EVERSHEDS SUTHERLAND

A positive partnership
Data centres and climate change

Data Centres could play an active role in Ireland's decarbonisation solution through the use of Corporate PPAs

Introduction

The critical nature of the climate crisis is well known. The June 2019 Climate Action Plan has been welcomed positively by the energy community in Ireland as an ambitious and strategic plan to tackle climate breakdown. Use of renewable energy and the ability of the electricity grid to accommodate intermittent forms of generation will play a huge part in achieving the target of 70% of our electricity needs coming from renewable sources by 2030.

Covid-19 has only brought home the importance of data centres as critical global infrastructure. Ireland is and will continue to be a part of this core industry. There are sixty data centres of various sizes operating in Ireland. There are twelve data centres in construction and twenty-six data centres in the pipeline with approved planning permission.

Host in Ireland's Q1 Report for 2020 predicts that by the end of 2025, there will be 1,700 MW of data centre capacity operational in Ireland. This compares to the 658 MW operational in Q4 2019. At Q1 2020 they are reporting 708 MW and expect this to increase to 820 MW by the end of 2020. However, when it comes to reducing Ireland's emission, this increase is not bad news.

Using data from SEAI, IWEA, EPA and EirGrid, Host in Ireland found that whilst there is an upwards trend for data centre growth, the proportion of Ireland's total emissions will level-off at approximately 2.2% through 2025. The increase is expected to slow further as the transition to renewable electricity generation accelerates in order to meet the targets in the government's Climate Action Plan.

While this information demonstrates that data centres are not part of the problem, in reality they can go a step further and actively be part of the climate solution. There are many examples of doing this.

This article focuses on one particular option – the use of Corporate Power Purchase Agreements (PPAs) by data centres.

Corporate PPAs – An important part of Ireland's climate solution

Under the Climate Action Plan, the aim is that 15% of Ireland's electricity demand will be met by renewable energy sources contracted under Corporate PPAs by 2030.

What is a Corporate PPA and how can data centres get involved?

Rather than buying electricity through a supplier, a large corporate (such as a data centre operator) enters into an agreement with a renewable energy generator (such as a wind farm) to purchase electricity directly from it at a fixed price. This is a Corporate PPA.

The data centre would be contributing to climate change mitigation by providing a revenue stream for a renewable energy generator. If the generator cannot avail of a government subsidy (such as the Renewable Electricity Support Scheme (RESS)), a Corporate PPA provides it with a viable route to market for the sale of its electricity and a way to achieve funding for construction. A Renewable Energy Guarantee of Origin would normally be provided to the data centre, confirming that the electricity they are using comes from renewable sources.

Another key benefit is price certainty as the parties agree a fixed price over a period a time.

How would a Corporate PPA work?

Corporate PPA can take various forms, for example:

- The "sleeved" form involves a transfer of energy from generators (eg. wind farm) to the corporate (eg. data centre) through a PPA with a utility.
- The "synthetic" or "virtual" form is more common and is essentially a derivative (hedging) contract whereby a renewable generator and a corporate (eg. a data centre) agree a price, trade the electricity through the market at the market price, and make each other whole with reference to the agreed price.

Though the above two are often described as the most common forms of Corporate PPA, there are in fact over 26 different variations of such Corporate PPAs throughout the world.

In Ireland, the most popular model so far (and this is expected to continue) is the 'supplier-lite' type structure. This requires a new (related) licensed supplier company being set up which enters into a PPA with the renewable generator. The supplier-lite company then sells on the electricity to the corporate (e.g. the data centre) through an electricity supply agreement (ESA). This can seem a complicated process, and indeed advice would need to be sought by both sides to ensure the PPA and ESA capture fully the intended risk profile, in particular around price certainty.

Popularity of Corporate PPAs

RE-Source, Europe's platform for corporate renewable energy sourcing, issued a March 2020 report entitled "Risk mitigation for corporate renewable PPAs" with some interesting statistics on PPA globally and across Europe.

For example, America still leads on Corporate PPAs; last year their total of 16GW in corporate clean power deals was four-fifths of the 2019 world total.

However, the Corporate PPA story in Europe is also strong. Renewable PPAs entered into by European corporations soared to 8GW in total in 2019, a 2.5GW yearly rise. Wind accounted for 85% of Europe's off-site deals by value, centred on nations with a high wind resource such as the UK, Sweden and Norway. In 2019, solar photovoltaic ("PV") PPAs accounted for almost 30% of the contracted capacity, including 199 MW contracted by Amazon Web Services in Spain, 160 MW contracted by Google in Denmark, and 143 MW signed in France by SNCF.

It is only in the last year or so that Corporate PPAs have been signed in Ireland which have resulted in the funding of wind farms.

The good news is Ireland is ripe with possibilities for corporates such as data centres to partner with renewable energy generators. There is a clear drive across industry and importantly also among policy-makers to utilise Ireland's distinctive renewable energy capabilities. The commencement of RESS auctions this year, the promised fast-tracking of the Marine Planning and Development Bill, the impending publication of the Wind Energy Guidelines and the intended enshrining of the net-zero emissions by 2050 target in law by the Climate Action Bill have created an atmosphere of excitement and action in the renewable energy industry.

Conclusion

Corporate PPAs are here to stay and have been recognised in the Climate Action Plan as a key factor in achieving the target of 70% of our electricity needs coming from renewable sources by 2030.

Data centres have the ability to capitalise on this and lead the way in utilising renewable energy.

We in Eversheds Sutherland have advised clients in relation to about 33% of the operational wind farm assets on the island of Ireland including advising on corporate PPAs and would be happy to help any data centre developer if they would like advice in this area.

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