



Review of National Development Plan Consultation Response

19/02/2021

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Table of Contents

1	Introduction.....	3
2	Is the overall level of public spending on capital investment correct?	4
3	What should the capital budget be spent on?	5
3.1	Communications, Climate Action & Environment.....	5
3.2	Energy and transport networks.....	8
3.3	Housing, Planning & Local Government	8
3.4	Education & Skills.....	9
4	What types of capital investment should be prioritised?.....	11
4.1	Electricity Grid Development	11
4.2	Ports and Developing the Offshore Wind Industry	12
4.3	Planning Policy: Regional approach to the spatial planning of wind energy development .	14
4.4	Enterprise, Skills and Innovation Capacity	16
5	How can the management and governance of public investment be improved?.....	18
6	How is the NDP affecting your region?.....	18
7	What is your feedback on Project Ireland 2040 communications?	18
8	Is there anything else you would like to add?.....	18

1 Introduction

Wind Energy Ireland would like to thank the Department of Public Expenditure and Reform for the opportunity to provide a submission on *Review to Renew - the public consultation on Ireland's National Development Plan (the NDP)*.

Wind Energy Ireland is the nation's largest renewable energy organisation with more than 150 members who have come together to plan, build, operate and support the development of the country's chief renewable energy resource.

We work to promote wind energy as an essential, economical and environmentally friendly part of the country's low-carbon energy future.

As a leader in Ireland's fight against climate change, wind energy creates jobs, invests in communities and reduces CO₂ emissions.

Wind energy can end Ireland's reliance on foreign fossil fuels. In 2018 alone, according to [the most recent report](#) from the Sustainable Energy Authority of Ireland, wind energy avoided 3.15 million tonnes of CO₂ and cut our fossil fuel import bill by €432 million. Ireland is already number one in the world for the share of electricity demand met by onshore wind. In 2020, wind energy provided over 36% of the country's electricity supply.

Over the next ten years, Wind Energy Ireland's members intend to develop new wind farms on land and off the Irish coasts, so that by 2030, 70% of Ireland's power comes from renewable energy.

Throughout 2020, Wind Energy Ireland developed a four-part series of reports, the 70by30 Implementation Plan, setting out the policy changes required to ensure Ireland reaches the target set in the Climate Action Plan to source 70 per cent of our electricity from renewable energy by 2030 and we would be happy to meet with the relevant parties to discuss the content of these reports in more detail.¹

Please find our responses to the questions set out in the consultation document in the following sections.

¹ <https://windenergyireland.com/images/files/70by30-implementation-plan-reports.pdf>

2 Is the overall level of public spending on capital investment correct?

With capital expenditure allocated just 11 per cent of public expenditure from 2018-2022, Wind Energy Ireland believes it needs to be given much more attention.

While it is encouraging to see an increase in capital expenditure from €4.6 billion in 2017 to a proposed €10 billion in 2021, this is still just 12% of combined public expenditure², and will need to increase significantly.

Engineer's Ireland³ and IBEC⁴ have suggested capital expenditure will need to increase by €25 billion over the lifetime of the National Development Plan and Wind Energy Ireland supports this view.

We have seen capital expenditure fall during the last recession, leaving Ireland lacking in many sectors. This must not be repeated. Historically low interest rates in Europe provide an excellent opportunity to prioritise capital investment, making it key to the economic recovery from shocks due to COVID-19 or Brexit. This will lead to long term economic, social and environmental benefits and improved standards of living.

Capital infrastructure projects usually have a very long lifetime, often well beyond what is even forecast. For example, Ardnacrusha hydropower plant was built approximately 100 years ago and is still in operation today. It is a similar case with wind farms which in many cases can operate far beyond their design life of 25 years. Consideration of these long-term benefits strengthens the case for increased spending on capital infrastructure.

Capital infrastructure also unlocks private investment which can often be significantly larger in value than the costs needed to develop the infrastructure in the first place. For example, Ireland's electricity grid connects electricity producers to consumers and over the last decade, the State investment of €500 million⁵ in the grid has allowed private investment of over €6 billion in wind farms to connect onto the grid. This has also delivered multiple benefits to consumers and the wider economy through job creation, avoided CO2 emissions and lower wholesale energy prices for consumers along with avoided fossil fuel imports. With ambitious targets set for offshore and onshore wind out to 2030 the State is in a unique position to facilitate unprecedented amounts of private investment through strategic investments in capital infrastructure projects such as the electricity grid.

The same concept can be applied to other capital projects particularly energy and transport networks, which tend to be State monopolies, and so require State or Regulatory led investment. District heating networks are also an example which would require State support and where capital spend can have wider and longer-term socio-economic benefits. According to the IMF, an increase of 1 per cent of GDP on capital spending can lead to a 1.5 per cent rise in GDP just four years later⁶.

² <https://whereyourmoneygoes.gov.ie/en/2021/>

³ <https://www.engineersireland.ie/listings/resource/467>

⁴ <https://www.ibec.ie/connect-and-learn/media/2020/05/11/ibec-launches-major-new-reboot-and-reimagine-campaign>

⁵ <https://windenergyireland.com/images/files/baringa-wind-for-a-euro-report-january-2019.pdf>

⁶ https://www.ey.com/en_ie/covid-19/how-infrastructure-spending-help-economies-return-strength

3 What should the capital budget be spent on?

3.1 Communications, Climate Action & Environment

How the capital budget is spent is just as important as the overall level of spend. Stranded assets must be avoided, and sufficient funds must be targeted at decarbonisation, in recognition that we are in a climate emergency. This will make climate action central to the COVID recovery and the country’s future. This is the approach we have seen from the European Commission, with a green transition central to the EU’s COVID-19 Recovery Plan, and significant funding being made available in the form of grants and loans to facilitate this.

Timing is also key. Spending should be front loaded to drive the recovery and ensure long-term benefits can be fully captured.

The Climate Action Plan (CAP)⁷ set a new target of 70 per cent renewable electricity by 2030. This requires an additional 4 GW of onshore wind farms over the next ten years, reaching 8.2 GW overall.

Onshore wind has played a key role in the development of Ireland’s renewable energy supply and will continue to do so in the future. Ireland has built over 250 onshore wind farms, mostly since 2003, with a combined capacity of approximately 4.2 GW⁸. This is highlighted in the figure below. Even though these wind farms are supplying Ireland with the highest share of electricity demand generated by onshore wind in any EU electricity system, the wind resource in Ireland is so large that Ireland’s turbine density is relatively low by other EU standards⁹. Development of onshore will need continued support if we are to reach our 2030 targets.

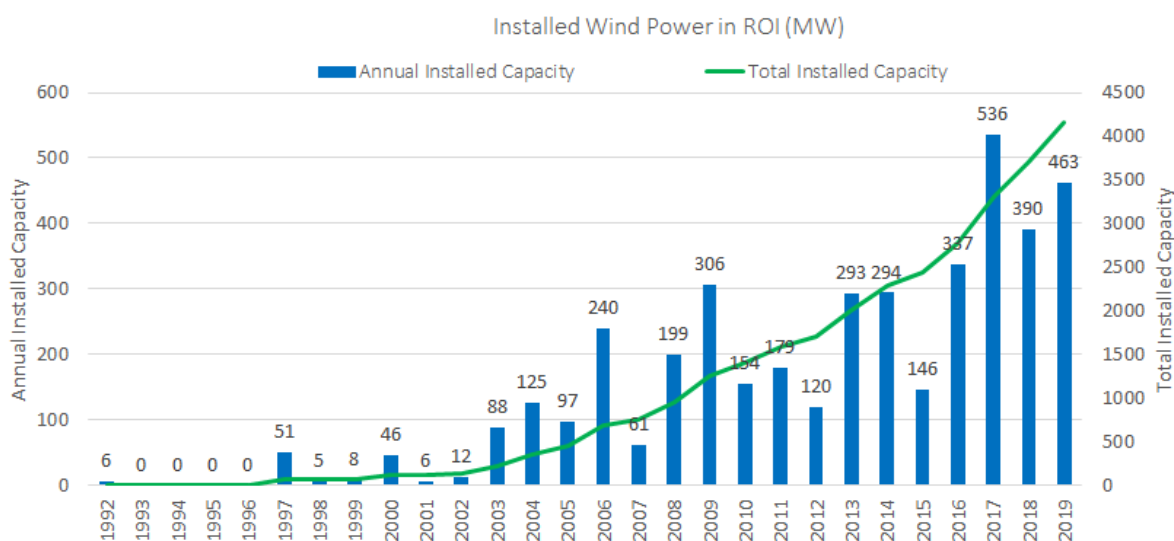


Figure 1: Installed capacity of offshore wind in Ireland since 1992

⁷ <https://www.gov.ie/en/publication/ccb2e0-the-climate-action-plan-2019/>

⁸ IWEA, (2020), ‘Connected Database’.

⁹ WindEurope, (2020), Link: <https://windeurope.org/data-and-analysis/product/wind-energy-in-europe-in2019-trends-and-statistics/>

The CAP also set a target of at least 3.5 GW of offshore wind by 2030 starting from a capacity of almost zero today. More recently the Programme for Government¹⁰ has enhanced the ambition detailed in the CAP to 5 GW of offshore wind to be operational by 2030 and set out for the first time a long-term ambition for floating offshore wind of 30 GW in Irish waters. The targets set for onshore and offshore wind energy in the CAP reflect the fact that wind energy will be the most important factor in reducing our carbon emissions over the present decade.

The ambition that has been set out by Government is admirable and welcomed by an industry which is well primed to deliver on these projects with a very healthy pipeline of both onshore and offshore projects at varying stages of development. There are currently over 16 GW of offshore wind energy projects in development in our maritime area alongside of a very healthy pipeline of 8 GW of onshore wind energy projects in development¹¹. If sufficient investment is forthcoming to enable just 3.5 GW of this offshore wind pipeline to be delivered for 2030, these projects will bring a lifetime spend of €17.9 billion¹² on supply chain provision which will bring benefits to local economies.

Benefits to Irish Society of 70by30

The table on the next page gives an overview of the benefits that the 70 per cent renewable electricity target will bring to the Irish economy if implemented in line with the CAP.

Firstly, it will reduce CO₂ emissions in electricity generation by 66 per cent by 2030, from approximately 12 Mt per year to 4-5 Mt per year.

This is mainly driven by the replacement of fossil fuels with clean electricity, which will save the Irish economy an additional €1 billion on imported fossil fuels each year by 2030.

Delivering the renewable generation infrastructure will require approximately €12 billion of investment and will create ~6,000 direct jobs in Ireland, which is estimated here to create an additional ~9,000 indirect jobs.

However, there is an opportunity to significantly increase this. Research recently completed by the Carbon Trust examining the potential for Ireland's offshore wind energy supply chain found that currently – at best – Irish firms would be able to attract only 22 per cent of the lifetime multi-billion euro investment. The report set out how this could quickly grow to 31-36 per cent and eventually as much as half of the estimated €17.9 billion of investment associated with the 3.5 GW target.

Critical to this will be identifying a port on the east coast to facilitate the construction of offshore wind farms, creating an enterprise zone around this port (which has proven effective in the UK) and simultaneously supporting training in the sector via the Skillnets or Future Jobs programmes.

¹⁰ <https://static.rasset.ie/documents/news/2020/06/programmeforgovernment-june2020-final.pdf>

¹¹ <https://iwea.com/images/IWEA-Onshore-and-Offshore-Wind-Pipeline-Report-August-2020-BLANK.pdf>

¹² <https://windenergyireland.com/images/files/final-harnessing-our-potential-report-may-2020.pdf>

Metric to Achieve 70by30	Onshore Wind	Offshore Wind	Solar	Notes
Installed Capacity by end of 2020 (MW)	4,200 MW	25 MW	0 MW	Initial data for 2020 is promising to meet the 40% RES-E target for 2020 ¹³
Additional Capacity in 2030* (MW)	4,000 MW	3,500 MW	1,500 MW	Capacities identified in the Climate Action Plan (CAP)
Total Investment (Billion euro by 2030)	€5 Billion (very accurate)	€6-7 Billion (very accurate)	€500 Million (very accurate)	Based on typical investment costs ¹⁴ . Excludes investment in supporting technologies such as batteries and interconnectors.
Carbon Savings (Mt/year by 2030)	~3.5 Mt (very accurate)	~4 Mt (very accurate)	~0.5 Mt (very accurate)	CAP found that 70% RES-E will save 7-8 Mt/year out of a total ambition in the CAP of ~16 Mt ¹⁵
Avoided Natural Gas Imports (Million euro per year by 2030)	~€500 Million (very accurate)	~€600 Million (very accurate)	~€75 Million (very accurate)	Assuming all natural gas for electricity generation is imported and a forecasted gas price of 63 p/therm in 2030
Additional Direct Jobs (for new capacity only)	2,000 ¹⁶ (very accurate)	2,500 (very accurate)	1,500 ¹⁷ (estimate)	Onshore & offshore numbers are based on bespoke research in these areas. Solar is an estimate based on international experiences.
Indirect Jobs (for new capacity only)	4,000 ¹⁸ (accurate)	3,500 (estimate) ¹⁹	1,500 ¹⁷ (estimate)	Onshore wind numbers are based on a study from 2010, so it needs to be updated, but provides a guide. Offshore numbers assume the same rate as onshore and solar is an estimate based on international experiences.

¹³ <http://www.eirgrid.ie/newsroom/record-wind-levels-feb-20/index.xml>

¹⁴ https://ens.dk/sites/ens.dk/files/Statistik/technology_data_catalogue_for_el_and_dh_-_0009.pdf

¹⁵ <https://www.dccae.gov.ie/documents/Climate%20Action%20Plan%202019.pdf>

¹⁶ Based on economic research on the number of jobs created per MW of installed capacity contained in the Siemens 2014 report *An Enterprising Wind: An economic analysis of the job creation potential of the wind sector in Ireland*. The ratio of 0.5 jobs per MW installed is the **most conservative** of the predictions made.

¹⁷ Assuming 1 job per MW based on Figure 11 here for both direct and indirect jobs: <https://www.solarpowereurope.org/wp-content/uploads/2018/08/Solar-PV-Jobs-Value-Added-in-Europe-November-2017.pdf>

¹⁸ Based on a study from 2010 which concluded that Ireland creates 1.5 jobs per MW in total in Ireland from wind energy, so assumed here that 0.5 per MW are direct and 1 per MW are indirect: <https://www.iwea.com/images/files/9660bd5e72bcac538f47d1b02cc6658c97d41f.pdf>

¹⁹ Assuming the same indirect benefits as for onshore wind

3.2 Energy and transport networks

The State should prioritise investment in energy and transport networks which will support the transition to a low-carbon economy. In particular:

1. The electricity grid will need to be expanded a lot in the coming decades, to accommodate at least twice the power used today i.e. >70 TWh compared to 30 TWh today. EirGrid and ESB Networks have budgets to expand the wider electricity network, but homes and businesses may need support also as demand in buildings increases particularly with the electrification of heat and transport via heat pumps in rural areas and electric cars respectively.
2. District heating can connect heat that is currently being wasted to homes and businesses that need it, instead of using natural gas and oil for their heating. An investment of €50 million per year needs to be allocated in capital funding to the construction of district heating networks in towns and cities. This will enable Ireland to implement enough low carbon district heating each year to convert 1% of Ireland's heat demand in buildings each year, thus saving ~80,000 tons of carbon and millions of imported fossil fuels each year.
3. By incentivising electricity (i.e. heat pumps and the electric grid) and district heating, gas network roll out may no longer be required to heat buildings in the residential and commercial sectors, as low-carbon alternatives will then be available. Gas networks may still be required for high-temperature industrial applications and power plants in the electricity sector, but only where clearly suitable from a zero-carbon economy context. At present, it is not clear how fossil fuel gas will be replaced with low-carbon gas and until it is, expanding the gas network even further should only be done where absolutely necessary.

In addition to the underlying capital infrastructure, it is also vital that sufficient funding is allocated for the operation and maintenance of this infrastructure over its lifetime, by resourcing the entity responsible sufficiently. In particular, EirGrid and ESB Networks need adequate resourcing for the electricity grid, a new entity needs to be established for district heating, which could involve reassigning some resources currently used for gas networks as their roll-out declines. With more capital infrastructure, An Bord Pleanála and Local Authorities will also need more resourcing as more planning applications need to be assessed and specific skillsets required, particularly in relation to offshore wind

3.3 Housing, Planning & Local Government

Planning difficulties in Ireland are slowing down the pace of renewable energy development and pose challenges to the national priority of reinforcing the transmission system. An effective planning system and a stronger transmission grid will together provide the foundation for a modern electricity system which will rely on renewable energy to power our homes, our economy and our society. A typical wind energy project currently takes between 8 to 12 years to clear the consenting process and to be built. This can only be improved through reform and, more importantly, adequate resourcing. Our analysis on business as usual timelines for wind farm development in our Building

Onshore Wind report clearly shows planning delays are one of the biggest barriers to decarbonising Ireland's electricity supply²⁰.

Wind Energy Ireland urges a series of changes to speed up the planning process and our priority recommendations include:

- Planning decisions need to be made faster, particularly timelines for appeals to An Bord Pleanála, which are currently 59 weeks instead of the Board's own 18 weeks statutory objective;
- Enable developers to apply for planning permission for the wind farm's cable connection at the same time as they apply for permission for the project itself;
- The current wind energy planning guidelines need to be finalised based on rigorous scientific evidence and must strike the right balance between the need to develop new wind farms and the concerns of those opposed to renewable energy;
- Introduce pre-planning consultation for Strategic Infrastructure Development (SID) applications and streamline the process for deciding on applications for SID status.

Our proposed solutions identify the most important areas of planning system that require reform. However, to achieve our suggested reforms, the issue of adequate resourcing must be tackled. The allocation of Government resources has always been a difficult issue. But, given the accelerated impacts of climate change and our increased EU targets, any Departmental strategy must make adequate staff and resources available to local authorities and ABP.

3.4 Education & Skills

Future jobs Ireland 2019 states that to meet Ireland's climate goals a step change of decarbonising our economy is required over the next decade. It will require entire sectors of the economy to undergo radical changes and create new types of enterprises and jobs. Furthermore, the report also includes the Action Plan for Rural Development and has identified significant potential in sectors such as agriculture, food, forestry, tourism and renewable energy sectors which are important local employers. The plan also encourages the diversification of rural economies to build resilience, create additional jobs in rural areas, and to maximise the opportunity to link employment to emerging issues such as climate change and managing sustainable land use.

Meeting our decarbonisation ambitions will need investment in and development of new skills and employment initiatives to drive Ireland's competitiveness, enterprise and innovation.

More recently the European Green Deal²¹ has set out an action plan for moving to a clean, circular and climate resilient economy by 2050. Wind energy will be a key instrument in Europe delivering the Green Deal and sustainably growing the green economy and green recovery in the aftermath of the Covid-19 pandemic. The EU Recovery Plan aims to rapidly accelerate relatively new technologies such as the offshore wind sector in Europe. Through its plans and investment via grants and loans, aimed at recovering from Covid-19, the plan aims to modernise the EU economy and transition from fossil fuels in a just manner. The development of skills around this transition will be critical to its success.

²⁰ IWEA, (2020). 'Building Onshore Wind: 70 by 30 Implementation Plan' Link: <https://iwea.com/images/files/iwea-building-onshore-wind-report-lr.pdf>

²¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1596443911913&uri=CELEX:52019DC0640#document2>

This is reflected within Ireland's recovery plans also. The Irish Government has placed a jobs-led recovery at the centre of its Programme for Government and investment and the aim is to create 200,000 new jobs by 2025 as well as helping people currently unemployed due to COVID-19 back to work. The aim is to build a stronger, fairer and more sustainable economy prepared for the next phase of disruptive technologies on a pathway to a low-carbon future and create an economic opportunity through climate action. The Government have established a Recovery Fund focused on infrastructure development, reskilling and training and supporting of investment and Wind Energy Ireland believes that wind energy and renewable energy more broadly should be considered central to Ireland's recovery plans.

The Carbon Trust report 'Harnessing our Potential' highlights the potential for approximately 2,500 direct jobs in Ireland to be created during the development & construction of 3.5 GW of offshore wind with the majority of these jobs created between 2025 – 2030. A further 700 jobs over the operational lifetime of these wind farms and 1,300 jobs during the decommissioning stage of these projects between 2050 – 2055 is also envisaged.²² However, the level of Irish and locally based jobs will be dependent on the availability of the required people and skills in Ireland. The report identifies skill shortages within a number of areas in the potential Irish offshore wind supply chain but none more so than within engineering, financial services and logistics & operations. There will be a need for investment to train the required number of people and develop the necessary skills to maximise the level of employment created in Ireland from the developing offshore wind sector.

The ambition being shown across Government with regard climate action and associated skills development in recent years is welcomed by Wind Energy Ireland. We support the creation of a single Department encompassing further and higher education, research, innovation and science and see this as critical for strategic policy direction for the sector. However, implementation is now the challenge and key investment decisions and design of initiatives across growth areas are required urgently.

Skillnet Ireland is an excellent example of a successful initiative with support from Government and industry. Skillnet Ireland is a business support agency of the Government of Ireland with a mandate to advance the competitiveness, productivity and innovation of Irish businesses through enterprise-led workforce development and in preparation for the future world of work. Supporting climate action and the energy transition are central to Skillnet Ireland's growth in the coming years and Wind Energy Ireland are the contracting organisation for one of Skillnet Ireland's training networks, Green Tech Skillnet. Wind Energy Ireland members have successfully completed impactful and relevant upskilling and training over the past decade through our network and this has been a key element in the success, competitiveness and growth of the wind industry throughout this period. We believe the continued support and growth of the Green Tech Skillnet through Skillnet Ireland and through the support of our members should be considered a priority by Government as we look to prepare and upskill Ireland's workforce for the future world of work through the greening our economy. In this regard, Wind Energy Ireland would support the strategic themes of workforce design, people development and strategic innovation alongside of the associated enabling plans set out in Skillnet Ireland's Statement of Strategy 2021-2025²³.

²² <https://windenergyireland.com/images/files/final-harnessing-our-potential-report-may-2020.pdf>

²³ <https://www.skillnetireland.ie/wp-content/uploads/2020/11/Skillnet-Ireland-Strategy-2021-2025.pdf>

4 What types of capital investment should be prioritised?

4.1 Electricity Grid Development

There is currently a lack of transmission capacity in areas of the country where large numbers of renewable projects are planning to connect and this is likely to be the biggest barrier to meeting our 2030 targets. Many connected renewable generators are already seeing very high constraint levels particularly in the West and North-West due to network limitations which means that a huge amount of renewable electricity is going to waste. For instance, in 2019 alone more than 710,000 MWh of renewable electricity, enough to power the city of Galway for a year, was lost due to dispatch down of wind farms.

There is a high risk that without significant investment in our grid infrastructure these constraint levels will reach into double figures, for both existing and future projects, if the grid is not reinforced in time for the future pipeline. This will affect the commercial viability of projects entering the development pipeline, as some projects may not be able to connect to the system until the relevant grid reinforcements are in place, which could take several years. This will also drive up the overall costs of renewable development as these constraint levels will be reflected in higher RESS auction bids and ultimately paid for by consumers via the PSO levy. EirGrid's Tomorrow's Energy Scenarios 2019 System Needs Assessment report identified the need for grid development in all scenarios analysed, with the highest need evident in areas such as the East Coast where large volumes of offshore wind are planning to connect and in the West, North-West and Midlands to accommodate increases in onshore wind.²⁴

Analysis carried out by consultants Everoze in the Saving Money report, which also forms part of the 70by30 Implementation plan, estimates that constraints could increase the typical cost of a wind farm by approximately 8%, which would add over one billion euro to the cost of meeting Ireland's 2030 electricity target.²⁵

In Wind Energy Ireland's Saving Power report, as part of the 70by30 implementation plan, we set out two key recommendations to enhance the capacity of the grid.

1. Early Transmission Development - If the System Operators wait until renewable projects have been consented, or have received a connection offer, before starting to design and consent grid reinforcement projects, then there will be insufficient network capacity to accommodate the volume of renewables needed for 2030. The complete development timeline for a new high-voltage overhead line reinforcement can be as much as 10-15+ years. It is imperative that EirGrid and ESNB are fully funded and incentivised to pro-actively develop the grid so that there will be enough capacity to deliver the renewable volumes needed to meet our 2030 targets and longer-term decarbonisation ambitions.

²⁴ EirGrid - Tomorrow's Energy Scenarios 2019 - System Needs Assessment - http://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid-TES-2019-System-Needs-Assessment-Report_Final.pdf

²⁵ <https://iwea.com/images/files/final-iwea-70by30-saving-money-report-may-2020.pdf>

2. Maximise Existing Grid Capacity - There is the potential for existing and new alternative technologies to substantially improve the capacity and efficiency of the existing grid and this can often complement or reduce the need for new grid reinforcements. EirGrid/ESBN need to investigate alternative third-party network solutions (e.g. Smart Wires, energy storage, demand side response, congestion products) where this may prove a cheaper and more efficient option than could be put forward by the System Operator. This would also involve locational signalling via transparent network information and long-term commercial frameworks to incentivise these third-party solutions where relevant.

4.2 Ports and Developing the Offshore Wind Industry

Offshore wind energy could create 2,500 jobs in development and construction over the next ten years and attract over €42 billion in lifetime investment²⁶. However, Ireland's offshore wind farms will be built from bases outside the country, losing billions of this potential investment, unless strategic investment decisions are made now.

Unless investment is provided – either from the Government or the private sector – not a single Irish port will be capable of servicing the requirements to install an offshore wind farm and developers will be forced to look to ports such as Belfast or those on the British coast for assistance. Currently Ireland has neither the infrastructure nor the resource capacity to capture the benefits of the coming energy revolution through the delivery of offshore wind at scale.

Both the installation (construction) and operation & maintenance (O&M) phases will require different services from ports. Storing and assembling the wind farm components at a port for delivery to the site is the common approach in the offshore wind sector. During the O&M phase, ports are used to service the windfarm allowing technicians to monitor the plant and when necessary, transport to the site via vessel or helicopter to carry out maintenance work.

As part of a study commissioned by Wind Energy Ireland by the Carbon Trust 'Harnessing our Potential', a detailed technical assessment of port infrastructure was carried out. All Irish ports assessed show technical capability for the operation and maintenance phase of the current development pipeline which would open a commercial opportunity of €350m over the lifetime for 3.5 GW installed pre-2030 and €880m over the lifetime for 8.8 GW installed post 2030. Furthermore, from a construction point of view there are a number of ports well placed for the provision of 'staging' given the availability of land area already at the port/harbour. However, significant improvements would still be required at the majority of the ports in terms of handling equipment, port depth, approach channel depths, quay length, quay loadbearing capacity and seabed suitability all of which would require significant up front capital investment in the region of approximately €30-€250 million within chosen ports. The figure below outlines the commercial opportunity for Irish ports.

²⁶ <https://windenergyireland.com/images/files/final-harnessing-our-potential-report-may-2020.pdf>

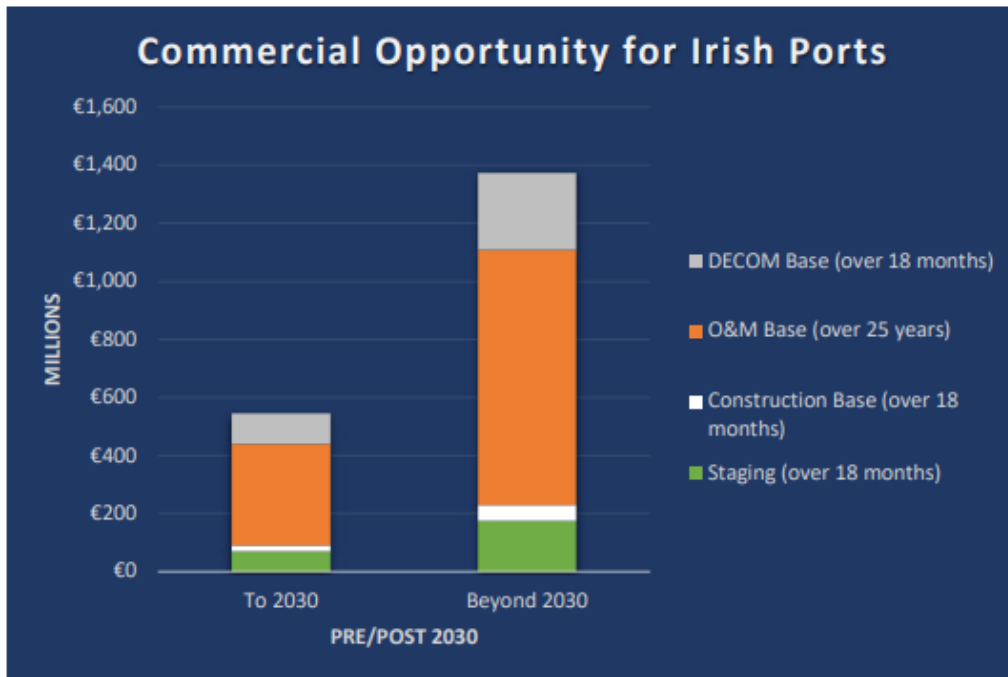


Figure 2: Commercial opportunity for Irish ports

Even where Irish ports do develop capability, market competition from UK ports will still exist. However, this would also be the case for Irish ports competing for opportunity in the UK market where significantly more capacity is targeted by 2030. The exit of the United Kingdom from the European Union will impact the commercial case for ports in the event no agreement can be reached to facilitate cross border trade. This may provide a strategic advantage for UK projects to be served by Irish ports given the likelihood that major wind farm components will be manufactured in Europe. The complexities of such permutations will need to be monitored and factored into any strategic and commercial decision made by an Irish port.

The Government’s Programme for Government also for the first time outlined an ambition for 30GW of floating offshore wind energy in our deeper waters. Arguably the greatest challenge to unlocking the opportunity of floating wind in Ireland is misperception about the state of readiness of the sector. Technology improvements have enabled the rapid maturing of the floating wind market which is leading to associated cost reductions.

There is no time to waste if Ireland is to reach its ambitious targets for floating offshore wind and achieving carbon neutrality by 2050, To fully capture the benefits of floating offshore wind, it is important that Ireland looks to become an early mover in the space and establish a strong indigenous industry. With interest in the sector growing worldwide, the window to becoming an early mover is closing quickly. Wind Energy Ireland believes that investment in the capacity and infrastructure for floating offshore wind is key if Ireland is take advantage of this first mover advantage.

Offshore wind at scale requires coordination of multiple stakeholders across a range of complex processes and components across the different stages of the project life cycle. As the industry evolves further and faster toward larger turbines and into more challenging environments (e.g. deeper waters), requirements for delivery are becoming even more specialised across infrastructure, suppliers and skills. Port infrastructure and services required by the floating offshore wind sector span a range of activities that occur at a number of scales depending on the stage of project development. These range from: - i). large, strategic ports designated as manufacturing hubs (such as Green Port, Hull, UK); ii). ports for assembly and installation; iii) small ports

and harbours for operations and maintenance. Floating offshore wind development requires ports with the right mix of water depths, quayside bearing capacity, landbanks, cranes, vessels, berthage, and transport links.

Only a few European seaports are currently suitable for floating wind manufacturing, assembly and servicing. The logistics around the assembly and deployment of this volume of components coming in by sea will require investment in multiple port infrastructure on the south and west coasts.

Ireland already has multiple ports that have shown an interest in offshore wind or FLOW in particular. Redevelopment of these ports can transform small towns in the locality. Recent announcements have earmarked ports such as Rosslare and Shannon Foynes for offshore wind development²⁷. The Cork Harbour: Ready to Float by 2025²⁸ document outlines recent and future plans for investment in the supply chain in Cork Harbour, including the development of the former Cork Dockyard as an assembly and installation hub. Other west coast ports that are well placed and preparing themselves for a role in floating offshore wind include Galway Port, Ros a Mhil and Killybegs.

Multiple ports will be needed in Ireland to service the requirements of the FLOW industry, whether they be for manufacturing, assembly and installation or maintenance. It will not be a case of choosing one port to service the needs of the industry, and a network will need to be developed. This has been seen in the UK and Europe.

Wind Energy Ireland would like to highlight that current port policy is out of date and does not provide for the supporting of offshore renewable energy development as a legitimate business growth area for our ports and surrounding areas. The scale of what we are being asked to accomplish is unlike anything ever done in Ireland before. Building 5 GW of offshore wind energy in ten years – creating an entirely new industry from next to nothing – requires urgent, rapid and coordinated policy development. This should include a change in port policy to facilitate investment in offshore renewable energy facilities at our ports.

4.3 Planning Policy: Regional approach to the spatial planning of wind energy development

The spatial planning and identification of suitable areas for wind energy development has to-date been a function of Local Authorities, typically achieved through their County Development Plans or specific Renewable Energy Strategy documents.

The Department of Environment, Climate and Communications (DECC) is currently preparing a Renewable Electricity and Policy Development Framework (REPDF), for the guidance of An Bord Pleanála, planning authorities, other statutory authorities, the general public and persons seeking development consent in relation to large scale projects for the generation of renewable electricity on land. It is intended that REPDF will seek to broadly identify suitable areas in the State, where “large scale” renewable electricity projects can be developed in a sustainable manner (“large scale” is deemed to be projects with a capacity of 50MW or higher).

The soon to be adopted Regional Spatial and Economic Strategies (RSES) being prepared by the three Regional Assemblies, have some supportive policies and objectives relating to renewable energy, particularly around preparing regional renewable energy strategies and identifying potential renewable energy sites across the individual regions.

²⁷ GDG (2020). Shannon Foynes reference

²⁸ Cork Harbour Supply Chain Group (2021). Cork Harbour: Ready to Float 2025.

It is unclear how the current and future policy frameworks for the spatial planning for wind energy development will be integrated, and how the various policy documents will be aligned and ordered in hierarchy.

Renewable energy developments and wind energy developments in particular, have attracted increased levels of opposition in recent years from local communities and national groupings. County-level opposition to wind farms, often led by a small number of individuals who do not represent the views of the wider population, has resulted in many changes or proposed changes to local planning policies through revisions or variations to County Development Plans. Many such planning policy changes have required intervention by the Minister of Housing, Local Government and Heritage to bring local policy back into line with national policy.

The proposed REPDF and objectives of the RSES are very much welcomed and urgently required, but they must be aligned within a policy framework that clearly assigns responsibility for spatial planning for wind energy development at a national or regional level, rather than local (county) level. As outlined in Figure 3 the current approach is leading to major differences in landscape classification for wind energy along county boundaries.

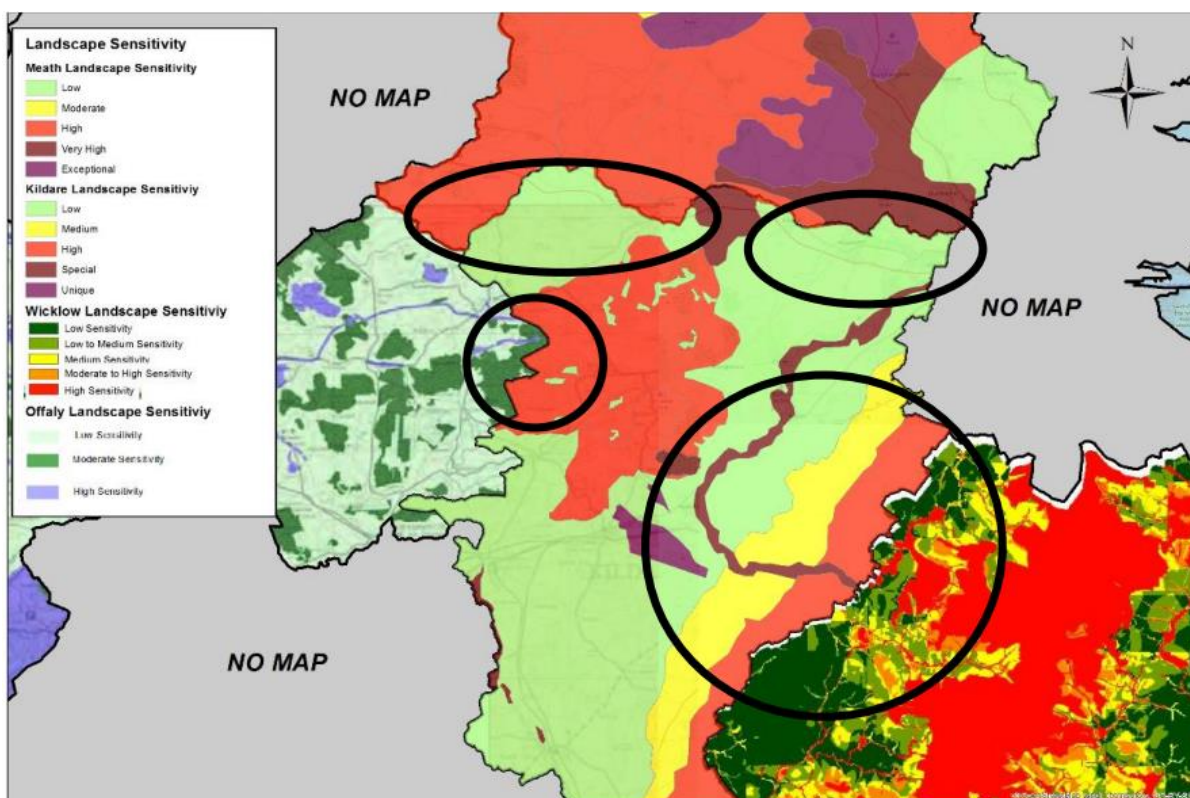


Figure 3: Landscape classification for wind energy across Meath, Kildare, Wicklow and Offaly which outlines the misalignment at county boundaries for wind energy at present, which a regional approach would overcome.

Wind Energy Ireland believes it is now necessary to provide for the spatial planning of wind energy on a national and regional basis, rather than at the Local Authority level as has been the case to-date, and DECC and DHLGH must be provided with the capital expenditure and resources to deliver this.

Such a national and regional approach is considered vital if the transition to a low carbon economy in the coming years is to be successful. It is now time to plan for this transition, on the basis of the three Regional Assembly areas, rather than the 31 Local Authority areas as has been the case to-date. The regional approach would undoubtedly provide a more appropriate platform for ensuring national policy can be transposed effectively to local level, and ensure a consistent approach is used across the entire country that reflects Government policy.

4.4 Enterprise, Skills and Innovation Capacity

Alongside investing within the port side physical infrastructure at ports to build our future offshore projects out of, [Harnessing our potential](#) also recommended that consideration be given to develop offshore wind enterprise hubs adjacent to ports servicing offshore wind. This is similar to the enterprise zone model used within the UK that has proven successful for clustering of relevant companies and the growth of the offshore wind industry and associated supply chain.

On foot of this recommendation, Wind Energy Ireland commissioned BVG Associates to carry out a feasibility study for offshore wind enterprise hubs at Irish ports²⁹. The report concluded that an Offshore Wind Enterprise Hub (EH) could create an **additional** 345 jobs in a port area bringing an **extra** €8.5 million GVA into the Irish economy over a five-year period in a 5 GW market with several of our east and west coast ports having the potential to host an enterprise hub. This could increase the number of market driven and locally induced jobs in a port by approximately 35% in addition to the expected project specific roles related to construction and O&M.

The Department of Trade, Enterprise and Employment should instigate a process now to designate EHs so that the first is in place by 2023 to influence the way the supply chain is established. It should be noted that a number of our ports are looking at how they might progress enterprise hubs at their facilities. A set of typical criteria, inspired by the successful use of Enterprise Hubs in Britain, could include:

- A Port's appetite for offshore wind;
- Available space, offices, small enterprise units, larger units and existing infrastructure or area to develop these;
- Existing incubation for small enterprise and spin-offs for third level education and apprenticeships;
- Proximity and/or links to third level institutions with good innovation records;
- Proximity to Irish offshore wind farms expected to reach FID in 2023 and 2024;
- Good transport links; and
- Within an area of enhanced state aid or potential for freeport status.

²⁹ <https://www.windenergyireland.com/images/files/bvga-32901enterprise-hub-feasibility-reportfinal.pdf>

Table 1 outlines the potential and recommendations for offshore wind enterprise hubs in Ireland.

Table 1: Potential and recommendations for offshore wind enterprise hubs in Ireland³⁰

Name	Description	Enterprise Hubs potential and recommendations	Stakeholders	Impact
1. Enterprise Hub scope	Any port designated as an Enterprise Hub should incorporate O&M activities.	Construction activities have a limited lifetime while O&M provides a more stable environment for innovation as it lasts for over 25 years and activities are tied to an asset which drives innovation.	An Bord Pleanaia, DECC, local authorities, port owners, SMEs, spin offs, wind farm developers and rest of supply chain.	At least 25 years of innovation
2. Potential for clustering	An Enterprise Hub located in a port area can help develop an offshore wind enterprise cluster.	Enterprise Hubs have the potential to encourage businesses to establish a base in a designated area. It would take more Government resources to establish a freezone but should one arise, it should contain an Enterprise Hub.	An Bord Pleanaia, DECC, local authorities, port owners, SMEs, spin offs, wind farm developers and rest of supply chain.	Makes a port more attractive for any investment
3. Location	Several east and west coast ports have the potential to host an Enterprise Hub in Ireland.	The first designated Enterprise Hub port should be located on the east coast. Designation of Enterprise Hubs ports on the west coast should come later to support floating offshore wind.	An Bord Pleanaia, DECC, local authorities, port owners, SMEs, spin offs, wind farm developers and rest of supply chain.	Enterprise Hub(s) will be ready for forthcoming commercial projects.
4. Job growth	An Enterprise Hub can increase the number of jobs in offshore wind.	It is estimated that an Enterprise Hubs could increase the number of jobs in a port area by approximately 35%.	DETE, DPER, Local Enterprise Office, port owners, Enterprise Ireland, SMEs, spin offs, tax payers, local communities.	Up to 345 jobs could be created by an Enterprise Hub in a port, while a conservative estimate reveals that 173 jobs could be created.
5. Economic benefit	An Enterprise Hub can provide economic benefits.	An Enterprise Hubs could result in economical benefit to the Irish Government in terms of GVA. It is estimated that the benefit is greater in the higher capacity scenario by approximately €3m GVA over a five year period.	DETE, DPER, Local Enterprise Office, Enterprise Ireland.	The benefit from low and high capacity scenarios with an Enterprise Hub were estimated to be €7m and €8.5m respectively.
6. Primary action	A process is required for designation of Enterprise Hubs.	The Irish Government should instigate a process to designate Enterprise Hubs so they are in place to influence the way the supply chain is established.	DECC, DETE, An Bord Pleanaia, IDA, port owners, SMEs, spin offs.	Improved synergies and collaboration throughout the supply chain
7. Additional incentives	Offer additional incentives to businesses in an an Enterprise Hub.	The Irish Government should assess the existing incentives on offer already for enterprise and decide what additional benefits such as reduced commercial rates to offer in Enterprise Hubs.	DPER, Local Enterprise Office, Enterprise Ireland, IDA	Increased uptake and locating of businesses in an Enterprise hub.
8. Outreach	Some ports intend to explore opportunities in nearby markets such as the UK.	It is recommended the ambition of ports to serve external markets is considered as a key criterion for Enterprise Hubs designation.	DETE, DEPR, IDA	Maximises the opportunity for ports and businesses located within a respective Enterprise Hub
9. Scale	The scale and ambition of Enterprise Hubs should be considered carefully.	Similar models in the UK such as the Humber Enterprise Zone although successful, are yet to reach desired levels of activity.	DETE, DEPR, IDA	Ensures port areas are utilised effectively, avoiding vacant land for prolonged periods.

³⁰ <https://www.windenergyireland.com/images/files/bvga-32901enterprise-hub-feasibility-reportfinal.pdf>

5 How can the management and governance of public investment be improved?

Wind Energy Ireland welcomes the programme being put in place to ensure value for money in public investment under the Public Spending Code. We have no comments in relation to how this process could specifically be improved; however, we would request that regular reviews of our infrastructure strategies take place to keep pace with continuously evolving policy in relation to Climate Action. The pace of change in renewable energy industry in the past 2 years is indicative of the certainty provided to domestic and international investors through the publication of the Government's Climate Action Plan in 2019. As the Climate Action Plan is expected to be updated annually, it would be prudent to ensure the management and governance of delivering infrastructure projects through public investment are monitored to ensure alignment with the most recent Climate Action Plan.

6 How is the NDP affecting your region?

As outlined in sections 3 and 4 of our response, a substantial level of capital investment is required in particular for electricity network infrastructure across the country in order to meet 2030 renewable electricity targets. Similarly, investment is urgently needed in port infrastructure across several locations discussed earlier in order to fully harness the opportunity offered to Ireland by our offshore renewable potential.

7 What is your feedback on Project Ireland 2040 communications?

Wind Energy Ireland are very supportive of the communications material provided as part of the Project Ireland 2040 scheme. They allow for an easy to navigate system to identify projects in local regions. We recommend the tools are continuously updated to reflect ongoing developments, and in particular capture the benefits which public investment in energy networks infrastructure bring to both the nation as a whole, but also to the local communities in which the projects are located.

8 Is there anything else you would like to add?

We would like to thank the Department of Public Expenditure and Reform for the opportunity to respond to this important review of the National Development Plan. We are available to discuss any comments or questions you have in relation to our response.