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**18 February 2021**

Micro-generation Support Scheme Consultation  
Electricity Policy Division  
Department of the Environment, Climate and Communications  
29-31 Adelaide Road  
Dublin  
D02 X285

To whom it may concern,

Kerry Sustainable Energy Co-Operative (KSEC) welcome the opportunity to make a submission in respect of the **Micro-generation Support Scheme Consultation**. KSEC is a not-for-profit organisation run on voluntary effort dedicated to helping local communities in Kerry become more energy resilient and self-reliant. Our aims are:

- To help people in Kerry reduce their energy bills and increase thermal comfort in their homes, businesses and community centres/buildings etc.
- To reduce fuel poverty in Kerry
- To source energy from local renewable resources where possible
- To create green energy jobs
- To keep money spent on energy in the county for the benefit of the whole community.

KSEC currently has members across county Kerry and has a network that spans private home owners, to community groups to chambers of commerce. KSEC was founded in 2016 as a spin-off of the energy group of Transition Kerry following one of the recommendations of Transition Kerry's Sustainable Energy Community Roadmap (i.e. to start up a co-op to help develop community energy projects). We are working towards the very ambitious aim as stated in the roadmap for Kerry to transition to 100 % of its energy from renewable sources by 2030.

KSEC is very pleased to see plans to support microgenerators. Communities/prosumers have an important role to play in achieving the goal of 70% renewable electricity by 2030. Most people recognise that the world is in the midst of a climate emergency. That means that there is an immediate imperative to reduce our fossil fuel carbon emissions as quickly as possible. The government is also committed to an average 7 % annual reduction in carbon emissions by 2030.

One of the biggest challenges to meeting this target is proper citizen engagement and behaviour change. Microgeneration is a powerful way to engage people, communities and businesses in Ireland and include them in the journey to a zero-carbon future. Under these circumstances the support scheme should not include overly restrictive barriers and dis-incentives.

Considering this, KSEC, is not in agreement with several aspects of the proposed support scheme because we do not think it will be effective at incentivising people and especially communities to invest in microgeneration.

- The CEG being based on the wholesale market price of electricity.
- The requirement for 70% self-consumption, and a cap of 30% of export
- The requirement for a post works BER C rating to avail of the CEP

Furthermore, the scheme misses the opportunity to provide support for community groups by focusing on self-consumption. For example schools, farms and rural community halls/buildings are disadvantaged by this proposal. There is a focus on preventing over-remuneration but what if that remuneration provided an income for schools and communities to invest in their localities, in the people and services they provide free of charge to the community?

Due to the number of barriers included in this proposed scheme it reads like it was designed to be in compliance with European Directives, in name only, rather than reflect the spirit of the legislation. The Renewable Energy Directive allows for the price paid to microgeneration prosumers to reflect societal and environmental benefits, so it should be clear from it's design that this has been included.

What is needed to combat climate change and increase resilience in the energy sphere is nothing short of a revolution. Only when we see all citizens and communities engaging with the challenges ahead will we know we are on the right path. Cosmetic change while hoping that the status quo will continue is not going to cut the mustard here! We should grasp this opportunity, be ambitious. There are huge opportunities here, especially for job creation in more remote areas where they are currently sadly lacking.

We had a feed in tariff a number of years ago. It amounted to 9c/kWhr for exported power with a 10c/kWhr premium on top for the first 300kWhrs. Clear, simple and easily understood by someone considering generating their own power. Also fair – a very small system got paid the full 19c if total export stayed below 300kWhrs in the year while a larger installation dropped to 9c relatively quickly. What is being proposed now is not as elegant. The scheme as proposed is not laid out in an easy to understand explicit and clear way.

What investors need is certainty and a guaranteed return of investment of 5-7 years. If the scheme delivers that we can have the microgeneration revolution that is so desperately needed.

We implore the department to adjust the scheme proposed by removing unnecessary barriers and properly incentivising communities to invest in microgeneration so that it is a much more ambitious scheme that will help Ireland make quick progress in reducing our carbon emissions and provide an economic boost to communities.

Your sincerely,  
Gerry Cunnane and Anne-Marie Fuller  
Board Members of KSEC on behalf of KSEC

***Q1. Do you agree with the approach to introduce the CEG in order to provide an export payment that reflects the fair market value of the electricity in compliance with the recast Renewable Energy Directive? If not, what alternative model would you propose and why?***

**Response:**

We agree that microgenerators should be paid a fair price for the electricity they export to the grid.

When considering what a fair market value is the following should be taken into consideration:

This electricity is more valuable than electricity created by burning fossil fuels because it is cleaner and is not contributing to global heating through increased carbon emissions. The current price for fossil fuel generated electricity does not include all the external costs it creates such as environmental costs, climate adaptation costs, as well as the loss of life and costs associated with the growing number of natural disasters due to global heating.

Microgenerated renewable electricity is also more valuable than large scale renewable electricity because it has higher societal benefits compared to large generation power. These benefits include:

- Increased local jobs creation, especially in rural areas
- It involves and engages citizens in the energy transformation, and will help influence positive behavioural change. Microgeneration helps people understand their own electricity use and can help them be more energy efficient.

It is only fair that whatever the CEG is set at it should reflect this.

***Q2. Do you agree that initially the CEG should be a fixed, minimum tariff provided by Suppliers as a pass through cost based on the annual average Day Ahead Market (DAM) wholesale electricity price? If not, what alternative model would you propose and why?***

**Response:**

Suppliers should absolutely pay a set minimum tariff for electricity supplied to them. However, basing the price they pay initially on the annual average Day Ahead Market (DAM) wholesale price will not provide a fair price for this electricity.

Microgenerated electricity should not be coupled to the wholesale electricity cost because this is a different market place, where large electricity generators supply large amounts of electrical energy and it is transported across much larger distances incurring some electricity loss.

As per section 3.4 page 14/15 of the consultation document microgeneration technologies “compete with the price of retail electricity, as opposed to the cost of electricity supplied in the wholesale market”.

**Therefore it may be more appropriate to link the CEG to an annual average retail tariff instead.**

For example the CEG could initially be set at 50 % of the average annual retail price.

If retailers increase their prices to take account of paying this slightly higher CEG, the CEG payments will also increase. This would function to curtail the suppliers from raising retail prices to pay for the CEG.

Furthermore, since the level of microgeneration on the grid is likely to be significantly less than that produced by large scale generators the CEG payments to microgenerators should not be considered overly burdensome on the suppliers. The suppliers will also benefit from cost savings associated with microgenerated electricity due to reduced transmission loss costs.

The proposed method for calculating the CEG is still significantly less than the retail price for consumers so should not undermine the impetus to consume as much microgenerated electricity as possible on site, rather it means that they would be more fairly compensated for their investment.

***Q3. A common 3.75% discount rate across all sectors assessed was chosen as an input to the viability gap assessment. Do the respondents agree with this approach? If not, what alternative would you propose and why?***

**Response:**

No, this is too blunt an instrument. The Ricardo report points out that there is a viability gap for all the microgeneration technologies but this viability gap is not the same for all technologies. If the CEP is based on exported electricity, then the viability gap for micro wind and micro hydro is not bridged by a discount rate of 3.75 %. This means that this scheme as proposed will not incentivise these microgeneration technologies.

It may be appropriate for the supports for large scale electricity generation to be technology neutral but what is evident from the Ricardo report is that this approach is not appropriate for microgeneration. The level of support for microgeneration should still be technology based.

The carbon abatement of micro-hydro and micro-wind are much larger than solar and micro-CHP. This environmental benefit needs to be taken into account.

Micro-wind and micro-hydro are highly unlikely to be deployed in urban areas and are more appropriate for rural farms, businesses and communities. By setting a blanket 3.75 % discount rate the opportunity to support rural farms, businesses and communities is being lost. Consideration should also be given to different Feed in Premiums for micro hydro and micro wind to ensure there is balance in the system, and these technologies have the opportunity to mature for the Irish market.

Overall the scheme should be aiming to create market conditions whereby there is a 5-7 year return on investment for the different types of microgeneration.

It is important that the support scheme should be progressive and encourage strong levels of uptake, but also the support scheme is not simply a cost, but an investment in the domestic renewables industry, and should be viewed as such, providing much needed employment, as part of wider stimulus measures to boost the economy and put us on the path to a greener society.

***Q4. The emerging policy includes a measure whereby all Renewables Self-Consumers who install micro-generation technology after 30th June 2020 can access a payment of a fixed, minimum Clean Export Premium tariff for exported electricity determined by the lowest cost technology for each sector. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

We do not agree that the date of 30<sup>th</sup> June 2020 is fair to the significant number of installation owners, who have been in many, if not most cases, exporting energy to the grid for free for a considerable number of years. The respondents believe that this date should be reconsidered, or potentially abolished, as a precondition to receiving a CEP. As pioneers in the sector, existing microgenerators should all be encouraged to continue to generate, on a par with incentives for new installers of renewable technology. In reality, there are not that many microgenerators exporting to the grid so it seems overly parsimonious to discriminate against these few early adopters. Many of who invested in good faith that they would, in the future, be recompensed for their investment. These good citizens should be rewarded rather than discriminated against.

A Clean Export Premium is a good way to encourage investment and overcome the challenge associated with high capital costs of investment.

The proposed scheme appears to target domestic properties and offers very long pay back periods of 12 - 15 years. If the Clean Export Premium results in a payback of more than 7 years, it is not likely to be attractive to farms, communities or businesses. Ultimately any scheme that encourages renewable electricity in our communities, needs to be designed so that the benefits are shared and accessible to all members of the community. This will happen when public and community buildings are incentivised to invest in renewable energy, and it results in diversified income streams in communities. The uptake modelling shows very low uptake of solar PV in schools (0.3%-2%) and local authorities (1%-10%) which will not result in a rooftop revolution.

Consideration should also be given to different Clean Export Premiums for micro-hydro and micro-wind to ensure there is balance in the system, and these technologies have the opportunity to mature in the Irish market.

***Q5. The proposed Clean Export Premium tariff for exported electricity will be offered for a maximum duration of 15 years for all technologies. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

In order to provide proper assurance and certainty to the market and so that people can easily calculate their return on investment the CEP should be offered for a guaranteed 15 years. If the return on investment is not certain or easy to calculate the scheme will not be effective.

***Q6. The high level design includes a measure whereby a Clean Export Premium tariff for exported electricity will be capped by exported volume related to the installation size in order to prevent over-remuneration. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

We believe that an export cap of 30 % greatly restricts the potential for many different types of installation. This is not considered fair treatment of microgenerators.

The proposed scheme intends to pay a CEP that is still lower than the retail cost of electricity. So the prosumer is already incentivised to consume as much on site as possible because this will save them money. When people are calculating the ROI for the microgen installation the level of self-consumption will have a significant impact. Therefore, there is no need to include this additional barrier to uptake.

The following is an example to show that capping by installation size is not appropriate.

A homeowner may have a house that faces east west and decide to put 2 kWp on each side (4 kWp total) of the roof so that they can consume more of the electricity when they are at home in the morning and in the evening. During the summer months when Ireland has light early in the morning and light up to 10/11 pm at night this installation configuration can make more sense than focusing on getting peak generation at midday.

From the perspective of our imperative to reduce carbon emissions as quickly as possible, and from the perspective of efficient use of land the government should be encouraging as much solar as possible on buildings and not looking to cap installation sizes. In terms of use of space/land use it makes sense to cover a whole roof (or building) in solar so that other land can be used more effectively be it for food production or carbon sequestration through rewilding. Parts of the installation cost for microgeneration are often fixed so as the size of the installation gets larger the value for money also increases for the customer and their ROI will improve.

For a business closed at the weekend, 100% of production may be exported at times. This should not be penalized but rather should be rewarded.

If there are considered to be issues with grid stability then the grid architecture itself needs to evolve to make it compatible with distributed generation. We cannot on the one hand talk enthusiastically about 'prosumers' being the future and then come up with technical excuses why this can not happen. In finding solutions to these technical issues ESBN can become a world leader in what will be very

sought after technical fixes. We were once told that more than 20% renewable energy penetration on the grid could not be managed but Eirgrid and ESBN overcame these challenges. The grid in Ireland is small relatively speaking and should be an ideal test bed for the new ideas which will come as distributed generation becomes unstoppable. Either we develop these technologies ourselves or have to buy them in from others in the future. As they say “Necessity is the mother of invention” and we’re sure that ESB networks will rise to the challenge to ensure that Ireland is a leader in smart microgrid development.

If the risk of over remuneration is still considered unpalatable the cap could be based on the amount of electricity exported instead and not on the size of the installation. ESB Networks in the report linked in the consultation document mention that they are looking at an export limiting control technology so that larger installations can be facilitated on the network.

We recommend that caps on installation size are removed at the very least for community, schools, farms etc, and export caps are removed to allow for times when there may be no self consumption (e.g. schools with solar panels during the COVID pandemic, or agricultural buildings which may have a very low demand for electricity but would benefit from an alternative income stream).

***Q7. The high level design proposed 4 eligible renewable technologies listed above. Do the respondents agree with this proposal? If not, what alternative would you propose and why?***

**Response:**

Yes, with the caveat that micro solar PV includes PVT (these are combined solar panels that heat water thermally and also produce electricity).

***Q8. There is a range of renewable technology that can be deployed in domestic and SME premises and can facilitate high levels of renewable electricity self-consumption. The definition of micro-generation is therefore proposed to be “micro-generation technologies including micro-solar PV, micro-hydro, micro-wind and micro-renewable CHP with a maximum electrical output of 50kW”. Do the respondents agree with this proposal? If not, what alternative would you propose and why?***

**Response:**

We agree that this is acceptable in terms of the range of technologies. We urge DECC to look at a support scheme for systems between 50 kW and 1 MW as a matter of urgency.

***Q9. Applicants will be required to have an export connection from the Distribution System Operator. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

We believe that there needs to be reform in how generators secure export connections from ESB Networks, how this support scheme interacts with the smart meter roll out and how charges for connection are applied.

We suggest the current application form for microgenerators under 11 kW is applied to generation up to 50 kW. And that microgenerators automatically become eligible for smart meters, as opposed to having to wait for a smart meter first. Lengthy delays with regards to getting a smart meter or getting connected for the purpose of microgeneration are not acceptable.

The cost and length of time it takes to process an export connection is currently unknown. Even under ECP-2 it is estimated that ESN can only process 30 applications per year. ESB Networks and the Commission for the Regulation of Utilities need to be tasked with providing a service that is accessible for future prosumers and resourced to do so.

The respondents recommend a maximum time to provide connection, from date of application of 90 days, for any form of microgeneration, without any change to the existing domestic microgeneration connection process, under form NC6 (for connections under 6kW single phase), whereby if no reasonable justification is given for halting a connection, a connection may proceed after a 20- day period.

***Q10. The CEP will be available to existing buildings only. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

No, we do not agree with this approach, we do not believe it is fair. Surely the aim of this scheme is to encourage as much renewable generation as possible.

In almost all cases new buildings will already have microgeneration, but not all. The Ricardo report suggests that by 2025 when fossil fuel boilers in new builds are banned that solar PV inclusion in new builds will decline steeply as it will no longer be needed to meet current building regulations. New build council houses in Kerry are being built with heatpumps but no solar. It makes sense that every new build should include solar as standard. Allowing a CEP for new builds will incentivise this more as the market will want buildings that have solar installed.

Excluding new builds from the CEP will also hamper the deployment of new innovative building integrated PV technologies. Installing basic PV panels on new builds can be cheaper than existing buildings if they are installed simply on the roof but often building integrated PV (BIPV) that is included in the actual fabric of the building is more expensive than simple PV panels imported from say China. Often these more bespoke microgeneration technologies can be manufactured in Europe as they need to comply with European building regulations. BIPV is therefore more valuable to the European economy it provides additional manufacturing jobs. Universities and SMEs are innovating and



developing new building integrated PV technologies like solar windows and different types of facades. Excluding new builds from access to the CEP will be a further barrier to the deployment of new innovative renewable energy generation technologies in buildings.

All microgenerators should be eligible for a fair connection to the grid and a fair payment for the electricity they export.

***Q11. Occupied buildings will need to achieve a minimum post-works BER C rating. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

We completely disagree with this approach. This is an unnecessary limiting factor.

Fundamentally the BER rating describes the fabric of a building, which influences primarily heat loss. It is a blunt tool that does not consider the electricity demand of the building. All homes use electricity on average at a rate of 5MW/hrs per annum regardless of the building fabric. A building rated A may have a high demand for electricity simply because the occupants of the building use lots of electricity through their appliances and technological devices. These aspects are not taken account of in a BER rating. Similarly, many community buildings, schools or businesses might have extremely complex and expensive energy retrofit opportunities, but could still host solar panels and produce very valuable renewable electricity.

Solar PV can be rolled out very quickly and does not impinge on building occupants in the same way that retrofits do. Social enterprises and local authorities could install solar PV on all their housing stock and help reduce the energy bills of their occupants and those in fuel poverty in a fraction of the time it will take to retrofit those buildings to a BER C rating.

Requiring a minimum standard for homes would likely only exclude those who cannot afford the additional expense of work to reach a BER C rating.

The savings from reduced energy bills due to on site microgeneration may in fact help people save towards further retrofitting work, encourage them to be more aware of the electricity/energy they use and serve as the first step on the climate action journey for many.

***Q12. The minimum BER rating for the MSS will be increased over time to align with other Government energy efficiency retrofit programmes. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

We vigorously oppose the connection of the BER system with this support scheme.

***Q13. Community groups must conform to the definition of a Renewable Energy Community and be registered with SEAI. Do the respondents agree with this approach? If not, what alternative model would you propose and why?***

**Response:**

We agree in theory, however there should be a regular review and careful consideration of definition of “renewable energy community” to ensure that it is in fact representative of and for the benefit of local communities, as opposed to large limited companies for example.

Clarity should also be provided on what registering with SEAI would entail. SEAI currently manage the Sustainable Energy Community Network and registered SECs are encouraged to move along the steps of a programme and carry out work like developing energy master plans. If community microgenerators such as schools, residents in apartment buildings etc. were required to carry out a lot of extra work with the SEC network simply to install a solar array on their building, it would likely present as a further barrier for participation in the microgeneration scheme.

***Q14. The emerging policy proposes that Suppliers recover the costs of the Premium support through the PSO. DECC welcome the respondents' views on the funding mechanism supporting micro-generation. Do you think the PSO should support micro-generation or should this be through Suppliers retail rates or other mechanism?***

**Response:**

We believe that increased levels of microgeneration, at the levels proposed and projected uptake, will not cause any additional burden to transmission grids or distribution grids overall. ESB Networks have stated “that the network can currently accommodate widespread micro-generation penetration at levels up to 3kWp (rural) and 4kWp (urban). It is more likely that costs to the grid owners for major works will in fact be delayed, as a result of microgeneration, and upgrades to low voltage (near house) parts of the distribution will be gradual and come at higher levels of microgeneration, i.e., not in the short to medium term. In this way grid owners will in fact benefit from increased levels of microgeneration, particularly with increases in levels of heat pump installation, electrical vehicles and distributed storage. As such it is considered that the pass-through costs to Eirgrid and ESB Networks should be reconsidered by the CRU and diverted to help **pay a fair CEG as proposed in answer to Q1.** It does not follow that grid operators should benefit from delayed costs and at the same time be paid for this benefit.

If the current PSO levy is not increased then using it to pay citizens, SMEs and communities a **CEP that provides an ROI of 5-7 years for microgeneration installations** is acceptable. This means that at least some citizens and communities can benefit from this levy that we pay instead of the benefits solely going to companies that had the financial means to invest in large scale renewables.

We do not agree with the principle of the PSO. Alternatively, the CEP could be paid by the exchequer/Government through dedicated specifically focused carbon tax on all fossil fuel generated electricity. This would be fair as we have numerous options to generate electricity from renewables now (as compared to heat for example). This would be fairer than the PSO as customers' who switch to renewable electricity suppliers would not have to pay a higher price for their electricity. It would also encourage suppliers to buy more renewable electricity.

***Q15. DECC welcomes the respondents views on how to manage the scheme costs and the frequency of changes in the support arrangements.***

**Response:**

An annual review of the impact of the scheme should be undertaken to ensure the support arrangements remain appropriate, and there is a positive uptake of the scheme.

There should also be an ongoing commitment to monitor uptake and amend the scheme if there are any distributional impacts on lower income consumers.

It will also be important to ensure that lower income households, and a diversity of energy users (apartment blocks, community buildings, farms, businesses etc) are using the scheme, and if the scheme needs to be amended to further support these, or to remove any barriers to participation, these should be addressed.

Costs of the support schemes should also be weighed against all benefits, including increased levels of employment, levels of renewable penetration on the grid, contributions towards emissions targets and importantly, increased levels of public and community participation in the state's fight against climate change.