



**WP 12 | ACTIVITY 1 | DELIVERABLE 12.1.4**

**LESSONS LEARNED FROM THE CVPP CONCEPTUALISATION**

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PARTNER RESPONSIBLE: TEMPLEDERRY RENEWABLE ENERGY SUPPLY LTD IRELAND

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Project acronym: cVPP

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Input to the database on the lessons learned from conceptualization of the transnational cVPP. (Main output of WP cVPP)

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# 1 INTRODUCTION

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The Contextual framework of Irish regulation differs strongly to other countries and this has strongly influenced the development of cVPP. In Ireland the current situation is that there is no ability to get paid for self-generated power, nor the mechanism for citizens to engage in the electricity market as part of the energy transition (i.e. citizen owned generation), these are pre-requisites for providing the additional services that a CVPP will provide in the future, as without the generation and demand response, there is little revenue available to support the energy transition. As a result the Irish CVPP has focused on regulatory change to allow greater citizen participation in the energy transition.

To this end the Irish cVPP partnership have worked to inform decision makers, policy makers, civil servants and regulators of opportunities to support an enabling framework for citizen and community participation in the energy transition.

The key objectives of the national policy engagement were to stimulate a number of changes in national regulations to accelerate the energy transition, and in particular where the policy changes are community and citizen based. This has been achieved, and all energy policies and plans which have been published since the commencement of the CVPP project contain specific measures and actions to enable the energy transition with community and citizen participation.

Through the cVPP Interreg project Community Power now has the core building blocks in place to take advantage of the changing electricity landscape in Ireland. Community Power has completed the transition from a small supplier to a fully licenced supplier registered with the Commission for Regulation of Utilities (CRU) in Ireland (Deliverable I.2.1.1 & I.2.1.2). This has allowed for the development of a prosumer network in all four participating sub-partner communities. (currently there are 300 prosumers signed up to Community Power). As the current roadblocks ease through regulation change, we will be in a strong position to develop the cVPP concept in these communities

## 2 LESSONS LEARNED – IMPACT COMMUNITY-VALUES ON cVPP DESIGN(IRELAND)

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Due to the fact that the participating Communities in Ireland were already established and had gone through their own process to identify core values for their own Energy Co-op structures, the development of Community Power and its' core values was envisaged as building/adding to the core values of each Energy Co-op. In order to secure active participation from participating Communities, a Five-Month Engagement Process was designed and implemented. Part of the design of the engagement process was to identify key criteria which were essential to allow CRES to progress the cVPP concept in Ireland and integrate a shared ownership model using a new entity/vehicle called 'Community Power'. The engagement process included phone calls to key influencers, e-mail briefings, one to one meeting and two group sessions before the Community's Core Values were discussed and chosen in a group meeting in August 2018. This was input for the Memorandum of Understanding signed by the involved parties in September 2018.

Each value was discussed in detail by the participating community groups. Supplementing these Core Values, the best fitting value propositions for Irish local communities and other stakeholders to engage in a cVPP were discussed and selected as part of the community engagement process. The Community Power's Core Values can also be categorised by using FIETS approach encompassing financial, institutional, environmental, technological and social elements (more details in deliverable T1.2.1).

These core values were included in a Memorandum of Understanding which was agreed and signed by all participating communities.

### **The five core values identified are:**

- Local Benefit

There was agreement by all Communities that 'local benefit' was a key value. In the Irish energy market there is no regularity requirement for developers of energy projects to offer any ownership to the local community. There is a commitment by the Irish Government to require a percentage to be offered to the community in the future however there is no policy decision as yet. Hence a local benefit for a community where revenue stays in the community and a potential for local employment was seen as a core value.

- Democracy and Cooperation

The principle of a bottom up rather than a top down approach through democratisation was identified as a core value. Cooperation between individuals and communities to share learnings and challenges was identified as an important value.

- Clean Energy

Following a long discussion 'Clean Energy' rather than 'renewable energy' was identified as a core value. The key aspect to this is that we did not want to exclude communities specifically on the type of their energy generation resource. If a community can meet all the other values and were using local natural resources to provide energy to their community this could be viewed as clean energy.

If necessary, a future community energy project which is not 100% renewable can at least be aware that they will not be automatically excluded from Community Power.

- Fair Prices

Community Power will be established as a relatively small licenced supplier and cannot compete with the large utilities on price. Therefore, it was agreed that a 'Fair Price' for energy generation and supply will be offered to participants. This will be calculated based on the market costs plus a margin to cover administration and overheads.

- Resilience

In order for Community Power to make a real and long-term difference it needs to be 'resilient'. This includes developing a strong core business and route to market, being able to adapt to adverse market changes and safeguarding Community Power members, assets and brand identity. Resilience was seen as a core value by all participating communities.

## **Mission Statement Agreed by all Irish cVPP Sub Partner Communities**



### **Our Mission and Our Values**

The partner communities of Community Power have agreed a mission and a core set of values under which Community Power should operate, and all existing and future partner communities should operate. A Memorandum of Understanding has been agreed between all partners, which reflects these core values. Future communities can join by subscribing to this Memorandum. Current partners include:

- Community Renewable Energy Supply Limited;
- Templederry Energy Resources Limited;
- Aran Islands Energy Co-operative;
- Claremorris Energy Co-operative;
- Energy Communities Tipperary Co-operative;
- Tait House Enterprise Centre;
- Friends of the Earth
- Tipperary Energy Agency
- Smart M Power

### **Our Vision**

We want Ireland to run on clean renewable power, developed for people, by people. We will work to build renewable generation within Irish communities from micro to farm scale. Community Power will facilitate citizens and communities to participate in the electricity market and facilitate

communities and citizens to buy and sell community owned renewable energy through the electricity supplier, Community Power.

### **Our Values**

#### **1. Local benefit and building resilience**

We want to build renewable energy projects that benefit the people and communities of Ireland. Our model is to support the development of renewable energy generation, and sell that power back to our customers through Ireland's first community based virtual power plant.

We are committed to investing in community owned renewable energy generation, and when income flows from projects, re-investing in further community owned generation projects to support the development of new community owned energy projects.

We are also committed to supporting the development of local community energy groups in their own right, and those working to build local resilience to our energy crisis such as retrofitting buildings, ending energy poverty, and supporting communities whose livelihoods are currently reliant on the fossil fuel industry.

#### **2. Clean Energy**

We want Ireland to run on clean renewable power, developed for people, by people.

We recognize Ireland's energy system is in crisis, with over 90% reliance on climate polluting fossil fuels and that many people are struggling to pay high energy bills, and yet live in cold homes.

We support local energy co-operatives to develop their own renewable energy projects that meet the needs of their communities. We will only invest in renewable energy projects, and will only purchase energy generated from renewable sources, notwithstanding the 'pool' mix OR when the local generation is for the community benefit and/or owned by the community.

#### **3. Co-operative and democratic decision making**

Communities will be structured with a legal structure that facilitates co-operative operating principles and multiple owners, with ownership opportunities based on voluntary participation. Legal structures can include co-operatives, Public Liability Companies (PLC's), Companies Limited by Guarantee or Limited Companies as appropriate. Any legal model should allow for full democratic decision making on the principle of one member, one vote. The board of directors will consist of executive and elected non-executive members, including community and citizen representatives.

Partner communities will continue to operate autonomously, but will co-operate within the Community Power partnership.

#### **4. Fair Prices**

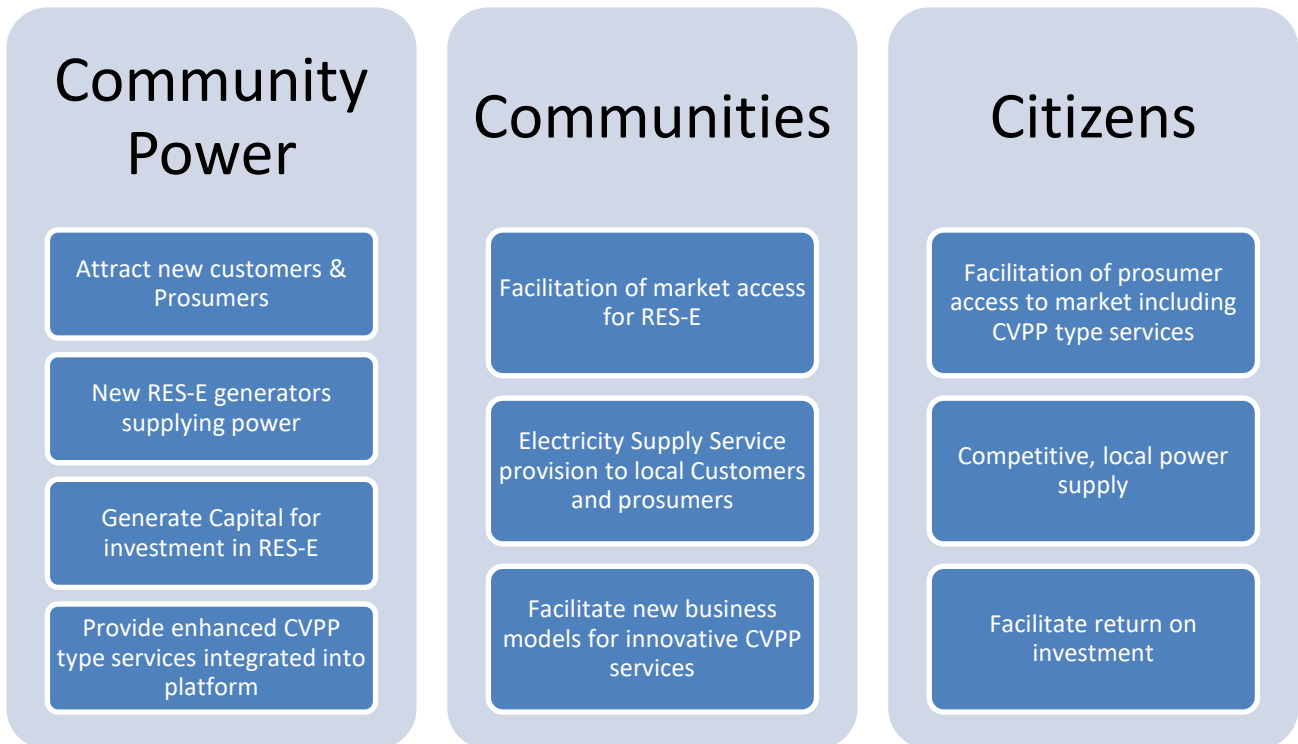
We buy and sell electricity at fair, affordable, consistent prices. We do not offer discount rates to entice customers, but our rates will always be competitive. We set our prices based on the market price. We will not hike up our consumers rates after an introductory period, nor will we cut our producers rates.

We deal with consumers and producers in a transparent and open manner in advance to any regulatory requirements.

## Lessons Learned

The Mission and Core Values statement demonstrates clear buy-in from all participating communities and gives clarity to future communities who are interested in engaging with Community Power.

This is summarised in the below infographic.



The mapping and agreement of our core values establishes the foundations for future citizen and community engagement in Dispersed cVPP development in Ireland and spurs awareness & public engagement in the energy transition. By doing so, this facilitates upscaling of low-carbon energy community-driven initiatives that, so far, has missed critical mass to trigger the energy transition.

## Lessons Learned – A view from Participating cVPP Sub Partners

### ARAN ISLANDS - COMHARCHUMANN FUINNEAMH OILEÁIN ÁRANN TEO

#### The Energy Market and cVPP

Participation in c-VPP has allowed us to expand our knowledge and understanding of the Irish electricity market from the suppliers' point of view which would not have been possible but for the



project. The Irish electricity market also underwent significant changes during the course of the project and as we were in the process of setting up community power we gained valuable insight into the regulation of utilities in Ireland. For many years now we have championed the installation of PV panels in our community and hoped for added incentives for homeowners in the form of feed in tariffs for micro generators. Having participated in cVPP we now have a better understanding of the reasons that this may not be practical on such a level – purchasing power in such small quantities (2-5kw) does not make financial sense for an Irish Energy Utility and such purchases would have to be heavily subsidized.

### **Communities and shared values**

The project also gave us the opportunity to collaborate with other like minded community groups who have similar goals and share many of the same values we do. These common values can be seen in the constitution of *Community Power* and in its operating system. *Community Power* works in a very transparent manner, offering simple rates without marketing gimmicks or penalties. We can confidently promote *Community Power* within our community knowing that we are asking our neighbors and friends to choose an organization which is community driven and which they can trust. We would not be able to do that without knowing that the other communities involved share the same principals as our own co-operative. We have also learned a huge amount from the other communities within the project, this pooling of knowledge and skills has been hugely helpful for us in furthering our plans for our own community.

### **Progress made in your local community**

Aran Islands (CFOAT) have made huge progress in our local community on different levels throughout the project. We have been able to drastically improve the level of community support we have locally for our wind turbine project in a few short years through consultation with local people and landowners and meetings with our local council. We have now got to a stage where we have a site, landowner consent and strong local support. We have also been able to educate people in our communities as to what a cVPP is and how it can benefit our community and local economy while enabling us, and other like minded communities to achieve their common goals.

## **Energy Communities Tipperary Co-operative (ECTC)**

### **Increased understanding of the Energy Market and cVPP**

Prior to involvement with Community Power and other cVPP partners, Energy Communities Tipperary Co-operative focused predominantly on energy efficiency measures such as home retrofits/renovation and energy upgrades. Significant lessons have been learned about the energy market and cVPP. Through participation in the cVPP project, Energy generation has become more prominent in the aims of ECTC. The board of directors and other stakeholders of ECTC held a strategic planning session in April 2019 where Energy Generation was formally added to our organisation's long-term goals. This will help build the capacity of communities in Tipperary and beyond to develop energy self-sufficiency and provide a benefit to communities through the creation of investment and employment.

As a result of participation in the cVPP project, ECTC has gained an increased understanding of the benefits of community owned energy projects: investment stays in the local economy, creation of a

sense of ownership, that the ordinary person can have a stake in their energy future and contribute to the process. Participation in the cVPP project has demonstrated the potential of community owned energy to bring people together creating social cohesion in developing shared assets and reducing potential objections to local projects.

ECTC now has an opportunity to get involved in renewable energy projects. It is ideally placed to leverage the goodwill it has built up within its member communities. It has an experienced and knowledgeable Board of Directors with the necessary skill sets which would enable the development of such projects. It has a good working relationship with Community Power who are willing to assist in the planning and development of local community owned renewable energy projects. A positive change in Government regulations and initiatives have facilitated the ability of communities to get involved in energy generation. EU legislation and the Climate Action Plan now encourage more renewable projects to be developed.

### **Communities and shared values**

Community is at the heart of what ECTC does. Since its formation in 2014 it has worked with member communities to retrofit over 800 homes, businesses and community buildings. From an Irish perspective, there has been a lack of political will to support community energy projects and coupled with the financial barriers, it makes it extremely difficult for Irish communities to contemplate starting their own projects.

Through partnering on the cVPP project with other communities throughout Ireland who have a shared vision, ECTC is now in a position to take the learnings and put them into practice and encourage other communities to get involved. Knowledge has been freely shared among communities who share the same values and are working on saving energy, retrofits, microgeneration and developing plans for renewable energy generation.

### **Impact from an institutional context**

September 2020 has seen the success of community led renewable energy projects with the publication of Ireland's first Renewable Electricity Support Scheme (RESS) Auction. The RESS is a game changer for community owned projects which will lead to greater energy security and local employment.

Currently in Ireland, there is no feed in tariff for excess electricity fed into the grid. Under Action 30 of the Government's Climate Action Plan a support payment for excess electricity generated on site and exported to the grid will be available to all micro generators by 2021.

### **Progress made in our local community**

ECTC hosted two Energy Information events in town halls (pre Covid) in 2020 with over 100 attendees and three webinars since March 2020 with over 70 attendees and over 300 views on YouTube. Attendees and participants got to hear about the benefits of community owned energy. ECTC's Development Coordinator also gave a presentation to the Irish Climate Ambassador Network about Community Power and the cVPP Project. Over 20 press releases and website articles were also published mentioning the cVPP project and ECTC's involvement. An open day was also organised at Templederry Community owned Wind Farm, where the founders were available to share their story with approximately 100 people who attended on the day. Community groups and

citizens are now more aware of the opportunities available to them to get involved in micro generation.

Up until now people were generally of the opinion that electricity generation was the domain of large corporations and developers. Through a process of information sharing and education, citizens are learning about Energy Democracy and are becoming more aware that they can play an active role in the Energy Transition.

## **Tait House Community Enterprise CLG (Limerick)**

### **Increased understanding of the Energy Market and cVPP**

Our involvement in CVPP has increased our understanding of the energy market and the many factors at play – the various stakeholders, the regulations governing composition of the market and its separation into generators, sales entities, etc, and the wider issues around tackling climate change through redesigning our energy generation and consumption.

### **Communities and shared values**

A benefit of this programme has been the way in which it gives the communities an opportunity to articulate and develop some practical applications of our shared values of respect for the environment and concern about climate change.

Many communities, organisations and sectors of society are committed to tackling climate change, and it is important that each finds a role that accommodates them – whether that is in the political space (through how they vote), the activist space (through the work of NGOs and campaigns like Fridays for Future) or what might be termed the “solution space”, where projects like cVPP can develop solutions to the major energy challenges that have the potential to create learning and mainstreaming opportunities for policy-makers and other practitioners.

### **Impact from an institutional context**

We are still considering the impact of the project for us. Our involvement in the project came about as a result of our past involvement in carrying out grant-aided retrofit and home insulation projects. Recent structural changes to these grant programmes have made it difficult for us and other social enterprises to continue our involvement with this work. It is a priority for us to remain active in this space, and we hope that this project can provide learning that will guide our future planning.

### **Progress made in your local community**

We work in a major suburban area that is characterised by some of the most severe levels of economic and social disadvantage in the country. Communities like ours are certainly affected by climate and energy poverty, but it is often difficult for them to focus on energy solutions while other forms of poverty are more visible. In our experience, education and focus on practical and simple measures that can be implemented by any household are often the most effective – it can be difficult to engage with people at a deeper level with more complex solutions.

## **Claremorris and Western District Energy Co-operative**

### **Increased understanding of the Energy Market and cVPP**

Initially the basic understanding of cVPP within our community was limited. The development of any technologies within rural Ireland will always meet some barriers of acceptance, particularly when the Irish environment for new generation projects is met with suspicion. With the Interreg Project, Claremorris and Western District Energy Co-operative were able to approach the potential of community owned generation in a structured and comprehensive manner. Furthermore, the principles of cVPP allowed communities to better understand the implications on local communities and the long-term benefits of such projects. With the input of specialist inputs which related to the potential development of cVPP in Claremorris, the cooperative were empowered to achieve and superseded the group's goals.

### **Communities and shared values**

The immediate impact of the project was the organic growth which occurred within neighbouring communities and the potential benefits for such community owned projects to succeed. The project nurtured the basic but core value of trust. It allowed our community and even more specifically other communities to "learn from doing" from our work in the cVPP project. As the project developed and more specifically in the last number of weeks, Claremorris and Western District Energy Co-Operative became one of 7 successful project generators in the government led Renewable Electricity Support Scheme. As a result, the co-operative has now supported a further 5 such communities to take part in the next RESS auction.

### **Impact from an institutional context**

Claremorris and Western District Co-Operative believe that a strong institutional context improves the understanding and relevance of cVPP within communities. Rethinking the approach to community owned power and the economic impact of localised generation allows postulating within the existing context. The energy market which does not require any policy response, restricts new market entries and community ownership through large capital costs and an element of directed foreign investment for financial gain at the cost to local communities. The impact of CVPP addresses this imbalance in a novel institutional context.

### **Progress made in your local community**

Claremorris and Western District Energy Co-operative are now a leading community owned solar generator in Ireland. The progress has been a slow but rewarding experience, which by any standard of European funded programme, has resulted in a positive outcome. cVPP has evolved into the beginnings of the end of any large multinational dominance in the market of energy ownership and the beginning of cVPP in Ireland.

## 3 IMPACT START CONFIGURATION & COMMUNITY ON cVPP DESIGN

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### Large Supplier Licence

Community Power underwent requalification as a large supplier during 2019 where all industry and business processes were mapped and accredited by the assurance body. The requalification from Small to Large Supplier including all customer segments (QH, NQH domestic and non-domestic) required the completion of the **Market Accreditation** processes including;

- License Application
- Market Accession Documents
- IT infrastructure upgrade and compliance
- Market Testing
- Staff Training
- Market Operations Review
- Regulatory Compliance
- Retail Billing Solution

We received confirmation that Templeberry Renewable Energy Supply Ltd trading as Community Power successfully completed the Requalification from a Small Supplier to a Large Supplier assurance process for operating in the Irish electricity market. This was approved by the Commission for Regulation of Utilities (CRU) on 15th of November 2019. (Deliverable I.2.1.1 & I.2.1.2).

Through the cVPP Interreg project Community Power now has the core building blocks in place to take advantage of the changing electricity landscape in Ireland. This has allowed for the development of a prosumer network in all four participating sub-partner communities. (currently there are 300 prosumers signed up to Community Power). As the current roadblocks ease through regulation change, we will be in a strong position to develop the Dispersed cVPP concept in these communities.

### Lessons Learned

The establishment of a Community Energy Supply Company is a substantial undertaking for Communities to consider. The level of IT infrastructure, market compliance, external expertise and costs associated with this process is prohibitive for a vast majority of communities. The current landscape in Ireland is that you are either a small supplier (200 Customers) or a large Supplier (i.e. Utility company with potentially 250,000 'plus' Customers). There is no consideration given to Communities who do not intend to scale up to such a degree as a Large Utility Company. There is an opportunity to create a new category of a 'Medium' size Supplier capped at between (25,000 to 50,000) customers. IT infrastructure and regulatory compliance required could be reviewed and be made less onerous and costly for Communities considering such an approach. The 25,000 -50,000 cap would allow for sufficient prosumer volumes for the development of both a Community Supply

Company and of a Dispersed cVPP business case where all elements of supply, generation, aggregation and flexibility can be incorporated into the business model to ensure long-term viability.

### Community Owned Generation for Dispersed cVPP

To enable the community based virtual power plant to be developed and thus facilitate greater citizen and community participation in the energy transition in Ireland, areas that required a change were first identified into the following broad categories;

- Expensive, risky and slow grid connection process (application forms, costs and illegal private wires);
- Lack of opportunities for communities and citizens to buy and sell electricity (no tariffs, no opportunity to settle on the market);
- Hostile regulatory environment for rooftop generation (planning permission requirements, presumption against solar power, no grant support); and
- Limited access to technology (smart metering, export metering and demand control).

Unlike other European jurisdictions the Irish situation is unique in that there is only one (state owned) DSO present in the market. This results in advantages and disadvantages. One of the principle disadvantages is the slow pace of change primarily based on lack of competition.

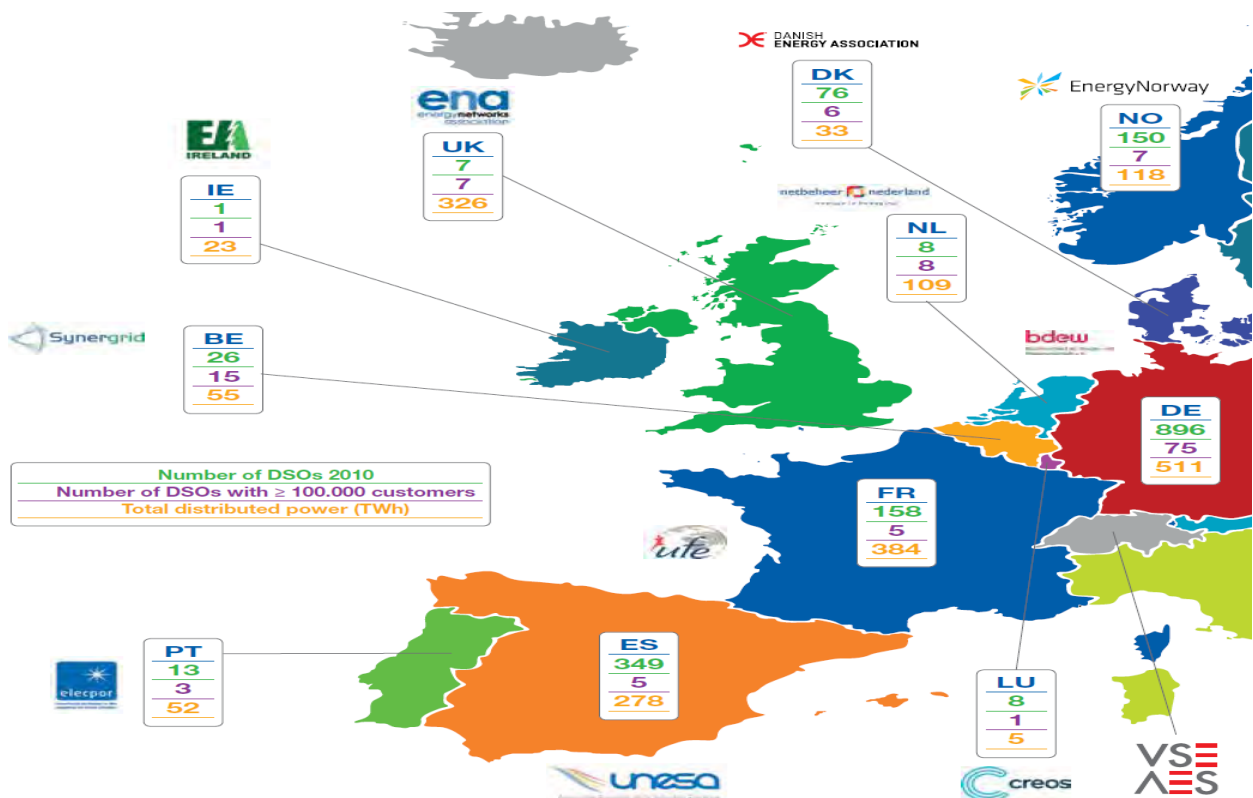


fig 2. Number of DSOs in each country, for various numbers of served 'customers'. These customers are consumers, not producers, demonstrating the heavy consumer focus. It also demonstrates the loose coupling with TSOs: each country typically has one TSO. Ireland is the rare exception, with a single DSO (ESB-N).

The only DSO in Ireland (ESB Networks) has forecast that there will be 2,500MW of demand side response capability in commercial domestic and customers' premises by 2030. In a recent report issued by ESB Networks they have identified Domestic and network level control technologies as playing an important role in delivering a network with sufficient capacity and visibility to facilitate customer flexibility. This recent development in the changing attitude of the DSO opens up the possibility of cVPP development in Ireland.

## Lessons Learned

It is clearly evident that the challenges faced in developing a cVPP differ in each of the European partner's jurisdictions. In Ireland grid access and planning for generation projects at any scale is time consuming and costly. Having identified these core challenges over the lifetime of cVPP project the approach adopted by the Dispersed cVPP Consotium in Ireland was to focus on large scale renewable projects above 500 kw's. It was felt that this approach of shared and community ownership of generation assets at a large scale would accelerate citizen buy-in and prosumer engagement.

Community Power focused on securing grid connection and Planning Permission on 3 X 5MW solar farms in dispersed communities around Ireland. Based on the ground work done in successfully securing grid connection and planning, these projects fulfilled the eligibility criteria to be submitted into the first RESS auction (ECP-1).

The new Renewable Energy Support Scheme (RESS) can be largely characterised by a series of renewable technology competitive auctions, run periodically throughout the lifetime of the scheme, to deliver Ireland's targets in line with the National Energy and Climate Plan, developed as part of the recast Renewable Energy Directive (RED2) and the Governance Regulation under the EU Clean Energy Package.

Community Power engaged in consultation workshops initiated by the Department of Communications, Climate Action and the Environment (DCCA) The primary focus of this engagement by Community Power centred on ensuring that;

- An appropriate definition for community, specifically regarding legal form, ownership arrangements, and governing structures; and
- A ring fenced community 'pot' within the auction, for community owned projects only to ensure communities could compete with each other and not against developer led projects.

Both of these elements were included in the RESS guideline documents and the community 'pot' will ensure that community generation projects have a real opportunity to succeed in future auctions. The ownership requirements for the first ECP1 auction to qualify as a community project were defined as;

a minimum of 51% ownership by communities with the remaining 49% being potentially developer owned.

Community Power and our Sub partner Communities along with Friends of the Earth and the TEA are continuing to lobby the government to change the ownership criteria to 100% ownership communities for future RESS auctions. This will ensure that developers cannot 'game' the system.

Following completion of the ECP1 Auction process on September 8<sup>th</sup> 2020 we received confirmation that 2 of the 3 solar farm applications were successful in the auction. These 2 x 5 MW solar farms will be the first community owned solar farm developments in Ireland and will form the building blocks for the future development of a Dispersed cVPP in Ireland.

## **4 IMPACT – INSTITUTIONAL CONTEXT ON cVPP DESIGN**

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Significant progress has been made in Ireland to improve the regulatory environment for community and citizen led renewable energy generation and distribution. This is essential in order to allow Community Based Virtual Power Plants (cVPP's) to be replicated and developed around the country. However, further work is required.

The transposition of the Clean Energy Package for all Europeans into Irish legislation in full and on time will be essential. In particular, the recast Directive 2018/2001 (Renewable Energy Directive II, or REDII), the Directive 2019/944 (the Internal Electricity Market Directive, or IEMD) and recast Regulation 2019/943 (the Internal Electricity Market Regulation, or IEMR). These Directives contain provisions that establish a supportive EU legal framework for community ownership of renewable energy. The Clean Energy Package defines two new concepts labelled 'renewable energy communities' (RECs) and 'citizen energy communities' (CECs) which will require further consideration from an Irish context. It also requires Member States to secure certain rights for energy communities and establish enabling frameworks to ensure a level playing field and promote their development. A full assessment of how the Clean Energy Package should be transposed into Irish legislation will be required.

### **Policy and legislative challenges for solar panels in communities in Ireland**

The process of undertaking the Solar Schools competition helped to benchmark and highlight a number of significant challenges faced relating to the installation of renewable microgeneration projects within communities.

- There is no straight forward method to apply for a grant for solar panels/microgeneration in Ireland.
- Planning permission is required for solar panels, of any size, on schools and community buildings.
- There is no payment mechanism for paying small generators for their surplus electricity exported to the grid.



- Ireland is in the process of installing smart meters, however there is no way of self selecting to have a smart meter installed, and the standard export meters that can be purchased from ESB networks are prohibitively expensive

## Lessons Learned

Whilst a lot of progress has been made, based on the practical experience gained through engaging with Communities in the energy sector in Ireland through cVPP, it is clear that further policy changes are required to stimulate more community engagement and the potential growth of cVPP projects. At a minimum, the following policy changes for Ireland have been identified and recommended;

- Remove the requirement for planning permission for rooftop solar arrays. The current restrictions based on area of panels and type of building are outdated and no longer relevant. This should be a priority for 2020, and could be facilitated under a Statutory Instrument (introduced by the Minister from the Department of Planning, Housing and Local Government), amendments to the Planning and Development Act, or through new stand alone legislation.
- Further changes to the grid connection process are required, and should be introduced for the next Enduring Connection Policy with the Commission for the Regulation of Utilities.
  - Starting with a levelling of the cost of connection. Costs should be consistent across the country on a per kw basis. If this is unacceptable a transparent calculation of costs for connection is required to allow communities to undertake an assessment of likely costs in their areas at project inception stage. Public disclosure of costs should be made available.
  - Ring fenced grid capacity for community led projects at nodes around the country as upgrades are already happening.
- Increase the definition of 'microgeneration' to 'from up to 11 kw, to, up to 50kw' and allow a simple application process with a nominal fee for connection. Requires a change in definition from the Distribution System Operator, ESB Networks.
- Introduce a support scheme to pay microgenerators for renewable electricity through a simple calculation on electricity bills. The support scheme should include a subsidy for all community led generation projects, including schools, community buildings, community sports clubs etc, to allow for communities to generate income following an investment in renewable energy. The scheme should also offer support for farms and domestic properties. This support scheme should be developed by the Department of Communications, Climate Action and the Environment in time for the second round of the Renewable Electricity Support Scheme or by the June 2021 date, whichever is earlier.
- The current microgeneration payment proposals do not provide sufficient details on how suppliers will be able to reach a settlement in the market for electricity generated by their customers. In order to guarantee the best value for customers and prosumers, the benefit

of any microgeneration on the distribution network must be calculated and attributed. Suppliers should be incentivised to aggregate microgeneration and to create virtual power plants through smart meter software.

- Introduce smart funding and finance opportunities for community led generation projects to take the risk out of the initial phases, as outlined in the RESS High Level Design and the Climate Action Plan. These should be introduced before the second Renewable Electricity Auction is launched.
- Remove the ‘private wire’ legislation, and allow microgenerators to sell and share renewable electricity through private wires. This requires an amendment to the 1999 Electricity Act.

## 4 CONCLUSIONS

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The introduction of cVPP in Ireland has allowed for connection of both existing and new, private & public, renewable energy sources. This focus has reinforced the ability of communities to continue invest in actual hardware (e.g. PV) to allow the virtualisation & localisation of power supply and demand. These communities involved are;

- Aran Islands Energy Co-operative
- Energy Communities Tipperary Co-operative
- Claremorris and Western District Energy Co-operative
- Tait House Community Enterprise

These communities who are engaged in the Irish (Dispersed) cVPP come from a wide geographical area and have clearly benefited from participating in the Interreg funded project. The level of understanding of the electricity market and the challenges faced, as well as the untapped potential of developing cVPP’s in their communities is better understood through this engagement.

The Mission and Core Values statement adopted by participating Communities demonstrates clear buy-in and gives clarity to future communities who are interested in engaging with the Community Power consortium. It establishes the foundations for future citizen and community engagement in Dispersed cVPP development in Ireland and spurs awareness & public engagement in the energy transition. By doing so, it facilitates upscaling of low-carbon energy community-driven initiatives that, so far, has missed critical mass to trigger the energy transition.

National and European Policies will help frame the conceptualisation of cVPP’s in Ireland in the future. Initial research has identified key headings for the further development of in this area.:

- Continued EMS Pilot testing and sharing of information
- Further Research of cVPP Business Model – Proof of Concept

- Further development of local generation projects
- Battery Storage Integration
- Community Power as Aggregator – subject to Regulation Change
- Continue to build Prosumer base in Communities
- cVPP Education & Training Pack
- Access to Finance- Community Generation Projects
- Community Facilitation
- Future RESS Auction's – Support Community Participation

We envisage Community Power as a key enabler for the development of community and citizen owned renewable electricity generation and cVPP development in Ireland. The ability to buy and sell small scale renewably generated power has the potential to be a game changer in Ireland, and will allow many more community owed energy projects and cVPP's to be realised. Community Power's aim is to connect people with the source of their energy to enable customers to feel connected to their energy generation and to target potential prosumers who feel like the standard energy supplier is not aligned with their values.

Community Power and our Sub Partner Communities within the cVPP project intend to continue to refine and adapt our future strategies based on the changing regulatory environment in both Ireland and Europe. We expect real opportunities for active citizen engagement in renewable energy generation and cVPP projects.