

APPENDIX 5 -1

Community Report

Carrownagowan Wind Farm

Co. Clare

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1 INTRODUCTION

Coillte Cuideachta Ghníomhaíochta Ainmnithe (Coillte) is seeking planning permission from An Bord Pleanála to construct and operate a commercially viable wind farm project on lands at Carrownagowan, near Bodyke in Co. Clare.

From the project outset, Coillte has consulted with the local community and commenced this engagement prior to the start of the project design and environmental assessment, with the objective being to ensure that the views and concerns of all members of the local community were considered as part of the project design and the Environmental Impact Assessment process.

In relation to national guidance on community engagement and consultation for wind energy developments, the *Wind Energy Development Guidelines* (Department of Environment, Heritage and Local Government, 2006) state that:

“While it is not a mandatory requirement, it is strongly recommended that developers of a wind energy project should engage in active consultation and dialogue with the local community at an early stage in the planning process, ideally prior to submitting a planning application”.

This was further addressed in the *Preferred Draft Approach to Wind Energy Development in Ireland* (June 2017) which stated the following with respect to planning applications for wind farms:

“Planning applications must contain a Community Report prepared by the applicant which will specify how the final proposal reflects community consultation. The Community Report must also outline steps taken to ensure that the proposed development will be of enduring economic benefit to the communities concerned”.

The *Draft Revised Wind Energy Guidelines* (Department of Housing, Planning and Local Government, 2019) has retained this position stating the following:

“In order to promote the observance of best practice, planning authorities should require applicants to prepare and submit a Community Report with their planning application and a condition on any subsequent planning permission should require developers to carry out the development in accordance with the approved Community Report”.

This Community Report prepared by the Coillte team outlines Coillte’s engagement and liaison with the community local to the Carrownagowan area and the proposed wind farm.

2 BACKGROUND

Coillte has a long history of working with communities and our experience around the country has generated an inherent understanding of the communities in which we operate. We aspire to work **with** the communities surrounding our energy sites and wish to build projects that are good for us as a commercial company, good for our neighbours, and that contribute to the fulfilment of national and global Climate Change objectives.

Coillte has developed four wind farms in Ireland over the past decade and has learnt many valuable lessons in relation to working with local communities and the importance of including local people in decisions that affect them. In 2017, the Renewable Energy Team undertook a review of our Community Engagement process and embarked on the design of a radically enhanced approach with the support of AstonEco Management.

The key elements of this approach, referred to as our 'Fair Play' model are:

- Detailed and systematic engagement with all close neighbours to the project (within 2 km of proposed turbines) from a very early stage of project design.
- Open, transparent dialogue and communications.
- Creating opportunities for open, two-way dialogue on key issues.
- Involvement of the local community at all stages of the project design process.
- Empowering local communities to be part of project discussions that affect them.
- Ensuring that the local community have access to all relevant information as soon as it is available, in an understandable format.

The approach for the Carrowmagowan Wind Farm project emphasised a focus on the residents of dwellings within 2 km of the initial 24 turbine layout as these people would be closest to the development and would therefore be most sensitive to any potential effects caused by the development. In the past, engagement has commenced when the project is almost fully designed and being prepared for planning submission. In our 'Fair Play' approach we start engagement as soon as a site has been identified as suitable for detailed environmental studies within the Coillte internal screening process. The approach also recognises the need to keep people further away from the development informed about the project as details become more defined.

In order to build better projects we have recognised the imperative of enabling meaningful engagement between the project team and the local residents. This engagement has to pass beyond just information provision, and through open, transparent dialogue and the involvement of people in decisions that affect them, move towards a more collaborative approach to infrastructure design that has a National interest but a local impact.

What are our external drivers for Stakeholder Engagement?

- Actively engaging in the conversation helps raise awareness and provides insight that can ensure successful project outcomes for everyone.
- Active and open dialogue with our community stakeholders is essential for the success of our projects. It is through two-way dialogue that Coillte Renewable Energy can responsibly partner with local communities.
- Coillte Renewable Energy is committed to strengthening partnerships with local communities.

- Public support is achieved by actively working with communities towards mutually desirable goals. Meaningful communication with stakeholders creates trust and mutual respect, as well as a shared understanding and vision of what a successful project can look like.
- Timely, proactive, open and honest communication is a cornerstone of our Engagement Charter. This approach helps to minimise possible adverse impacts on our neighbours and instead helps to achieve positive social, economic and environmental outcomes.
- In line with national policy, Coillte Renewable Energy are committed to meaningful consultation, which brings about constructive local dialogue, as well as mutual trust and understanding.

3 COILLTE RESOURCES

In order to implement this 'Fair Play' approach Coillte have resourced this project with a number of dedicated staff from the outset. The following key personnel have been involved in Community Engagement on the Carrownagowan Project from within Coillte:

Gerard Hynes, a native of North Clare, is our Project Manager. A qualified Civil Engineer, Gerard has worked for Coillte for thirteen years covering projects in both forest roads design and construction, as well as the full process from concept design to construction of wind projects.

Andy Fox is our Community Engagement Manager. Andy has spent the past 18 years working hand in hand with communities to drive towards sustainable local development. Andy leads a team of three and has full responsibility for the development and implementation of Coillte's Community Engagement Strategy and Policy, with a focus on enhancing social acceptance across Coillte Renewable Energy's portfolio of development projects.

Michael McNamara is our Community Liaison Officer. Michael has worked with Coillte in all aspects of forestry during a twenty year tenure. He has vast experience of forestry and engineering and comes with a deep understanding of both the local community and the needs of the local area.

Christy O'Dea is also a Community Liaison Officer. Christy has worked in forestry for over forty years. A native of Limerick he has lived in the area for 25 years and has a wealth of knowledge of the community, the Coillte estate and neighbouring landowners.

Carol Ryan is our Communications Manager. Carol has worked with Coillte since 2001 across various business units in communications and project management roles. She looks after communications across our suite of renewable energy projects.

Tom Costello has worked as a Forest manager for Coillte for over 30 years. Tom has recently been involved in Community Liaison work on various projects across the Coillte portfolio. He has extensive experience on community engagement and the implementation of Community Benefit Funds, Near Neighbour Schemes and Energy Efficiency Schemes. Tom has also been involved in all aspects of forestry and community engagement during his thirty five year service with Coillte.

A major focus of the engagement approach has been to make the technical design team more accessible to local people. At various stages of the project the following specialists from MWP and their sub-contractors together with Coillte have engaged with local individuals and groups on topics including; noise, visuals, ecology & biodiversity, birds, archaeology & cultural heritage, engineering layout & design, statutory & non-statutory consultation, community benefit and biodiversity enhancement.

List of Specialists

Ken Fitzgerald, is our lead in the EIAR with Malachy Walsh and Partners (MWP) consultancy in Tralee, Co Kerry. Ken has over 16 years' experience in Renewable energy. He heads up the environmental and planning department within the company and manages a team of engineering and environmental specialists that work on a wide diversity of projects, in energy, commercial and wind farms, Pumped Hydro Energy Storage projects covering all aspects including EIS, EIA, Appropriate Assessments, Ecology, Noise, Air, Engineering, Visual Impact Assessments, Photomontages for wind farms.

Helen Burman Roy - MWP Project Manager BSc, MSc, PIEMA

Helen is a Senior Environmental Consultant with 20 years commercial experience gained in both the US and Ireland. She is an environmental impact assessment project manager and practitioner having managed and been a contributing author on numerous project EIAs including Lettercraffroe, Toberatooreen, Scartaglen and Beennanaspuck wind farm projects. She also has health and safety expertise. Helen has authored numerous specialist reports including: land, soils and geology, human beings impact and material assets assessments for project EIAs.

Ecology, Ornithology specialist - Caoimhín o Neill - Bsc Ecologist

Caoimhin is an ecologist with Malachy Walsh and Partners since 2012. He has filled the role of Environmental Manager on multiple construction projects, including numerous windfarm developments, supervising daily construction activities on site and ensuring Environmental Planning Compliance. His skills include an extensive knowledge of field survey techniques and methodology, invasive species identification/management, ornithological surveys, mitigation design, water quality assessment, Appropriate Assessment and Ecological Impact Assessment. He is experienced in a range of field surveys techniques and methodologies for birds, invertebrates (aquatic and terrestrial) and mammals such as badger, otter and bats. Caoimhin has conducted a number of pre-construction bat roost and bat activity surveys for projects such as existing/proposed wind farm and existing bridges. He is also experienced at habitat surveys. He has completed Appropriate Assessments, Stages 1 and 2, and Ecological Assessments for a wide variety of projects.

Bird Expert - John Murphy - Ornithologist

John Murphy is an ornithologist, wildlife expert and wildlife documentary maker. He has been working in the field of ornithology and ecology since 1982. He has extensive knowledge of the landscape and in particular bird populations in this country. He collaborates regularly with NPWS on different projects throughout the country. John has been working as part of the MWP Environmental and ecology team on a variety of upland wind farm projects in the west and south west of the country since 2010. John is one of the country's foremost ornithologists and is a licensed bird ringer. He has always had an interest in wildlife photography and his work has been published in many magazines and books. As a 'Heritage in the Schools Specialist', he has travelled the country lecturing in schools and colleges, and to various clubs and organizations. He was the Biodiversity Officer with Clare County Council. He spends as much time in the field as possible, observing the wide range of biodiversity that Ireland has to offer.

Aquatic Ecology - Ger Hayes – BSc, MIEEM, FBA Aquatic Ecologist

Ger is a Senior Aquatic Ecologist with over 11yrs experience in environmental consultancy. He has been part of project teams for EIA projects including for wind farms. Ger has authored a number of Water chapters for EIA projects.

Noise Specialist - Peter Barry – Environmental Consultant B.Sc. M.Sc. AIEMA, AIOA

Peter has 15 years' experience across a variety of environmental topics and has expertise in the measurement, assessment, prediction and control of environmental noise and is a member of the Institute of Acoustics and the Institute of Environmental Management and Assessment. He is an environmental scientist and environmental impact assessment practitioner.

Landscape and Visuals – John Flanagan – BSc Visualisation Consultant

John is a visualisation consultant with over 12 years' experience providing photomontage and mapping services to the planning industry. Throughout his career, John has worked on many different projects including wind farms, solar farms, road schemes, bridges, power-lines and numerous other engineering and architectural developments. John has worked on numerous projects in Galway including Lettercraffroe Wind Farm, Knockranny Wind Farm & Ugool Wind Farm.

4 SUMMARY OF COMMUNITY ENGAGEMENT CARRIED OUT

Engagement commenced in March 2018 with the appointment of Michael McNamara and Christy O’Dea as the CLO’s for the proposed project. Both Michael and Christy, having worked and resided within the wider local area over a 40 year career, were ideally placed to lead the engagement process with the near neighbours.

As outlined above, Coillte emphasises a focus on the residents of dwellings within 2 km of the site as these people will be closest to the development and will be most sensitive to any potential effects caused by the proposed development. In commencing the engagement, we needed to identify the 2 km zone to commence within. This was achieved by taking the initial “notional” 24 turbine layout and applying a 2 km buffer. Within this area all dwellings, lived in, vacant and with the potential to be occupied were mapped. As the design progressed we established a “buildable” or more accurate developable area. We then buffered this area by 2km and continued the engagement with the residents in this area.

The individual house engagement continued from March 2018 throughout the design period and was only curtailed as a result of the COVID-19 pandemic movement and travel restrictions in March 2020. As part of this process, a low-call number and project email address were created to aid communication. All those who expressed an interest agreed to their inclusion in an email group for two way traffic such as raising queries and receipt of answers in addition to facilitating updates and circulation of information to all parties. As the engagement continued, the list extended as other interested near neighbours, some from outside the 2 km area requested to be added. As the project is in a rural area some people had limited access to internet based communication, therefore all those not on the email mailing list received all information circulated in print from the CLO, who was always available to answer any queries or bring concerns to the project team. Through the dual email and hand delivery approach, we were able to engage with all neighbours within the immediate zone and were easily accessible for any queries.

References:

Included in **Volume III, Appendix 5-1.**

- 1) Ref 5.1 Clare Champion media query 230418
- 2) Ref 5.2 Clare Champion piece July 2018 - 130718
- 3) Ref 5.3 Carrownagowan leaflet 1 - 160718
- 4) Ref 5.4 Carrownagowan Leaflet 2 - 160718
- 5) Ref 5.5 Carrownagowan Covering letter to residents - 160718
- 6) Ref 5.6 Clare Champion newspaper piece 180718
- 7) Ref 5.7 Carrownagowan yellow line outline map 300718

Small **group meetings** commenced in November 2018 in clusters in Caherhurly and Carrownakilly. These meetings progressed discussions on specific topics with a wider group of people in a more open and transparent manner.

(See Ref 5.8 Carrownagowan Viewpoint locations for wireframes to share with neighbors 111118 and Ref 5.9 Carrownagowan layout for wireframes 24 turbines 111118)

One of the positive by-products of our engagement was that the small group meetings, together with house visits and the email circulation list helped establish relationships between neighbours who hadn't heretofore known each other, which had the effect of bringing people together in the area.

Larger group meetings commenced in January 2019, and continued regularly until February 2020. Our planning and environmental consultants, MWP, were present at the larger group meetings together with specialists for various aspects of the ongoing studies. The Coillte Engagement Manager, the project CLO and Project Manager were also in attendance. An update of the studies including the engineering layout and design was circulated at each meeting as well as specific material on requested topics for wider discussion. All meetings included time for questions and answers. Specialist meetings gave local residents the opportunity to run their issues or concerns by the consultant experts. Examples of topics covered include; Landscape and visual impact, Ecology, Noise and Engineering. Individual issues raised at these sessions were followed up on and in some cases the team carried out supplementary pieces of work. For example, individual queries on visuals where our landscape and visuals specialist prepared photomontages from requested locations to give the resident a clearer picture of expected visuals and in most cases provide comfort to the resident on the impacts.

During the second half of 2019 residents became interested in the benefits of the project and specifically the Community Benefit Fund. The project team contracted Tipperary Energy Agency to facilitate a series of workshops aimed at developing an initial framework for this fund. For two of these workshops a local accountant and solicitor were contracted to come and contribute to the discussions and advise the local group.

Information was circulated to the local group in relation to national issues of relevance including notification of the issue of the Renewable Energy Support Scheme (RESS) draft Terms and Conditions for public consultation and the draft Wind Energy Development Guidelines for public consultation in December 2019 and how to input feedback within this process. A representative from the DCCAE attended one such meeting to solicit feedback from the group with regard to the proposed RESS, and many of the changes suggested were later reflected in the final Terms & Conditions for RESS 1.

Two newsletters were circulated at the early engagement stages in June / July 2018, to introduce our team and the project, to outline our inclusive approach, to answer some of the early queries we had received together with circulation of contact details for the team. These newsletters were circulated to all within the 2 km zone. The subsequent individual engagements, the small group and larger group meetings provided updates and information post the initial newsletters.

A third newsletter was developed in November 2019 and distributed to all houses within 5km of the site. This newsletter presented the project timelines, a layout map with details on specific areas of the EIAR, details of the proposed grid connection route, set back distances being applied in this project and contact information for the project team.

When the design of the proposed project and the studies were largely completed, we compiled the information into a 24 page booklet, which was circulated to all houses in the East Clare postal region (6400 houses) in May 2020. The information contained within this booklet, together with photomontages and constraints maps were all made available on the project website. (See Ref 5.36 Carrownagowan Wind Farm Brochure April 2020).

As an Open Evening was not an option due to COVID-19 public health restrictions, the team contracted Innovision Media Ltd to prepare an online, virtual tour of the project, presenting the main design components and key elements of the EIA. This can be found on the project website (www.carrownagowanwindfarm.ie). The purpose of this event was to continue to provide detailed information about the project to a wider audience and to solicit comment and feedback. At the time of submission the total number of visits to this online platform was 1117.

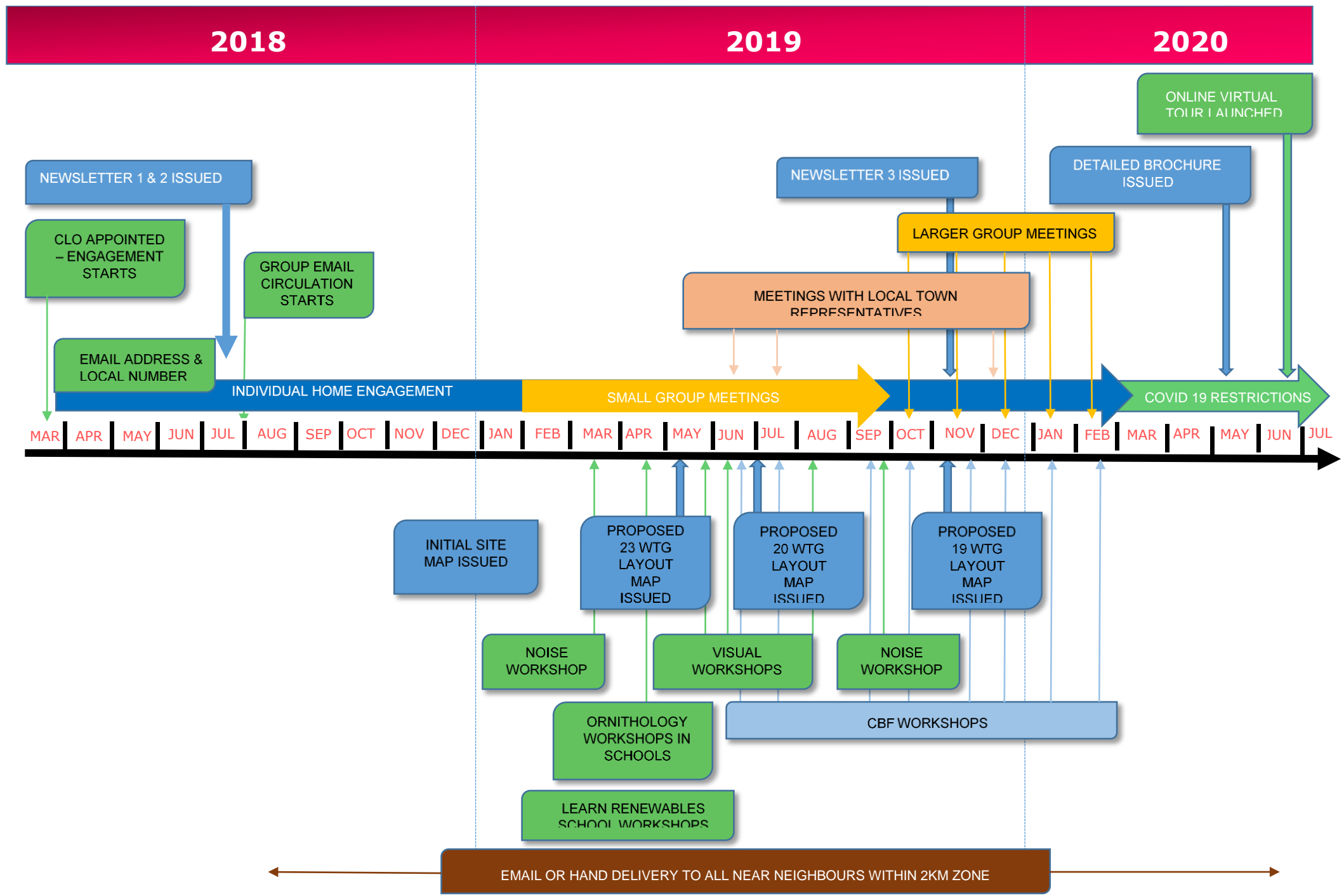
A summary of all engagements is included in Table 1 below and the main milestones are displayed schematically in Figure 1 below.

Date	Engagement Activity	Participants	Notes
March – May 2018	First round of door knocks in 2km zone	C 50 households within the 2 km zone	Engaged with area 2km from potential development area taking in townlands of Caherhurly, Ballydonaghan, Drummod, Inchalughoge, Drummin, Killuran More, Cloonagheen east, Cloonagheen West, Barbane, Carrownakilly, Lackabrunner, Carrownaun, door to door, follow on calls, emails with c 50 residents
July - Sept 2018	Second round of door knocks in 2km zone	Residents in the 2km zone	Shared map as part of the initial engagement showing the potential development area. (Ref 5.11 Carrownagowan engagement map potential development area 010318)
16th July – 26th July 2018	Distribution of Leaflet 1 & 2	Residents in the 2km zone	<p>Leaflet 1 and 2 distributed by the CLOs to the 2km zone during the middle of July, CLOs gave project updates and had the opportunity to meet with residents once again</p> <p>July – August 2018 Produced a draft of a development area post constraints analysis and initial desktop studies, used this during engagements (Ref 5.7 Carrownagowan yellow line outline map 300718)</p>
13th July 2018	Article in Clare Champion		
Nov – Dec 2018	Continued house to house engagements	Residents in the 2km zone	<p>Continued the engagement within the 2km zone and provided the residents with a set of wire frame drawings showing the visual impact of the proposed turbines</p> <p>1) (Ref 5.8 Carrownagowan Viewpoint locations wireframes 111118)</p> <p>2) (Ref 5.9 Carrownagowan layout for wireframes 24 turbines 111118)</p>
1st February 2019	Caherhurly Meeting		
1st March 2019	Caherhurly Meeting	Caherhurly and Inchalughoge residents	Met with the Caherhurly, Inchalughoge residents following on from January and February group meetings in one of the local residents house

			(Ref 5.12 Carrownagowan community meeting agenda March 19)
14th March 2019	Noise Workshop 1	Caherhurlly and Inchalughoge residents	Information note re preferred draft approach of WEDG review shared with group (Ref 5.13 ENCA WEDG review information note preferred draft approach and noise workshop)
28th March 2019	Caherhurlly and Inchalogue Meeting		Invited Ecologists Caoimhin O'Neill & Ger Hayes to present to the group
1st April 2019	Ornithology workshops in local schools (Tuamgraney, Broadford, Bodyke and Kilaloe)		Run by John Murphy from Birdwatch Ireland (Ref 5.14 Schools bird info days April 19)
Spring 2019	Learn Renewables School Workshops	National Schools Bodyke, Tuamgraney, Broadford, Ogonnelloe, Scarriff Steiner and St Annes Community college Killaloe secondary school.	Learn renewables visited National Schools Bodyke, Tuamgraney, Broadford, Ogonnelloe, Scarriff Steiner and St Annes Community college Killaloe secondary school to run workshops focused on Renewable Energy.
19th April 2019	Clare FM radio interview with Carol Ryan		
2nd May 2019	Caherhurlly Meeting	Caherhurlly and Inchalughoge residents	(Ref 5.15 Community meeting agenda May 19)
20th May 2019	23 turbine layout shared with 2 km zone residents	Caherhurlly and Inchalughoge residents	(Ref 5.16 Carrownagowan 23 turbine layout community meeting May 19)
30th May 2019	2 km zone meeting in Scarriff Office with virtual reality presentation and individual experience provided by John Flannigan (Innovision) and a presentation from Tiperary Energy Agency on their experiences of working on energy projects with communities.	Local Group – Caherhurlly and Inchalughoge residents Innovision TEA	
17th June 2019	Meeting with representatives of Ogonnelloe Village	Innovision	(Ref 5.17 Carrownagowan Community meeting Ogonnelloe group)
17th June 2019	20 WGT layout shared with local group	Caherhurlly and Inchalughoge residents	(Ref 5.18 ENCA Layout 20 WGT - 170619)
25th June 2019	Visual workshop with Ogonnelloe residents	Ogonnelloe residents	(Ref 5.19 ENCA Carrownagowan 250619)
27th June 2019	Community Meeting with Killuran / south west Group		Gave update and shared the 20 WGT Layout (Ref 5.20 Carrownagowan Community presentation SW meeting SW group 270619)
27th June 2019	1st CBF workshop with Caherhurlly Group + TEA		
4th July 2019	Bodyke reps meeting	Bodyke Community representatives	(Ref 5.21 ENCA Bodyke community representatives meeting 040719)
16th July 2019	Community Meeting with Caherhurlly Group	Caherhurlly and Inchalughoge residents	(Ref 5.22 ENCA Community meeting agenda 160719)

22nd August 2019	Community Meeting with Killuran / south west Group	South West residents	Update meeting and virtual reality workshop (Ref 5.23 ENCA Community meeting 220819)
5th September 2019	Noise workshop with Peter Barry (Enovi) in Scarriff	South West residents	Noise workshop 2 Carrownagowan WF 050919
26th September 2019	Community Meeting	Caherhurlly and Inchalughoge residents	CBF workshop + presentation of noise contour map 1. (Ref 5.24 Community Benefit fund Terms of reference discussion at meeting 260919) 2. (Ref 5.25 ENCA L90 8ms night contained Noise contour noise workshop 260919) 3. (Ref 5.26 ENCA Tipperary Energy Agency meeting 260919)
10th October 2019	Bog Road visuals video shared with group and uploaded onto website		Visuals video Carrownagowan link uploaded to project website
24th October 2019	Full communitiy group meeting CBF Workshop	Caherhurlly, Inchalughoge and Killuran residents	First meeting of merged single community group (Ref 5.27 Community Benefit fund terms meeting 241019) (Ref 5.28 Community meeting agenda Oct 19 - 241019)
5th Nov – 30th Nov 2019	Distribution of Newsletter 3 to 5km		185 Households (Ref 5.29 ENCA Carrownagowan Newsletter 051119)
27th November 2019	Full Community Meeting and CBF workshop		Local Accountant and Solicitor gave a presentation re implications of different scenarios in the CBF (Ref 5.30 ENCA Community meeting Agenda Nov 271119) (Ref 5.31 ENCA Benefit Fund accounting / Tax presentation 271119)
4th December 2019	Meeting with Ogonnello representatives	Ogonnello representatives	(Ref 5.32 Carrownagowan Community meeting Ogonnelloe representatives 041219)
4th December 2019	Meeting with Tuamgranney / Bodyke representatives	Tuamgranney / Bodyke representatives	(Ref 5.33 Carrownagowan Community meeting Tuamgranney / Bodyke 041219)
9th December 2019	Meeting with Broadford representatives	Broadford representatives	(Ref 5.34 Carrownagowan Community meeting Broadford representatives 091219)
16th December 2019	Update by email to community group		Briefing on RESS consultation email
9th January 2020	Full community group meeting	Enda Gallagher from DCCAE present	Review of RESS and discussion of implications

20th February 2020	Full Community Group meeting	Caherhurly, Inchalughoge and Killuran residents	CBF Framework (Ref 5.35 ENCA Community Benefit fund key principles Feb 200220)
10th April 2020	Progress update emailed to local group regarding community benefit fund	Caherhurly, Inchalughoge and Killuran residents	
May 2020	Carrownagowan Brochure distributed to 6400 houses in East Clare Postal Region		(Ref 5.36 Carrownagowan Wind farm Brochure April 2020)
16th May 2020	Scarriff Bay Community Radio Interview	Andy Fox, Community Engagement Manager	Andy Fox Scarriff radio interview 160520
18th May – 28th May	Series of phone / zoom engagements with residents in Bodyke, Ogonnelloe	Project Team	
29th May 2020	Clare Champion article on Carrownagowan		(Ref 5.37 Clare Champion piece on Wind Farm 290520)
9th June 2020	Online pre planning Open Event made available on project website		Carrownagowan online open event
19th June 2020	Meeting with Killaloe Municipal District elected members	Coillte Project Team	(Ref 5.38 Meeting Clare Co Co Killaloe elected members 190620)
July – Nov 2020	Responses to queries through phone calls, project emails and website	CLO and Project manager	
19 th Nov 2020	Virtual meeting with local community 2km zone prior to planning submission	Project team	(Ref 5.39 Meeting Agenda)



5 INFLUENCE OF ENGAGEMENT ON THE EVOLUTION OF THE WIND FARM DESIGN

As outlined in Section 4 above, the engagement process undertaken on the proposed project has given the project team a detailed appreciation of the issues and concerns of the near neighbours. This close working relationship has facilitated the evolution of the project design to understand and alleviate the concerns expressed as far as possible.

The local meetings and engagement with residents who lived here all their lives or who had a keen interest in the environment was hugely beneficial to the project team. Listening to and respecting this local knowledge gave us additional information, for example streams and rivers on the mountain that were fished regularly by local people and recommendations on spawning beds and stream enhancement lead to this being included in Biodiversity enhancement measures for the project.

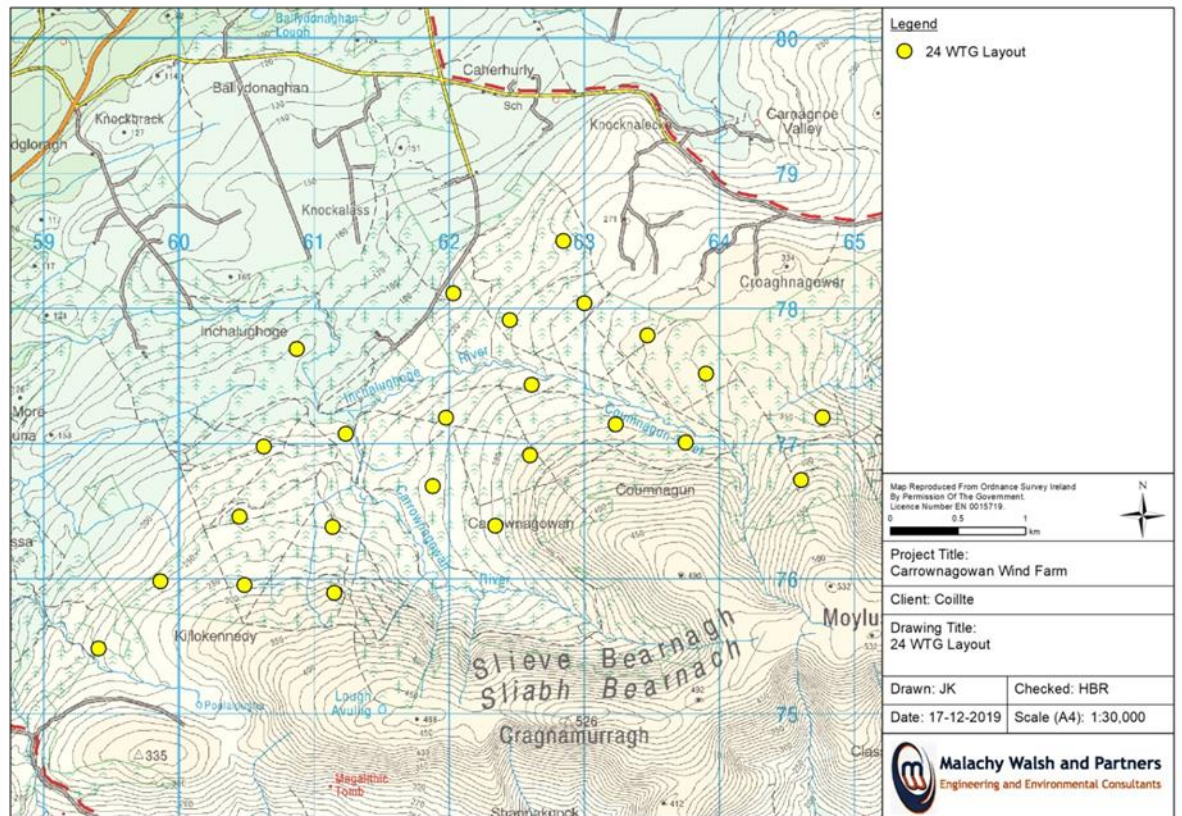
The main concerns expressed together with their impact on the design evolution are set out below.

- Noise – concerns from residents to the North of the proposed development led to increasing our buffer or set back from 750 metres to 1000 metres to the nearest residence.
- Three turbines to the north were sighted at lower levels to reduce the impacts of the project on the Lough Derg area to the east of the mountain.
- The local community were the main drivers of the Proposed Community Benefit Fund breakdown in line with RESS information guidelines.

Below is a step by step run-through of the wind turbine design process from desktop to final layout giving an account of both the design criteria and the community input:

- a) An indicative **thirty one** turbine layout was proposed (note this layout was never shared with the public as we knew that further studies and assessments such as peat depths and slope analysis would eliminate a number of potential turbines). The project commenced with an in-depth constraints analysis which produced a “buildable area” and included the identification and collation of all known constraints within the proposed site and surrounding area, including streams, statutorily designated sites, recorded archaeological sites & monuments and telecommunications links etc;
- b) A non-constrained area for investigation which was potentially suitable for turbine siting was then developed. Watercourse buffers of 75m were maintained for the turbines and hardstand areas and a setback to nearest houses of 750m was applied. An initial turbine layout was developed of **twenty four** potential turbines.

Carrownagowan: 24 Turbine Layout



- c) These **twenty four** locations were then buffered by 2 km to allow the 2 km area to be identified. Engagement then commenced with all houses within the 2 km area together with a number of houses located just outside the 2km area where neighbours indicated an interest in the proposed development. (See Ref 5.11 Carrownagowan engagement map potential development area 010318)

Noise modelling was carried out using the loudest turbine under consideration, this was modelled for the 24 turbine layout.

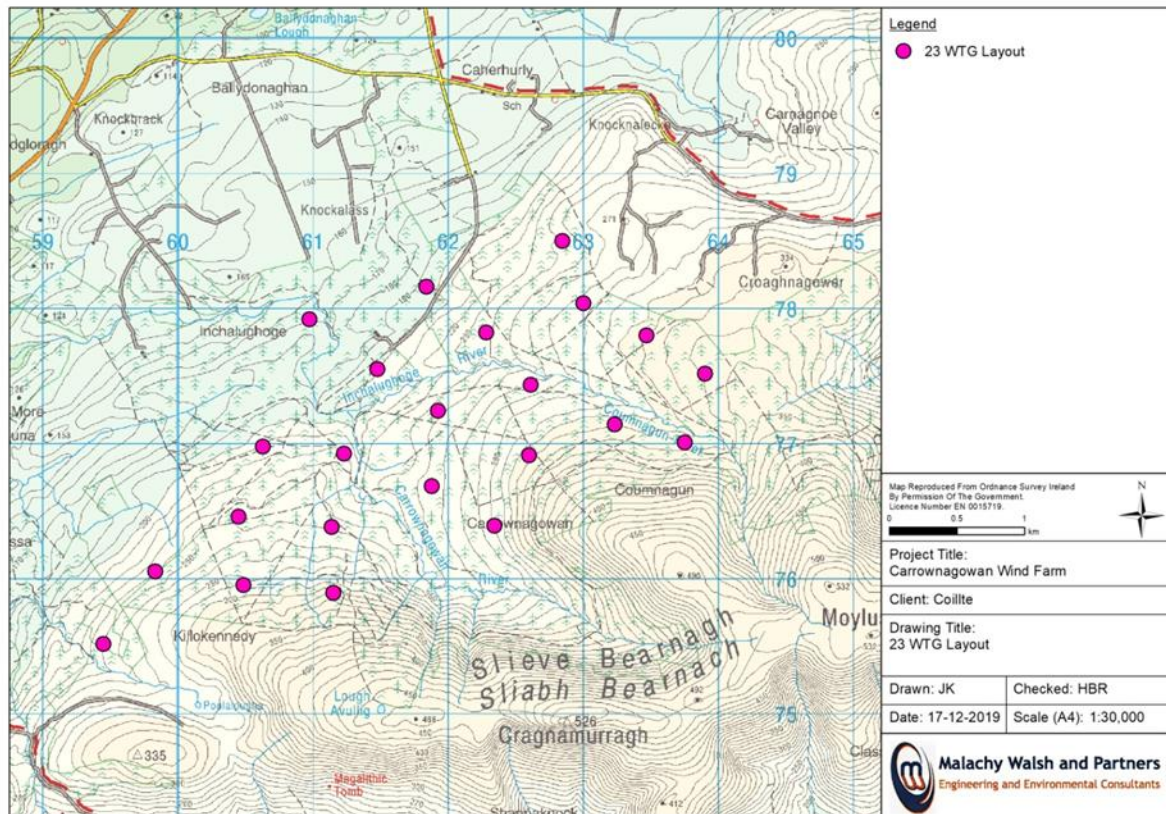
A preliminary desktop modelling exercise was undertaken using computer software in order to locate noise sensitive receptors (NSR) which may be affected and to identify suitable locations at which to monitor background noise. The first iteration of the wind turbine layout was inputted into the software using noise data for the candidate turbine representative of the type that could be installed on the site.

- d) The **twenty three** turbine layout reduced the proposal by one turbine overall but significantly relocated the proposed turbines within the site based on a fine tuning of the buildable area. The terrain model generated was used by MWP engineering team to define the ground surface gradients and the acceptable slope where turbines and their associated hardstands could be constructed safely and with minimum environmental risk. This involved the omission of the two easterly turbines of the previous (twenty four turbine) layout as a result of steep

gradient and deep peat, the hydrological-connectivity to the Annacarriga river catchment, and information of a historical landslide.

Although two turbines were dropped from the east, further layout optimisation within the buildable area, which factored in all constraints, yielded a twenty three turbine layout.

Carrownagowan: 23 Turbine Layout

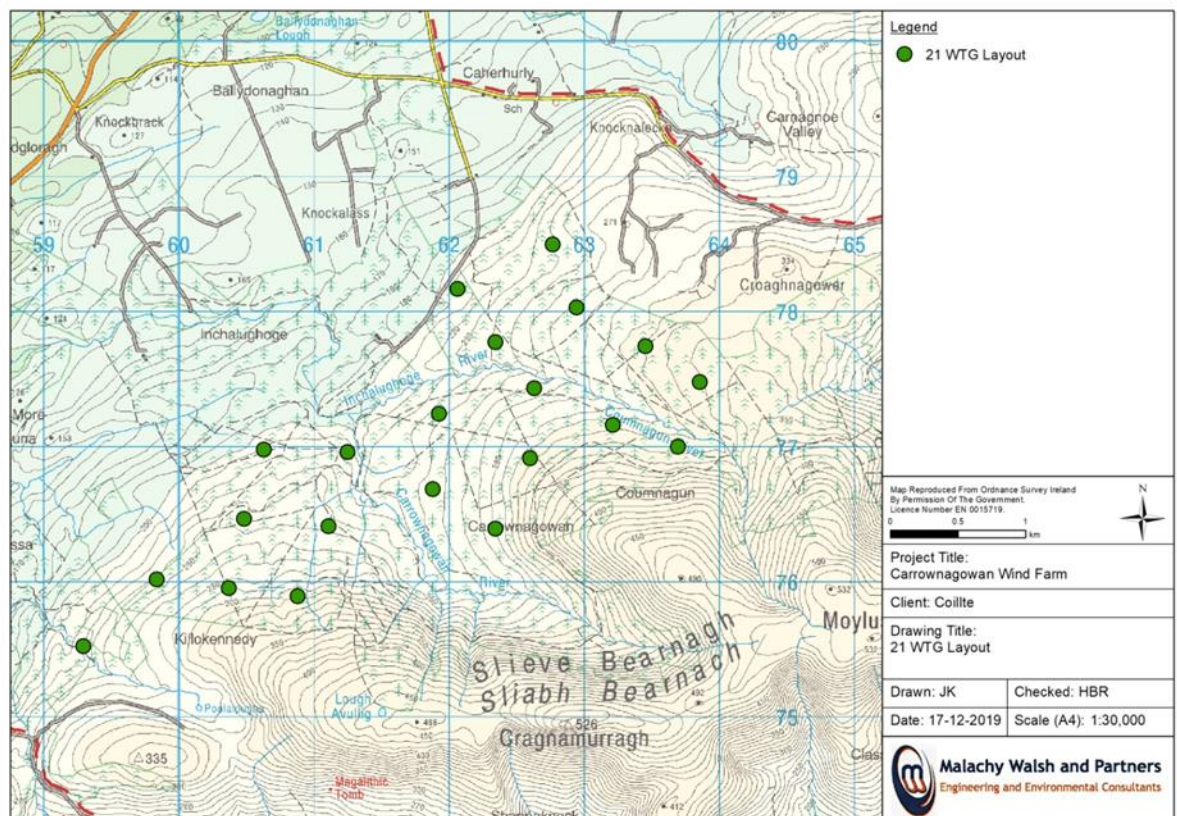


f) The **twenty one** turbine layout represented a further evolution as baseline data from the field was collated and analysed, in particular peat data and feedback from the ecologists studying the site biodiversity.

The alternative twenty one turbine layout was designed taking account of constraints including;

- Areas of deep peat .
- Noise modelling results – resulting in further setbacks from the north of the site.
- Avoidance of Biodiversity areas.

Carrownagowan: 21 Turbine Layout



(g) It was at this layout iteration that the biggest influence of the communities involvement could be seen.

The **twenty** turbine layout increased the setback to the nearest residences of the local population from 750m to 1km. In reviewing the 21 turbine layout and the noise assessment, a decision was taken to increase the setback. There was no issue with noise or with complying with the 2006 guidelines and the separation distance was over the four times the tip height, as referred to in the Department circular on the preferred draft approach to the revision of the Wind Energy Development Guidelines.

Coillte facilitated a noise workshop with the local community and MWP's noise specialist Peter Barry of Enovi. The workshop helped the community to better understand the current DoEHL Government guidelines, the World Health Environmental noise guidelines, methodology around capturing baseline information and the existing background noise. Also information on standards and input parameters for the turbine noise modelling and the turbine sound power levels assessment criteria.

Following the workshop we had a number of individual discussions with the residents to the north and north east of the wind farm. They understood that they were on the downwind side of the wind farm with the prevailing winds coming from the south and southwest and also that this is the area where the biggest noise impact would be. To give these residents more comfort or peace of mind that the setback was sufficient we decided to remove the northern turbine which was labelled

Turbine 1 at the time and increase the buffer between the wind farm and the nearest residence from 750 metres to 1000 metres.

Other concerns raised locally were with regard to tourism and visual amenity especially from Moylussa and from Lough Derg and Holy Island. As part of our visual and landscape assessment our specialists recommended moving the northeast turbine from the 21 turbine layout further west which resulted in reducing the impact from the end of the board walk at the summit of Moylussa where only two turbine blade tips can now be viewed from this location compared to before where the hub of one turbine and 3 turbine blades were visible

View from Moylussa prior to 20 turbine layout



View from Moylussa, final layout



The two neighbouring north east turbines were moved 50 to 100 metres downslope which reduced the impact from the eastern viewpoints such as Holy Island and Lough Derg.

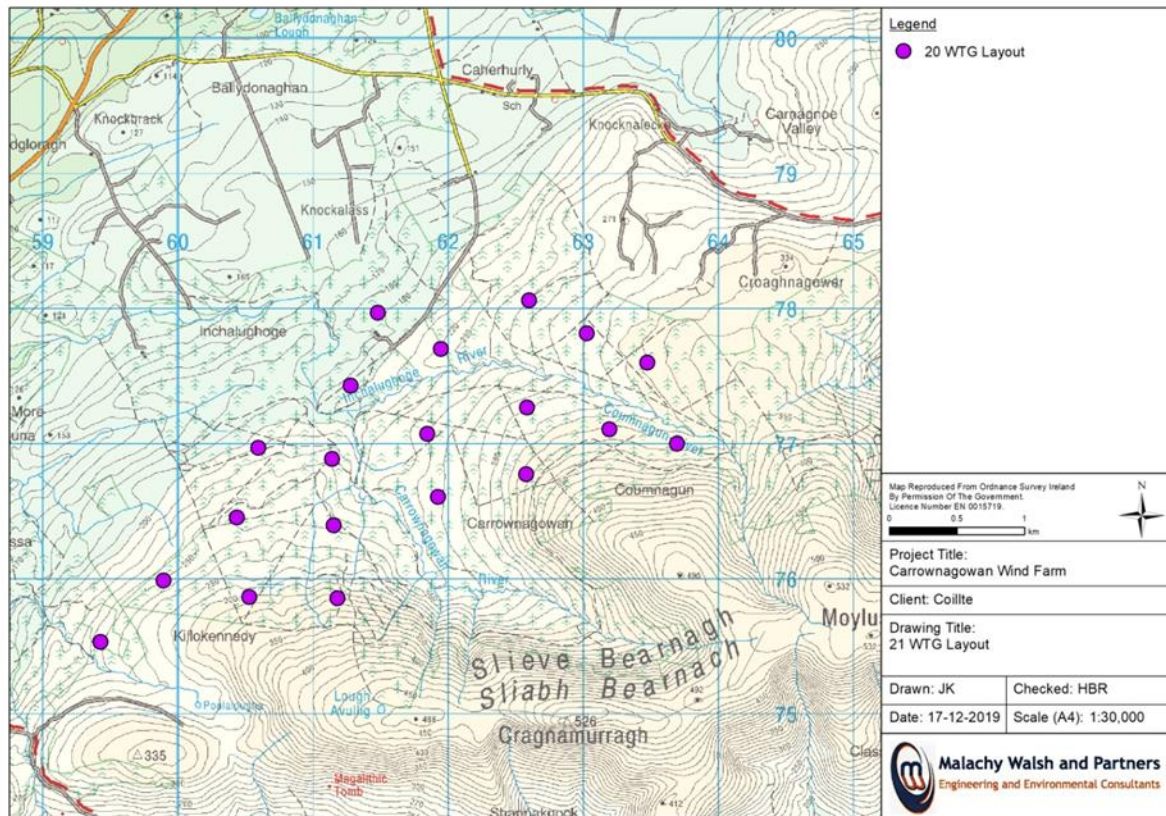
View from Lough Derg prior to 20 Turbine layout



View from Lough Derg final layout

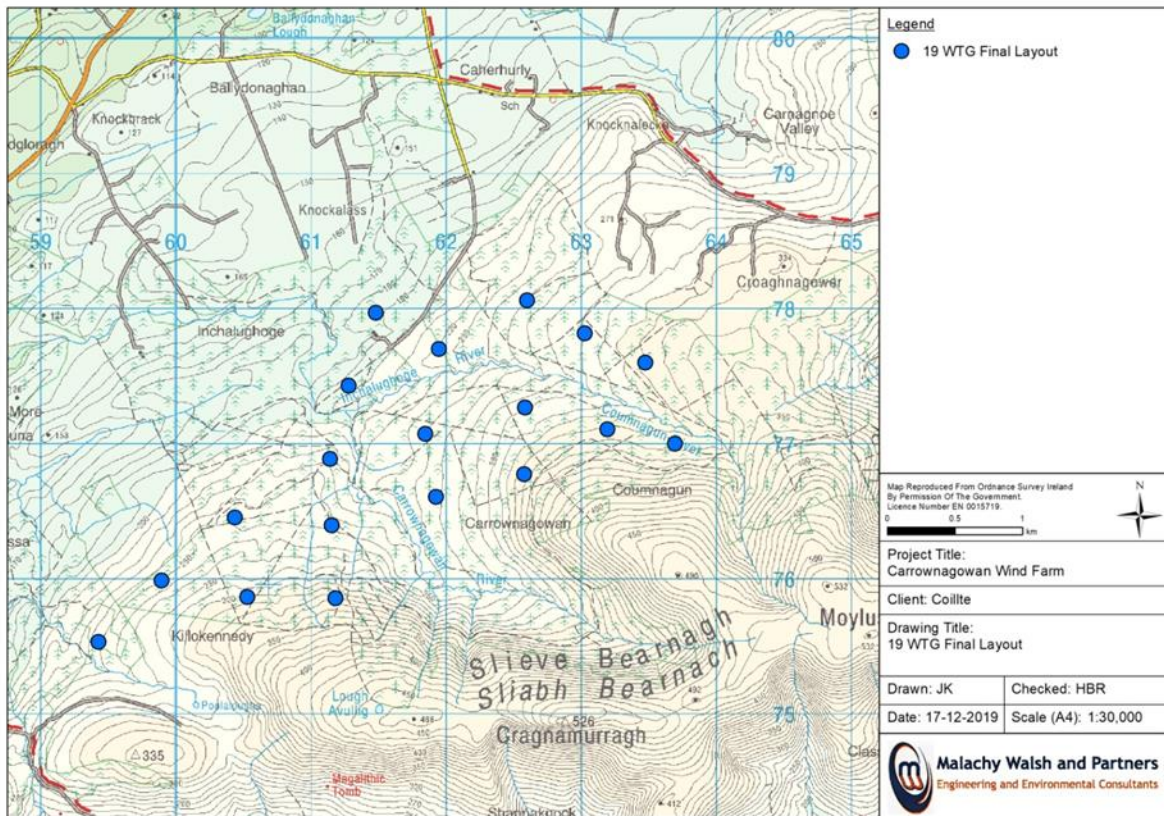


Carrownagowan: 20 Turbine Layout



h) The final layout, includes **nineteen** turbines. The final design change was to remove one turbine to increase the size of a biodiversity exclusion zone to the northwest of the site. There was no further revision to the remaining 19 turbines at this point.

Final Carrowmagowan Layout: 19 Turbine Layout



6 COMMUNITY ENGAGEMENT IN THE WIDER AREA

Figure 5 below shows the proposed project relative to local communities and settlements and outlines the area within 10 km of the proposed wind farm.

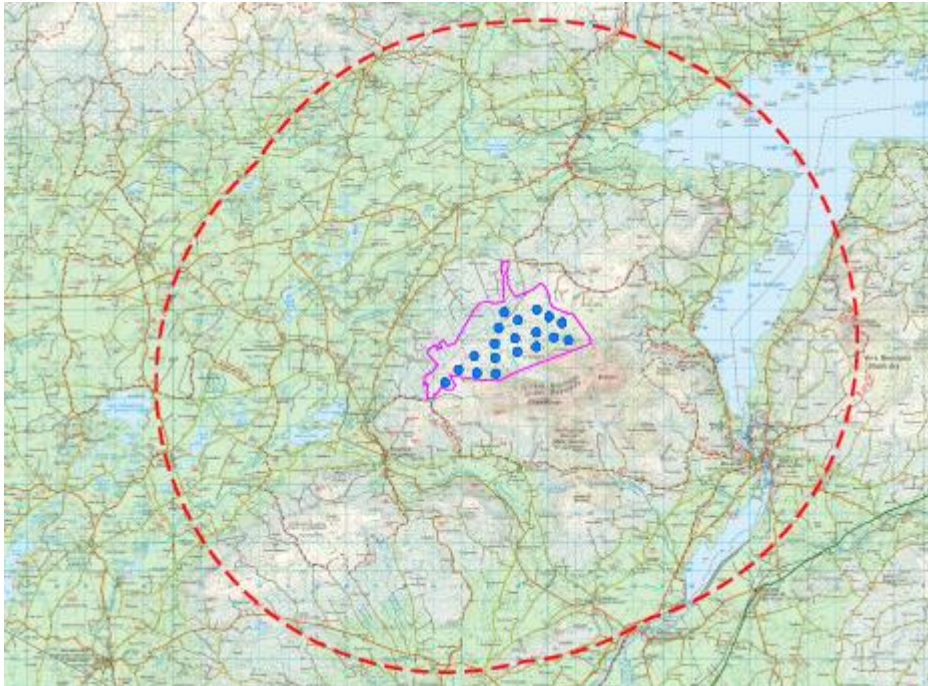


Figure 5 – Map outlining a 10km distance from proposed turbines

In Spring 2019 our EIAR bird specialist visited local schools: Bodyke, Broadford, Tuamgraney and Scarriff Steiner to carry out information workshops for our younger generation with regard to birds and wildlife.

Learn Renewables a group based out of Dundalk Institute of Technology visited the local primary schools and St Annes Community College Killaloe to run workshops explaining the role that renewable energy will play in the country's energy future with a focus on wind energy. The workshops helped students understand how wind energy works as it contributes an ever increasing proportion of our electricity. <http://learnrenewables.com/schools-workshops/>

Two sets of meetings were held with representatives from each of the four nearby towns (Ogonnelloe, Tuamgraney, Bodyke and Broadford). These meetings were held towards the end of the design process once there was more concrete information and a solid layout. They involved a briefing from the project team with accompanying maps, visual presentations including a virtual reality tour of the proposed project and photomontage work and then a question and answer session.

Newsletter 3 was distributed to all households (185) within 5 km of the project site in November 2019 and the final detailed project information brochure was distributed to all households (6400) in the East Clare Postal Region in May 2020 in order to make sure all local residents in the wider area were aware of the project.

6.1 PUBLIC INFORMATION EVENT - ONLINE

A virtual open event was developed as the planned open evening was unable to happen due to COVID-19 public health restrictions. This event enabled the public to examine many aspects of the project in detail and then revert to the project team with any questions, comments or suggestions they had. At the time of submission there were a total of 1117 visits to this online platform.

7 ONGOING LIAISON AND CONTACT

A number of different phases have been detailed below with differing levels of engagement anticipated depending on the levels of project activity. Underpinning all of the engagement below will be a dedicated Community Liaison Officer for the project who is contactable by email and phone. These details will remain on the project website which will be in place for the duration of the project. As the project progresses, regular updates will be posted to this website.

Post Planning submission until 6 months pre-construction

During this period (12 -24 months) a number of key community related activities will continue to be progressed. The first is a participatory design process for the Carrownagowan Community Benefit Fund (CBF). The team will start a process of reaching out initially to residents within the 2km zone and then slightly further afield, in order to bring together a small group of people who are interested in working on the design and structure of a community based entity that would ultimately run this Community Benefit Fund. This process will start with a scoping exercise followed by a series of facilitated workshops. It is hoped that representatives involved in existing local development initiatives will be stakeholders in this process and will therefore contribute to this strategy.

The second piece of work is to explore the potential for Community Investment in the project as proposed in the new Renewable Energy Support Scheme (RESS). This will follow on from the CBF work stream as we await further guidance from Government and will look at the best ways to promote awareness about this opportunity in advance of it coming online.

Pre- Construction and Construction phase

6 months prior to the commencement of construction on the project we will initiate the set-up of a liaison group. The project will meet with this group on a monthly basis to prepare for the construction phase and monitor activities during construction. This group will develop plans on communicating effectively with residents directly impacted by construction activities and deliveries, especially traffic planning to minimise disruption.

The project will also engage with local suppliers prior to the construction phase in order to outline the projects future needs and promote the use of local suppliers and service providers wherever possible. This may take the form of a “meet the buyer” event.

Operational Phase

The project will continue with a proposed annual meeting with the liaison group to update the group on project performance and address any issues identified. The Community Liaison Officer will also be available throughout this period to directly address any issues raised by local residents. As stated above, the project website will also be maintained as a method of providing regular, up to date information on the project.

Decommissioning Phase

A year prior to the commencement of decommissioning of the project, the project team will engage with all residents within the 2km zone to outline the decommissioning plan and address any issues identified at that time.

In line with the Governments Code of Practice 2016 the project will publish an annual summary report of all engagement activities on the project website.

8 POTENTIAL ENDURING BENEFITS OF THIS PROJECT

Carrownagowan Wind Farm has the potential to bring significant positive benefit to the local community. The project will create sustainable local employment, it will contribute annual rates to the local authority and it will provide opportunity for local community investment in the project in line with the new Renewable Energy Support Scheme. As with all wind farm projects which Coillte develop, a community benefit fund will be put in place for the lifetime of the project to provide direct funding to those areas surrounding the project.

8.1 COMMUNITY BENEFIT FUND

Two important areas of Government policy development are nearing completion which will have a bearing on the establishment of future community benefit funds, the updated Wind Energy Development Guidelines and the Renewable Energy Support Scheme (RESS). Both sets of policy will provide the Government requirements on future community benefit funds for renewable energy projects. We will fully take into account these two important policies as we present the Coillte approach to community benefit.

Coillte expects that for each megawatt hour (MWh) of electricity produced by the wind farm, the project will contribute €2 into a community fund for the RESS period i.e. first 15 years of operation and €1 per MWh for the remaining lifetime of the wind farm.

If this project is constructed as currently designed we estimate that a total of approximately 10 million euro will be available in the local area for community funding over the lifetime of the project. The above figure is indicative only and will be dependent on the generation capacity of the wind farm which is influenced by a number of factors including:

1. Number of constructed wind turbines.
2. Capacity and availability of energy production of those turbines.
3. Quantity of wind.

8.1.1 How the fund will be used and administered?

The Community Benefit Fund belongs to the local community. The premise of the fund is that it should be used to bring about significant, positive change in the local area. To make this happen, our first task will be to form a benefit fund development working group that clearly represents both the close neighbours to the project as well as nearby communities. This group will then work on designing the governance and structure of a community entity that would administer the Community Benefit Fund. We aim to commence this work towards the end of 2021.

Considerable work has already taken place within the Near Neighbour zone. A framework has been developed which provides for some initial guidelines for this fund including how the fund is calculated, the definition of a “Near Neighbour”, the split of the fund between the “Near Neighbour Fund” and the wider “Community Fund”, and the level of representation of the “Near Neighbour” group on the CBF Committee yet to be established. The full framework can be found in [Ref 5.35 Community Benefit Fund Framework](#) as agreed in April 2020.

8.2 COMMUNITY INVESTMENT OPPORTUNITY

The proposed Renewable Energy Support Scheme (RESS) sets out that future renewable energy project proposals enable the possibility for local communities to invest in projects in a meaningful way as a means to directly gain from the financial dividends that a project can provide should it be consented, built and operated. In response to this, Coillte have been working hard with external agencies to develop workable models of Community Investment. We aim to take this work into the community during 2022 to continue to explore this exciting possibility and see how best to embed its design within the community. A pre-cursor to this work will be the release of guidelines from DCCAE on how they envisage this investment opportunity functioning.

8.3 EMPLOYMENT OPPORTUNITIES

It is estimated that the proposed project will create approximately 80-100 jobs during the construction phase and 2-3 jobs during the operational and maintenance phases of the proposed development. During construction, additional employment will be created in the region through the supply of services and materials to the development. In addition to this, there will also be income generated by local employment from the purchase of local services i.e. travel and lodgings.

8.4 BIODIVERSITY ENHANCEMENT MEASURES

Based on discussions with local residents, a number of biodiversity enhancement measures have been incorporated into the project. These can be found in Appendix 6.10 - Biodiversity Enhancement Measures.

9 CONCLUSION / COMMITMENT

As outlined throughout this Community Report, there has been very active engagement on the project throughout the planning design phase to date. We fully recognise however that development of a proposed wind farm is a long and complex process and that there is ample time to jointly develop our community offerings with our near neighbours and other stakeholders, and we will be progressing these should the project receive planning consent.

We would like to acknowledge the huge amount of time and effort this engagement has taken for members of the local community and wish to thank them all for their hospitality, genuine and respectful engagement at all times and patience with us as a project team.

We would welcome a planning condition that requires us to adhere to commitments made in this community report for the lifetime of the development, in compliance with the Code of Practice for Wind Energy Development in Ireland - Guidelines for Community Engagement issued by the Department of Communications, Climate Action and Environment (December 2016) or updated revision.

Appendix

Community Report Appendix List (referenced throughout report)

Ref 5.1 Clare Champion media query 230418

Ref 5.2 Clare Champion piece July 2018 - 130718

Ref 5.3 Carrownagowan leaflet 1 - 160718

Ref 5.4 Carrownagowan Leaflet 2 - 160718

Ref 5.5 Carrownagowan Covering letter to residents - 160718

Ref 5.6 Clare Champion newspaper piece 180718

Ref 5.7 Carrownagowan yellow line outline map 300718

Ref 5.8 Carrownagowan wireframe shared with near neighbours EXAMPLE and Carrownagowan Viewpoint locations for wireframes to share with neighbors 111118

Ref 5.9 Carrownagowan layout for wireframes 24 turbines 111118

Ref 5.11 Carrownagowan engagement map potential development area 010318

Ref 5.12 Carrownagowan community meeting agenda March 19

Ref 5.13 ENCA WEDG review information note preferred draft approach and noise workshop

Ref 5.14 Schools bird info days April 19

Ref 5.15 Community meeting agenda May 19

Ref 5.16 Carrownagowan 23 turbine layout community meeting May 19

Ref 5.17 Carrownagowan Community meeting Ogonnelloe group

Ref 5.18 ENCA Layout 20 WGT – 170619

Ref 5.19 ENCA Carrownagowan 250619

Ref 5.20 Carrownagowan Community presentation SW meeting SW group 270619

Ref 5.21 ENCA Bodyke community representatives meeting 040719

Ref 5.22 ENCA Community meeting agenda 160719

Ref 5.23 ENCA Community meeting 220819

Ref 5.24 Community Benefit fund Terms of reference discussion at meeting 260919

Ref 5.25 ENCA L90 8ms night contained Noise contour noise workshop 260919

Ref 5.26 ENCA Tipperary Energy Agency meeting 260919

Ref 5.27 Community Benefit fund terms meeting 241019

Ref 5.28 Community meeting agenda Oct 19 - 241019

Ref 5.29 ENCA Carrownagowan Newsletter 051119

Ref 5.30 ENCA Community meeting Agenda Nov 271119

Ref 5.31 ENCA Benefit Fund accounting / Tax presentation 271119

Ref 5.32 Carrownagowan Community meeting Ogonneloe representatives 041219

Ref 5.33 Carrownagowan Community meeting Tuamgraney / Bodyke 041219

Ref 5.34 Carrownagowan Community meeting Broadford representatives 091219

Ref 5.35 ENCA Community Benefit fund key principles Feb 200220

Ref 5.36 Carrownagowan Wind Farm Brochure April 2020

Ref 5.37 Clare Champion piece on Wind Farm 290520

Ref 5.38 Meeting Clare Co Co Killaloe elected members 190620

Ref 5.39 Meeting Agenda

Questions from Clare Champion

- The status of the wind farm proposal
- Public consultation that has taken place to date
- Hen harrier/Special Area of Conservation/Impact on Birdlife
- Impact on recreation
- Impact on aviation

Response:

Response to the Clare Champion:

To date, Coillte has been the largest provider of high quality sites to the renewable energy sector and the Coillte estate has the potential to continue to make a significant contribution to achieving Ireland's 2020 target of sourcing 40% of its electricity consumption from renewable sources through wind energy generation, biomass production and the potential development of other renewable energy technologies. To date, we have successfully constructed four wind energy projects with an investment value of €305M and an expected output of 204MW. Coillte is developing and will continue to develop renewable energy projects both on its own, in conjunction with co-development partners and with third party developers.

Coillte intends to investigate the suitability of the lands situated on the northern slopes of Slieve Bearnagh mountain in east Clare for development as a wind energy project. The site lies approximately 2.5 km southeast of the village of Bodyke at its closest point, and approximately 3.5km southwest of Tuamgreaney & approx. 4 km northeast of Broadford. The site is approximately 7 km northwest of Killaloe.

The potential site does not constitute a Natura 2000 site, however, it is located adjacent to the Slieve Bearnagh Bog SAC

Coillte have implemented a major step change in the way we approach Community Engagement, moving from information provision to engaged consultation and involvement in the project planning. In recent months our team have started to engage with the people that live closest to Slieve Bearnagh. Coillte's approach is to consult early and often in a transparent manner with key stakeholders in the project and to involve interested parties in areas of the project wherever possible.

Coillte will carry out preliminary assessments of the lands in question which will indicate if the site is suitable for accommodating a renewable energy project.

The first steps to assess the suitability of the site for wind farm development are to gain knowledge of the site through local interaction, measure the site wind resource and get an understanding of the surrounding environment.

V. 2

COILLTE UNVEIL NEW INCLUSIVE APPROACH TO WIND FARM DEVELOPMENT

Coillte has unveiled a brand-new approach to wind farm development that places a collective emphasis on sustainable development and community agreement through better understanding of issues that affect people's quality of life.

It is hoped this will facilitate more open and inclusive discussion with Coillte's neighbours about both the opportunities and challenges of wind farm development.

Andy Fox, Community Engagement Manager with Coillte's renewable energy team, said, *"This inclusive approach has already commenced as part of a two-way conversation that we are having with neighbours, about the opportunities and challenges that could arise were we to develop a wind farm at a Coillte owned site in the Carrownagowan area of east Clare."*

In addition to these ongoing face-to-face conversations with people living in the immediate vicinity of the site, Coillte has distributed information leaflets to people in the wider Carrownagowan area and is also committed to meeting with everyone living within a 2 km radius of the site over the coming months.

"Our starting point has been to listen to those who live closest to the proposed site. With this process well underway, we also want to begin having meaningful conversations with those living further away, so as to ensure that everyone who is a stakeholder has access to all relevant information," Andy Fox said.

To enable maximum accountability and transparency, Coillte are also encouraging the setting up of a forum, which would allow local individuals and community groups to directly participate in regular discussions about the creation of a meaningful and positive local wind farm project.

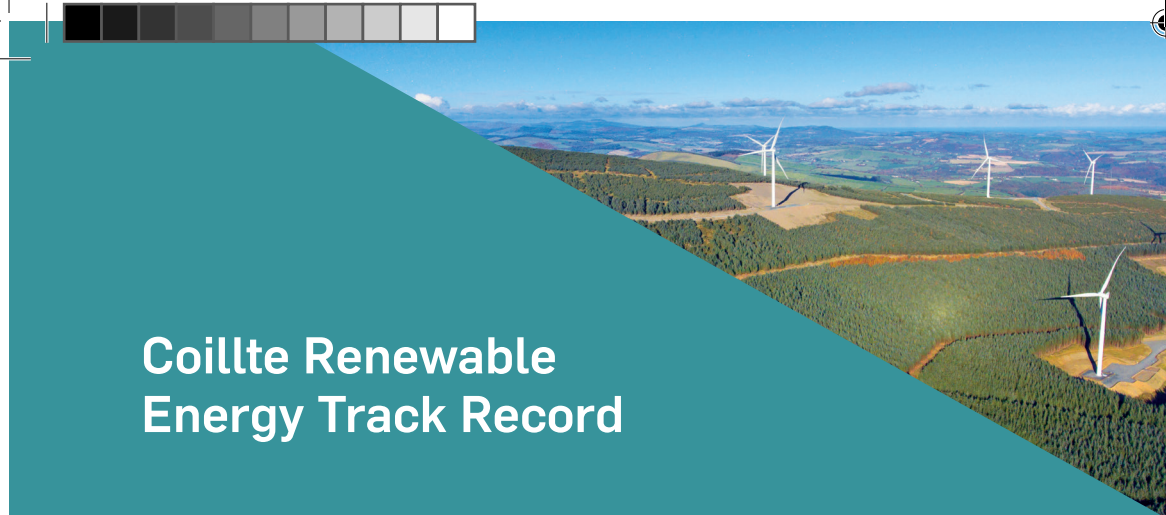
Acknowledging that people could use such a forum to voice concerns about the visual impact and noise output of wind farms as well as other negative issues, Andy Fox said, *"That is the whole point of our approach as it allows for full transparency and open discussion about the perceived challenges of wind farms, but we also believe it will allow space for people to consider the opportunities that are available, including the availability of a substantial fund to support sustainable development within the community."*

Coillte's new approach is based on lessons learnt from extensive previous experience designing, constructing and operating wind farms in counties Wicklow, Galway, Roscommon and Cork.

The Renewable Energy team consists of 20 wind farm development specialists, who are entirely focused on working to create the best design possible should a proposal be brought forward for a wind farm project on Coillte land in the Carrownagowan area.

Coillte recognise that for projects of this nature to progress, obtaining a social licence to proceed is as important as obtaining any other kind of permission. Ultimately, we are committed to working with our neighbours to design a project that is good for the local area and for Ireland as a whole.

Ends



Coillte Renewable Energy Track Record

The Coillte Renewable Energy team have extensive experience in the design, construction and operation of wind energy developments throughout Ireland, with projects currently operating in counties Wicklow, Galway, Roscommon and Cork. We are committed to mobilising all this experience with its lessons learnt to ensure we meet our stated aim of creating wind projects good for Ireland, good for local neighbours and good for our company.

Coillte currently operates a portfolio of 4 wind farms with a capacity of 240 megawatts (MW) in conjunction with 3 joint venture partners and has an aspiration to build a further 1 gigawatt (GW) over the next ten years.



Keep Us Accountable to You

If you have questions or comments on any of the content of these leaflets or on any aspect linked to our focus, please feel free to mark these on the leaflets and send them back to us.

You can also use the back of Leaflet 2 to let us know how you would like to receive information.

Contact Us

We welcome any engagement and interaction with you on any aspect of what we are proposing to do.

You can contact us by email at **scarriff@coillte.ie**, in person at the Coillte Office, Drewsboro, Scarriff, Co. Clare, or call Ger our project manager on **1890 800 505** which will go directly to his phone.

For more information visit: www.coillte.ie

1. Coillte Renewable Energy



- What's inside:
- Who is Coillte
 - Our Focus
 - Our Operational Team
 - Keep Us Accountable to You
 - Our Track Record
 - Contact Us

Summer 2018



Who is Coillte Renewable Energy?

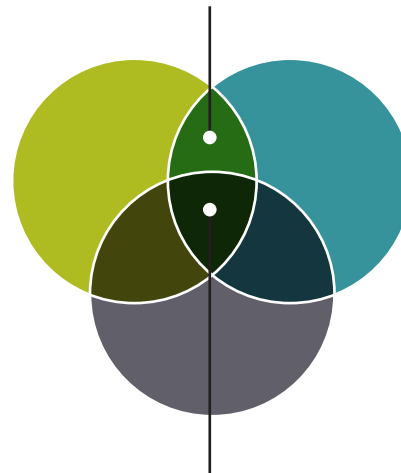
Coillte Renewable Energy are embarking on harnessing the wind energy above Coillte forests. We aim to build responsible projects in a way that is good for us, for society and our neighbours. We acknowledge this is a challenge. We have learnt a considerable amount over the past few years with regard to how we engage and are constantly striving to do better. We commit to managing the design and development of projects in collaboration with internal and external stakeholders for results supported by both.

Our Focus

For every project from now on, our commitment is to engage inclusively with our stakeholders on decisions that concern them. We will do this in time and systematically and we commit to cultivating a conversation that contributes to social cohesion, local sustainable development and ensures that risks to our neighbours quality of life are addressed. We aim to design and build projects that are socially supported. In reality this also makes better business sense.

INTRODUCING OUR 7 ZONES COMMITMENT

Decisions and activities that affect us both or that we can both affect.



Decisions and activities that also affect the authorities or that the authorities can affect.

- Coillte
- Community
- Authorities

Our Operational Team

From our team of over 20 people specialised in wind projects, three are empowered to focus on the design of a potential project in Coillte land on East Clare. They are:



Gerard Hynes, a native of North Clare, is our Project Manager. A qualified Civil Engineer, Gerard has worked for Coillte for over ten years covering projects in both forest roads design and construction, as well as the full process from concept design to construction of wind projects.



Andy Fox is our Community Engagement Manager. Andy has spent the past 15 years working hand in hand with communities to drive towards sustainable local development. Originally from Kenya and the UK, Andy now lives in Co. Wicklow.



Michael McNamara is our Community Liaison Officer. Michael has worked with Coillte in all aspects of forestry during a twenty year tenure. He has vast experience of forestry and engineering and comes with a deep understanding of both the local community and the needs of the local area.

Immediate next steps

Important

If we have missed something important to you, please let us know: Phone **1890 800 505**, email scarriff@coillte.ie or post to: **Coillte Renewable Energy Drewsboro, Scarriff, Co. Clare**

Keep Me Informed

How would you like to be kept informed? Options include;

- Email Post SMS
 Regular Meetings

If at this stage you are happy to share your contact details with us, please do so below and return by post or email to the addresses above.

Name: _____

Phone: _____

Email: _____

Address: _____



2. What are the Challenges and Opportunities?

To address the challenges around a wind farm development, we would like to first analyse the risks and opportunities together with local neighbours before we advance any further.

Our wish is to design this project in a radically different way to previous projects of this type, with a fundamental focus on inclusion and partnership with stakeholders. We are starting by listening directly to those who live closest to the proposed site. As we continue this, we will enable meaningful conversations with those living slightly further away from the site.

To enable maximum accountability and transparency, we would very much welcome a regular forum where local individuals and groups can participate with us directly in the design of a meaningful and positive local project.

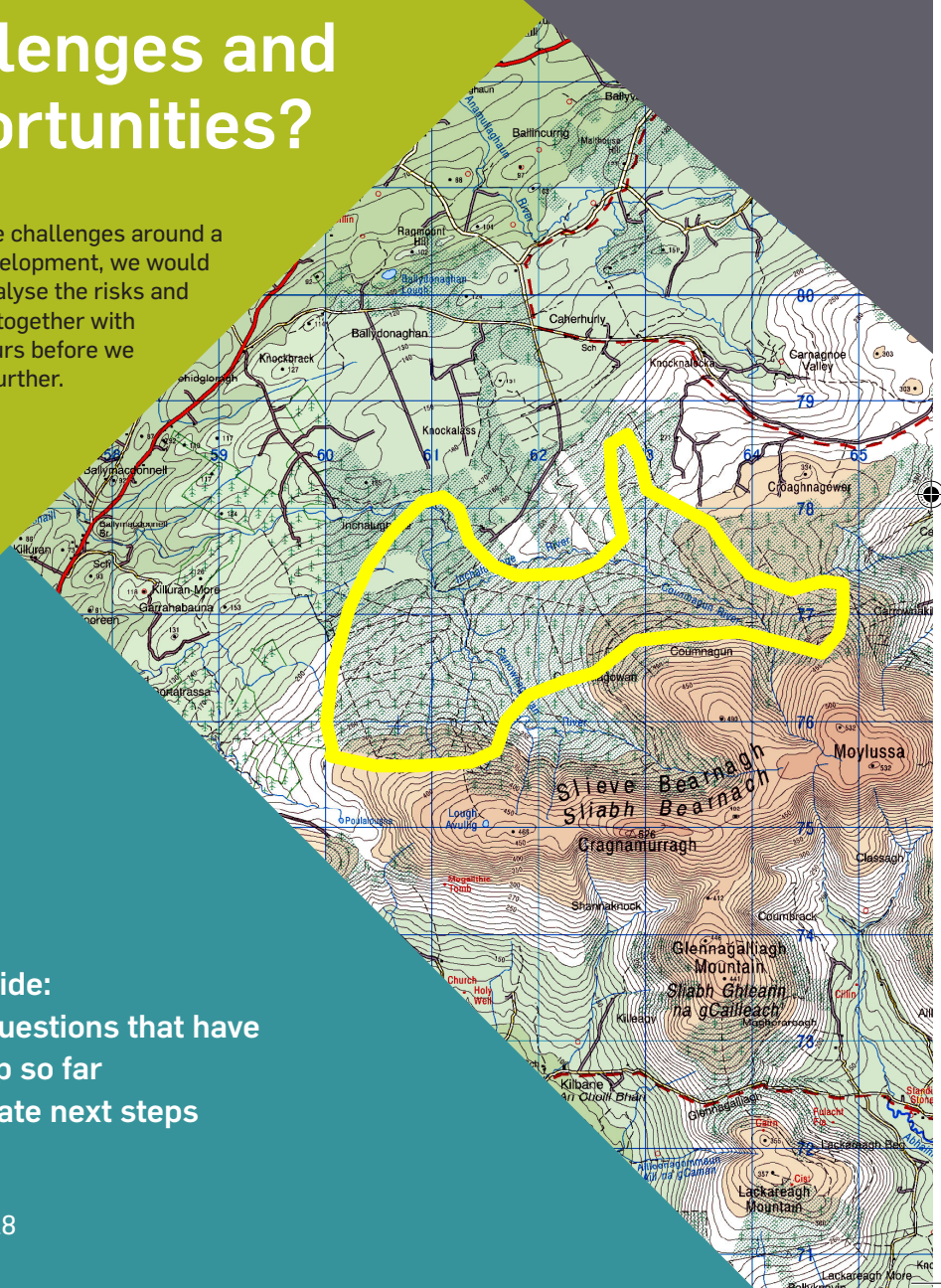
Items we are currently under pressure to advance with are:

- to meet everyone within two km of the site where the wind resource could be tapped so that we can start a conversation about the potential development of the resource,
- to ensure that everyone who would in any way be impacted by a wind project have access to all pertinent information,
- to erect a wind measuring mast to make sure we can share the facts about the wind with designers, investors and the local neighbours,
- to undertake assessments on all potential impacts.

What's inside:

- Some questions that have come up so far
- Immediate next steps

Summer 2018





Some questions that have come up so far

No matter how we look at it and whether we believe turbines are something positive or something negative, having a wind turbine near your home will be a change. This change can include both negative and positive impacts.

Here are some of the questions we have heard when talking to people in the local area.

How noisy are wind turbines?

When you are up close to a wind turbine it is noisy enough as you may know from visiting one. As you get farther away it is less so. Also, some makes of turbines are noisier than others. And weather conditions affect the noise to a large extent also. Even the legal limits imposed by law are not always sufficient to remove all annoyance. As such, it is very important to ensure that the placement of turbines in Carrownagowan carefully considers all this. This is an exercise that we will conduct openly with any resident who wishes to know more.

Do wind turbines damage our health?

Health is a key concern and will need to be examined for each proposed turbine siting. People have concerns including noise, flicker and infrasound, and these will have to be transparently assessed with local residents.

It has many aspects from concern over infrasound to noise and we will document these transparently and publically. In reality, some people experience loss of sleep due to turbines being too close; and we know that lack of sleep takes a toll on health. Also, different people react differently to how close they feel comfortable having a turbine and often the legal limit is simply not enough. An important first step to fully appreciate this is to go close to existing turbines of similar design and to examine its noises at distances that are relevant to you. Some of you will want to do this on your own and some together. We would be open to facilitating this. Please let us know if you are interested for us to organise a trip on a weekend or other time that suits you.

What about visual impact?

Turbines can be easily seen. As such, their placement needs to be considered from all views that they impact. A visual assessment will be undertaken and any resident who wishes to take part in this exercise will be welcomed to join in to make sure the views important to you are protected. Once all the information is collected then we will engage on the proposed layout before we go for planning.

What benefits exist through welcoming turbines within the neighbourhood of our homes?

There are at least six potential benefits to be considered:

- (1) direct payment for land access;
- (2) access to green energy at a significantly reduced rate as a benefit of being a close neighbour;
- (3) the availability of a substantial fund to support sustainable development within the community - ideally overseen by a forum of local neighbours;
- (4) the possibility of a representative community organisation becoming directly involved in the wind project and using revenue generated from this for local investments;
- (5) local infrastructure improvements and economic activities linked to construction;

- (6) an indirect benefit that may become very significant even if some people find it to be overstated: this is the contribution we make towards cleaner air and cutting CO2 gas going into the atmosphere; a step that one day we might be very glad we took.

For these benefits to be well understood and negotiated, full transparency and genuine community and company representation are necessary.

All ideas and suggestions for how to make this happen are very welcome. Please send these to us by the end of July 2018 if at all possible. Suggestions after this date will still be welcomed.

Coillte Land Solutions
Coillte Office
Drewsboro
Scarriff
Co. Clare

16th July 2018

Dear Homeowner,

Coillte is the steward of c.7% of Ireland's land. Over the years, we have developed this within our forestry industry and, more recently, as a contribution towards biodiversity and amenity resources, as well as sustainability infrastructure in the form of wind farm developments. With Ireland now stepping up its level of ambition to efficiently de-carbonise its economy¹, we continue to investigate the potential of wind energy and specifically the excellent natural resource blowing over many of our forest properties.

The wind industry has developed significantly in Ireland over the past 20 years and the sector is better placed than ever before to stand on its own feet, without subsidy, to compete with the burning of fossil fuels which we import into Ireland.

One of the key challenges becomes how best to harness our national wind resource in a way that is good for all society, from the residents located closest to a wind farm development right through the end user of the green electricity. This has to be done by acknowledging key lessons learned from past developments, whether in the form of the type of consultations undertaken, the limited ability for immediate neighbours to actively participate in and benefit from a wind farm, through to the ongoing relationship year after year with a given wind farm.

We write this letter, therefore, as a statement of our determination to assess and potentially develop a wind farm in close collaboration with you and your neighbours. We will start by transparently looking at any and all concerns raised by neighbours potentially impacted by a wind farm project. If the concerns are genuinely and effectively addressed, we also commit to examining together to the maximum extent possible, specific ways in which local communities can participate in and benefit from this type of renewable energy infrastructure, all the time adopting a 'fair-play' approach.


¹ Ireland 2040 plan, chapter 8: <http://www.gov.ie/en/transition-to-a-low-carbon-and-climate-resilient-society/>

As a first step, we present in the attached an introduction to our team, our plans and our experience to date. We look forward to getting to know each and every one of you who will spare us some time. And we hold ourselves accountable to you to examine together all ideas of how best to develop our national wind resource in a way that is good for Ireland, good for the local neighbours and good for Coillte and its stakeholders.

Yours sincerely,



Peter Lynch
Head of Renewable Energy
Coillte Land Solutions



Andy Fox
Community Engagement Manager
Coillte Land Solutions

New approach to Ogonnelloe wind farm

Dan Danaher

COILLTE has unveiled a brand-new approach for the proposed development of a new wind farm in South-East Clare, which it believes places a collective emphasis on sustainable development and community agreement.

Adopting a new "fair-play" approach for the development of a new wind farm on the northern slopes of Slieve Bernagh mountain, which is located a few miles from Ogonnelloe, Coillte hopes this will facilitate more open and inclusive discussion with effected local residents.

In addition to extensive meetings with residents in recent months, the company believes its approach will place public consultation at the start of the development process, instead of the customary approach of informing locals a few weeks before the lodging of a planning application.

The changes are based on lessons learnt from extensive previous experience designing, constructing and operating wind farms in Wicklow, Galway, Roscommon and Cork.

It has distributed information leaflets to people in the wider Slieve Bernagh area and is also committed to meeting with everyone living within a two-kilometres radius of the site over the coming months.

In spite of this novel initiative, some residents are opposed to this development, which does not have a proposed number of turbines.

Resident, Donal O'Connor, who describes it as a "terrible proposal", claims that the turbines will be visually intrusive from every part of Ogonnelloe and will have a significant negative impact on the landscape.

Acknowledging that an area near the top of Molussa mountain

is zoned for wind development, Donal claims that this constitutes a "contradiction" in the Clare County Development Plan, as it is surrounded by a very sensitive Special Area of Conservation. He also expressed concern about the impact of the development on wildlife and animals.

Resident Noel Daly claimed that "everyone I have spoken to is against it" and "wind farms are being dismantled all over Europe". Mr Daly pointed out that Ballycuggaran and Moylussa are very popular walking destinations and attract a lot of walkers and hikers to the locality, which, in turn, supports licensed premises that are good employers, such as The Piper's Inn.

Another resident, who did not wish to be named, was concerned about health issues, noise, shadow flicker and whether lights would have to be erected on top of the wind farms at night for the safety of planes.

Andy Fox, community engagement manager with Coillte's renewable energy team, said they want to have meaningful conversations with people living further away, having listened to those living closest to the site.

Coillte wants to set up a new forum to allow local people and community groups to discuss concerns about the wind farm.

The Renewable Energy team consists of 20 wind farm development specialists, who are entirely focused on working to create the best design possible, should a proposal be brought forward for a wind farm project on Coillte land on the northern slopes of Slieve Bernagh.

Noel Daly with his children, Michael and Anna, and Donal O'Connor, pictured near the wind farm site at Moylussa, Ogonnelloe.

Photograph by Arthur Ellis



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SEAN SAYS



beko

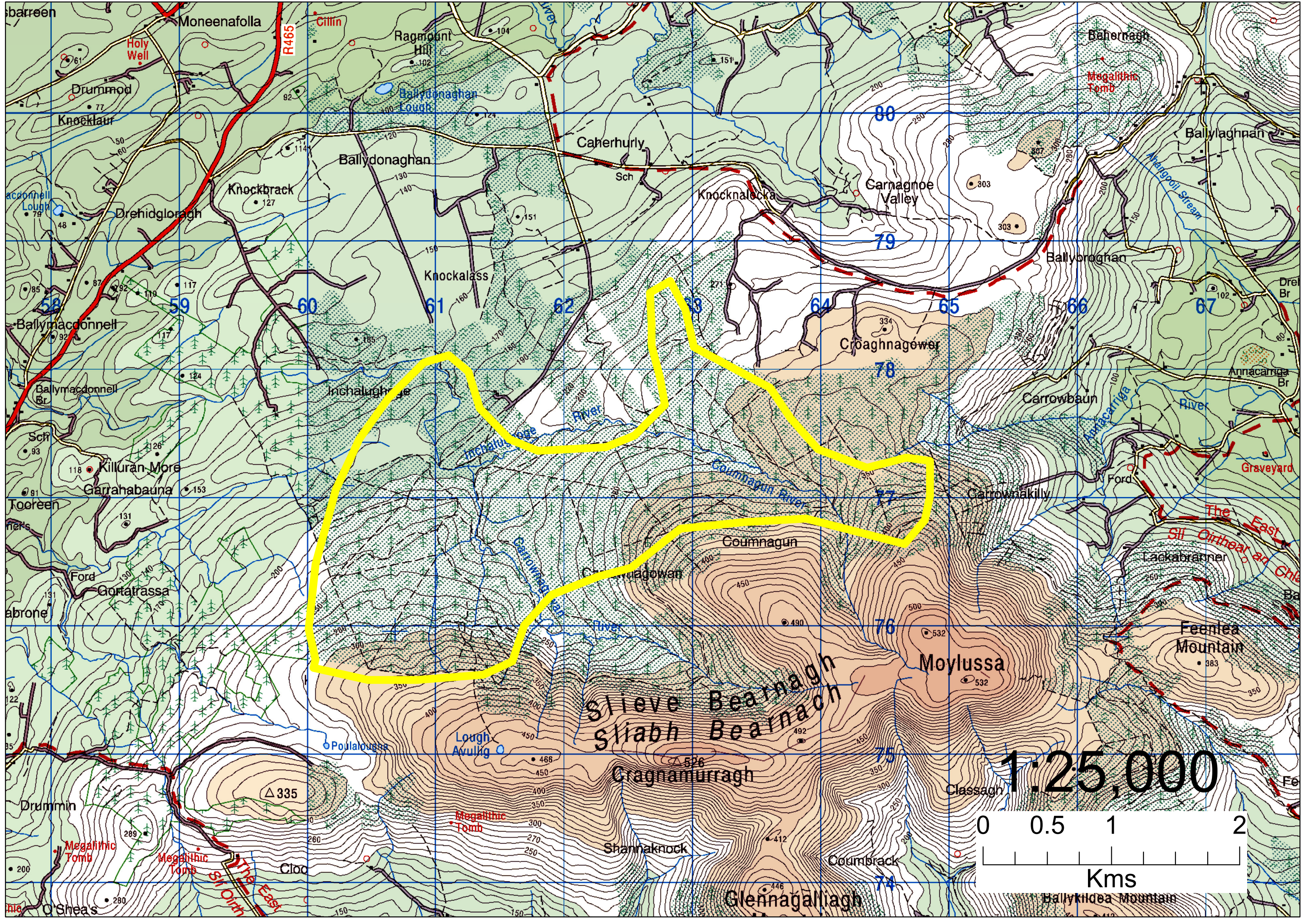
**AMERICAN
FRIDGE
FREEZER
FROST FREE**



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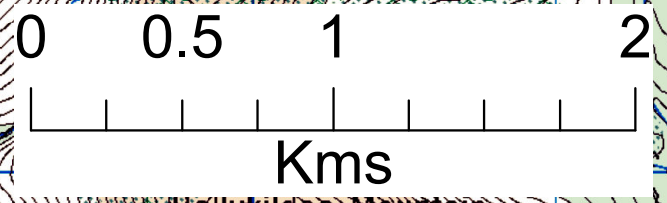
**AMERICAN
FRIDGE
FREEZER
WATER DISPENSER**



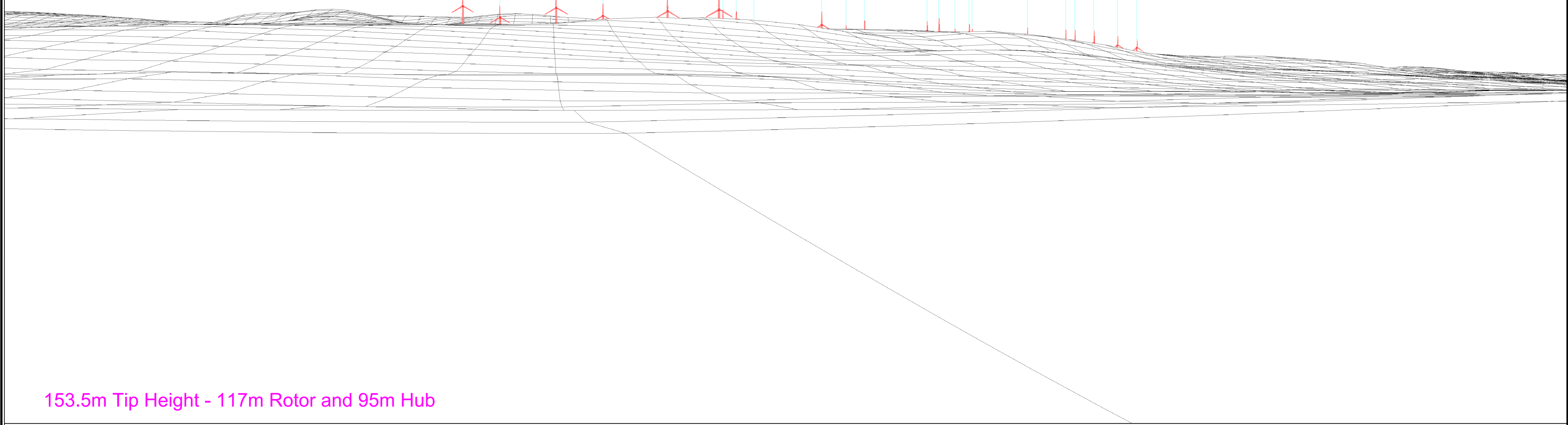


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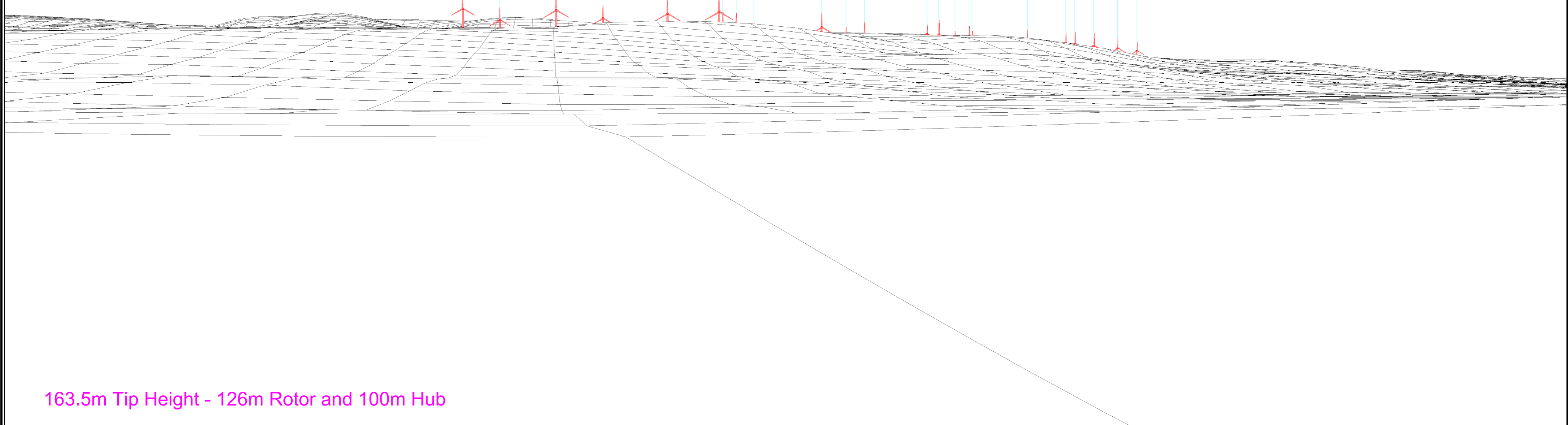


11 9 12 10 13 14 8 17 18 15 3 16 2 22 4 25 6 1 5 7 23 20 19



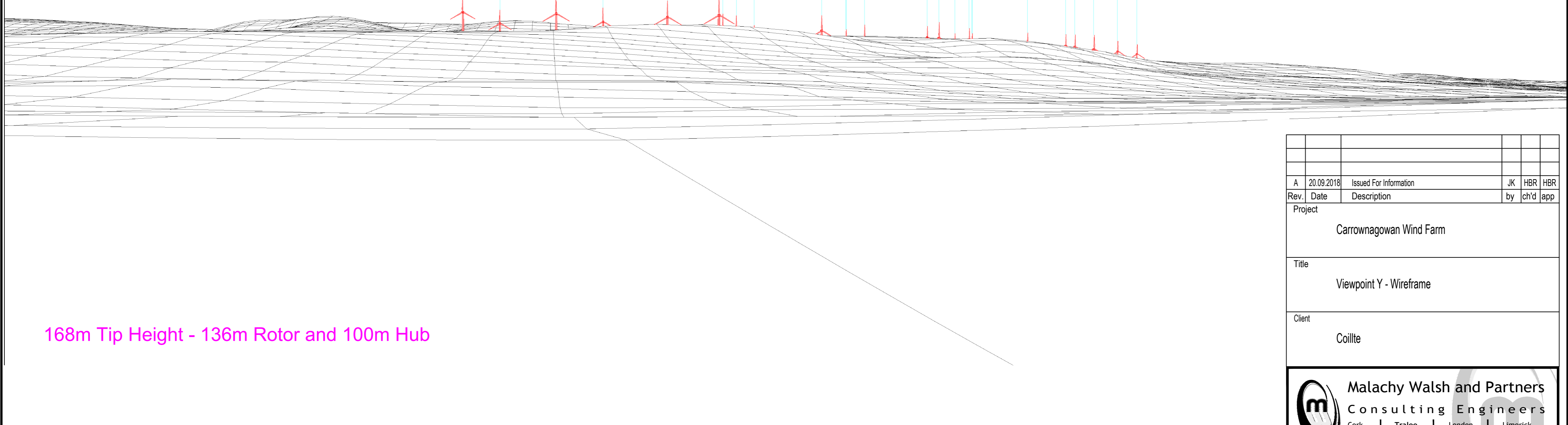
153.5m Tip Height - 117m Rotor and 95m Hub

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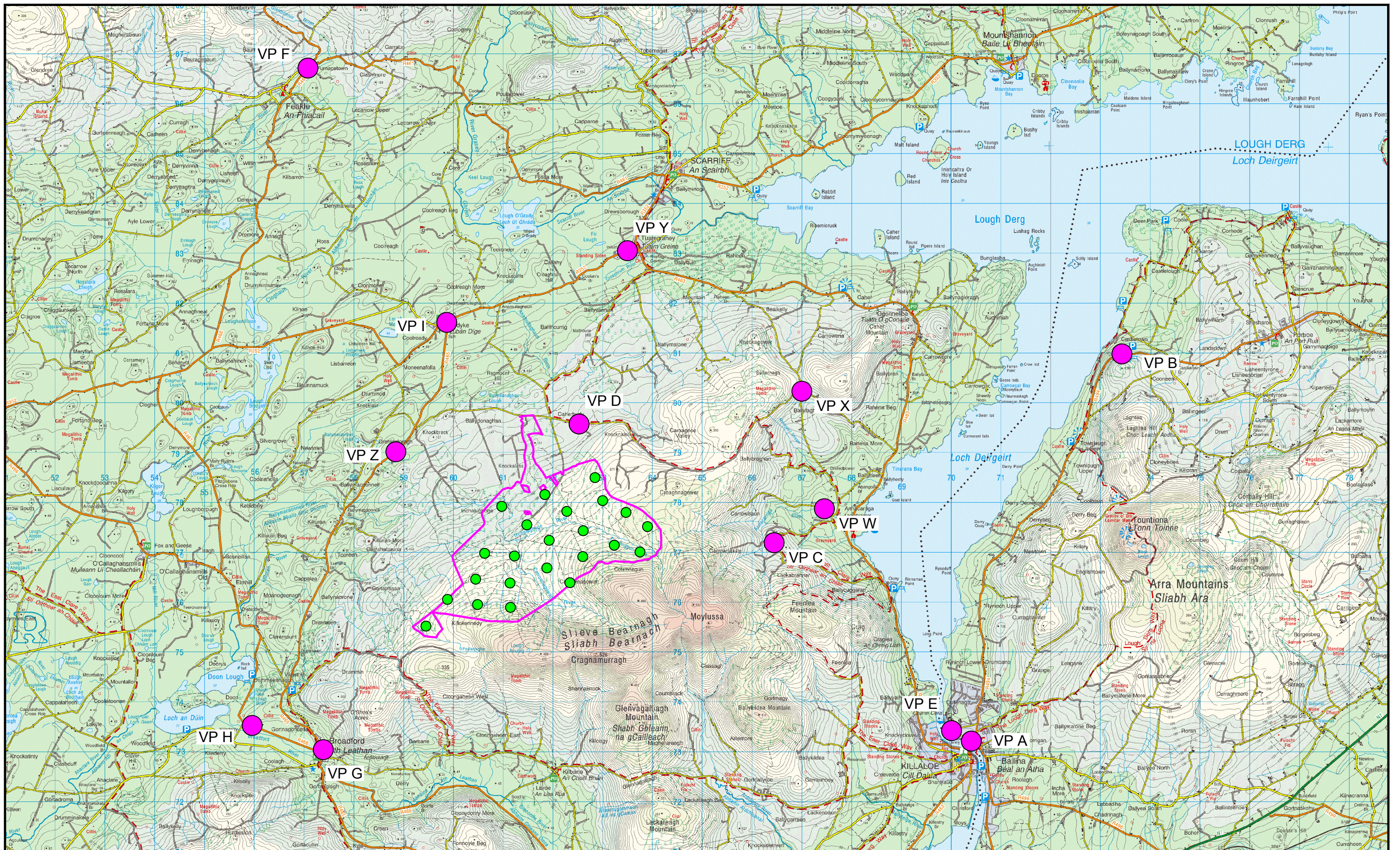
163.5m Tip Height - 126m Rotor and 100m Hub

11 9 12 10 13 14 8 17 18 15 3 16 2 22 4 25 6 1 5 7 23 20 19



168m Tip Height - 136m Rotor and 100m Hub

Rev.	Date	Description	by	ch'd	app
A	20.09.2018	Issued For Information	JK	HBR	HBR
Project					
Carrowmagowan Wind Farm					
Title					
Viewpoint Y - Wireframe					
Client					
Coillte					
 Malachy Walsh and Partners Consulting Engineers Cork Tralee London Limerick					
Reen Point, Blennerville, Tralee, Co. Kerry.			Tel : +353 (0)66 7123404 fax : +353 (0)66 7126586 E-mail : tralee@mwp.ie		
Scales (A1)		NTS		Dwg. No.	
Drawn	JK	19.08.2018	19107-1017		Rev.
Ch'd (DO)	JK	19.08.2018			A
Ch'd (Eng)	HBR	19.08.2018			
Approved	Jol	19.08.2018			



Legend

- Turbine Location
- Viewpoint Location (Coillte)
- Study Area



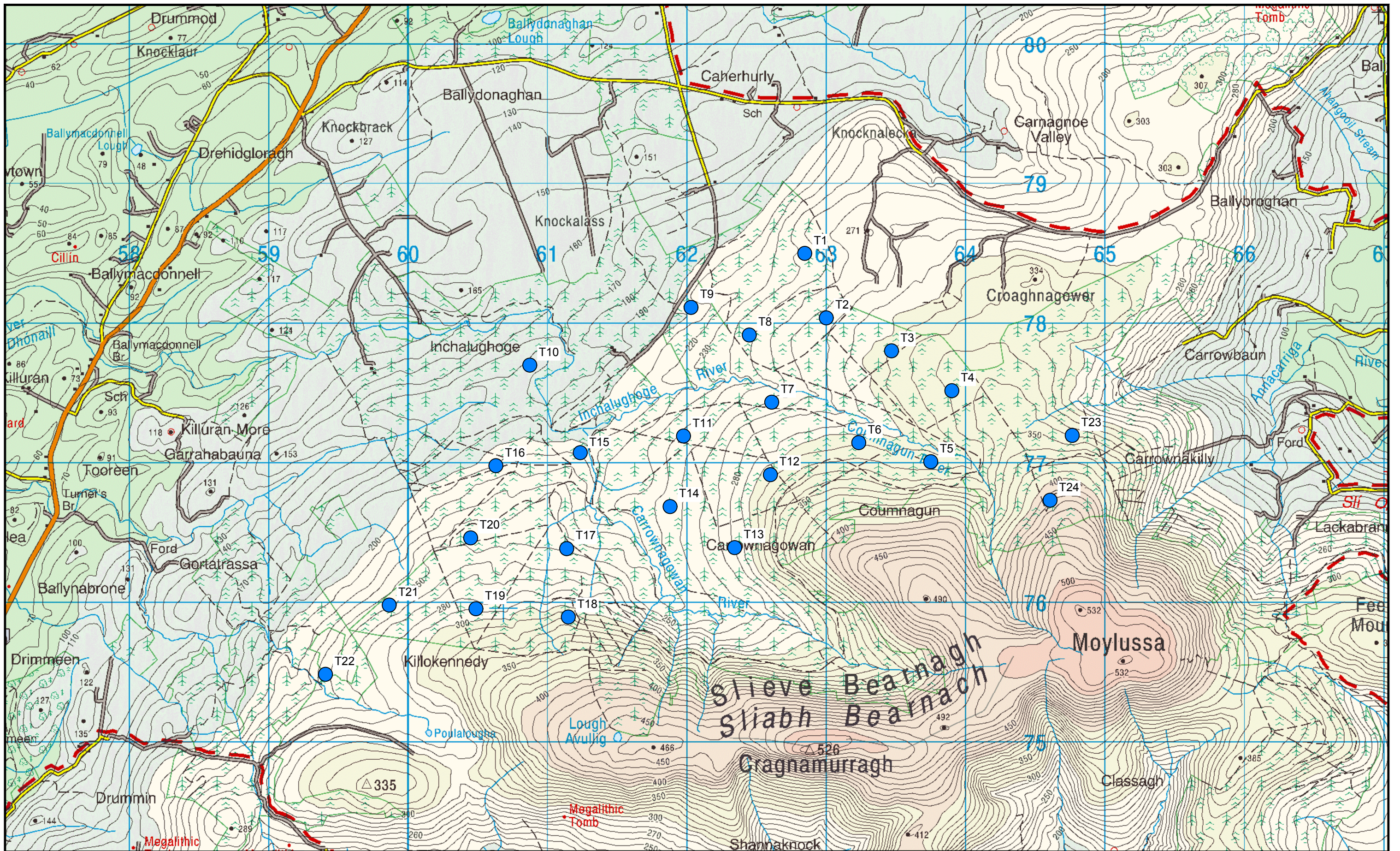
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C	20.09.18	Issued For Information	JK	HBR	HBR
B	18.06.18	Issued For Information	JK	HBR	HBR
A	30.05.18	Issued For Information	JK	HBR	HBR
Rev.	Date	Description	by	ch'd	app
Client		Coillte			


Project		Carrowmagowan Wind Farm			
Title		Viewpoint Locations			

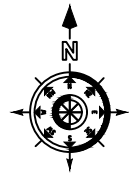
Malachy Walsh and Partners
 Consulting Engineers
 Cork | Tralee | London | Limerick

Scales (A3)	NTS	Drg. No.	Rev.
Drawn	JK	30.05.2018	19107-1010
Checked	HBR	30.05.2018	C



Legend

 Turbine Location



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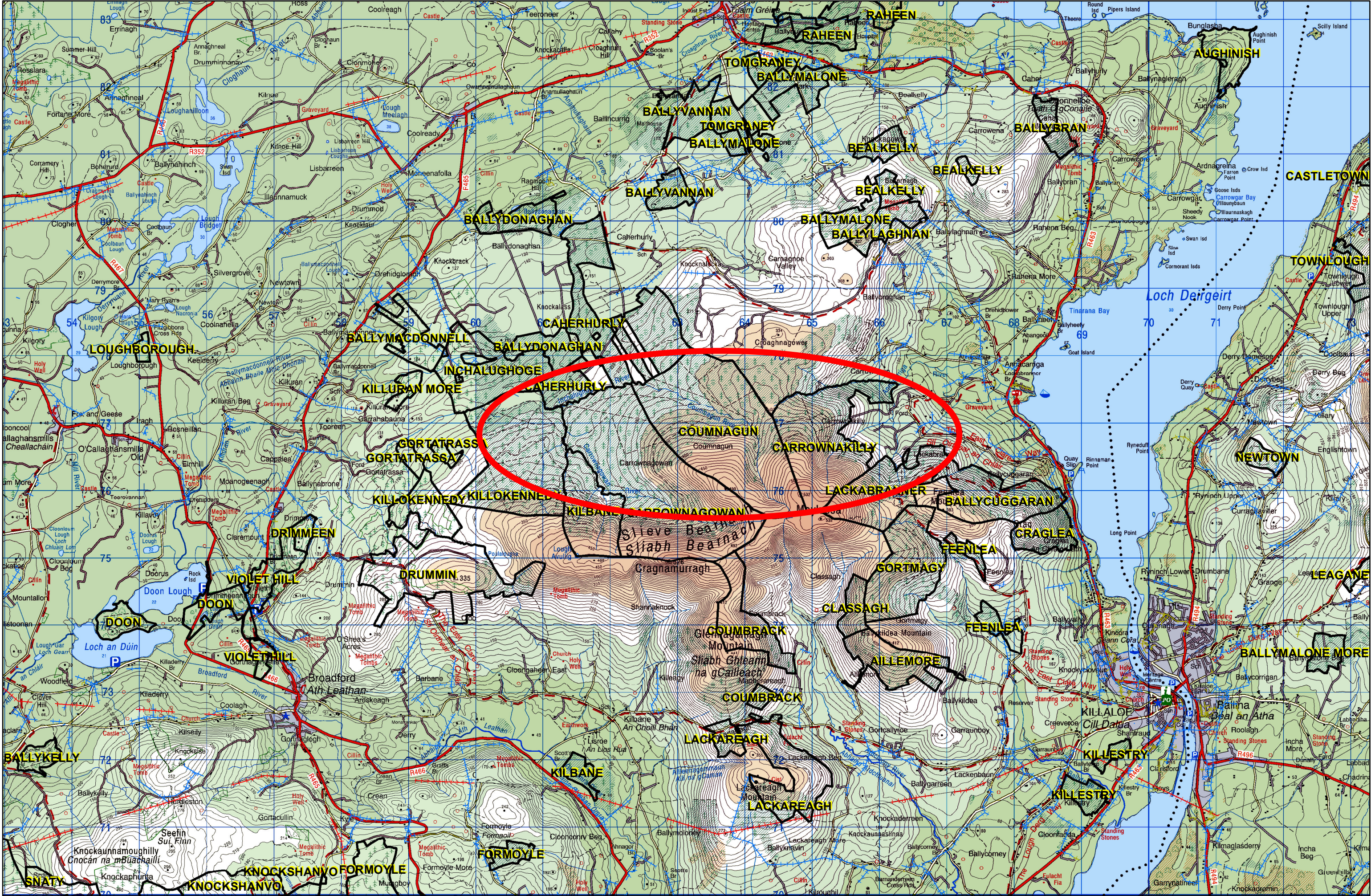
Project	Carrowmagowan Wind Farm		
Client	Coillte		
Rev.	Date	Description	by ch'd app
A	02.11.18	Issued For Information	JK HBR HBR

Title	Turbine Locations Consultation Phase		
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Scales (A3)	1:25,000		Drg. No.	19107-0028	Rev. A
Drawn	JK	02.11.2018			
Checked	HBR	02.11.2018			



MEETING AGENDA COILLTE & CAHERHURLY RESIDENTS 1ST MARCH 2019

- Update from February 1st meeting.
- EIAR Consultant Introduction
- Ongoing studies
- Website
- Community Fund
- Main Questions & Responses
- AOB

1 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) CONSULTANT

Malachy Walsh and Partners (MWP) has been commissioned by Coillte to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) for a proposed wind farm on Coillte lands at Carrownagowan, near Slieve Bernagh in Co. Clare. Much of the lands identified are included as Strategic Areas for wind energy development in plans for Co. Clare.

The project includes for the preparation of an EIAR, planning application, wind farm layout, grid connection and civil and roads design for the sites and to manage the planning process through to delivery of planning. It is anticipated that will be a strategic infrastructure project.

2 PLANNING & STAKEHOLDER ENGAGEMENT

2.1 AN BORD PLEANÁLA

It is envisaged that the project will exceed the 50MW capacity scale and will be a Strategic Infrastructure Development (SID) direct to An Bord Pleanála. A pre-application stage consultation process with An Bord Pleanála has commenced. Coillte & MWP have had an introductory meeting with ABP.

2.2 OTHER STAKEHOLDERS

We have consulted with IAA, IFI, NPWS as part of the Statutory & non – statutory consultation and a number of the communications/telecoms companies in order to identify any constraints that may impact on the overall study area.

3 PROJECT DESIGN

We are working on the preliminary design as follows;

Main project components:

- Wind Turbines construction
- Hardstand areas and access roads
- Substation on the wind farm site
- Borrow Pits and spoil management areas

Off-site project components:

- Turbine component haulage route
- Replacement lands for felled forestry
- Grid connection; overhead line or underground cable, any requirements to upgrade substation offsite

4 SITE DESCRIPTION

This is an upland site on Sliabh Bernagh which contains Coillte commercial forestry. It is an active forest amidst harvesting and establishment. There are a number of disused borrow pits around the site and Coillte has identified Biodiversity areas across the site.

There is high drainage density in the area and surface water is the dominant flow process in the area (not groundwater). The proposed infrastructure will be located in areas with shallow peat depths and in areas where the overburden depths is low. The intent is to minimise ground excavations and develop a road infrastructure network that complements the ground contour.

The underlying bedrock is a low permeability poor/locally important aquifer (i.e. it is not regionally important, or karstified). The proposed development is located largely in the Owengarney catchment, with a small proportion in the Lower Shannon/Black River catchment.

Deep peat is not an issue on this site. From an early engineering perspective, this site represents a good base for a wind farm. Proposed access roads are largely in place already and the development is distributed across a wide area. The approach is to maximise the use of existing built infrastructure, carry out upgrades to exist roads and to build short spur roads to turbine locations.

5 STUDIES AND SURVEYS

We are currently in the design stage for this project. The feasibility stage examined the entirety of the project including the wind farm site and route to grid. The approach has been to look at the key constraint areas that may influence the design and layout of a project of this scale. The following are some of the topic areas currently being considered.

- Landscape and visuals – contour models, preliminary VP work and wireframe views completed
- Ecology – bat surveys, mammal surveys, ongoing work schedule
- Ornithology – ongoing bird survey work in accordance with SNH guidelines
- Water – hydrology and hydrogeology – baseline water assessments ongoing
- Aquatic Ecology – baseline surveys complete
- Aviation and communications – engagement with IAA and communications companies
- Community – ongoing engagement on the ground by Coillte team
- Soils, geology – site visits, peat probing and slope risk mapping completed
- Noise and shadow flicker – models developed and scenarios being examined
- Archaeology – baseline mapping and desk study work complete

In conjunction with the above an initial preliminary layout has been developed. The feasibility stage will inform potential layouts going forward. The completion of all baseline studies will identify constraints.

The mapping of all constraints will drive the development of a low risk site layout. The engineering design will avoid constraints and provide buffers from designated sites, streams and any sensitive features.

6 NEXT STEPS

Baseline surveys for all topic areas will then be completed.

Constraint mapping will be completed.

Development of a number of preliminary site development layouts where different turbine models will be examined.



Arrive at a locked layout on the completion of detailed site investigations

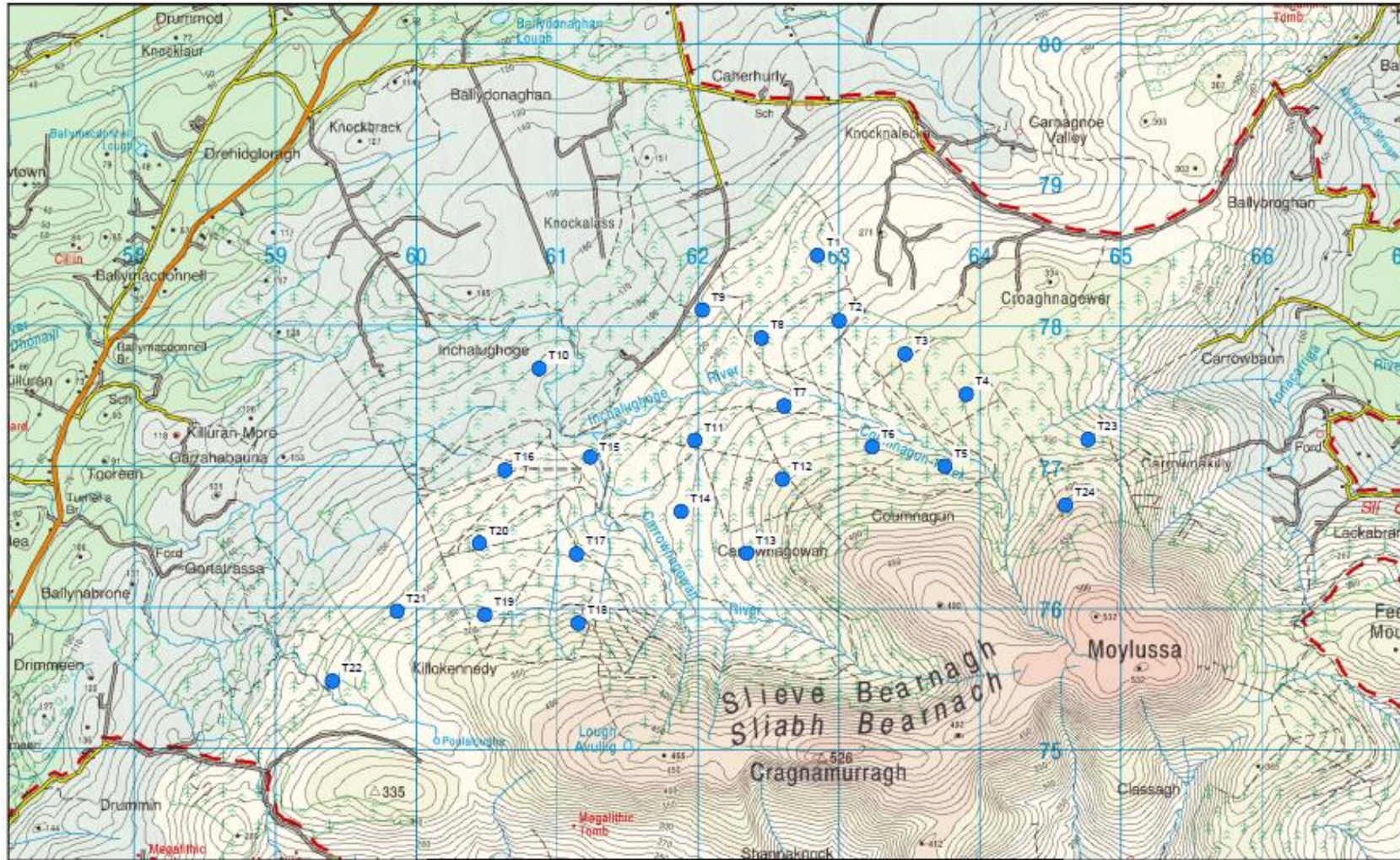
Pre-application stage process with ABP will continue for a number of months.

Community engagement will be an ongoing process.

Statutory and Non Statutory consultation will be completed.


Project review will occur on a number of occasions before we arrive at a layout that can be considered as low risk and suitable.

It is envisaged that an application will be lodged with ABP in Q4 2019.



Legend

- Turbine Location




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Rev.	Date	Description	by	ch'd	app.
A	02.11.18	Issued For Information	JK	HRB	HRB

Client: **Coillte**

Project: **Carownagowan Wind Farm**

Title: **Turbine Locations Consultation Phase**



Malachy Walsh and Partners
Consulting Engineers
Cork | Tralee | London | Limerick

Scales (A3): 1:25,000

Drawn	JK	02.11.2018	Prog. No.	19107-0028	Rev.	A
Checked	HRB	02.11.2018				



**Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil**
Department of Communications,
Climate Action & Environment



**An Roinn Tithíochta, Pleanála,
Pobail agus Rialtais Áitiúil**
Department of Housing, Planning,
Community and Local Government

Information Note

Review of the Wind Energy Development Guidelines 2006 “Preferred Draft Approach”

Following detailed engagement between the Department of Housing, Planning, Community and Local Government (DHPCLG) and the Department of Communications, Climate Action and Environment (DCCA), an emerging “preferred draft approach” to the Review of the 2006 Wind Energy Development Guidelines was jointly announced on 13 June 2017. The emerging “preferred draft approach” was outlined to update the general public, stakeholders and planning authorities on the progress made and timetable for conclusion of the Review of the 2006 Guidelines, in the light of the elapse of time since the review commenced in 2013.

Review of the Wind Energy Development Guidelines 2006

The Wind Energy Development Guidelines 2006, issued under Section 28 of the Planning and Development Act 2000, as amended, sets the national planning policy context for local authority plan-making and the determination of planning applications and appeals by planning authorities and An Bord Pleanála.

As part of a targeted review of the 2006 Guidelines, the DHPCLG published proposed draft revisions to the noise, setback distance and shadow flicker aspects of the 2006 Guidelines for public consultation in December 2013. The public consultation process resulted in a very high level of public response, resulting in over 7,500 submissions, from the public, community groups, industry and other stakeholders expressing a broad range of views which informed the progress of the Review.

The Programme for A Partnership Government (May 2016) included a commitment to conclude the review of the Guidelines, with a view to offering a better balance between the concerns of local communities and the need to invest in indigenous energy projects, informed by the public consultation process and best international practice. On-going work has been underway between DHPCLG and DCCAE in this regard.

Renewable Energy Policy

The Review has been undertaken within a wider national and EU energy policy context in line with binding EU and international obligations on Ireland to play its part in tackling both the causes and effects of climate change.

Under the 2009 Renewable Energy Directive, Ireland is legally bound to deliver 16% of its final energy requirements from renewable sources. The Government decided that, within the overall 16% target, the largest element is to be met by achieving a target of 40% of electricity generation from renewable sources.

Onshore wind is expected to make the largest contribution to achieving this 40% target by 2020. As of the end of April 2017, there was 2,851 megawatts (MW) of wind energy capacity installed and exporting to the national electricity grid. Eirgrid estimates that a total of between 3,900 and 4,300 MW of onshore renewable generation capacity will be required to allow Ireland to achieve 40% renewable electricity by 2020.

In the event that Ireland does not meet its 2020 targets, purchasing compliance is estimated by the SEAI to lie in the range of €65 to €130m for each percentage point that Ireland falls short of the overall 16% renewable energy target.

Looking beyond 2020, an EU target of at least 27% has been indicated as the share of renewable energy consumed in the EU in 2030. While the DCCAE is currently examining the potential for diversifying Ireland's renewable technology mix in the post-

2020 period, as a proven and cost effective technology, onshore wind will remain part of Ireland's generation portfolio out to 2030 and will help to meet Ireland's contribution to the binding EU-wide 2030 renewable energy target.

“Preferred Draft Approach”

There are a wide range of community, spatial planning, energy policy, environmental, technological and industry considerations that need to be balanced within the Review of the 2006 Guidelines.

The package of measures that has emerged as part of the “preferred draft approach” is being developed in the light of the commitment under the Programme for Government to strike a better balance between addressing the concerns of local communities whilst maintaining Ireland's ability to deliver on its binding energy policy obligations.

The “preferred draft approach” focuses on a number of key aspects including:

1. Sound/ Noise.
2. Visual Amenity Setback.
3. Shadow Flicker.
4. Consultation Obligations.
5. Community Dividend.
6. Grid Connections.

SEA Process

In line with requirements under the EU Strategic Environmental Assessment Directive (the SEA Directive), an SEA will be undertaken on the “preferred draft approach” to the revised Guidelines. The SEA process ensures that environmental considerations are fully integrated in the preparation of plans and programmes, which provide a framework for development consent or planning permission.

In addition, the consideration of alternatives in the SEA process provides the opportunity to identify and explore different ways to deliver the objectives of a plan or programme while addressing environmental issues.

The SEA process will involve the preparation of draft revised Guidelines, incorporating the “preferred draft approach”, and an Environmental Report, including alternatives, and will be subject to public consultation enabling all stakeholders to express their views. Therefore, the draft revised Guidelines will be fully informed by the SEA process prior to their publication by the Minister/DHPCLG.

Finalised Guidelines

Subject to and following the completion of the SEA process, the Guidelines will be finalised and issued under Section 28 of the Planning and Development Act 2000, as amended, and will apply to planning applications and considerations for future wind energy development proposals. Planning authorities and An Bord Pleanála will be required to have regard to the Guidelines and must apply any specific planning policy requirements as may be included in the revised Guidelines in carrying out their functions under Section 28(1C) of the Act.

It is intended that the revised and updated Guidelines will be accompanied by a number of technical appendices to assist planning authorities in relation to noise assessment, monitoring and the setting of planning conditions to ensure a consistent and robust approach.

“Preferred Draft Approach” – 6 Key Aspects

1. Sound/ Noise

Noise Limits

The “preferred draft approach” proposes noise restriction limits consistent with World Health Organisation standards, proposing a relative rated noise limit of 5dB(A) above existing background noise within the range of 35 to 43dB(A), with 43dB(A) being the maximum noise limit permitted, day or night. The noise limits will apply to outdoor locations at any residential or noise sensitive properties.

Sounds containing certain characteristics specific to wind turbines (e.g. tonal, low frequency and amplitude modulation) are frequently perceived to be more intrusive than those that do not. The rated limit will take account of these certain noise characteristics and, where identified, permitted noise limits will be further reduced to mitigate for these.

Noise Monitoring

Updated noise measures are being proposed in tandem with the introduction of a new noise monitoring regime in relation to wind farms with local authorities enforcing planning conditions supported by the Environmental Protection Agency who will provide independent noise monitoring of wind farms. Where there is evidence of non-compliance with noise limits, wind turbines will be required to be turned off until compliance with the noise limits is proven.

Detailed technical guidance is being developed in relation to noise assessment, monitoring and the setting of planning conditions to assist planning authorities and developers in this regard.

2. Visual Amenity Setback

The 'preferred draft approach' proposed for visual amenity comprises a setback distance, of 4 times the tip height between a wind turbine and the nearest point of the curtilage of any residential property, subject to a mandatory minimum setback of 500 metres.

The potential for visual disturbance can be considered as dependent on the scale of the proposed turbine and the associated distance. Thus a setback which is the function of size of the turbine should be key to setting the appropriate setback.

Setback requirements would also be subject to compliance with noise limits.

3. Shadow Flicker

Shadow Flicker occurs when the sun is low in the sky and the rotating blades of a wind turbine casts a moving shadow which, if it passes over a window in a nearby house or other property results in a rapid change or flicker in the incoming sunlight. The time period in which a neighbouring property may be affected by shadow flicker is completely predictable.

The 'preferred draft approach' proposes that technology and appropriate modelling at design stage to eradicate the occurrence of shadow flicker must be confirmed in all planning applications for wind energy development.

Moreover, there will be clearly specified measures for automatic wind turbine shut down, where the issue arises as a condition planning permission. In effect, no neighbouring property will experience the occurrence of shadow flicker.

4. Consultation Obligations

It is proposed that there will be an obligation on the developer of a wind energy project to consult with communities, prior to submitting a planning application.

Planning authorities will take into account the degree to which the proponents of wind energy projects have meaningfully and properly consulted with and facilitated public participation in developing and refining their proposals. Projects should reflect broadly based community perspectives, should explain the potential benefits of a project and should seek to establish relationships with the community on a long-term basis.

Community Report

Planning applications must contain a Community Report prepared by the applicant which will specify how the final proposal reflects community consultation.

The Community Report must also outline steps taken to ensure that the proposed development will be of enduring economic benefit to the communities concerned.

5. Community Dividend

Community benefit/dividend will be a core component of future wind farm development with both community ownership and part-ownership of wind energy projects by local communities being encouraged.

Wind farm developers will also be required to take steps to ensure that the proposed development will be of enduring economic benefit to the communities concerned. While the precise benefit will vary according to the nature and scale of a project and the local communities' preferred options regarding the nature of the community benefit, it is essential that applicants/developers offer a form of community benefit that provides for a tangible long-term dividend to the community.

Community benefit may encompass a range of measures that a project can bring to local areas. For the majority of projects, this is associated with the level of economic benefit, widely defined, that a project brings to a community. Whether in the form of local jobs and training opportunities, energy efficiency measures, and contributions in kind to local assets and facilities, it is important that community benefit is a core component of future wind farm development.

Models to support community participation will be implemented as part of the new Renewable Electricity Support Scheme under development by the DCCAE.

The 'preferred draft approach' for the consultation obligations and community dividend proposals will be further supported by the "Code of Practice for Wind Energy Developments – Guidelines for Community Engagement", issued by the DCCAE in December 2016 for the wind industry sector.

6. Grid Connection

From a visual amenity aspect, undergrounding of cable connections from wind farms to the transmission and distribution system is the most appropriate solution, except where specific ground conditions or technical considerations make this impractical.

Draft Revised Guidelines

The draft revised Guidelines will be prepared incorporating the 6 key aspects of the "preferred draft approach" outlined above along with a general update of the 2006 Guidelines.

SEA Process and Timelines

The SEA process for these Guidelines will involve a number of stages, including:

- scoping the content of an Environmental Report with the prescribed Environmental Authorities;
- environmental assessment and the preparation of an Environment Report;
- a public consultation on the proposed draft Guidelines and Environmental Report; and
- the adoption of the Guidelines pursuant to SEA, with the subsequent publication of an SEA Report.

It is envisaged that the full SEA process will take approximately 9 months, including tendering for the appointment of SEA consultants. An indicative SEA Process Timeline is set out at Appendix 1.

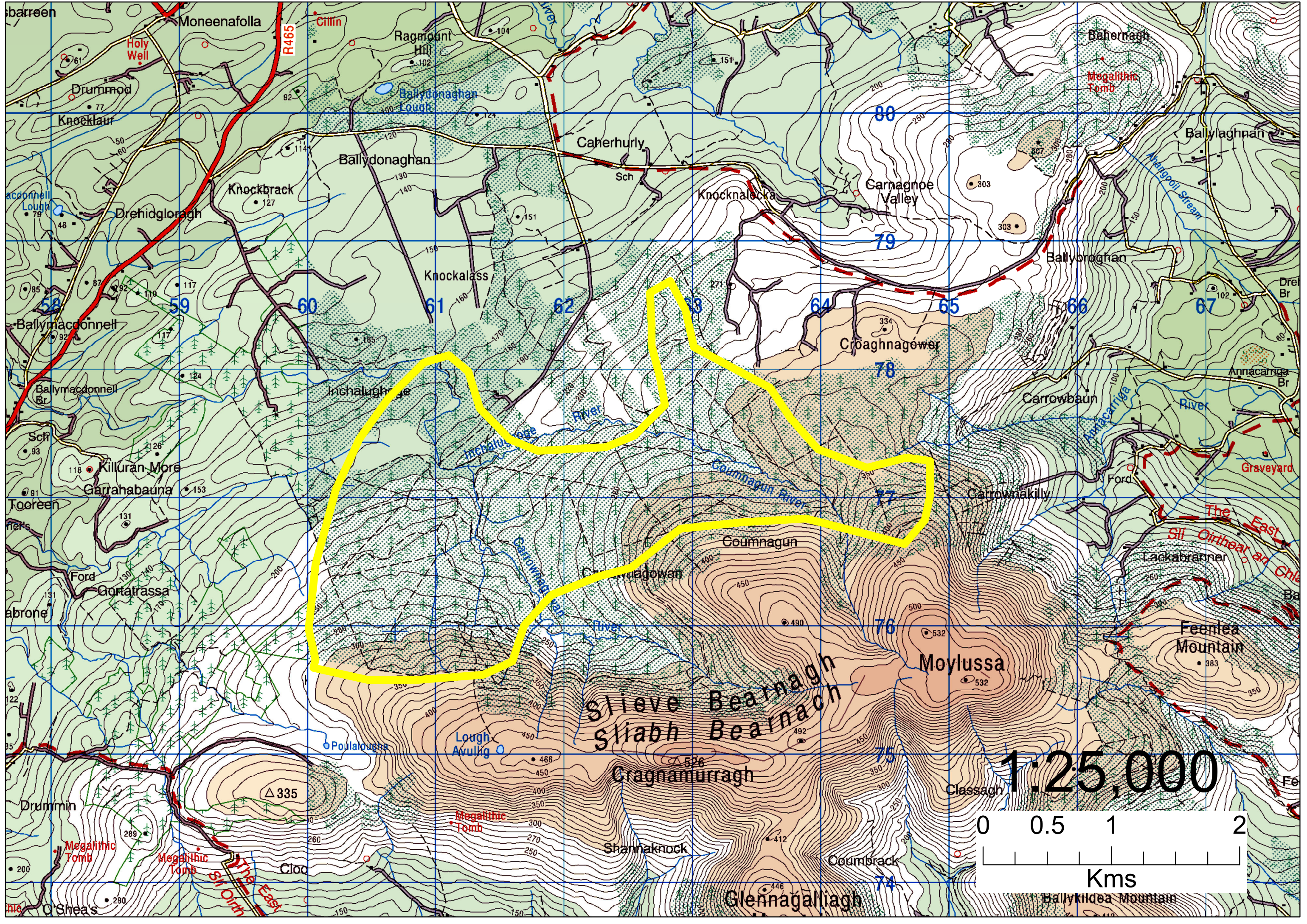
It is also intended to screen for appropriate assessment (AA).

In tandem with commencing the tendering process for an SEA consultant in early Q3 2017, DHPCLG will also carry out the SEA screening process and commence the scoping process with the Environmental Authorities, on an in-house basis. The indicative timeline for the completion of the overall process and the issuing of adopted Guidelines is Q1 2018.

Indicative SEA Process Timeline*

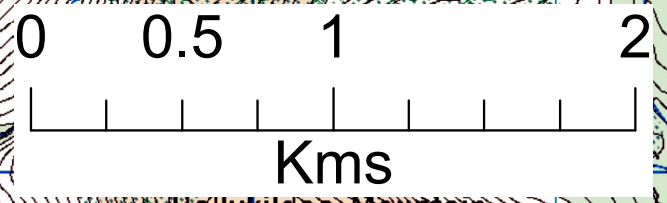
Stage	Timeline	Period	Action
Screening and Scoping	Week 0-2	2 weeks	Preparation of SEA Scoping Report
	Week 3-6	4 weeks	Environmental Authority Consultation
Environmental Assessment	Week 7-8	2 weeks	Review response Environmental Authorities. Finalise “Recommended” Guidelines, Environmental Report and AA Screening Report
	Week 9-12	4 weeks	Additional period if NIS (AA) required
Public Consultation	Week 13-20	8 week	Publication of “Recommended” Guidelines, Environmental Report and AA Screening/NIS
	Week 21-24	4 weeks	Review response from Public Consultation
Finalise Guidelines	Week 25-26	2 weeks	Publication of adopted Guidelines and SEA Report

* Timeline may change e.g. due to the volume of submission received in the public consultation stage.



Slieve Bearnagh
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From: Gerard Hynes
Sent: Tuesday 9 April 2019 10:18
To: [Michael McNamara](#); Michael McNamara
Subject: Tuamgreaney

All Company



Carol Ryan – Monday at 10:00 AM from iPhone

Pupils from Tuamgreaney NS learning about hen harrier and the species of birds that make their homes in spruce plantations. John Murphy from Birdwatch Ireland ran the session as part of our Community Engagement activity surrounding Carrownagowan Wind Farm. We also visited schools in Broadford and Killaloe



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Martina Quinn, Emmet McLaughlin, Clodagh Duffy, and 6 others like this

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Write a reply



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MEETING AGENDA COILLTE & CAHERHURLY RESIDENTS 2ND MAY 2019 7.00 – 9.00, COILLTE SCARRIFF OFFICE.

- Malachy Walsh & Partners EIAR Consultant .
Progress update from March 28th meeting.
- Project Programme
- Community Fund
- AOB – website & recent Clare fm interview
- Look ahead – landscape and visual workshop at next meeting, suggestions for 2nd noise workshops

1 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) CONSULTANT

Malachy Walsh and Partners (MWP) has been commissioned by Coillte to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) for a proposed wind farm on Coillte lands at Carrownagowan, near Slieve Bernagh in Co. Clare. Much of the lands identified are included as Strategic Areas for wind energy development in plans for Co. Clare.

The project includes for the preparation of an EIAR, planning application, wind farm layout, grid connection and civil and roads design for the sites and to manage the planning process through to delivery of planning. It is anticipated that will be a strategic infrastructure project.

2 PROJECT DESIGN

We are still focusing on the preliminary design working towards a first **iteration** as follows;

Main project components:

- Wind Turbines construction based on preliminary layout
- Hardstand areas and access roads
- Substation on the wind farm site
- Borrow Pits and spoil management areas

Off-site project components:

- Turbine component haulage route assessment
- Replacement lands for felled forestry
- Grid connection; overhead line or underground cable, any requirements to upgrade substation offsite in Ardnacrusha or Ennis.

3 SITE DESCRIPTION

This is an upland site on Sliabh Bernagh which contains Coillte commercial forestry. It is an active forest amidst harvesting and establishment. There are a number of disused borrow pits around the site and Coillte has identified Biodiversity areas across the site.

There is high drainage density in the area and surface water is the dominant flow process in the area (not groundwater). The proposed infrastructure will be located in areas with shallow peat depths and in areas where the overburden depths is low. The intent is to minimise ground excavations and develop a road infrastructure network that complements the ground contour.

The underlying bedrock is a low permeability poor/locally important aquifer (i.e. it is not regionally important, or karstified). The proposed development is located largely in the Owengarney catchment, with a small proportion in the Lower Shannon/Black River catchment.

Deep peat is not an issue on this site. From an early engineering perspective, this site represents a good base for a wind farm. Proposed access roads are largely in place already and the development is distributed across a wide area. The approach is to maximise the use of existing built infrastructure, carry out upgrades to exist roads and to build short spur roads to turbine locations.

4 STUDIES AND SURVEYS

We are currently in the design stage for this project **close to a fixed layout**. The feasibility stage examined the entirety of the project including the wind farm site and route to grid. The approach has been to look at the key constraint areas that may influence the design and layout of a project of this scale. The following are some of the topic areas currently being considered.

- Landscape and visuals – contour models, preliminary View Point work and wireframe views completed. Virtual reality workshop to be organised once design iteration 1 is completed (**We expect to run this on the 30th of May**)
- Ecology – bat **season** surveys, mammal surveys **ongoing**
- Ornithology – ongoing bird survey work in accordance with SNH guidelines. Throughout the Breeding season **until the end of August**
- Water – hydrology and hydrogeology – baseline water assessments ongoing, **hydrochemical sampling & testing**
- Aquatic Ecology – baseline surveys complete

- Aviation and communications – engagement with Irish Aviation Authority and communications companies
- Community – ongoing engagement on the ground by Coillte team
- Soils, geology – site visits, peat probing and slope risk mapping completed. Trial holes and detailed site investigation to commence once we have the fixed iteration 1 layout.
- Noise and shadow flicker – models developed and scenarios being examined & assessed. Designing to the Department preferred draft guidelines. Key to the production of design iteration 1.
- Archaeology – baseline mapping and desk study work complete

In conjunction with the above an initial preliminary layout has been developed. The feasibility stage will inform potential layouts going forward. The completion of all baseline studies will identify constraints. Once the noise and ground assessments are complete, we will have a fixed design iteration 1 layout.

The mapping of all constraints will drive the development of a low risk site layout. The engineering design will avoid constraints and provide buffers from designated sites, streams and any sensitive features.

5 NEXT STEPS

- Completion of Design iteration 1
Arrive at a locked layout on the completion of detailed site investigations
- Drainage design
- Pre-application stage process with ABP will continue for a number of months.
- Community engagement will be an ongoing process – workshops for landscape and visuals and noise to follow.
- Statutory and Non Statutory consultation will be completed.
- Project review will occur on a number of occasions before we arrive at a layout that can be considered as low risk and suitable (locked layout August 2019)
- Community Benefit Fund, Pre-planning Scope
Work with local neighbours to design initial construct of a community based structure that would manage the wind farm Community Benefit Fund.

Areas to explore:

Type of structure needed

Legal status

Governance and decision making structure

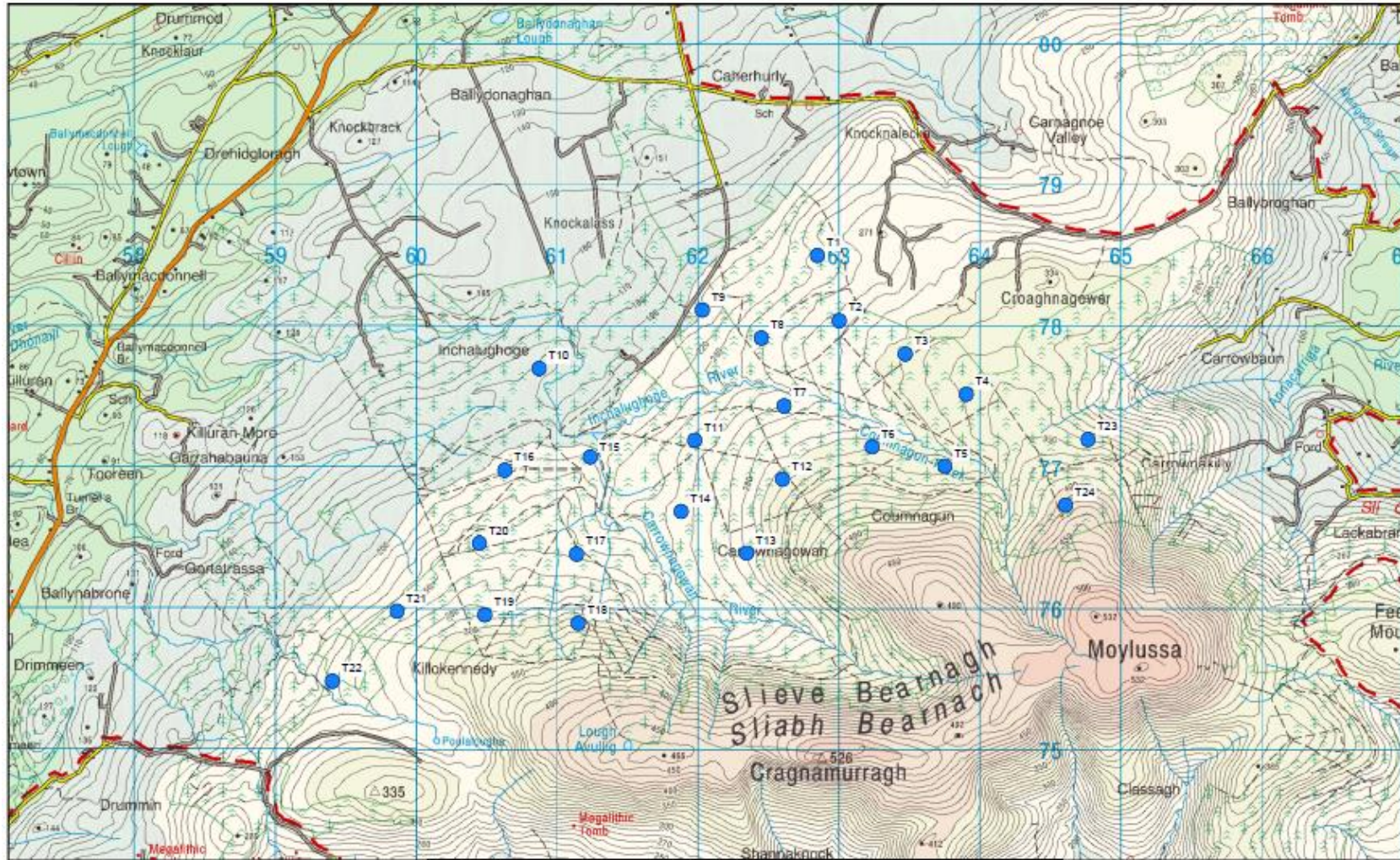
Key Stakeholders

It is envisaged that an application will be lodged with ABP in Q4 2019.

Timelines



190502 ENCA EIAR
Timelines.xlsx



Legend

Turbine Location



Ordnance Survey Ireland Licence No EN 0013718
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Rev.	Date	Description	by	ch'd	app.
A	02.11.18	Issued For Information	JK	HR	HR

Client: **Coillte**

Project: **Carownagowan Wind Farm**

Title: **Turbine Locations Consultation Phase**

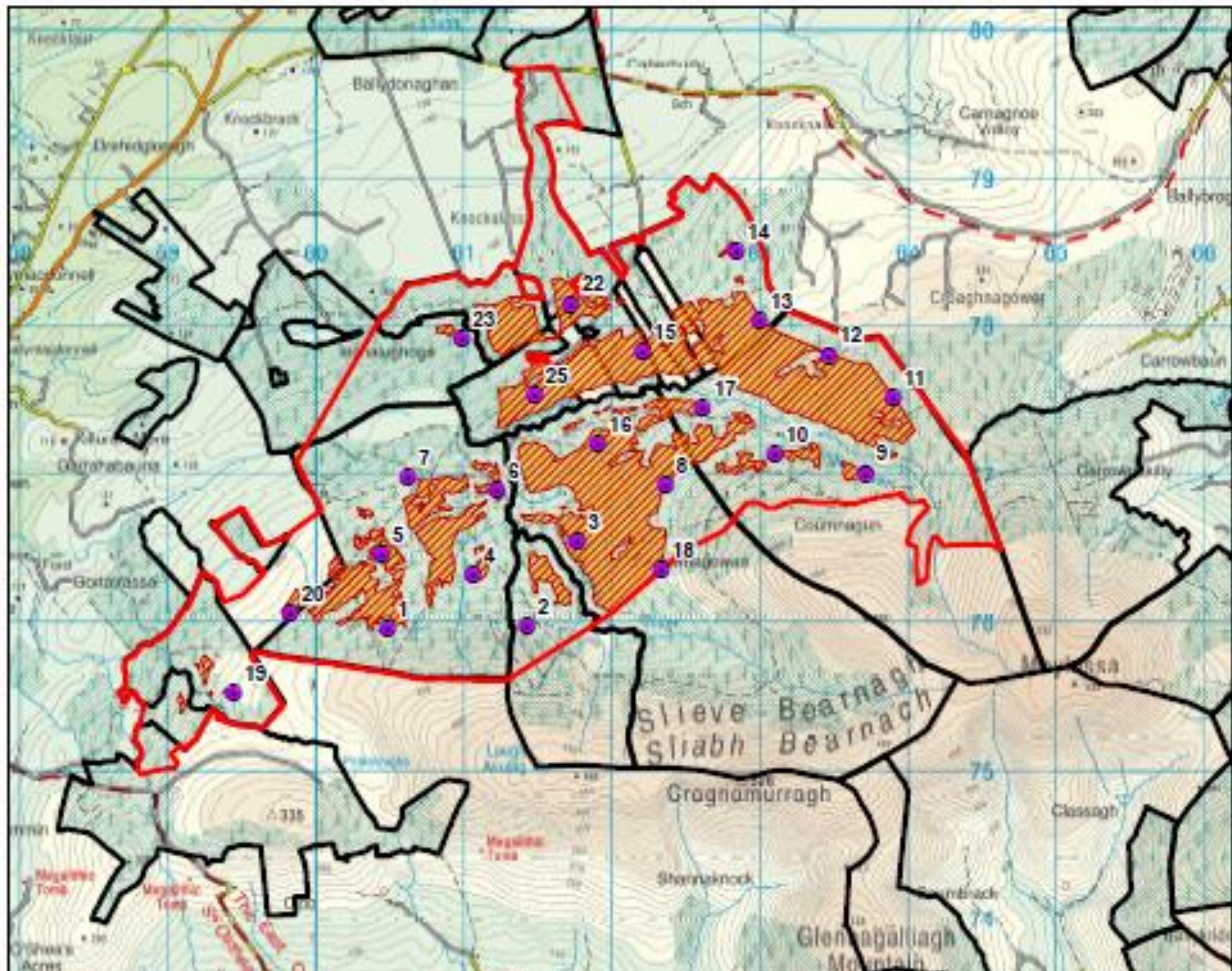


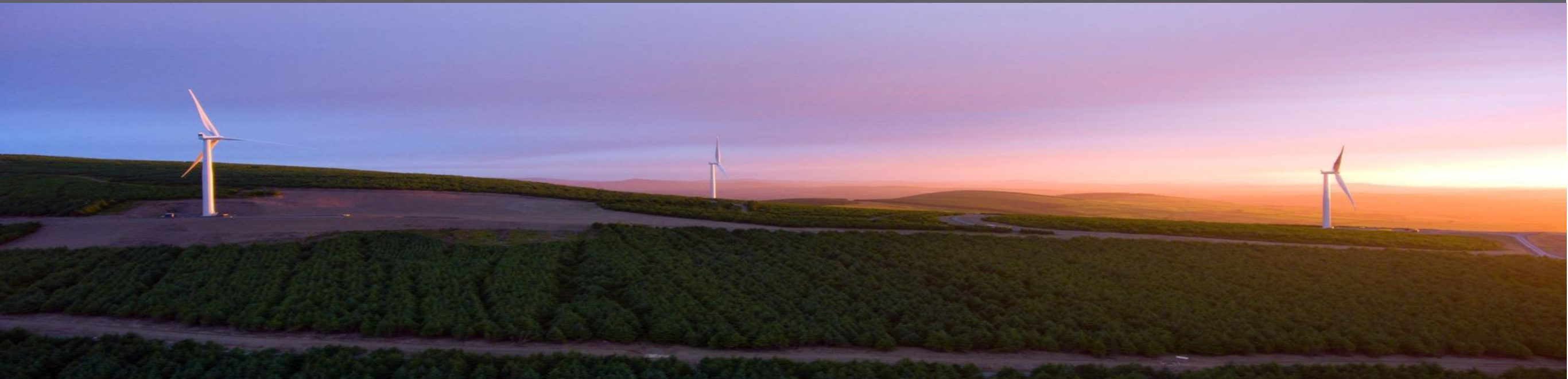
Malachy Walsh and Partners
Consulting Engineers
Cork | Tralee | London | Limerick

Scales (A3): 1:25,000

Drawn	JK	02.11.2018
Checked	HR	02.11.2018

Prog. No.	19107-0028	Rev.	A
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Carrownagowan Wind Farm,

Community Group meeting 17th June 2019

Presentation Overview

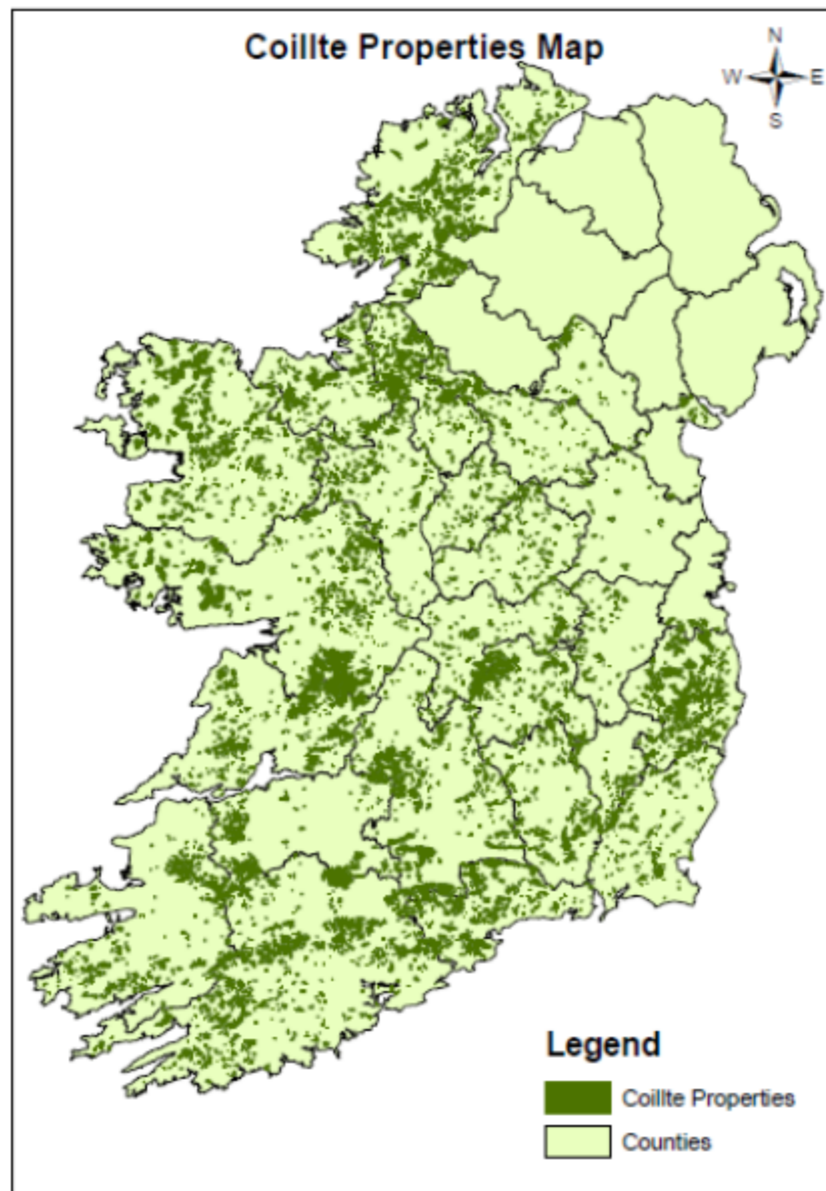
- Coillte Overview
- Project Location and Details
- Design Philosophy
- Timelines
- EIAR
- Project Design
- Community Engagement
- Community Benefit Fund
- RESS

Coillte Overview



- Commercial semi state company since 1989
- Estate has grown to over 440,000 hectares (equivalent to approx. 7% of total land of Ireland)
- Provides the public with a range of benefits from recreation to environmental services
- Approx. 900 employees across Ireland and UK, supporting indigenous employment in a vibrant export-oriented forest products sector
- Comprises three discrete businesses – Forest, Land Solutions and Medite/Smartply (Panels)

Renewable Energy



- ❑ Coillte's land bank will support >30% of all installed onshore wind capacity to 2020
- ❑ Coillte is positioned to be a market leader in the period to 2030

Land will be an even greater competitive advantage for the next phase of onshore wind farm development:

- **Scale** and **high wind sites** provide a natural advantage in a post-subsidy setting
- **Proximity to the National Grid** will be key to improving project desirability and returns
- **Social Acceptance** will still present challenges to securing planning consents, placing greater onus on site selection and pipeline size/optionality

Opportunity to establish a new commercial model for the 2020-30 period which would seek to build on the delivery ambitions, development capability, scale and value provided by Coillte.

Project Location and Details

- The proposal is for the Carrownagowan Wind Farm
- This is a wind energy development on Coillte lands
- The site is located on the north-western slopes of Slieve Bernagh in south east Clare, within the Strategic wind farm development area
- The site is approximately 4 km northeast of the village of Broadford, 7km north west of Killaloe and 2.5 km south of the village of Bodyke, at its closest point.

Project details

Developer

- Coillte Cuideachta Ghníomhaíochta Ainmnithe

EIA & Engineering Consultants

- Malachy Walsh and Partners
- Engineering and Environmental Consultants

Site Location

- North-western slopes of Slieve Bernagh
- South-east County Clare

Current Land-use

- Commercial Forestry plantation
- Includes 2nd rotation and Biodiversity areas

Land-use zoning

- Clare County Development Plan 2017-2023
- ‘Living Landscapes’ categorised, including Heritage Landscapes, Working Landscapes and Settled Landscapes
- Site is in a Settled Landscape
- Clare Wind Energy Strategy - Clare CDP 2017-2023
- Site is in Strategic Wind Farm Development Area

Target MEC

- 90-100 MW

Zoned Capacity

- Potential for 150 MW in Strategic Area

Clare County Development Plan 2017 - 2023

Wind Energy Designations



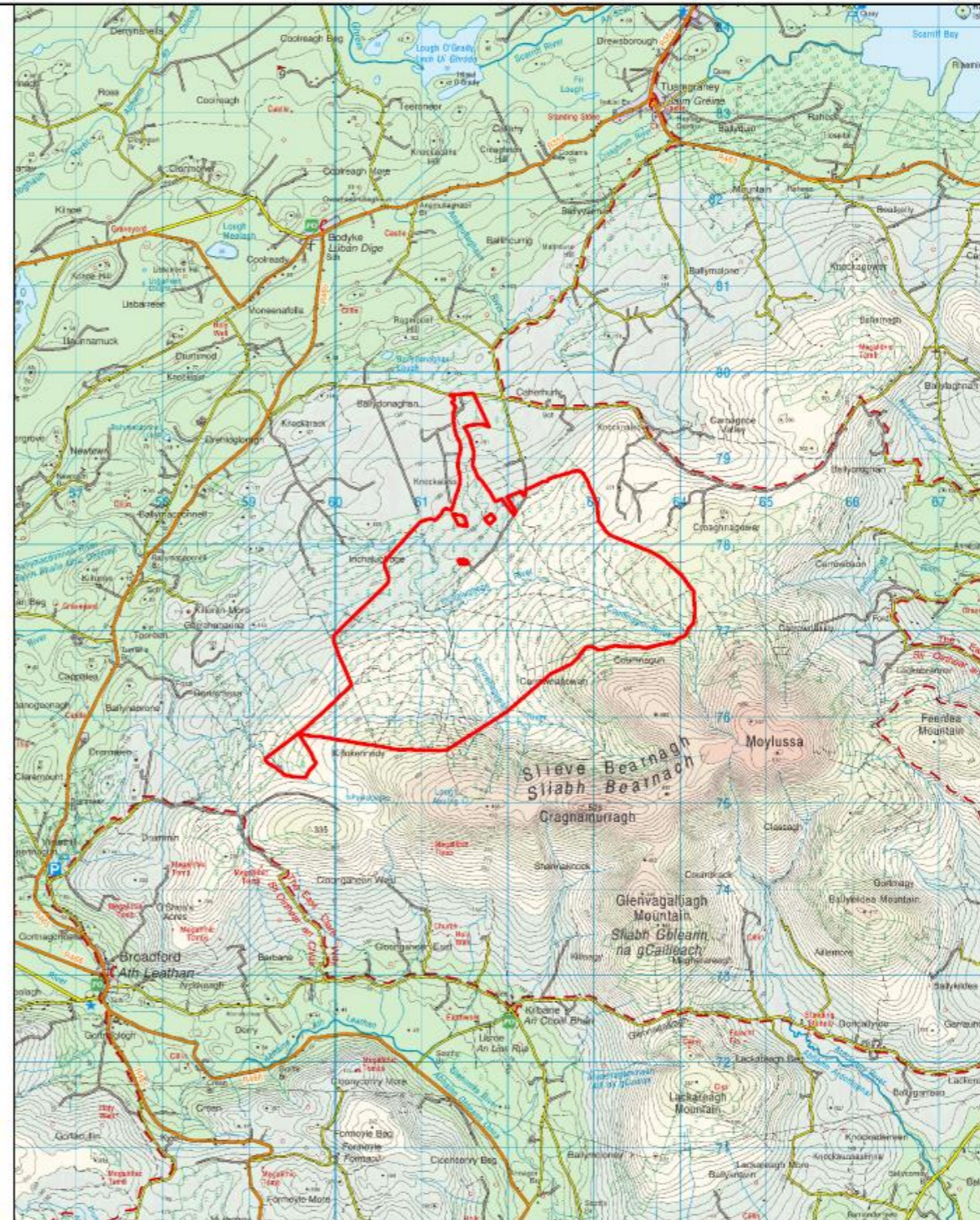
4 Advice on Landscape Capacity for Wind Energy Developments based on LCAs

Location of proposed development

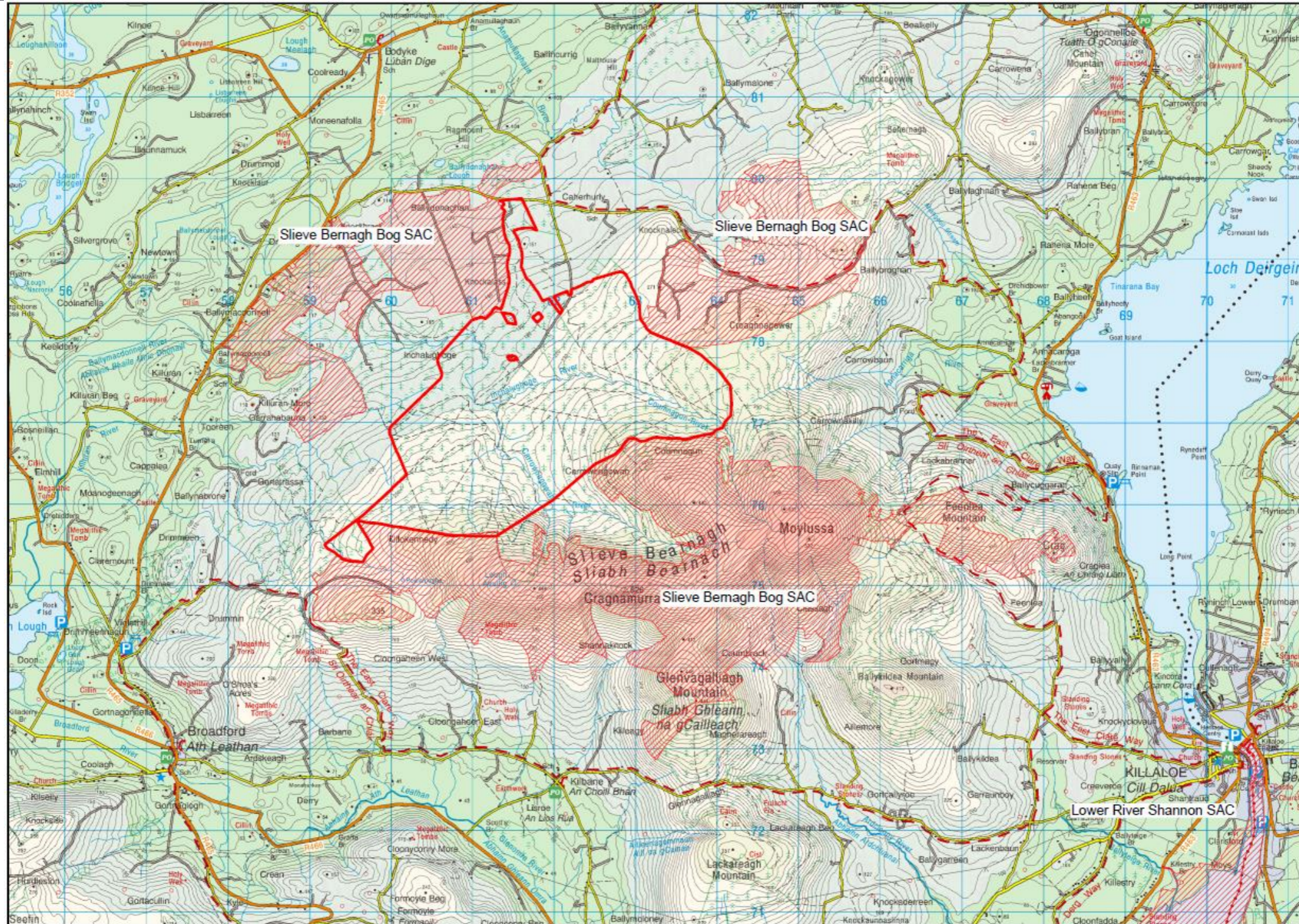


COILLTE

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Location – NW Slieve Bernagh



Location – Conifer plantation



Location - Strategic Zoning

- Clare Wind Energy Strategy (2017 – 2023)
 - Strategic Area
 - Acceptable in Principle
 - Open to Consideration
 - Not Normally Permissible
- Slieve Bernagh Strategic Area can accommodate Medium – Large wind farms on the north west slopes.
- The Strategic Area excludes the landscape character area (LCA) of Slieve Bernagh, including the foothills and mountains over looking Lough Derg.

Location - Strategic Zoning

- The Strategic Area is in a settled landscape, where the uses envisaged in the Clare CDP include *agriculture, energy, forestry, extraction, transportation, industry and commerce, tourism, recreation and leisure, education, healthcare and social infrastructure.*
- Strategic Areas were zoned by Clare County Council due to their variable wind speeds, proximity to the grid, slopes $< 15^\circ$, exclusion of protected sites and distance of 400m from properties.

Land, Forestry & Access

- The site is located on elevated ground between 130 and 450 metres Ordnance Datum on the northern slopes of Slieve Bernagh.
- Moylussa, to the south east of the development area, is the highest point in the Slieve Bernagh range at 530m.
- Other nearby summits includes Cragnamurragh at 526 metres Ordnance Datum to the south.
- The site is located within Coillte forestry with additional private lands.
- Doon Lough is to the southwest and Lough Derg is to the east and northeast.

Emerging Constraints

- Peat & visual constraints: 4 proposed wind turbines from the east & north excluded
- Population: 750m buffer applied to local residences
- Engineering: Exclusion of slopes $>10^\circ$ and eastern area with historic peatslide, and catchment to the east, with Annacarriga River and link to Lough Derg
- Water: Buffer of 75m to watercourses (EPA registered) and 150m to the SAC
- Biodiversity: 500m buffer of hen harrier zone
- Biodiversity: Initial results indicate bat activity is relatively low

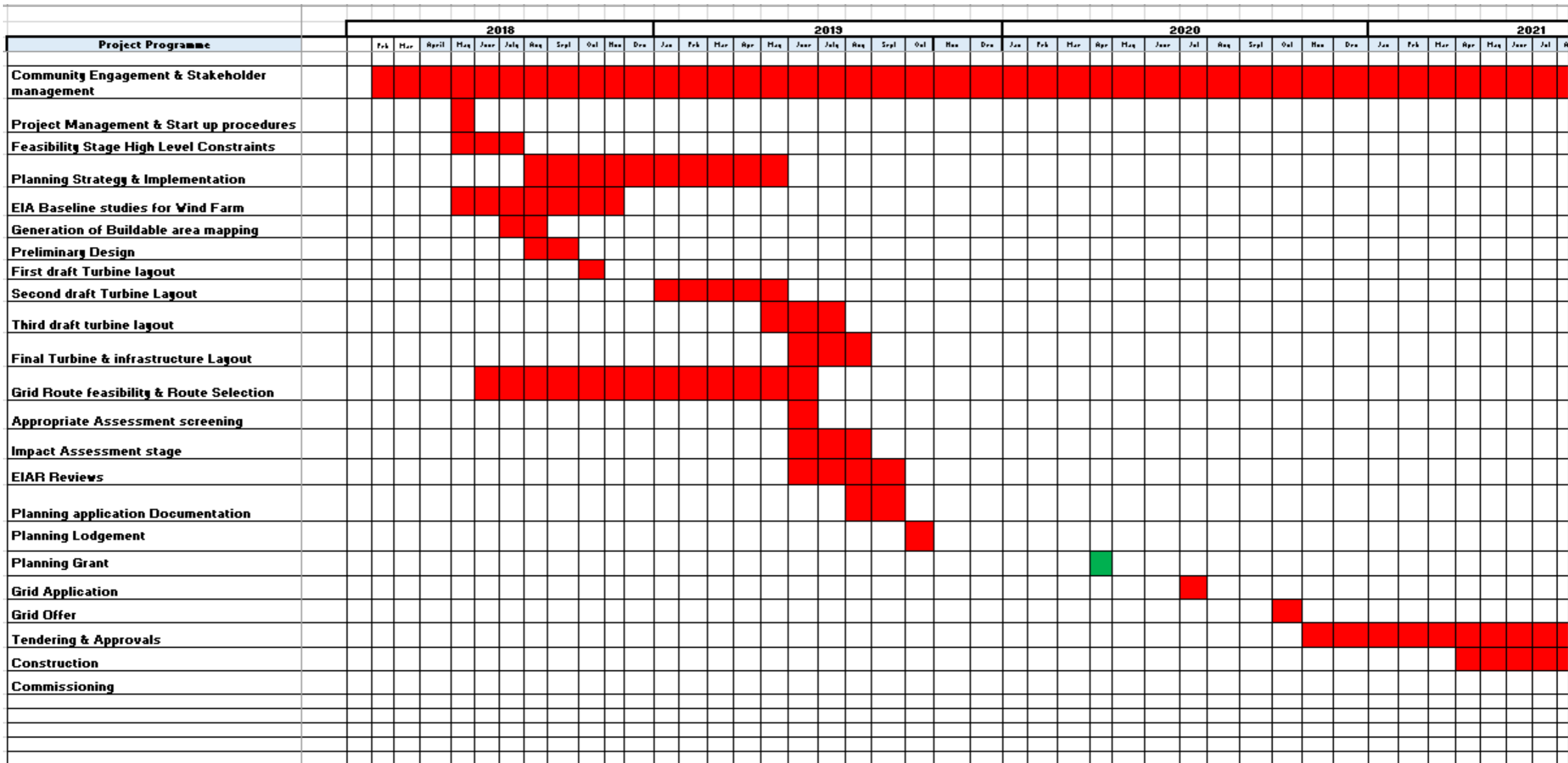
Design Philosophy

- Coillte EIAR consultant MWP were provided with a LiDAR model of the complete site which enabled a slope analysis.
- The slope assessment was completed to identify areas of the site where excessive slope should be avoided.
- A key design parameter is to ensure that roadside drainage does not intercept overland flow from the forest drain network.
- A constraints approach was applied with early adoption of engineering and environmental constraints.
- The review and iteration of the layout is ongoing.
- Grid Route Options feasibility and selection complete.

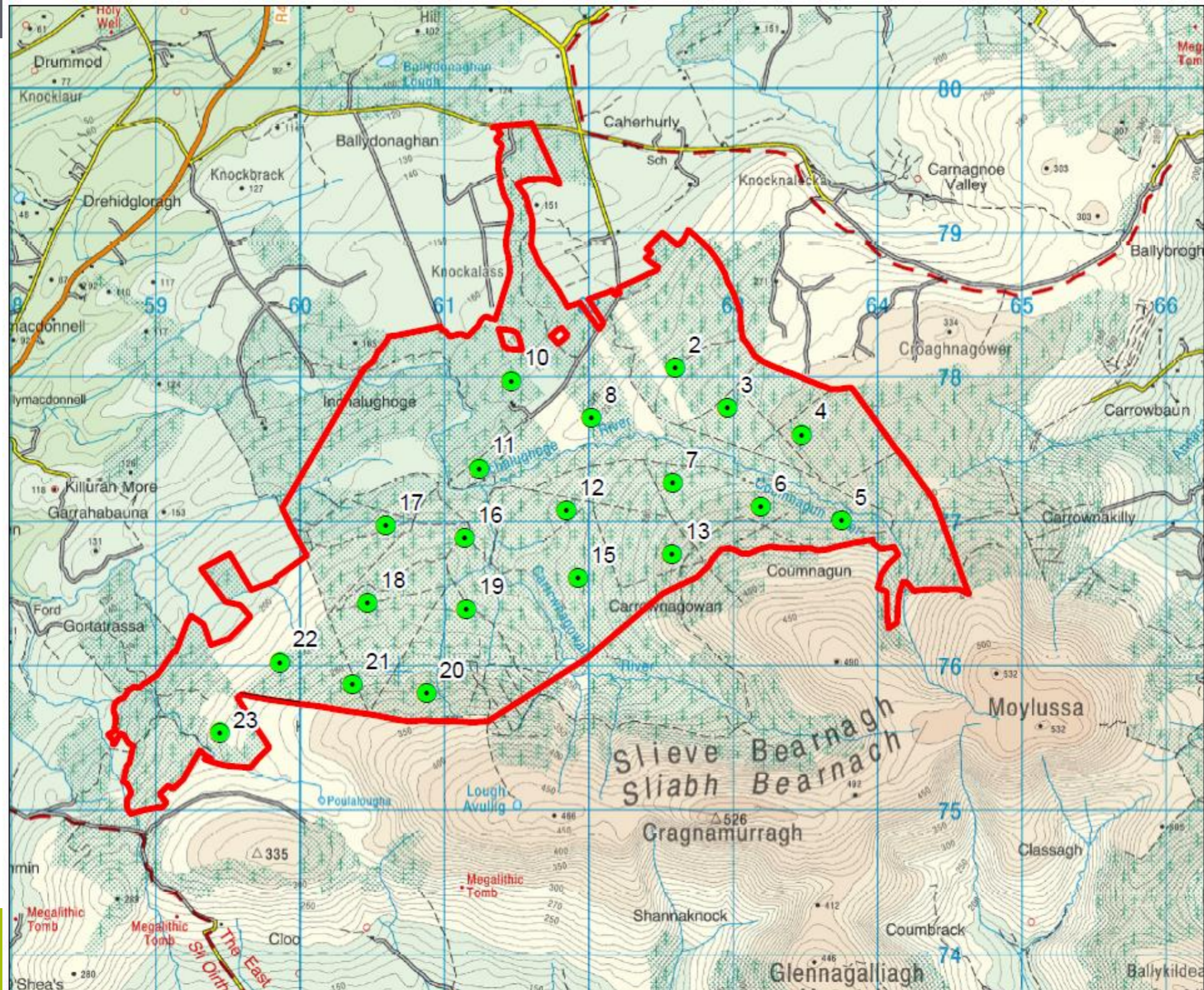
Strategic Infrastructure

- Carrownagowan Wind Farm (90 – 100 MW Potential)
- *An installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 megawatts.*
- The wind energy development would also contribute to the region's electrical infrastructure and the national renewable energy targets. Furthermore, the proposal is in line with using Renewable Energy to transition to a low carbon energy future, as outlined in the National Planning Framework (Project Ireland 2040)

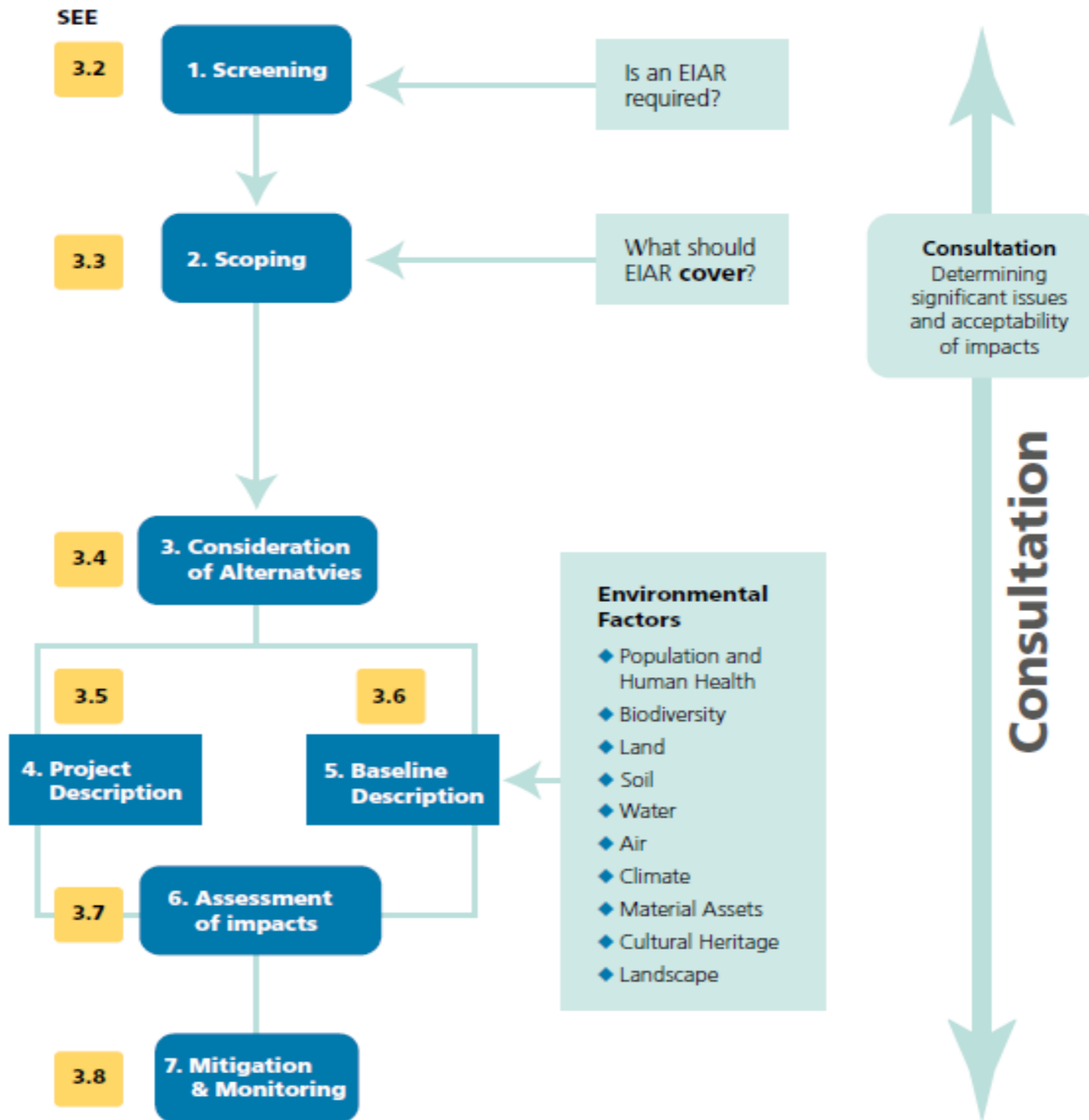
Timeline - Programme



Current Layout



EIAR



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Community Engagement

- Coillte's public engagement mission is to be consistently transparent, inclusive & committed to integrating community views into our project plans.
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Community Benefit Fund

- Community Benefit Fund, Pre-planning Scope
- Work with local neighbours to design initial construct of a community based structure that would manage the wind farm Community Benefit Fund.

Areas to explore:

- Type of structure needed
- Legal status
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- Key Stakeholders
- Assistance of Tipperary Energy Agency

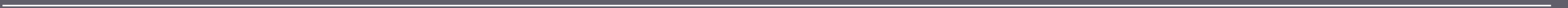
RESS (Renewable Electricity Support Scheme)

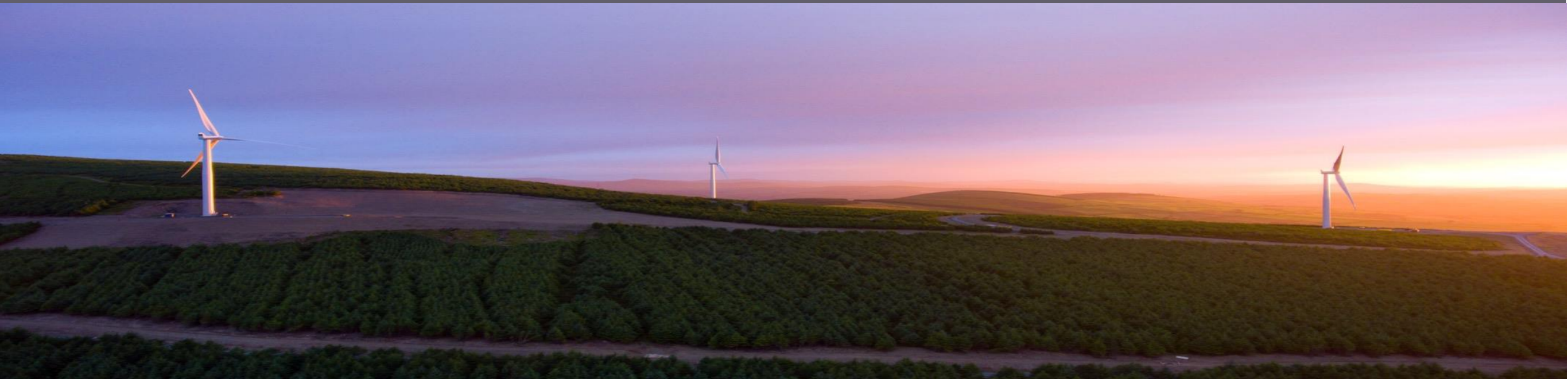
- **Communities**
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- **Mandatory Community Benefit Fund and Register standardised across the sector. It is proposed that this contribution is set at €2/MWh for all RES-E generation produced and seeking support via RESS auctions. A national community benefits register will be established.**

Final Slide



Thank You





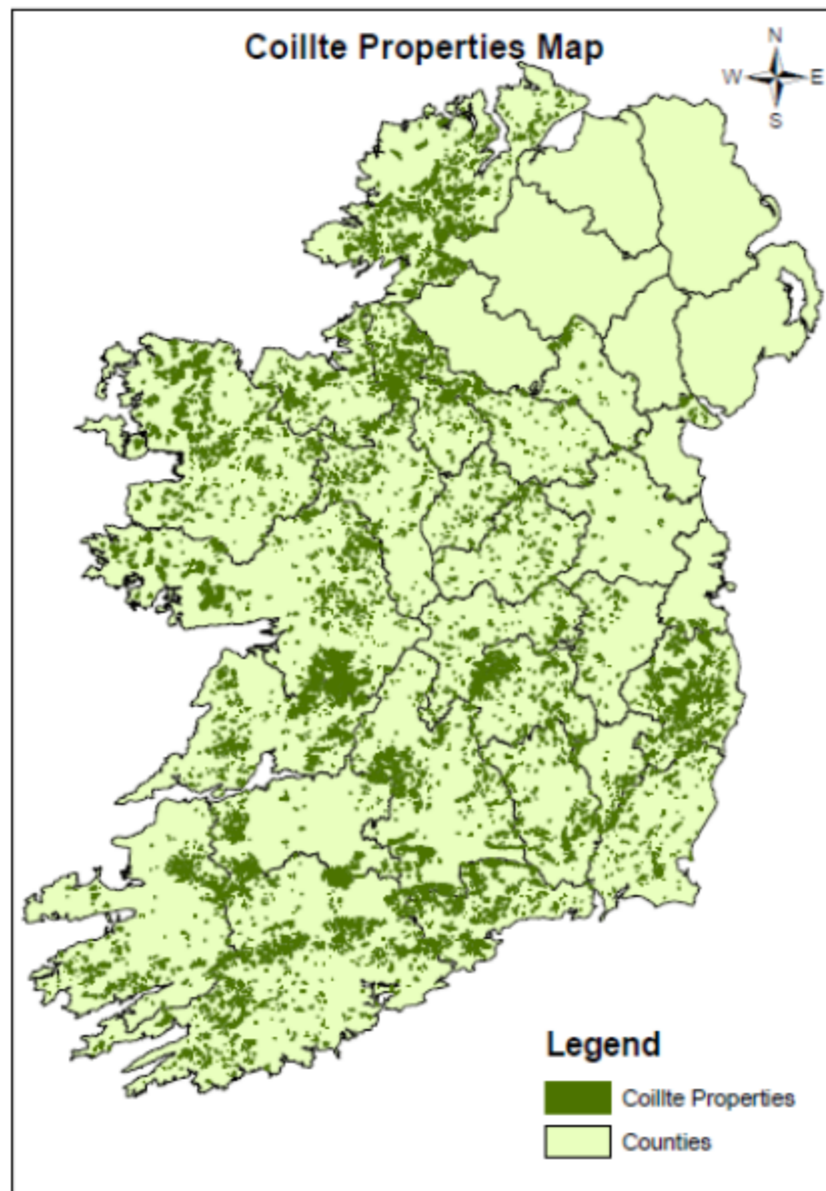
Carrownagowan Wind Farm,

Bodyke Community Group meeting 4th July 2019

Presentation Overview

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- Timelines
- EIAR
- Project Design
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- <http://carrownagowanwindfarm.ie/>

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- Includes 2nd rotation and Biodiversity areas

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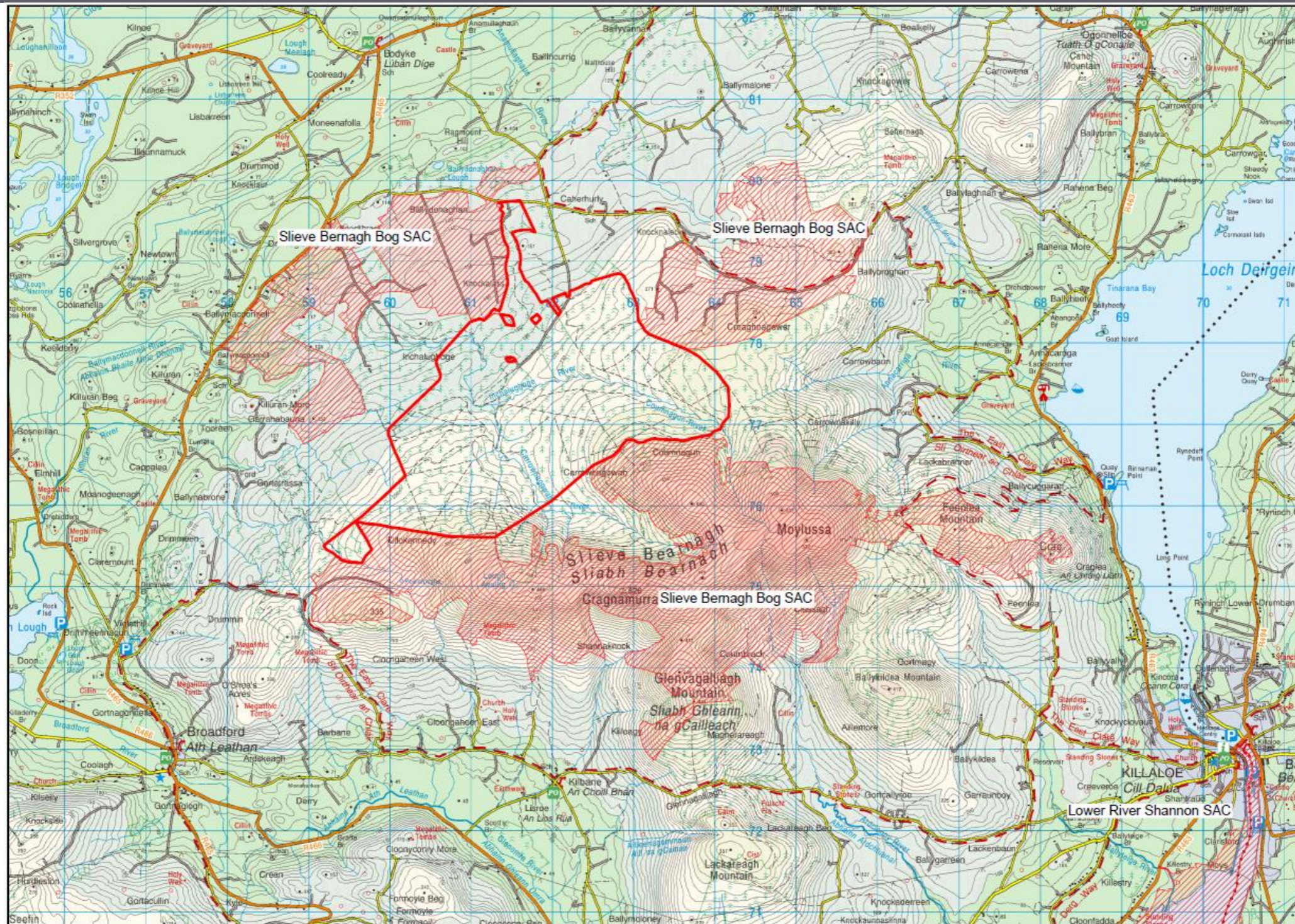


COILLTE

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Emerging Constraints

- Peat & visual constraints: led to a reduced no of turbines from 24 to 20
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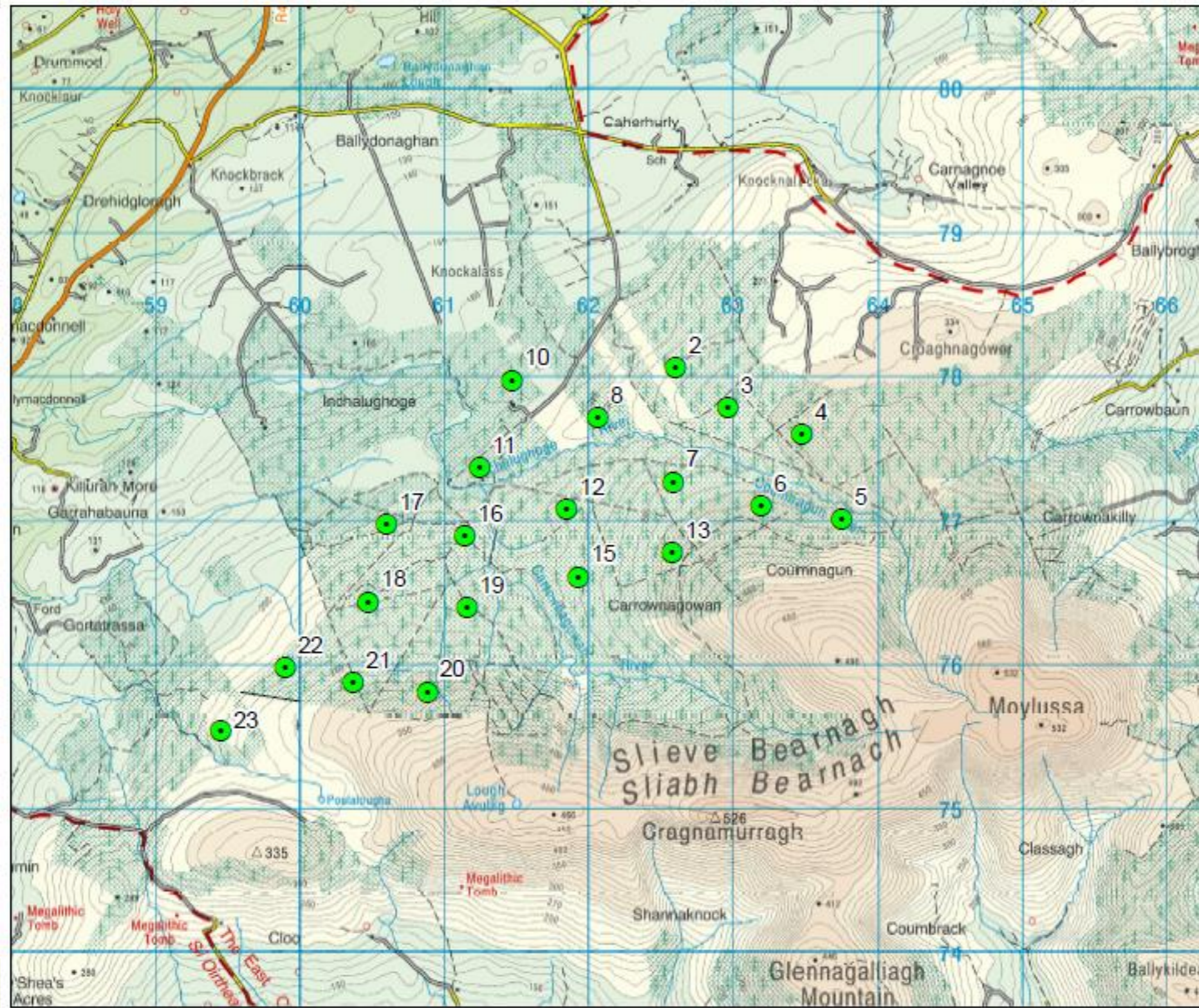
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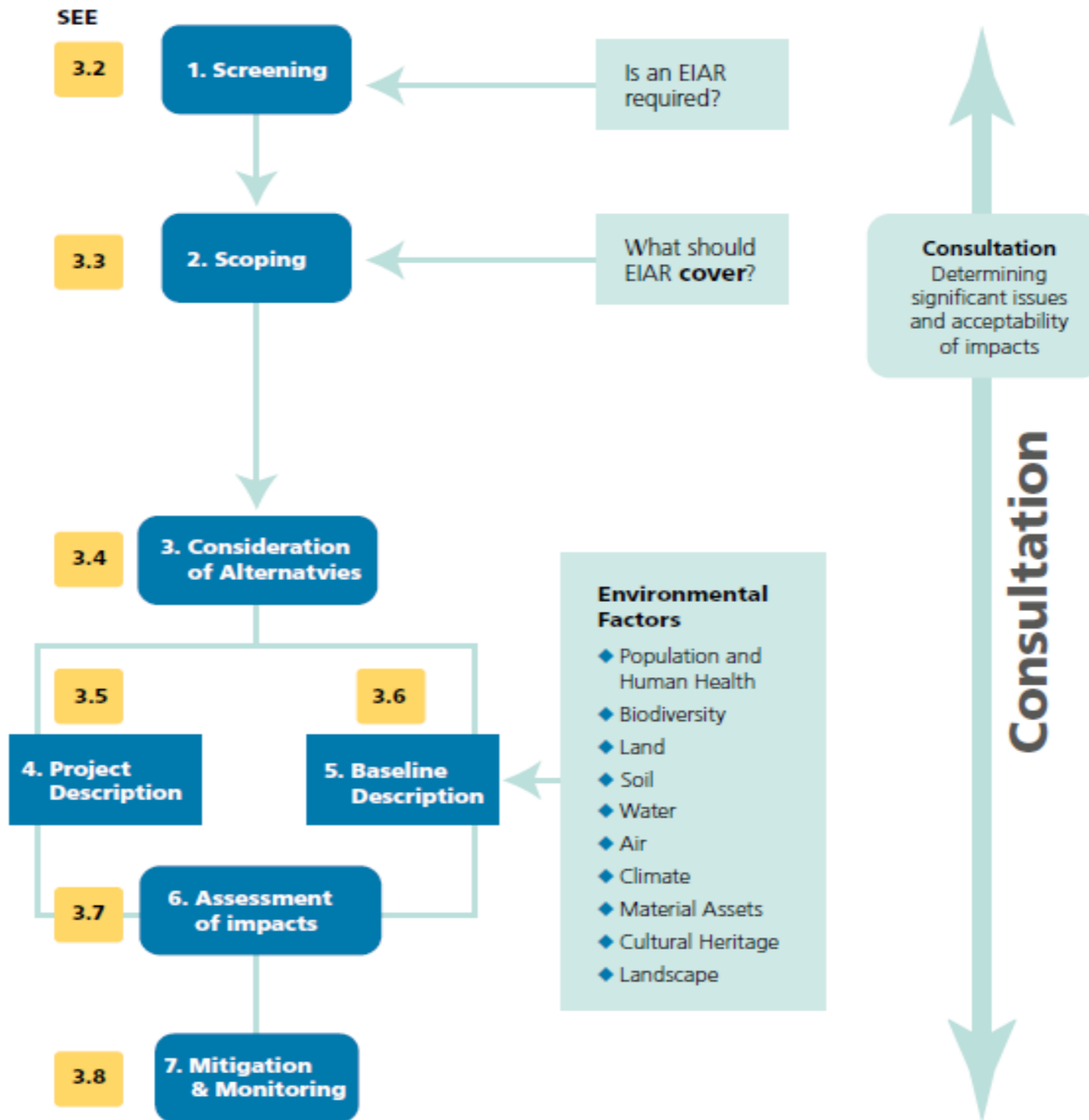
Timeline - Programme

Project Programme	2018												2019												2020												2021											
	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug					
Community Engagement & Stakeholder management	[Red]																																															
Project Management & Start up procedures	[Red]																																															
Feasibility Stage High Level Constraints	[Red]																																															
Planning Strategy & Implementation	[Red]																																															
EIA Baseline studies for Wind Farm	[Red]																																															
Generation of Buildable area mapping	[Red]																																															
Preliminary Design	[Red]																																															
First draft Turbine layout	[Red]																																															
Second draft Turbine Layout	[Red]																																															
Third draft turbine layout	[Red]																																															
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Planning Lodgement	[Red]																																															
Planning Grant	[Green]																																															
Grid Application	[Red]																																															
Grid Offer	[Red]																																															
Tendering & Approvals	[Red]																																															
Construction	[Red]																																															
Commissioning	[Red]																																															

Current Layout



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Final Slide



Thank You



MEETING AGENDA COILLTE & CAHERHURLY RESIDENTS 16TH JULY 2019 7.00 – 9.00, COILLTE SCARRIFF OFFICE.

- Malachy Walsh & Partners EIAR Consultant .
Progress update from May 30th meeting.
- Studies & Surveys
- Site Investigations
- Community Fund
- Next Steps / Timelines

1 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) CONSULTANT

Malachy Walsh and Partners (MWP) has been commissioned by Coillte to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) for a proposed wind farm on Coillte lands at Carrownagowan, near Slieve Bernagh in Co. Clare. Much of the lands identified are included as Strategic Areas for wind energy development in plans for Co. Clare.

The project includes for the preparation of an EIAR, planning application, wind farm layout, grid connection and civil and roads design for the sites and to manage the planning process through to delivery of planning. It is anticipated that will be a strategic infrastructure project.

2 PROJECT DESIGN

We are still focusing on the preliminary design working towards a first **iteration** as follows;

Main project components:

- Wind Turbines construction based on preliminary layout
- Hardstand areas and access roads
- Substation on the wind farm site
- Borrow Pits and spoil management areas

Off-site project components:

- Turbine component haulage route assessment
- Replacement lands for felled forestry
- Grid connection; overhead line or underground cable, any requirements to upgrade substation offsite in Ardnacrusha or Ennis.

3 SITE DESCRIPTION

This is an upland site on Sliabh Bernagh which contains Coillte commercial forestry. It is an active forest amidst harvesting and establishment. There are a number of disused borrow pits around the site and Coillte has identified Biodiversity areas across the site.

There is high drainage density in the area and surface water is the dominant flow process in the area (not groundwater). The proposed infrastructure will be located in areas with shallow peat depths and in areas where the overburden depths is low. The intent is to minimise ground excavations and develop a road infrastructure network that complements the ground contour.

The underlying bedrock is a low permeability poor/locally important aquifer (i.e. it is not regionally important, or karstified). The proposed development is located largely in the Owengarney catchment, with a small proportion in the Lower Shannon/Black River catchment.

Deep peat is not an issue on this site. From an early engineering perspective, this site represents a good base for a wind farm. Proposed access roads are largely in place already and the development is distributed across a wide area. The approach is to maximise the use of existing built infrastructure, carry out upgrades to exist roads and to build short spur roads to turbine locations.

4 STUDIES AND SURVEYS

Biodiversity

Bats

Spring bat surveys complete. Bat detectors surveyed 12 sites over the Spring/10 consecutive nights. Bat transects throughout the site/around the site completed.

Summer bat detectors are out. Deployed 25/06/19 - 14 zones now being monitored. The number of detectors was increased, due to turbines moving/layout changes - in line with SNH. The detectors will be out for at least 10 nights.

Summer transect surveys will be completed when bat boxes are collected.

Autumn bat surveys will be completed in mid/late August.

Watercourse crossings

Ecologist finished off ecological surveys at the watercourse crossings along the proposed routes. (bats/birds/mammals/invasive's). Habitat map to be completed.

Birds – June bird surveys

Woodcock, red grouse, kestrel, sparrow hawk and hen harrier activity

VP1: There were five sightings of immature male hen harrier, one male kestrel, one female mallard on little pond and two snipe

VP3: One male Hen Harrier.

VP4: One Woodcock roding.

VP7: One Buzzard, one Kestrel, one Woodcock flushed on track of Transect 6. Also one male Sparrow hawk flying during Transect 7.

VP8: One roding woodcock and a buzzard pair.

Habitats

Practically complete for the site , report to be written up for ecology chapter.

Mammals

Surveys ongoing/trails etc., noted during each site visit. No resting place found for species such as badger within the potential development zone. However we know they (badger/pinemartin/red squirrel are using the site, and otter likely using the site, but not caught on camera yet), (trail cameras/droppings etc..)

Kerry slug

Small report almost finished. NO Slugs.

5 SITE INVESTIGATIONS

The planning stage site investigations establish the fundamentals character of the landscape including soils, sub soils and bedrock at an appropriate level of detail. The approach adopted for this project is the use of a combination of the following techniques:

- Lidar for topo + aerial photography + development of ground surface model
- Peat probes within focussed areas across the site
- Trial pits and cores at borrow pit to prove resource
- Trail pits at turbine base locations
- Peat probing at potential peat storage or deposition areas
- Review and interrogation of GSI maps and data sets
- Slope calculation + interaction with watercourse network
- All data is then collated and added to the ground surface model

Prior to construction detailed site investigation will be completed to inform the final design of individual pieces of infrastructure, such as the turbine bases, or for the substation building.

Peat Stability Risk Assessment

The peat stability assessment carried out to complete the soils/geology and hydrogeological and hydrological impact assessment chapters for the proposed wind farm development area. The output from these surveys determines the ecological value of the site and feed into an Environmental and Engineering Constraint Analysis (EECA) of the site, which in turn influences the wind farm design thereby minimising potential ecological effects of the project.

6 COMMUNITY FUND

Review of the first workshop with Tipperary Energy Agency

7 NEXT STEPS

- Completion of Design iteration 3
Arrive at a locked layout on the completion of detailed site investigations.
- Drainage design
- Pre-application stage process with ABP will continue for a number of months. Next meeting scheduled for mid August.
- Community engagement will be an ongoing process – second noise workshop to follow, community benefit workshop.
- Project review will occur on a number of occasions before we arrive at a layout that can be considered as low risk and suitable (locked layout August 2019)
- Impact assessment stage
- Community Benefit Fund, Pre-planning Scope
Continue to work with local neighbours to design initial construct of a community based structure that would manage the wind farm Community Benefit Fund.

Areas to explore:

Workshop to develop and agree terms of reference

Scenario workshop

It is envisaged that an application will be lodged with ABP in Q4 2019.

Timelines

Third draft turbine layout – June 2019

Final Turbine & infrastructure Layout – July 2019

Grid Route feasibility & Route Selection – June – August 2019

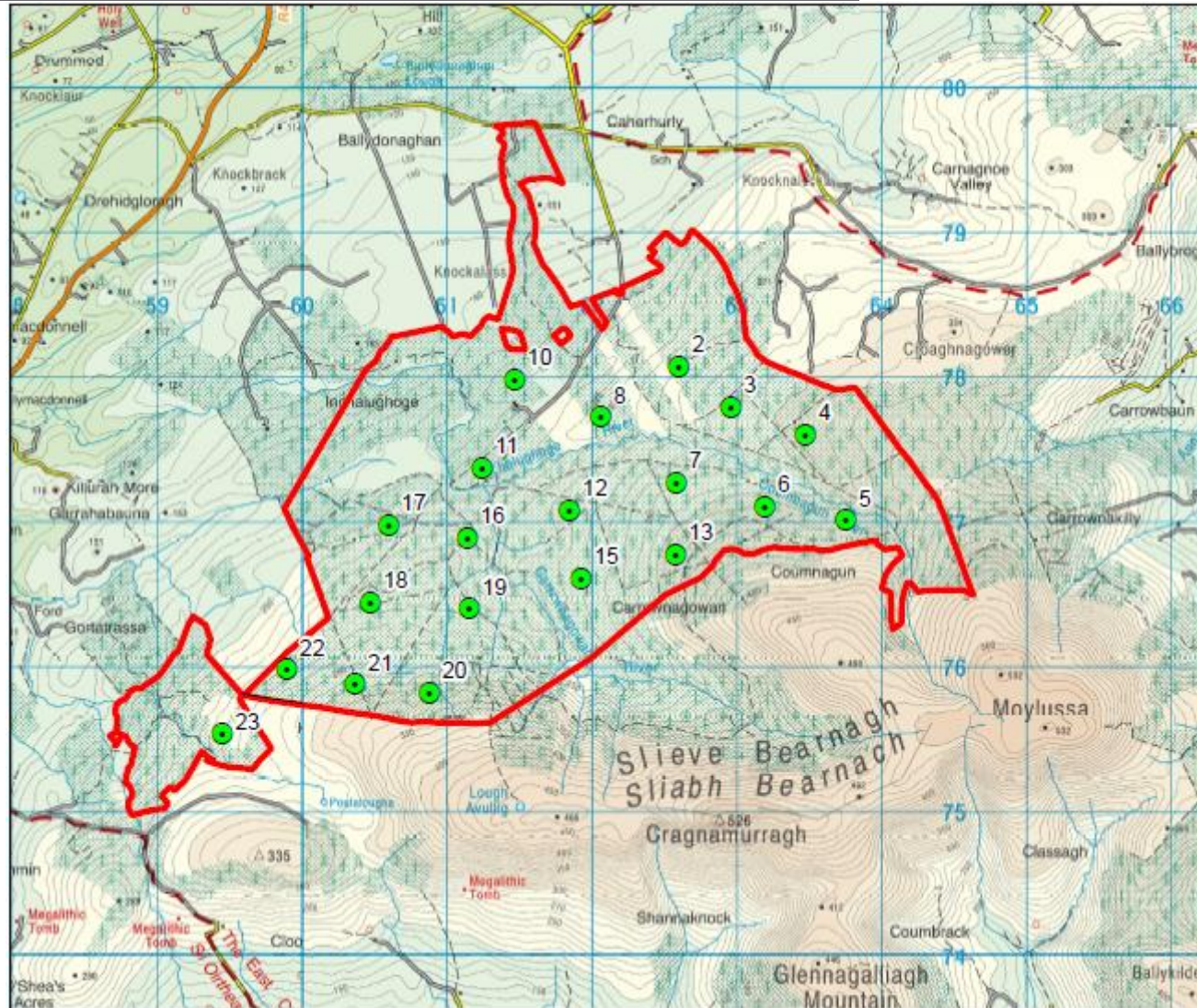
Appropriate Assessment screening - August 2019

Impact Assessment stage – July – August 2019

EIAR Reviews – September 2019

Planning application Documentation – September 2019

Planning Lodgement - October



**MEETING AGENDA COILLTE & LOCAL SOUTH WEST RESIDENTS 22ND AUGUST 2019 7.00 – 9.00,
COILLTE SCARRIFF OFFICE.**

- Malachy Walsh & Partners EIAR Consultant .
Progress update from May 30th meeting.
- Studies & Surveys
- Site Investigations
- Next Steps / Timelines

1 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) CONSULTANT

Malachy Walsh and Partners (MWP) has been commissioned by Coillte to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) for a proposed wind farm on Coillte lands at Carrownagowan, near Slieve Bernagh in Co. Clare. Much of the lands identified are included as Strategic Areas for wind energy development in plans for Co. Clare.

The project includes for the preparation of an EIAR, planning application, wind farm layout, grid connection and civil and roads design for the sites and to manage the planning process through to delivery of planning. It is anticipated that will be a strategic infrastructure project.

2 PROJECT DESIGN

We are still focusing on the design working towards a fixed layout as follows;

Main project components:

- Wind Turbines construction based on preliminary layout
- Hardstand areas and access roads
- Substation on the wind farm site
- Borrow Pits and spoil management areas

Off-site project components:

- Turbine component haulage route assessment
- Replacement lands for felled forestry
- Grid connection; overhead line or underground cable, any requirements to upgrade substation offsite in Ardnacrusha or Ennis.

3 SITE DESCRIPTION

This is an upland site on Slieve Bernagh which contains Coillte commercial forestry. It is an active forest amidst harvesting and establishment. There are a number of disused borrow pits around the site and Coillte has identified Biodiversity areas across the site.

There is high drainage density in the area and surface water is the dominant flow process in the area (not groundwater). The proposed infrastructure will be located in areas with shallow peat depths and in areas where the overburden depths is low. The intent is to minimise ground excavations and develop a road infrastructure network that complements the ground contour.

The underlying bedrock is a low permeability poor/locally important aquifer (i.e. it is not regionally important, or karstified). The proposed development is located largely in the Owengarney catchment, with a small proportion in the Lower Shannon/Black River catchment.

Deep peat is not an issue on this site. The design team have used a constraints approach eliminating any areas of deep peat and steep slope. From an early engineering perspective, this site represents a good base for a wind farm. Proposed access roads are largely in place already and the development is distributed across a wide area. The approach is to maximise the use of existing built infrastructure, carry out upgrades to exist roads and to build short spur roads to turbine locations.

4 STUDIES AND SURVEYS

Biodiversity

Bats

Spring bat surveys complete. Bat detectors surveyed 12 sites over the Spring/10 consecutive nights. Bat transects throughout the site/around the site completed.

Summer bat detectors are out. Deployed in June - 14 zones now being monitored. The number of detectors was increased, due to turbines moving/layout changes - in line with SNH. The detectors will be out for at least 10 nights.

Summer transect surveys will be completed when bat boxes are collected.

Autumn bat surveys will be completed in the end of August.

Watercourse crossings

Ecologist finished off ecological surveys at the watercourse crossings along the proposed routes. (bats/birds/mammals/invasive's). Habitat map to be completed.

Birds – July bird surveys

Woodcock, red grouse, kestrel, sparrow hawk and hen harrier activity

Vantage Point 1: There were five sightings of immature male hen harrier, one male kestrel, one female mallard on little pond and two snipe

VP3: One male Hen Harrier.

VP4: One Woodcock roding.

VP7: One Buzzard, one Kestrel, one Woodcock flushed on track of Transect 6. Also one male Sparrow hawk flying during Transect 7.

VP8: One roding woodcock and a buzzard pair.

Habitats

Practically complete for the site , report to be written up for ecology chapter.

Mammals

Surveys ongoing/trails etc., noted during each site visit. No resting place found for species such as badger within the potential development zone. However we know they (badger/pinemartin/red squirrel are using the site, and otter likely using the site, but not caught on camera yet), (trail cameras/droppings etc..)

Kerry slug

Report almost finished. No Kerry Slugs on this site.

5 SITE INVESTIGATIONS

The planning stage site investigations establish the fundamentals character of the landscape including soils, sub soils and bedrock at an appropriate level of detail. The approach adopted for this project is the use of a combination of the following techniques:

- Lidar for topographical + aerial photography + development of ground surface model
- Peat probes within focussed areas across the site
- Trial pits and cores at borrow pit to prove resource
- Trail pits at turbine base locations
- Peat probing at potential peat storage or deposition areas
- Review and interrogation of GSI maps and data sets
- Slope calculation + interaction with watercourse network
- All data is then collated and added to the ground surface model

Prior to construction detailed site investigation will be completed to inform the final design of individual pieces of infrastructure, such as the turbine bases, or for the substation building.

Peat Stability Risk Assessment

The peat stability assessment carried out to complete the soils/geology and hydrogeological and hydrological impact assessment chapters for the proposed wind farm development area. The output from these surveys determines the ecological value of the site and feed into an Environmental and Engineering Constraint Analysis (EECA) of the site, which in turn influences the wind farm design thereby minimising potential ecological effects of the project.

6 PRE APPLICATION MEETING AN BORD PLEANALA

Pre-application stage process with ABP ongoing . Meeting with ABP in early August to give an update on:

- Project Details
- Emerging constraints and baseline data to date
- Design Philosophy
- Advice sought from ABP
- Next steps and planning process progress.

7 NEXT STEPS

- Completion of Design iteration 3, arriving at a locked layout on the completion of detailed site investigations.
- Drainage design
- Community engagement will be an ongoing process –noise workshop & community benefit workshop.
- Project review will occur on a number of occasions before we arrive at a layout that can be considered as low risk and suitable (locked layout end August 2019)
- Impact assessment stage
- Community Benefit Fund, Pre-planning Scope
Working with local neighbours at the north of the site to design an initial construct of a community based structure that would manage the wind farm Community Benefit Fund.
Areas to explore:
Workshop to develop and agree terms of reference
Scenario workshop

- This group to engage with the south west group. Discussed with the northern group and they are open to meeting.

It is envisaged that an application will be lodged with ABP in Q4 2019.

Timelines

Third draft turbine layout – July 2019

Final Turbine & infrastructure Layout – August 2019

Grid Route feasibility & Route Selection – June – August 2019

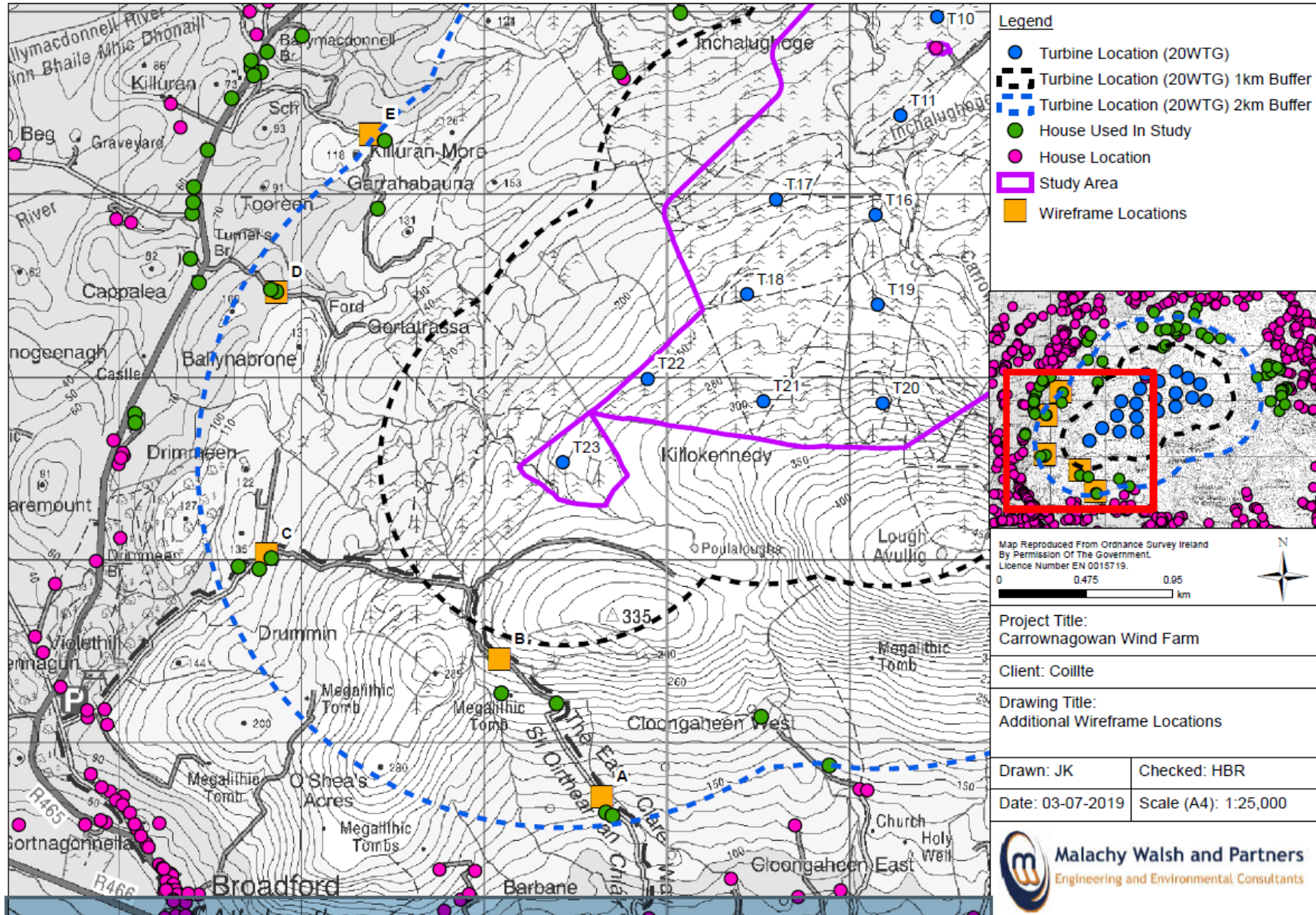
Appropriate Assessment screening - August 2019

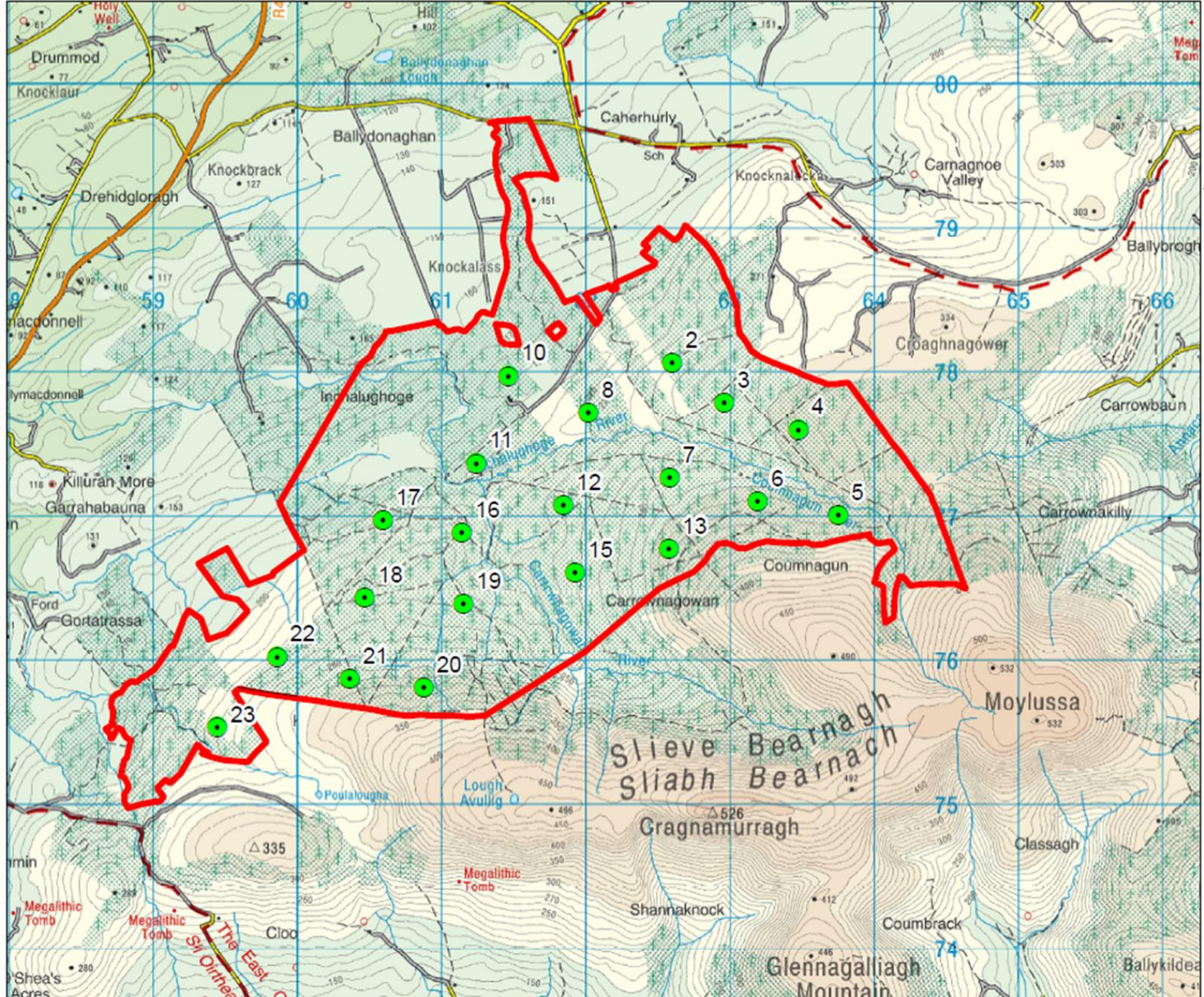
Impact Assessment stage – August – September 2019

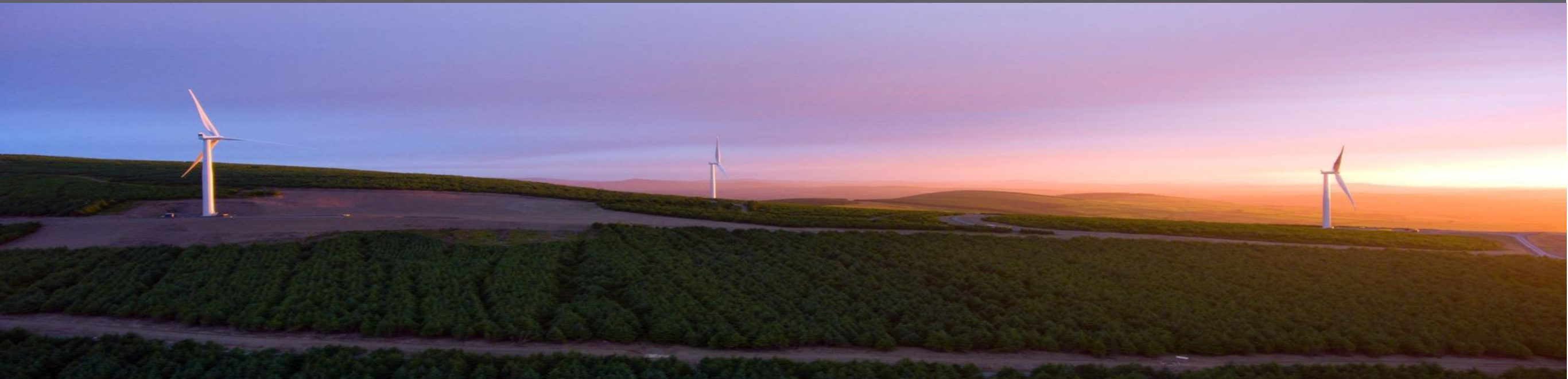
EIAR Reviews – October 2019

Planning application Documentation – October - November 2019

Planning Lodgement – November 2019







Carrownagowan Wind Farm,

Community Group meeting 17th June 2019

Presentation Overview

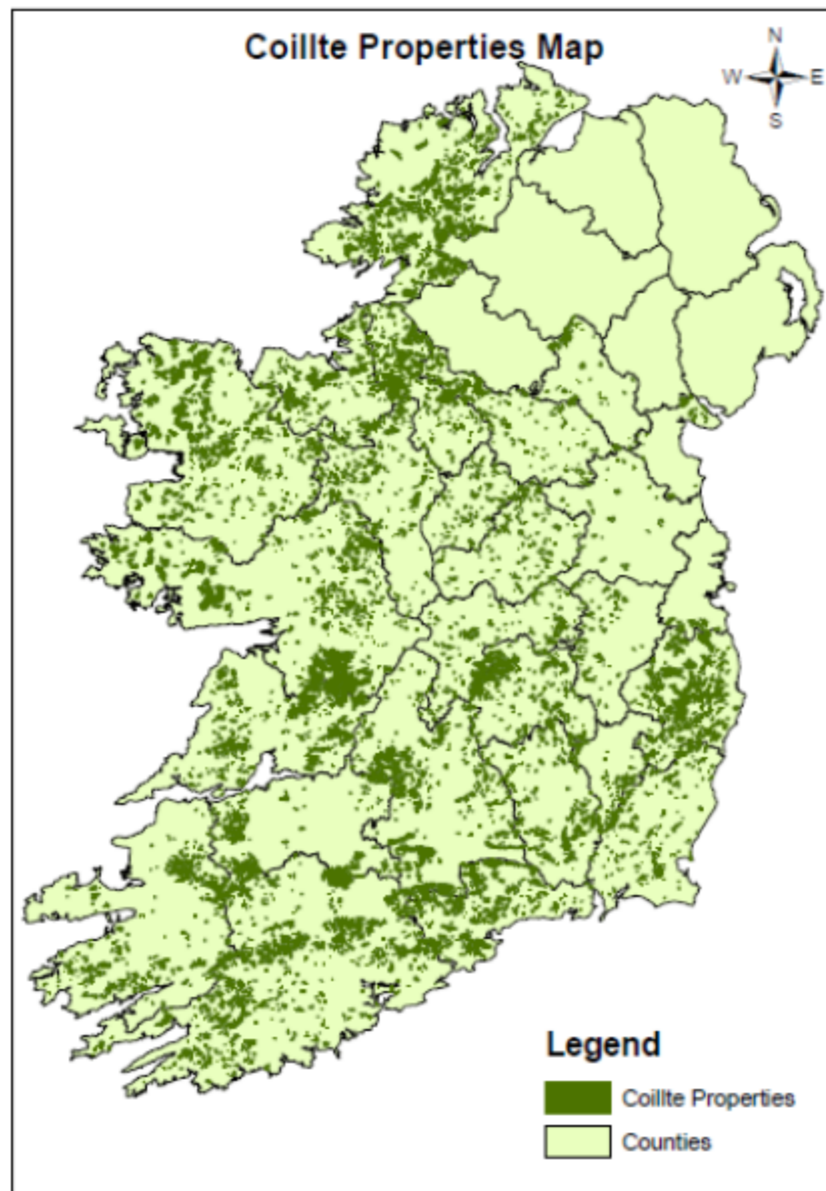
- Coillte Overview
- Project Location and Details
- Design Philosophy
- Timelines
- EIAR
- Project Design
- Community Engagement
- Community Benefit Fund
- RESS

Coillte Overview



- Commercial semi state company since 1989
- Estate has grown to over 440,000 hectares (equivalent to approx. 7% of total land of Ireland)
- Provides the public with a range of benefits from recreation to environmental services
- Approx. 900 employees across Ireland and UK, supporting indigenous employment in a vibrant export-oriented forest products sector
- Comprises three discrete businesses – Forest, Land Solutions and Medite/Smartply (Panels)

Renewable Energy



- ❑ Coillte's land bank will support >30% of all installed onshore wind capacity to 2020
- ❑ Coillte is positioned to be a market leader in the period to 2030

Land will be an even greater competitive advantage for the next phase of onshore wind farm development:

- **Scale** and **high wind sites** provide a natural advantage in a post-subsidy setting
- **Proximity to the National Grid** will be key to improving project desirability and returns
- **Social Acceptance** will still present challenges to securing planning consents, placing greater onus on site selection and pipeline size/optionality

Opportunity to establish a new commercial model for the 2020-30 period which would seek to build on the delivery ambitions, development capability, scale and value provided by Coillte.

Project Location and Details

- The proposal is for the Carrownagowan Wind Farm
- This is a wind energy development on Coillte lands
- The site is located on the north-western slopes of Slieve Bernagh in south east Clare, within the Strategic wind farm development area
- The site is approximately 4 km northeast of the village of Broadford, 7km north west of Killaloe and 2.5 km south of the village of Bodyke, at its closest point.

Project details

Developer

- Coillte Cuideachta Ghníomhaíochta Ainmnithe

EIA & Engineering Consultants

- Malachy Walsh and Partners
- Engineering and Environmental Consultants

Site Location

- North-western slopes of Slieve Bernagh
- South-east County Clare

Current Land-use

- Commercial Forestry plantation
- Includes 2nd rotation and Biodiversity areas

Land-use zoning

- Clare County Development Plan 2017-2023
- ‘Living Landscapes’ categorised, including Heritage Landscapes, Working Landscapes and Settled Landscapes
- Site is in a Settled Landscape
- Clare Wind Energy Strategy - Clare CDP 2017-2023
- Site is in Strategic Wind Farm Development Area

Target MEC

- 90-100 MW

Zoned Capacity

- Potential for 150 MW in Strategic Area

Clare County Development Plan 2017 - 2023

Wind Energy Designations



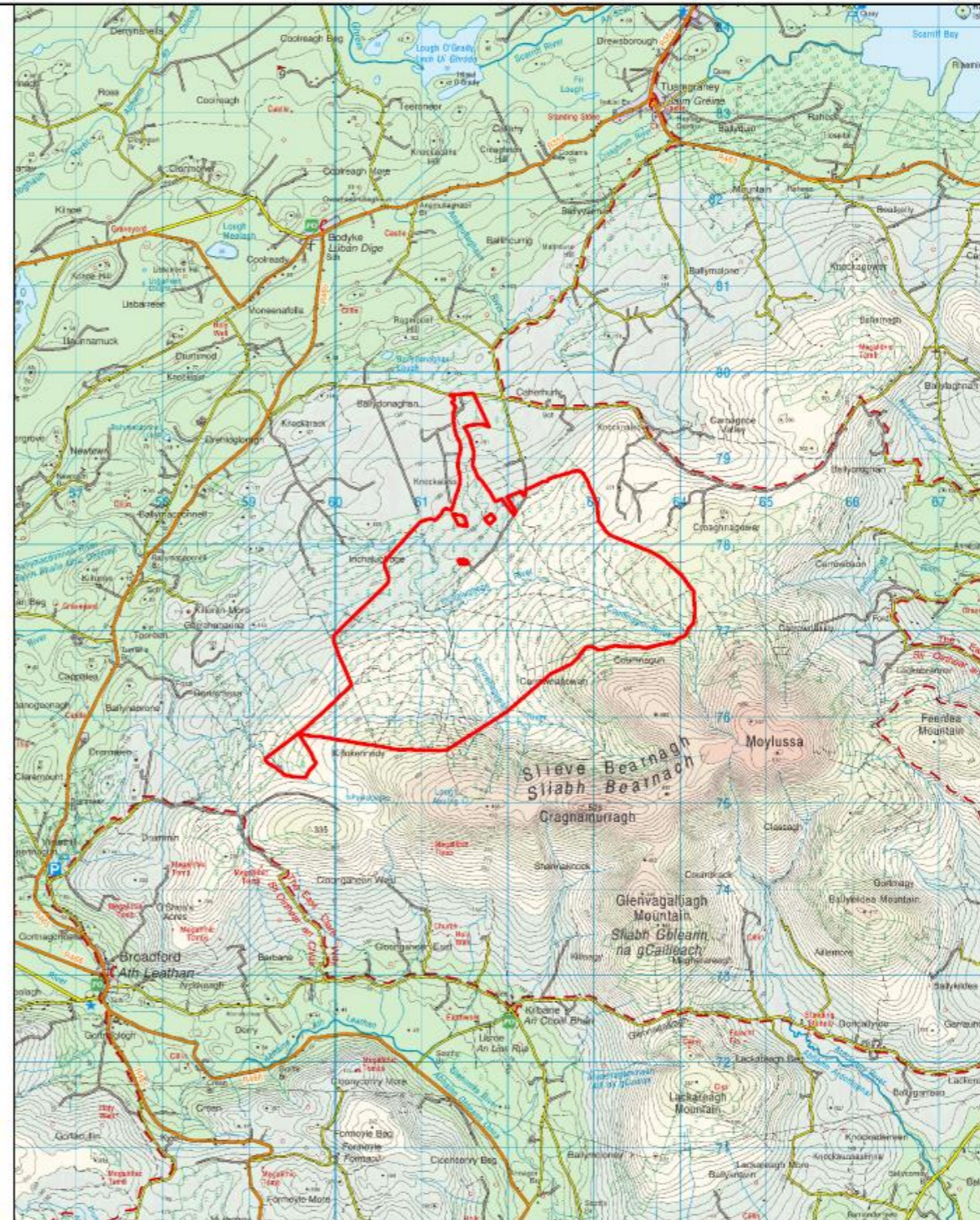
4 Advice on Landscape Capacity for Wind Energy Developments based on LCAs

Location of proposed development

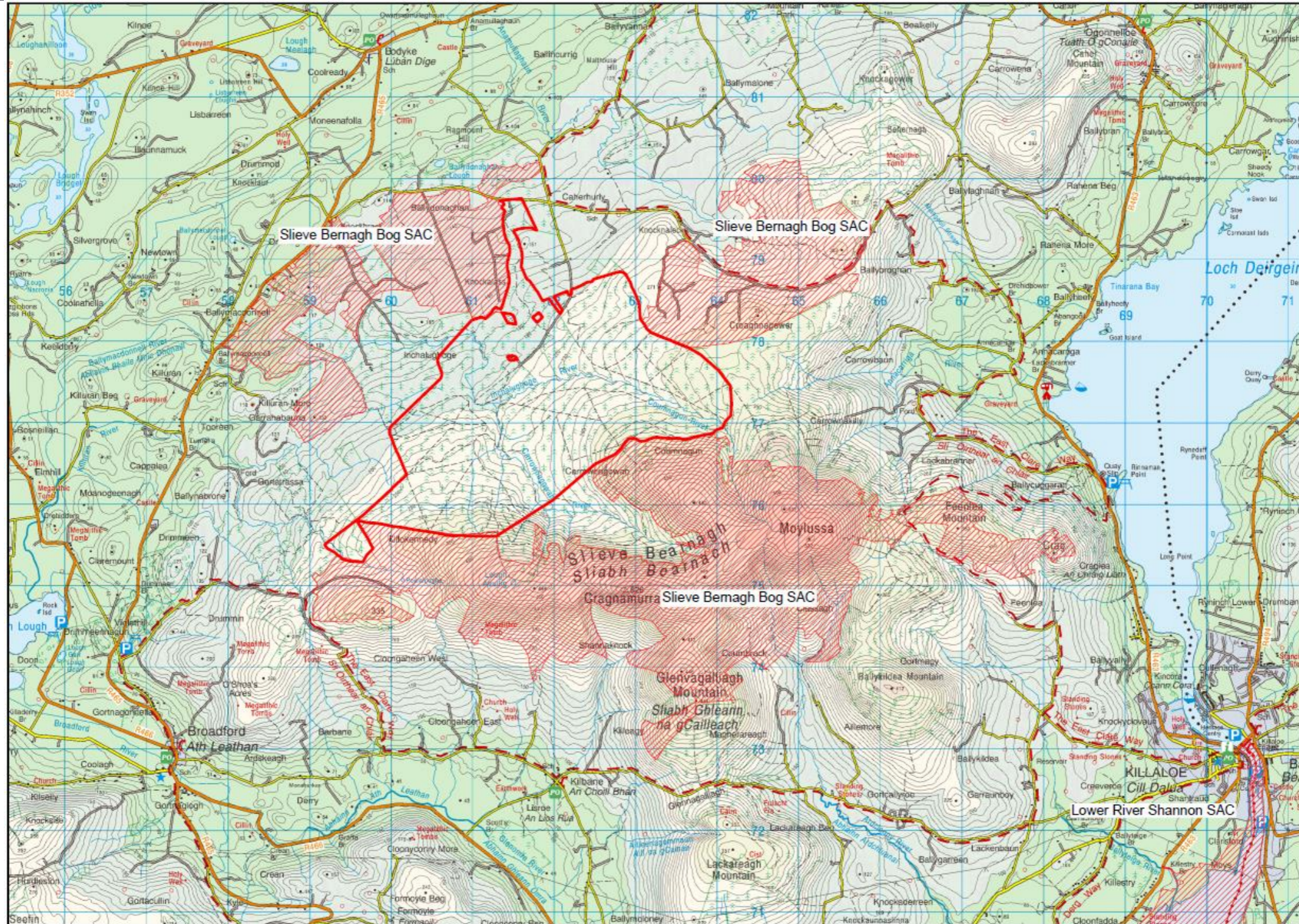


COILLTE

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Location – NW Slieve Bernagh



Location – Conifer plantation



Location - Strategic Zoning

- Clare Wind Energy Strategy (2017 – 2023)
 - Strategic Area
 - Acceptable in Principle
 - Open to Consideration
 - Not Normally Permissible
- Slieve Bernagh Strategic Area can accommodate Medium – Large wind farms on the north west slopes.
- The Strategic Area excludes the landscape character area (LCA) of Slieve Bernagh, including the foothills and mountains over looking Lough Derg.

Location - Strategic Zoning

- The Strategic Area is in a settled landscape, where the uses envisaged in the Clare CDP include *agriculture, energy, forestry, extraction, transportation, industry and commerce, tourism, recreation and leisure, education, healthcare and social infrastructure.*
- Strategic Areas were zoned by Clare County Council due to their variable wind speeds, proximity to the grid, slopes $< 15^\circ$, exclusion of protected sites and distance of 400m from properties.

Land, Forestry & Access

- The site is located on elevated ground between 130 and 450 metres Ordnance Datum on the northern slopes of Slieve Bernagh.
- Moylussa, to the south east of the development area, is the highest point in the Slieve Bernagh range at 530m.
- Other nearby summits includes Cragnamurragh at 526 metres Ordnance Datum to the south.
- The site is located within Coillte forestry with additional private lands.
- Doon Lough is to the southwest and Lough Derg is to the east and northeast.

Emerging Constraints

- Peat & visual constraints: 4 proposed wind turbines from the east & north excluded
- Population: 750m buffer applied to local residences
- Engineering: Exclusion of slopes $>10^\circ$ and eastern area with historic peatslide, and catchment to the east, with Annacarriga River and link to Lough Derg
- Water: Buffer of 75m to watercourses (EPA registered) and 150m to the SAC
- Biodiversity: 500m buffer of hen harrier zone
- Biodiversity: Initial results indicate bat activity is relatively low

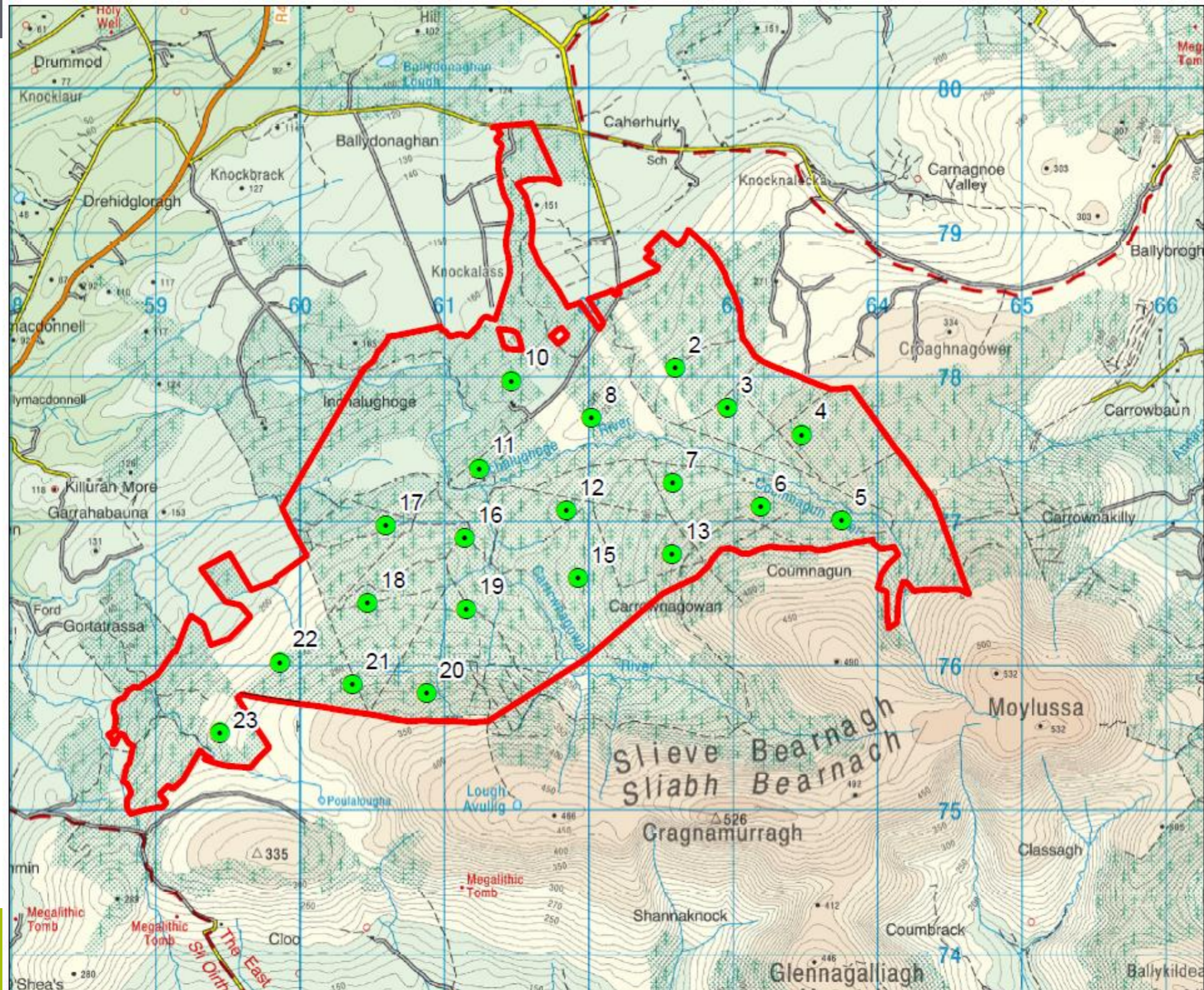
Design Philosophy

- Coillte EIAR consultant MWP were provided with a LiDAR model of the complete site which enabled a slope analysis.
- The slope assessment was completed to identify areas of the site where excessive slope should be avoided.
- A key design parameter is to ensure that roadside drainage does not intercept overland flow from the forest drain network.
- A constraints approach was applied with early adoption of engineering and environmental constraints.
- The review and iteration of the layout is ongoing.
- Grid Route Options feasibility and selection complete.

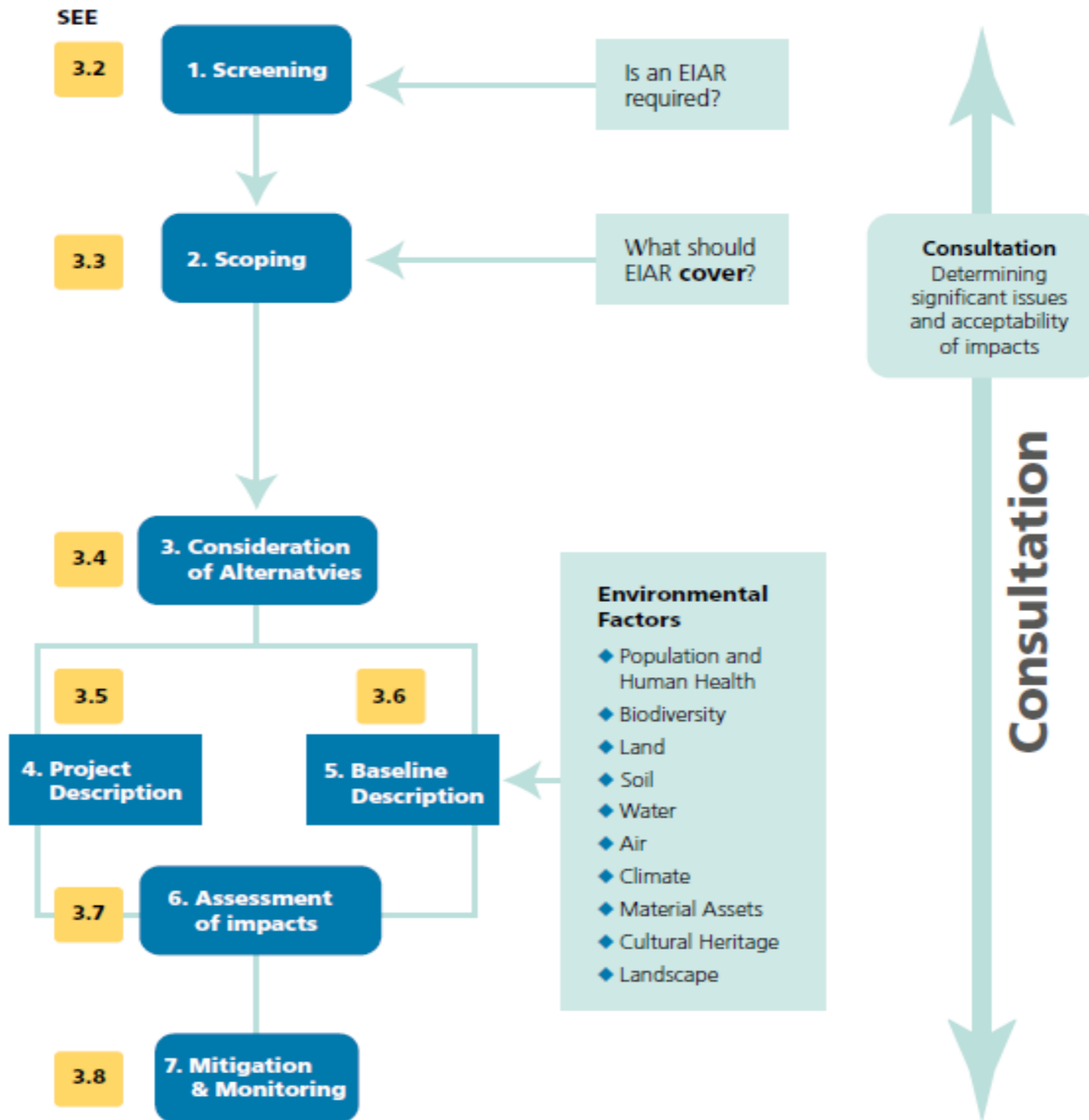
Strategic Infrastructure

- Carrownagowan Wind Farm (90 – 100 MW Potential)
- *An installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 megawatts.*
- The wind energy development would also contribute to the region's electrical infrastructure and the national renewable energy targets. Furthermore, the proposal is in line with using Renewable Energy to transition to a low carbon energy future, as outlined in the National Planning Framework (Project Ireland 2040)

Current Layout



EIAR



The information that must be included in an EIAR is shown as seven steps in sequence in the diagram above. The environment is described under a number of specific headings that are shown on the right. Adherence to this general sequence and structure helps ensure an objective and systematic approach.

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Community Engagement



- Coillte's public engagement mission is to be consistently transparent, inclusive & committed to integrating community views into our project plans.
- Coillte commits to broadening its approach to public engagement & acknowledges that a social licence to operate carries equal weight as a legal licence to operate.
- The goal is to collaborate as opposed to merely coordinate with communities

Community Benefit Fund

- Community Benefit Fund, Pre-planning Scope
- Work with local neighbours to design initial construct of a community based structure that would manage the wind farm Community Benefit Fund.

Areas to explore:

- Type of structure needed
- Legal status
- Governance and decision making structure
- Key Stakeholders
- Assistance of Tipperary Energy Agency

RESS (Renewable Electricity Support Scheme)

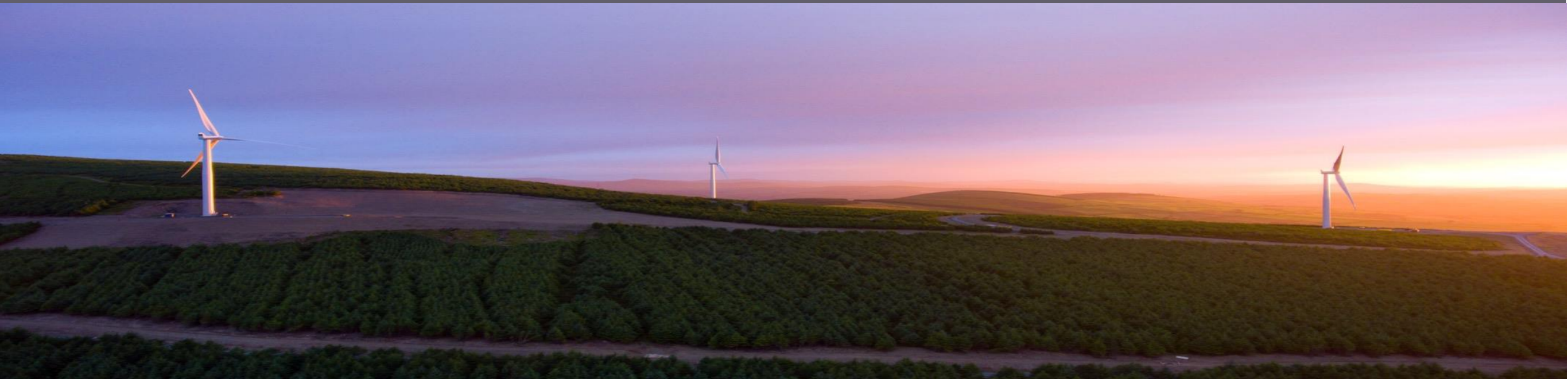
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- **Mandatory Community Benefit Fund and Register standardised across the sector. It is proposed that this contribution is set at €2/MWh for all RES-E generation produced and seeking support via RESS auctions. A national community benefits register will be established.**

Final Slide



Thank You





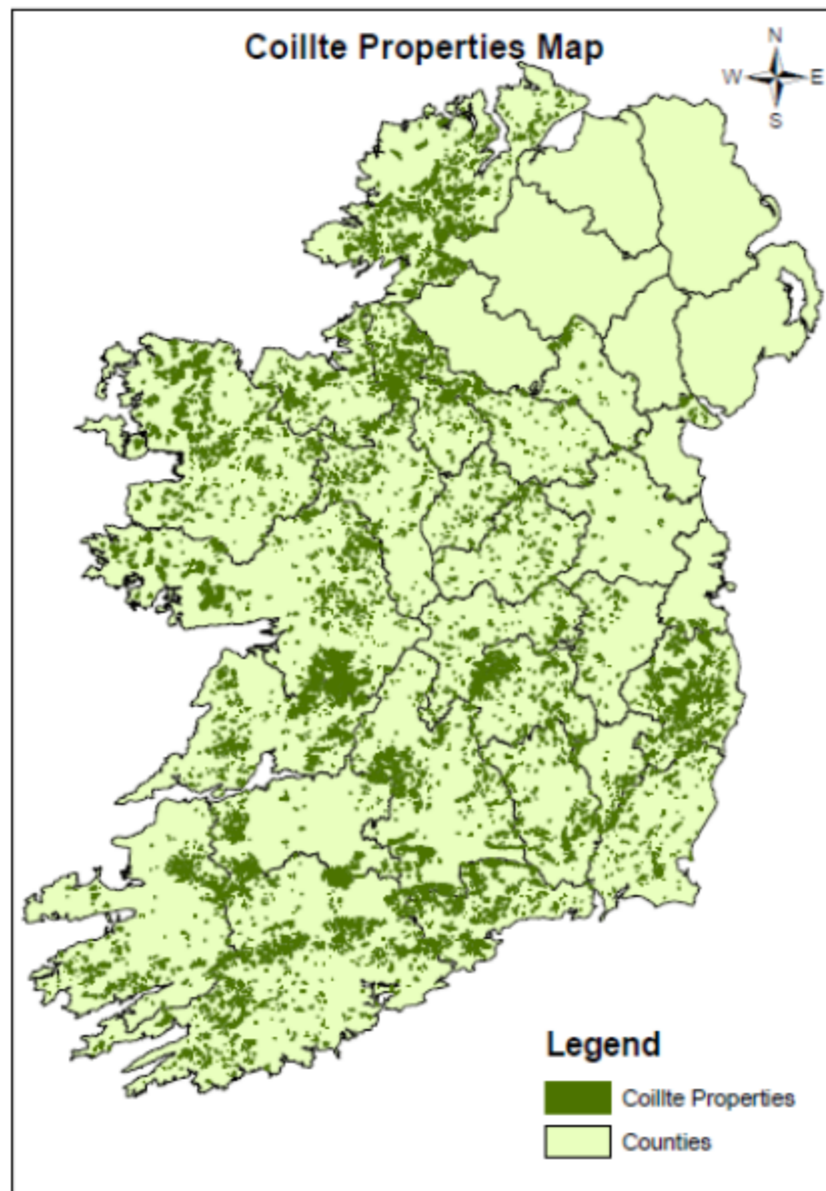
Carrownagowan Wind Farm,

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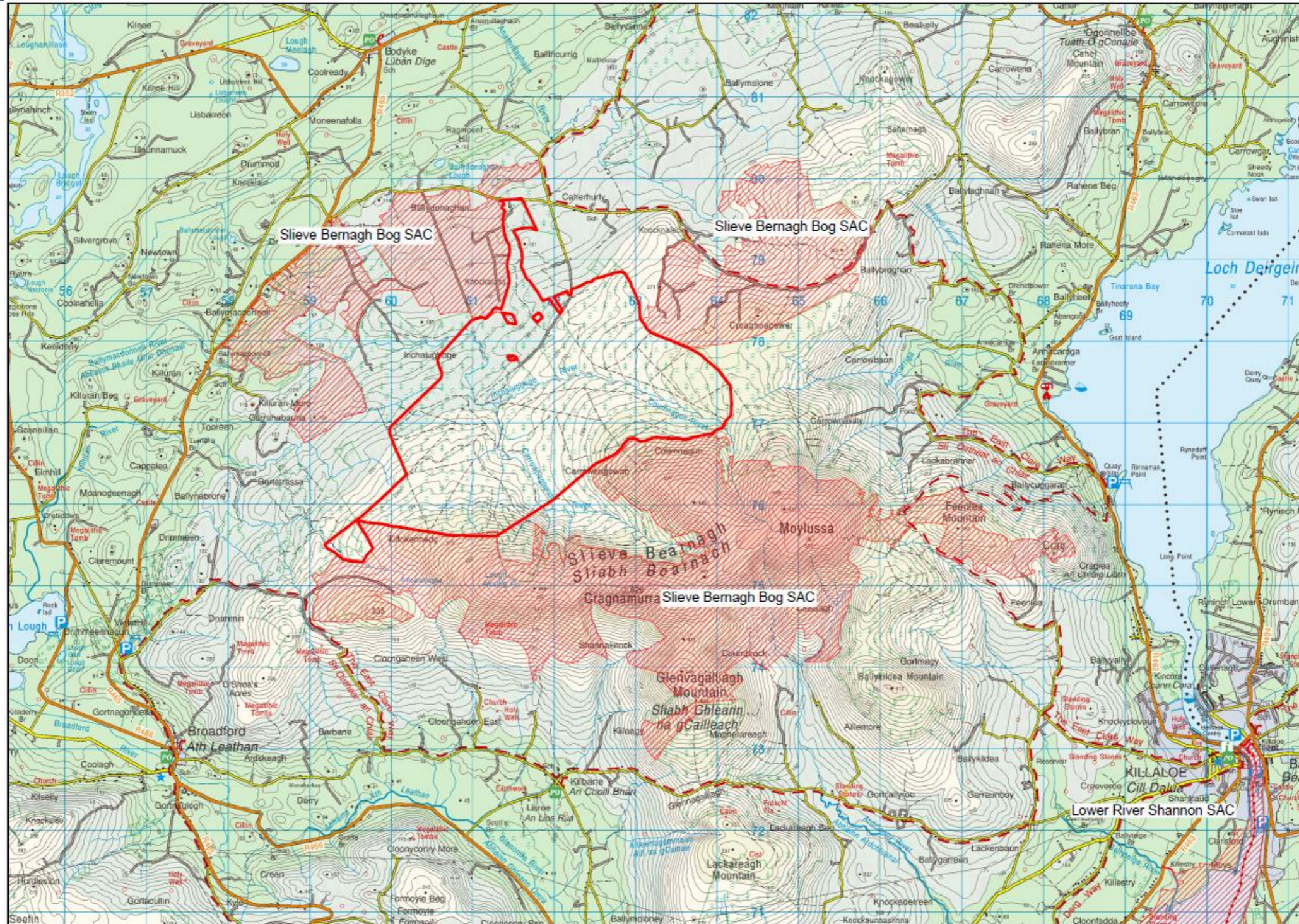


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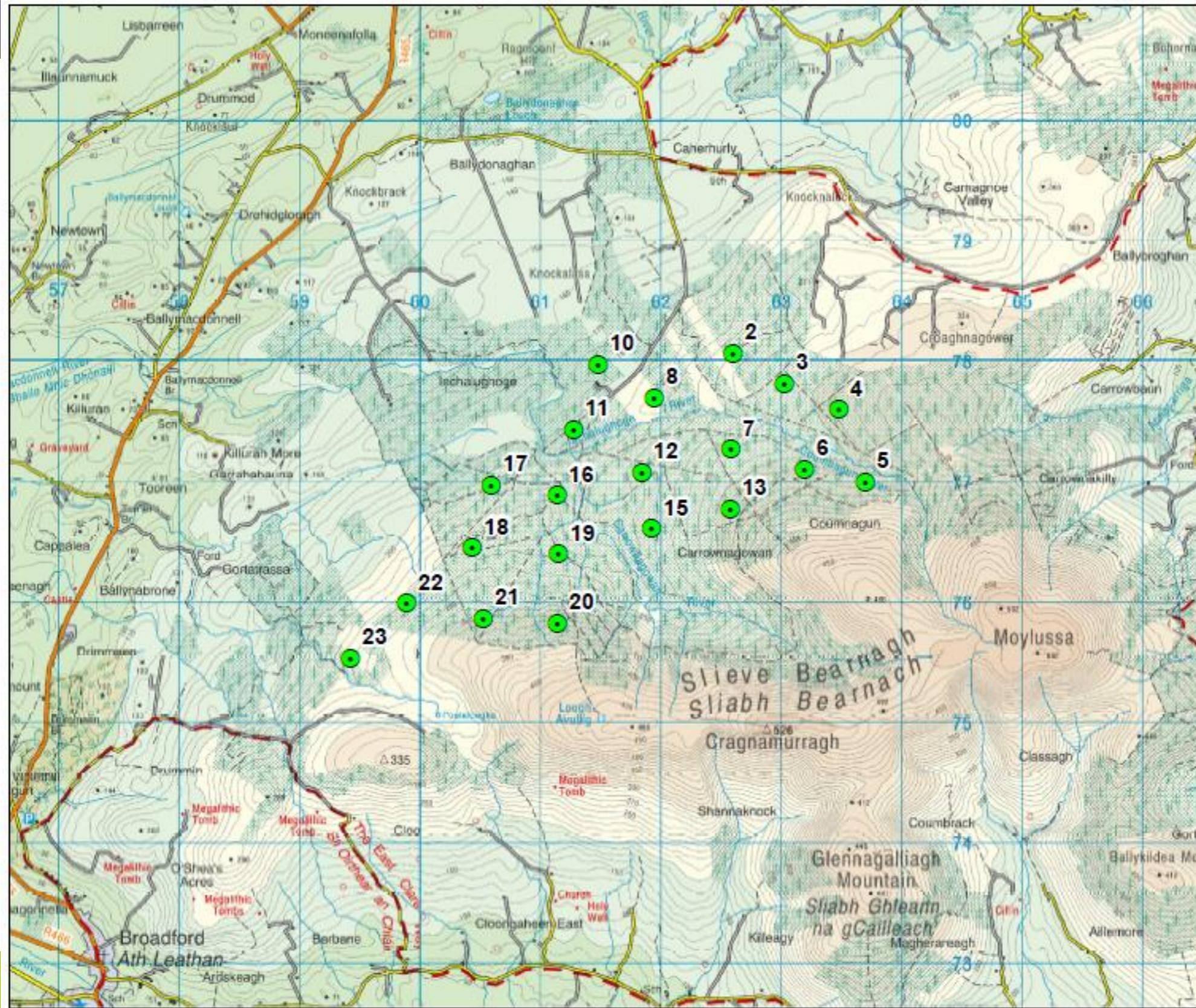
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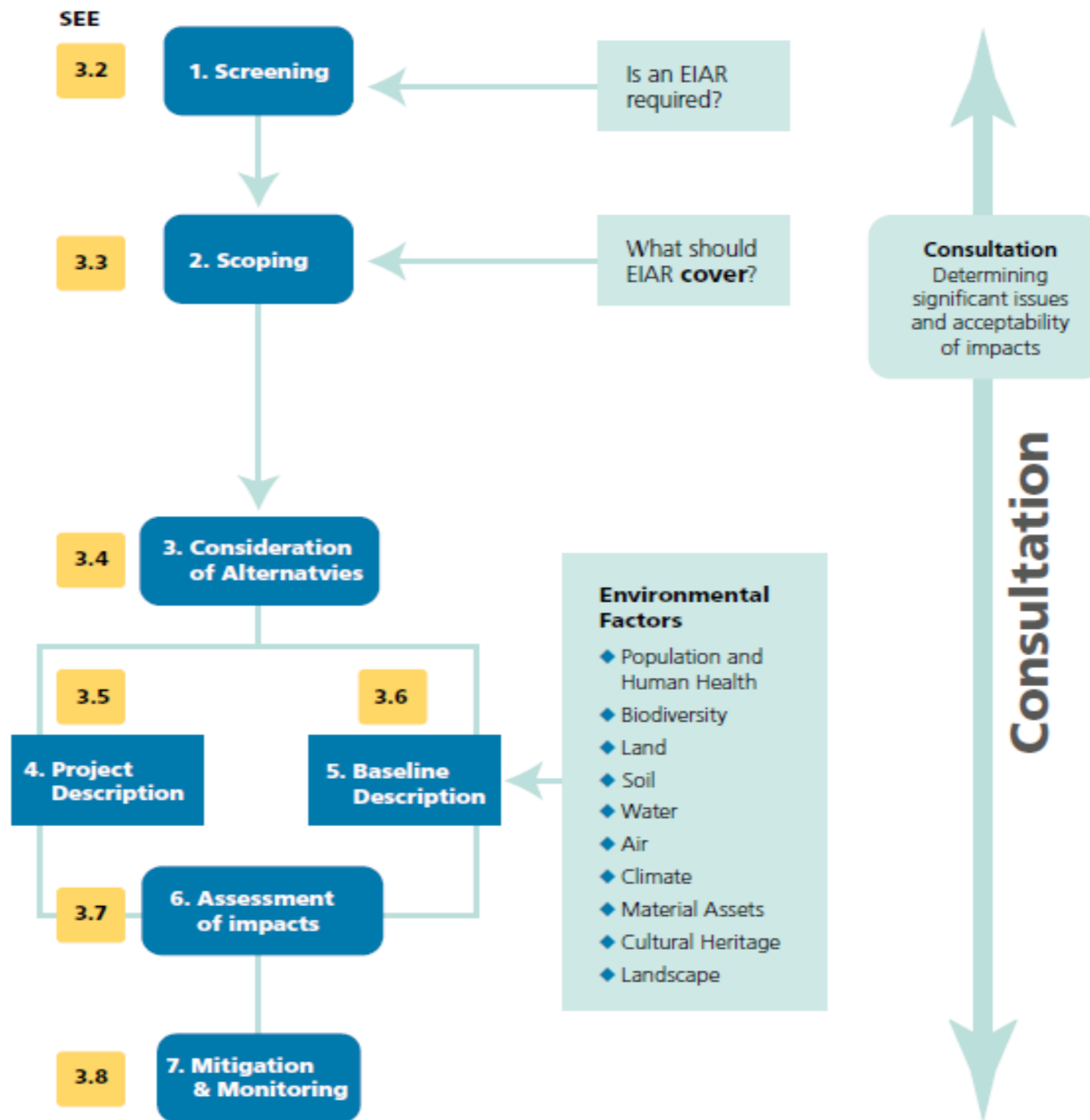
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Final Slide



Thank You

Proposed Carrowngowan Windfarm

Community Group Meeting

27th November, 2019

Please note that the opinion offered in this document is general advice. Liability will vary depending on individual circumstances so we would advise independent advice is obtained by all concerned.

Tax Bands

Single	35,300	at	20%
Widowed	39,300	at	20%
Married	44,300	at	20%
possibly	70,600		

(max of 9,000 transferable between spouses)

Over 65

Single or widowed or surviving civil partner	earn up to	18,000	tax exempt
Married or in a civil partnership	earn up to	36,000	tax exempt

Additional earnings

First two children 575 each

Subsequent children 530 each

Pension Rates (Non-contributory)

Full Dependant under 66 Qualifying Child

Weekly (under 80) 237.00 156.60 34-37 extra.

Annual (52.6 weeks) 12,466.20 8,237.16

Weekly (over 80) 247.00

Annual (52.6 weeks) 12992.2

(Contributory)

Full Dependant under 66 Dependant over 66

Weekly 248.30 166.30 222.50

Annual (52.6 weeks) 13,060.58 8,747.38 11,703.50

Single person having contributory pension

Income from Pension 13,060.58

Balance available- non taxable 4,939.42

Income from Pension 26,121.16

Balance available- non taxable 9,878.84

Couple one contributory pension, one dependant under 66

Income from Pension 21,807.96

Balance available- non taxable 14,192.04

Couple one contributory pension, one dependant over 66

Income from Pension 24,764.08

Balance available- non taxable 11,235.92

No USC or PRSI chargeable on State Pension

Tax on Income Examples

Example 1

A single taxpayer who earns €44,000 a year will have their tax calculated as follows:

35,300	X	20%	=	7,060
8,700	X	40%	=	3,480
Total				<u>10,540</u>

Tax credits are deducted from this amount to give the tax due. A single PAYE (Pay As You Earn) taxpayer is entitled to:

Single Person Tax Credit =	1,650
Employee (PAYE) Tax Credit =	<u>1,650</u>
Total =	3,300

Gross tax	10,540
Minus	
Minus tax credits	<u>3,300</u>
Tax due	7,240

The USC on gross income is also payable.

USC	1,303
-----	-------

The total amount deducted from income in the year is:

8,543

Example 2

A married couple with one earner who earns €44,000 a year will have their tax calculated as follows:

44,000	X	20%	=	8,800
0	X	40%	=	0
Total				<u>8,800</u>

Tax credits are deducted from this amount to give the tax due. A single PAYE (Pay As You Earn) taxpayer is entitled to:

Married Couple Tax Credit =	3,300
Employee (PAYE) Tax Credit =	<u>1,650</u>
Total =	4,950

Gross tax	8,800
Minus	
Minus tax credits	<u>4,950</u>
Tax due	3,850

The USC on gross income is also payable.

USC	1,303
-----	-------

The total amount deducted from income in the year is:

5,153

Tax Credits

Tax credit	2019
Single person	€1,650
Married person or civil partner	€3,300
Employee Tax Credit (formerly known as the PAYE tax credit)	€1,650
Earned Income tax credit	€1,350
Widowed person or surviving civil partner qualifying for Single Person Child Carer Credit	€1,650
Widowed person or surviving civil partner (without dependent children)	€2,190
Widowed Person or Surviving Civil Partner in year of bereavement	€3,300
Single Person Child Carer Credit	€1,650
Incapacitated Child Credit	€3,300
Blind Tax Credit	€1,650
Single person	€1,650
Married - one spouse or civil partner blind	€3,300
Widowed person or surviving civil partner with dependent child tax credit	€3,600
Bereaved in 2018	€3,150
Bereaved in 2017	€2,700
Bereaved in 2016	€2,250
Bereaved in 2015	€1,800
Age tax credit- single	€245
Married or in a civil partnership	€490
Dependent relative tax credit	€70
Home carer tax credit	€1,500

Standard rate of USC (2019)	
Rate	Income band
0.50%	Up to €12,012
2%	From €12,012.01 to €19,874
4.50%	From €19,874.01 to €70,044
8%	From €70,044.01 and over
11%	Self-employed income over €100,000

Reduced rate of USC (2019)	
Rate	Income band
0.50%	Income up to €12,012
2%	All income over €12,012

Reduced Rates of PRSI if you are over 70 with Income of less than €60,000 or the holder of a Full Medical Card

You pay the USC if your gross income is more than €13,000 per year

Cash income not included in the means test

- [Introduction](#)
- [Cash income not taken into account](#)

Introduction

If you are applying for a [social assistance payment](#) you must satisfy a means test. All your sources of income (for example, cash income, employment, capital and maintenance) are assessed in a means test by the Department of Employment Affairs and Social Protection (DEASP).

However, under social welfare legislation certain items are not counted when your means are assessed for a social assistance payment. This document looks at cash income not included in the means test. More information on income not taken into account is available in our document on the [means test](#).

Budget 2020: The [Blind Welfare Allowance](#) paid by the Health Service Executive (HSE) will not be taken into account in the means test for a social welfare payment.

Cash income not taken into account

The following cash income is not taken into account for all schemes except [Working Family Payment](#), [Supplementary Welfare Allowance \(SWA\)](#) and [Rent Allowance](#) which have their own rules for assessing cash income:

- Any payment made by the Department of Employment Affairs and Social Protection (DEASP) (except in the case of [Jobseeker's Allowance](#) where a maximum payment applies)
- [Supplementary Welfare Allowance \(SWA\)](#)
- [Domiciliary Care Allowance](#)
- Income from property already assessed on its capital value
- Any payment corresponding to Child Benefit from another EU member state
- Income from [recognised non-profit making charitable organisations](#)
- [Mobility Allowance](#) from the Health Service Executive (HSE)
- [Foster Care Allowance](#) from the HSE
- [Consumer Directed Home Support \(CDHS\)](#) from the HSE
- [Allowances under the Home Tuition Scheme](#) from the Department of Education and Skills
- Payments under the Department of Education and Skills' school transport scheme for children with special educational needs
- Grants to parents of children attending primary school in Gaeltacht areas, and income from providing accommodation to students studying Irish in Gaeltacht areas
- Payments under the 1916 Bursary Fund from the Department of Education and Skills
- University payments made under the [Higher Education Scholarships for Adult Learners](#) of up to €7000 per year

- Any amount received as a training allowance while undergoing a course of rehabilitation training by an organisation approved by the Minister for Health
- Payments made by Sport Ireland under the International Carding Scheme
- Compensation awards to people who have contracted Hepatitis C or HIV from contaminated blood products, together with income from the investment of that money
- Compensation awards by way of the Residential Institutions Redress Board together with income from the investment of that money
- Compensation awards to persons who have a disability caused by Thalidomide together with income from the investment of that money
- €104 per year from certain Army pensions (including a British War Pension)
- PRSA contributions
- Any repayments under the Nursing Home Repayments Scheme to the spouse or civil partner of the person overcharged
- **The following payments to your spouse, civil partner or cohabitant:** Back to Work Enterprise Allowance, Back to Education Allowance, Back to Work Allowance or Part-Time Job Incentive, FET training allowance or VTOS payments. (However, Community Employment, TUS, Rural Social Scheme and Gateway are taken into account.)

Compensation payments

People who have received certain types of compensation do not have that income assessed in the means test for all social assistance schemes including Working Family Payment and Supplementary Welfare Allowance. The following compensation is not assessed:

- By various compensation tribunals and the courts for people who have contracted Hepatitis C
- By the Residential Institutions Redress Board
- To persons who have disabilities caused by Thalidomide
- Awards paid to women following the publication of the Magdalen Commission Report
- Payments awarded by the Residential Institutions Statutory Fund Board
- Payments awarded under the Symphysiotomy ex Gratia Scheme
- Payments awarded under the Lourdes Hospital Redress Scheme 2007
- Payments awarded under the Lourdes Hospital Payment Scheme
- Payments awarded under the Stardust Victim's Compensation Scheme
- Ex gratia payments proposed by the Scoping Inquiry into the CervicalCheck Screening Programme
- Payments under the package of support measures set up in 2018 for women diagnosed with cervical cancer since 2008
- Payments made by the Northern Ireland Victim and Survivor Service (VSS) in accordance with the Victims and Survivors (Northern Ireland) Order 2006

Additional cash income may not be taken into account for individual social welfare payments. The Department of Employment Affairs and Social Protection provides more information on [additional cash income not taken into account in the means test for social welfare payments.](#)

Page edited: 15 October 2019

So if Income From Coillte is subject to Income Tax and brings you into the Tax Bracket How can you limit the Tax Payable?

Possible Relief at the 40% Rate

- 1 Pension Contributions (see attached sheet)
 - 2 Self employed - can you create a better lifestyle for yourself by spending the extra money as a farm expense?
 - 3 EIIS Scheme
- Employment and Investment Incentive Scheme
75% relief year 1 25% in year 4

<https://www.harvestfinancial.ie/eiis-how-tax-relief-works/>

Relief at 20% Rate

- 1 Allowable Medical Expenses
- 2 3rd Level fees for college
(first 3,000 - usually no tax relief)
No relief is available for:
 - examination fees
 - registration fees
 - administration fees.

Age-related percentage limit for tax relief on pension contributions

Age	Percentage limit
Under 30	15%
30-39	20%
40-49	25%
50-54	30%
55-59	35%
60 or over	40%

Example :

A 50 years old single person with an Income of €44,000 per annum, and no pension contributions have been made relating to this salary

Therefore you can make a contribution for Tax relief of up to €13,200 (€44,000 x30%)

However, you are probably paying tax at the marginal rate (40%) on approximately €8,700 (salary €44,000 - low rate cut off point - €35,300)

So for every €1,000 up to €8,700 you put into a pension, there is €400 to be reclaimed/saved in tax

But for every €1,000 above €8,700 you put into a pension, there is €200 only to be reclaimed/saved in tax

N.B. Relief does not apply to USC and PRSI

Self Employed Expenditure for better Quality of Life

Would Income for Coillte allow you to buy a New Tractor or Build a Farm Building for a better quality of Life

Example :

John knows a new Tractor costing 40k would make his life so much easier on the farm, but has only 20k to

If he is know he will be in Receipt of an Extras 5k per year from Coillte, he could borrow the extra 20k as the would cover the repayments over 5 years.

A new Tractor of 40k would have annual Capital allowances for 8 years of 5k which is an expenses against pr This 5k expense would counteract any effect of extra Income from Coillte, so no extra Tax is payable

Carrownagowan Community Benefit Fund Terms of Reference(draft)

(Add suggestions or comments on the margins - Shortlink: <http://bit.ly/cngcbfitor>).

Terms of Reference for the set up and governance of a Community Benefit Fund for Carrownagowan Windfarm to be submitted with Planning Application ref _____, to _____.

- A. ESTABLISHMENT OF THE COMMUNITY BENEFIT FUND
- B. THE COMMUNITY BENEFIT FUND STEERING COMMITTEE
- C. THE COMMUNITY BENEFIT FUND

A. ESTABLISHMENT OF THE COMMUNITY BENEFIT FUND

1. The Developer agrees to the following condition being included in the planning approval from the Local Authority/An Bord Pleanála:

“The Developer agrees to the Terms of Reference for the set up and governance of Carrownagowan Windfarm Community Benefit Fund. The Developer/or subsequent operators/owners of the windfarm, agree to place amounts in the fund as outlined in the Terms of Reference Section C1(i) and (ii).”

2. If planning permission is granted, the developer will engage a **TRUSTED INTERMEDIARY**, to establish the Community Benefit Fund Steering Committee according to this Terms of Reference, **within 9 months of the planning permission date.**

B. THE COMMUNITY BENEFIT FUND STEERING COMMITTEE

The Community Benefit Fund Steering Committee shall operate according to these Terms of Reference.

1. Function of Community Benefit Fund Steering Committee.

The role of the Committee shall be as follows:

- To have responsibility for the management of the Community Benefit Fund
- To decide on projects to be supported by the Community Benefit Fund as outlined below that benefit the local communities **in the defined wider area**, and householders in the near neighbour zone.

2. Committee Membership.

The Committee shall comprise the following members:

- Four representatives from the near neighbour zone.
 - Four community representatives from local community stakeholder organisations in the following areas: Bodyke, Broadford, Ogonolloe, Tuamgraney.
 - One representative from Clare County Council. (TBC)
 - One staff member from Clare Local Development Company....appointed by the CEO of CLDC. (TBC)
 - One representative from the Developer/Operator of the Windfarm.
- One independent Chairperson voted by the committee from its number.

3. Administration of the Fund

- The committee will appoint an administrator to provide administrative support to the Committee, and assist in the running of the fund for an agreed cost.
- This body should have a track record of community development and administration of community development funds.

3. Appointment of Committee Chairperson

- The Chairperson shall be independent and shall be appointed by the committee for a term not exceeding 3 years.
- The Chairperson shall cease their role on voluntary resignation or if requested by Committee

4. Appointment of Committee Members and Terms of Office.

- General membership of the Committee is voluntary and members shall not be remunerated.
- Committee members and chairperson shall receive reasonable vouched travel and subsistence expenses.
- The four community representative positions shall be filled as follows: following a public advertisement seeking nominations from active local organisations, four member organisations will be selected according to following criteria:
 - General Community Reach (Geographical and Service Delivery) – 50 marks
 - Community Involvement and Membership - 50 marks
 - Longevity in Community Life in the Area - 50 marks
- Following the nomination and selection process, the member community organisation shall serve on the committee for a period of three years.

- Member community organisations will then appoint their representative for one three-year term to sit on the Steering Committee.
- The Steering Committee may choose to extend the membership for a second three year term, after which the public nomination process must be run again.

Process for selection of Near Neighbour Zone members

- The four Near Neighbour Zone representative positions shall be filled as follows:
 - Issuing of notice to all residents in the near neighbour zone to seek nominations by post or email;
 - Circulation of nominees/self-nominees to all residents in the near neighbour zone for voting.
 - Publication of the voting results and names of the elected representatives
- Following the nomination and selection process, the near neighbour zone representatives shall serve on the committee for a period of three years.
- The Steering Committee may choose to extend the membership for a second three year term, after which the election process must be run again.

Committee members shall cease their role on voluntary resignation or if requested by the Committee

5. Role of Community Benefit Fund Steering Committee Chairperson.

- To provide leadership and direction for the Committee.
- Chair meetings of the Committee and manage the proceedings.
- Ensure the effectiveness of the Committee in all aspects of its role.
- Take a lead role in determining and reviewing the process regarding the composition, structure and performance of the Committee.
- Ensure the Committee undertakes a thorough analysis of all issues and concerns presented to the Committee from stakeholders.
- Ensure that all members of the Committee have access to accurate, timely and relevant information.
- Ensure Committee meeting protocols are maintained.
- Ensure as far as possible that the committee works by consensus.
- Ensure adherence to proper corporate governance.

6. Role of Committee Members

- Manage the Community Benefit Fund in accordance with the conditions set out in Community Benefit Fund Terms of Reference.
- Assess applications for grant assistance to fund projects and households in accordance with Community Benefit Fund Terms of Reference
- Accurately represent the interest of their stakeholders.
- The CBF Committee should not make decisions that go against the Terms of Reference themselves or prejudice the value of the fund as established including the interests of the near neighbours
- Work cooperatively and as far as possible seeking consensus with the committee members.

7. Committee Meetings

- The Committee shall meet at least 4 times per year on a quarterly basis with additional meetings scheduled as required and as agreed by the members.
- The quorum shall be four members including the Chairperson with at least one community representative, one near neighbour zone representative, and one of either the County Council or Local Development Company members.
- The date, time and location of each meeting will be scheduled by the Committee as required.
- The **administrator** shall be responsible for preparing and distributing the agenda and minutes of each meeting, in consultation with the Chairperson.

8. Community Benefit Fund - Use of Funds.

- The Committee shall be responsible for assessing and recommending disbursement of funds from the Community Benefit Fund, to qualifying projects, in accordance with Community Benefit Fund Terms of Reference and in accordance with any Grants Scheme criteria drafted by the Steering Committee.

9. Administrative Costs

- The Committee shall provide from the Community Benefit Fund for the reasonable administrative costs of operating the Grant Scheme including the costs of meeting place rental, refreshments, meeting notification, administrative and facilitation services. These costs should come from the Fund after the near neighbour zone Fund allocation has been subtracted

9. Annual Report, Audit and Review

The Committee shall prepare an Annual Report which shall be made publicly available including the following:

- A review of the Community Benefit Fund Community Grant Scheme and the projects supported by it.
- A review of the Community Benefit Fund finances.

The Committee shall ensure regular independent audits of the Community Benefit Fund are carried out. Auditors will be appointed and approved by the Committee. The Committee will complete and publish a review of the fund 3 years into operation, to ensure that the fund is being used effectively and to benefit the locality.

10. Communications

The owners/operators of the windfarm will nominate a designated contact to liaise with the community and Fund Steering Committee once the project is in operation.

The contact details for the Coillte/The owner's designated liaison officer are: _____

C. THE COMMUNITY BENEFIT FUND

1. Duration and Value of the Community Benefit Fund

i. The Owner will pay €2 / MWh into the Fund for the first 15 years.

ii. For the remaining lifetime of the windfarm, the Owner will pay x / MWh (householders seeking same price as per above - Coillte to come back with an amount, before it goes to planning)

iii. The Community Benefit Fund will be calculated from the date the project becomes operational, on an annual basis, based on the output (amount of Megawatt hours (MWh) of electricity produced) of the wind farm in the previous year.

iv. The output is defined by the following criteria:

- Number of wind turbines
- Production capacity of the turbine (How much power they can produce)
- Amount of time wind turbines are in operation (sometimes turbines are off for maintenance, breakdown, curtailment for noise compliance or shadow flicker)
- Amount of wind

v. In the event of the windfarm being sold on, Coillte/The Owner will ensure that any agreements made with the SPV will form part of the contract of sale with the new owner and be honoured in full.

vi. **The fund will come to an end when the wind farm is decommissioned.**

2. Near Neighbour Zone Perimeter and definition of near neighbours

i. The Near Neighbour Zone is defined based on noise and proximity. The Near Neighbour Zone perimeter is defined as follows and is included on the attached map:

ii. Within the Near Neighbour Zone, near neighbour owners/**residents** are defined as properties:

- Having an Eircode and
- Having an MPRN number and
- Either
 - Paying Property Tax or having a property tax exemption for reasons of income.
 - Having a rental agreement or proof of paying utility bills at the relevant address

3. Categories and allocation of the Fund

i. There are 2 categories for the Community Benefit Fund:

- Ring-fenced fund for the near neighbours as defined in Section C.2.ii.
- Area-based Fund for projects/community initiatives in the near Near Neighbour Zone, and in the wider community (area will be defined by Fund Steering Committee).

ii. The Community Benefit Fund, as calculated in section C1(i) and (ii) above, should be allocated as follows:

- 33% to households in Near Neighbour Zone.
- 67% to community development in the area.

4. Ring-fenced Fund

- i. Owners and residents in the Near Neighbour Zone will have a defined value benefit package to a defined monetary value. This will be a fixed payment per year per house broken down as follows: 75% to the Resident, 25% to the Owner. The benefit package may include:
 - o Direct payments/Cash compensation
- Or
- o Education or other bursaries for near neighbour residents or their children.
- o Reduction on/subsidy towards electricity
- Or
- o other mechanism which maximises the benefit to the householder, and efficiency of the payment administration.
- ii. *Where a deep retrofit was considered, and given the cost to the owner and long term benefit to the resident, the breakdown of the percentages would be e.g. 50% to the Resident, 50% to the Owner* or other appropriate breakdown based on the overall cost of the Deep Retrofit. Energy upgrades include insulation, heating systems upgrades, doors and windows etc. A deep retrofit would return between €1-2k per annum in energy savings and would also attract other state subsidies, create local jobs, reduce potential of noise through upgraded windows and ventilation systems, improve health and well being of the community etc.
- iii. *Direct payments will be made yearly at a date agreed by the Steering Committee, and where Education Bursaries are involved, tying in with the academic year. .*
- iv. These benefits will be available to the near neighbour residents, and attached to the house at the relevant Eircode.
- v. Tax implications of direct payments or benefits in kind are the responsibility of the recipient.

5. Area-based Fund

The Area-based Fund will be available for:

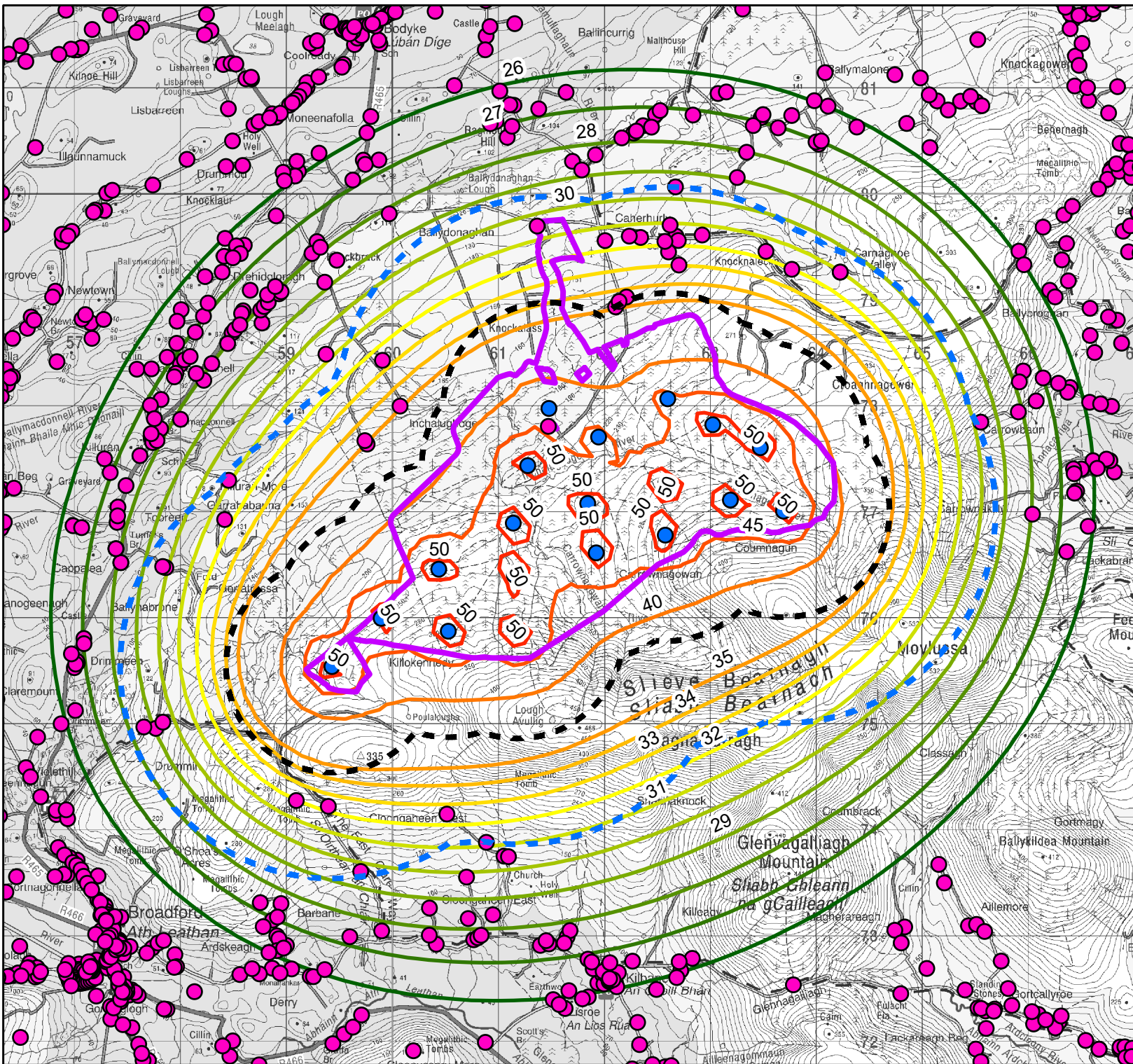
- Clubs and community organisations in the surrounding villages and parishes including Bodyke, Tuamgraney, Ogonolloe, Broadford,..... (area will be defined by Fund Steering Committee)
- Community initiatives in the surrounding villages and parishes including Bodyke, Tuamgraney, Ogonolloe, Broadford,..... (area will be defined by Fund Steering Committee) e.g. projects to support local biodiversity e.g. pheasant and grouse on the mountain.
- Supporting local energy initiatives like subsidising retrofit in the wider community, insulating homes and community centers, etc.
- This part of the fund may also be used to purchase shares in the wind farm – where the Committee considers that this is a suitable community investment option.
- The Steering Committee may consider individual request for support outside of the near neighbour zone, where there is a clear rationale

Signed by:

The Developer

Near Neighbour Residents participants in the discussion process

Date:



Legend

- Turbine Location (19WTG)
- Turbine Location (19WTG) 1km Buffer
- Turbine Location (19WTG) 2km Buffer
- House Location
- Study Area

L90 8m/s Night Curtailed (dB)

- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33
- 34
- 35
- 40
- 45
- 50

Map Reproduced From Ordnance Survey Ireland
By Permission Of The Government.
Licence Number EN 0015719.

0 0.75 1.5 km

Project Title:
Carrownagowan Wind Farm

Client: Coillte

Drawing Title:
L90 8m/s Night Curtailed Noise Contours

Drawn: JK	Checked: HBR
Date: 25-09-2019	Scale (A4): 1:50,000

Malachy Walsh and Partners
Engineering and Environmental Consultants



Coillte Meeting – 26/09/2019

Attendees : Andy Fox, Ger Hynes & Michael McNamara – **Coillte**. Alan Jackson – **Tipperary Energy Agency**. Ken Fitzgerald **Malachy Walsh & Partners**.

Residents: Anthony Vincent, Ali Knox, Olive & Jimmy Walsh, Aoibhin Burtchaell, Marie Venes, Paul Vesey, Sarah & Steve Davis, Jim McLoughlin, James Conway, Brian Cooney, Patricia Coyne, Sean McMahon, John Kelleher.

Update:

- All studies have been completed including bird study which is required for the EIA
- A 13 tonne excavator has dug trial holes at all of the proposed 19 turbine locations and samples have been sent off for testing.
- The location of the turbines has now been locked and an impact assessment can now be carried out.
- It is proposed to submit planning permission before Christmas

Near residents Zone

- It was agreed that the “ Near Residents Zone” would be residents within the 2Km zone and residents within the 29db zone. This area captures approximately 40 houses.
- The residents agreed that the owners of the houses will get the money allocated to the near residents , regardless if the house is rented or not.
- The owners of new houses built in the near resident’s zone will be entitled to the near resident’s fund.
- If a house is purchased in the near residents zone the new owner will be entitled to the near residents’ fund.
- Houses need to be lived in – need a fair way of accessing this e.g. to accommodate people living off grid.

Concerns Raised about the Development

- Shadow Flicker – This was raised by one of the residents, Coillte assured that this is overcome by new technology and turbines will comply with the new wind guidelines which proposes to eliminate shadow flicker.
- Red Tailed Hawks – One of the residents spotted red tailed hawks in the area and he was concerned how they would be affected by the new wind turbines. He was advised to give the information on their location to Coillte so this matter could be discussed with the company carrying out the bird survey. He was also concerned that birds such as house martins could be killed by the turbines.

Concerns Raised about the Benefit fund

- Will it be a voluntary drawdown as it may affect other benefits such as medical cards etc ?
- Committee membership -
 - Near residents need to have a majority on the committee

- Developer can attend meetings by invitation, but they will not have a vote.
- Trusted intermediary e.g. Clare Local Development Company can be invited but will not have a quote.
- Committee –
 - 5 from near neighbours
 - 4 from Community
 - Developer/Wind farm owner can be invited (no vote)
 - Trusted intermediary can be invited (no vote).

- The area-based fund must be open to individuals for special cases e.g. to fund costs of a sick child etc.
- Initially the residents thought the community benefit was guaranteed for 25 years this is now 15 years – Coillte is to provide a package for the remaining 10 years ? or lifetime of project ?. €2/MWh for 15 years is the criteria of the RESS but this project may not enter into RESS and may go with a Power Purchase Agreement with a company such as Amazon.
- Tax Implications – Coillte to provide a tax consultant to address the residents at the next meeting to discuss how to provide tax efficient ways of receiving the money. **Coillte to have the tax consultant briefed so that they will have answers at the meeting.**
- The split of money between the near residents and the area fund still needs to be decided and this will depend on the tax implications. Currently the residents are looking towards a 50:50 split.

Next Meeting Thursday 17/10/2019

Carrownagowan Community Benefit Fund Terms of Reference(draft)

(Add suggestions or comments on the margins - Shortlink: <http://bit.ly/cngcbfior>).

Terms of Reference for the set up and governance of a Community Benefit Fund for Carrownagowan Windfarm to be submitted with Planning Application ref _____, to _____.

- A. ESTABLISHMENT OF THE COMMUNITY BENEFIT FUND
- B. THE COMMUNITY BENEFIT FUND STEERING COMMITTEE
- C. THE COMMUNITY BENEFIT FUND

A. ESTABLISHMENT OF THE COMMUNITY BENEFIT FUND

1. The Developer agrees to the following condition being included in the planning approval from the Local Authority/An Bord Pleanála:

"The Developer agrees to the Terms of Reference (attached as Appendix ___) for the set up and governance of Carrownagowan Windfarm Community Benefit Fund. The Developer/or subsequent operators/owners of the windfarm, agree to place amounts in the fund as outlined in the Terms of Reference Section C1(i) and (ii)."

2. If planning permission is granted, the developer will engage a **TRUSTED INTERMEDIARY**, to support the establishment of the Community Benefit Fund Steering Committee according to this Terms of Reference, within 9 months of the planning permission date.

B. THE COMMUNITY BENEFIT FUND STEERING COMMITTEE

The Community Benefit Fund Steering Committee shall operate according to these Terms of Reference.

1. Function of Community Benefit Fund Steering Committee.

The role of the Committee shall be as follows:

- To have responsibility for the management of the Community Benefit Fund
- To decide on projects to be supported by the Community Benefit Fund as outlined below that benefit the local communities **in the defined wider area**, and householders in the near neighbour zone.

2. Committee Membership.

The Committee shall comprise the following voting members:

- **Five** representatives from the near neighbour zone.
- **Four** community representatives from local community stakeholder organisations in the following areas: Bodyke, Broadford, Ogonolloe, Tuamgraney.
- One staff member from a Trusted Intermediary e.g. Clare Local Development Company, appointed by the CEO. (TBC)
- One independent Chairperson voted by the committee from its number.

Non-voting members should be as follows:

- One representative from the Developer/Operator of the Windfarm.

3. Administration of the Fund

- i. The committee will appoint an administrator to provide administrative support to the Committee, and assist in the running of the fund for an agreed cost.
- ii. This body should have a track record of community development and administration of community development funds.

4. Appointment of Committee Chairperson

- i. The Chairperson shall be independent and shall be appointed by the committee for a term not exceeding 3 years.
- ii. The Chairperson shall cease their role on voluntary resignation or if requested by Committee

5. Appointment of Committee Members and Terms of Office.

- i. General membership of the Committee is voluntary and members shall not be remunerated.
- ii. Committee members and chairperson share receive reasonable vouched travel and subsistence expenses. Process for selection of Community Representatives

iii. The community representative positions shall be filled as follows: following a public advertisement seeking nominations from active local organisations, four member organisations will be selected according to following criteria:

- General Community Reach (Geographical and Service Delivery) – 50 marks
- Community Involvement and Membership - 50 marks
- Longevity in Community Life in the Area - 50 marks

- iv. Following the nomination and selection process, the member community organisation shall serve on the committee for a period of three years.
- v. Member community organisations will then appoint their representative for one three-year term to sit on the Steering Committee.
- vi. The Steering Committee may choose to extend the membership for a second three year term, after which the public nomination process must be run again.

Process for selection of Near Neighbour Zone members

- vii. The Near Neighbour Zone representative positions shall be filled as follows:
 - Issuing of notice to all residents in the near neighbour zone seeking nominations by post or email;
 - Circulation of nominees/self-nominees to all residents in the near neighbour zone for voting.
 - Publication of the voting results and names of the elected representatives
- viii. Following the nomination and selection process, the near neighbour zone representatives shall serve on the committee for a period of three years.
- ix. The Steering Committee may choose to extend the membership for a second three year term, after which the election process must be run again.
- x. Committee members shall cease their role on voluntary resignation or if requested by the Committee

6. Role of Community Benefit Fund Steering Committee Chairperson.

- i. To provide **independent** leadership and direction for the Committee.
- ii. Chair meetings of the Committee and manage the proceedings.
- iii. Ensure the effectiveness of the Committee in all aspects of its role.
- iv. Take a lead role in determining and reviewing the process regarding the composition, structure and performance of the Committee.
- v. Ensure the Committee undertakes a thorough analysis of all issues and concerns presented to the Committee from stakeholders.
- vi. Ensure that all members of the Committee have access to accurate, timely and relevant information.
- vii. Ensure Committee meeting protocols are maintained.
- viii. Ensure as far as possible that the committee works by consensus.
- ix. Ensure adherence to proper corporate governance.

7. Role of Committee Members

- i. Manage the Community Benefit Fund in accordance with the conditions set out in Community Benefit Fund Terms of Reference.
- ii. Assess applications for grant assistance to fund projects and households in accordance with Community Benefit Fund Terms of Reference
- iii. Accurately represent the interest of their stakeholders.
- iv. The CBF Committee should not make decisions that go against the Terms of Reference themselves or prejudice the value of the fund as established including the interests of the near neighbours
- v. Work cooperatively and as far as possible seeking consensus with the committee members.

8. Committee Meetings

- i. The Committee shall meet at least 4 times per year on a quarterly basis with additional meetings scheduled as required and as agreed by the members.
- ii. The quorum shall be four members including the Chairperson with at least one community representative, one near neighbour zone representative, and one of either the County Council or Local Development Company members.
- iii. The date, time and location of each meeting will be scheduled by the Committee as required.
- iv. Each meeting will have a written agenda, circulated at least 2 weeks in advance, and minutes will be kept of each meeting, available for consultation by the public on the Fund Webpage.
- v. The administrator shall be responsible for preparing and distributing the agenda and minutes of each meeting, in consultation with the Chairperson.

9. Community Benefit Fund - Use of Funds.

The Committee shall be responsible for assessing and recommending disbursement of funds from the Community Benefit Fund, to qualifying projects, in accordance with Community Benefit Fund Terms of Reference and in accordance with any Grants Scheme criteria drafted by the Steering Committee.

10. Administrative Costs

The Committee shall provide from the Community Benefit Fund for the reasonable administrative costs of operating the Grant Scheme including the costs of meeting place rental, refreshments, meeting notification, administrative and facilitation services. These costs should come from the Fund.

11. Annual Report & Audit and Review

The Committee shall prepare an Annual Report which shall be made publicly available including the following:

- Details of the Community Benefit Fund Community Grant Scheme and the projects supported by it.
- Details of the Community Benefit Fund finances, to be carried out by independent auditors appointed and approved by the Committee.

The Committee will complete and publish a review of the fund 3 years into operation, to ensure that the fund is being used effectively and to benefit the locality.

12. Communications

- The owners/operators of the windfarm will nominate a designated contact to liaise with the community and Fund Steering Committee once the project is in operation.
- The contact details for the Coillte/The owner's designated liaison officer are: _____

C. THE COMMUNITY BENEFIT FUND

1. Duration and Value of the Community Benefit Fund

- The Owner will pay €2 / MWh into the Fund for the first 15 years.
- For the remaining lifetime of the windfarm, the Owner will pay x / MWh (householders seeking same price as per above - Coillte to come back with an amount, before it goes to planning)
- The Community Benefit Fund will be calculated from the date the project becomes operational, on an annual basis, based on the output (amount of Megawatt hours (MWh) of electricity produced) of the wind farm in the previous year.
- The output is defined by the following criteria:
 - Number of wind turbines
 - Production capacity of the turbine (How much power they can produce)
 - Amount of time wind turbines are in operation (sometimes turbines are off for maintenance, breakdown, curtailment for noise compliance or shadow flicker)
 - Amount of wind
- In the event of the windfarm being sold on, Coillte/The Owner will ensure that any agreements made by the SPV will form part of the contract of sale with the new owner and be honoured in full.
- The fund will come to an end when the wind farm is decommissioned.

2. Near Neighbour Zone Perimeter and definition of near neighbours

- The Near Neighbour Zone is based on noise and proximity, defined as residents within the 2km and 29db modelled zone, according to the map attached in appendix :
- Within the Near Neighbour Zone, near neighbour owners are defined as:
 - Having an Eircode and
 - Having an MPRN number. If a home is not connected to the grid, this will not be a requirement.
 - Either
 - Paying Property Tax or having a property tax exemption.
 - Having a rental agreement or proof of paying utility bills at the relevant address
- Owners of new houses built in the near resident's zone will be entitled to access the near neighbour fund.
- If a house is purchased in the near neighbour zone, the new owner will be entitled to the near neighbour fund.

3. Categories and allocation of the Fund

- There are 2 categories for the Community Benefit Fund:
 - Ring-fenced fund for the near neighbours as defined in Section C.2.ii.
 - Area-based Fund for projects/community initiatives in the wider community (area will be defined by Fund Steering Committee).

Commented [1]: The idea behind this clause is that an existing tenant receives the full benefit of any local payment, however a new tenant would likely consider any negative perceptions of the wind farm at consideration of the lease and the landlord would need to reflect the lower rent to attract people in proportion to the impact, otherwise it may be reflected in a payment to the tenant with the landlord maintaining the market rent.

ii. The Community Benefit Fund, as calculated in section C1(i) and (ii) above, should be allocated as follows:

- 50% to households in Near Neighbour Zone.
- 50% to the Area-based community development in the area.

4. Ring-fenced Fund

i. Owners and residents in the Near Neighbour Zone will have a defined value benefit package to a defined monetary value. This will be a per year per house payment based on output as defined above in C1(i) and (ii) above. The benefit package may include:

- o Direct payments

And / or

- o Education or other bursaries or payments for near neighbour residents or their children.
- o Reduction on/subsidy towards electricity

And / or

- o other mechanism which maximises the benefit to the householder, and efficiency of the payment administration.

ii. Deep energy retrofit, with the option of agreeing a financing solution to cover the overall cost not exceeding the cumulative per household amount.

Energy upgrades include insulation, heating systems upgrades, doors and windows etc. A deep retrofit would return between €1-2k per annum in energy savings and would also attract other state subsidies, create local jobs, reduce potential of noise through upgraded windows and ventilation systems, improve health and well being of the community etc.

iii. Direct payments will be made yearly at a date agreed by the Steering Committee, and where Education Bursaries are involved, tying in with the academic year. .

iv. These benefits will be available to the near neighbour residents, and attached to the house at the relevant Eircode.

v. Tax implications of direct payments or benefits in kind are the responsibility of the recipient.

5. Area-based Fund

The Area-based Fund will be available for:

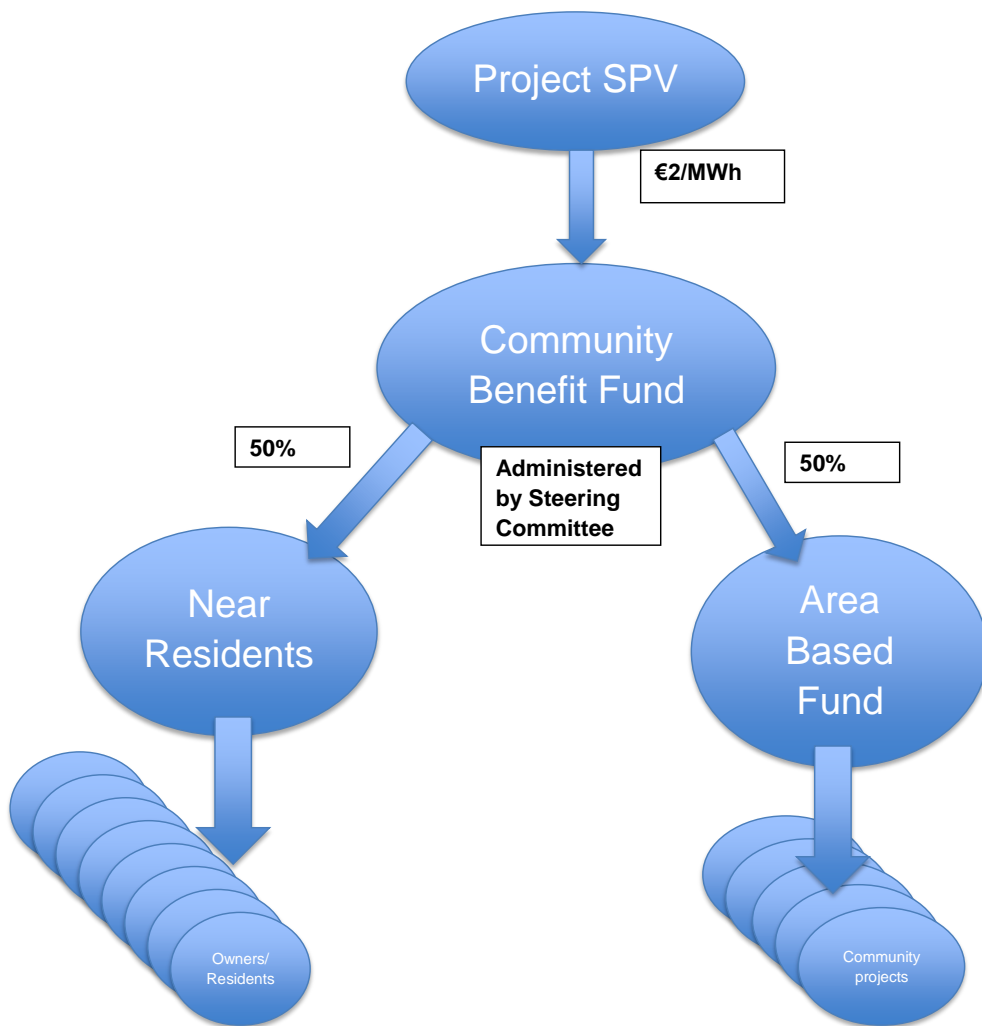
- Clubs and community organisations in the surrounding villages and parishes including Bodyke, Tuamgraney, Ogonolloe, Broadford,..... (area will be defined by Fund Steering Committee)
- Community initiatives in the surrounding villages and parishes including Bodyke, Tuamgraney, Ogonolloe, Broadford,..... (area will be defined by Fund Steering Committee) e.g. projects to support local biodiversity e.g. pheasant and grouse on the mountain.
- Supporting local energy initiatives like subsidising retrofit in the wider community, insulating homes and community centers, etc.
- This part of the fund may also be used to purchase shares in the wind farm – where the Committee considers that this is a suitable community investment option.
- The Steering Committee may consider individual request for support outside of the near neighbour zone, where there is a clear rationale

Signed by:

The Developer

Near Neighbour Residents participants in the discussion process

Date:



MEETING AGENDA COILLTE & LOCAL RESIDENTS WITHIN 2KM OF THE CURRENT LAYOUT 24TH OCTOBER 2019, 7.00 – 9.00, COILLTE SCARRIFF OFFICE.

- EIAR progress update from 26th September meeting
Includes next Steps / Timelines **(Section 4)**
- Legal and financial opinion to assist with the Terms of Reference for the Community Benefit Fund **(Section 5)**

1 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) CONSULTANT

Malachy Walsh and Partners (MWP) has been commissioned by Coillte to undertake an Environmental Impact Assessment (EIA) and prepare a subsequent Environmental Impact Assessment Report (EIAR) for a proposed wind farm on Coillte lands at Carrownagowan, near Slieve Bernagh in Co. Clare. Much of the lands identified are included as Strategic Areas for wind energy development in plans for Co. Clare.

The project includes for the preparation of an EIAR, planning application, wind farm layout, grid connection and civil and roads design for the sites and to manage the planning process through to delivery of planning. It is anticipated that will be a strategic infrastructure project.

2 SITE DESCRIPTION

This is an upland site on Slieve Bernagh which contains Coillte commercial forestry. It is an active forest amidst harvesting and establishment. There are a number of disused borrow pits around the site and Coillte has identified Biodiversity areas across the site.

There is high drainage density in the area and surface water is the dominant flow process in the area (not groundwater). The proposed infrastructure will be located in areas with shallow peat depths and in areas where the overburden depths is low. The intent is to minimise ground excavations and develop a road infrastructure network that complements the ground contour.

The underlying bedrock is a low permeability poor/locally important aquifer (i.e. it is not regionally important, or karstified). The proposed development is located largely in the Owengarney catchment, with a small proportion in the Lower Shannon/Black River catchment.

Deep peat is not an issue on this site. The design team have used a constraints approach eliminating any areas of deep peat and steep slope. From an early engineering perspective, this site represents a good base for a wind farm. Proposed access roads are largely in place already and the development is distributed across a wide area. The approach is to maximise the use of existing built infrastructure, carry out upgrades to exist roads and to build short spur roads to turbine locations.

3 PROJECT DESIGN

Design work completed reaching a fixed layout which includes the following;

Main project components:

- Wind Turbines construction based on preliminary layout
- Hardstand areas and access roads
- Substation on the wind farm site
- Borrow Pits and spoil management areas

Off-site project components:

- Turbine component haulage route assessment
- Replacement lands for felled forestry
- Grid connection; overhead line or **underground cable**, any requirements to upgrade substation offsite in **Ardnacrusha** or Ennis.

4 PROJECT UPDATE – NEXT STEPS & TIMELINES

- Locked layout since the end of September which includes **19** No Wind Turbines.
- **Impact assessment** has commenced, this will take approximately two months (Mid - September until **Mid - November**) covering:
 - Soils, geology and hydrogeology incl peat stability
 - Social economic & human environment
 - Landscape & Visuals
 - Material Assets
 - Noise & vibration
 - Air & Climate
 - Hydrology, Drainage & water quality
 - Telecoms & Aviation assessments
 - Forestry
 - Shadow Flicker
 - Ecology & Ornithology (Biodiversity enhancement plan)
 - Traffic
 - Cultural Heritage
- Mitigation measures :
 - Mitigation measures to exclude impacts & risks
 - Modify design where necessary
- **EIAR Reviews & Edits** will follow the Impact assessment stage taking place from Mid-November until the **1st week of December**
 - Edits & finalise chapters

A workshop review will take place between Coillte and MWP. There will also be a peer and legal review of the chapters prior to the commencement of the planning documentation.

- **Near neighbours review of the draft EIAR** - Workshop with near neighbours post the project team review and include an opportunity for comment or raise any concerns **2nd Week of December**.
- **Open Public Information evening** – Planned after the project team & near neighbour reviews **2nd week of January**.
- **Planning application documentation preparation**. Some of this has commenced, this includes compiling information from the different studies for the Appendices e.g ecology, aquatic ecology reports, site investigations. The actual chapters will be finalised once the reviews have taken place and the compiling of the EIAR application will begin. This will take up to three weeks taking us to the **end of January**.
- We are hoping that the **application will be lodged** with ABP by the **end of January**. (To meet this date, we will be relying on no programme slippage)
- **Community Benefit Fund**, Pre-planning Scope will continue until **January**.
Design an initial construct of a community based structure that would manage the wind farm Community Benefit Fund: Workshops to develop and agree terms of reference.
We will need to take the draft Terms of reference and consult with **a)** Community representatives from Bodyke, Ogonnelloe, Broadford & Tuamgraney & **b)** The Clare Development association.
- **Community engagement** will be an ongoing process – beyond planning submission into 2020. For the November update meeting we are interested in developing an engagement plan for 2020 & would appreciate your inputs.

5 LEGAL & FINANCIAL ADVICE

- We approached both Dominic O’Shea and Aisling Meehan with a view to obtaining some advice from a legal and financial point of view for the Community Group working on developing the Terms of Reference for the Community Benefit Fund.

We have asked them to attend this meeting to take part in the conversation and provide advice to the group members from their own professional points of view.

We have contracted them for 2 days of work so far. 2 half days to attend two separate group meetings with a day in between to undertake any follow-up work identified during the first meeting.

The focus at this point is achieving a fit for purpose Terms of Reference for inclusion in the Planning application, that is detailed enough to give some clear boundaries and commitments at this stage, but does not restrict the flexibility of being able to adapt to changing



circumstances in terms of the project evolution, government policy and direction and a significant amount of work needed both within the community group and within Coillte to progress this piece of work successfully.

Environmental Impact Assessment

Wind farm planning permission applications must include an Environmental Impact Assessment Report (EIAR). The aim is to make a detailed assessment of how the proposed development may impact on the local area across a series of topics such as; biodiversity, landscape, water, population and human health. Each topic forms a standalone chapter in the report.

An established protocol exists for developing an EIAR, beginning with collecting baseline data across the proposed development area. Now that a final layout is confirmed, the potential impact of each turbine and the full wind farm is defined across each topic and appropriate decisions are made surrounding amendments to design or mitigating strategies which may be required.

These impacts and strategies form the EIAR which is submitted to the relevant planning authority. Planning conditions are frequently attached to information outlined within the EIAR.

Our Environment

The Carrownagowan project EIA covers ten chapters:

- 1 Population and Human Health
- 2 Biodiversity
- 3 Land
- 4 Soil
- 5 Water
- 6 Air
- 7 Climate
- 8 Material Assets
- 9 Cultural Heritage
- 10 Landscape

Coillte have undertaken rigorous environmental analysis across their estate for many years, working with dedicated, market leading, environmental consultants ensuring that we maintain our market leading position regarding environmental management.

Delivery Route

Access to the site will be from the M18 at Junction 13 and then on to Regional and local county roads leading to the development site.

Turbines are large machines and will be imported via Galway or Foynes Ports. Each turbine will arrive in parts on an average of 8 articulated trucks.

Each turbine blade requires a lorry, the main tower arrives in three sections each requiring a truck and two more are required for the hub. Some of these trucks will be up to 75m in length and none will exceed 5m height above the loader.

A full traffic impact assessment will be carried out as part of the EIAR and any necessary mitigations put in place. This population and human health chapter assessment and plan will be available to all local residents via our ongoing community engagement activities and information evenings in advance of planning submission.

Carrownagowan Wind Farm

Newsletter 3

Winter 2019

The design process has now reached a final layout for the Carrownagowan Project.

Getting to this stage is a lengthy process with many inputs. The project team have worked at length with environmental and engineering consultants to design a wind farm which will help to deliver Ireland's 2030 energy targets in the most efficient way.

The project team have been working closely with local residents within 2km of the site since early 2018 and the aim of this newsletter is to share the project progress and status with a wider audience.

Engagement with the local community will continue throughout the lifetime of this project.

Meet the Team



Gerard Hynes, a native of North Clare, is our Project Manager. A qualified Civil Engineer, Gerard has worked for Coillte for over ten years. His experience ranges from forest road design and construction to wind farm development.



Andy Fox is our Community Engagement Manager. Andy has spent the past 15 years working hand in hand with communities to drive towards sustainable local development. Originally from Kenya and the UK, Andy now lives in Co. Wicklow.



Michael McNamara is our Community Liaison Officer. Michael has worked with Coillte in all aspects of forestry during a twenty year tenure. He has vast experience of forestry and engineering and comes with a deep understanding of both the local community and the needs of the local area.

Contact Information

You can find more in-depth information on Community Benefit Fund, Environmental Studies, Visual Analysis and many other topics on the project at www.carrownagowanwindfarm.ie

Contact Us

Coillte Renewable Energy,
Drewsboro,
Scarriff,
Co. Clare.

Phone
1890 800505

Email
scarriff@coillte.ie

Web
www.carrownagowanwindfarm.ie

Project Milestones

- 2018 - Quarter 1 Engagement with local community commenced
- 2018 - Quarter 2 Feasibility study
- 2018 - Quarter 2 EIA baseline studies begins
- 2018 - Quarter 3 Grid route feasibility study begins
- 2018 - Quarter 3 Mapping of buildable area
- 2018 - Quarter 3 Planning strategy development begins
- 2018 - Quarter 4 Preliminary design phase begins
- 2018 - Quarter 4 EIA studies ongoing
- 2019 - Quarter 1 First draft turbine layout design begins
- 2019 - Quarter 3 Second draft turbine layout design begins
- 2019 - Quarter 4 Third draft turbine layout design begins
- 2019 - Quarter 4 Appropriate Assessment Screening
- 2019 - Quarter 4 EIAR reviews
- 2020 - Quarter 1 Lodge planning permission application

Wind farm design is governed by a series of guidelines around set back distance, noise and environmental constraints amongst others. Carrowmagowan Wind Farm has been designed based on the latest iteration guidelines for Wind Energy (June 2017). This best in class, conservative approach seeks to future proof the project for any new guidelines which may issue. Lengthy studies across all facets of the EIA have led to a 19 turbine final design for Carrowmagowan. Detail behind some of the design criteria are:

SETBACK DISTANCES

From the outset, we try to keep as far back from residential properties as possible. Current guidelines cite a minimum distance of 500m. We aim to be a **minimum** of 750m distant and with this design our closest household is 1km from the nearest turbine due to the continued design efforts of our team. We also consider the distance from many other features in our design process and turbines are located at a **minimum** set back distance:

- 75m from watercourses
- 200m from adjoining landowners
- 170m from public roads
- 200m from areas with environmental designation
- 350m from ESB HV transmission lines

GRID ROUTE

All over ground and underground options connecting into Ardnacrusha or Ennis have been analysed. At this stage, we know that the connection is expected to run underground and we continue to consult with EirGrid regarding connection to either of these two stations.

SITE ASSESSMENT

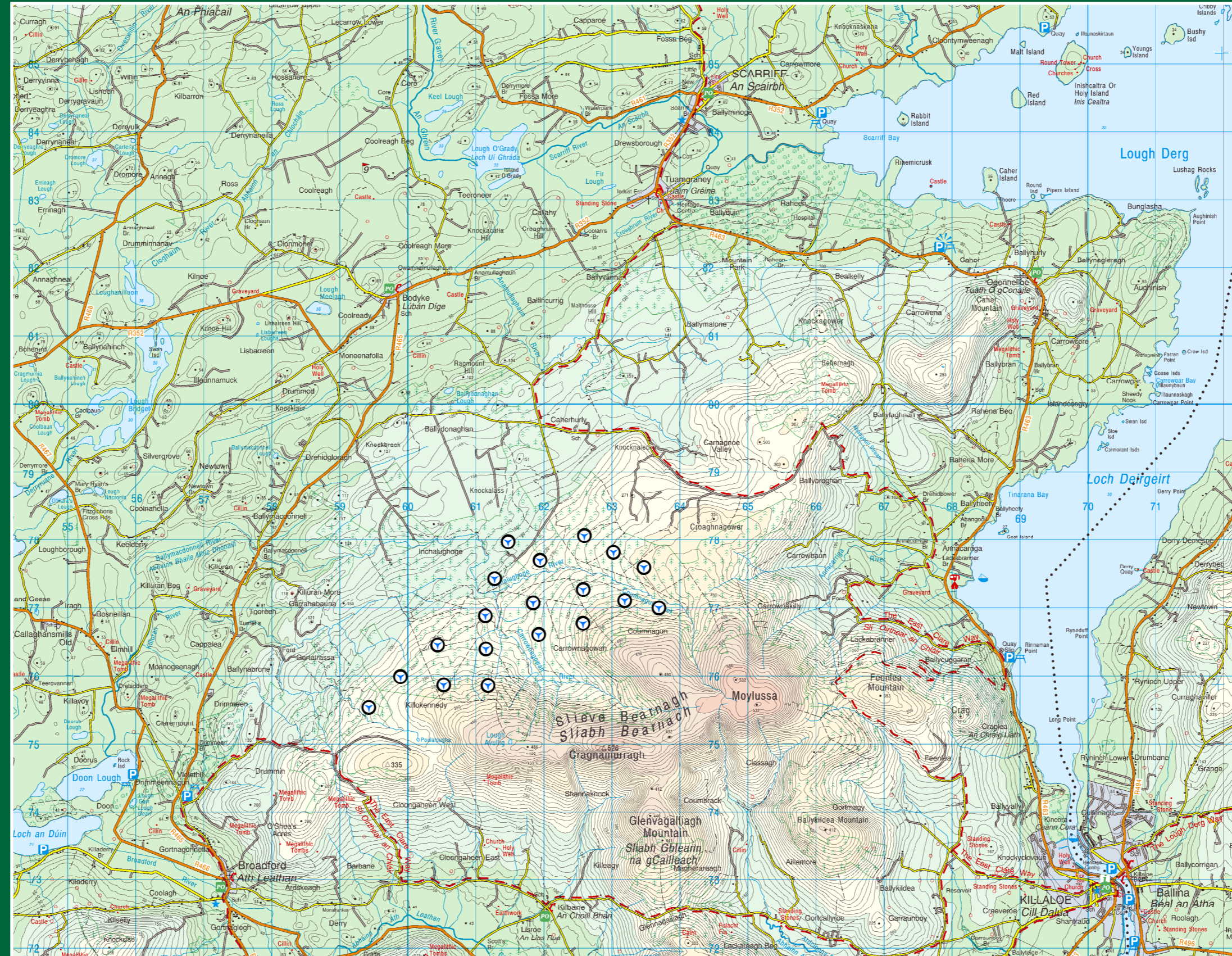
Many variables are taken into account when assessing a site for suitability for wind development. Some of these are:

- Buffer zones for residential dwellings >750m
- Potential visual impact
- Specific County Development Plan (CDP) constraints
- Slope and ground conditions
- Peat depths
- Site access
- Grid availability
- Wind complexity

TURBINE LAYOUT

Once site suitability is investigated, the buildable area is defined and the process of citing turbines begins. Factors which feed into turbine location include:

- Slope – less than 16° for wind flow and less than 10° to facilitate construction
- Wind complexity and resource models
- Landscape assessment
- Avoidance of designated biodiversity areas and ancient woodland
- Site access
- Proposed grid routes
- Ground conditions - peat depths



HOW THE DESIGN WAS FORMULATED

SHADOW FLICKER

Shadow flicker occurs at certain times of the day when the sun is very low in the sky, and where the movement of blades can periodically reduce the light coming from a window for example, causing the light to appear to flicker.

Technology now facilitates a development to comply with a zero shadow flicker policy, through detailed analysis and planned curtailment of the turbines. Current legislation limits allowable shadow flicker to 30mins a day for a max of 30h per year. This project strives toward a zero shadow flicker policy.

NOISE

Baseline noise levels are measured across various locations in the vicinity of the buildable area. These allow us to design a project which will comply with the impending Wind Energy Guidelines.

Within the design and planning process, noise is examined during construction, operation and decommissioning of the proposed development.

Possible impacts of any potential noise nuisance has been addressed at the design stage by locating turbines at sufficient separation distances or by employing reduced turbine noise modes to comply with the noise limits in force at the time of application.

GEOTECHNICAL

A detailed assessment of soils and geology is necessary across the turbine locations, proposed access routes and the proposed grid connection route. These assessments are carried out using peat probing, trial holes and auger sampling amongst other methods.

The output of these studies allows calculation of required borrow pits, their size and an earthworks calculation to assess where excavated material can be beneficially reused.

All data gathered has been used to inform the final locations of all turbines and the associated infrastructure.

BIRD STUDIES

Birds are included in the Biodiversity chapter of the Environmental Impact Assessment. In-depth studies of birds throughout the site have been ongoing since 2016. Survey methods have been selected following a review of best practice guidelines, including guidance available from SNH (Scottish Natural Heritage), following consultation with NPWS and the main environmental non-governmental organisations.

Ecology surveys focussing on birds include, but are not limited to: Vantage point surveys targeting Hen Harrier and other raptors, Hen Harrier winter roost surveys, wintering wild fowl distribution surveys, general breeding transect surveys.

BAT STUDIES

Recently, Scottish Natural Heritage published updated guidance for bat survey methodology for onshore wind farms (SNH, 2019). For bat surveys at the Carrowmagowan site; SNH guidance has been adopted with an appropriate level of survey, including bat monitors positioned throughout the site.

MEETING AGENDA COILLTE & LOCAL RESIDENTS WITHIN 2KM OF THE CURRENT LAYOUT 27TH NOVEMBER 2019, 6.30 – 8.30, COILLTE SCARRIFF OFFICE.

- EIAR progress update from 24th October meeting
Includes next Steps / Timelines **(Section 4)**
- Legal and financial opinion to assist with the Terms of Reference for the Community Benefit Fund **(Section 5)**

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4 PROJECT UPDATE – NEXT STEPS & TIMELINES

- Locked layout since the end of September which includes **19** No Wind Turbines.
- **Impact assessment** still ongoing, this will be completed week ended 6th December:

Soils, geology and hydrogeology incl peat stability

Social economic & human environment

Landscape & Visuals

Material Assets

Noise & vibration

Air & Climate

Hydrology, Drainage & water quality

Telecoms & Aviation assessments

Forestry

Shadow Flicker

Ecology & Ornithology (Biodiversity enhancement plan)

Traffic

Cultural Heritage

- Mitigation measures :
Mitigation measures to exclude impacts & risks
Modify design where necessary
- **EIAR Reviews & Edits** will follow the Impact assessment stage taking place from **week ending 6th of December to the 20st of December**
Edits & finalise chapters

A workshop review will take place between Coillte and MWP. There will also be a peer and legal review of the chapters prior to the commencement of the planning documentation.

- **Near neighbours review of the draft Planning application and EIAR** - Workshop with near neighbours post the project team review and include an opportunity for comment or raise any concerns **week ending 17th January.**
- **Open Public Information evening** – Planned after the project team & near neighbour reviews **week ending 24th of January.**
- **Planning application documentation preparation.** Some of this has commenced, this includes compiling information from the different studies for the Appendices e.g ecology, aquatic ecology reports, site investigations. The actual chapters will be finalised once the reviews have taken place and the compiling of the EIAR application will begin. This will take up to three weeks taking us to the **middle of February.**
- We are hoping that the **application will be lodged** with ABP by the **14th of February at the latest.**
- **Community Benefit Fund, Pre-planning Scope** will continue until **February.**
Design an initial construct of a community based structure that would manage the wind farm Community Benefit Fund: Workshops to develop and agree terms of reference.
We will need to take the draft Terms of reference and consult with **a) Community representatives from Bodyke, Ogonnelloe, Broadford & Tuamgraney & b) The Clare Development association.**
- **Community engagement** will be an ongoing process – beyond planning submission into 2020. We are interested in developing an engagement plan for 2020 & would appreciate your inputs.
- **Development drawings** for this update we will take you through the detailed drawings for the project including drainage design.
- **Met mast planning** the met mast installed in July 2019 to gather wind data for the proposed development was installed under exempted development which allowed us to keep the structure in place for a period of 15 months. This period has now expired and we are going to apply to Clare County Council for retention for the mast for a further period of 60 months taking us to what we hope will be the development construction completion date. We intend to submit the application for the retention of the existing met mast on week ending the 6th of December.

5 LEGAL & FINANCIAL ADVICE

- We approached both Dominic O’Shea and Aisling Meehan with a view to obtaining some advice from a legal and financial point of view for the Community Group working on developing the Terms of Reference for the Community Benefit Fund.

We have asked them to attend this meeting to take part in the conversation and provide advice to the group members from their own professional points of view.

We have contracted them for 2 days of work so far. 2 half days to attend two separate group meetings with a day in between to undertake any follow-up work identified during the first meeting.

The focus at this point is achieving a fit for purpose Terms of Reference for inclusion in the Planning application, that is detailed enough to give some clear boundaries and commitments at this stage, but does not restrict the flexibility of being able to adapt to changing circumstances in terms of the project evolution, government policy and direction and a significant amount of work needed both within the community group and within Coillte to progress this piece of work successfully.

Based on the discussion in the October meeting and initial feedback from both Dominic and Aisling, it was agreed that they would re-draft the ToR to make sure that the key points were covered clearly but that it was presented in its simplest form so as not to create difficulties in the future design process.

Proposed Carrowngowan Windfarm

Community Group Meeting

27th November, 2019

Please note that the opinion offered in this document is general advice. Liability will vary depending on individual circumstances so we would advise independent advice is obtained by all concerned.

Tax Bands

Single	35,300	at	20%
Widowed	39,300	at	20%
Married	44,300	at	20%
possibly	70,600		

(max of 9,000 transferable between spouses)

Over 65

Single or widowed or surviving civil partner	earn up to	18,000	tax exempt
Married or in a civil partnership	earn up to	36,000	tax exempt

Additional earnings

First two children 575 each

Subsequent children 530 each

Pension Rates (Non-contributory)

Full Dependant under 66 Qualifying Child

Weekly (under 80) 237.00 156.60 34-37 extra.

Annual (52.6 weeks) 12,466.20 8,237.16

Weekly (over 80) 247.00

Annual (52.6 weeks) 12992.2

(Contributory)

Full Dependant under 66 Dependant over 66

Weekly 248.30 166.30 222.50

Annual (52.6 weeks) 13,060.58 8,747.38 11,703.50

Single person having contributory pension

Income from Pension 13,060.58 26,121.16

Balance available- non taxable 4,939.42 9,878.84

Couple one contributory pension, one dependant under 66

Income from Pension 21,807.96 24,764.08

Balance available- non taxable 14,192.04 11,235.92

No USC or PRSI chargeable on State Pension

Tax on Income Examples

Example 1

A single taxpayer who earns €44,000 a year will have their tax calculated as follows:

35,300	X	20%	=	7,060
8,700	X	40%	=	3,480
Total				<u>10,540</u>

Tax credits are deducted from this amount to give the tax due. A single PAYE (Pay As You Earn) taxpayer is entitled to:

Single Person Tax Credit =	1,650
Employee (PAYE) Tax Credit =	<u>1,650</u>
Total =	3,300

Gross tax	10,540
Minus	
Minus tax credits	<u>3,300</u>
Tax due	7,240

The USC on gross income is also payable.

USC	1,303
-----	-------

The total amount deducted from income in the year is:

8,543

Example 2

A married couple with one earner who earns €44,000 a year will have their tax calculated as follows:

44,000	X	20%	=	8,800
0	X	40%	=	0
Total				<u>8,800</u>

Tax credits are deducted from this amount to give the tax due. A single PAYE (Pay As You Earn) taxpayer is entitled to:

Married Couple Tax Credit =	3,300
Employee (PAYE) Tax Credit =	<u>1,650</u>
Total =	4,950

Gross tax	8,800
Minus	
Minus tax credits	<u>4,950</u>
Tax due	3,850

The USC on gross income is also payable.

USC	1,303
-----	-------

The total amount deducted from income in the year is:

5,153

Tax Credits

Tax credit	2019
Single person	€1,650
Married person or civil partner	€3,300
Employee Tax Credit (formerly known as the PAYE tax credit)	€1,650
Earned Income tax credit	€1,350
Widowed person or surviving civil partner qualifying for Single Person Child Carer Credit	€1,650
Widowed person or surviving civil partner (without dependent children)	€2,190
Widowed Person or Surviving Civil Partner in year of bereavement	€3,300
Single Person Child Carer Credit	€1,650
Incapacitated Child Credit	€3,300
Blind Tax Credit	€1,650
Single person	€1,650
Married - one spouse or civil partner blind	€3,300
Widowed person or surviving civil partner with dependent child tax credit	€3,600
Bereaved in 2018	€3,150
Bereaved in 2017	€2,700
Bereaved in 2016	€2,250
Bereaved in 2015	€1,800
Age tax credit- single	€245
Married or in a civil partnership	€490
Dependent relative tax credit	€70
Home carer tax credit	€1,500

Standard rate of USC (2019)	
Rate	Income band
0.50%	Up to €12,012
2%	From €12,012.01 to €19,874
4.50%	From €19,874.01 to €70,044
8%	From €70,044.01 and over
11%	Self-employed income over €100,000

Reduced rate of USC (2019)	
Rate	Income band
0.50%	Income up to €12,012
2%	All income over €12,012

Reduced Rates of PRSI if you are over 70 with Income of less than €60,000 or the holder of a Full Medical Card

You pay the USC if your gross income is more than €13,000 per year

Cash income not included in the means test

- [Introduction](#)
- [Cash income not taken into account](#)

Introduction

If you are applying for a [social assistance payment](#) you must satisfy a means test. All your sources of income (for example, cash income, employment, capital and maintenance) are assessed in a means test by the Department of Employment Affairs and Social Protection (DEASP).

However, under social welfare legislation certain items are not counted when your means are assessed for a social assistance payment. This document looks at cash income not included in the means test. More information on income not taken into account is available in our document on the [means test](#).

Budget 2020: The [Blind Welfare Allowance](#) paid by the Health Service Executive (HSE) will not be taken into account in the means test for a social welfare payment.

Cash income not taken into account

The following cash income is not taken into account for all schemes except [Working Family Payment](#), [Supplementary Welfare Allowance \(SWA\)](#) and [Rent Allowance](#) which have their own rules for assessing cash income:

- Any payment made by the Department of Employment Affairs and Social Protection (DEASP) (except in the case of [Jobseeker's Allowance](#) where a maximum payment applies)
- [Supplementary Welfare Allowance \(SWA\)](#)
- [Domiciliary Care Allowance](#)
- Income from property already assessed on its capital value
- Any payment corresponding to Child Benefit from another EU member state
- Income from [recognised non-profit making charitable organisations](#)
- [Mobility Allowance](#) from the Health Service Executive (HSE)
- [Foster Care Allowance](#) from the HSE
- [Consumer Directed Home Support \(CDHS\)](#) from the HSE
- [Allowances under the Home Tuition Scheme](#) from the Department of Education and Skills
- Payments under the Department of Education and Skills' school transport scheme for children with special educational needs
- Grants to parents of children attending primary school in Gaeltacht areas, and income from providing accommodation to students studying Irish in Gaeltacht areas
- Payments under the 1916 Bursary Fund from the Department of Education and Skills
- University payments made under the [Higher Education Scholarships for Adult Learners](#) of up to €7000 per year

- Any amount received as a training allowance while undergoing a course of rehabilitation training by an organisation approved by the Minister for Health
- Payments made by Sport Ireland under the International Carding Scheme
- Compensation awards to people who have contracted Hepatitis C or HIV from contaminated blood products, together with income from the investment of that money
- Compensation awards by way of the Residential Institutions Redress Board together with income from the investment of that money
- Compensation awards to persons who have a disability caused by Thalidomide together with income from the investment of that money
- €104 per year from certain Army pensions (including a British War Pension)
- PRSA contributions
- Any repayments under the Nursing Home Repayments Scheme to the spouse or civil partner of the person overcharged
- **The following payments to your spouse, civil partner or cohabitant:** Back to Work Enterprise Allowance, Back to Education Allowance, Back to Work Allowance or Part-Time Job Incentive, FET training allowance or VTOS payments. (However, Community Employment, TUS, Rural Social Scheme and Gateway are taken into account.)

Compensation payments

People who have received certain types of compensation do not have that income assessed in the means test for all social assistance schemes including Working Family Payment and Supplementary Welfare Allowance. The following compensation is not assessed:

- By various compensation tribunals and the courts for people who have contracted Hepatitis C
- By the Residential Institutions Redress Board
- To persons who have disabilities caused by Thalidomide
- Awards paid to women following the publication of the Magdalen Commission Report
- Payments awarded by the Residential Institutions Statutory Fund Board
- Payments awarded under the Symphysiotomy ex Gratia Scheme
- Payments awarded under the Lourdes Hospital Redress Scheme 2007
- Payments awarded under the Lourdes Hospital Payment Scheme
- Payments awarded under the Stardust Victim's Compensation Scheme
- Ex gratia payments proposed by the Scoping Inquiry into the CervicalCheck Screening Programme
- Payments under the package of support measures set up in 2018 for women diagnosed with cervical cancer since 2008
- Payments made by the Northern Ireland Victim and Survivor Service (VSS) in accordance with the Victims and Survivors (Northern Ireland) Order 2006

Additional cash income may not be taken into account for individual social welfare payments. The Department of Employment Affairs and Social Protection provides more information on [additional cash income not taken into account in the means test for social welfare payments.](#)

Page edited: 15 October 2019

So if Income From Coillte is subject to Income Tax and brings you into the Tax Bracket How can you limit the Tax Payable?

Possible Relief at the 40% Rate

- 1 Pension Contributions (see attached sheet)
 - 2 Self employed - can you create a better lifestyle for yourself by spending the extra money as a farm expense?
 - 3 EIIS Scheme
- Employment and Investment Incentive Scheme
75% relief year 1 25% in year 4

<https://www.harvestfinancial.ie/eiis-how-tax-relief-works/>

Relief at 20% Rate

- 1 Allowable Medical Expenses
- 2 3rd Level fees for college
(first 3,000 - usually no tax relief)
No relief is available for:
 - examination fees
 - registration fees
 - administration fees.

Age-related percentage limit for tax relief on pension contributions

Age	Percentage limit
Under 30	15%
30-39	20%
40-49	25%
50-54	30%
55-59	35%
60 or over	40%

Example :

A 50 years old single person with an Income of €44,000 per annum, and no pension contributions have been made relating to this salary

Therefore you can make a contribution for Tax relief of up to €13,200 (€44,000 x30%)

However, you are probably paying tax at the marginal rate (40%) on approximately €8,700 (salary €44,000 - low rate cut off point - €35,300)

So for every €1,000 up to €8,700 you put into a pension, there is €400 to be reclaimed/saved in tax

But for every €1,000 above €8,700 you put into a pension, there is €200 only to be reclaimed/saved in tax

N.B. Relief does not apply to USC and PRSI

Self Employed Expenditure for better Quality of Life

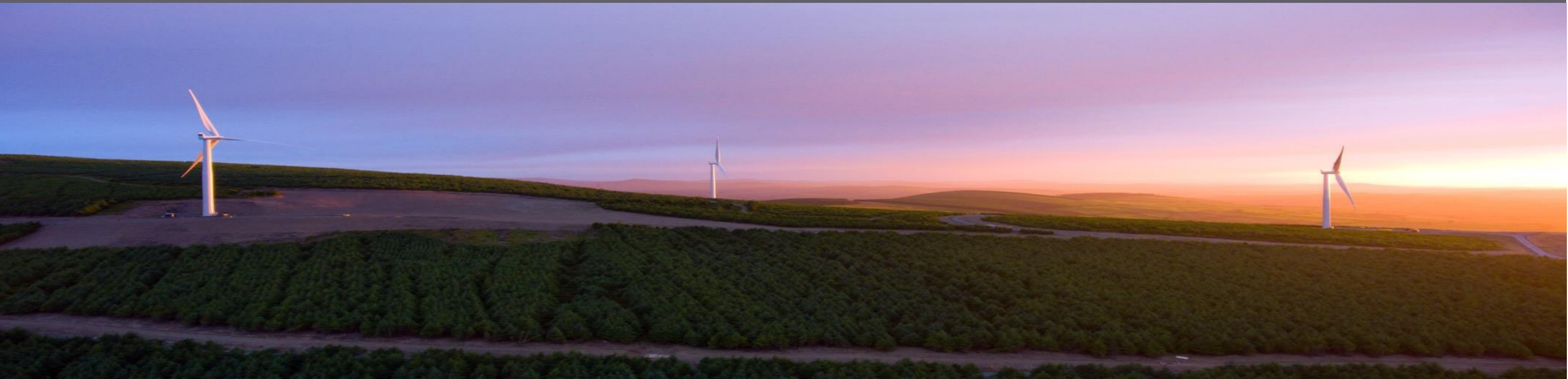
Would Income for Coillte allow you to buy a New Tractor or Build a Farm Building for a better quality of Life

Example :

John knows a new Tractor costing 40k would make his life so much easier on the farm, but has only 20k to

If he is know he will be in Receipt of an Extras 5k per year from Coillte, he could borrow the extra 20k as the would cover the repayments over 5 years.

A new Tractor of 40k would have annual Capital allowances for 8 years of 5k which is an expenses against pr This 5k expense would counteract any effect of extra Income from Coillte, so no extra Tax is payable



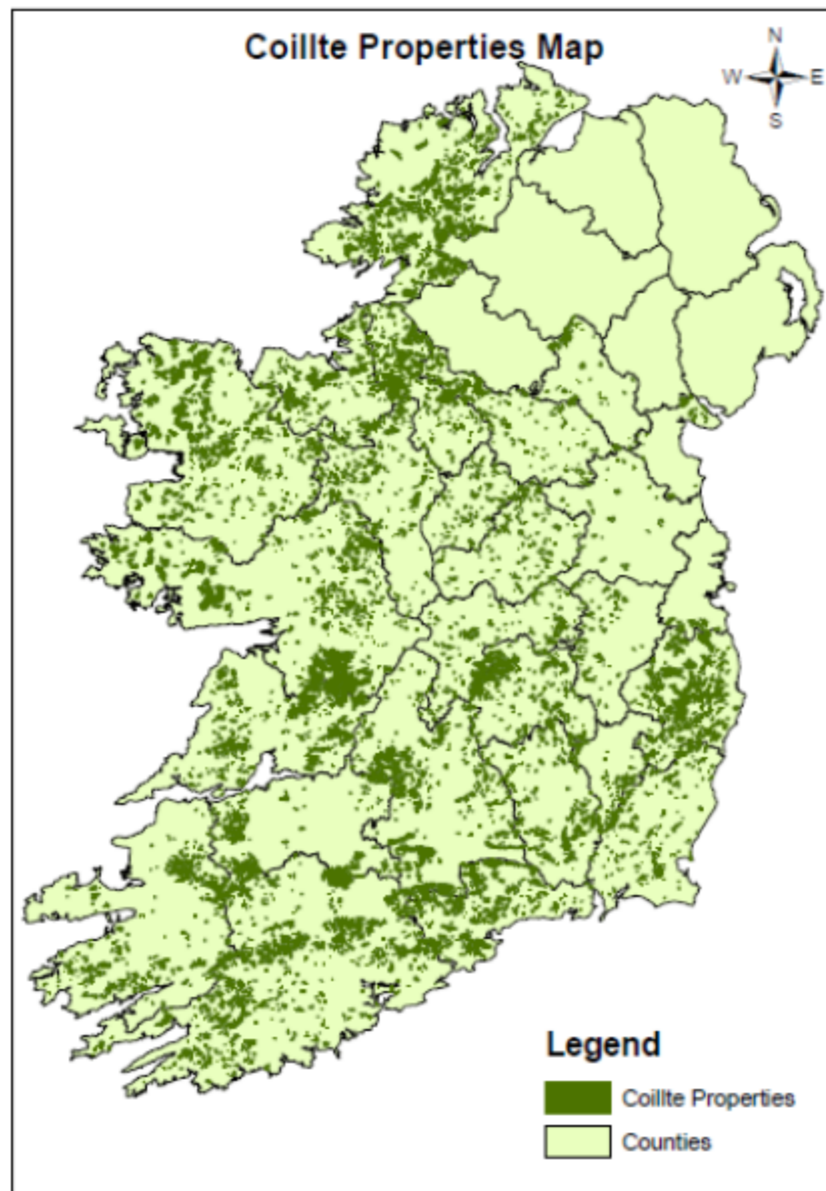
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Zoned Capacity

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Wind Energy Designations



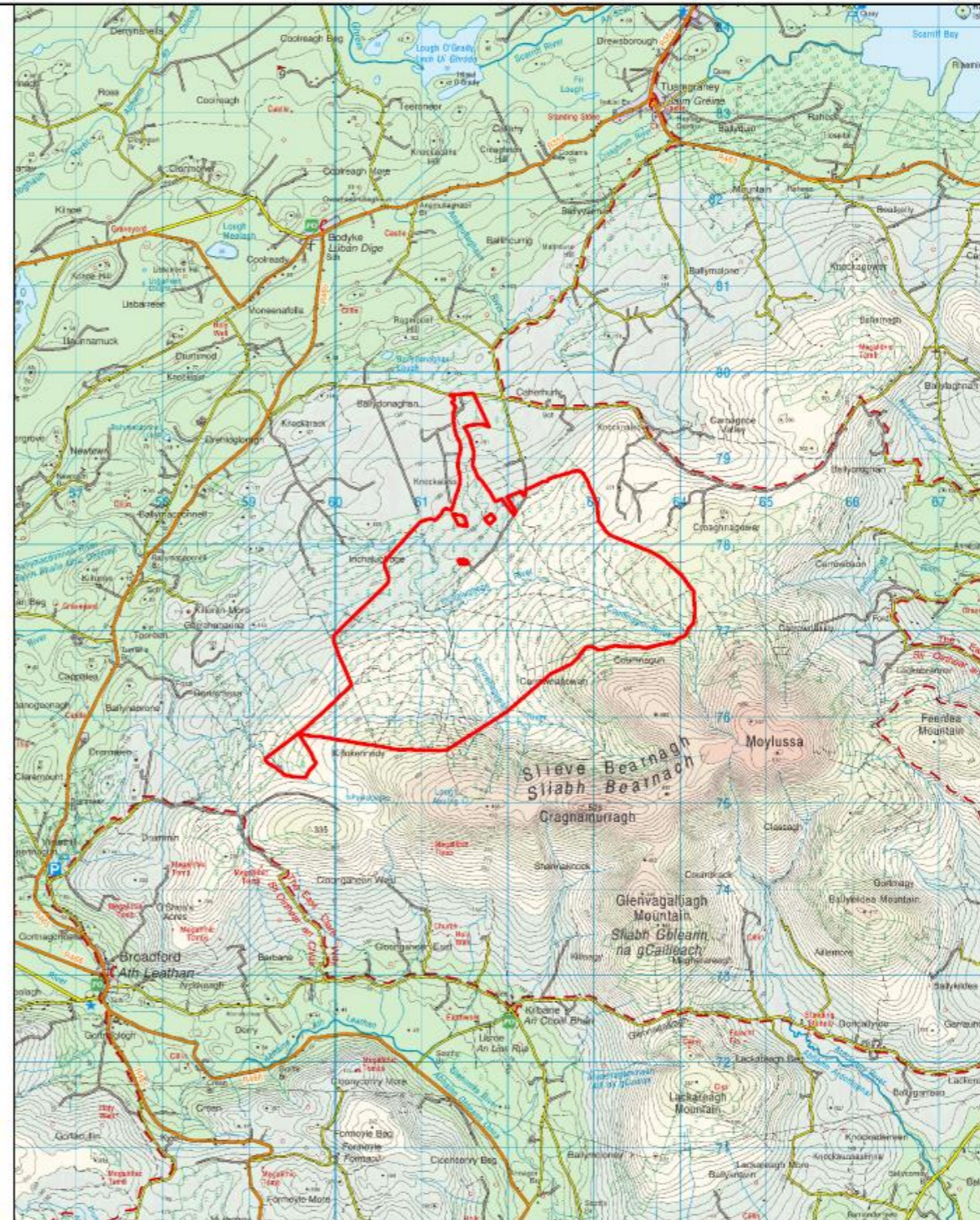
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Location of proposed development



COILLTE

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Location – Conifer plantation



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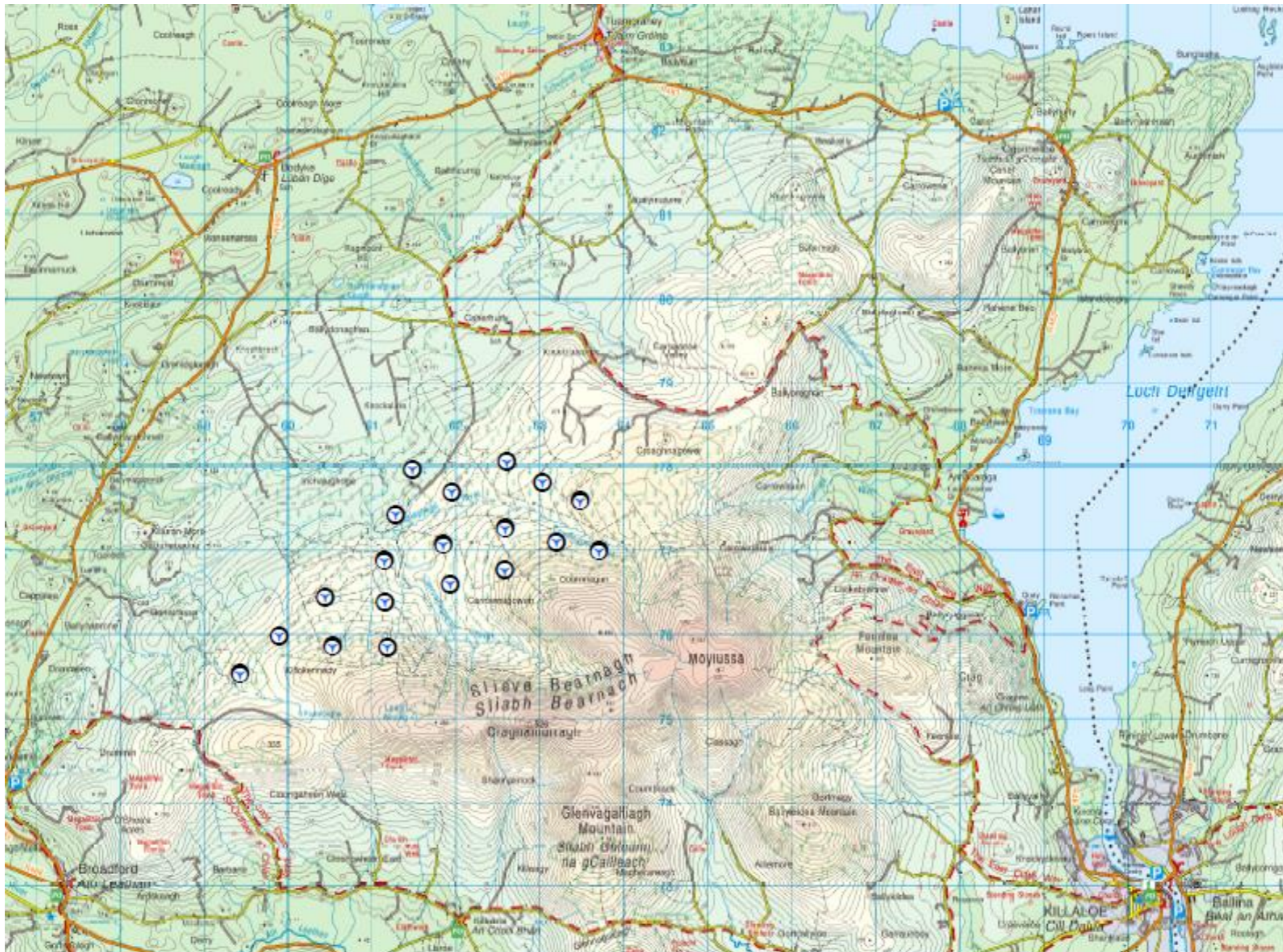
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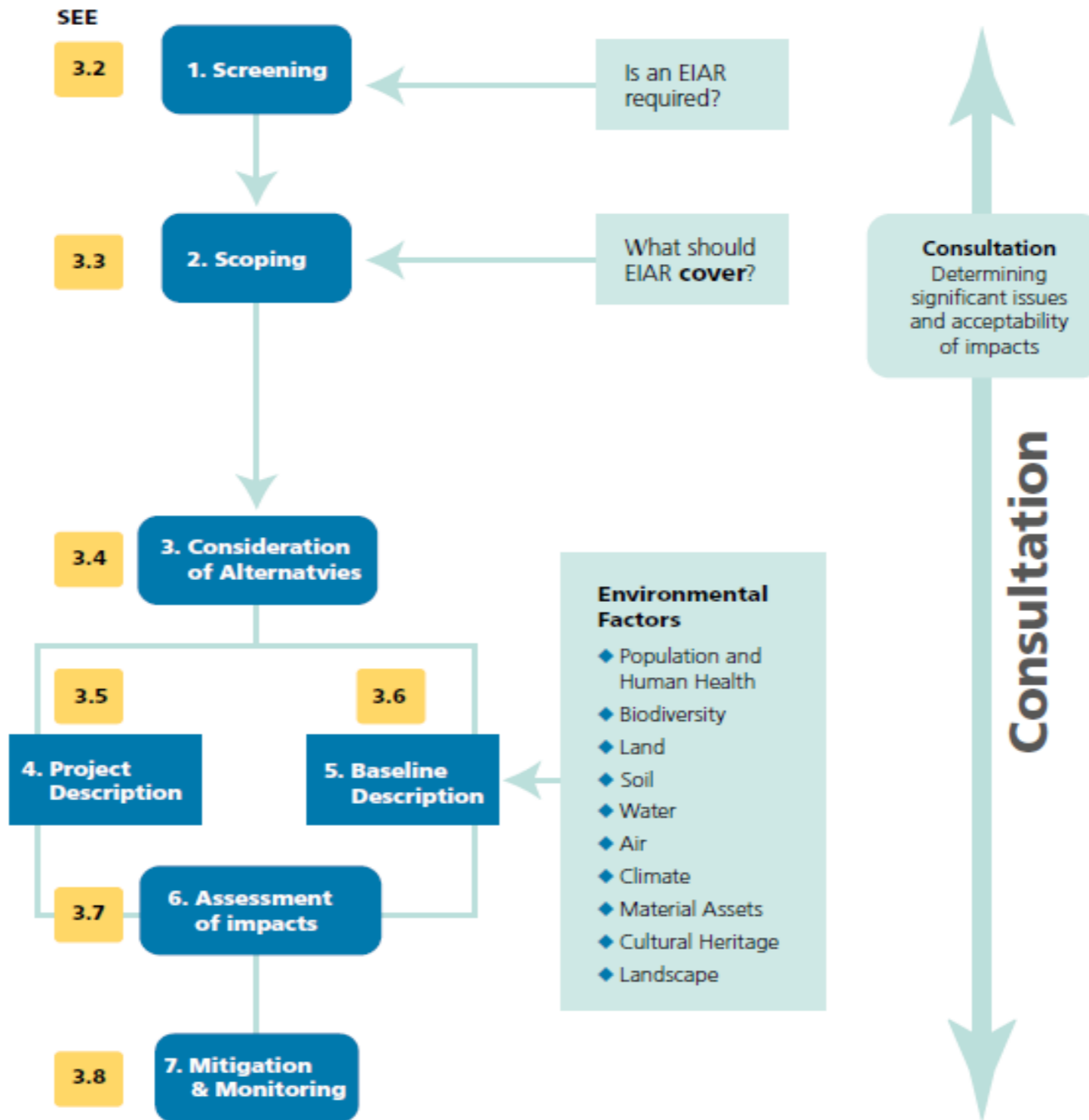
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Current Layout



EIAR



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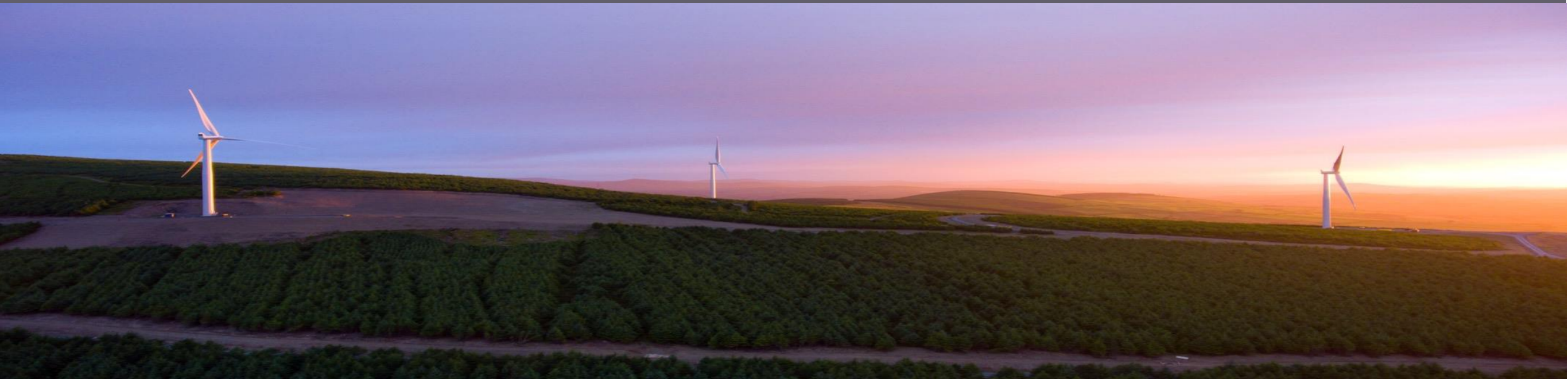
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Final Slide



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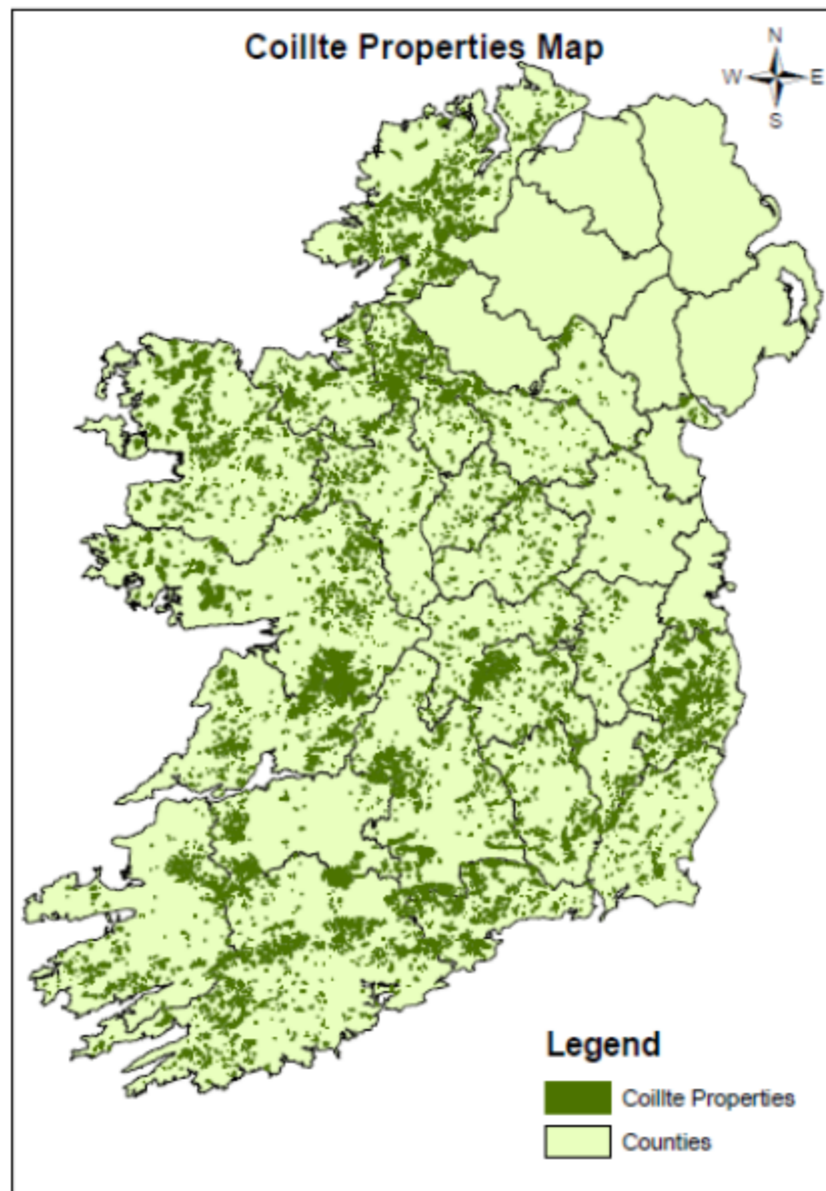
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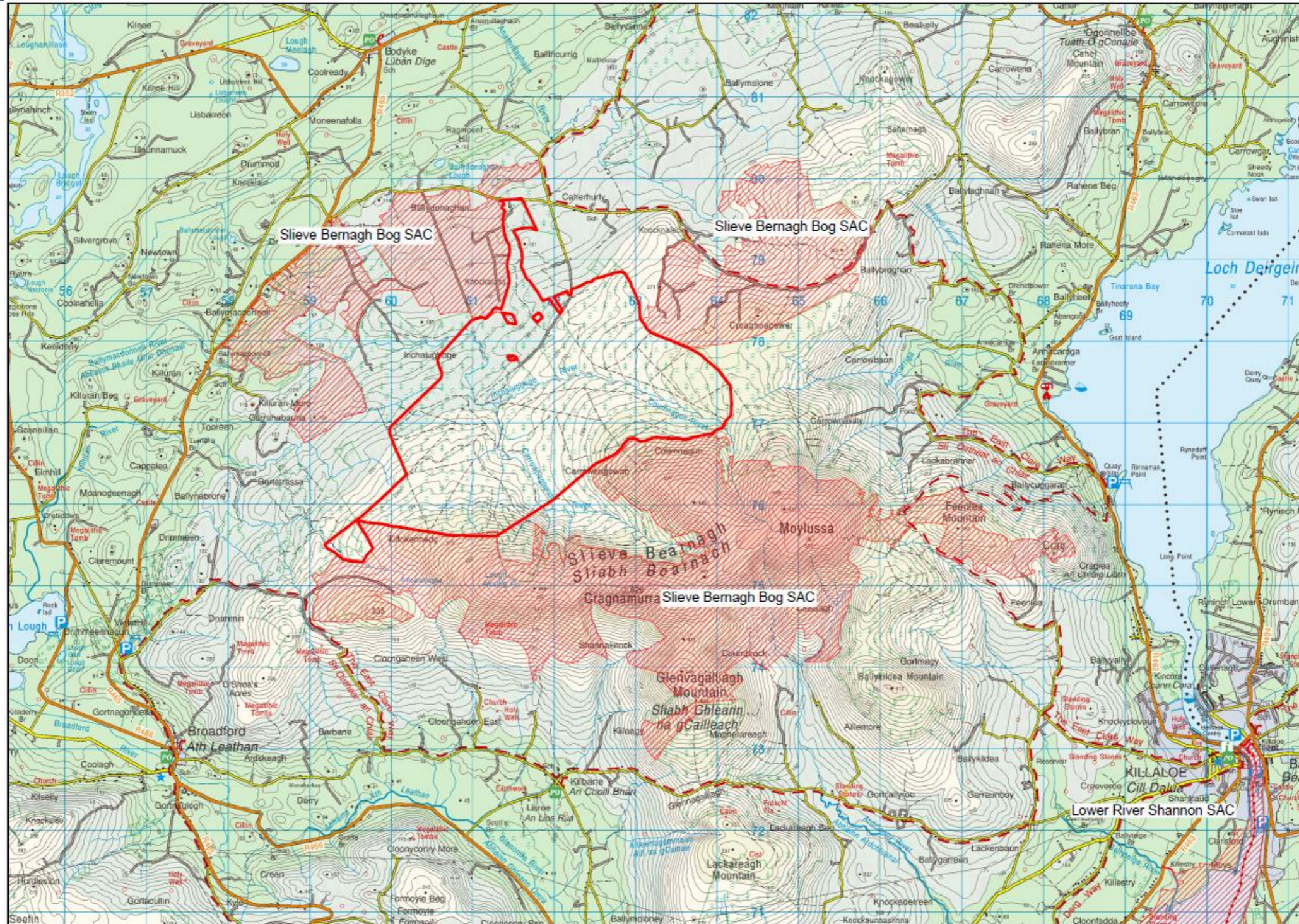


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Location – NW Slieve Bernagh



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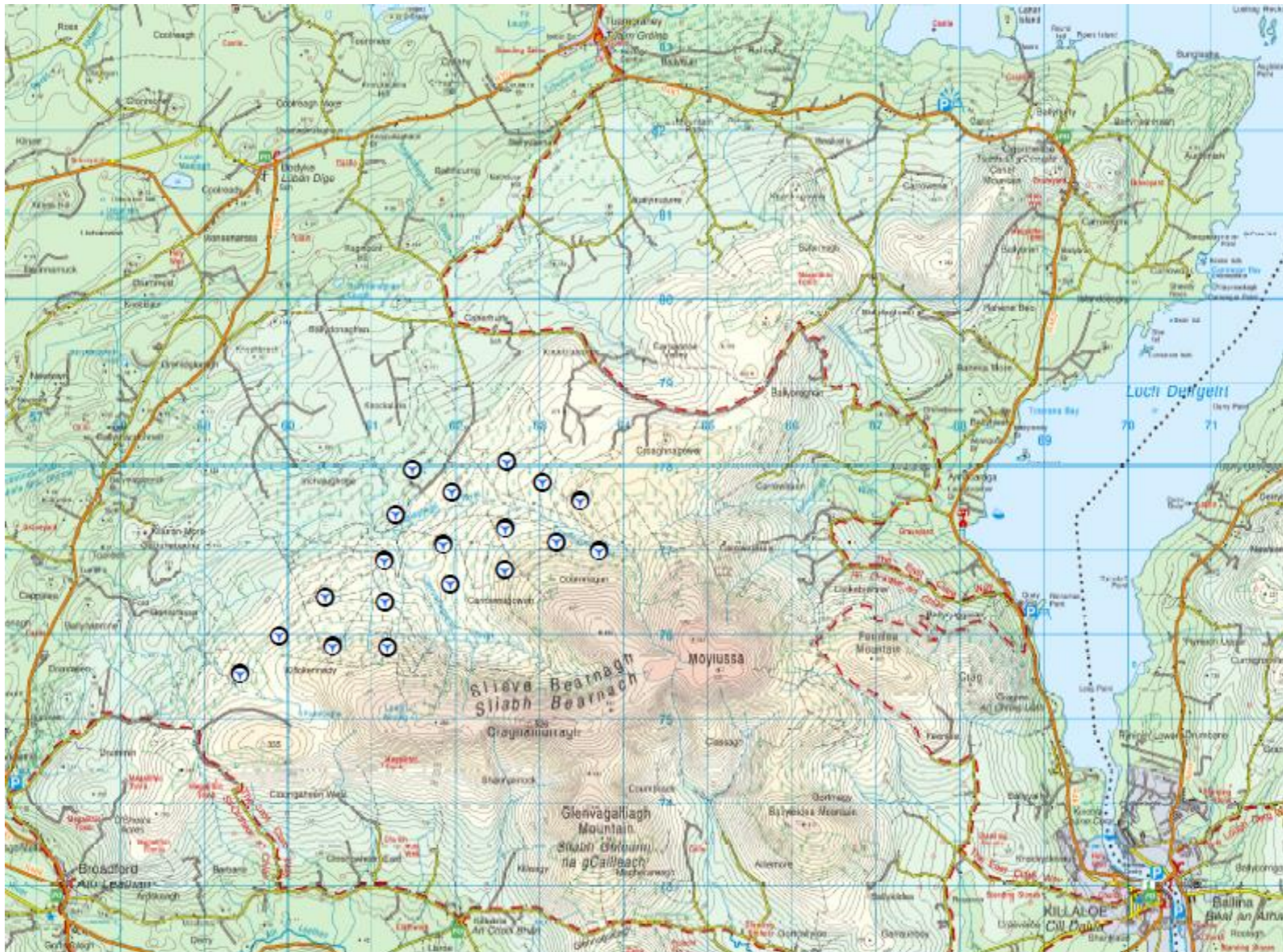
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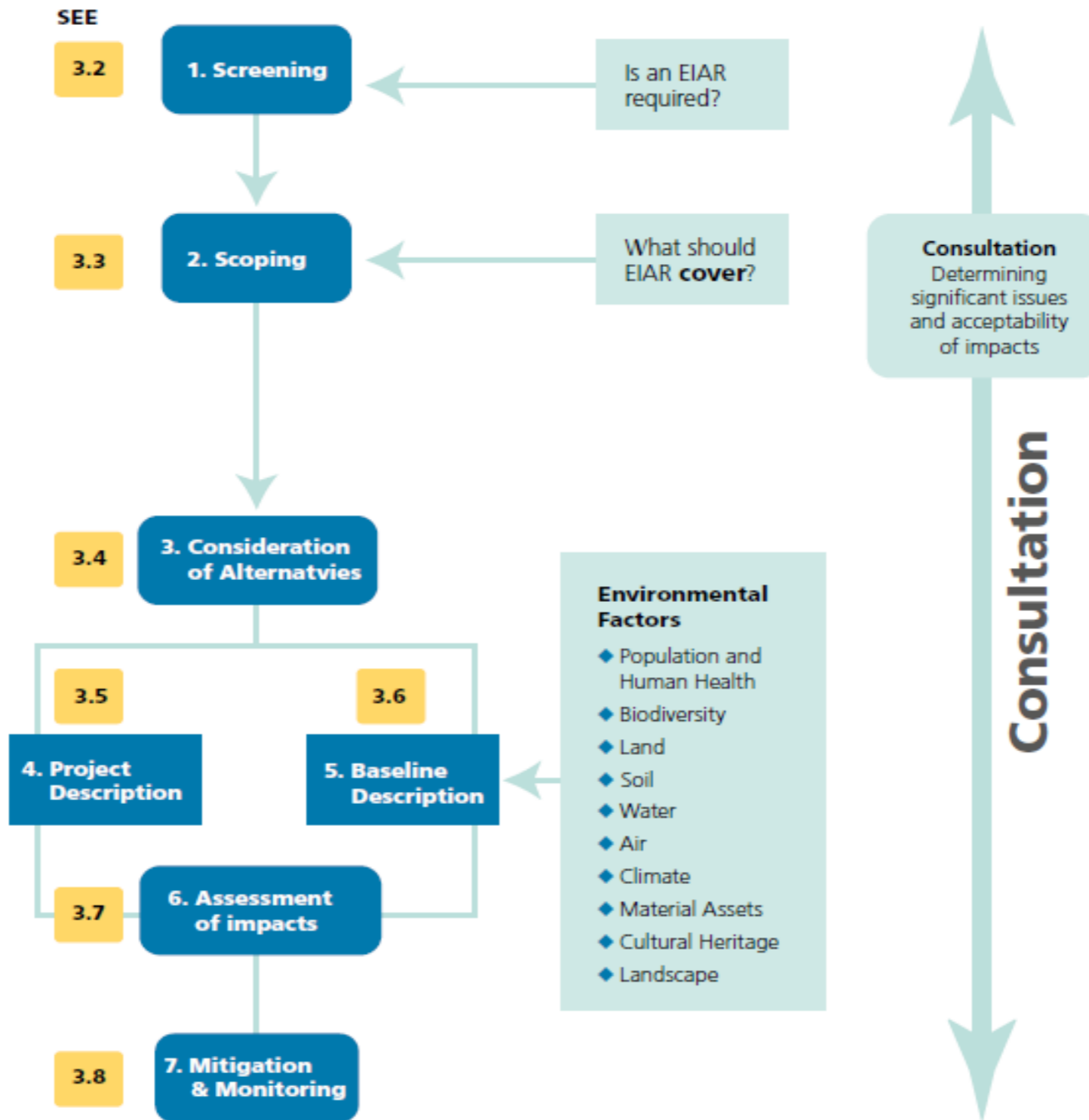
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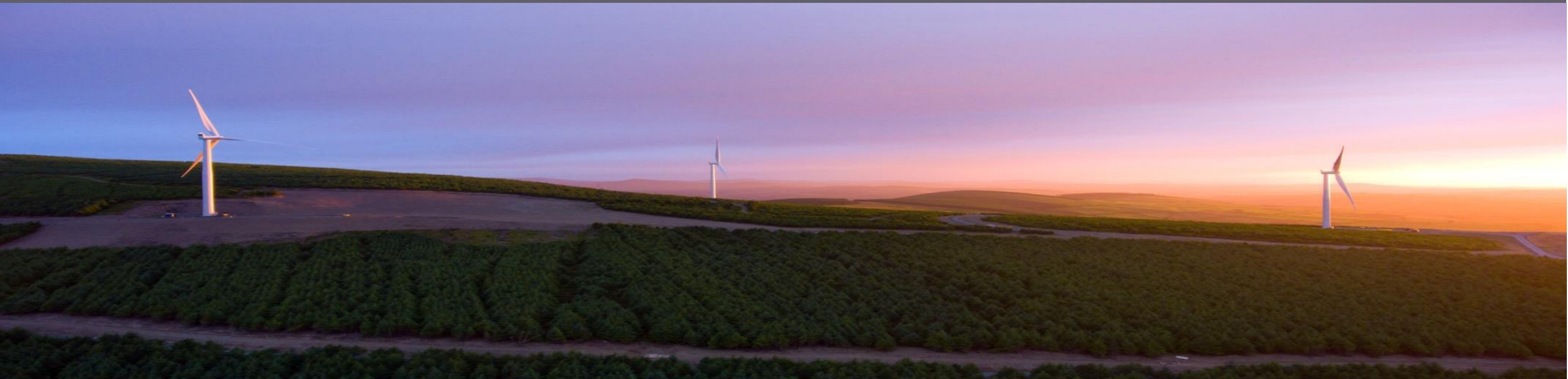
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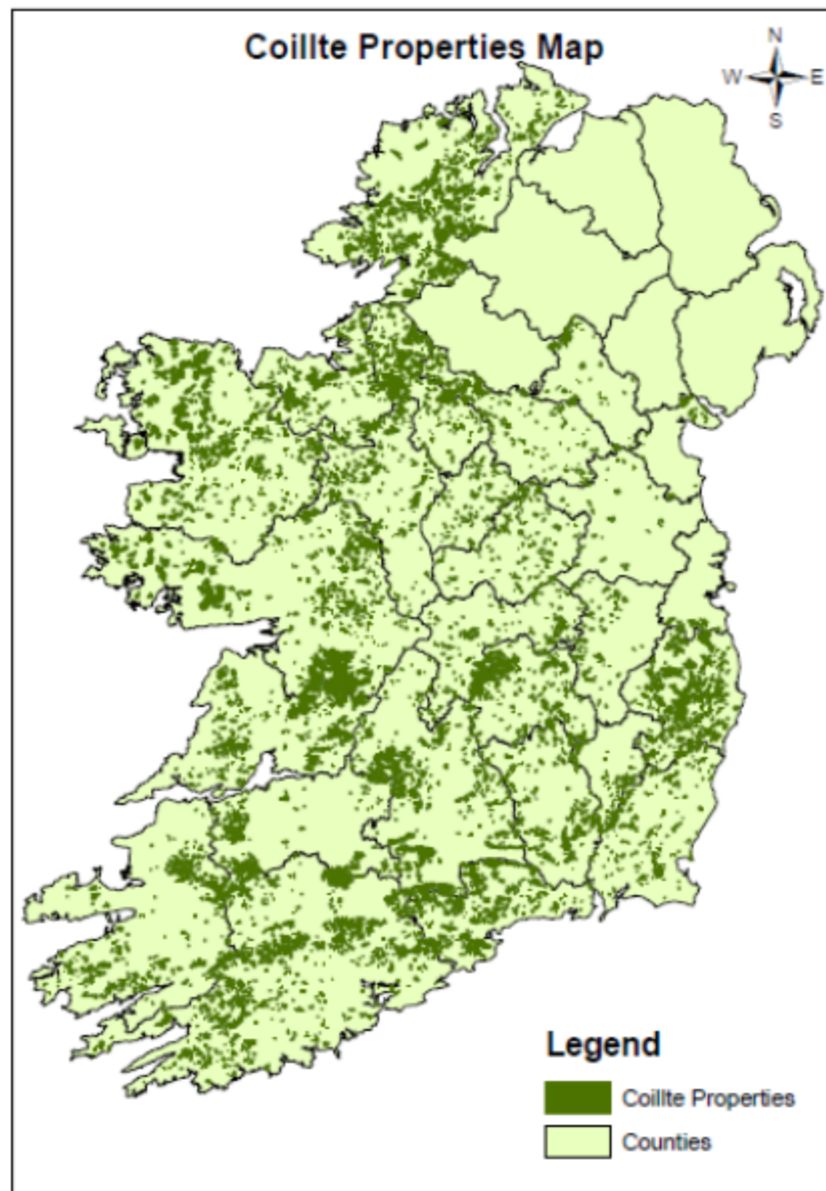
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4 Advice on Landscape Capacity for Wind Energy Developments based on LCAs

Location of proposed development

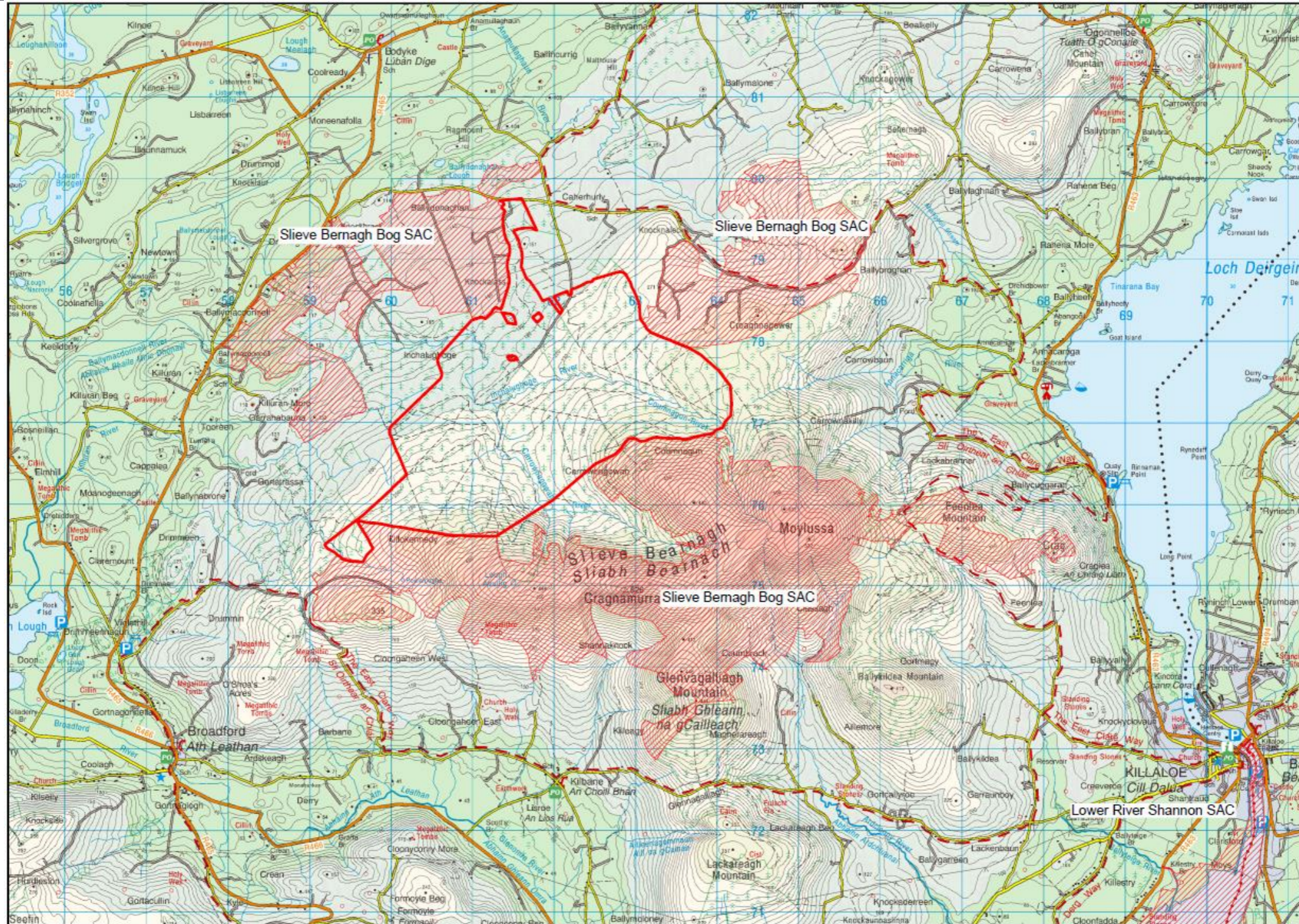


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Location – NW Slieve Bernagh



Location – Conifer plantation



Location - Strategic Zoning

- Clare Wind Energy Strategy (2017 – 2023)
 - Strategic Area
 - Acceptable in Principle
 - Open to Consideration
 - Not Normally Permissible
- Slieve Bernagh Strategic Area can accommodate Medium – Large wind farms on the north west slopes.
- The Strategic Area excludes the landscape character area (LCA) of Slieve Bernagh, including the foothills and mountains over looking Lough Derg.

Location - Strategic Zoning

- The Strategic Area is in a settled landscape, where the uses envisaged in the Clare CDP include *agriculture, energy, forestry, extraction, transportation, industry and commerce, tourism, recreation and leisure, education, healthcare and social infrastructure.*
- Strategic Areas were zoned by Clare County Council due to their variable wind speeds, proximity to the grid, slopes $< 15^\circ$, exclusion of protected sites and distance of 400m from properties.

Emerging Constraints

- Peat, ecology & visual constraints: led to a reduced no of turbines from 24 to 19
- Population: 750m buffer applied to local residences
- Engineering: Exclusion of slopes $>10^\circ$ and eastern area with historic peatslide, and catchment to the east, with Annacarriga River and link to Lough Derg
- Water: Buffer of 75m to watercourses (EPA registered) and 150m to the SAC
- Biodiversity: 500m buffer of hen harrier zone
- Biodiversity: Initial results indicate bat activity is relatively low

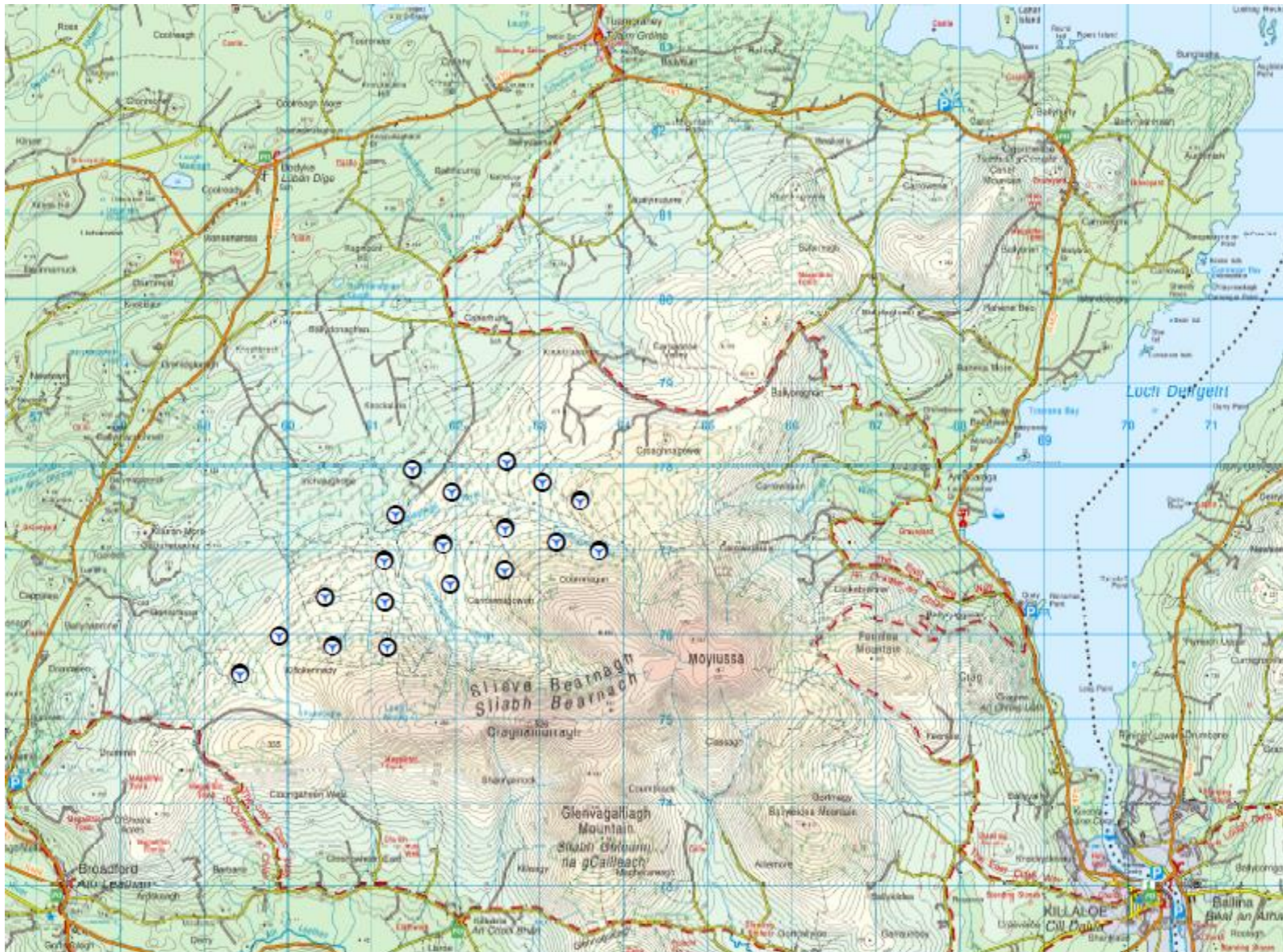
Design Philosophy

- Slope assessment was completed to identify areas of the site where excessive slope should be avoided.
- A key design parameter is to ensure that roadside drainage does not intercept overland flow from the forest drain network.
- A constraints approach was applied with early adoption of engineering and environmental constraints.
- Design work completed reaching a fixed layout.
- Grid Route Options feasibility and selection complete.

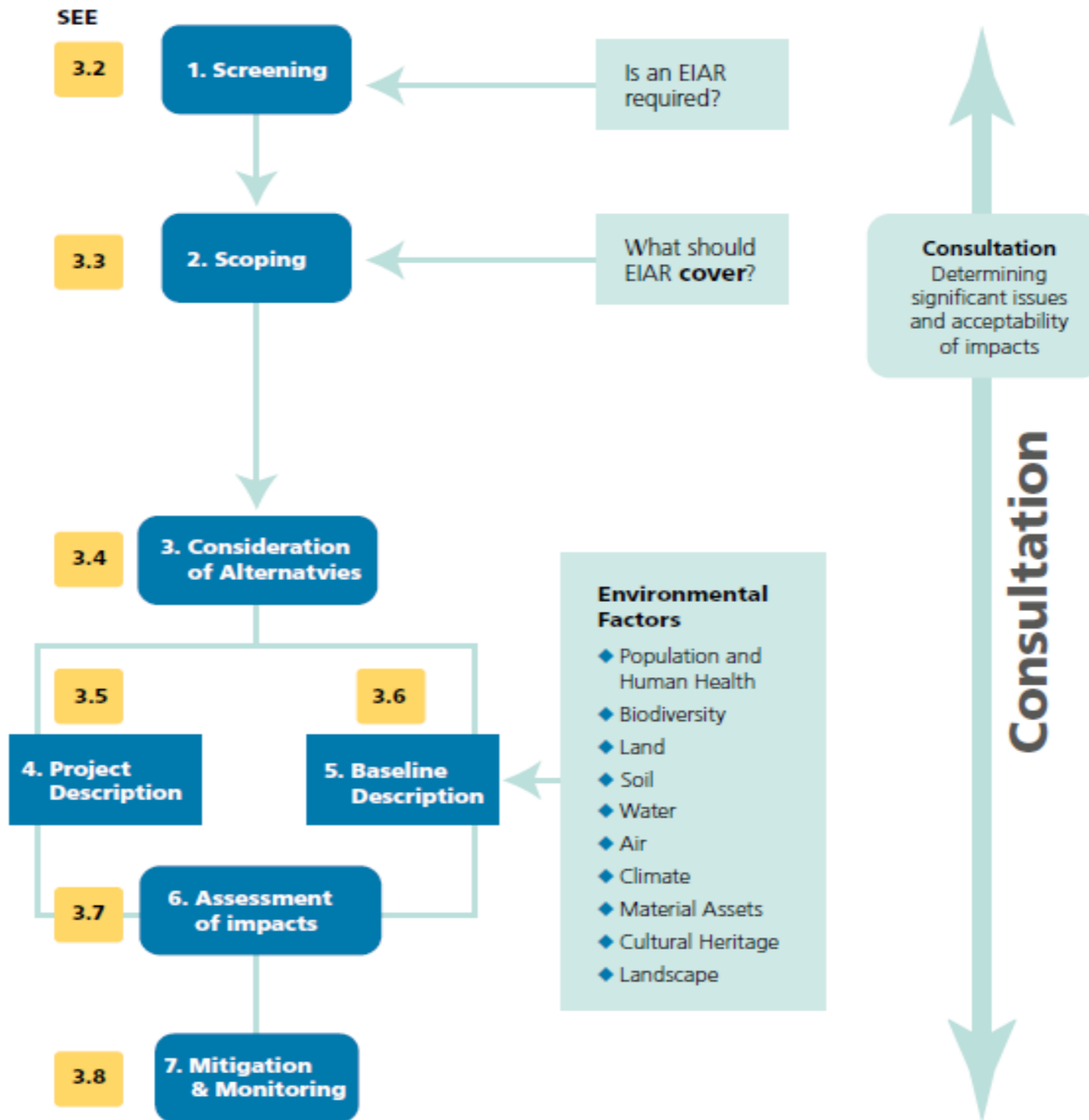
Strategic Infrastructure

- Carrownagowan Wind Farm (90 – 100 MW Potential)
- *An installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 megawatts.*
- The wind energy development would also contribute to the region's electrical infrastructure and the national renewable energy targets. Furthermore, the proposal is in line with using Renewable Energy to transition to a low carbon energy future, as outlined in the National Planning Framework (Project Ireland 2040)

Current Layout



EIAR



The information that must be included in an EIAR is shown as seven steps in sequence in the diagram above. The environment is described under a number of specific headings that are shown on the right. Adherence to this general sequence and structure helps ensure an objective and systematic approach.

Figure 3.1 EIAR Contents in Sequence

- Introduction, Background and Description of the Proposed Development
- Section 2. Population and Human Health
- Section 3. Biodiversity
- Section 4. Land, Soils and Geology
- Section 5. Water, Hydrology and Hydrogeology
- Section 6. Air and Climate
- Section 7. Material Assets
- Section 8. Archaeological, Architectural and Cultural Heritage
- Section 9. Landscape and Visual

Project Design

- Main project components:
 - Wind Turbines construction based on preliminary layout
 - Hardstand areas and access roads
 - Substation on the wind farm site
 - Borrow Pits and spoil management areas
- Off-site project components:
 - Turbine component haulage route assessment
 - Replacement lands for felled forestry
 - Grid connection; overhead line or underground cable, any requirements to upgrade substation offsite in Ardnacrusha or Ennis.

PROJECT UPDATE – NEXT STEPS & TIMELINES



- Locked layout since the end of September which includes **19** No Wind Turbines.
- **Impact assessment** still ongoing, this will be completed week ended 6th December:
- **EIAR Reviews & Edits** will follow the Impact assessment stage taking place from **week ending 6th of December to the 20st of December**
- **Near neighbours review of the draft Planning application and EIAR** - Workshop with near neighbours post the project team review and include an opportunity for comment or raise any concerns **week ending 17th January.**
- **Open Public Information evening** – Planned after the project team & near neighbour reviews **week ending 24th of January.**
- **Planning application documentation preparation.** This will take up to three weeks taking us to the **middle of February.**
- We are hoping that the **application will be lodged** with ABP by the **14th of February**

Community Engagement

- Coillte's public engagement mission is to be consistently transparent, inclusive & committed to integrating community views into our project plans.
- Coillte commits to broadening its approach to public engagement & acknowledges that a social licence to operate carries equal weight as a legal licence to operate.
- The goal is to collaborate as opposed to merely coordinate with communities

Community Benefit Fund

- Community Benefit Fund, Pre-planning Scope
- Working **with local neighbours** within the **2km zone** to design initial construct of a community based structure that would manage the wind farm Community Benefit Fund.

Focusing on:

- Type of structure needed
 - Legal status
 - Governance and decision making structure
 - Key Stakeholders
 - Assistance of Tipperary Energy Agency, Legal & accounting advisors.
-
- **Community Benefit Fund**, Pre-planning Scope will continue until **February**.
 - Consult with Community representatives from Bodyke, Ogonnelloe, Broadford & Tuamgraney

COMMUNITY BENEFIT FUND STEERING COMMITTEE



- The Community Benefit Fund Steering Committee shall operate according to approved Terms of Reference.
- **Function of Community Benefit Fund Steering Committee.**
- To have responsibility for the management of the Community Benefit Fund
- To decide on projects to be supported by the Community Benefit Fund as outlined below that benefit the local communities in the defined wider area, and householders in the near neighbour zone.
- **Committee Membership.**
- The Committee shall comprise the following voting members:
 - - **Five** representatives from the near neighbour zone.
 - - **Four** community representatives from local community stakeholder organisations in the following areas: Bodyke, Broadford, Ogonnelloe, Tuamgraney.
 - - One staff member from a Trusted Intermediary e.g. Clare Local Development Company, appointed by the CEO. (TBC)
- One independent Chairperson voted by the committee from its number.
- Non-voting members should be as follows:
 - - One representative from the Developer/Operator of the Windfarm.

RESS (Renewable Electricity Support Scheme)

- **Communities**
- Communities are being designed into the fabric of the new Renewable Electricity Support Scheme. The RESS will be characterised by increased community participation in, and ownership of, renewable electricity projects. Policies and support measures will be put in place to ensure:
- **Mandatory Community Benefit Fund and Register standardised across the sector. It is proposed that this contribution is set at €2/MWh for all RES-E generation produced and seeking support via RESS auctions. A national community benefits register will be established.**

Final Slide



Thank You



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Coillte / Near Neighbour Group Underlying Principles for the Carrownagowan Community Benefit Fund

Background

The Carrownagowan Wind Farm Near Neighbour group and Coillte Project Team have held a series of discussions over the period of May to December 2019 with the purpose of agreeing a set of key principles for the Community Benefit Fund (CBF) that would be included as part of the project planning application, and as such, would form a binding commitment between the project and near neighbours.

It is acknowledged that at this stage of the project there are still many variables that could change and therefore it is appropriate to focus on the core underlying principles that have been agreed so far.

Should the project be granted Planning Permission, a larger piece of work will need to be undertaken in order to set up a Community Entity that would manage and administer the CBF and this process would need to include stakeholders from outside the near neighbour group.

Underlying Principles

The following form the core underlying principles that have been agreed between Coillte and the near neighbour group and will be bound to the project for its full duration:

1. How the fund is calculated

As a starting proposition the fund will be calculated as follows. For the first 15 years of operation of the wind farm the project will contribute €2 per megawatt hour (MWh) to the CBF. For the remaining lifetime of the wind farm the project will contribute €1 per MWh to the CBF.

It is possible that this may be superseded by new Government Policy in the near future but the above is agreed as the minimum commitment.

2. How is a "Near Neighbour Dwelling" defined?

For the purposes of the Carrownagowan Wind Farm project a near neighbour dwelling is defined as an occupied dwelling (as defined by the property tax register) within 2km of a constructed turbine or within the 29dB radius as modelled in the attached "worst case scenario noise map" (to be updated upon final construction of turbines).

3. What is the split of the fund between the near neighbours and the wider community?

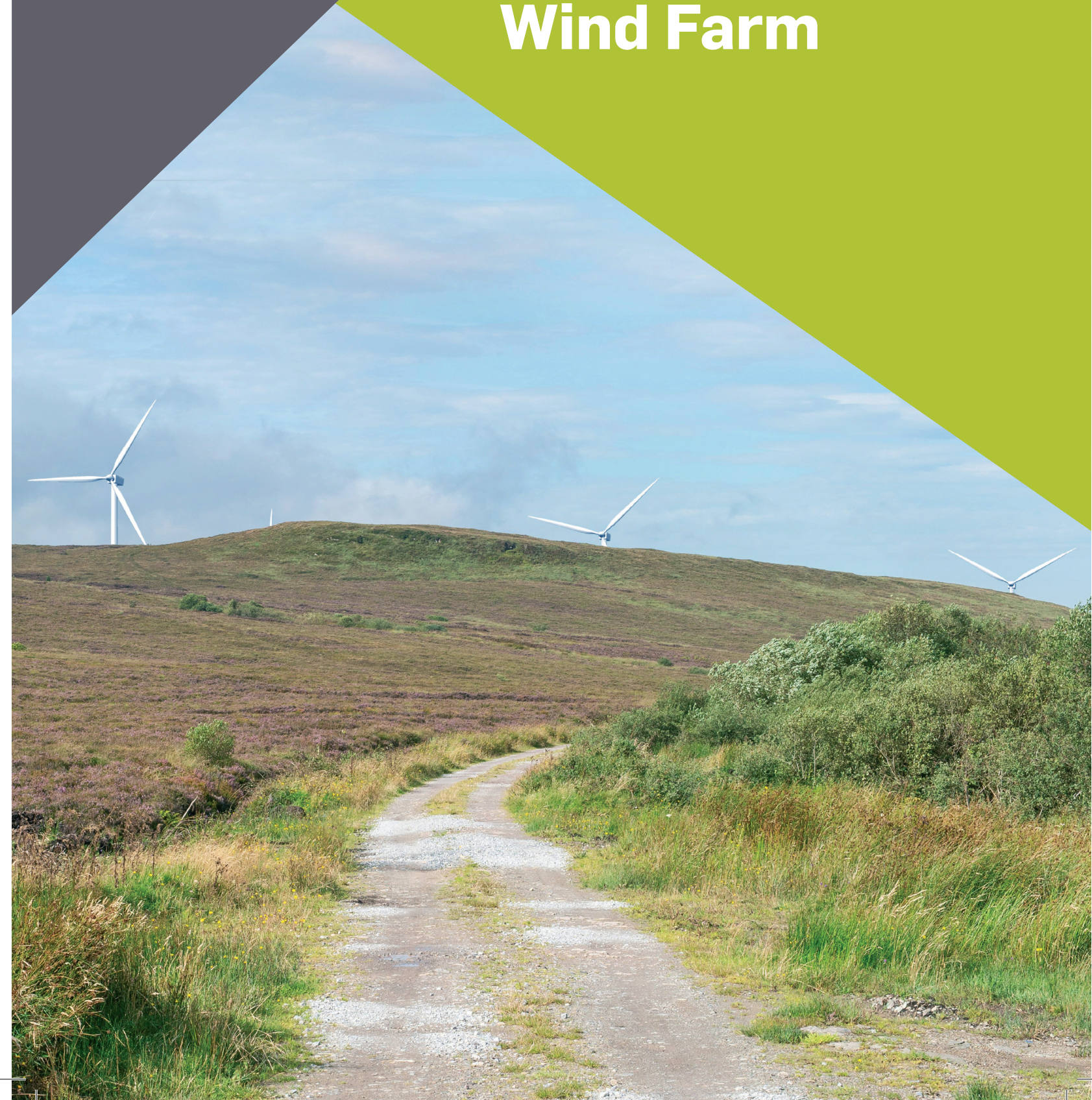
It is agreed that the fund will be split on a 45:45:10 basis between the Near Neighbour Scheme, the Wider Community Benefit Scheme and the Fund administration costs on an annual basis.

4. What will be the level of representation of the Near Neighbours in the Community Entity set up to manage and administer the fund?

In whatever structure that is developed to manage the fund on an ongoing basis, the near neighbour group will have a majority representation. The process of designing this entity will be conducted in collaboration with the near neighbour group.



Carrownagowan Wind Farm



Dear Homeowner,

First and foremost, we hope this finds you safe and well in these challenging times, and adjusting as best possible to new ways of going about daily life.

As you may be aware, Coillte's Renewable Energy business has been actively exploring a wind farm development opportunity in the Slieve Bearnagh area since early 2018. Since then, the community engagement model which we use within our team has given us an opportunity to meet with a very high proportion of people residing within 2 km of the potential wind farm.

The proposed Carrownagowan Wind Farm project is nearing the end of its pre-planning phase and should shortly enter the planning process. Under normal circumstances, we would be holding a public information event now in order to present the enclosed information to the wider public in the area surrounding this project. However, the Covid-19 pandemic and associated restrictions mean that this is not now possible.

As an alternative, we are now distributing this brochure widely. It sets out a detailed overview of all aspects of the proposed Carrownagowan Wind Farm project. Please be assured that we will continue to make every effort to ensure that we provide you with all the information you need in order to fully understand the details of this proposed project. We are also committed to making available the necessary resources within our team to support any engagement.

Once you have had a chance to read through this brochure and should you have any areas of the project you wish to discuss further, please make contact with any of the team in the coming weeks using the contact details at the back or on the project website (www.carrownagowanwindfarm.ie). Although we cannot call directly to your home while restrictions are in place, we would welcome the opportunity to discuss any aspect of the project with you over the phone or by email.

Please stay safe and well, and adhere to all latest HSE guidance. If there is anything we can do to help, please do not hesitate to get in touch.

Yours sincerely,




Ger Hynes
Project Manager
Coillte




Andy Fox
Community
Engagement Manager
Coillte

Drone photograph of Carrownagowan Wind Farm site with proposed turbines superimposed, looking north.



1. INTRODUCTION

This brochure has been prepared to:

- Provide an update on the proposed Carrownagowan Wind Farm project;
- Outline a brief description of the infrastructure that is proposed;
- Describe the expected benefits of the proposed development and how it may positively impact local communities and initiatives;
- Describe the technical and environmental studies which have been completed as part of the design and environmental assessment process;
- Outline the steps to be taken prior, during and after the planning permission application has been submitted to the Planning Authority.

Why Onshore Wind?

In May 2019, the Government declared that Ireland was in the midst of a climate and biodiversity emergency. The Environmental Protection Agency (EPA) has stated that mean annual temperatures in Ireland have risen by 0.7° Celsius (C) over the past century and are likely to rise by 1.4°C to 1.8°C by the 2050's and by more than 2°C by the end of the century due to climate change. Climate change refers to the change in climate that is attributable to human activity arising from the release of greenhouse gases in particular from the burning of fossil fuels (coal, oil, peat) for transport, electricity generation and agriculture.

As Ireland's largest landowner, Coillte has the capacity and with that the responsibility to contribute significantly to Ireland's efforts to combat climate change and reduce carbon emissions. Our forestry business sequesters 1.1m tonnes of carbon annually and our land asset, with its suitability for wind farm development, puts us at the forefront of being able to deliver on the Government's Climate Action Plan (June 2019) announcing a target of 70% of Ireland's electricity from renewable sources by 2030.

This commitment will form part of the forthcoming climate change legislation for publication in the near future.

A target of net zero economy-wide greenhouse gas, GHG, emissions by 2050.

- A target for the renewable share of electricity generation of 70% by 2030.
- Provision for five-yearly carbon budgets, consistent with the emissions reduction pathway to 2030 and 2050.

The amount of wind energy installed in Ireland has reached 4100 MW generated by 350 wind farms and the Irish Government has recently published 'Project Ireland 2040: National Development Plan 2018 – 2027', which outlines the need for an additional 3,000-4,500 MW of renewable energy as an investment priority. The further development of renewable energy sources is a vital component of Ireland's strategy to tackle the challenges of

combating climate change and ensuring a secure supply of our future energy needs. The proposed project is being brought forward in response to these challenges.

Coillte's ambition is to deliver at least a 1 Gigawatt (GW) of that requirement over the next decade.

Wind energy makes sense for Ireland for many reasons. It's a clean fuel source which does not pollute the air like power plants that rely on combustion of fossil fuels, such as coal or natural gas. Wind turbines don't produce atmospheric emissions that cause acid rain or greenhouse gasses. Wind energy is a domestic natural resource, produced in abundance in Ireland and is free. Coillte's land asset is ideally suited to wind farm development due to the predominance of rural landholdings in areas of high wind resource and low environmental sensitivity. As a wind farm occupies such a small proportion of a site area, approx. 3%, many other land uses can co-exist such as Coillte's forestry business, recreation offering and biodiversity management.

Fair Play Engagement

Since early 2018, extensive community engagement has been undertaken with neighbours living close to the proposed site. This is part of Coillte's fair play engagement approach for those who are most impacted by the proposed development and living within 2km of a proposed turbine. The Project Manager and Community Liaison Officer have undertaken a programme of work to ensure that accurate information is shared and that stakeholders have a forum where queries can be posed and addressed.

The format of this programme includes printed information, house visits, community meetings, small group meetings and monthly progress meetings. As specified in the fair play programme, once the project design has reached the latter stages, engagement expands to the wider community in advance of a planning application. All the information within this brochure is intended to provide an understanding of the proposed wind farm, its design and its environmental credentials.

The Team

Coillte Renewable Energy is part of the Land Solutions division within Coillte which is responsible for generating recurring revenue by partnering, developing and adding value where Coillte-owned lands are suited to activity other than forestry, such as renewable energy. Coillte has been involved in the development of 4 operating wind farms including Raheenleagh (Wicklow), Sliabh Bawn (Roscommon), Cloosh (Galway) and Castlepook (Cork) which have a combined total capacity of over 300 megawatts (MW). The team involved in this project includes a Project Manager and Community Liaison Officer as well as the support of a number of specialists in the areas of Grid development, Community Engagement, Planning and Policy and GIS and Wind Resource Management. This project is part of a wider Coillte ambition to support the delivery of a further 1 GW of renewable energy and therefore make a significant contribution to the ambitions outlined in the All of Government Climate Action Plan 2019.

Malachy Walsh and Partners (MWP), an Engineering and Environmental consultancy are leading a multidisciplinary team in carrying out studies, design and preparation of the planning application and Environmental Impact Assessment Report (EIAR) on behalf of Coillte.

MWP has wide ranging experience in all aspects of the feasibility assessment, environmental impact assessment, planning, design and construction of wind farm and other energy related projects. The services that the firm can provide include all aspects of planning submittal, practical civil and structural engineering design solutions to complex engineering problems in difficult site conditions, environmental and ecological engineering solutions for hydrogeology and peat stability as well as noise and air quality monitoring, contract document preparation, cost control and site supervision/ environmental monitoring of the civil engineering construction works.

About The Site

The proposed wind farm is located within forested lands, in an upland area (approx. 200-420m above sea level), on the north- western slopes of Slieve Bernagh mountain, approximately 4 km northeast of the village of Broadford, 7km north-west of Killaloe and 2.5 km south of the village of Bodyke, at its closest point. Lough Derg lies approximately 4km to the east of the proposed development area. There are two main rivers which flow northwards through the site, namely the Carrownagowan River and the Coumnagun River, which converge at the centre of the site to form the Inchaluchoge River.

The wind farm site boundary includes a total land area of approximately 750 ha which principally consists of conifer plantation (of different age profiles), bogland, cutover bogland, and improved grasslands. The townlands within the wind farm site boundary include Ballydonaghan, Caherhurley, Coumnagun, Carrownagowan, Inchalughoge, Killokennedy and Kilbane.

Why This Site?

Identifying a site suitable for a wind farm encompasses several considerations. Suitability of the Carrownagowan site can be attributed to the following characteristics:

- The site is located in an area designated as 'Strategic' in the 2017 Clare Wind Energy Strategy, Clare County Development Plan.
- The site is not designated as a Natura 2000 site (i.e. Special Area of Conservation (SAC) or a Special Protection Area (SPA)) nor a Natural Heritage Area (NHA).
- The site is at an acceptable location for connection to the National Electricity Grid via an existing substation (Ardnacrusha).
- The site has good annual average wind speeds.
- A significant setback from houses can be achieved, with the closest dwellings at a one kilometre setback from the turbines.
- There is a network of existing forestry roads within the site that can be utilised.



Turbine towers arrive in several parts and are constructed on site.

2. PROPOSED DEVELOPMENT

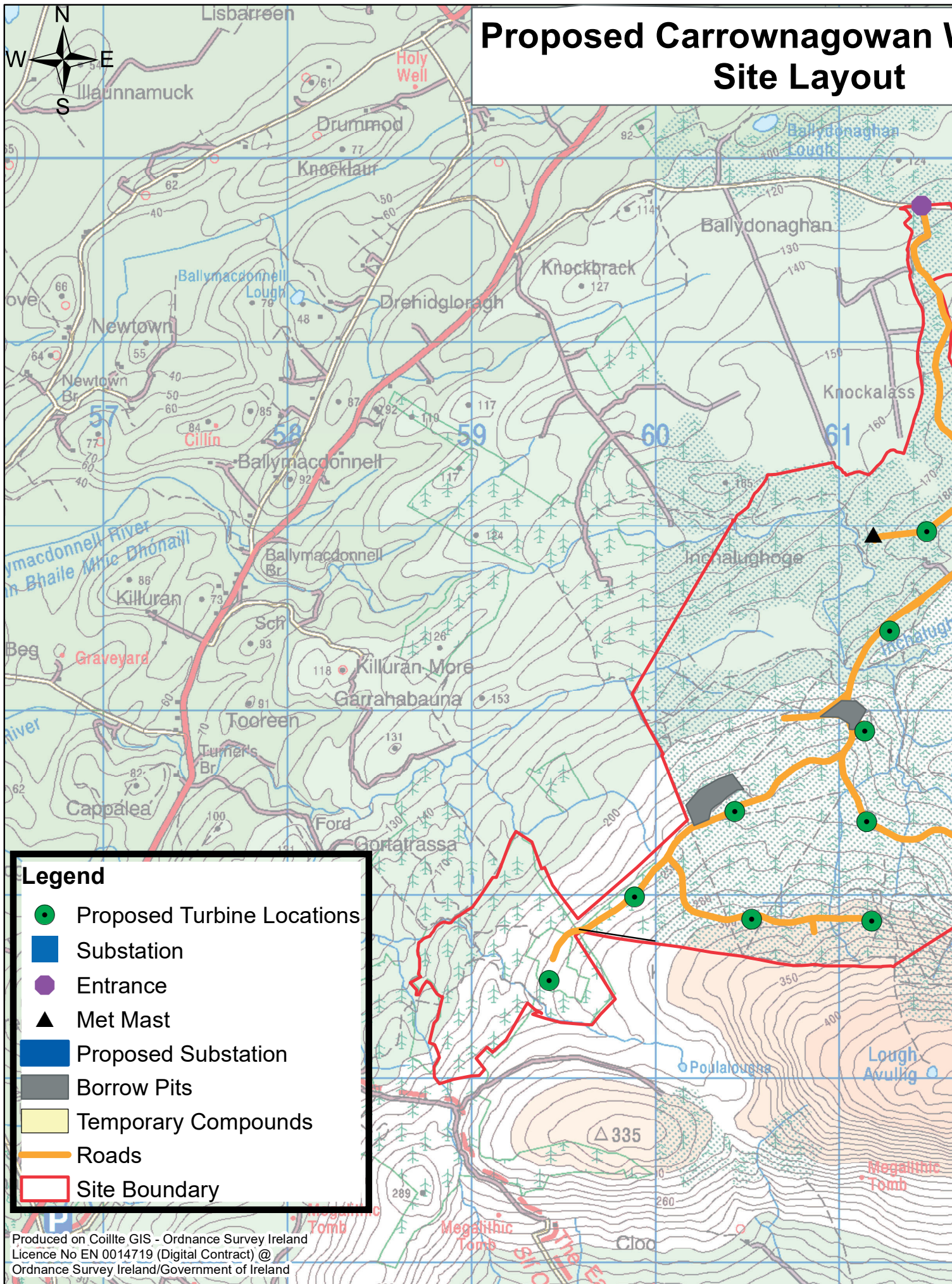
Currently, the proposed wind farm includes the following:

- Up to 19 wind turbines with a proposed overall blade tip height of up to 169 metres and all associated foundations and hard-standing areas;
- An electrical substation with 1 control building and associated electrical equipment;
- 3 borrow pits (to source stone on-site for road upgrade and construction and to minimize construction traffic);
- 3 peat deposition areas (for the excavated peat from the construction phase);
- 1 permanent anemometry mast up to a height of 100 metres;
- Upgrade of existing and provision of new site access roads and associated drainage;
- 2 temporary construction compounds;
- All associated internal and grid connection underground cabling; and
- Biodiversity enhancement areas.

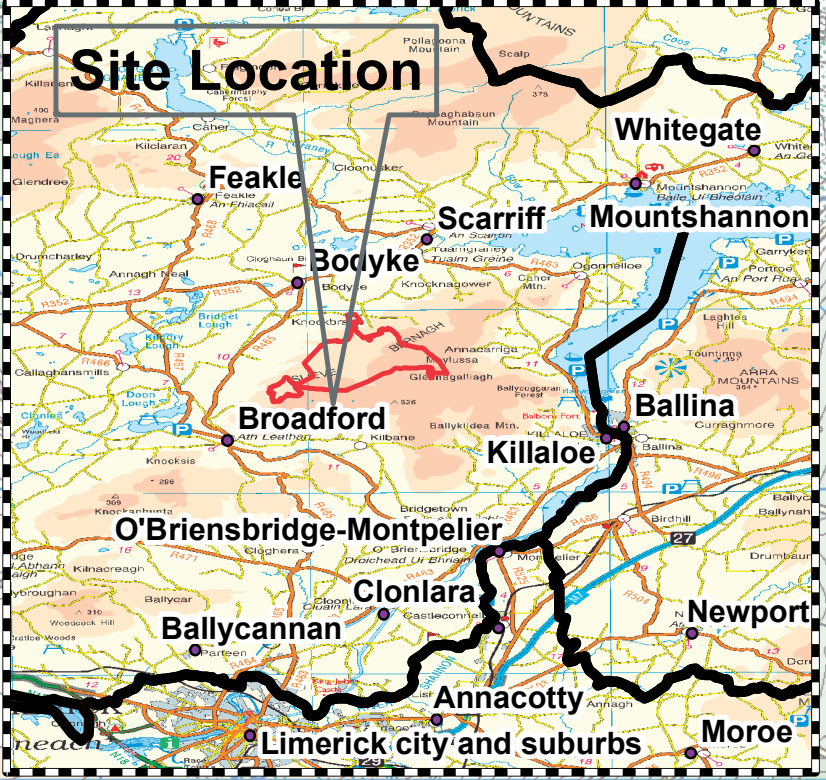
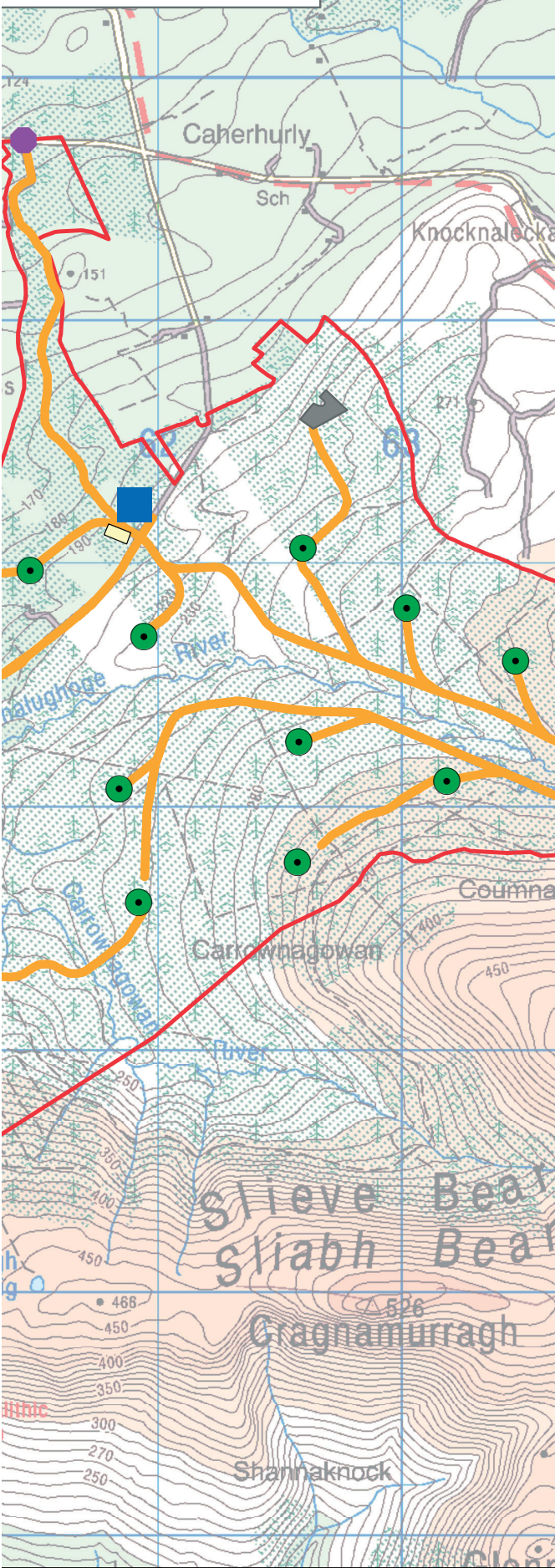
It is proposed that the wind farm will connect to the national electrical grid at the Ardnacrusha substation.



Proposed Carrownagowan V Site Layout



in Wind Farm



3. COMMUNITY BENEFIT AND INVESTMENT PROPOSAL

How will this project benefit the local community?

Carrownagowan Wind Farm has the potential to bring significant positive benefit to the local community. The project will create sustainable local employment, it will contribute annual rates to the local authority and it will provide opportunity for local community investment in the project in line with the new Renewable Energy Support Scheme.

As with all wind farm projects which Coillte develop, a community benefit fund will be put in place for the lifetime of the project to provide direct funding to those areas surrounding the project.

What will the community benefit fund look like?

Two important areas of Government policy development are nearing completion which will have a bearing on the establishment of future community benefit funds, the updated Wind Energy Guidelines and the Renewable Energy Support Scheme (RESS). Both sets of policy are expected to be finalised during Q2/Q3 2020 which will provide the Government requirements on future community benefit funds for renewable energy projects. We will fully take into account these two important policies as we present the Coillte approach to community benefit.

Coillte expects that for each megawatt hour (MWh) of electricity produced by the wind farm, the project will contribute €2 into a community fund for the RESS period i.e. first 15 years of operation and €1 per MWh for the remaining lifetime of the wind farm. If this commitment is improved upon in upcoming Government Policy we will adjust accordingly.

If this project is constructed as currently designed we estimate that a total of approximately 10 million euro will be available in the local area for community funding over the lifetime of the project.

The above figure is indicative only and will be dependent on the generation capacity of the wind farm which is influenced by a number of factors including:

1. Number of wind turbines.
2. Capacity and availability of energy production of those turbines.
3. Quantity of wind (we can have both good and bad wind years).

How the fund will be used and administered?

The Community Benefit Fund belongs to the local community. The premise of the fund is that it should be used to bring about significant, positive change in the local area.

Working together with the near neighbours, the focus up to this point has been achieving a set of key principles for inclusion in the planning application, that is detailed enough to give some clear boundaries and commitments at this stage, but does not restrict the flexibility of being able to adapt to changing circumstances in terms of the project evolution, government policy and direction and a significant amount of work needed within the community.



Tom Costello, CLO at Sliabh Bawn Wind Farm with 12th Roscommon scouts who received funding to purchase equipment from the Community Benefit Fund at Sliabh Bawn.

What is meant by Community Investment?

The proposed Renewable Energy Support Scheme (RESS) sets out that future renewable energy project proposals enable the possibility for local communities to invest in projects in a meaningful way as a means to directly gain from the financial dividends that a project can provide should it be consented, built and operated. In response to this, Coillte have been working hard with external agencies to develop workable models of Community Investment. As with the benefit fund, we aim to take this work into the community during 2020, to continue to explore this exciting possibility and see how best to embed its design within the community.

Additional Benefits arising from the construction and operation of the proposed development:

- Up to 100 people directly employed at peak construction.
- 2-3 long term, high quality technical jobs in operation and maintenance.
- Substantial rates paid to Clare County Council. Rates paid to Clare County Council for the proposed development will have a positive impact on local infrastructure and amenities such as roads, public lighting, street cleaning, libraries, fire services and public amenities. Under current council rate guidelines, estimated annual rates of €638,400 would be collected by Clare County Council rising to approximately €1.3 million if the more recent suggested rates are adopted nationwide.
- Indirect employment created through supply of a wide range of products and service.

4. SITE DESIGN PROCESS

The design process for the wind farm starts with a number of exclusions to avoid or minimize potential impacts. This included limiting the angle of slope of the ground where development can occur, including a setback distance from watercourses and residences, as well as a setback distance from the Slieve Bernagh Special Area of Conservation (SAC).

The following design parameters were applied;

- Avoid steep areas – steep ground slope
- Avoid watercourses – 75m buffer
- Avoid dwellings – 750m buffer
- 150m buffer to the SAC
- Avoid biodiversity areas
- Avoid area of historic landslide
- Avoid deep peat
- Optimise design for visual impact

A turbine layout was then developed to take account of all the constraints mentioned above and their associated buffer zones and the separation distance required between the turbines. The location and alignment of the associated infrastructure, such as roads, crane hard stands

and substation, was then developed following confirmation of the turbine layout. In addition to the above, the locations of the proposed wind turbines and all other proposed infrastructure locations have been informed by rigorous site investigations and assessments carried out over a two year period including:

- Ecological Surveys
- Ornithological Surveys
- Geotechnical, Hydrological and Geological Site Investigations
- Shadow Flicker Modelling
- Noise Modelling
- Archaeological Surveys
- Landscape and Visual Assessment
- Wind Resource Modelling

The constraints map has been continuously updated throughout the development design process based on the findings of each of the site investigations and assessments that have been completed. The constraints map will be available to view on the project website.

5 THE PLANNING PROCESS

Scoping and Consultation

Development projects such as wind farms require a detailed Environmental Impact Assessment Report (EIAR). In order to ensure that the EIA process was appropriate to the project and locality, an information document was prepared and circulated to statutory and non-statutory consultees and in addition to the near neighbours.

Regular consultation with local residents was maintained throughout the design and environmental assessment process. Focusing on those residents within 2 km of a potential turbine location, detailed face-to-face consultation has taken place since February 2018. After an initial period of one-to-one house calls, regular engagement meetings were organised with the aim of both passing on progress updates with regard to the design of the project and providing space for open dialogue on key issues of concern and potential opportunities. Monthly community group meetings were held throughout 2019, as well as workshops specifically discussing noise, ecology, visuals and the community fund.

Regular interaction with our neighbours has been ongoing and will continue throughout the project.

Environmental Impact Assessment Report

The EIAR will focus on the areas outlined here and will accompany the planning permission application.

MWP, are compiling the EIAR with the input of a number of other specialist consultants.

Chapter 1 Introduction

Chapter 2 Description of the Proposed Development

Chapter 3 Civil Engineering

Chapter 4 Alternatives

Chapter 5 Population and Human Health

Chapter 6 Biodiversity

Chapter 7 Ornithology

Chapter 8 Water

Chapter 9 Land and Soil

Chapter 10 Noise and Vibration

Chapter 11 Shadow Flicker

Chapter 12 Landscape

Chapter 13 Cultural Heritage

Chapter 14 Air and Climate

Chapter 15 Material Assets

Chapter 16 Interaction of the Foregoing

Chapter 17 Schedule of Environmental Mitigation

Planning Application

An application for planning permission for the Carrownagowan Wind Farm will be submitted directly to An Bórd Pleanála as the project is of a scale to be deemed strategic infrastructure. During the project design and environmental assessment, meetings were held with the local planning authority, Clare County Council, and with An Bórd Pleanála, to discuss the project. The planning application will be supported by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS). A separate website will be created as required by An Bord Pleanála to present the full application and all the supporting documents and drawings.

6. POPULATION AND HUMAN HEALTH

The assessment examines the potential impacts of the project (both beneficial and adverse) on the local and regional community. The key issues examined include population and settlement, employment and economic activity, land-use, residential amenity, community facilities and services, tourism, and health and safety.

Regarding the proposed wind farm development, the potential significant well being and nuisance effects of the proposed scheme on the local human environment have been identified as follows:

- Dust emissions from construction activities
- Noise emissions during construction activities and operation

- Public safety
- Visual impacts during operation
- Shadow flicker during operation
- Traffic nuisance during construction
- Interference with telecommunication signals during operation

Each of these issues has been fully assessed and are documented in other assessment undertaken as part of the EIA

7. BIODIVERSITY

The site principally consists of conifer plantation. A number of field areas of wet grassland occur, reverting from improvement for agriculture. Sections of cut over bog, raised bog, blanket bog and wet heath occur. Some of the bogland habitats at the site are degraded to some extent as a result of the forestry operations, though some areas are relatively intact.

Two main rivers drain northwards through the site; the Carrownagowan River and the Coumnagun River, forming the Inchaluchoge River towards the centre of the site. Water quality surveys and the existing EPA records, indicate that the overall water quality draining the site has a "Good Status". Fish species recorded included, brown trout,

Atlantic salmon, river/brook lamprey, three-spined stickleback, stone loach, European eel, and minnow.

Irish mountain hare, fox, badger, pine marten, red squirrel, red deer were found using the study area. It is likely otters are using the rivers within, and extending away from the site. Bat surveys completed, recorded common and soprano pipistrelle, Leislars bat, and Myotis species.

The bird species using the site are typical for the habitats present in upland area.

The closest Special Area of Conversation (SAC) to the site is the Slieve Bernagh Bog SAC, designated for bogland habitats, which is adjacent to the proposed site.

8. WATER

There are two main rivers which flow in a northwesterly direction through the site, namely the Carrownagowan River and the Coumnagun River. These converge at the centre of the site to form the Inchaluchoge River. The Inchaluchoge River drains into the Bunratty-Ballymacdonnell River catchment. The western portion of the site is drained by four small tributaries to the Killuran River. The Killuran River is located within the Bunratty-Killuran catchment.

As part of the baseline assessment, a comprehensive hydrological monitoring programme has been undertaken at the site. This involved measurement of water quality and field chemistry and river and stream flows. Continuous monitoring and event monitoring have been undertaken.

Within the site, there are numerous man made drains that are in place predominately to drain the existing forestry plantations. The integration of the proposed wind farm infrastructure with the existing forestry drainage, and natural drainage of the site, in a manner that avoids water quality and flooding impacts in downstream rivers and streams is a key component of the wind farm design. The water quality of the local rivers is typically very good.

The proposed wind farm site is not located in an area that is susceptible to flooding from rivers. Drainage attenuation will be applied across the site to ensure no impacts on downstream flooding will occur as a result of the proposed wind farm development.

Due to the nature of wind farm developments, being near surface construction activities, impacts on groundwater are generally negligible and surface water is generally the main sensitive receptor assessed during impact assessments.

The peat that covers the site is saturated with peat water, but this peat water is not very mobile, and it moves very slowly. The subsoils and bedrock that occur below the peat are also partially saturated with groundwater, but this is

separate from the upper peat water. Groundwater at the site can be classed as sensitive in terms of potential impacts from the proposed development. However, the majority of the site is covered in peat which acts as a protective cover to groundwater quality. The small footprint of the development over a very large site means that potential for impacts on groundwater flows and groundwater quality are negligible. There will be no impacts on downstream private wells as a result of the proposed development.

There are a number of water schemes locally. 2 no. Group Water Schemes are situated north of the site. Bodyke GWS is situated ~3.3km north-northwest of the site, as well as Raheen Road GWS ~ 4.2 km northeast of the site. A third GWS at Ogonnelloe is located approximately 7 km northeast of the site.

The mapped zones of contribution to these existing sources are remote from the proposed wind farm site and given the separation distances from the development site, the changes in topography, and also the significant surface water drainage regime (that flows in a westerly direction) between the wind farm site and the Bodyke and Raheen Road GWSs, there is no potential for impacts at these existing sources as a result of the proposed wind farm development. Also, there is no proposed wind farm development anywhere upstream of the Ogonnelloe GWS, and therefore there is no potential for impacts at this scheme as a result of the proposed wind farm development.

Slieve Bernagh Bog SAC is located on land south, south-east, east and north of the proposed wind farm site. A hydrological buffer zone has been applied to the designated site (Slieve Bernagh Bog SAC) and no wind farm development is proposed within this buffer. The designated site can be considered very sensitive in terms of potential hydrological impacts. However, the buffer separation distance to proposed wind farm infrastructure, and also the slopes of the ground,

and existing intermediate drainage and fire breaks separate the hydrology of the surround bogs from the wind farm site. As such, there is no potential for significant impacts on the hydrology of the SAC as a result of the proposed wind farm development.

Downstream surface water quality is also very sensitive in terms of potential hydrological impacts. Drainage management within the wind farm development and integration of this wind farm drainage with existing forestry drainage is a critical aspect of the design.

Two methods will be employed to control drainage water within the site during construction, thereby protecting downstream surface water quality and aquatic habitats. The first method involves 'keeping clean water clean' by avoiding disturbance to natural drainage features, minimising any works in or around artificial drainage features, and diverting clean surface water flow around excavations and construction areas. The second method involves collecting any drainage waters from works areas within the site that might carry silt, to allow settlement and cleaning prior to its release. During

the construction phase all runoff will be treated to a high quality prior to being released. There will be no risk of increased flooding down-gradient of the site as a result of the proposed development due to these drainage measures. Impacts on water quality during the construction phase of the wind farm will be imperceptible to none. A surface water monitoring programme will be put in place during the construction phase.

During the operational phase drainage control measures will ensure that surface runoff from the developed areas of the site will continue to be of good quality and will therefore not impact on the quality of down-stream of rivers and streams. The existing forestry drainage system at the site will also be utilised to ensure all water leaving the site will be good quality. No significant impacts on surface water quality are anticipated during the operational phase.

Overall no significant impacts or significant in-combination impacts on the surface water or groundwater environments have been identified by the assessment.

9. LAND AND SOILS

The site is situated in an upland area (approx. 200-420m above sea level), on the north-western slopes of the Slieve Bernagh mountains. The site covers an area of approx. 750 hectares, which principally consists of conifer plantation (of different age profiles), and an array of forestry tracks already exist around the site.

The geology of the site comprises blanket peat overlying subsoil deposits which in turn are underlain by weathered and solid bedrock. Comprehensive site investigation works, including field mapping of exposures, peat depth probing and augering and trial pit excavations were undertaken to assess the geology of the site for

constructability purposes. Overall peat depths recorded during the peat probing investigation ranged from 0.05m to 4m. The average depth across the study area was 1.25m.

Construction of the wind farm infrastructure will require the removal of blanket peat, subsoils and possibly rock to create competent foundations. Excavation of bedrock from proposed on-site borrow pits along with suitable off-site aggregate sources will provide appropriate construction material for access roads, turbine bases and general hard-standing construction. Removal of blanket peat, subsoils, and bedrock represents a permanent direct impact on the geology of the site



which is considered to be an acceptable part of economic progression and development.

During the construction phase sources of contaminants (such as oil based substances or other hazardous chemicals) will not be stored at the site except where this is done within safely bunded areas that safely contain all spillages and prevent the migration of contaminants into soil, peat and bedrock. Refueling will be done with a double skinned bowser with spill kits on the ready in case of accidental spillages. The risk is considered to be low once mitigation measures are implemented.

The peat stability assessment undertaken at the site shows that the site has an acceptable margin of safety and is suitable for the proposed wind farm development and proposed grid connection options. A number of control measures are given in the peat stability assessment to manage all risks associated

with peat instability that will make the site safe to work on.

A Peat/Spoil Management Plan has been prepared for the development which details management of peat during construction works and long-term storage thereafter. Peat removed during the excavation works will be stored appropriately as close as possible to the extraction area. Working of these peat harvesting sites over the years has shown that this is the most environmentally sensitive and stable way of handling and storing of excavated peat.

Drainage and erosion prevention measures will be put in place at the peat storage areas. No significant impacts or cumulative impacts on the soil and geological environmental are anticipated as a result of the proposed wind farm and its grid connection route options.

10. AIR AND CLIMATE

This chapter describes the likely significant impacts the construction and operation of the proposed wind farm development will have on air quality and climate.

While there may be an imperceptible temporary negative impact to local air quality in the immediate vicinity of the development arising from vehicle exhausts and dust generation during the construction phase, the overriding long term impact will be positive.

Once operational, electricity generated by the wind farm will displace electricity that would otherwise have been generated by fossil fuel power stations, therefore reducing CO₂ emissions, improving air quality and contributing to the fight against climate change.

In its 2019 Climate Action Plan the Irish Government, in recognition of the climate change challenges ahead, states:

“Decarbonisation is now a must if the world is to contain the damage and build resilience in the face of such a profound change.”

11. NOISE

The main sources of noise from a wind turbine include aerodynamic noise (rotating blades in the air) and mechanical noise (gearbox and generator). Noise only occurs above the 'cut-in' wind speed and below the 'cut-out' wind speed. The typical 'cut in' wind speed of a modern turbine is 3 meters per second (m/s) and the 'cut-out' wind speed is approximately 25 to 30 m/s.

Construction noise will occur during excavation and earth moving, laying of roads and hard standings, transportation of materials and erection of the wind turbines. The construction phase will be phased and temporary.

Noise and vibration assessments were undertaken for the operational, the construction and decommission phases of the proposed development. The cumulative impact with other wind farms was also considered where relevant.

Vibration, low frequency noise and infrasound are also addressed in the study.

To inform the noise impact assessment, baseline noise monitoring of the existing noise environment was carried out over a 4-week period in early Autumn 2018.

Locations were chosen to represent the typical noise levels around the proposed development; dwellings in different directions around the site and, where possible, the nearest dwelling in a specific direction was chosen. Care was taken to ensure that the noise monitors could be left in a safe location over the extended monitoring period and at sufficient distance from typical noise sources so as not to unduly elevate background noise levels. A single baseline noise monitoring location can represent a number of other dwelling locations.

Following the establishment of the existing noise levels prior to development, appropriate noise levels were then determined in line with Government policy and guidance. The noise limits seek to strike a balance between the noise restrictions placed on a wind farm, the protection of amenity and the national and global benefits

of renewable energy development. The predicted noise emissions from the wind farm are then compared against these limits.

The noise predictions were undertaken using industry standard noise prediction computer software. The input criteria are defined by best practice, are standard and can take account of the following:

- Geometric divergence;
- Air Absorption;
- Reflecting obstacles;
- Screening;
- Vegetation; and
- Ground reflections

The predicted wind farm noise emissions must not exceed the noise limit. To ensure noise limits are not exceeded, the most appropriate wind turbine model operating in the most appropriate mode will be selected.

The construction phase entails the building of the wind farm infrastructure including, roads, hard standings, turbine bases, drainage system, substation, control buildings and borrow pits if required. The main noise sources include heavy machinery and support equipment used to construct the various elements.

The impact from the construction phase has been predicted using calculations and then compared against commonly adopted construction noise thresholds. Given the large separation distance and the short and temporary nature of the construction works the impact is not expected to be significant.



Photomontage showing proposed development from Feakle (approx 10km from project site).

12. LANDSCAPE AND VISUAL

The assessment of Landscape and Visual Effects assesses the effects of the development on the landscape as a resource and on the fabric and character of the landscape. Assessment of visual effects relates to the change in views and visual amenity experienced by groups of people.

County Clare's 'Living Landscapes' are categorised into areas which have similar characteristics for which similar planning policies are applicable. The Plan notes that the approach builds on the Landscape Character Assessment of County Clare. The Plan also notes that the landscapes are not constant but seen as alive and continually changing. The three categories are listed as settled, working and heritage landscapes.

The proposed development is located in a Settled landscape, which also includes the areas south to Bridgetown and west including Tulla and Kilkishen and north as far as Feakle. The Plan notes that Settled landscapes accommodate roads, power-lines, quarries and piped services that service settlements and industry. Uses which are envisaged include energy, along with agriculture, forestry, extraction, transportation, industry, commerce, tourism, recreation and leisure, education, healthcare and social infrastructure.

13. CULTURAL HERITAGE

There are no Recorded Monuments within the boundaries of the proposed wind farm or grid connection route, however, there are a total of 43 Recorded Monuments within the receiving environment of the proposed Scheme. There are no National Monuments in State Care or monuments subject to Preservation Orders within the receiving environment. There are no Protected Structures or structures recorded by the National Inventory of Architectural Heritage located within 2km of the proposed turbines. There is however one Protected Structure located along the route of the proposed grid connection, Kilbane Bridge.

The earliest archaeological sites within the receiving environment of the proposed scheme date to the Bronze Age. Wedge tombs represent the final phase of megalithic tomb construction in Ireland, they generally date to the Early Bronze Age and are concentrated largely in the west of Ireland. There are four wedge tombs located within the receiving environment of the proposed wind farm. Once such tomb is located c. 640m south of the proposed wind farm boundary, a second is recorded in the townland of Cloongaheen West c. 1.1km south, a third is recorded in the townland of Killokennedy, c. 1.17km to the south, with the final tomb recorded c. 1.72km southwest of the proposed scheme in the townland of Drummin. The frequency of wedge tombs in the landscape to the south of the proposed Scheme indicates a definitive Bronze Age presence in the landscape and there are further examples of this monument type further to the southeast and east of the receiving environment.

Evidence for early medieval activity is more prevalent across the landscape. Ringforts are described as farmsteads defended by a circular enclosure. The need for defences does imply that boundaries, territories and leadership changed frequently in the early medieval period. There is one ringfort recorded c. 1.45km north-northeast of the proposed scheme in the townland of Caherhurly. In addition, a total of 26 enclosures are recorded within the receiving environment of the proposed

Scheme. There is a clear pattern in the distribution of these enclosures, with nine located to the north of the proposed scheme, 15 to the south and two to the east. These enclosures are all located on lower ground, surrounding the mountain. These areas would have been, and still are, far more suitable for farming and settlement than the slopes and peaks of the nearby mountain.

Medieval activity in the landscape can be seen through the presence of tower houses. An unclassified castle referred to as a tower house, is located c. 1.89km north-northwest of the proposed wind farm boundary. Very little of the structure survives, with a short section of masonry wall c. 2m high on top of a small outcrop of limestone. The castle was built by the McNamara family and in 1570 John McNamara died in the possession of four stone castles, including Caherhurly.

Post-medieval activity is recorded across the site and wider area, with a range of small structures recorded on 19th century maps across the mountain. These most likely represent small home and farmsteads, many of which have since been demolished. Three demesne landscapes have been recorded within the receiving environment which were associated with former country houses, these include that at Caherhurly House, Trough Castle and Ballyquin House.

There will be no direct impacts to any known archaeological sites, however there is potential for sub-surface remains associated with 19th century vernacular structures to be impacted during the construction of the scheme. Archaeological monitoring of construction works will be carried out in order to preserve by record (archaeological excavation) any such remains prior to removal.

14. MATERIAL ASSETS

An Aviation study has been completed to investigate any issue with Shannon airports flights and calibration checks. There will be no impact as a result of the proposed wind farm.

A Traffic study has also been carried out to consider the additional traffic associated with the construction of the wind farm and the delivery of the turbine components. Separately a delivery route assessment has been carried out which has considered turbine delivery from both Galway and Foynes ports.

15 ENVIRONMENTAL BENEFITS

The proposed development could generate approximately 91 MW per hour of renewable, clean electricity. Over the lifetime of the project, 2.8 million tonnes of carbon will be offset compared to traditional electricity generation. During construction and turbine manufacture, some carbon is lost to the atmosphere, but this will be offset by the wind farm itself within 15-21 months of operation.

Wind farms emit no toxic substances or air pollutants, unlike coal or gas power stations.

The energy generated by the proposed development, will offset associated emission of greenhouse gases from electricity-generating stations dependent on fossil fuels, thereby having a

positive effect on climate.

The 91 MW of renewable electricity which could be generated by the proposed development, is enough to supply approximately 66,500 homes per annum based on average household use of 4.2MWh of electricity per year. (Source: Commission for Regulation of Utilities Typical Consumption Figure 2017). Central Statistics office, Census figures from 2016 show that there are 43,469 occupied dwellings in County Clare.

The proposed wind farm will take up only a small portion of the total site area (~4%); the existing land-use of mainly commercial forestry will continue in conjunction with the proposed development.

16. NEXT STEPS

Once the EIAR is complete, Coillte will submit a planning application to An Bórd Pleanála for a 30 year permission for the proposed Carrownagowan Wind Farm.

The planning application will consist of the following;

- Planning Application Form
- Planning Application Fee
- Public site notices
- Newspaper notice
- Planning Drawings

- Environmental Impact Assessment Report and appendices
- Natura Impact Statement

Notification of the intention to submit an application supported by an EIAR will also be sent to the Department of Housing, Planning and Local Government's EIAR portal and the confirmation will be included with the planning pack.

All documents and drawings will be uploaded to a specific website dedicated to this planning application.



17. CONTACT US

Phone: 1890 800505

Email: scarriff@coillte.ie

**Address: Coillte Renewable Energy, Drewsboro,
Scarriff, Co. Clare.**

www.carrownagowanwindfarm.ie



View of proposed Carrownagowan
Wind Farm from Bodyke, east of
"Cobbler's Rest" pub, R352.



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Coillte planning to build windfarm in Bodyke

Fiona McGarry

PLANS for a multimillion Euro East Clare windfarm are to be lodged next month, *The Clare Champion* has learned.

Coillte has confirmed that it is currently finalising an application for 19 turbines on a 750 hectare site, around a-mile-and-a-half from Bodyke, on the slopes of Slieve Bearnagh.

The proposal, which will seek 30-year permission for The Carrowmagowan **Wind Farm**, will be lodged directly to An Bórd Pleanála as strategic infrastructure.

"Our project team is targeting a submission date towards the end of June and this will be

advertised prior to final submission," outlined Andy Fox, community engagement manager with Coillte.

Mr Fox also noted that a detailed brochure on the project had recently been widely distributed across East Clare and that consultations are continuing, in line with the restrictions imposed by Covid-19.

The site is described by Coillte as an appropriate location to access the national grid via the substation at Ardnacrusha. The company also notes it is designated as 'strategic' in the Clare **Wind Energy** Strategy.

The Coillte brochure outlines how a community benefit fund, which is mandatory with projects of this nature, could potentially

contribute up to €10 million locally, over the lifetime of the project. It also predicts the creation of 100 jobs, during the construction phase of the project, as well as a potential rates contribution to Clare County Council of between €638,400 and €1.3m.

An Environmental Impact Assessment Report (EIAR), to be submitted with the application, will examine noise, vibration and shadow flicker, as well as the impact on human health, biodiversity, air quality and the landscape.

In terms of the environmental benefits, Coillte contends that the project could generate approximately 91 megawatts per hour of **renewable energy**.

"Over the lifetime of the project, 2.8 million tonnes of carbon

will be offset," the document outlines. The blade tip height of the proposed turbines is up to 169m and a permanent mast of up to 100m is also to be included in the application. A photomontage included in the brochure illustrates the visibility of the windfarm from up to 10km away in Feakle and Coillte has previously described the turbines as being visible from Lough Derg.

While the proposed windfarm has been publicised since 2018, local councillor Pat Hayes has reiterated his concerns over a lack of consultation with public representatives.

"I'm not opposed to windfarms, in principle, but better protocols around the consultation process are needed," Coun-

cillor Hayes said. "Public representatives in the Killaloe district were never advised in any detail about the plans. We need far more transparency, especially when it comes to the protection of Moylussa, and I don't think the community funding angle should be used to push this project."

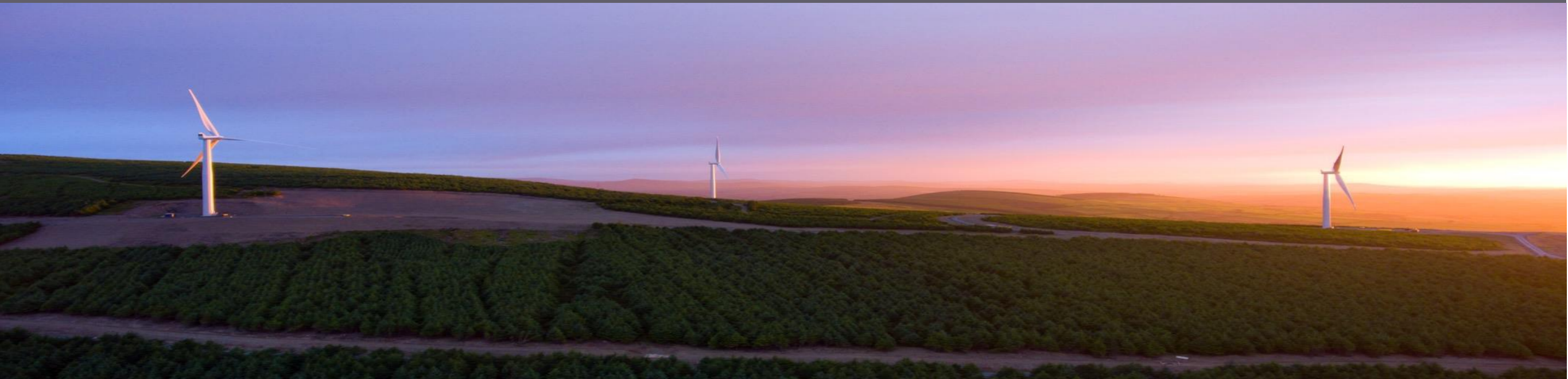
Coillte's information brochure said that since 2018, it has been involved in "extensive community engagement", particularly with those living within 2km of a proposed **turbine**.

Mr Fox acknowledged the impact of Covid-19 on the consultation process but said options are still open.

"Unfortunately, due to the Covid-19 pandemic, public health restrictions prevent our

team from engaging with the community face-to-face. However, we are encouraging anyone who wishes to discuss the project in more detail to make contact via the project email (scarriff@coillte.ie) and our team will arrange a call back."

The organisation has also told *The Clare Champion* that from Tuesday, June 9, it will make an information resource for residents available online at carrowmagowanwindfarm.ie. Under the Strategic Infrastructure Act, public submissions can be made to An Bórd Pleanála within the period allowed for the application to be inspected (minimum of six weeks). It is at the discretion of the board to decide on whether or not to hold an oral hearing.



Carrownagowan Wind Farm

Clare Co Co Killaloe Electoral area Elected members 19th June 2020

Key Project Details

- Site Location – North west slopes of Slieve Bernagh
- Clare Wind Energy Strategy - Clare CDP 2017-2023 - Strategic
- Landscape character CDP - Settled
- Target MEC – 91.2 MW – 19 Wind turbines
- Access – M18 – R-352 – R-465 & L-8221
- Grid connection – 21 km UGC, Kilbane – Harols Cross – Trough – Ardnacrusha
- Core WF elements – Turbines, hardstands, substation, UG electrical collection, new & upgraded roads,
- Associated components – Borrow pits, peat deposition areas, site compound, felling, replacement lands, Biodiversity enhancement plan

Community Engagement

- Started engagement in March 2018
- Focus on 2km zone
- Individual conversations (2000+ house calls)
- Small groups
- Formal group meetings and workshops (19)
 - Progression of design – Iterations shared as produced
 - Focus on impacts then CBF design
- Meetings with Local Town Reps (8)
- Newsletters 1 & 2 to 2km zone
- Newsletter 3 to 5km
- Project Brochure to 6400 households in East Clare Postal Region
- Online Virtual tour with detailed info and photomontages (600 hits so far)
- Full Planning Application available online

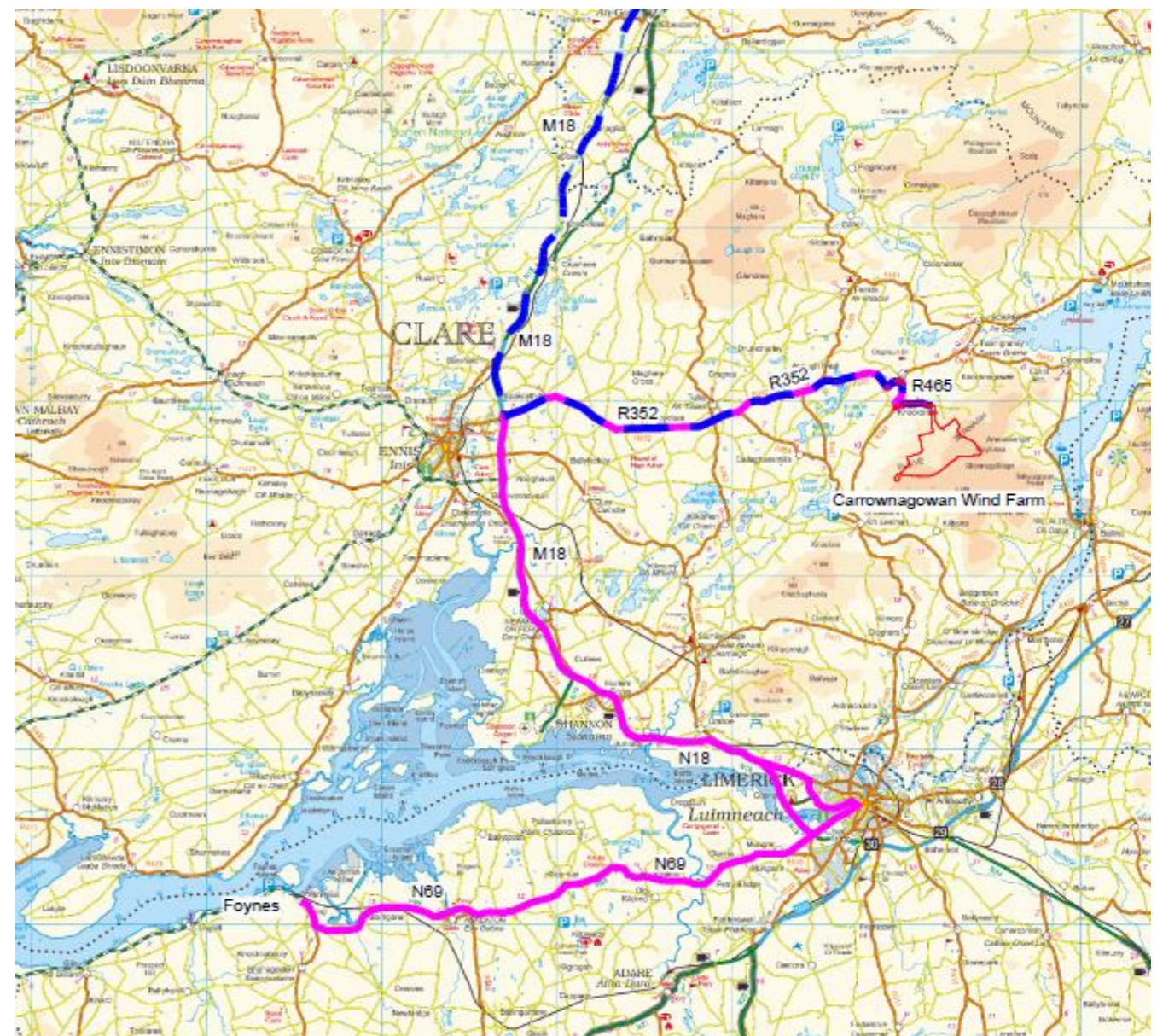
Community Benefit

- Community Benefit Fund
 - Coillte commit to €2 / MWh first 15 years, €1 / MWh remainder
 - Participatory design process so far
 - Initial framework designed for inclusion in Planning App.
 - 5 CBF workshops in 2 km zone + discussion at local town rep meetings
 - Next Steps
 - Develop Community based entity to govern and administer CBF
 - Over 18 month period with wide stakeholder participation.
 - Administration vs Access

Community Investment

- Concept floated in RESS Consultation
 - Individuals and Community Groups able to invest in project and derive a direct dividend from a successful project
- Coillte have done some work looking at options
- Not included in RESS 1 but expected in RESS 2
- Similar process to CBF – once details are released we will work with local community to socialise opportunity and support where necessary

Grid route & Turbine delivery route



Final Slide



Thank You

VIRTUAL MEETING AGENDA COILLTE & RESIDENTS WITHIN THE 2 KM ZONE

NOVEMBER 19TH 2020 - 7.30 – 8.30 PM, ZOOM OR MICROSOFT TEAMS CALL

- Pre Planning submission overview by MWP
- Information on access to planning documentation
- Planning process, timelines, submissions, decision etc
- Community fund and Community chapter
- Questions and Answers
- AOB

Extracts below from EIAR Chapter 2 project Description below for general discussion:

PROJECT DESCRIPTION

GENERAL INTRODUCTION

This chapter of the Environmental Impact Assessment Report (EIAR) presents information on the elements that constitute the entire project, which includes the proposed development. While the grid connection and replacement lands are not included in the proposed development and planning application, they are assessed as part of the project within this EIAR. The Project Description details the characteristics and operations involved in the project. The purpose is to provide an appropriate level of detail to provide the basis for Environmental Impact Assessment (EIA). The chapter describes the site location, the main characteristics and components of the project and details the activities and operations required to construct, commission and operate the wind farm development and to connect it to the National Grid. Decommissioning of the project is also discussed.

Details of the project are further supported by the following documents:

- EIAR Chapter 3 Civil Engineering
- Construction Environmental Management Plan (EIAR Volume III, Appendix 3-1)
- Surface Water Management Plan (EIAR Volume III, Appendix 3-2)
- Peat Stability Risk Assessment (EIAR Volume III, Appendix 9-2)
- Peat and Spoil Management Plan (EIAR Volume III, Appendix 3-3)
- Turbine Delivery Route Assessment (EIAR Volume III, Appendix 3-7)
- Planning Application Drawings

PROJECT ASSUMPTION

For purpose of the planning application and the analysis conducted in this EIAR, the Applicant has considered a wind turbine composed of a tower with a maximum height of 101 meters and a maximum rotor diameter of 136 meters resulting in an overall maximum tip height (blade in the vertical position) of 169 meters.

CHARACTERISTICS OF THE PROJECT INCLUDING THE PROPOSED DEVELOPMENT

It is being proposed by *Coillte Cuideachta Ghníomhaíochta Ainmnithe* (Coillte) (the Applicant) to develop a wind farm (named Carrownagown Wind Farm) comprising nineteen (19) No. wind turbines in east Co. Clare. The proposed development forms a part of the entire project, and includes the following components, infrastructure and ancillary facilities and elements for construction and consideration as described below. The EIAR considers the proposed development and all additional components of the project. The following two lists include both the core wind farm elements of the project and the associated development components of the project.

Proposed Development

The development for which planning permission is sought in the planning application (the proposed development) consists of the following:

Core Wind Farm Elements:

- 19 No. Wind Turbines (blade tip height up to 169m) with external transformers.
- 19 No. Wind Turbine foundations and Hardstand areas.
- 1 No. Permanent Meteorological Mast (100m height) and associated hardstand areas.
- 1 No. Permanent Substation (110kV) including associated ancillary buildings (electrical building including control, switchgear and metering rooms, and the operational building including welfare facilities, workshop and office).
- Upgraded Site Entrance
- New and upgraded internal site service roads (8.4km of existing tracks to be upgraded and 11.4km of new service roads to be constructed)
- Provision of an on-site Visitor cabin and parking

Associated Development Components:

- Underground electrical collection and SCADA system linking each wind turbine to the on-site project substation.
- Construction of new roadways and localised widening along turbine delivery route
- 2 No. Temporary construction site compounds and additional mobile welfare units
- 3 No. Borrow pits to be used as a source of stone material during construction and for storage of excess excavated peat materials
- 3 No. peat /spoil deposition areas (at borrow pit locations)
- Associated surface water management systems
- Tree felling for wind farm infrastructure

Overall Project

In addition to the Proposed Development as described the following elements are assessed as part of the overall project: Underground 110kV cable for connection to National Electricity Grid and off-site replacement forestry lands at three sites, (Ballard, Co Wicklow; Cooraclare, Co. Clare; and Trillackacurry, Co. Longford.

Details of the evolution of the site scale and design are provided in Chapter 4 of this EIAR.

Development Lands

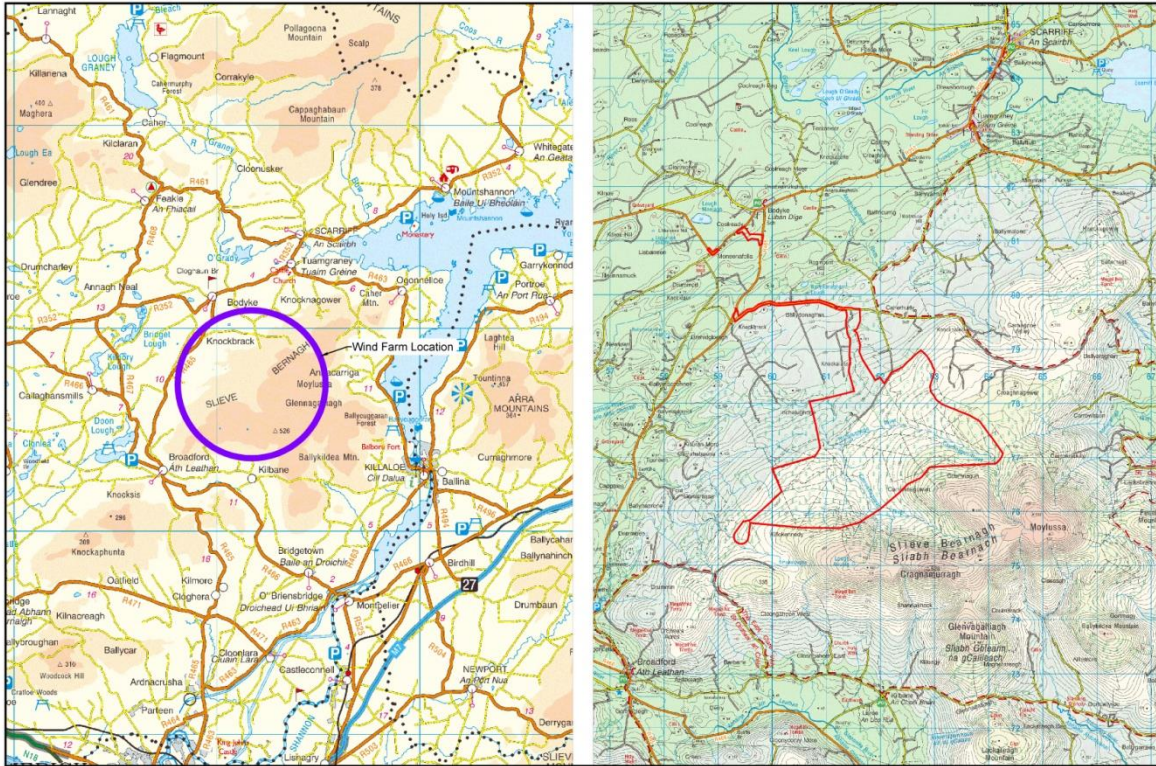
This sections describes the lands which make up the project. The lands in and around the wind farm are first described followed by a description of the lands along the grid route; the lands along the turbine delivery route and finally the replacement lands for afforestation.

Wind Farm Lands

The proposed development is a nineteen (19) No. wind turbine project. The area of the proposed Wind Farm is located within forested lands on the northern slopes of Slieve Bernagh mountain, approximately 4 km northeast of the village of Broadford, 7km north-west of Killaloe and 2.5 km south of the village of Bodyke, at its closest point. Lough Derg lies approximately 4km to the east of the proposed development area (Figure 2.1).

The wind farm site boundary (which is the planning boundary) includes a total land area of 749.69ha which principally consists of conifer plantation, bogland, cutover bogland, and improved grasslands. The townlands within the wind farm site boundary include Ballydonaghan, Caherhurley, Coumnagun, Carrownagowan, Inchalughoge, Killokenedy and Kilbane.

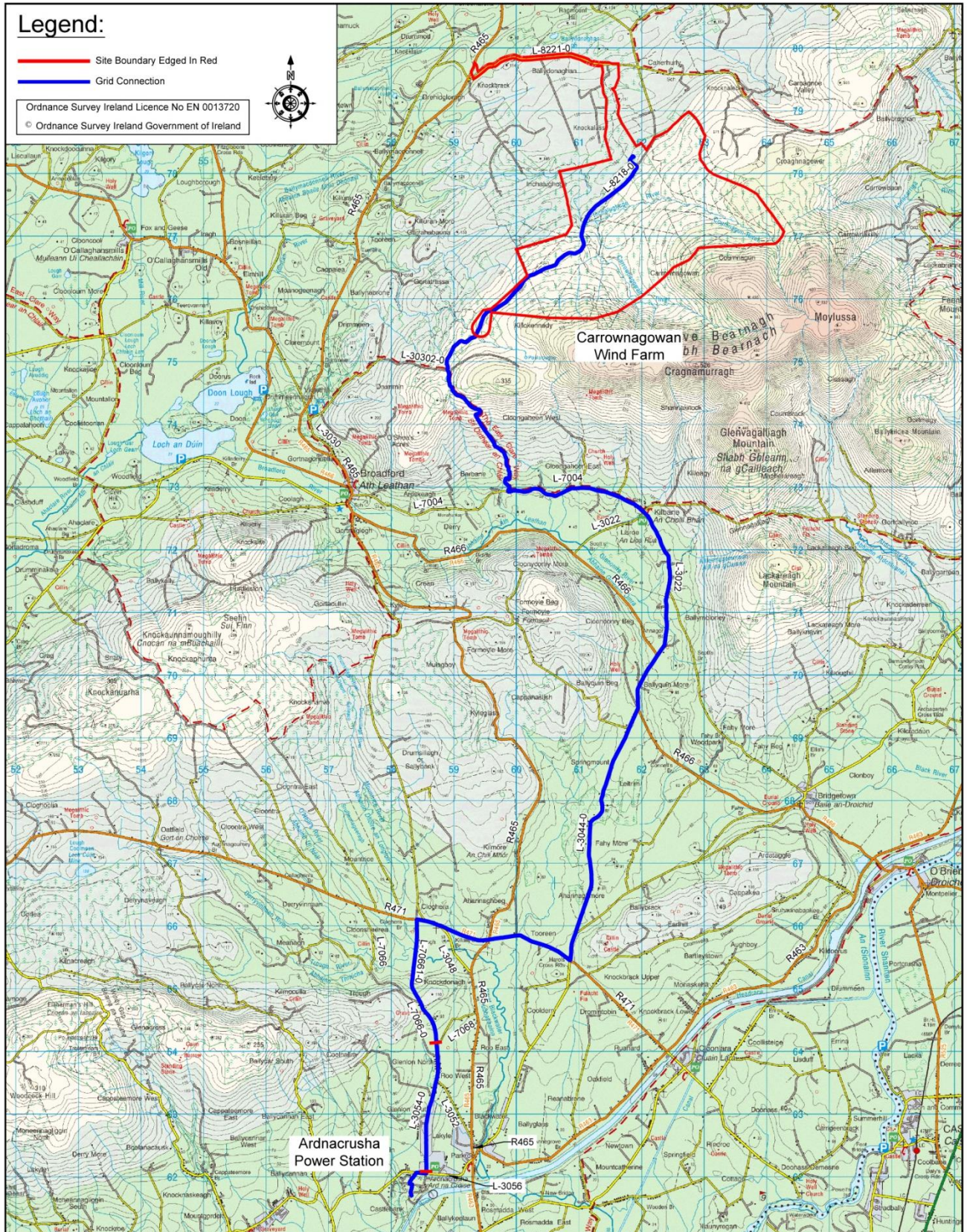
Figure 0-1 Wind Farm Development Location



Grid Connection

Electrical energy generated from the wind farm will be exported to the national grid via an underground grid connection cable to the existing ESB owned 110kV substation at Ardnacrusha, County Clare. Once it leaves the site, the 25km grid connection infrastructure will be installed within the body of the public road network along the route illustrated in Figure 2.2. As stated previously, the grid does not form part of the proposed development.

Figure 0-2 Underground Grid Connection Route



Additional Lands

Turbine delivery Route

Development works on private third party lands adjacent to the public road network will be required to be undertaken in order to accommodate turbine delivery. The nature and extent of works at these locations are described in Section 2.3.3.12

These development lands are as follows:

- Works Area 1: To the northern side of the R352 in the townland of Coolready, Co. Clare approximately 1.1km southwest of Bodyke village.
- Works Area 2: Between the R352 and R465 in the townland of Coolready, Co. Clare approximately 450m south of Bodyke village.
- Works Area 3: Between the R464 and the L-8221 local road in the townland of Drummod, Co. Clare approximately 2.1km south of Bodyke village.

Road widening works along a 2km section of the L-8221 local road, between the R465 and wind farm site entrance, will also be required.

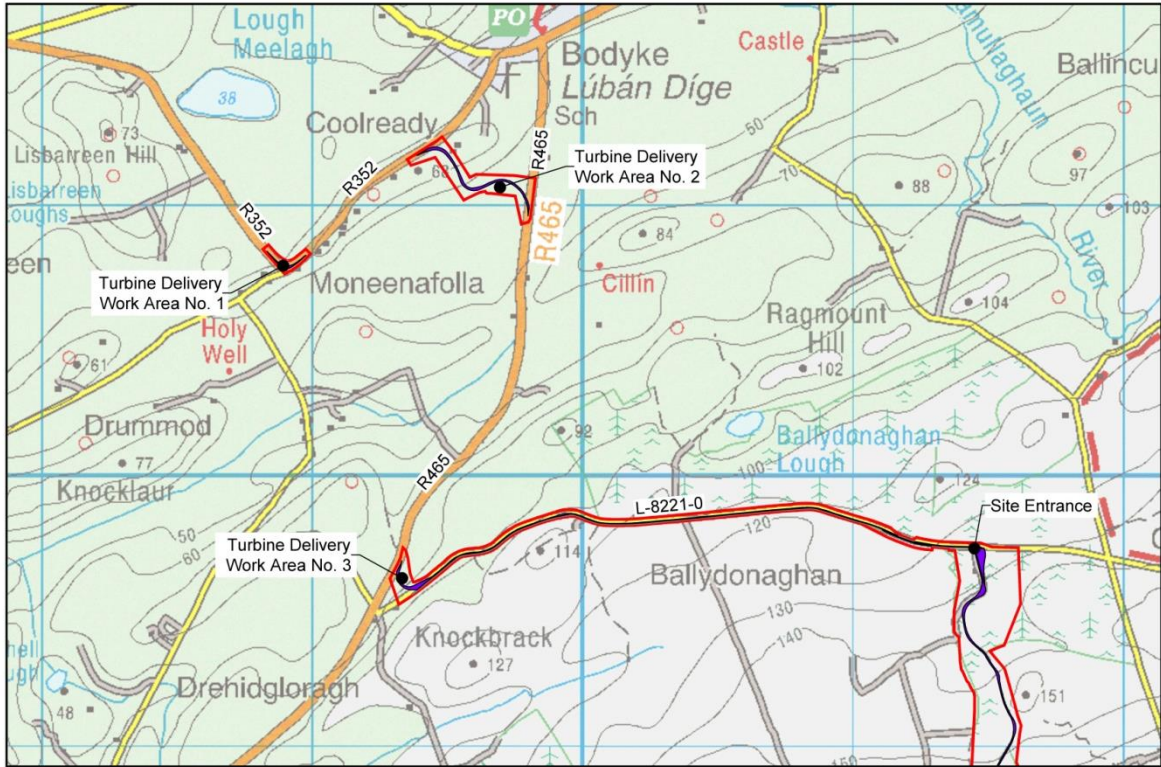


Figure 0-3 Area of development lands along Turbine delivery route