



Proposed Dyrick Hill Project

Project Design Webinar – 07/04/2022

Your Questions Answered

- 1. Do you have any operational wind farms or wind farms in construction in Ireland current?**

EMPower do not currently have any windfarms in construction or operation in Ireland. However, as a management team we have directly been involved in the development, construction, and operations of over 10GW of onshore wind energy projects. Also, the projects planning consultant, Jennings O'Donovan are one of the longest established and most reputable multi-disciplinary engineering consultancies in Ireland and have an established presence in the Renewable Energy Wind Farm Sector since 1998.
- 2. Are 13 turbines a maximum number or a guideline? Can you please give possible maximum number?**

At this stage in the project's development, we identify a buildable area. Once we have a buildable area established, we estimate the most feasible number of wind turbines that maybe possible within that area. At this stage the feasible number of turbines within the buildable area presented is 13. This will undergo much more constraints and turbine spacing analysis before the project's Design Iteration 1 will be produced. This will be shared for discussion in the next project Newsletter and Webinar. There will be 2 further Design Iterations produced after Design Iteration 1. We believe this is the best way to refine the design and propose the most robust project offering possible.
- 3. How will underground grid connection be made? Will it be directional drill for example?**

EMPower favour underground grid cabling connections. HDD (Horizontal Directional Drilling) is often required to traverse obstacles on a chosen route such as tight bends, roadway intersections, rivers, or bridges. For example, from the initial grid connection assessment we have undertaken there could be 1 to 2 HDD crossing needed for a grid connection to say Dungarvan if this was the eventual route chosen. This is still underassessment, and we would obviously minimise HDD crossings as much as possible unless it was the most ecologically practical, cost effective and least sensitive option.
- 4. Where will the energy produced go? Is this intended to be cabled out abroad?**

Every wind farm has an electricity substation. This collects the electricity from the turbines on the wind farm. The substation is then connected to the electricity transmission system, typically using an underground cable, at a connection point on the Irish Transmission system. The transmission system is operated by EirGrid who ensure that the electricity generated by the wind farm goes where it is needed within Ireland or elsewhere. All EMPower projects in Ireland are currently developed to take part in the Irish Renewable Energy Support Scheme (RESS) which is a government awarded contract. This incentivises renewable energy development and ensures the best projects and the best price for consumers is achieved.

5. "Hi Marc, can you please provide a maximum number. As a resident this is important information. Can you please also give examples of your current operational windfarms, names, locations etc. This is important as past performance and management of assets is an indicator of future performance."

Please refer to Question 1,2 and 21 of this document for specific answers to this question

6. Can you please provide maps for turbine delivery that can be read. I can only see a blue line.
- As we are only at the early assessment phase for the Turbine Delivery Route for this project, we do not have detailed route maps yet as the most feasible option is not yet established. The purpose of the slide discussing the Delivery Route in this webinar is intended to generate conversation while highlighting the most feasible options from both Cork and Waterford ports. There will be full high-resolution drawings produced, with the chosen delivery route highlighted, once that stage of the assessment process is reached. This will be shared via newsletter and via the other project communication channels.

7. How long would the delivery be and how often would the lorries be driving up and down the roads?

As part of the Environmental Impact Assessment process, we will be carrying out a full Traffic and Transport Impact Assessment. This needs to show all predicted traffic movements for the project. It also takes into account the current baseline traffic in the area and identifies the routes to the project Study Area which creates the least impact. Prior to a planning application being submitted for this project we will discuss all aspects of the deliveries with interested Stakeholders via Newsletter and in person public events. All transport and delivery routes will be discussed and agreed with Waterford County Council as well as An Garda Síochána in the case of any oversized loads. Larger oversized loads will be scheduled at off peak times in order to minimise impact on local road users

8. The advised amount of money offered to us residents on your news letter. Is this open for negotiations in event permission will be granted. ?

The minimum payments listed intended for residents up to 2 km from the proposed project is mandated by the Government. As a developer we will be required to adhere to these principles. The fund is intended to be administered by the community itself so if the Dyrick Hill project was to be consented a community representative group would have the ability to structure the fund accordingly as long as it adhered to the fund guidelines. You will find more information on the RESS-2 Community Benefit process at the following link. [gov.ie - Renewable Electricity Support Scheme 2 \(RESS 2\) \(www.gov.ie\)](http://www.gov.ie/renewable-electricity-support-scheme-2)

9. When do payments and benefits for the community commence? Do they commence from construction or commercial operation? It seems that there will be a 2 year gap where there will be obstruction/noise/traffic for the community without benefit if payments only start from commercial operation?

The Renewable Energy Support Scheme (RESS) is made available from Commercial Operation of the project, so it is linked into the developer's payment for the generated energy. Therefore, once the project starts generating energy the specified allocated portion goes to the community in the form of the Community Fund.

For the 2 year gap mentioned in the question the Environmental Impact assessment process seeks to minimise the impact of the proposed project on the environment and local community. There will be conditions of planning laid down which will be paid for by the construction budget for the proposed project, so this helps to mitigate potential impacts from obstruction/noise/traffic. EMPower also set aside a construction community fund for our projects which would be separate from the RESS Community Fund and would be in place

throughout construction. This is intended for local residents who may have suitable projects or initiatives, they would like to pursue during the construction period.

10. "Can you assure us our Birds of Prey will NOT be affected in any way, we currently and have for many years lucky enough to have Owl, Pergrine Falcon, Sparrow Hawk, Kestrel, common Buzzard and Pair of Hen Harrier, only 6 weeks ago we are delighted to see the return of the male Hen Harrier again for Breathing this spring.

The Ornithological studies currently underway are extensive and many of the species you have mentioned above have been recorded in the wider Study Area. The Habitat the Dyrick Hill project is located on is predominantly farmland which is seen as least sensitive when it comes to foraging and winter roosts for birds of prey. Flight lines or migration corridors are also being recorded so a project can be designed around them. The scoping process where a document summarising the key elements of the proposed project is shared with designated and non-designated statutory bodies such as the NPWS. The local NPWS rangers are also contacted where possible by our ornithologist to ensure the very latest information for the areas species is taken on board by our project studies. As well as any individual all interested stakeholders like MPWS, OPW, Bird watch Ireland will be able to submit their comments on our final proposal.

Previous studies have reported the numbers of birds reported to be killed by turbines is not higher than deaths from other causes such as predation, poachers, aircraft and collision with structures such as communication towers, power lines and buildings or moving vehicles (Erickson et al., 2005, Sovacool, 2013, Tabassum et al., 2014).

Many of the early reports of negative impacts of wind turbines on bird species came from wind farms such as the Altamont Pass in California (Thelander & Smallwood, 2007, Smallwood & Thelander, 2008) and Tarifa in southern Spain (de Lucas et al., 2004), where extensive wind energy developments were poorly sited in areas where very high densities of migrating birds were channelled by geography into the path of the wind farm.

More recent wind energy developments are typically sited more carefully due to environmental considerations including local bird communities (Bright et al., 2008b).

A minimum of two years of bird surveys will be carried out before an application for planning permission for the Dyrick Hill wind farm is made. These surveys inform the layout and design of the project. They are also an essential part of the Environmental Impact Assessment Report which will explain what potential impact the project, if it was allowed to go ahead, would have on the environment. If any negative impacts are identified in the report, the developer must explain what they are going to do to avoid or reduce the effect.

Some studies on this subject can be found below with much more information available on line also.

[paw gtr191 1029-1042 erickson.pdf \(fs.fed.us\)](http://paw.gtr191.1029-1042.erickson.pdf(fs.fed.us))

11. As you probably are well aware of the study carried out in UCC in recent years that 10% of Small Birds along with Birds of Prey numbers are lost to flight path crashing into Turbines and habitat been removed.

Can you assure us we will not be seen less of our Birds, especially we pay great care to the Hen Harriers, can you address this please ."

As far as we are aware the UCC study premaritally dealt with Habitat surrounding constructed wind farms rather than collision risk associated with wind farms. We commit to looking further

at the UCC report and our ornithologist team working on the project will be very much aware of this study and will remain mindful of it in the compilation process for the project Ornithology chapter. A Wind Turbine will have an impact in any area it is placed. This is a fact and needs to be stated. As a responsible developer it is our duty to carry out the necessary studies and propose a design that minimise any impact to an acceptable level. The consenting Authority will then judge if this is adequate or not via the planning process after we submit our application. One of the highest risks for any windfarm development is Ornithology. We welcome studies such as the recent UCC study as it helps us as developers design better projects which can minimise impacts on Ornithology, species and habitats further.

12. Will we be told where each turbine is located prior to the planning application being submitted? Can you please give a date for turbine locations?

Yes a full layout will be posted to the website, included in the project Newsletters and discussed on future webinars and also at future person public engagement events. See question 28 in this document also for further info

13. We have yearly large murmuration's and birds of prey, will this affect them? Are you linking with Birdwatch Ireland?

Please refer to Question 10 of this document. The scoping process will also take in BWI's views.

14. I have worked on construction of CCGT powerplants. Some contractors ignore the traffic plan. E.g speeding by contractors on local roads. Will you put a plan in place so that all traffic plans will be adhered to and individuals who break project traffic plans will be penalised.

EMPower have a zero-tolerance policy when it comes to contractors not adhering to designated delivery and access routes during a project's construction and operation. This can often be an issue when the main construction activities are underway, and the largest volume of works traffic is accessing to/from the project area. A lot of planning is needed to minimise the risk of this happening. We endeavour to provide welfare and lunch facilities on site during construction to minimise traffic movements and also schedule deliveries at off-peak times. Any individual seen to be breaching the protocols of the traffic management and delivery plan can essentially be removed from the project and their employers informed that they cannot return to work for EMPower. See Question 7 of this document also.

15. How long would your company be operating these turbines? What happens when and if your company moves on? How long are turbines expected to remain operational, and what happens when they are not operational anymore?

It is a condition of wind farm planning permissions for a wind farm that a bond is put in place with the local planning authority which covers the cost of decommissioning the wind turbines and site restoration. The developer is not authorised to start construction of the wind farm until this is in place. In the very unlikely event that the developer goes out of business and there is no party to operate the wind farm, these funds could be used by the local authority to restore the site. To date, this has never happened in Ireland. The final stage of the project is decommissioning. The decommissioning of a wind farm is typically addressed by conditions set out in the planning permission. A decommissioning bond and a decommissioning plan need to be in place prior to construction of the wind farm.

When a wind farm is decommissioned, the turbines are removed, and the land/site is restored to its original state or as close as practicable.

When a wind farm reaches the end of its planning lifespan it is normally decommissioned or repowered. If decommissioned the turbines are dismantled and taken away. Every effort is made to return the site to as close to its natural state as possible.

If Repowering is considered, this means that once the old turbines are taken away new, more efficient, turbines are installed. These new turbines can use the existing electrical connections which is both a financial and environmental saving.

However, repowering cannot be done without getting planning permission and so the project would go back to the very start of this process, working with the local community to shape the future of the wind farm.

16. When the project is developed will you sell the wind farm on?

EMPower's business model is not build around selling on a project once developed. Wind Farm projects can be sold on once they become operational. EMPower is an Irish developer with long term investors committed to Ireland. In the event a project is sold on, whoever buys the project will be tied into all the agreements that were made in the original planning process so new owners couldn't risk changing aspects of the project or the community benefit fund without breaching the original planning permission.

17. On the maps of the study area can you please explain the difference between the yellow study area and the dashed red line. The map legend calls them both 'indicative study area.'

The difference between the Study Area and the Buildable area is outline below. On the illustration shown in the webinar The yellow Study Area is referenced as the "Indicative Buildable Area" The red dotted line is referenced as the "Indicative Study Area".

The Buildable area is the area where we can conceivably place a wind turbine pending further constraints analysis. The Study area looks at wildlife, animals, hydrology etc that could interact with our projects. The Archaeological Study Area could go 5km outside the buildable area with the Landscape and Visual Assessment Study Area looking at 20km outside the buildable area.

18. Not sure how deep you would need to dig but would you also be assessing underwater water sources that some use for their wells/home water supplies?

Yes all existing Study Area ground water sources and pathways will be assessed in the Hydrology and Hydrogeology chapters of the Environmental Impact Assessment process. An element of this is to highlight any know wells or water sources in the area. A full hydrological assessment will be carried out on the study area. This will include studies such as the physio-chemical properties of both surface and ground water to achieve a baseline and a watershed analysis to understand how the ground water interacts with the local environment. Additionally, the permeability of the soil across the study area will be assessed to understand how water travels through the environment. The results of all studies will be posted to the project website upon completion.

19. This project will have an unacceptable effect on my life; visually, noise, potential turbine flicker as I look out on Broe Mountain. I will be living with this on a daily basis. It will have a detrimental effect on my life. The aforementioned potential contributions do not offset the disruption to my life and devaluation of my property.

The Environmental Impact Assessment Process is designed to minimise the potential impact of the proposed project to an acceptable level (See answer to Q11 also).

Anyone who wishes to make an objection to the proposed project is entitled to do so via the planning process. This community consultation process and all the studies undertaken will be described and shared with the local community for discussion and comment and the project will not be submitted without prior notification to the local community. Some useful links for further information on this are located below.

[How to support or object to a planning application with a local authority \(citizensinformation.ie\)](http://citizensinformation.ie)

[How to support or object to a planning application with An Bord Pleanála \(citizensinformation.ie\)](#)

[FAQs | An Bord Pleanála \(pleanala.ie\)](#)

We commit to providing all the studies and project information available to the public in a way that is easily laid out and understandable prior to the planning submission being lodged with the consenting authority. All the final studies will be uploaded to the project website at the planning submission time and we will also discuss the ongoing studies with you as the project evolves via the newsletters, webinars, website Virtual community rooms and in person consultation events.

20. Will people actually call to our house for assessments, so measurements can be taken from our property as opposed to from the road? (flicker, noise...)

It will not be feasible to call to every individual residence in the immediate consultation zone in order to carry out assessments. If you have a specific query in relation to your dwelling, please contact us and we will discuss with our design team.

To accurately assess the potential noise impacts and take these into account in the proposed project's design we will undertake background noise monitoring at several locations in the vicinity of the proposed projects Study Area.

The noise study will require noise specialists from Jennings O'Donovan to place a small mobile sound level meter to continuously measure the background noise levels in the area for a period of between two to four weeks. The monitors do not record audio and the householder has no responsibility for the unit. The noise data that is measured is then used as a baseline to assess any potential noise impacts which could result from the proposed project if consented and in turn informs the proposed project's design and layout. This noise monitoring process is in line with best practice for this type of development project and all results will accompany the proposed project's planning application documents when submitted.

See Question 22 of this document for further information on Shadow Flicker.

21. is there any similar wind farm you have completed that we can maybe see and listen to on a windy day.

Ireland has over 300 operational wind farms across the country. EMPower does not currently have a windfarm in operation in Ireland. As individual design team members EMPower management have over 10GW of renewable energy experience from green field development through into construction and operation across 5 continents. This includes Direct Asset Management of over 30 windfarms in Ireland with previous utility companies. Some of these examples at the below links. See also answer to Q1

If you are interested and wanted to visit a windfarm and look at wind turbines up close there are a number of state bodies who have open access across their wind farm developments via recreational trails. Some of the best examples of these are at the below links.

[Home - Sliabh Bawn Windfarm](#)

[Castlepook Wind Farm - Wind Farm Community Funds](#)

[Galway Wind Park - Coillte](#)

Nearest to the Dyrick Hill area there are operating windfarms at Woodhouse (20MW) just west of Dungarvan and Ballycurreen wind farm (5MW) just south of Dungarvan.

The nearest larger wind farm would be Barranafaddock Wind Farm (33MW) just northwest of Lismore near Ballyduff.

22. Will there be a commitment to zero shadow flicker during commissioning and operation to every residence? I have spoken to residents near Mountain Lodge wind farm. Even with technology there are still times when shadow flicker occurs, and they have to ring the wind farm operator to report this.

Yes, there will be a commitment to zero shadow flicker for the proposed Dyrick Hill Wind Farm and EMPower commit to zero shadow flicker occurring.

We cannot comment specifically on any perceived issues on other developments.

The modelling exercise for Shadow Flicker takes GPS coordinates from each dwelling, this also includes the national Eircode data base and the topography of the landscape. From the known trajectory of the sun's movement across the sky at different times of the year any dwellings which potentially could have an issue with shadow flicker are identified during the modelling exercise. Over several weeks this is then further refined at the commissioning stage of the project in conjunction with the community and nearby dwellings. As the turbines are commissioned into operation any issues are identified and eradicated by restricting the turbines movement during times where shadow flicker can occur.

23. I believe shadow flicker can be an issue up to 10 turbine blade diameters from the turbine location. This is further than the 740m set back distance you mentioned. What are you going to do for residents who are affected?

Question 22 answers this question also but just to add again that EMPower commit to no shadow flicker at any residences nearby to the Dyrick Hill proposed project.

24. "How far apart will the masts be.? What will the total ground cover be for each site?"

Depending on the turbine type and topography the turbines will be located on average 700m to 1000m apart. As the project is in the early stage of development and is still carrying out a positioning assessment for turbine placement, the total ground cover is unknown. However, a rule of thumb is that each turbine occupies a footprint area of approximately 1.5 acre to 2 acres on average. This includes the turbine and hard-stand foundation, associated roads, etc.

25. You keep talking about guidelines and assessments however you don't mention what you are going to do to improve the lives of residents. Your company will be making huge profits if this project goes ahead, and the residents will be left to suffer. We need concrete promises.

Please see answers to Q8 and Q9

26. Thank you for the community consultation room. Can you please make a commitment to upload information to this room in a timely manner? The maps on the newsletters for example should be uploaded to a suitable location now. They are difficult to read on the newsletter.

Similar to all EMPower projects the Dyrick Hill project's community consultation approach initially focusses on the near neighbors and dwellings within a 2-kilometer radius of the initial Study Area. This area is the closest, proximity wise to the proposed project's main area and will therefore be more susceptible to any potential effects caused by the proposed project. We continue this focus on the 2-kilometer radius throughout the project's messaging and communications by ensuring project messaging is always communicated to this area first. Once the project information is distributed to the local community it is then uploaded to the project website and community consultation room

As the project design develops, we then extend this consultation area via webinars and in person engagement events for interested stakeholders further away from the project's Study Area.

Our engagement process is designed so that it is just not an information giving exercise and that community members local to our proposed project location and interested stakeholders further away are part of the projects design conversation and can input on project details as they evolve towards a final design proposal. This is where the webinars provide a very good point of reference, and we advertise these in the local newspapers prior to each webinar.

As the project design approaches a near final design, we will initiate the On-line Project Consultation Room. This will include visually representation of the proposed project, hi-resolution maps of the proposed grid and access route as well as many other project layout maps.

27. Do we get updates via newsletters or letters about exactly when you are submitting / have submitted each application during the process etc?

Our project literature distributed in the locality, local and national newspaper notices, project design webinars, our project website and in person community events will highlight the projects planning submission date well in advance.

As part of the projects scoping stage, we hold pre-application meetings with Waterford County Council and An Bord Pleanála but there will only be one application submitted to the consenting authority in conjunction with this proposed project. This is currently scheduled for quarter 3 of 2022 and we commit to advertising this widely beforehand.

28. Robert Greene did not answer part of my question regarding dates for turbine locations. Can you please give a guideline date now?

We currently have the proposed projects Buildable area defined and shared in this webinar. Following this the next step in to define Design Iteration 1. This will show indicative turbine locations. The timing of this is governed by the timing of the completed baseline studies coming back to our Civils team who then integrate this information to produce Design Iteration 1. After this we will have 2 further Design Iterations where the proposal will be critiqued and refined further. Given the stage of assessment we would hope to have Design Iteration 1 ready to share with the community in approx. 6 weeks so by the end of May as a general estimate. This is as mentioned above dependent on the studies being completed in time.

29. Have you researched the numbers of Fallow deer in our area ? And what effects the Turbines will possibly have on young Fawn that are born up in the proposed area, born in open farm land and not in forestry as many may believe ?.

As part of the Flora and Fauna studies for this proposed project all wildlife in the projects Study Area will be assessed and any potential impacts on species foraging, nesting or breeding will be looked at in great detail and documented in the Environmental Impact Assessment Report. Members of the project team have experience with deer populations and windfarms and have not encountered any issues caused by Wind Turbines on young fawn or deer in general, but we will relay this question to our ecologist for further comment.

30. "We can object but it costs us 50 euros per objection, which seems crazy and very against our need to object"

Yes this is the legislative process in place in Ireland for anyone who would like to make a submission on a strategic infrastructure project such as the propose Dyrick Hill project. We are unable to affect this. Our community material distributed in the locality, newspaper notices, project design webinars and in person community events will highlight the projects planning submission date well in advance.

If any community member has a concern that the cost of making a submission on this project is prohibiting an individual from engaging in the process, please let us know by email, phone or post. EMPower will work with any member of the community with a genuine concern in this regard and a suitable solution can be reached to enable all project submissions to be lodged.

31. Can newsletters and updates be sent electronically or can we sign up for electronic notifications. We were missed in the correspondence previously.

All the projects' Newsletters and community material are uploaded to the projects website at www.dyrickhillwindfarm.ie for anyone who would like to zoom in on certain areas of the literature. Please send on your Eircode to dyrickhill@emo.group and we will check that this is on our project distribution list. The community material is always distributed to the project's immediate consultation zone first. This is the area which extends outwards approximately 2km from the project's Study Area.

32. In your presentation you said that 25 operational jobs will be created long term. Can you please provide details of these jobs. What are the roles? Site manager, operations technician etc. Can you please provide full resourcing information including the weekly hours per person. How many jobs will be full time, part time etc.?

A wind farm project typically provides a wind range of employment, from project initiation and design, through the planning phases, during wind farm construction and commissioning and over its operational life.

Based on our experience a large-scale wind farm (consisting of 20-30 turbines) will create: 100-120 jobs at peak construction. The skills required are similar to those for major road building or Motorway schemes.

Indirect employment is created through the sub-supply of a wide range of products and services including:

- Gravel and graded stone for roads and hard stand areas;
- Concrete and steel for turbine bases;
- Building materials for sub-stations;
- Haulage of components from the ports to the site;
- Accommodation and food and beverages for workers;
- Legal and financial services.

According to the SEAI there is 1.7 jobs per Mega Watt created in the construction phase of a wind farm and 0.4 Jobs per Mega Watt created for the operational and maintenance phase of a wind farm project. See following link for some further information [Net Employment Benefits from Onshore Wind in 2020, Sarah Stanley, SEAI \(slideshare.net\)](https://www.slideshare.net/SarahStanley/Net-Employment-Benefits-from-Onshore-Wind-in-2020)

The operational and maintenance jobs created for any wind farm project are mostly in the electrical and mechanical engineering fields with turbine maintenance technicians needed on site. There is a very good career map showing requirements for a wind Energy Technician at the below link.

[Career Map: Wind Technician | Department of Energy](#)

If you require any further area specific information on this please do contact us and we will reach out to some more of our industry partners for information.

33. Please provide the human resourcing for local area as requested. Back office energy traders, legal support doesn't need to be local.

Yes, this is correct regards energy traders and legal support. EMPower however will always utilise legal resources local to the areas in which we propose our projects as much as possible. Please see Question 32 for further information.

34. When is the next webinar?

The next projects Design Webinar will be scheduled to coincide with the results of Design Iteration 1. This is somewhat dependant on when our constraints analysis of the study area concludes and also when we get feedback from the scoping consultation process with the statutory bodies discussed in Question 10 of this document. We hope to have this complete by the end of May. Once this information is received back by the design team, we will then collate it in a project newsletter for distribution to the local community with 2km of the Study Area. After this we will schedule a project webinar. Barring any scheduling delays, we hope to hold the next project design webinar in early to mid-June.

35. Thank you

All the Proposed Dyrick Hill Wind Farm team and all at EMPower would like to sincerely thank everyone who took the time to dial in and contribute to this project's design discussion. We will update the website with all the questions discussed on this webinar and will also upload the recording of tonight's webinar.

At all times during this process, we welcome conversation, engagement and interaction with you on any aspect of how we propose to progress the Dyrick Hill Wind Farm project and particularly on how we communicate project information to you. If you would like to chat about this proposed project further please contact us via any of the below means.

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