



An
Bord
Pleanála

Inspector's Report PL93.247677.

Development

A 10 year permission for construction of a solar PV energy development, substation, electrical transformer/ inverter station, modular solar PV panels.

Location

Ballymoodranga, Lismore, Co. Waterford.

Planning Authority

Waterford City and County Council.

Planning Authority Reg. Ref.

16/371

Applicant(s)

Highfield Energy Services Ltd.

Type of Application

Permission.

Planning Authority Decision

Refusal.

Type of Appeal

First and third Party

Appellant(s)

Highfield Energy Services Ltd.
Niamh and John Reynolds and others

Date of Site Inspection

9th May 2017.

Inspector

Philip Davis.

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1.0 Introduction

This appeal is by the applicant and a third party against the decision of the planning authority to refuse permission for a 12 hectare (with a maximum output of some 5.4 MW) solar farm on a field just outside the village of Lismore, Co. Waterford. The grounds of refusal relate to policy with regard to a road alignment for the N72 Lismore to Cappoquin bypass. The third party appeals the proposed solar farm for a wide variety of planning, health and environmental reasons.

2.0 Site Location and Description

Ballymoodranagh townland is located between 1 and 2 km east-south-east of the historic village of Lismore in north-west County Waterford. The local landscape is relatively flat, with a gentle drop to the north towards the valley of the Blackwater River – the river is about 1-km to the north. North of the river is a distinct ridge which leads to the uplands of south Tipperary. The lands are apparently fertile and well drained and generally in tillage cultivation, with large open fields and a small number of dwellings. To the north of the townland is the Ballyea Road, a third class road which runs east from Lismore, while the Deerpark Road runs south-east from the village, forming the southern boundary. There is a ribbon of generally large detached dwellings on both roads, thinning out as they leave the village. To the south, on Deerpark Road, is a small cluster of houses on a cul-de-sac.

The appeal site is an irregularly shaped area of land with an area given as 12.6 hectares within Ballymoodranagh townland. It is part of a larger farmholding which includes extensive areas to the west, between the site and Lismore. The site is part of a very large field, currently under rape seed cultivation. It was originally several fields but most ditches and boundaries have been removed, as have the remains of the former Dungarvan to Lismore rail line which crossed the site in a south-west to north-easterly direction. The eastern and northern boundary of the site are marked by ditches and hedges. The sole highway entry is to the north, on the Ballyea Road – this access is just over 1-km east of the Main Street of Lismore. The site is generally flat, with a gentle drop in levels to the north and east.

To the **east**, **west** and **south** it is bounded by open fields mostly in arable cultivation. Just **east** of the site at the highway entrance is a single 2-storey

dwelling. There is a line of dwellings facing the lands on the road opposite (all on the **northern** side of the road).

3.0 **Proposed Development**

The proposed development is described on the site notice as follows:

A 10 year permission for the construction of a solar PV energy development within a total site area of up to 12.6 hectares, to include one single storey electrical substation building, electrical transformer/inverter station modules, solar PV panels ground mounted on steel support structures, access roads, fencing & associated electrical cabling, ducting and ancillary infrastructure.

4.0 **Planning Authority Decision**

4.1. **Decision**

The planning authority decided to refuse for three similar reasons, I would summarise as follows:

1. It would compromise the preferred route for the alignment of the N72 Lismore to Cappoquin Road – and is thus contrary to Section 2.9 of the DoECLG policy (2012) for the protection of alignments for future national road projects.
2. It is contrary to section 10.2.1 ‘National Routes’ of the Waterford County Development Plan 2011-2017.
3. It would materially contravene Objective INF 3 of the Lismore LAP to provide for the proposed by-pass to the south of the town.

4.2. **Planning Authority Reports**

4.2.1. Planning Reports

The first planning report on file concluded that no EIS was required. The Development Contribution would be based on the maximum export capacity (5.4 MW). It is noted that the site is not within a designated landscape area. It is noted that there are two recorded monuments close to the site and the Department requested an archaeological impact assessment. It is noted that the preferred route

for the alignment of the N72 runs through the site. Further information was requested.

Following the submission of further information, it is noted that TII objected considering the development to be premature as the site is under consideration for a national road improvement scheme. Following this, a refusal was recommended.

4.2.2. Other Technical Reports

An **AA screening report** carried out by the planning authority concluded that significant effects can be ruled out, so no NIS was required.

The applicant submitted a series of reports with the application including a planning report giving an overview of the proposal and its ecological/visual/archaeological/noise and flood risk.

Roads Department stated that there was no problem with the indicative connection route (which runs underground along the Ballyea Road) (letter provided to applicant).

An archaeological geophysical report was submitted by the applicant with the requested additional information.

4.3. Prescribed Bodies

The **DoAHRG** noted the proximity of a motte and bailey, pilgrim road, mound and ringfort, and requested an archaeological report. A geophysical report was requested. Following the submission of this, it recommended standard archaeological monitoring conditions.

The **Roads Design Office** based in Tramore House indicated that the preferred route for the N72 Lismore to Cappoquinn road runs through the site. This road scheme was identified in the Route Selection Report dated July 2010. No design work has progressed on the scheme.

Transport Infrastructure Ireland objected, stating that it was contrary to the DoECLG Spatial Planning and National Road Guidelines for Planning Authorities (2012).

4.4. **Third Party Observations**

Three third party submissions were made on the original application, all objections. These focused on a wide variety of issues including inadequate details submitted, project splitting (need for an EIS) need for an NIS, glare hazard for birds, loss of agricultural land, development plan policy, landscape, visual impacts, and impacts on human health. The three separate submissions were signed by a significant number of local residents.

5.0 **Planning History**

No records on file. The planning authority refers to a permission granted for a dwelling in 2007 – **07/1299**. It is not clear if this is on or close to the site.

A significant number of solar farms have come to the Board on appeal within the past 2 years. As of writing this report, these appeals are as follows:

PL93.248483, for 26,000 sq. m² at Keilogue, Co. Waterford (no decision yet);

PL27.248424, near Rathnew, Co. Wicklow (no decision yet)

PL04.248400, near Castlelyons, Co. Cork (no decision yet);

PL26.248364, near Gorey, Co. Wexford (28 hectares) (no decision yet);

PL.04.248278, near Fermoy, Cork (8.7 hectares), (no decision yet);

PL11.248244, near Mountmellick, Co. Laois (no decision yet);

PL22.248238, near Portlaoise, Co. Laois (no decision yet);

PL17.248146, Gillinst, Co. Meath (no decision yet);

PL92.248089, near Carrick-on-Suir, Co. Tipperary (no decision yet).

PL91.248066, Lisnagry, Co. Limerick (no decision yet);

PL17.248028, Ninch, County Meath (no decision yet);

PL10.247979, Knocktopher, Co. Kilkenny (no decision yet).

PL27.247942, near Rathdrum, Co. Wicklow (no decision yet);

PL10.247941, Knocktopher, Co. Kilkenny (no decision yet).

PL26.247886, Ballyhoge, Co. Wexford for 268,000 sq. m² (no decision yet);

PL15.247808, near Dundalk, Co. Louth (no decision yet);

PL26.247801, near Murntown, Co. Wexford (no decision yet);

PL10.247616, Ballyhale, County Kilkenny (no decision yet)

PL08.247778, near Killarney, Kerry for 20,000 sq. m² (granted);

PL91.247653, near Listowel, Kerry, for 30,000 sq. m² (granted);

PL03.247632, Ballymorris, Co. Clare (granted)

PL93.247558, Kilmeaden, Waterford (withdrawn);

PL92.247443 near Caher, Tipperary for 32,000 sq. m². (amended condition on financial contribution);

PL26.247366 for 88,000 sq. m² of panels near Baldwinstown, Wexford (split decision, partial grant);

PL93.247310 near Tramore, County Waterford (granted);

PL26.247217 for nearly 99 hectares in Tomhaggard, Wexford (refused for reasons relating to visual and residential amenities and loss of agricultural land);

PL26.247179 in Clonroche, Wexford for nearly 20 hectares (granted);

PL26.247176, Enniscorthy, Co. Wexford, 12 hectares of solar (granted);

PL93.246902, in Cappoquin County Waterford (granted);

PL10.246875, near Belview, Kilkenny for solar farm (refused, by reason of its impact on the orderly expansion of Belview Port);

PL04.245862 for 33,000 sq. m. near Coachford, Cork (granted);

PL27.246527 for 13 hectares of solar panels near Avoca in county Wicklow, (granted);

PL04.244539, for 5,400 sq. m. near Lissarda, Co. Cork (granted);

PL26.244351 near Tintern, Wexford for a 5MW solar farm (granted); and,

PL04.233539 near Lissarda, Cork (granted);

6.0 Policy Context

6.1. Development Plan

The site is in open countryside, zoned A, Agriculture. It is outside the development boundary of Lismore. Policy on renewable energy is set out in section 8.8 of the Waterford County Development Plan 2011. This Development Plan was updated by

the 2016 Variation 'Renewable Energy Strategy for Waterford City and County 2016-2030'. The Lismore Local Area Plan 2014-2020 boundaries do not cover the appeal site, but the by-pass indicative line is shown on Map 2 of that LAP.

6.2. Natural Heritage Designations

The site is not within an EU designated habitat. It is approximately 1 km south of, and within the watershed of, the Blackwater River, much of which is designated as SAC – site code 002170.

7.0 The Appeal

7.1. Grounds of Appeal

First party (Highfield Energy)

- It is acknowledged that the site is on the line for the N72 preferred route, but notes that the NRA (TII) has stated that there is no current timeline for the road development.
- It is argued that an applicable road corridor width is not specifically listed in the published guidance documents or the relevant development plans. It is submitted that the 'useable' corridor would be approximately 170 metres wide, not 400 metres as indicated by the TII. It is submitted that a 400 metre corridor is excessive and that development could be undertaken outside of a narrower 300 metre corridor.
- It is submitted that the modular nature of a solar farm would enable the panels to be removed at any time. It is submitted that it could be a condition of planning permission that *'any infrastructure associated with the development that is installed on lands subject to CPO for the development for the road would be removed by the tenant'*.
- It is requested that Board consider a condition whereby panels are not constructed on the road corridor.

Third party (Niamh and John Reynolds and others)

- It is stated that they fully support solar energy, but have issues with the particular proposal.
- It is argued that it must be assessed in the context of cumulative impacts with other solar developments in the area
- It is outlined that the site is in a sensitive historic landscape close to an SAC.
- It is submitted that the description of development is inadequate as the 'real' development will extend over 40 hectares as there is another proposed solar farm on the landholding. It is also argued that it represents a material change of use.
- It is argued that a 10 year permission is excessive in the context of agricultural management and the O'Grianna judgement.
- It is stated that as the grid connection is outside the control of the applicant. (refers to O'Grianna).
- It is submitted that the plans and particulars are of a poor quality and do not allow a full understanding of the nature of the development, in particular in relation to sensitive sites.
- It is submitted that it is within a larger landholding, and two applications have been made to the CER for solar farms in Ballymoodranagh, and so it constitutes project splitting.
- It is submitted and argued in some detail that the proposed development requires an EIS.
- It is argued that an AA (NIS) is required as there are gaps in the screening (listed in detail).
- It is submitted that glare is a hazard to aircraft and can disrupt the migratory flight of birds.
- It is argued that it represents an unsustainable loss of agricultural land.

- It is submitted that the proposed development is not economically viable and that rooftop solar is a more appropriate form of development in order to reach national targets.
- It is argued that it represents ad-hoc and random development within a policy vacuum.
- It is submitted that it is contrary to overall policy objectives within the Development Plan to protect and provide for the development of agriculture and to protect and improve rural amenity. It is argued in detail that the visual impact assessment submitted by the applicant is misleading.
- It is submitted that it is contrary to policy ENV2 on protecting landscapes – it is argued that the context is unique and requires protection – notes the former railway line cutting across the site.
- It is argued that the site has archaeological importance.
- The issue of human health with regard to electric magnetic fields and noise has not been examined.

7.2. Planning Authority Response

First party appeal

- It is considered that the planning reports and recommendations have fully addressed the issues raised in the third party appeal.

Third party appeal

- It is considered that the planning reports and recommendations have fully addressed the issues raised in the appeal.

The Board is requested to uphold the planning authority's decision.

7.3. Further Responses

Third party in response to first party appeal

- It is submitted that the timescale outlined by the applicant for the proposed bypass supports the argument that it poses a land use conflict with the road reservation.
- It is argued that there is no basis for reducing the width of the road reservation corridor.
- It is noted that the former railway line may have potential as a greenway project.
- It is submitted that granting permission within a reserved corridor sets an undesirable precedent.

First party response to third party appeal

- It is submitted that most of the issues raised by the third party were fully addressed by the planning authority, including the issues of EIS and AA.
- It is denied that there is any significant sensitivity regarding the sites archaeological or habitat importance.
- It is noted that the application as described was validated by the planning authority.
- With regard to human health, it is noted that the applicants submitted a document relating to this with the application.

Transport Infrastructure Ireland

- Official policy is set out in the January 2012 Guidelines.
- The proposed development is within an area under consideration as a route option for a national road improvement scheme.
- A grant of permission is considered to be at variance with the January 2012 Guidelines and is premature pending the determination of the route.
- It is submitted that the TII was not informed of the original application.

Commission for Energy Regulation

- Acknowledged receipt of information, no comment provided.

8.0 Assessment

8.1. EIS Requirement

The third party appellant has argued in detail that the proposal in itself, and in combination with other proposed solar farms in the area, should be subject to EIS. I note that photovoltaic solar farms are not listed as a specific use category under Schedule 5 of the 2001 Regulations as amended. Under Part 1, Article 2(a) includes:

A thermal power station or other combustion installation with a heat output of 300 megawatts or more.

The proposed development is for photovoltaics, so is not by any reasonable definition a 'thermal' power station and does not involve combustion, and will be of far lower capacity than 300 MW, even taking account any other proposed solar farms in the area (a 300 MW solar farm would probably cover around 1,000 hectares). I do not consider that any other categories under Part 1 apply.

Under Part 2, Article 3(a) includes:

Industrial installations for the production of electricity, steam and hot water not included in Part 1 of this Schedule with a heat output of 300 megawatts or more.

My interpretation of 3(a) is that EIA may apply for power plants of a thermal design independent of the source of energy – i.e. if they produce '*electricity, steam **and** (my emphasis) hot water*'. I note that other non-thermal types of electricity generation such as hydroelectricity and wind power, are specifically included in other subsections. Photovoltaics are **not** included. As the proposed development is for the production of electricity by way of direct solar power using photovoltaics and does not involve the production of heat or hot water, I conclude that it does not come within this category. In any event, total output will be far below the 300MW threshold and so would be sub-threshold if 3(a) applied.

I conclude therefore that a photovoltaic (non-thermal) power station such as that proposed does not require a mandatory EIS as it does not come within any category

in either Part 1 or Part 2 of Schedule 5 of the 2001 Regulations as amended, even if it is carried out close to, or in combination with, other significant sized solar farms in the area.

I will address the landscape, archaeological, and cultural heritage issues in more detail alone, but I will note that while it is just under 1 km from an SAC, the lands are heavily cultivated, there are no watercourses or recorded ancient monuments on the site, and the landscape does not have a specific protective designation. I therefore do not consider that there are specific sensitivities of the site which would lead to a conclusion that the proposed development would have a significant effect on the environment (Article 109(2)) of the 2001 Regulations as amended.

I therefore conclude that EIS is not mandatory for this proposed development and it does not come within the scope of Article 109 of the Regulations. I would conclude therefore, that a solar farm on this site, even if assessed cumulatively with other significantly sized solar farms in the vicinity, would not require an EIS – I therefore concur with the conclusion of the planning authority in this regard.

8.2. Appropriate Assessment

The appeal site is tilled land within the watershed of the River Blackwater, which at its closest is just over 500 metres to the north. The Blackwater takes its ‘dog leg’ turn south 4-km to the east of the site, and a tributary flows east to the Blackwater just over 1-km to the south of the site. The River Blackwater, including the southern tributary, is part of an extensive SAC, the Blackwater River SAC site code 002170. There are other SAC’s and SPA’s in the broader region, but this SAC is the closest. The next closest is the Blackwater River Callows, site code 004094. Both these are the only EU designated sites in hydraulic continuity with the site, apart from coastal and estuarine sites some distance downriver.

The qualifying interests of the Blackwater River SAC are as follows:

Estuaries [1130]

Mudflats and sandflats not covered by seawater at low tide [1140]

Perennial vegetation of stony banks [1220]

Salicornia and other annuals colonising mud and sand [1310]

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]

Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation [3260]
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
Austropotamobius pallipes (White-clawed Crayfish) [1092]
Petromyzon marinus (Sea Lamprey) [1095]
Lampetra planeri (Brook Lamprey) [1096]
Lampetra fluviatilis (River Lamprey) [1099]
Alosa fallax fallax (Twaites Shad) [1103]
Salmo salar (Salmon) [1106]
Lutra lutra (Otter) [1355]
Trichomanes speciosum (Killarney Fern) [1421]

The Blackwater Callows SPA lists four specific bird species in its qualifying interests:

Whooper Swan (*Cygnus cygnus*) [A038]
Wigeon (*Anas penelope*) [A050]
Teal (*Anas crecca*) [A052]
Black-tailed Godwit (*Limosa limosa*) [A156]
Wetland and Waterbirds [A999]

The planning authority carried out a screening assessment (the applicants also submitted an AA screening report), which was revised in line with additional information requested during the application to reflect the point raised by one observer about possible impacts on migratory birds. It concluded that significant impacts can be ruled out.

The key habitats with regard to the SAC relate to the maintenance of freshwater quality for a number of vertebrates, invertebrates and vegetation associated with

lowland rivers – the other qualified habitats and species do not occur close to the appeal site. I would therefore consider that the key issue relates to potential contamination of the river through run-off or via groundwater as the only likely pathway for impacts. I note that there are no watercourses on or adjoining the land – there are dry ditches on the boundaries which I assume act as land drains, but it would appear that most rainwater on the site goes to groundwater, which would be in hydraulic continuity with the Blackwater. The soils are apparently very deep, overlying karstic limestone.

I note that the Habitats Directive and associated legislation only refers to impacts on qualifying objectives – unlike the EIA Directives it does not address existing baseline conditions. Notwithstanding this, I would note that the existing use of the land is intensive tillage, and in the past ditches and hedgerows appear to have been removed to facilitate this. The proposed development is relatively ‘light touch’ compared to a permanent physical development such as housing or commercial and it would reduce agricultural inputs to the 12 hectares of land. There is no evidence on file or otherwise that the provision of solar panels is likely to significantly alter run-off patterns or cause potential contamination to run-off or groundwater, subject to normal good practice construction methods. I note that there are no direct pathways (such as streams or swallow holes) between the site and the designated areas.

While no planning application is on record, I note the comments by the third party that there are other proposals for solar farms on the landholding and elsewhere. Notwithstanding this, there is no evidence that the cumulative impact of prospective future solar farms would result in adverse significant impacts. Of course, each separate application would have to be addressed on its merits, and other proposals may have more direct pathways for impacts, so it is possible that future developments may require an NIS. However, I do not consider that this alters the conclusion that this proposed development does not require an NIS, even if assessed cumulatively with further solar panels on the landholding.

The applicant raised the issue of glint and glare impacting on migratory birds. The Blackwater Callows SPA is upriver, and the general area may be used by the qualifying bird species for foraging, etc., but there is no available evidence that such effects are relevant in a local or regional context as the site is intensively cultivated.

I therefore concur with the conclusion of the planning authority that it is reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on European Site No. 002170, or any other European site, in view of the site's Conservation Objectives, and a Stage 2 Appropriate Assessment (and submission of a NIS) is not therefore required.

8.3. Legal issues

The third party raised a number of legal issues with regard to the proposed development and the technical details provided. The first of these relate to the description of the proposed development – it is argued that the description should note the change of use and provide more information. I note that the planning authority considered the application valid and I agree with this – there is no requirement under the Regulations to note a change of use when such is obvious from the site description. I consider that the description, along with the submitted documentation is adequate and reasonable and I do not consider that there was any intention or effect to disguise the nature of the proposal - it is quite clear from the description. I also consider the submitted information to be sufficient to allow a full assessment of the proposal.

The third party also raised the issue of the grid connection with regard to the *O'Grianna* decision. These may be relevant if the Board is to decide that an EIS or NIS is required, but as I do not consider that this is the case, these points are not relevant to the application as submitted. The likely grid connection is shown on the application documents and would be exempted development as it is underground and on a road verge. I consider that the application details are appropriate and adequate for an assessment and final decision by the Board.

8.4. Principle of development (national, regional and local policy)

The appeal site is in open agricultural countryside without any specific zoning designation. It is not in any areas zoned or otherwise designated for landscape protection.

National policy (within the EU context) on renewable energy is set out in the **National Renewable Energy Action Plan (NREAP)** submitted under Article 4 of Directive 2009/28/EC, which sets out targets for increasing the proportion of renewable energy in the national energy mix. This sets out (Section 3.1) a target of 16% of all energy from renewable sources of 16% by 2020 (up from 3.1% in 2005). It does not provide specific target figures for solar PV. In addition, the 2015 White Paper '**Ireland's Transition to a low carbon energy future 2015-2030**' sets out targets for the further development of the renewable energy sector. This White Paper notes the potential importance of PV technology (paragraph 137), but does not provide specific targets. There are no specific national or regional planning guidelines relating to the locational aspects of solar PV farms. The Sustainable Energy Authority of Ireland have a best practice guide for solar electricity and the grid, but it does not address locational or planning aspects in detail.

Waterford County Council have adapted a '**Renewable Energy Strategy for Waterford City & County 2016-2030**'. This is intended as a statutory variation on the three main Development Plans for the County – the Waterford and Dungarvan city/town plans, and the County Development Plan. Section 5.0 of this Strategy addresses solar energy. It notes that Waterford is in the top 15% of solar resources in Ireland, and describes it as having 'good potential'. Table 3.3 of the Strategy provides a target of 84.1 MW of solar PV (from zero at the moment). It projects that this would require just over 168 hectares of land. It does not provide any guidance on the best locations. It notes the potential disadvantages (table 5.4) as land take, impact on crop production, glint/glare issues and possible hydrological effects.

I would conclude from this that there is a general presumption in favour in both national and local policy for developing commercial scale commercial solar farms in suitable areas on agricultural land, subject to normal planning and environmental considerations.

I would note in this regard that as solar farms are likely to be dependent on both financial support from the government, and access agreements with ESB Networks, there would be a significant delay before it could potentially be brought to site. For this reason, I consider that a 10-year permission is reasonable within the policy context. I note that the Board has granted such an extension in other similar appeals.

The planning authority and third party have raised a number of specific development plan policy objectives with regard to landscape and cultural heritage and the road reservation issue – I will address these in more detail in the relevant sections below.

8.5. Planning history and precedents

I note from the list of recent solar farm appeals in Section 5 above that the majority have been granted permission – those refused have been mostly refused for reasons relating to visual and residential amenity, loss of agricultural land, and impact on other developments. The Board has generally permitted extended dates for development having regard to uncertainty about the extension of grants for such proposed developments (almost all applications are for 10 years). I am not aware of any recent precedents relating to the issue of road reservations.

8.6. Road reservation issue

The planning authority refused for three stated reasons, but they all essentially relate to the same issue – the road reservation running across the appeal site, which is protected through DoECLG policy (the 2012 DoECLG *Spatial Planning and National Roads Guidelines for Planning Authorities* (January 2012), Section 10.2.1 of the Development Plan, and Objective INF 3 of the Lismore LAP. The road is alternately described as a ‘realignment’ of the N72 Lismore to Cappoquin road and the ‘Lismore bypass’. This alignment roughly follows the line of the former Dungarvan to Lismore railway line. I note the alignment also involves a bridge crossing on the designated SAC.

The TII website describes the proposal as ‘suspended’ and in their submission to the Board argued that it should be considered an active proposal and as such granting permission would be contrary to the published guidelines. There are no indications that the proposed road is pending or in any way likely to be activated within the next 5-10 years. I would consider it a long term aspirational road scheme rather than one pending or active.

The first party has questioned whether a refusal is justified in the context. It is argued that a solar farm is modular and not a permanent use, and so can be re-arranged and redesigned if necessary if the road scheme does go forward. I would

concur with this point that a solar farm is not the same as a more permanent form of development such as housing or industrial.

I would consider the core question in this appeal to be whether it is appropriate to refuse permission for this development on the basis of a 'suspended' and somewhat vague road alignment, or whether in the context of the nature of a solar farm and the uncertain status of the road scheme, it can be dealt with by way of condition.

The Development Management Guidelines, paragraph 7.11, addresses the issue of ceding land for a road development – it states that:

'Conditions should not be attached to planning permissions requiring land to be ceded to the local authority for road widening or other purposes, nor should conditions require applicants to allow the creation of public rights-of-way, other than such access roads as are considered a necessary part of the development, or to agree to transfer part of their land to some third party as, say, the site for a school or a church. Conditions of this sort are not lawful. It is in order to require a developer to reserve land free of any development in order, for example, to permit the implementation of a road improvement proposal, or to reserve land as a site for a school or other community facility. It is not lawful, however, to require by condition a transfer of an interest in land to the local authority or other person/body.'

While the Board could therefore set a condition such that the entire corridor is not used for solar panels, given the very wide road reservation, this would greatly reduce the amount of land available. The applicant has questioned whether the width of the reservation is reasonable, and I would concur that it is certainly very generous to the designers, but there is no information available to allow this to be reduced or altered in the absence of the agreement of TII.

The applicant has suggested that it would be agreeable to a condition along the lines of:

'That any infrastructure associated with the development that is installed on lands subject to Compulsory Purchase Orders for the development of the road would be removed by the tenant.'

While I am not aware of any precedents for such a condition, I would consider a condition along these lines to be broadly consistent with the advice of the Development Management Guidelines. I would note that while CPO's are a

planning matter, the calculation of compensation falls to the arbitrator and so is outside the planning legislative context. Such a condition would therefore be advisory rather than enforceable through the planning system. The Board could seek to give it more force through the planning system by requiring a Section 47 legal agreement between the landowner and the planning authority to this end. Such a Section 47 agreement would only be legal if it related to the removal of solar panels and other apparatus and the lands reversion to agriculture without compensation – it could not compel the applicant to provide land for the road. Having regard to the nature of the development – both its light footprint and its temporary nature, and to the suspended status of the road, I consider that a refusal is unreasonable – I would conclude that this issue can be addressed through condition. I would recommend to the Board two options:

All solar panels and related infrastructure on the land that is installed on the lands subject to any Compulsory Purchase Order for the proposed N72 Lismore Cappoquin bypass or other related transport scheme shall be removed by the landowner/operator at his own expense without compensation prior to the commencement of any road works on site.

Or:

The applicant/landowner shall undertake to remove, at his own expense, all solar panels and related infrastructure on the lands relating to the proposed N72 Lismore Cappoquin bypass or other related transport scheme prior to the commencement of construction of said bypass. Prior to commencement of development, the applicant shall enter into a written agreement with the planning authority under section 47 of the Planning and Development Act, 2000 to this effect.

I would recommend to the Board that the first option is the least onerous and will provide adequate protection for the road reservation.

I would further note the comments by the third party that the road reservation follows the line of the former Dungarvan to Lismore railway (this was a narrow guage branch line which connected Waterford to Mallow). Significant sections, including a bridge over the Blackwater, are still visible, as are a number of bridge overpasses in the vicinity, including one freestanding stone arch about 300 metres north-east of the site. This line was shut down in the 1960's. Unfortunately, almost all the

embankments in the area appear to have been removed and much of the alignment has been ploughed in and is not apparent on the ground. It would appear from the available information that the alignment is now in private ownership. The third party notes correctly that many such rail lines are being developed for Greenways with great success, although I am not aware of any such proposal for this line, but it would be an obvious route for a tourist greenway in this region. I would therefore not rule out the possibility that this line could be reclaimed for such a route so I would include the possibility of a CPO for such a greenway within the condition (i.e. the words 'or any related transport scheme') so that the proposed solar farm would not preclude such a development.

8.7. Grid connection

As I have outlined in section 8.3 above, as no EIS or NIS is required, the grid connection as shown on the application plans is not part of the application and an assessment is not required. Notwithstanding this, I note that from the information provided it can be supplied through mostly underground ducting and using the existing local power network, although it is not clear if upgrades would be required if further solar farms were to be built in the area.

8.8. Landscape and visual impacts

The appeal site is within a kilometre of the scenic Blackwater Valley and the well-known and very attractive village of Lismore. Although the general area is not a major tourism centre, Lismore is very much the core attraction in this part of north west Waterford. The main attractions of Lismore are the Castle originally built by King John and the 18th Century St. Carthages (Lismore) Cathedral. There are a number of secondary attractions including a motte (probably the site of the original Norman settlement) less than 1 km north of the site. The motte and bailey marks the beginning of a riverside walk to Lismore and a number of other fine buildings in and around the village, in addition to the gardens of the Castle which are open to the public.

The appeal site is mostly flat, with a slight drop to the north and east marking the point where the levels drop down to the Blackwater Valley. From the north, there is

a line of fine mature trees between the Ballyea Road and the site. The site is also visible from the Deerpark Road to the south. The Deerpark Road is also lined with mature trees. Neither of these roads are major tourist accesses to the village or valley, but there would be a significant number of local users and some tourists – I noted a number of cycling tourists in the area, probably using the local roads to avoid the N72.

There are a number of dwellings with views towards the site – these would be on the opposite side of the Ballyea Road, and a smaller number around Deerpark. The views would mostly be from several hundred metres, although the Ballyea Road houses are significantly closer. The Ballyea Road views would be at least partly blocked by trees and other vegetation.

I am satisfied from my site visit and other information on file (including a significant number of visualisations and photographs submitted with the application) that the site is not visible from any significant viewpoint within Lismore village. It may be visible from the top of the motte, but this feature is heavily wooded, so any view would not be uninterrupted. The topography suggests that the site would be clearly visible from high ground on the opposite (north) side of the Blackwater, from the townland Ballyrafter to the east. However, due to the well wooded slopes here I was unable to identify any clear views over the river from public roads, although I have no doubt there are views over at some times of the year and possibly from some dwellings on higher ground – a number of these views are included in the applicants visual assessment submitted with the original application. I note that as the solar panels would be oriented to the south they would not reflect sunlight in this direction. The appeal site would be over 1 km from any such viewpoints.

While the overall qualities of the landscape and townscape of Lismore and its environs are unquestionably of very high quality, the appeal site is on largely flat, open arable lands which are not within any particularly sensitive viewpoints or prospects, and do not constitute a sensitive landscape. This is very much an intensively worked agricultural area, and I consider that solar farms are appropriate, so long as any immediate impacts are mitigated through appropriate extra boundary planting. I therefore do not consider that visual impacts constitute a reason for refusal, but I would recommend a strong condition to ensure adequate landscape mitigation.

8.9. Glint and glare

The applicants submitted a glint and glare study as part of the application (the last part of Appendix 4 of the original submission). There is no Irish guidance on the potential impact of glint and glare from solar panels. The UK guidance '*Renewable Energy Planning Guidance Note 2 – The Development of large scale (>50kW) solar PV arrays – Cornwall (UK) 2012*' states (page 26):

Glint may be produced as a direct reflection of the sun in the surface of the PV solar panel. It may be the source of the visual issues regarding viewer distraction. Glare is the continuous source of brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Glare is significantly less intense than glint.

Solar panels are designed to absorb, not reflect, irradiation. However the sensitivities associated with glint and glare, and the landscape/visual impact and the potential impact on aircraft safety, should not be underestimated. In some instances it may be necessary to seek a glint and glare assessment as part of a planning application. This may be particularly important if 'tracking' panels are proposed as these may cause differential diurnal and/or seasonal impacts. Discussions are ongoing with airport operators in Cornwall regarding the potential impact of large scale solar PV development.

The potential for PV panels, frames and supports to have a combined reflective quality should be assessed. This assessment needs to consider the likely reflective capacity of all the materials used in the construction of the solar farm.

The study provided by the applicants concludes that the nuisance effects will not be significant. Although I would normally expect a glint and glare study to provide diagrams indicating the zones of impact (there are no plans or diagrams showing these provided), having regard to the southerly orientation of the panels and the open agricultural nature of the area I am satisfied that there would be no serious adverse impacts on local dwellings. Although the study does not address this, I am similarly satisfied that glare would not be an impact for traffic on local roads to the orientation relative to the sun and the distance of the site from the nearest road to the south.

With regards the impact on aviation it is noted in the report that there is no evidence from worldwide studies that solar farms have caused problems in the vicinity of airports – indeed, I am aware of examples of solar farms constructed on or adjoining airport lands without apparent issues and the study indicates that there are two such airports in the UK.

The appellant has also raised concerns about the impact on migrating birds, arguing that birds can become confused by glint and those that migrate using water bodies as navigation points may become confused. While this may well be an issue in desert areas, I am not aware of any research indicating that this is a potential problem within an Irish or European context. As the submitted reports point out, glare from solar farms is a relatively low key issue, and is usually less than that from any waterbody, including a field temporarily under water.

8.10. Residential amenity

I am satisfied that with sufficient screening and additional planting, there should be no significant impacts on local dwellings, including the dwelling immediately adjoining the highway access. There may be occasional reflections and glare, but these are likely to be very intermittent given the orientation of the panels and local vegetation. I do not consider that there would be any other significant noise or other impacts during operation over and above the baseline impacts in an area of intensive farming.

8.11. Cultural heritage

There are no recorded ancient monuments or visible structures on the site and the lands have been intensively farmed. There are a number of recorded ancient monuments in the vicinity, including an unspecified mound in a field to the east which was apparently removed in the 1990's. The most important site in the vicinity is the prominent motte and bailey beside the Blackwater approximately 600 metres to the north-east. Following a request by the planning authority the applicants carried out a geophysical survey of the site which identified a number of predictable features such as the old railway line and former site boundaries, along with an unidentified crescent feature and an area that could be a quarry. None appear to be

of particular importance and are probably relatively recent – however, given the overall historical importance of Lismore and its environs I consider it reasonable to set an archaeological monitoring condition as requested by the Department in their submission to the planning authority.

The closest building on the NIAH is a 19th Century outbuilding on the Ballyea Road north-west of the site. All other buildings of note are within the village of Lismore. I do not consider that the proposed development impacts upon any of these as it will not be visible from the village and I am satisfied it will not be visible from high points (such as upper floor windows) in the Castle and other important buildings.

8.12. Drainage and flooding

The site overlies a regionally important karstified aquifer, although the information provided indicates that there are no wells in the vicinity. There are no visible water features on the ground – it appears to be very well drained land over deep deposits of loamy soil of till (quaternary) origin. The underlying geology is primarily limestone, although there are no exposed visible features – there is a former quarry (apparently sand and gravel) about 500 metres north between the site and the Blackwater. There are no indications of any watercourses, or historical flooding affecting the site, although after intense rain earlier in the year local roads were flooded from a point near the site entrance to the east (the local road system was temporarily close for this reason). This flooding only affected the entrance of the site.

There is no evidence that the provision of solar panels would increase run off significantly and so cause or exacerbate flooding. I would however recommend a condition for a SUDS approach to ensure that any localised run-off from panels does not cause any unpredicted impacts – swales and ponds within the site should ensure that the overall run-off will be similar to a vegetated field.

8.13. Ecology

The site is intensively worked agricultural land of no obvious ecological value, apart from the ditch and hedgerow. There are no indications that there would be any loss of habitat through the works – indeed, additional landscaping and the withdrawal of

intensive agriculture should improve the ecological value of the lands through the operational period.

8.14. Agricultural land loss

I note that in a recent Board decision, **PL26.247217** for a 99-hectare solar farm in Tomhaggard, Wexford, the Board referred in its decision to refuse to the loss of good quality arable land. The appeal site is on good quality and well drained mineral till soil, although there is no information on file as to how important it is locally - but I note that the farmland in this part of Waterford is of generally very good quality, well drained and fertile, as indicated by the extensive use of tillage. The proposed use of the land would not result in a permanent loss, as no significant quantities of soil will be removed and it will presumably vegetate naturally or be used for low grade grazing during the lifetime of the solar farm. I would note that while there are Department of Agriculture policies relating to protecting good quality arable land, the requirement to increase significantly Irelands production of renewable energy relates to both national policy, EU Directives, and international agreements on climate change. I am aware of no evidence that development of solar farms would have a significant impact on national agricultural production, even at the most optimistic projections for the construction of such farms. I also note that the land use is temporary in nature and would not destroy the long term future agricultural use of the land. While ideally solar farms would be better located on poor quality lands or lands disturbed from past developments or landfilling, there is no over-riding policy objective which would justify a refusal on good quality lands such as these.

8.15. Human health

The third party appellants raised concerns about the impact on human health of electromagnetic and other impacts (such as noise) from the solar farm. I note that while the solar farm would cover an extensive area of land, the overall output is relatively low (a maximum of 5.4 MW is stated), and there is a network of 38 kV and 110kV power lines in the vicinity, including 38 Kv lines crossing the site. The electromagnetic output of the existing lines would be far in excess of those from any

apparatus associated with a solar farm of this size. As there is significant separation distance between the solar farm and associated apparatus (including the grid connection, which is to run along the Ballyea Road opposite the dwellings there, connecting to an existing powerline – apparently 38kV), I do not consider that there is any evidence of any electromagnetic impact on health. I would consider any other residual impacts, such as noise, to be significantly less than for intensively cultivated lands.

8.16. Traffic and Construction Impacts

The primary indirect impact on the locality would be from traffic and construction access during the construction period. There is an existing farm gate on the Ballyea Road next to a dwelling. Although not visible during my site visit, I assume that seasonal large agricultural vehicle use on such tillage lands is a normal occurrence. The panels would be brought in via the N72 to the west, which would bring some heavy traffic through the village. This impact would, however, be quite limited in temporal extent, and over the longer term I would consider it likely that the overall number of vehicle movements would be similar to, or less than, the number associated with intensive tillage averaged over a number of years (albeit at a far more intense level for the construction period). The operational period of the solar farm is likely to result in relatively infrequent traffic movements.

I would conclude therefore that any construction impacts would be within the norm for land such as this and subject to a construction management plan (I would recommend a condition to this end) could be carried out without excessive impact on local roads or amenities.

9.0 Recommendation

I recommend that for the reasons and considerations set out below, the proposed 10 year permission for a solar farm be granted planning permission subject to the conditions set out in the schedule below.

10.0 Reasons and Considerations

Having regard to the provisions of the current development plan for the area including the Waterford City and County Renewable Energy Strategy 2016-2030, and to regional and national policy, it is considered that, subject to compliance with the conditions set out below, the proposed construction of a solar farm would not impact upon a road reservation for the N72 Lismore Cappoquin realignment and would thus not be contrary to the 2012 'Spatial Planning and National Roads Guidelines for Planning Authorities', would not seriously injure the visual or residential amenities of the area, or the ecology or cultural heritage of the area and would not constitute a hazard to public health. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

11.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. All solar panels and related infrastructure on the land that is installed on the lands subject to any Compulsory Purchase Order for the proposed N72 Lismore Cappoquin bypass or other related transport scheme shall be removed by the landowner/operator at his own expense without compensation prior to the commencement of any road works on site.

Reason: In the interest of orderly development.

2. No works shall commence without the submission for the approval of the planning authority final details for the chosen solar panels.

Reason: In the interest of clarity.

3. No solar panels shall be erected within 100 metres of a dwelling.

Reason: In the interest of ensuring an adequate depth of vegetation to prevent any glint or glare or other impacts on residential amenity.

4. All structures including foundations hereby authorised shall be removed not later than 25 years from the date of commencement of the development, and the site reinstated unless planning permission has been granted for their retention for a further period prior to that date.

(b) Prior to commencement of development, a detailed restoration plan, providing for removal of foundations and access roads to a specific timescale shall be submitted to the planning authority for written agreement. On full or partial decommissioning of the solar farm, or if the solar farm ceases operation for a period of more than one year, the solar arrays, including foundations, shall be dismantled and removed from the site. The site (including all access roads) shall be restored in accordance with the said plan and all decommissioned structures shall be removed within three months of decommissioning.

Reason: To enable the planning authority to consider the impact of the development over the stated time period, to enable the planning authority to review the operation of the solar farm having regard to the circumstances then prevailing, and in the interest of orderly development.

5. No external artificial lighting shall be installed or operated on site, unless otherwise authorised by a prior grant of planning permission.

Reason: In the interest of visual and residential amenity.

6. CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the public road.

Reason: In the interest of residential amenity and traffic safety.

7. The solar panels shall be fixed in place by way of driven pile or screw pile foundations only, unless otherwise authorised by a prior grant of planning permission.

Reason: In the interest of the long term viability of this agricultural land, and in order to minimise impacts on drainage patterns

8. All boundaries of the area identified for solar panels shall be bounded by a continuous hedgerow (except at permitted site accesses) consisting of native trees and hedging plants with species chosen that will grow to a minimum of 3.5 metres in height. Newly planted hedgerows shall be at least 3 metres in depth.

Reason: In the interest of providing adequate screening to protect the rural amenities of the area.

9. All landscaping shall take place in the first planting season upon commencement of development and shall be in accordance with the scheme as submitted to the planning authority by way of further information. The landscaping and screening shall be maintained at regular intervals. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted.

Reason: In the interest of the amenities of this rural area.

10. Prior to the commencement of development, the developer shall submit for the agreement of the planning authority details for a SUDS drainage management system, including ponds and swales if necessary, to ensure

that stormwater runoff does not exceed that normal for grassed agricultural lands.

Reason: In the interest of preventing flooding.

11. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development including noise management measures and off-site disposal of construction/demolition waste.

Reason: In the interest of public safety and residential amenity.

12. Site development and building works, including the importation of materials, shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.

Reason: In order to safeguard the residential amenities of property in the vicinity.

13. Cables from the solar arrays to the compound shall be located underground.

Reason: In the interest of visual amenity

14. This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.

Reason: In the interest of clarity.

15. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall -
- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
 - (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
 - (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

16. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site upon cessation of the project coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure satisfactory reinstatement of the site.

17. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided

by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Philip Davis
Planning Inspector

1st June 2017