

Submission to Joint Committee on Communications, Climate Action and Environment

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Introduction

I welcome this opportunity to make this submission to the committee on the subject of 'Expansion of Solar Power' in Ireland.

I am making this submission on behalf of my company North West PV and Smart Renewable Energy LTD, as well as the many small existing Solar PV installation companies in Ireland.

We fully support the RESS program for the future development of utility scale solar in Ireland, which is necessary to both meet our emission targets for 2020 and 2030, and reduce Irelands dependence on imported fossil fuels.

Our submission is about regional development, specifically the creation of long term highly skilled sustainable jobs. Our proposal would stimulate an entire new industry in Clean Technology which is struggling to get off the ground in Ireland. It is also about improving the competitiveness of Irish businesses and farming.

It has been projected by Blomberg New Energy Finance that in 2040 Solar PV will represent 32% of all electricity generated in the world, and that 'Distributed Solar' (small scale solar) will generate 10% of a countries total electricity requirement.

In Ireland's case, this means that 22% of Solar electricity will come from Utility scale solar and 10% from 'Distributed Solar' (Roof top solar). If 1/3 of Ireland's Solar PV electricity will be generated by 'Distributed Solar' how can support for this level of potential renewable energy capacity be omitted from any proposed RESS plans.

Problem statement

Meeting 2020 targets

We are all aware that Ireland is not on track to meet its 2020 Renewable Electricity generation targets, and what the penalties will be if we do not address this. Even if the RESS scheme is finalized this year it could be two years or more before the first solar parks are operational, therefore, we pay the fines in 2020.

Regional development

The bulk of the proposed Solar Parks will be located in the southern half of Ireland which has the highest irradiance levels. This will result in very little regional development in the rest of Ireland, further reinforcing economic disparities while doing little to increase public acceptance of Solar park development.

Grid connection issues

Is the committee aware that if Solar Parks are rolled out in advance of Roof Top Solar that the spare grid capacity in a locality may be fully utilized meaning that home owners, business and farmers could be refused permission to connect Solar PV installations to the grid. This has already happened in the UK, Northern Ireland and Greece.

Stakeholder engagement and public acceptance

The White Paper includes the vision for 2030 where: "Citizens and communities will be active participants in the energy transition, with robust public and stakeholder engagement in energy policy, and effective community consultation on energy infrastructure developments". However, the current RESS discussion seems to be forgetting this statement. Supporting only utility scale projects will not allow the public to directly benefit from the PSO that they are contributing to, will not stimulate Irish SMEs but will rather benefit large international investors, and finally overlooking distributed generation will not stimulate the stakeholder engagement necessary for public acceptance of large scale solar developments in their community.

Land use issues

Several EU countries did not go down the Solar Park route because they valued their farm land too much to use it for Solar Parks. Such as Holland and Germany and now the UK.

In October, Liz Truss, the UK environment secretary, attacked solar power projects built on farmland, saying they were impacting on food production and announced that farmers would lose agricultural subsidies if they allowed solar panels on farmland.

Truss' intervention comes after a decision earlier in the year by the Department of Energy and Climate Change to bring forward the end of the current subsidy regime for large solar farms, with ministers saying they wanted to see more solar on building's rooftops and less mounted on the ground.

Proposal

Support for distributed (roof top) solar

Our submission is based on the fact that it is possible to achieve compliance with the EU emissions reduction target for 2020 without waiting for EU approval and without using overseas investment companies. There is an opportunity for the Committee to recommend the launch of an incentive scheme for Roof Top Solar (Distributed Solar) up to 1MW for individual projects, and for the scheme to commence early in 2018, within EU State Aid guidelines.

Our industry has the capacity to install 1.5 GW to 2.5 GW of roof mounted solar PV in the next two years. This would reduce the level of fines to be paid to the EU. If there were a sizeable number of Solar PV projects ready to go in early 2020 the EU may delay the imposition of fines when they see Ireland is making significant head way towards meeting its Renewable Energy targets

SOLAR PV Rooftop installation on trapezoidal steel roofs (commercial & industrial buildings) is already competitive with ground mounted installation. For Roof Top (Distributed Solar) there are no planning charges, no design costs, no ongoing security costs, no leasing costs, no EIAS reports, no financial professional costs, no grid connection charges, no contribution costs towards the upgrading of the local area grid network.

There are thousands of acres of ready to go sites suitable for Solar PV project which are evenly dispersed throughout Ireland with ESB grid connections in place. These sites are the roof tops of our homes, shops, factories, schools, public buildings and farm buildings. The gardens of rural homes may also be utilized.

Grid integration

Our proposals do not represent any competition to Solar Parks or EIRGRID electricity generation in fact we are freeing up grid capacity for the future building of Solar parks by reducing the load on the existing grid in all regions. The bulk of the electricity generated by distributed solar is for self-consumption. This will also facilitate Ireland's house building program (250,000 new homes by 2040 for the projected 1 million increase in population) without a requirement for expensive grid upgrade works to the transmission lines and substations.

Energy poverty

Our proposal will relieve energy poverty. The burning of Smokey coal and peat will be banned in the near future. The majority of the population will have no choice but to use electricity as their main source of heating and Ireland has the 3rd highest electricity costs in the EU. The new home stock in rural Ireland and in urban areas without piped gas are designed to be 100% electric. Therefore, householders will have one bill for lighting, cooking, heating and charging their electric cars. I calculated this bill for a family of 4 in a 180 sq meter house at today's cost at a total E3,139.72 per annum. (more energy poverty) A correctly sized Solar PV system can reduce the annual electricity bill in a private dwelling by up to 30% the addition of a battery storage system can increase this saving to 60%.

Leveraging of private capital

The Irish public are hungry for something to invest in. Irish Banks hold approximately €100bn in savings and our Credit Unions €14bn in savings & deposits, the banks would be eager to loan funds for Renewable electricity generating projects if there is a state guarantee for a generation tariff payment and to buy the surplus exported electricity (on medium to large PV Systems) for 15 to 20 years.

Economic development

Our proposal for a well-designed support scheme for roof top solar top (Distributed Solar) would spread the economic benefits evenly throughout Ireland and create up to 7,000 full time. Furthermore, for every 1 euro of state incentive support 3 euros of economic activity will be created. This scheme would also reduce the negative effects of BREXIT on Irish farmers and business by reducing their electricity utility bill, thereby improving their competitiveness.

The clean tech industry in Ireland which has massive potential for job creation can be built on the foundation from economic benefits of the Roof Top Solar (distributed

Solar) scheme. 60,000 jobs have been created in Denmark in clean tech companies, a significant number in a country with a similar population to Ireland. In Germany the Clean Technology industry employs 800,000 people

The SEAI report, Ireland Solar Value Chain Opportunity, it is estimated that the Irish solar PV business could generate a market size of Euros 341 M by 2030. Also, if we build up expertise in the clean tech sector Irish companies could win part of the EU solar market valued at Euro 4.5 billion.

Irish Solar PV installation companies are the best placed to design, supply and install PV community scale projects to enable the government to deliver on their commitment to support renewable energy community projects.

Public acceptance

Our proposal, if implemented would receive massive public approval and improve public awareness of the importance of reducing our carbon emissions while affording the public an opportunity to invest in Solar PV for homes, business community projects and farms which will reduce their electricity costs and give them a potential return on their investment.

Design

Incentives for the installation of Solar PV systems need to be made attractive for home owners, farmers, business and community groups to encourage the rapid and enthusiastic uptake of the scheme. A scheme was launched in 2009 where a FIT of 19 cent a unit (Kwh) was paid for exported Solar PV and there was very little take up and the scheme was terminated in 2014.

Our recommendations:

1. Application process must be simple (online application via SEAI).
2. Generation tariff for all installations. Most installations will self-consume 90% of the PV generated electricity. The generation tariff to terminate after 10 years, when the cost of the installation has been recovered.
3. Reduce the PSO levy on electricity bills for all customers who install Solar PV. They are now generating green energy.
4. Reduce the VAT on the total cost of all PV renewable energy equipment. Reduced VAT rate on renewables in place in the UK & Northern Ireland.

5. Grant aid on the total cost of a Solar PV installation. Every household in Ireland should receive a certificate for 50% of the cost of a solar PV system. They can purchase the equipment and install it on their home or use the certificate to buy a share in a community Solar project. If the incentive is too small the program will fail (as proven by the 2009 to 2014 scheme).
6. Increase, or remove, the planning condition restricting the area in square meters for roof mounted Solar PV. No planning requirement for roof top Solar in Northern Ireland and the UK up to 1MW.
7. Set export tariffs at around 12 cents per unit of electricity for Medium to large scale installations e.g. 30KWp to 1 MWp.

Other recommendations (outside of the scope of this consultation)

Battery storage

Include Battery Storage systems as part of the incentive scheme to improve the self-consumption levels for all types of Solar PV installations and reduce peak demand spikes and surges on the grid. German homes have already install over 100,000 PV/battery storage systems.

Use of existing prime sites for utility scale solar

There are thousands of acres of depleted bogs adjacent to the three soon to be decommissioned State Peat Burning Electricity generating Station. These Power stations & bogs should be viewed as 'Ready To Go sites' for PV Solar. They have high capacity existing grid connections and substation in place, also the existing work force who could be retrained to install and maintain utility scale solar PV systems. Fully utilizing existing state-owned resources.

Smart use of excess generation

We have frequent energy curtailment on the national grid due to over generation when there are strong winds blowing across the country, Curtailment is a fancy word for dumping electricity. Instead of dumping this electricity it could be supplied at a reduced rate (or free) to homes, business and farms through the Smart Meters which will have Night Rate facility to reduce customers energy bills and to charge the electric cars of the future.

Conclusion

We have less than two years to meet our 2020 emission targets, we need to start working NOW...

We should deal with meeting our emission targets as if it were a national emergency start with installations in schools, sports clubs, public buildings etc.

Fund the incentives with the money that we will save by not paying EU fines. the PSO Levy, the Euro 115 Million subsidy for the Peat Burning Generating stations which will close in 2019, EU regional funding etc. There is an upfront capital cost in the introduction of all new technologies, but the benefits will be long term.

Recent Statements:

Irish Times 4th June 2018. An Taoiseach. Leo Varadkar.

“I would rather spend money now on meeting our commitments than on fines from 2020 onwards.”

Minister Denis Naughten says he is committed to finding the correct mechanism for developing small scale microgeneration in Ireland.