the Regional Planning Guidelines.

5.3.3 ECONOMIC ACTIVITY

Economic activity in the overall project study area is principally agricultural and agriculture-related activities, with urban-related activity in Portlaoise and Kilkenny City.

Forfás produced a Report 'South East Region Employment Action Plan' (December 2011) as a follow up to the 2009 'South-East Regional Competitiveness Agenda'. The Report notes that:

'The global recession and the collapse in the construction sector nationally has impacted the South East region particularly hard, through both direct employment losses in building projects and in sub-supply. Unemployment currently stands at 18.2 percent, compared with the national average of 14.5 percent.'

The Forfás Report notes that Enterprise Ireland (EI) has 430 clients in the region employing 18,237 people, with exports of over €2.2bn and purchases of €2bn in the economy. These enterprises account for 9 percent of EI clients and almost 20 percent of their large firms (employing greater than 250). The process of structural change is ongoing in the region and over the early 2000's there was a shift in employment to more modern sectors with growth in employment in indigenous internationally traded services enterprises and in more modern manufacturing. Food sector employment is still extremely important accounting for 42 percent of EI employment in 2010. The Report further notes that IDA clients have similarly changed in the region over the last decade, with growth in new sectors including Life Sciences and financial services and customer contact activities.

The Report notes that the dominant sector is Food and Drink with over 7,500 employed in total, with a small increase over the 2001 to 2010 period (companies include: AIPB, Glanbia, Irish Country Meats, Queally Pigs, Slaney Foods, and are mainly indigenous in origin). The Pharma, Medical Technologies and ICT sectors are also prominent – ICT has expanded considerably since 2001 while Pharma and Medical Technologies have shown some growth over the period (LifeSciences companies include: Bausch & Lomb, Boston Scientific, Genzyme, GSK, Teva, Abbott, Merck and Lake Region, and are mainly foreign in origin; ICT companies include Sun Life, Theo Benning).

There are also many indigenous SMEs (Small to Medium Enterprises) that play a significant role in the regional economy, some of which are supported by City/County Enterprise Boards. The legacy of the former Woollen Mills has made textiles an important industry in Kilkenny and the development of crafts

and design spearheaded by Kilkenny Design Workshops has resulted in a number of craft and craft related businesses.

The Forfás publication '*Regional Competitiveness Agenda – Realising Potential – Midlands*' (June 2010) notes that:

"The Midlands has a relatively high proportion of its workforce employed in manufacturing compared with other regions in Ireland. The key sectors are Food/Drink, Engineering (metal products & equipment), LifeSciences (especially medical technologies) and ICT/Software. Overall, employment is dominated by indigenous companies"

Laois County Development Plan notes that the socio-economic profile of County Laois underwent fundamental changes in line with national and regional trends though there is a notable divergence apparent for two sectors in particular – agriculture and construction³. The main primary and secondary activities of agriculture and manufacturing declined with an increase in services and construction. The Plan notes that the construction sector since then has 'virtually collapsed' resulting in significantly increased unemployment⁴.

To continue to attract investment (both domestic and foreign) and to support agricultural and rural enterprise, physical infrastructure will continue to play a key role including energy, broadband, and transport.

5.3.4 TOURISM AND AMENITIES

In addition to the urban areas of Laois and Kilkenny, which have buildings and features of tourism interest, local amenities near the proposed route include; heritage towns, scenic landscape, scenic routes, significant tree groups, high amenity zones, outdoor activities, forestry, rivers and lakes.

Having regard to the proposed route, the main features of tourism in the general area include: the River Nore cSAC, the Heritage town of Abbeyleix, the Abbeyleix Wood Complex, Views overlooking Castlecomer and Ballyragget (V12 of 'Views to be preserved and protected' from Kilkenny County Development Plan 2008-2014 Appendix F) and views towards the Slieve Bloom mountains (V19 of 'Views to be preserved and protected' from Kilkenny County Development Plan 2008-2014 Appendix F), and Timahoe Round tower and Heritage gardens. Whilst the existing Ballyragget to Kilkenny line is being uprated this section of the line has also been considered as part of this section and items of tourism and amenity have been considered.

The Kilkenny County Development Plan states with regard to Tourism⁵:

"Tourist attractions in the county outside the City include Mount Juliet Estate, Castlecomer Demesne and Interpretative Centre, Brandon Hill, the Dunmore caves, Jerpoint Abbey, Rice House in Callan, Duiske Abbey in Graignamanagh, Kells Priory, Woodstock Estate and the river valleys. Kilkenny's international reputation as a centre of design and high quality craft production is a proven asset. Festivals such as Kilkenny Arts Week and the Cats Laughs comedy festival have raised the profile of Kilkenny City as a tourism destination."

Figure 5.1 below is taken from the Kilkenny County Development Plan indicating the scenic views and amenity areas of Kilkenny.

³ Section 2.7 of the Laois County Development Plan 2011 - 2017

⁴ Section 2.7.4 of the Laois County Development Plan 2011 - 2017

⁵ Section 7.1.2 of Kilkenny County Development Plan 2008 - 2014

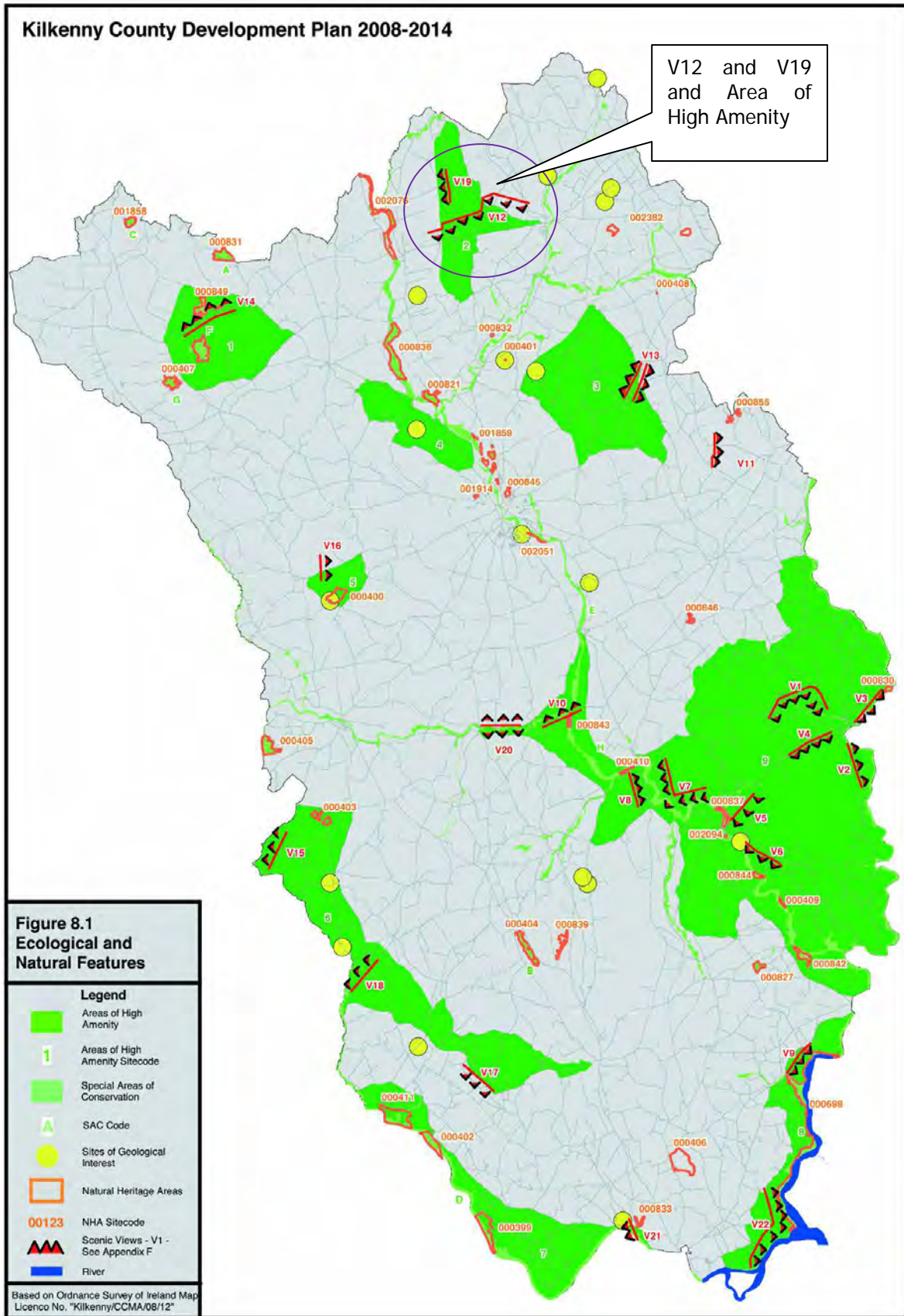


Figure 5.1 Areas of High Amenity and Scenic Views⁶
 [Source: Kilkenny County Development Plan]

⁶ V12 and V19 are addressed as these views are close proximity to the proposed development.

The Laois County Development Plan contains the following map illustrating the tourism product of Laois which identifies walking trails, walks, heritage buildings, fishing and gardens in and around the proposed line route and substation location.

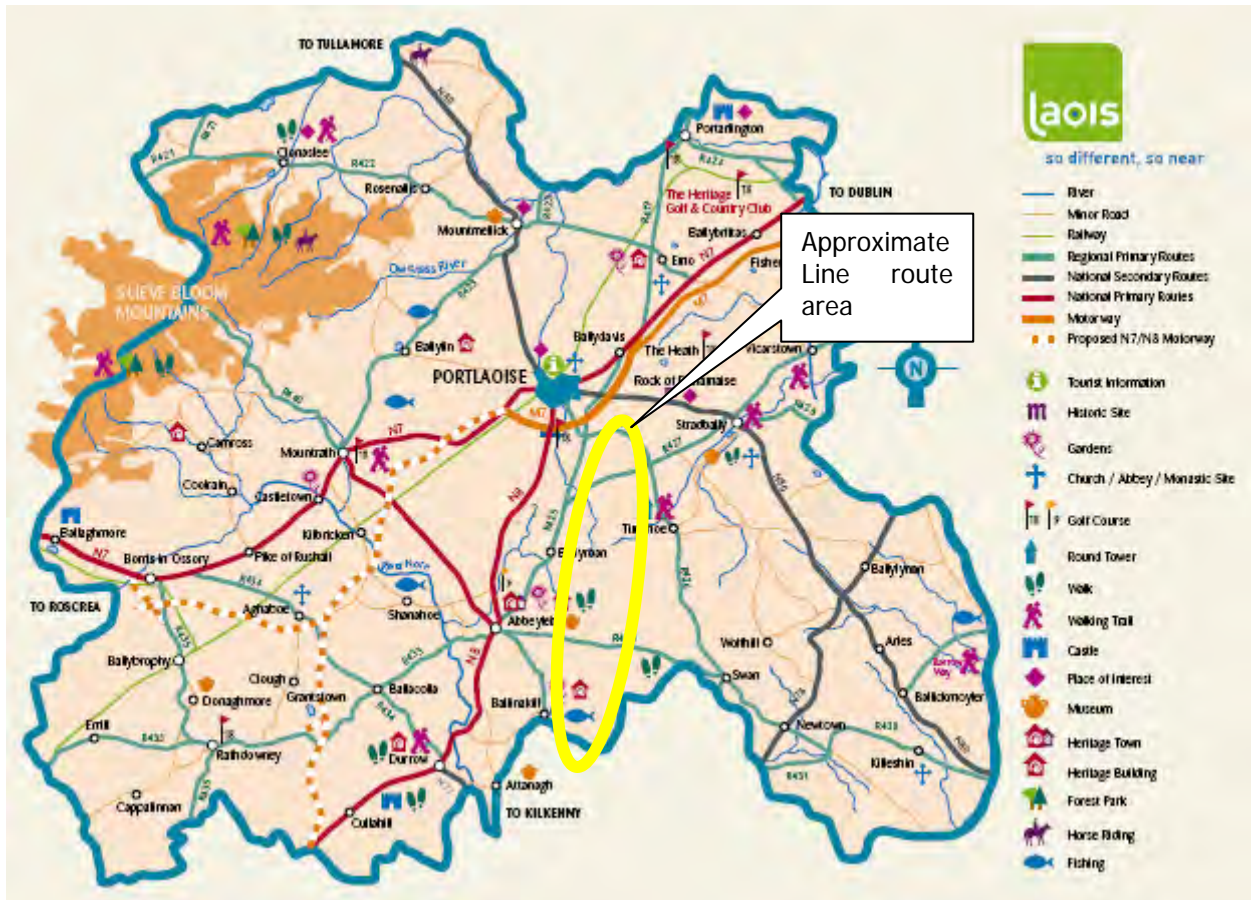


Figure 5.2 Laois Sustainable Tourism Strategy Map
[Source Laois County Development Plan]

The Laois County Development Plan 2011 to 2017 notes the public realm improvements which have been undertaken by the Council in Abbeyleix over the past number of years which '*serve as best practise in how to improve the attractiveness of a town as a whole*'.⁷ It further notes that the archaeological heritage of the County offers tourism opportunity to be explored.

The Plan notes the number of historic towns which are considered 'Tourism Assets of the County' which include Abbeyleix, Ballinakill and Timahoe which are in the vicinity of the proposed development and which were highlighted as constraints initially⁸.

In addition to physical tourism attractions, the County has a developing range of events and festivals that act as significant visitor and tourism attractions. Within this area of the County these include the Electric Picnic Music Festival held annually in Stradbally; and the Laois Walking Festival held annually in July and based in Stradbally. There are a number of organised touring events in the south-east of the County including the Ballagh 100k cycling challenge; and the Gordon Bennett Classic Car Run. Smaller festivals and events are organised by communities throughout the County at times such as St. Patrick's Day and during the summer holiday period. The National Ploughing Championship was previously held in the County and will be held again in September 2013 at Ratheniska.

⁷ Laois County Development Plan Section 3.3.6

⁸ Laois County Development Plan Table 17

5.3.5 LANDUSE

From a review of the ENVision maps supplied by the Environmental Protection Agency (EPA), the area outside of the villages and towns comprises a mix of Pastures, Complex cultivation pattern and Broad leaved, coniferous and mixed forests to land principally occupied by agriculture with areas of natural vegetation.

As noted in the Flora and Fauna section of this EIS, the site of the proposed substation is a low-lying level field of improved grassland currently in agricultural use. It is noted that Section 11 'Material Assets' includes the findings of an Agricultural Impact Assessment.

5.4 POTENTIAL IMPACT

5.4.1 DO NOTHING IMPACT

To continue to attract investment (both domestic and foreign) and to support agricultural and rural enterprise, physical infrastructure (including energy, broadband, and transport) will continue to play a key role. This project will assist in ensuring that energy is not a barrier to potential investment.

5.4.2 POTENTIAL IMPACT FROM PROJECT

It is the nature of an electricity transmission development, which is linear in nature, to pass through an area. Accordingly, the project will directly affect the social, economic or enterprise status of the area. The provision of a higher quality and more secure power supply to the overall area will, however, have considerable positive social and economic effects on the region and the area – because it will help to support the provision of improved economic growth for the overall area and cater for both existing as well as any increase in population.

Local amenities have the potential to be impacted through visual impacts or effects on biodiversity – these impacts are considered in the relevant reports. Avoidance of major towns during detailed design, as well as considering one-off house locations, has also ensured the optimum route for the proposed development.

5.4.3 POPULATION

The proposed new route has avoided centres of population such as Abbeyleix, Timahoe and Ballinakill. All housing has been considered as part of the detailed line route design, including one-off housing and ribbon development outside of towns. An analysis of the housing along the proposed project indicates that there are 9 houses within 50m, 27 within 100m, and 75 houses within 150m (measurements from the centre line of the proposed Overhead lines)⁹. Note this information is taken from the Geodirectory 2012 data and does not include granted planning permissions since.

However as identified in Section 5.3.2.1 above, the population of both Kilkenny and Laois has grown at a pace in excess of the national average. The proposed development will have a positive effect by way of preparing the necessary infrastructure to support anticipated population growth.

⁹ Broken down into the relevant project units this is as follows:

Unit 2: New connection to Coolnabacky from the existing Moneypoint-Dunstown 400kV line (c. 1.4km)

Within 50m = 0; Within 100m = 0; Within 150m = 0

Unit 5: A new 110kV overhead line between Ballyragget and Coolnabacky (c. 26km)

Within 50m = 0; Within 100m = 0; Within 150m = 16

Unit 6: An Uprate of the existing Ballyragget-Kilkenny 110kV overhead line (c. 22km)

Within 50m = 6; Within 100m = 20; Within 150m = 50

Note that there is one house common between Ballyragget to Kilkenny 110 kV line & Ballyragget to Coolnabacky 110 kV line.

Unit 8: Modifications to existing Athy-Portlaoise 110kV line

Within 50m = 3; Within 100m = 7; Within 150m = 9

Construction activities may cause some temporary cumulative impacts in the form of dust, noise, air emissions and increased traffic. However, these impacts are expected to be minor and of short duration and will cease once construction has been completed. In addition, these impacts will be minimised by appropriate construction management on site and as outlined under each of the relevant subsections of Section 11 *Material Assets* and Section 12 *Air and Climate* detailing mitigation and under the *Schedule of Commitments* (Section 14).

5.4.4 ECONOMIC ACTIVITY

The provision of secure and high quality infrastructure will support the economic growth of the region. In the most recent publication 'Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure' approved by Government 17th July, 2012 it is stated that *'Our ability to rebuild the economy, deliver regional development, create jobs and growth and ensure the wellbeing of everyone as well as realising the economic potential of Ireland's own renewable energy resources requires significant energy infrastructure'*.

In the Laois County Development Plan it is stated that the core aim for Economic Development is:

"Core aim

To build on the economic strengths of County Laois in a balanced and sustainable manner focusing on the opportunities of its strategic location, infrastructure, environment, heritage assets and labour force"

High quality infrastructure is a key support in achieving this aim and this project will result in a positive impact in assisting Laois County Council achieve that aim.

Kilkenny notes in the County Development Plan that:

"The Council has an important role to play in facilitating industrial development within the County. This ranges from its direct role in the provision of essential infrastructure to its close cooperation with the agencies which have an established remit for specific intervention in this area and through its direct and indirect involvement with local development companies and organisations such as the County Enterprise Board, Leader, KIDCO, Kilkenny Chamber of Commerce and Industry, IBEC and other development agencies in the County".

High quality essential infrastructure is necessary to facilitate industrial development within the county. This proposal will result in a positive impact in assisting both Councils achieve their aims in supporting the development of the economy and will assist in 'our ability to rebuild the economy'.

It is also envisaged that many of the required construction materials (e.g. concrete, stone, fencing, piping etc.) could be procured locally which would have a positive effect on local employment and business.

5.4.5 TOURISM AND AMENITIES

The proposed route alignment for the project has avoided known tourist attractions in the area. The design of the route avoided such constraints at the outset.

Fáilte Ireland was consulted, as the project developed, and noted that the proposed route corridor is likely to have the least impact on the tourism amenity value of the area as it avoids a number of tourism assets, including the designated High Amenity Area, Timahoe Round Tower and Esker, and the Abbeyleix Wood Complex. Views from the Rock of Dunamase southwards towards the proposed route are obscured by areas of high ground around Hewson Hill.

The Cultural Heritage and Landscape and Visual Impact sections provide an assessment of the proposal with respect to the items of cultural heritage and scenic views etc.

5.4.6 LANDUSE

The design of the line has been carried out to minimise the impact on the land where the polesets and pylons are to be located. The ESB has agreements in place with respect to the limited and localised loss of forestry and codes of practice.

The landuse at the Coolnabacky substation will change from its current use as agricultural to use as a substation and ancillary works. The substation will consist of two buildings within a 120m x 90m fenced area. The buildings have been designed with respect to the surrounding landuses and as such will have only a slight impact on the landuse. The proposed extension to Ballyragget will similarly only have a slight impact on the land use which is currently in the ownership of ESB regardless. It is noted that Section 11 'Material Assets' includes the findings of an Agricultural Impact Assessment.

5.4.7 POTENTIAL DECOMMISSIONING IMPACTS

Demolition activities to decommission polesets, pylons or stations may cause some temporary impacts in the form of dust, noise, air emissions and increased traffic. However, these impacts are expected to be minor and of short duration and will cease once demolition has been completed.

5.4.8 CUMULATIVE IMPACTS

There are currently no other known permitted developments in the vicinity of the proposed development that could contribute to cumulative impacts.

5.5 MITIGATION

The proposed route of the overhead line has avoided towns and villages and has taken account of the number of dwellings and tourist attractions etc. at the outset – mitigation through the design of the line. The locations of the new substations have been designed to minimise the impact on the amenities of the area.

During construction, the contractor will ensure that any works which could involve the transport of large loads along the public roads will be managed to avoid any conflicts with festivals and events likely to attract large numbers of people to the region, such as the Electric Picnic festival.

As regards particularly sensitive locations, it is noted in Section 6.4.2.1.3 of the Landscape and Visual Impact section that there will be no effects on the Haywood Demesne or gardens, or Timahoe Round Tower, and views from the Rock of Dunamase southwards towards the proposed route are obscured by areas of high ground around Hewson Hill.

5.6 RESIDUAL IMPACT

Residual impact has been minimised through the design process and the routing of the line and the careful site selection of the substation.

Due to the nature of the receiving environment as well as the careful line routing and design processes, the proposed development will not have any significant negative impacts in terms of human beings. The proposed development has the potential to realise positive overall economic and social benefits to the area.

5.7 INTERRELATIONSHIPS BETWEEN ENVIRONMENTAL FACTORS

This section should be read in conjunction with Section 6 *Landscape and Visual Impact* (views), Section 7 *Cultural Heritage* (views of cultural heritage), Section 11 *Material Assets* (traffic and agricultural impact

assessment) and Section 12 *Air and Climate* (noise, dust and air emissions) for a full understanding of the main interactions between these environmental topics.