

Via Online Platform

24th May 2022

Senior Executive Officer Planning Department Áras Chill Dara Devoy Park Naas Co. Kildare W91X77F

Our Ref: Kildare CDP

Council Ref: Draft Kildare County Development Plan 2023-2029

Dear Sir/Madam,

RE: DRAFT KILDARE COUNTY DEVELOPMENT PLAN 2023-2029 – STRATEGIC POWER PROJECTS LTD. (SPP) SUBMISSION

This submission is in response to the Kildare County Council's Draft Kildare County Development Plan 2023 – 2029. It provides background information on SPP Ltd. and the renewable energy technologies it develops; general context for renewable energy development in Ireland; and specific comments in relation to the following sections of the draft Plan:

- Section 6 Infrastructure & Environmental Services;
- Section 7 Energy & Communications;
- Section 9 Our Rural Economy;
- Section 11 Built & Cultural Heritage;
- Section 13 Landscape Recreation & Amenity; and
- Section 15 Development Management.

STRATEGIC POWER PROJECTS LIMITED

Strategic Power Projects is a leading Irish renewable energy development company founded with the aim of developing Solar Photovoltaic (Solar PV) and Battery Energy Storage Systems (BESS) to help increase clean green energy generation and decarbonise the Irish electricity system.

Strategic Power Projects (SPP) is passionate about renewable energy and are committed to driving change and embracing the advances in Solar PV & BESS technology.

Solar PV

Solar Photovoltaics are best known as a method for generating electric power by using solar cells to convert energy from the sun into a flow of electrons by the photovoltaic effect. Solar cells produce direct current electricity from sunlight which can be used to power appliances, charge electric vehicles and more.

PV farms are extremely reliable for many different reasons, but mainly because PV systems have no moving parts and consist of a panel that is made up of solar cells, a roof or ground-mounting frame and electric cables, and an inverter to convert direct current electricity to alternating current that can be used on-site or exported to the electricity grid.

Solar PV does not rely on intensive sunlight - daylight is sufficient for electricity generation. In that regard, Ireland has the capacity to generate significant volumes of solar energy.

Solar PV is now a competitive, mature technology. It is the fastest growing, and easiest to deploy renewable energy technology globally. Solar farms produce no emissions, are visually unobtrusive and have little to no impact on their local environment. Indeed, biodiversity net gain is at the heart of every solar project currently being developed by Strategic Power Projects.

Battery Energy Storage Systems (BESS)

Energy storage will play a significant role in facilitating higher levels of renewable generation on the power system and help to achieve national renewable electricity targets.

Lithium ion BESS are the most common type of grid-scale batteries at present and are already operational worldwide. They are predominantly used to provide fast acting frequency response and reserve grid services that can replace the need to use fossil fuel generators for these services.

For example, to ensure the stability of the system in case of a sudden disruption to power generation or demand, such as a large generator failing unexpectedly, the TSOs must make sure that there is sufficient reserve back up power on the system at all times. This reserve power must be available at a moment's notice and currently the TSOs meet the majority of their reserve requirement from fossil fuel generators. This means that out-of-merit fossil fuel generators are often constrained on or run inefficiently just so they are available to provide this immediate reserve back up.

BESS can replace the need to use fossil fuel generators for reserve and fast frequency response as they are available nearly all the time and can respond to tiny frequency deviations in milliseconds, thus helping to manage system stability. This has huge benefits in terms of system cost savings, emissions reductions and lower renewable curtailment.

RELEVANT ENERGY POLICY CONTEXT

Global Context

Worldwide, photovoltaic energy has been growing on an exponential curve for more than two decades. When solar PV was recognised as a promising source for energy, programs such as feed-intariffs and renewables obligation certificates were implemented by a number of governments in order to provide economic incentives for investments in this technology. Pioneering European countries such as Germany, especially during its boom period from 2006 to 2012, mainly drove growth in PV with the introduction of a REFIT. By the end of 2015, worldwide installed PV capacity reached 227 Gigawatt (GW), sufficient to supply close to 1 percent of global electricity demands. It continued to grow rapidly in 2016.

In 2013 the European PV market was no longer the top regional PV market in the world. Asia and America dramatically surpassed Europe, representing around 56% of the world PV market in 2013. This Asian progress occurred in parallel with the relative slowdown in Europe already observed in

2012. Vigorous growth in non-European markets kept global PV development on an upward trajectory and largely compensated for the maturity of the European PV market.

As this technology has proven, previous undeveloped markets have grown substantially. In tandem, the prices of PV technology systems dropped substantially making PV more affordable and viable to smaller, newer markets, albeit recent volatility in the commodity markets has impacted the cost of PV technology systems but this is not a problem unique to solar or renewables energy technology generally. It is anticipated that price certainty and value will return to the solar market as the world normalises following emergence from the pandemic.

Ireland is a late adopter of this technology with little PV installed to date. Ireland can benefit from better value PV systems thus the market for PV in Ireland is highly likely to grow rapidly over the coming years.

By 2050 Solar PV is expected to become the world's largest source of electricity.

Irish Context

The Government of Ireland has previously made clear the extent of the challenge facing the country regarding climate change and the need to meet the commitments made as a European Union (EU) Member State in relation to the reduction of greenhouse gases to become net-carbon neutral by 2050. This was to be achieved through the development of renewable energy sources that reduce carbon emissions. Ireland's Climate Action Plan currently aims for 80% of electricity to derive from renewable sources by 2030. Solar energy is a critical part of this transition.

These targets will be reviewed in light of the findings and outcomes of the 2021 United Nations Climate Change Conference (COP26), in Glasgow, Scotland which took place on 13 November 2021. At COP26 the participating countries reaffirmed the earlier commitments under the Paris Agreement (2016) to the temperature goal of holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above the pre-industrial level. There was also a recognition that limiting global warming to 1.5 °C requires rapid, deep and sustained reductions in global greenhouse gas emissions, including reducing global carbon dioxide emissions by 45 percent by 2030 relative to the 2010 level and to net-zero around mid-century, as well as deep reductions in other greenhouse gases.

To date, renewable energy generation in Ireland has been dominated by wind sources that require scale and transmission connections over long distances. The delivery of these projects has been challenging and this, as well as significant technological advantages, have improved both the appeal and economic viability of solar energy generation in Ireland. While Ireland has lagged behind other European countries in this regard, this situation is beginning to change.

A total of 63 Solar PV contracts totalling 769MW were awarded through the Government's Renewable Energy Support Scheme (RESS-1) in 2020 and in 2021 Ireland's largest solar farm to date commenced operation and is supplying electricity to pharmaceutical manufacturer, Lily, in Kinsale, County Cork. It will reduce the factory's carbon footprint by 2350 tonnes per annum.

In November 2021 the results of EirGrid's annual batch of connection offers from its Enduring Connection Policy (ECP) 2.2 process were published, revealing a further 61 Solar PV type contracts totalling 1.5GW.

On 20th May 2022 EirGrid announced the results of the RESS -2 process with solar being the dominant technology in the bidding process, photovoltaic (PV) projects secured 1.53 GW out of approximately 2GW of successful projects.

Latest EU Context

The new geopolitical and energy market reality requires us to drastically accelerate the clean energy transition and increase Europe's energy independence from unreliable suppliers and volatile fossil fuels.

Following the invasion of Ukraine, the case for a rapid clean energy transition has never been stronger and clearer. The EU imports 90% of its gas consumption, with Russia providing around 45% of those imports, in varying levels across Member States. Russia also accounts for around 25% of oil imports and 45% of coal imports.

In March 2022 the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels well before 2030, starting with gas, in light of Russia's invasion of Ukraine.

REPowerEU will seek to diversify gas supplies, speed up the roll-out of renewable gases and replace gas in heating and power generation. This can reduce EU demand for Russian gas by two thirds before the end of the year.

Commission President **Ursula von der Leyen** said: "We must become independent from Russian oil, coal and gas. We simply cannot rely on a supplier who explicitly threatens us. We need to act now to mitigate the impact of rising energy prices, diversify our gas supply for next winter and accelerate the clean energy transition. The quicker we switch to renewables and hydrogen, combined with more energy efficiency, the quicker we will be truly independent and master our energy system. I will be discussing the Commission's ideas with European leaders at Versailles later this week, and then working to swiftly implement them with my team."

Executive Vice-President for the European Green Deal, Frans Timmermans said: "It is time we tackle our vulnerabilities and rapidly become more independent in our energy choices. Let's dash into renewable energy at lightning speed. Renewables are a cheap, clean, and potentially endless source of energy and instead of funding the fossil fuel industry elsewhere, they create jobs here. Putin's war in Ukraine demonstrates the urgency of accelerating our clean energy transition."

The REPowerEU plan sought to accelerate a clean energy transition. The Commission has acknowledged that to accelerate renewable energy projects and remove remaining administrative obstacles, simpler and shorter procedures for permitting are needed. To this end, the Commission agreed to publish in May 2022 a recommendation on fast permitting for renewable energy projects.

On 18th May 2022 the European Commission presented the REPowerEU Plan, its response to the hardships and global energy market disruption caused by Russia's invasion of Ukraine. There is a double urgency to transform Europe's energy system: ending the EU's dependence on Russian fossil fuels, which are used as an economic and political weapon and cost European taxpayers nearly €100 billion per year, and tackling the climate crisis. An accelerated roll-out of renewable energy to replace fossil fuels in homes, industry and power generation is a cornerstone of the plan.

Under the heading of 'Accelerating the rollout of renewables' REPowerEU plans a massive scaling-up and speeding-up of renewable energy in power generation, industry, buildings and transport.

Initiatives include, but are not limited to:

- A dedicated EU Solar Strategy to double solar photovoltaic capacity by 2025 and install 600GW by 2030;
- A Solar Rooftop Initiative with a phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings;

 A Commission Recommendation to tackle slow and complex permitting for major renewable projects, and a targeted amendment to the Renewable Energy Directive to recognise renewable energy as an overriding public interest; and

CONCLUSION

Kildare County Council published it's draft Kildare County Development Plan in advance of the current war in Ukraine and the new renewable energy plans issued by the European Commission. As such the draft development plan needs to reflect the ambition of the REPowerEU plan and provide a robust and supportive policy context for Solar PV and other renewable energy related development. The importance of BESS in supporting the electricity grid to transition from fossil fuel led generation to renewables led generation is equally as important and should also be given policy support in the draft development plan.

Strategic Power Projects Ltd. has also made observations on specific sections of the draft Kildare County Development Plan, these are attached at ANNEX1.

Yours sincerely

Ryan McBirney

Planning Director

Strategic Power Projects Ltd.

Draft Kildare County Development Plan 2023-2029

Page / Ref	Text	Points
P. 12	Objectives	Policy should recognise the importance of renewable energy development and acknowledge that solar PV can be a water compatible development which can be deployed in areas of flood risk without increasing that risk.
IN 034, P. 12	"Require that development along urban watercourses comply with the Inland Fisheries Ireland Guidance: Planning for Watercourses in the Urban Environment (2020), including the maintenance of a minimum riparian zone of 35 metres for river channels greater than 10 meters in width, and 20 meters for river channels less than 10 metres in width. Development within this zone will only be considered for water compatible developments as defined in the OPW Planning System and Flood Risk Management Guidelines for Planning Authorities (2009)."	The riparian zones appear excessive.
6.8.2, P. 15, Water Quality; and	"Significant pressures on our surface waters nationally include Agriculture"	The development of solar PV on agricultural lands reduces the need for chemical pesticides and fertilisers therefore helping improve water quality.
IN 052 6.8.2, P. 15, Air Quality	"Clean Air is essential in ensuring a high-quality environment for	Solar PV is a clean green form of electricity generation with clear
	the wellbeing of the population. Air pollution can negatively affect human health and eco-systems."	benefits for air quality, this should be recognised and promoted. By developing solar PV the land will remain free of any form of tillage thereby helping to lock in existing carbon in the soil and help with future carbon sequestration which will help combat climate change. This should also be recognised.

Page / Ref	Text	Points	
Section 7.3, p 3	EC A1 Prepare, within 1 year of the adoption of the County Development Plan a Sustainable Energy Climate Action Plan (SECAP) for County Kildare to provide a baseline analysis for Kildare and for the inclusion of measurable targets on renewable energy and climate change mitigation and adaptation.	The Council appears to be taking positive steps towards incorporating renewable energy and climate action steps into the development plan. However, this action is worded too broadly and does not give the appropriate level of context. Action EC A1 should be reworded to give some indication of what measurable targets the plan should contain with regard to renewable energy and climate change mitigation/adaptation.	
Section 7.4, p. 5	EC A2 Establish a Mid-East Energy Bureau in collaboration with Wicklow County Council, Meath County Council and the Sustainable Energy Authority of Ireland.	The Council appears to be taking a positive step towards collaboration with other local authorities and key stakeholders. This is welcomed.	
Section 7.4, p. 5	EC A3 Prepare and implement an overall Renewable Energy Strategy for the County in accordance with the current Climate Change Adaptation Strategy for County Kildare.	The Council appears to be taking a positive step towards acknowledging the importance of renewable energy to the county and country. This publication is welcomed and anticipated but should also be influenced by the recent REPowerEU plan published on 18 th May 2022.	
Section 7.6, p. 7	Site selection is vital for potential solar farms as solar resource, topography and proximity to the grid must be considered.	These are indeed important aspects of the placement of solar technology. However, proximity to the grid and grid capacity are serious limitations to where solar development may go at this time. There are acknowledged limitations in grid capacity and a slow rollout of grid expansion across Kildare. Will the Council give greater weight to grid limitations when determining solar applications which may be located near sensitive landscape and other receptors? The importance of electricity grids is recognised in the REPowerEU plan, where it states that "an additional EUR 29 billion of investments are needed in the power grid, to make it fit for increased use and production of electricity." Alongside the REPowerEU plan, the Commission has also proposed an amendment to the Renewable Energy Directive on 18 th May 2022, recognizing renewables and related grid infrastructure as a matter of overriding public interest.	
Section 7.6, p. 7	In addition to the retention of hedgerows and other existing areas of biodiversity value, a minimum of 10% of each overall solar farm site shall be reserved for biodiversity purposes, including planting of native and pollinator-friendly species or the construction of new wetland habitat.	It is acknowledged that biodiversity preservation and restoration are necessary to meet climate and carbon targets. However, will this requirement also be placed on other new built environment projects which obtain planning permission?	

		Solar developments have a track record of, and an inbuilt ability to, improve biodiversity by the very fact that once built they are a very quiet and tranquil space for nature where biodiversity thrives, so to put a percentage figure on this is unnecessary.
Section 7.6, p. 7	"Solar farms have the potential to affect the landscape and natural and built heritage. Cumulative impacts may also arise with farms located close to each other. Site selection is vital for potential solar farms as solar resource, topography and proximity to the grid must be considered."	In the context of a climate emergency and the REPowerEU plan which recognises "renewables and related grid infrastructure as a matter of overriding public interest" there should be a more promotive approach to the policy wording, there should be a general presumption in favour of Solar PV unless there are significant adverse impacts on landscape, natural and built heritage that are not outweighed by the benefits of solar development. This presumption in favour of development should also include other ancillary or facilitatory development such as associated grid infrastructure or storage technologies which complement solar PV.
Section 7.6, p. 7	"Details of the connection to the grid shall be provided with all planning applications."	EirGrid has a prerequisite that planning permission must be in place before a grid connection offer is made, therefore this wording should be removed from the plan.
Section 7.6, p. 7	"The removal of extensive stretches of hedgerow (including within the development site) will be strongly discouraged. Where the removal of minor sections of hedgerows is proposed, the applicant shall demonstrate, to the satisfaction of the Planning Authority, that such removal is necessary for the development of the particular solar farm(s)."	This should state that "The removal of extensive stretches of hedgerow (including within the development site) will be strongly discouraged unless it is to provide a safe means of access, in which case all hedgerow removal should be replaced to the rear of the new access sightlines within the first available planting season following the commencement of development.
		The policy could also stipulate "Where the removal of minor sections of hedgerows is proposed, the applicant shall demonstrate, to the satisfaction of the Planning Authority, that such removal is necessary for the development of the particular solar farm(s) and that compensatory planting will be required elsewhere within the development.
EC021, p. 8	"Support the provision of solar farms in appropriate locations and to consider in the first instance developing solar farms on previously developed land."	The siting of solar farms requires a very detailed and complex consideration taking many factors into account. In order to deploy a meaningful amount of solar in the County it would be remiss to elevate brownfield sites above what might be more suitable green field sites. This policy could stymie the roll out of solar in the County in favour of brownfield sites that may in themselves be sensitive habitats or have

		unsuitable ground conditions for example. There should be a general presumption in favour of solar PV across the county subject to normal planning and environmental checks and balances.
EC P9, Page 11	"Co-operate with the Eastern and Midland Regional Assembly (EMRA) in identifying Strategic Energy Zones."	This is an admirable aspiration but need to be careful not to rule out other development opportunities, siting solar farms is a complex consideration and there is a risk that this could curtail rather than promote development of assets.

Chapter 9 Our Rui Page / Ref	Text	Points
9.1, p.2	"Traditional sectors such as agriculture, extractive industries, and forestry will be important in helping Kildare reach targets in relation to climate change and will play a vital role over the coming	Fully support the sentiment in this policy background information. The importance of the rural environment in helping County Kildare (and
	years and the period of this plan to help Ireland reach its climate targets particularly in relation to carbon storage, provision of renewable energy, reducing emissions, protection of water bodies and increasing biodiversity.	Ireland) work towards the renewable energy and net zero targets cannot be overstated. It is vital that there is a presumption in favour of ground mounted solar and associated complementary technologies such as Battery Storage in the rural environment, especially where there is access to grid, subject to the necessary planning and environmental
	These sectors along with tourism will need to be complemented by diversification in areas such as food, renewable energy and opportunities provided from improved digital connectivity e.g., facilitating those in rural areas to work remotely."	checks and balances.
	"Renewable energy production in the form of wind, solar, and biomass have to date been largely provided in rural areas and the location of future renewable energy production is likely to be met in rural areas."	
RD P1, p.4	"Support and promote rural enterprises and encourage appropriate expansion and diversification in areas such as sustainable agriculture, forestry, peatlands, food, crafts, renewable energy at suitable locations in the county, particularly where they contribute to a low carbon and resilient economy."	As per above comments for 9.1, p.2.
RD 02, p.5	"Facilitate agriculture, horticulture, forestry, tourism, energy production and rural resource-based enterprise within the rural settlements and in appropriate rural locations subject to relevant development management standards."	As per above comments for 9.1, p.2.
RD 06, p.5	"Encourage the conservation and promotion of biodiversity in all rural development activities whilst supporting the restoration, reservation, and enhancement of ecosystems dependent on agriculture and forestry."	Fully support the promotion of biodiversity. Ground mounted solar developments provide an excellent opportunity to enhance biodiversity above and beyond a typical agricultural land use. Following construction, the tranquil environment within solar farms which are conducive to wildlife, with lands relatively untouched for a period of 25-35 years species rich habitats can form such as varied sward grasslands, wildflower meadows etc. Existing water features can be safeguarded

	through mitigation and water quality improved through the removal of chemical pesticides and fertilisers from the lands. Solar farms can ordinarily deliver a net gain in terms of linear or square meterage of native species hedgerows or woodland copses. Bat boxes, bird boxes, insect hotels, shallow water scrapings etc can all help towards a more biodiverse landscape and flourish in a ground mounted solar farm environment. Note that this is not an exhaustive lists of biodiversity gains that can be delivered by the solar industry.
"Support the development of renewable energy production in rural areas where appropriate."	As per above comments for 9.1, p.2.
"Support the development of renewable energy (wind and solar) on a percentage/no more than 50% of former industrial peatlands /cutaway bogs, in appropriate locations, subject to relevant environmental assessments."	Welcome the opportunity that this provides for local communities and landowners in terms of a just transition from fossil fuel dependant practices.
	However, the inclusion of 50% of boglands should not be to the detriment of providing solar development on other viable green field areas of the rural environment where for example grid connection or engineering solutions may be more feasible.
	In line with earlier comments there should be a presumption in favour of solar development across the entire rural environment subject to normal planning and environmental checks and balances. It may be that industrial peatlands and cutaway bogs are a stated exception to this with only 50% of those made available for solar or wind.
	areas where appropriate." "Support the development of renewable energy (wind and solar) on a percentage/no more than 50% of former industrial peatlands /cutaway bogs, in appropriate locations, subject to relevant

Chapter 11 Built & Cult	hapter 11 Built & Cultural Heritage		
Page / Ref	Text	Points	
General Observation		Through careful design solar development can be a positive influence on	
		historic landscapes and assets, through the protection of cultural	
		heritage assets as part of the overall design concept.	
		Increased revenue streams from solar vis-a-vis mainstream agricultural	
		practices will help sustain the rural economy and associated cultural	
		heritage assets in their respective areas.	
		In addition, Solar farms can be decommissioned at the end of their	
		useful life and lands can be easily returned to their former condition.	
		As a general observation, Solar development, which is temporary in	
		nature, is a very sustainable use of land which will help combat the	
		effects of climate change. It is recognised as being in the wider public	
		interest to develop solar energy development alongside other renewable	
		energy technologies to help reduce CO2 emissions, provide security of	
		electricity supply and protect against higher energy prices. Solar	
		development can also enhance biodiversity, a core part of government	
		strategy in relation to sustainability. It is a compatible development	
		alongside cultural heritage features if a design led approach is applied.	

Page / Ref	Text	Points
Table 13.1-13.4	There is no appreciable change between the previous County development plan and this draft plan in relation to the provision of solar energy within the county.	Table 13.4 has not changed in relation to 'natural grasslands', 'agricultural land with natural vegetation' and 'peat bogs' between the 2017-2023 and current draft development plans. The landscape stance on these three principal landscape sensitivity factors is at odds with the strong policy objectives EC 02 – EC 09 and section 7.4 within draft 'Chapter 7 energy and communications'. It's worth noting that a large proportion of County Kildare is comprised of these landscape features. If the council is serious about the support of renewable energy targets as set out in chapter 7, landscape and solar policy objectives should be more compatible and not rule solar out completely based on landscape objectives.
Objective LR O13, p.12	Recognise that cutaway and cut-over boglands represent degraded landscapes and/or brownfield sites and thus are potentially fit to absorb a variety of development provided that the development proposal does not increase Green House Gas emissions	While the council has acknowledged that cutaway bog within this policy objective is a degraded landscape/brownfield site, this policy objective is at odds with tables 13.2 and 13.4 and LR 01. Much of Kildare's bogs are cut-over boglands yet the landscape character area 'Western boglands' is 'class 3 high sensitivity'.
General Comment		Chapter 7, section 7,6 notes in relation to Solar Energy Developments that: "An assessment of the impact of the development on the receiving landscape should be undertaken, having particular regard to the landscape sensitivity classification, scenic routes and protected views." However, a review of chapter 13 landscape and keyword search notes two mentions of solar energy: Tables 13.3 and 13.4. Given the sensitivity of solar development within the landscape, even a paragraph on the importance of landscape assessment for solar development should be included within this chapter.

Chapter 15 Development Management		
Page / Ref	Text	Points
Section 15.9.2 p49 Industry and Warehousing Development	Industry and warehousing schemes will be required to present a good quality appearance, helped by landscaping and careful placing of advertisement structures. In relation to industrial development the following should be taken into consideration: Other measures that address climate change shall include the encouragement and support of solar and wind energy as part of any proposals.	The encouragement and support of solar and wind energy as part of industry and warehouse schemes is a positive development. However, this does not go far enough. As noted in a press release from the European Commission on 18 th May 2022, a framework under the Fit for 55 package will include: "A dedicated EU Solar Strategy to double solar photovoltaic capacity by 2025 and install 600GW by 2030. A Solar Rooftop Initiative with a phased-in legal obligation to install solar panels on new public and commercial buildings and new residential buildings." Council policies regarding the provision of solar in industrial buildings should be revised taking this into consideration. It should also be recognised in policy that many industrial, warehousing and commercial operations have high energy demands that may not be entirely serviceable by solar within the confines of their respective curtilages or buildings. As such policy should also be promotive of ground mounted solar in locations remote from high energy users but which can be connected to them by means of private lines (also known as private wires).