Cork Chamber
Advancing business together

Submission to the Commission for Regulation of Utilities, CRU and the proposed direction to the system operators related to Data Centre grid connection.

Cork Chamber Submission

July 2021

About Us

Cork Chamber is the leading business representative organisation in Cork, proactively working to identify and progress developments that are facilitative of sustainable economic development. Representing an employer base of close to 1,200 businesses and over 100,000 employees across the region, Cork Chamber is the largest business representation organisation in the south of Ireland.

United Nations Sustainable Development Goals

This submission has been guided by our commitment to the UN Sustainable Development Goals.[1] Five specific goals have been identified which we actively advocate for throughout our work;

This commitment is supplemented and further developed through our Sustainable Cork Programme which focusses on the sustainable and resilient recovery of the Irish economy and society of the short to medium term, but also the longer term as we transition to a low to zero carbon society. Developed in considerable detail through significant member and community engagement, the Building Economic Resilience report sets forth a strong and sustainable vision for the future of Cork[2] and clearly indicates the appetite of the business community to engage and be progressive in this transition.

Alongside enterprise led engagement in the transition, it is the role of Government and our public utility providers to enable Ireland's economy and society to evolve and develop in a sustainable manner.

[1] https://www.un.org/sustainabledevelopment/sustainable-development-goals/
[2] https://www.corkchamber.ie/wp-content/uploads/2020/07/Sustainable-Cork-Programme-Building-Economic-Resilience.pdf

Introduction

Cork Chamber wish to thank the CRU for the opportunity to contribute to this consultation.

Cork Chamber view the development of an appropriate level of data centres to be a component of a modern economy. As investments in isolation, a data centre adds value, but the value to the wider economy, in support of current and future investment in FDI and indigenous business is where the true necessity lies.

In the face of short-term energy demand issues we ask that a responsible approach is taken that balances energy security and the requirement for a level of data centre activity in a modern economy. We also strongly highlight the juxtaposition of energy security concerns against the immense potential of offshore wind and green hydrogen over the coming decade to substantially address the slightest doubt regarding Irish energy security. Short term supply must be ensured, but short-term requirements must not compromise long term needs and opportunities.

The contribution of data centres to Ireland's economic future must be noted. The presence of these facilities showcases Ireland on an international stage as a technology-driven, innovative economy and increases its attractiveness for foreign direct investment particularly from industry that is heavily reliant on digital capability. The Department of Business, Enterprise and Innovation recently published a statement on "The Role of Data Centres in Ireland's Enterprise Strategy"[3] which highlighted the economic contribution of data centres in Ireland in terms of contribution to the economy which was estimated to be in excess of €7billion in 2018. They contribution in various ways in terms of job creation, the provision of a range of services to other firms that undertake production, research and development, marketing, sales, service, and support activities in locations with no physical/geographic connection to the data centre. Furthermore, the Department also says many entities that have invested in data centres here have doubled their employment since 2010.

The Construction Industry Federation notes Ireland has been very successful in the skills and expertise that has been developed in terms of building these centres. The performance has created a platform for Irish contractors throughout Europe to work for major clients in Denmark, Sweden, Holland and Germany and further afield in Bahrain & Saudi Arabia[4].

[3] https://www.enterprise.gov.ie/en/Publications/Publication-files/Government-Statement-Data-Centres-Enterprise-Strategy.pdf

[4] https://cif.ie/2019/07/18/irish-contractors-and-data-centres-a-perfect-match/

Statement from the Department of Business, Enterprise and Innovation

The development of data centres contributes to enterprise and regional policy objectives and is strategically important element of Ireland's future economic prospects:

- data centre technology supports a wide range of sectors in Ireland;
- data centres, as a form of inward investment, tend to have long life spans;
- data centres of scale are another demonstration of Ireland's position as an attractive place to invest, live and work;
- data centre activities and services employ highly skilled individuals. Ireland's focus on ensuring we develop and attract the talent needed by 21st Century enterprise underpins our reputation and attractiveness as a location with a highly-skilled workforce;
- data centre development in Ireland signals our ability to provide and support world class infrastructures and data management/protection;
- data centres deliver efficient services to SMEs which improve firm-level productivity and cost competitiveness, and thus enhance our overall national competitiveness; and
- data centres facilitate the demands from all consumers in the age of data-rich content and customised digital services (including mobile apps, location based services, video streaming and on-line games).

Data Centre Connection & Generation Options

In light of the options set out we make the following commentary. Every effort should be made to facilitate the connection of data centres that have planning consent and investor models in place in particular in areas that do not have capacity constraints. We appreciate the national energy demands and pressure on certain regions such as Dublin yet a balance with investor confidence must be struck. Local factors must be taken into account and it must be acknowledged that not all geographies face the same capacity constraints. Cork does not face the same capacity constraints as Dublin. Appropriateness of regional and individual site location could be demonstrated by way of a network analysis report. A one-size-fits all approach would be crude and inappropriate.

It must also be acknowledged that balanced regional development is a central component of the vision of Ireland 2040 which places Cork as Ireland's fastest growing city region. The intent of Ireland 2040 must influence the polices and actions of all Government departments, agencies and authorities. From a digital connectivity perspective, Metropolitan Cork also boasts vital high-capacity Tier 1 Express fibre connectivity. This offers the lowest latency in the EU to the East Coast of the US,

connecting Cork with vital digital and financial markets in the US and UK. Our digital infrastructure thus further enables the Cork area, to attract, accommodate and grow Ireland's next generation of digital, tech and financial companies. The Celtic Interconnector will further reinforce this international data connectivity and the significance and potential of these investments and existing infrastructure must be acknowledged.

We accept that for widespread deployment of data centres in constrained geographies in the short to medium term, our energy transmission and generation capacity may not be adequate if the concentration of connections is too high. In certain capacity constrained instances and geographies such as Dublin self-generation could be encouraged. However it must also be acknowledged that self-generation via carbon intensive means would be negative relative to renewable on grid power. There should be a mechanism in place for early developer engagement to assess whether this is the appropriate means for delivery and environmental factors must be considered.

As we move through this transitionary stage for our national energy generation and transmission, we must acknowledge the absurdity of restricting economic potential in areas such as Cork due to capacity constraints elsewhere. We are on the cusp of becoming a renewable energy exporter via the development of our renewable sectors, most notably offshore wind and green hydrogen. It is essential that Eirgrid and the CRU take every conceivable step to ensure that the supporting infrastructure is in place, to facilitate rapid delivery at the point of RESS award. If we do not achieve our full renewable potential in an urgent manner, conversations on energy security, economic resilience and our climate targets will take on a whole new level of gravity, with stark economic, societal and environmental consequences.

Generation Capacity Solutions

Offshore Wind

There is huge potential for Ireland. A resource assessment of the Celtic Sea outlined in the Cork Harbour Ready to Float – Offshore Wind 2025 report shows the potential for the development of up to 50GW of floating offshore wind capacity. This equals 11% of the European Union's required offshore wind energy target to achieve decarbonization of our energy systems by 2050.

The costs of offshore wind energy generation have fallen sharply over the last decade. Reasons include improving technologies, economies of scale, increasingly competitive supply chains and growing developer experience. In the UK, the costs of new offshore wind has fallen by 50% since 2015 and is now one of the lowest cost options for new power in the country, cheaper than new gas and nuclear power. This tipping point was not expected to be reached until around 2030.

Looking again to activity in the UK, the global leader in the development of floating offshore wind, the British government has set a target of 1GW of floating wind capacity by 2030 and will invest £160m (€185m) in offshore wind projects to achieve its target of 40GW of offshore wind by 2030.

Hywind Scotland the world's first floating offshore wind farm has reached the highest average capacity factor for any wind farm in the UK for its third consecutive year in 2020 (57% which compares to an offshore wind average in the UK of around 40%). The Kincardine floating wind project off the coast of Scotland, which is set to be the world's largest so far, will test a groundbreaking proposal to generate green hydrogen offshore. As ever in this fast-paced sector,

every development breaks new ground, pushes the boundaries of what was considered possible, and paves the way for greater output and efficiency.

While bottom-fixed installations are limited to coastlines with low water depths and favourable sea-bed conditions, floating offshore wind has seemingly unlimited global growth potential.

Floating offshore floating wind forms an integral part of ambitious renewable energy generation plans of other European states. The French government plans to install 8.75GW of offshore wind from 2022 to 2028. 2021 and 2022 will see three 250 MW floating wind projects progress in Brittany and the Mediterranean. Italy's first 250MW floating offshore wind farm is progressing in the Mediterranean.

The German government has recently raised its offshore wind capacity targets to 20GW by 2030 and 40GW by 2040.

For Ireland, 6.3GW of domestic offshore wind by 2030 would support approximately 12,000 direct and indirect jobs in the domestic supply chain with a Gross Value Add (GVA) impact of circa €bnfor the period 2020-2029.

Cork Harbour is perfectly positioned to support the development of this sector due to its geostrategic location, existing port capacity, regional connectivity and availability of a highly-skilled workforce. Skills are critical and the National Maritime College of Ireland and MaREI Centre for Marine and Renewable Energy in Ringaskiddy provide access to training and academic research that is optimally tuned for the offshore wind industry.

This potential of Cork Harbour as a strategic enterprise hub for offshore wind is being actively recognised by investors. Irish developer Simply Blue Energy has plans for a 1GW floating wind farm, called Emerald in the Celtic Sea and have recently entered an agreement with Shell to make it happen. In addition, Irish Mainport Holdings has purchased the €13m survey vessel Mainport Geo to service the industry.Green Rebel Marine, are positioned to service the future need of offshore wind farms, moving from strength to strength with investments from aerial survey planes to infrastructure. DP Energy is currently developing its first Irish offshore wind farm worth an estimated €1.76bn off the Cork coast and are partnering with Iberdrola on a total of three Irish projects. Doyles Shipping Group plan to move swiftly to develop their Cork harbour site for set down and assembly purposes. Meanwhile, EI-H2 have just unveiled a €120m plan to develop green hydrogen generation powered by offshore wind, representing the apex of renewable potential.

These are strong votes of confidence in Cork as a developing offshore wind hub. However additional investment from government is required to unlock the true potential. Floating offshore wind must be specifically catered to in the Renewable Electricity Support Scheme without delay.

There are many policy levers that can assure rapid and full value capture. Chief among them is the necessity for Eirgrid to ensure that appropriate transmission infrastructure in in place to accept the generation potential. The east coast may offer quick wins in fixed deployment, but a falter by any investor, or via planning, regulation or subsidy could severely damage our generation targets in the short to mid-term. Projects are fraught with risk and their success of otherwise has huge implications for our targets. It is essential that we are not exclusively reliant on Irish Sea projects in this timeframe.

The short medium-term potential of floating offshore must be recognised in Eirgrid's short-medium term strategic planning and capital investment programmes. Cork Harbour should be designated as a strategic hub for floating offshore wind projects under the Ireland 2040 National Development Plan. Zoning in Cork Harbour for land use activities in support of offshore wind in the upcoming Cork County Development Plan 2022-2028 is essential. Steps to support the development of this sector should include a review of supports for the development of port infrastructure. The British government has just recently announced a £200m port infrastructure fund. The current foreshore regulatory regime presents challenges on administrative, legal and technical grounds and must continue to be simplified with active industry participation to ensure it is clear and workable. The Marine Area Planning Bill must be considered priority legislation and carefully moved through the houses of the Oireachtas and accompanied by a clear and confidence inspiring National Marine Planning Framework. The establishment of the Marine Area Regulatory Authority is a positive step but momentum must be sustained.

In short, the value of floating offshore wind to the state has never been higher in economic terms or more critical in environmental terms.

The sector is rapidly evolving and with a focus on delivery Ireland can play a leading and globally significant role. The Climate Action Plan to increase the country's offshore wind capacity to 5GW is only the start point and must be achieved and surpassed with flair.

In particular detail, and for further insight please see our Q1 2021 publication, Cork Harbour, Ready to Float Offshore Wind, https://www.corkchamber.ie/wp-content/uploads/2021/02/Cork-Harbour-2025-Ready-to-Float-Offshore-Wind.pdf

Micro Generation

The Microgeneration Subsidy Scheme will be a fundamental and progressive step in developing a multi-pronged and widescale response to the climate crisis. From the outset, it is crucial if Ireland is to significantly cut GHG emissions from energy that we enable the proactive facilitation and progressive engagement of individuals, communities, and businesses in the transition. The MSS has the potential to be transformative and is a crucial step in achieving the target of 70% renewable electricity by 2030 set out in the 2019 Climate Action Plan. Currently we are significantly off target in meeting our GHG emissions reduction targets with 2030 and 2050 commitments posing a substantial challenge across the board. The launch of an MSS is the opportunity to significantly catalyse this transition. It is essential that the approach facilitates and supports self-consumers and has the agility to encourage prosumers in microgeneration, is developed to address technical and cost barriers, and the persisting issues with grid connection. Now is the opportunity to develop a progressive and ambitious scheme that rewards engagement at individual, business, and community level, that encourages and supports strong interest and uptake. This opportunity must not be lost.

Remuneration must be aligned with the market value of that electricity and take account of its long-term value to the grid, the environment and society as set out in the RED II. An export payment is a minimum requirement for compliance with the Directive, and we encourage Eirgrid support for assuring participants of a fair and equitable export payment. Currently the consultation paper

suggests that remuneration for exported electricity is a 'small additional benefit'. We believe this approach instils vagueness and does not give confidence to participants of an equitable and fair price.

SMEs and entrepreneurs do not have the same access to resources as larger enterprises, therefore expanded subsidies and/or grants that support the deployment of renewable technologies, beyond those currently available (such as the Domestic solar PV and Better Energy Communities schemes operated by the SEAI) should be revised and aligned to reduce the burden of any viability gap. A more ambitious MSS which encourages consumers to become true prosumers and, where possible, produce a significant amount of renewable electricity for their communities, could be truly transformative to Irelands energy profile. It is essential that all stakeholders align with delivery focus to the fore.

Solar & Onshore Wind

The solar sector is finally mobilising to development stage following the engagement of the subsidy scheme and this is hugely welcomed by the sector. It is essential that Eirgrid continues to support this sector as it provides variety to the non-dispatchable generation and has a key role in building energy resilience. Solar will continue to deliver significant volumes of new renewable generation for many years to come.

Onshore wind is well chronicled in terms of successes but requires ongoing facilitation. It is essential that both technologies are robustly supported by Eirgrid for as long as the development market continues to be active, and for the full lifecycle of operation, maintenance, and recommissioning.

Anaerobic Digestion

Climate action will define the economic resilience of Ireland in the years and decades to come. There is an urgent need for Ireland to transition to a sustainable, resilient, and carbon neutral society. The generation of biogas and biomethane (renewable gas) through the process of anaerobic digestion (AD) is a critical component in decarbonising energy, agriculture, transport and heat and ensuring the nation's energy security. A projected rise of the country's population to 6.7 million by 2051 along with increased economic activity and energy demands is pushing the sustainability agenda forward. The development of AD and renewable gas production across Ireland has the potential to save over 2.6m tonnes of CO2 emissions per annum and reduce GHG emissions from agriculture from 35% to 48%. With a strong cooperative network and ethos in Ireland, and a planning and regulatory system that needs refinement rather than revolution, we are well placed, if not ideally and uniquely placed to capitalise on the potential of anaerobic digestion to provide a stable baseload of green energy.

The focus now must be on ensuring that the fiscal environment is encouraging, through increased focus within the Renewable Electricity Support Scheme and by actively signalling intent to the market. As in every facet of energy generation, when the investor environment is facilitative, the market responds quickly. The RESS programme is nothing but positive, but it must support a diversity of technologies to truly ensure energy resilience that is green, sustainable and robust.

While appreciating that anaerobic digestion may not be of the utmost direct impact to the electricity grid, there is no doubt that it will have a key role to play in the overall stability of Ireland's energy market and we recommend that it is promoted and facilitated appropriately. Energy resilience, and indigenous enterprise can be built hand in hand.

In particular detail, and for further insight please see our Q4 2020 publication, https://www.corkchamber.ie/wp-content/uploads/2020/12/10793-Anaerobic-Digestion-report_final.pdf

Transmission Capacity Solutions

It is essential we pave the way for investor confidence in renewable electricity generation, and that it continues to recognise and facilitate the opportunity for Ireland to be a world leader in renewable energy. The 2030 and 2050 goals should not be seen as targets to be hit or missed, they must be robustly surpassed.

The development of large-scale renewable energy generation is critical to Ireland's competitiveness, climate credentials and international reputation as a progressive state.

In the role of both onshore and offshore transmission operator, Eirgrid through the development of Shaping Our Energy Future and the subsequent capital projects that must ensue, should seek to be primed and have transmission assets in place to capitalise without delay on the immense generation capacity posed by renewables such as offshore wind and hydrogen. Had these sectors been better primed sooner this consultation would not be taking place. It is essential that capacity is Irelands' asset and not Irelands' hindrance.

Celtic interconnector

The Celtic Interconnector is a strategic piece of our future energy infrastructure and must be delivered in line with the planned timelines for delivery in 2026. It will help to develop an integrated energy system for the European energy market and all efforts to support energy resilience and security of supply and to ensure an evolved grid, network and the delivery on our clean energy potential must be advanced without delay.

In the mid to long term, interconnection and the potential for the creation of green hydrogen will be critical component of Ireland's energy transformation and projects of the calibre of the Celtic Interconnector must form a firm part of the Eirgrid agenda.

Conclusion

Governmental, Departmental and regulatory focus should be on increasing generation and transmission capacity. Faced with the immense generation potential which is currently being unlocked via renewables to see a section of the economy potentially constrained by capacity is deeply regrettable and concerning.

In the case of data centres which are an essential component of a modern economy, it is essential that steps taken do not destabilise investor confidence. In a region such as Cork which does not face the same potential capacity constraints as Dublin, projects with consented planning should be facilitated and an appropriate level of future projects should be accommodated. While onsite generation could offer a solution in heavily constrained areas, it must not be considered as a universal solution.