



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Our Ref: P21-059/SMC/JH

Draft City and County Development Plan
Planning Department
Kilkenny County Council.
County Hall, John Street
Kilkenny,
Co. Kilkenny
R95 A39T

12th March 2021

By email: ourplan@kilkennycoco.ie

Re: Draft Kilkenny City and County Development Plan 2021-2027 - Submission prepared on behalf of Harmony Solar Ireland Limited in respect of the Draft Kilkenny City and County Development Plan 2021-2027

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Fehily Timoney and Company (FT) has been retained by Harmony Solar Ireland Limited, of Ballyseskin House, Kilmore, Co. Wexford to make a submission on the Draft Kilkenny Development Plan (2021-2027), which focuses on the contents of *Chapter 11*, more specifically *Section 11.8.5 (Solar Energy Development Management Guidelines)*. Harmony Solar welcomes the opportunity to make a submission on the second stage of the development plan process for drafting the Kilkenny City & County Development Plan 2021-2027.

Harmony Solar are a Wexford based developer and provider of renewable solar energy solutions. As a company Harmony Solar operate nationally. Harmony Solar have a strong commitment to building a responsible and sustainable solar energy industry, being active members of the Irish Solar Energy Association (ISEA) and having contributed to the publication of the Planning Guidelines by ISEA.

As a company, Harmony Solar has been successful in achieving planning permission for a utility scale solar farm across a number of sites across Ireland. Harmony Solar currently have a planning application being assessed by Kilkenny County Council for a site in Smithstown, Co. Kilkenny (Planning Reg. Ref. 20897). Harmony Solar intend to continue to deliver projects of a similar nature over the lifetime of the forthcoming Development Plan, with plans for additional renewable energy solar development in Kilkenny being advanced.

Harmony Solar strongly believes in engagement and partnerships with both local authorities and communities and hopes that the upcoming Kilkenny City and County Development Plan 2021-2027 will encourage community involvement as part of the renewable energy policy objectives for the county as a whole.

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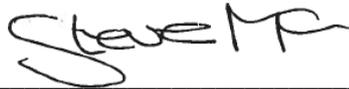
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Planning plays a fundamental role in helping shape places to secure radical reductions in greenhouse gas emissions, providing resilience to the impacts of climate change and supporting the delivery of renewable and low carbon energy and associated infrastructure. It is therefore incumbent on Kilkenny County Council to set out robust policy objectives as part of their development plan to support the transition to a low carbon future through the continued development of a solar PV sector in Co. Kilkenny.

We hope Kilkenny County Council will consider this submission in finalising the new City and County Development Plan and Harmony Solar looks forward to positive engagement with the Council as well as local communities in the development of solar energy in county Kilkenny.

Yours faithfully,



Steve McCarthy (Agent)

for and on behalf of **Fehily Timoney and Company**

Harmony Solar Ireland Limited. Submission to Draft Kilkenny City and County Development Plan 2021-2027

1. Introduction

Harmony Solar welcome the opportunity to engage as part of the Development Plan process and commends Kilkenny County Council for the inclusion of a comprehensive and detailed suite of County Policy Objectives and Development Management Standards which are specific to renewable energy developments as part of *Chapter 11: - Renewable Energy*, within the Draft Kilkenny City and County Development Plan 2021-2027.

The Kilkenny Development Plan is the primary document for spatial planning policy at county and local level and provides the basis in assessing planning proposals against. The planning authority through the development plan plays a key role in helping shape places to aid in reducing greenhouse gas emissions, to provide resilience to the impacts of climate change, and in supporting the delivery of renewable energy and low carbon and associated infrastructure. For this to be achievable, a collaborative approach is required between the planning authority, developers, other key agencies and the wider community.

The development of solar as a renewable energy source can make a significant contribution in the immediate term to meeting legally binding renewable energy targets and avoiding the significant costs associated with missing these targets. A robust solar industry in Ireland will assist in security of energy supply, diversify the fuel mix, contribute to job creation and rural development. To do so it is incumbent on Kilkenny County Council, and indeed all Planning Authorities to establish the spatial planning framework in the Development Plan that provides clear, balanced policy direction that supports the transition to a low carbon environment for the benefit of the community more broadly.

In this submission, we consider the national and international policy and economic background to Solar development, as well as the content of Section 11.8.5 '*Solar Energy Development Management Guidance*' included as Part of the Draft Kilkenny City and County Development Plan 2021-2027. From the outset, it is important to acknowledge that from a spatial planning perspective utility scale solar development has few environmental impacts, it is not representative of an *intensive* form of development but rather is an *extensive* form of development. Thus, a 35MW solar farm typically requires c. 50-70-hectares of land. Suitable land banks for solar energy are typically found in rural area, however, when the national land bank is considered this land requirement does not compete with or diminish Ireland's agricultural potential. Construction activities for solar farm do need to be carefully managed, but these are temporary and once permitted, solar farms can be deployed rapidly and are generally operational in approximately 4 to 6 months, following the start of construction. The low profile of solar development and common retention of existing hedgerows and tree lines result in limited visual and landscape impact, and even large scale solar schemes can seamlessly integrate with the landscape and simply form part of the mixed tapestry of rural land uses. In respect of biodiversity and ecology, solar development can often have a positive impact in rural areas especially when compared to intensive agricultural activities.

In this submission, we make a number of specific recommendations in respect of the contents of Section 11.8.5 (Solar Energy Development Management Guidance) which will be listed below, and our reasons, arguments and considerations for these are set out in the main body of the submission.

2. Harmony Solar Ireland Limited

Harmony Solar Ireland Limited are an independent renewable energy developer with a registered address at Ballyseskin House, Kilmore, Co. Wexford. The company's management has extensive experience in responsible development and management of renewable energy projects. To date, Harmony Solar currently has an application lodged with Kilkenny County Council seeking planning permission for a utility scale solar development within County Kilkenny, the details of which are provided in the below table:

Table 2-1: Harmony Solar Planning Applications in County Kilkenny

Planning Reference	Decision	Brief Description
<p>20897</p> <p>Location: Townland of Smithstown, Co. Kilkenny</p>	<p>Currently being assessed by Kilkenny County Council as a live planning application. Further information was requested by the Council on 16th February 2021.</p>	<p>Ten year permission for a solar farm on a site of approximately 46.0 hectares consisting of the following up to 293,500m² of solar photovoltaic panels on ground mounted steel frames; electrical substation with electrical control building and associated compound with palisade fence; inverter/transformer stations; underground power and communication cables and ducts; boundary security fencing; new internal access tracks and associated drainage infrastructure; new site entrance to the L6235 public local road; CCTV cameras and all associated site services and works. A Natura Impact Statement accompanies the application.</p>

Harmony Solar are continuing to progress solar projects across the County with the aim of delivering clean renewable energy to local homes and businesses.

In the context of renewable energy developments, it is necessary in the context of the Kilkenny City and County Development Plan that national and international policy is firmly reflected in specific policy objectives. As outlined in the Climate Action Plan 2019, the Government is targeting net zero greenhouse gas emissions by 2050. To accelerate this transition, an interim target of 70% renewable electricity generation by 2030 together with retiring coal and peat-fired plants by 2025.

Moreover, the National Planning Framework further promotes renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050. For this to be achieved, there is an overarching requirement for investment in new energy systems and transmission grids to ensure a well distributed energy system.

3. National and International Policy Background

Kilkenny County Council will be familiar with the national and international policy for renewable energy development, nonetheless it is important in the context of the Kilkenny City and County Development Plan that the foundation for local policy is firmly stated and reflected in specific policy objectives.

In December 2015, the Paris climate conference (COP21) the first ever universal legally binding global climate change deal was agreed. It is now globally recognised that the window for action on climate change is rapidly closing and that renewable energy sources will have to grow from 30% of global electricity at present to 80% by 2050 if we are to limit global warming to below 2 degrees¹. The European Commission's adoption of the 'Energy Roadmap 2050' which looks beyond the 2050 targets, commits the EU to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 effectively meaning that Europe's energy production will have to be almost carbon-free by 2050.

At national level, the key driver on policy is the Climate Action Plan (CAP) which was published in June 2019. The CAP identifies how Ireland will achieve its 2030 targets which includes an increased reliance on renewable from 30% to 70% adding 12GW of renewable energy capacity. In light of these targets, it is vital that action on sustainable energy is pursued more urgently than ever. The global focus on sustainable energy brings with it significant opportunities and challenges for local economies and communities. In Ireland, given the resource we have in terms of renewable capabilities and technological advancements and with appropriate development framework, arguably the country has sufficient accessible resources to meet our current renewable energy target to 70% by 2030. Electrifying our energy requirement is therefore the logical route and critical requirement for Ireland.

A 'business as usual' model is not sustainable for Ireland and measures to decarbonise the energy sector are urgently needed; planning authorities, through their development plans, have a key role and responsibility to ensure actions are rolled out at local levels. Solar PV is a key technology that can assist with the State's transition to a low carbon society. The large-scale development of solar PV would lower GHG emissions from the energy system while still satisfying the demand for energy services.

Having regard to the foregoing, with the Kilkenny City and County Development Plan (2021-2027) a new, strengthened phase of development support is required to provide effective solutions to our low carbon transition for business and citizens. Within the electricity generation sector, solar PV is proven to deliver one of the most cost effective renewable electricity sources worldwide.

¹ IPCC Fifth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR5 report

This point has been acknowledged by the European Commission in the European Commission Publication *A policy framework for climate and energy in the period from 2020 to 2030*. County Kilkenny has sufficient radiant solar energy and is endowed with good connections to the national grid.

In this regard, the preparation of a dedicated Renewable Energy Strategy for the County over the lifetime of the forthcoming 2021 – 2027 Kilkenny City and County Development Plan is welcomed by our client, Harmony Solar, and we further encourage Kilkenny County Council to embrace the opportunity solar energy has for the county to become a lead alternative energy generator, assist in the national response to climate change and provide alternative income sources to rural areas of the county.

Whilst the afore-mentioned renewable energy targets of 70% to 2030 and 80% to 2050 are demanding, they are achievable, but to reach them efforts and investment must be focused and diverse. Planning policy should thus be directed toward making best use of our most available and cheapest natural resources.

The Kilkenny City and County Development Plan will play a critical role in assisting the delivery of renewable energy technologies and we welcome the fact that solar PV is specifically referenced in the Draft 2021 – 2027 development plan, notwithstanding this, we consider that more explicit reference should be made to solar PV in the upcoming development plan to enable Kilkenny to achieve its potential as a key contributor to Ireland's low carbon economy and achieving national energy targets. A significant step for this is setting out a clear detailed policy vision for supporting solar energy in the Kilkenny City and County Development Plan (2021-2027).

Kilkenny City and County Development Plan (2021-2027)

Recommendation 1:

Harmony solar request that the Kilkenny City and County Development Plan fully elaborates further on National and International policy for climate change and provision of renewable energy and that the plan includes a firm policy framework that supports renewable energy proposals and recognises the specific development requirements to facilitate large, grid scale renewable energy projects at suitable locations in the county.

4. Draft Kilkenny City and County Development Plan 2021-2027, Chapter 11 – Renewable Energy

Climate change continues to be one of the most serious global environmental challenges. Low-carbon, renewable electricity production is one of the most cost-effective methods of reducing greenhouse gasses across the Energy sector as well as providing a means to manage climate change. As stated within Section 2 of the Draft Kilkenny City and County Development Plan, there is a pressing need for a move from traditional energy generation methods based on the burning of carbon-based fossil fuels, towards a more sustainable, low-carbon based energy generation and overall economy through renewable energy technologies.

In this context, it is evident that there is a strong support at all policy levels for the development of renewable sources of energy. Renewable energy sources, such as that from utility scale solar developments, offers sustainable alternatives to our dependency on fossil fuels, thereby acting as a means of reducing harmful greenhouse emissions and enhancing opportunities to reduce our reliance on imported fuel sources.

A secure, sustainable and competitive energy sector is central to Ireland's economic growth both in terms of the State's ability to attract and retain Foreign Direct Investment and sustain Irish enterprise. Solar photovoltaics (PV) is one of the fastest-growing sources of electricity globally, with emerging trends in the renewable energy market identifying solar energy as making a notable contribution to Ireland's renewable energy targets. One of the key driving forces for the increased scale of solar proposals in more recent years is the significant costs associated with installing solar panels and of costs payable by developers for ESB/Eirgrid Substation upgrades and line connections required to make a connection to the national grid. It is therefore imperative for the Planning Authority to understand and appreciate that in order to fulfil its role in providing affordable renewable energy to the Irish electricity market that the scale of individual development proposals is being determined by the requirement to maximise use of existing electrical infrastructure and gain economies of scale by developing utility scale solar developments which will likely be at least 10MW or greater.

The continued development of the solar industry in Ireland would result in significant new sources of jobs in rural areas, in fact, The Institute for Sustainable Futures estimates that 0.7 jobs are created per MW for the operational/maintenance lifetime of a solar project². Thus, the further development of solar PV will provide rural host communities with a range of benefits, including:

- New revenue sources – landowners would generate an additional and stable income source through diversification of their existing business by integrating energy production into their core business.
- Once in place, solar farms allow agricultural activities to continue and give the site a **dual-usage** alongside the generation of renewable electricity. Typically, only 2% - 5% of grass sward is removed. Wide field margins, gaps between the rows of panels and area beneath the panels allow small livestock, such as sheep or chickens, to graze on the solar farm.

² Rutovitz, J. and Harris, S. (2015). Calculating Global Energy Sector Jobs: 2015 Methodology Update. Prepared for Greenpeace International by the Institute for Sustainable Futures, University of Technology, Sydney.

- Creation of valuable job opportunities for people in areas where there are otherwise limited employment opportunities. Direct jobs in construction and O&M and indirect jobs arising along the RE supply chain (manufacturing, specialised services) and by adapting existing expertise to the needs of the solar industry.

Noting the above, it is considered that the development of a significant quantum of solar PV in Ireland would realise substantial direct and in-direct employment opportunities, many of which would be in rural locations which have limited alternative employment opportunities outside agriculture.

In this regard, the forthcoming Kilkenny City and County Development Plan is an opportunity to contribute to effective regional development, to enhance the rural employment base and increase the resilience of rural areas.

Section 11.8.5 of the Draft Kilkenny City and County Development Plan 2021-2027 refers to Solar Energy and outlines the “best locations” for ground mounted commercial PV array installations

Furthermore, Section 11.8.5.1 of the Draft Plan sets out a number of items which the Council will consider in assessing renewable energy development proposals upon the landscape and impacts during the decommissioning and potential repowering stages of any solar farm development.

In the following sections of this submission, we make a number of specific recommendations in respect of the above section for inclusion in the Kilkenny Development Plan 2021-2027.

Kilkenny City and County Development Plan (2021-2027)

Recommendation 2:

Harmony solar is supportive of the principles in respect of Solar Energy and requests that the Kilkenny City and County Development Plan (2021-2027) inserts a specific policy objective which:

“Supports utility scale solar PV development at suitable locations where it can be demonstrated that there are no significant adverse impacts to landscape or local amenity.”

It is also considered that the potential economic and employment opportunities that development of solar PV development can bring to local economies should be highlighted in upcoming development plan.

4.1 [Renewable Energy Strategy and the identification of Strategic Energy Zones](#)

Harmony Solar recognise and are supportive of the Council’s objective **11C** to:

“To meet 100% of electricity needs for Kilkenny from renewable sources by 2030, including Wind energy, Solar energy and bio energy and to work with agencies, including the 3CEA to proactively achieve this target.”

Similarly, Harmony Solar are fully cognisant of the requirements of Regional Planning Objective, **RPO 98** of the Southern Regional Spatial and Economic Strategy 2019-2031 'RSES' to identify a "*Regional Renewable Energy Strategy*". In this regard, we request that in the preparation of the Renewable Energy Strategy that the Planning Authority are considerate of the limited impacts associated with solar PV developments once fully operational, both in terms of residential amenity impacts and landscape and visual impacts.

To this end, Harmony Solar requests that in preparing the Renewable Energy Strategy for the county as part of the Kilkenny City and County Development Plan 2021 – 2027, that the Planning Authority are not overly restrictive on the acceptable and appropriate locations for solar PV developments and further, that proposals for solar PV development should be encouraged as an effective means of meeting renewable energy targets set out within the Climate Action Plan (CAP).

Kilkenny City and County Development Plan (2021-2027)

Recommendation 3:

Harmony Solar requests that in preparing the Renewable Energy Strategy for the county as part of the forthcoming Kilkenny City and County Development Plan 2021-2027 that Kilkenny County Council do not adopt an overly restrictive approach in establishing the acceptable or suitable locations for solar PV developments but rather assess developments on their merits on a case by case basis, following engagement with the Planning Authority at pre-application stage.

4.2 [Development Management Standards](#)

Section 11.8.5 of the Draft Kilkenny City and County Development Plan provides a number of key development management standards in respect of solar energy projects and states that the

“main impact from the installation of solar energy technologies is visual...The Planning Authority will support and facilitate the generation of renewable energy from Utility Scale Solar Photo- Voltaic (USSPV) where solar arrays can be so positioned that, when considering Development Management Guidance, they will not have an excessively adverse impact on the landscape, either individually or in combination.”

The following sections of this report will provide for a number of recommendations in respect of the noted development management standards.

Decommissioning

With respect to the decommissioning of solar energy developments **Section 11.8.5.1** provides that in the assessment solar energy schemes, the Council, will require

“A decommissioning statement should be included as a standard component of a planning application for utility scale solar PV.”

Harmony Solar are generally supportive of the above requirement but strongly consider that it is most appropriate for a formal decommissioning plan to be agreed closer to the decommissioning date and that a condition of planning should be attached to utility scale solar developments which states the following:

‘A decommissioning plan will be agreed with the local authorities three months prior to decommissioning the Proposed Development.’

This would be in line with best practice approaches for other types of renewable energy projects. For example, as noted in the Scottish Natural Heritage report (SNH) Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms (SNH, 2013) reinstatement proposals for a wind farm are made approximately 30 years in advance, so within the lifespan of the wind farm, technological advances and preferred approaches to reinstatement are likely to change.

According to the SNH guidance, it is therefore:

“best practice not to limit options too far in advance of actual decommissioning but to maintain informed flexibility until close to the end-of-life of the wind farm.”

Kilkenny City and County Development Plan (2021-2027)

Recommendation 4:

Harmony Solar are generally supportive of Kilkenny County Council’s requirement in assessing solar energy schemes for details in respect of ‘Decommissioning statement’ However it is considered that a decommissioning plan should be agreed closer to the decommissioning date. It is thus considered that the following text be amended in Section 11.8.5.1 of Chapter 11:

“A decommissioning ~~statement~~ plan should be included as a standard condition attached to a grant of planning permission ~~component of a planning application~~ for utility scale solar PV to be submitted to the Planning Authority three months prior to the decommissioning of the development”

The above is considered to be in line with best practice approaches for alternative types of renewable energy projects and as such we would request Kilkenny County Council to adopt this approach in respect of future solar PV developments.

Timescales

To date, we understand a total of 13 no. solar PV developments have been permitted within County Kilkenny, each of which is detailed in Table 4-1 below. All of the applications were granted an operational period of 25 no. years with the exception of one application (Planning Reg. Ref. 19538)

Table 4-1: Permitted Solar PV Developments within Co. Kilkenny

Planning Reference	Decision and Duration	Brief Description
<p>17669</p> <p>Location: Ballyconra, Ballyragget, Co. Kilkenny</p>	<p>Permission Granted for proposed development subject to conditions on 9th April 2018</p> <p>Application Duration: 10 years</p> <p>Operational Period: 25 years</p>	<p>Solar farm on an area of approximately 39.6 hectares, comprising photovoltaic panels on ground mounted frames, 20 no. single storey inverter/transformer stations, 1 no. onsite 38 KV substation, 2 no. steel storage containers, security fencing, CCTV and all associated ancillary development works.</p>
<p>161 (EOD 20858)</p> <p>Location: Grange Lower, Goresbridge, Co. Kilkenny</p>	<p>Permission Granted for proposed development subject to conditions on 17th May 2016</p> <p>Application Duration: 10 years</p> <p>Operational Period: 25 years</p>	<p>The proposed works will include a 4MW solar farm comprising photovoltaic panels on ground mounted frames, 4 no. single storey inverter/transformer stations, 1 no. single storey ESB MV substation, security fencing, CCTV, and all associated ancillary development works</p>
<p>16310</p> <p>Location: Kiltorcan and Ballyhale, Ballyhale, Kilkenny Co.</p>	<p>Permission Granted for proposed development subject to conditions on 17th October 2016.</p> <p>Application Duration: 5 years</p> <p>Operational Period: 25 years</p>	<p>The proposed works which will include a 4.2MVA solar farm comprising photovoltaic panels on ground mounted frames, 4 no. single storey inverter/transformer stations, 1 no. single storey terminal station, 1 no. single storey electrical switchroom, security fencing, CCTV and all associated ancillary development works</p>
<p>16634</p> <p>Location: Keatingstown, Co. Kilkenny</p>	<p>Permission Granted for proposed development subject to conditions on 25th April 2017</p> <p>Application Duration: 10 years</p>	<p>The proposed works will include a solar farm on an area of approximately 14.0 hectares, comprising photovoltaic panels on ground mounted frames, 4 no. single storey inverter/transformer stations, 1 no. single storey terminal station, 1 no. single storey electrical switch room, 1 no. storage container, security</p>

Planning Reference	Decision and Duration	Brief Description
	Operational Period: 25 years	fencing, CCTV and all associated ancillary development works
16193 as amended by 1861 and EOD under 20893 Location: Curraghmartin, Carrigeen, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 14 th November 2016 Application Duration: 8 years (As amended) Operational Period: 25 years	(16193) Solar PV energy development of maximum export capacity 4MW, to include one ESB Networks substation building with a height not exceeding of 4m, two electrical transformer stations with a height of 2.7m, site access roads and solar PV panels mounted on steel support structures 2.5m in height, associated cabling and ducting and fencing (18161) to amend an existing granted planning, Ref No 16193. The amendment shall consist of a re-orientation of the solar panels and relocation of the site roads, substation and transformers on lands
19605 Location: Kiltorcan, Ballyhale, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 15 th January 2020. Application Duration: 10 years Operational Period: 25 years	10 year permission for the construction of a Solar PV Energy development within a total site area of up to 9hA, to include electrical transformer/inverter station modules, battery storage modules, solar PV panels ground mounted on steel support structures, access roads, fencing and associated electrical cabling, ducting and ancillary infrastructure
16445 PL. 10.247979 Location: Derrynahinch, Knocktopher, Co. Kilkenny	Permission Granted by APB for proposed development subject to conditions on 11 th April 2018. Application Duration: 10 years Operational Period: 25 years	10 year permission for the construction of a Solar PV Energy development within a total site area of up to 10.6hA, 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 and associated electrical cabling, ducting and ancillary infrastructure
16592 (PL10.247616) & 19538 Location: Ballyhale and Kitorcan, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 12 th December 2016 & 25 th October 2019 Application Duration: Amended to 4 years under Ref. 19538	(16592) 26,100m ² of solar panels on ground mounted frames, 4 No.inverters housed in 2 units, 1 no.20kV substation, security fencing, new entrance onto public road, access tracks, CCTV; underground cable and ducts including underground cable and ducts along the public road to the entrance of the existing Ballyhale substation within the townland of Kiltorcan, Co. Kilkenny and all associated ancillary development

Planning Reference	Decision and Duration	Brief Description
	Operational Period: Amended to 30 years under Ref. 19538	works and services. The site is located within the townlands of Ballyhale and Kiltorcan, Co. Kilkenny. A Natura Impace Statement (NIS) accompanies the application, planning permission is sought for a period of 10 years (19538) Development comprising the provision of four battery storage containers which are required for the operation of the previously granted solar farm in the townlands of Ballyhale and Kitorcan, Co. Kilkenny (Reg. Ref. 16592 and PL10.247616). This planning application also includes an extension to the operational permission of the solar farm to be increased from 25 to 30 years and a reduction in the validity period of planning approval from 10 to 4 years
16276 (EOD 20908) Location: Loan, Castlecomer, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 12 th December 2016 Application Duration: 10 years Operational Period: 25 years	5MW solar farm consisting of photovoltaic panels on ground mounted galvanised steel frames, 4 no. transformers, 4 no. auxiliary transformers, 4 no. invertors, 1 no Distributor Network Operator building, 1 no. communications building, 1 no. storage building, 1 no. substation, a new site access road onto the R426, internal access roads, site access gate, security fencing, cctv and all associated ancillary development works
16411 (EOD 20869) Location: Grange Lower, Goresbridge, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 23 rd November 2016. Application Duration: 10 years Operational Period: 25 years	5MW solar farm consisting of photovoltaic panels on ground mounted galvanised steel frames, 4 no. transformers, 4 no. auxillary transformers, 4 no. inverters, 1 no. Distributor Network Operator building, 1 no. communications building, 1 no. storage building, 1 no. substation, 1 no. client building, a new site access road onto the R702, internal access roads, site access gate, security fencing, cctv and all associated ancillary development works
16607 Location: Parksgrove, Ballyragget, Co. Kilkenny	Permission Granted for proposed development subject to conditions on 17 th July 2017. Application Duration: 5 years Operational Period: 25 years	solar PV panel array, consisting of up to 50,000m2 of solar panels on ground mounted steel frames, electricity control room, power inverter units, underground cable ducts, security fence, solar powered CCTV and lamp standards and all associated works

Planning Reference	Decision and Duration	Brief Description
<p>16778</p> <p>Location: The Church, Tularoan, Co. Kilkenny</p>	<p>Permission Granted for proposed development subject to conditions on 26th May 2017.</p> <p>Application Duration: 10 years</p> <p>Operational Period: 25 years</p>	<p>The proposed development is for a solar farm consisting of PV arrays for the generation of electricity of up to 5MW for export to the national grid on land covering an area of approximately 10.6 hectares (approximately 9.8 hectares for the solar arrays and 0.8 for the existing site entrance and access road) with associated infrastructure, including an on-site substation with grid systems services and four No. inverters and transformers. The proposed development will include approximately 406m of new site tracks, cable ducting, fencing and security camera poles site entrance and ancillary works. The applications is accompanied by a Natura Impact Statement (NIS). An appropriate period of 10 years (i.e. duration of the planning permission to construct the development) is sought, with an operational life of up to 30 years after the date of commissioning</p>
<p>18814 PL10.303905</p> <p>Location: Farranmacedmond, AGLISH, Co. Kilkenny</p>	<p>Permission Granted by APB for proposed development subject to conditions on 10th July 2019.</p> <p>Application Duration: 5 years</p> <p>Operational Period: 25 years</p>	<p>Solar PV arrays on 10.3ha site, electrical sub-station compound, up to 3 no. inverter/transformer units, access tracks, temporary construction area and ancillary facilities.</p>

In consideration of the contents of this submission and given the nature of proposed solar PV developments, Harmony Solar consider that the duration of the permission i.e. the period in which the development can be completed, should be for a period of ten years from the date of grant of planning permission pursuant to Section 41 of the Planning and Development Act (as amended), as a best practice approach.

In this regard, Section 41 of the Planning and Development Act (as amended) states that the consenting authority may:

“having regard to the nature and extent of the relevant development and any other material considerations, specify the period, being a period of more than 5 years, during which the permission is to have effect”.

From the outset, it is noted that solar PV developments can take in excess of 5 years to reach construction phase procedural requires for grid connection and supply auctions together with financing and construction constraints. In this context, proposed solar PV developments are dependent on achieving a suitable connection to the electricity Grid network which is under the control of EirGrid or ESB Networks. While a grid connection application is made as part of any solar development, the timeframe for receiving an offer is unknown therefore we respectfully request that the planning authority consider the issue as a material consideration given the nature of solar developments. In addition to this, relevant support tariff or corporate power purchase agreement (PPAs) as well as securing project finance has introduced considerable delays for developers. On the basis of the foregoing, we strongly consider that it to be more appropriate for the Planning Authority to grant permission for solar PV developments for a longer period.

Although such guidelines are not specifically available for solar energy developments, the Department of Environment, Heritage and Local Government's Planning Guidelines on Wind Farm Development states the following:

"Planning Authorities may grant permission for a duration of longer than 5 years if it is considered appropriate, for example, to ensure that the permission does not expire before a grid connection is granted. It is however, the responsibility of the applicants in the first instance to request such longer durations in appropriate circumstances."

In addition, the Department of the Environment, Heritage and Local Government's Development Management Guidelines for Planning Authorities further notes that:

"Planning Authorities may grant permission for a duration of longer than 5 years if they see fit, but it is the responsibility of applicants in the first instance to request such longer durations in appropriate circumstances".

It is noted that the timing of the construction and installation works for proposed solar arrays are predicted on a number of factors, not least of which is the surety of achieving planning permission for any such development, as this provides the context to pursue financial support mechanisms and facilitate fulfilment of grid connection offers from ESBN/EirGrid. It is for this reason that permissions for a ten-year period is strongly believed to be appropriate and that such proposed developments cannot be thought of as being premature or unreasonable in considering the aforementioned factors.

Referring to table 4-1 above, it is noted that the operational period for each of the permitted solar PV developments within the county ranges from a period of 25-30 years. However, for the reasons outlined below, Harmony Solar also requests that future solar PV developments be granted planning permission for an **operational period of between 35 – 40 years**– i.e. that the planning permission specifies an operational period of 35 years to 40 years from the date of commissioning of the solar farm.

The technology associated with solar photovoltaic cells and solar energy projects have made rapid advances in recent years. Ongoing technological progress has resulted in the expected physical lifetime of modern solar photovoltaic equipment to be at least 30 years, and up to 40 years in some instances and it is requested that future planning permission reflects and is considerate of this. In this regard it is suggested that permissions for solar PV are granted with a lifetime up to maximum of 40 years.

Financing associated with solar energy, and indeed most significant infrastructure development, is based around its operational life and thus landholding agreements will be based on an approximate 30-40 year timeframe. It is therefore reasonable, that in order to maximize environmental and sustainable energy benefits of proposed solar developments, that a 35-year to 40-year operational lifetime is applied if planning permission is granted.

Having regard to the above, we refer to a recent precedent relating to lands at Ballyclogh, Tullabeg, Medophall and Medophall Demense, Co. Wexford (PL26.306065), whereby An Bord Pleanála issued a grant of permission in September 2020 for a solar PV development comprising of approximately 384,000 square metres of solar panels on ground mounted frames, for an operational period of 35-years from the date of commissioning of the solar array. In addition, a recent legal precedent appears in a ruling against Spain by the *World Bank's International Centre for Settlement of Investment Disputes* (ICSID)³ in September of 2019, following a case brought by solar investors *OperaFund Eco-Invest* and *Schwab Holding* over retroactive feed-in tariff cuts. In this instance, expert witness testimony for ICSID stated that the plaintiffs plants '*could have carried on working for a minimum of 35 years*'. This view was further adopted in the final ruling.

Furthermore, we note, as demonstrated in the context of other solar energy developments, recently it has been accepted by Local Authorities that a 30-year operational lifetime is appropriate for solar energy developments. This has been demonstrated by Kilkenny County Council in the decision at Ballyhale and Kitorcan (Planning Reg. Ref. 19538) whereby Condition no. 5 granted a 30 year operational life. This application sought to amend the previously approved solar farm as granted under Reg. Ref. 16592 (PL10.247616). Other Local Authorities have also demonstrated the acceptance of a 30 year operational life in the decisions at Knockanoura and Cahershaughnessy, Co. Clare (Clare County Council Reg. Ref. 19180 & 19194) Condition no. 4 (a) attached to both grants allowed for 30 years in each permission. More recently Westmeath County Council deemed that a 30-year operational lifetime was acceptable timeframe in its decision at Clondardis, Co. Westmeath (Planning Reg. Ref. 206132).

It should also be noted that the 30-year operational lifetime has also been accepted by An Bord Pleanála for instance, as demonstrated in the decisions at: Clonroche Co. Wexford & Ralphtown, Muchtown and Newtown Co. Wexford in which the conditions attached to the grant of permission, provided for a 10-year permission with a 30 year (after commission) operational life (An Bord Pleanála Reference Numbers: PL26.247179 & PL26.247366). Clonfad, Enniscoffey Hightown, Lowtown, Pass of Kilbride and Rattin, Co. Westmeath in which the conditions attached to the grant of permission, provided for a 10 year permission with a 30 year (after commission) operational life (An Bord Pleanála Reference Number: PL25M.305992).

³ <https://www.greentechmedia.com/articles/read/europes-solar-market-grapples-with-35-year-plant-lifespans>

We implore Kilkenny County Council to take the above precedents into consideration finalising the Kilkenny City and County Development Plan 2021-2027 and recognise the necessity of applying a **ten-year duration of permission** to future solar development with an operation period of between **35 - 40 years**.

Kilkenny City and County Development Plan (2021-2027)

Recommendation 5:

Harmony Solar request that Kilkenny County Council include specific objectives within its Development Management Chapter of the 2021 - 2027 Development Plan which indicates that

“The duration of the permission for solar PV developments (The period in which the development can be completed), should be for a period up to ten years from the date of grant of planning permission.”

Furthermore, it is considered that an objective should be included that

“The lifetime for future solar PV developments be granted planning permission for an operational period of between 35-40 years”

The planning permission specifies an operational period between 35-40 years from the date of commissioning of the solar farm in order to maximize the environmental and sustainable energy benefits of proposed solar developments.

Siting of new developments

In respect of the location of new solar PV developments, Section 11.8.5 as included within the Draft Kilkenny City and County Development Plan (2021-2027), promotes the development of solar energy infrastructure on a

“site-specific basis and in accordance with the principles of proper planning and sustainable development”

The Development Plan identifies the *“Best Locations”* for solar energy developments. These include:

- Proximate to a 38kV or 110kV lines and substations
- Rural Brownfield (e.g. cutaway bog);
- Urban Brownfield (e.g. former landfill sites);
- Topographically assimilative and screening rich landscapes;
- Agricultural Lands

Whilst Harmony Solar are generally supportive of the above considerations, with regards to the siting of new solar PV developments, we would request that Kilkenny County Council have considerations to the fact that all solar developments can be somewhat fragmented by nature, often

occupying different sections of landholdings. As mentioned previously this is governed by a number of factors including ecological considerations, site access requirements, flood related concerns, residential amenity considerations, land availability and the suitability of the site.

The breaking up of solar array clusters can have a positive influence as it can represent a smaller intervention on the landscape and a sense of encroachment would not transpire as the project would read as multiple smaller projects rather than one expansive single form project. The associated benefits of breaking up the development into smaller segments which link together includes that the visual and landscape impact would be dispersed over a broader area, making it more compatible with the typical Irish landscape which is represented by a tapestry of fields of varying sizes and land-uses, avoiding a localised effect that may occur with large scale compacted developments and allowing for the retention of existing landscape features and field boundaries. In support of this approach, we note the following precedent approved under ABP Ref: 302475-18, which relates to a solar PV development within the area of Rosspile, Co. Wexford.

In this instance, Wexford County Council refused permission for the development for a number of reasons, inclusive of refusal reason No. 1 which states the following:

“Character and location on a fragmented holding of 52 hectares would militate against the preservation of the landscape, cultural heritage resource, the amenities of residential properties and agricultural land use patterns.”

However, this application was subsequently granted by An Bord Pleanála. In their assessment of the application the Boards Inspector notes the following in response to the above refusal reason:

“Further the Irish rural landscape is generally represented by patchwork of relatively small fields broken up by hedgerows of various quality that have not been subject to the consolidation of fields to the same extent that can be observed in other jurisdictions. This is a distinctly positive feature for developments such as solar arrays to be able to adapt to such a landscape while respecting the existing character and adapting to the existing field systems and hedgerows.”

“While the proposed development may modify the “landscape fabric” of the area, I agree for the most part with the applicant that it does not markedly affect the landscape patterns and will not unduly contrast with the areas prevailing rural landscape character. I do not consider the scheme to have such a negative impact on the landscape character of the area as to warrant a refusal of permission.”

The above commentary clearly indicates that the adopted fragmented approach in the case of the above was appropriate and did not unduly affect the rural landscape character of the area.

Having regard to the above, we consider that applications for dispersed locations in agricultural areas should be decided on a case by case basis having regard to normal planning considerations.

Kilkenny City and County Development Plan (2021-2027)

Recommendation 6:

For the reasons set out in this submission, when assessing applications for solar PV developments, Harmony Solar supports and reiterates the view that Kilkenny County Council should consider the siting/location of new developments on a case by case basis, recognising that there is a necessity in some instances for larger scale solar developments to be fragmented across a large site area on account of ecological considerations, access requirements, flood related concerns, land suitability, residential amenity considerations and land availability.

5. Conclusion

Harmony Solar welcome the opportunity to contribute to the Kilkenny City and County Development Plan 2021-2027. The plan is a valuable opportunity to realise and plan for, in an appropriate manner, the sustainable development of County Kilkenny.

In summary, we note that the Draft Kilkenny City and County Development Plan 2021-2027 is generally supportive of renewable energy developments and more specifically solar energy schemes. Harmony Solar believes that utility scale solar development will be a key instrument in assisting Ireland to meet its legal commitments in respect to renewable energy production allows rapid deployment with few environmental or amenity issues. The technology does require a significant quantum of space, and this is likely best located in rural areas, however this does not mean utility scale solar development is in competition with or will inhibit agriculture.

In this submission, we have provided Kilkenny County Council with 6 no. key recommendations in relation to the Solar PV developments and we trust that each of which will be given full consideration in finalising the Kilkenny City and County Development Plan 2021-2026.

We look forward to the issuing of the final iteration of the Kilkenny City and County Development Plan 2021-2027 in due course.