The Market Design Initiative: creating a space for local energy communities

By bringing citizens together, local energy communities, or 'LECs' (e.g. groups and cooperatives of citizens for renewable energy that are represented by REScoop.eu), can help drive the energy transition. REScoops improve competition, address local socio-economic needs (e.g. energy poverty), provide investment that benefits the local economy, facilitate cooperation with local and regional authorities, and build public support for renewables.

Currently, EU legislation does not mention community participation in the energy sector. Even so, community energy has existed for decades, and there is increasing interest of citizens to become involved. By 2050, almost half of all EU households could be producing renewable energy, about 37% of which could come through involvement in an energy community.[1] Currently, however, establishing a successful REScoop is only feasible in some Member States, and there is a need to define a space for them in the new market design.

The '*Clean Energy for All Europeans*' Package represents a unique opportunity to provide citizens and communities with acknowledgment, as well as a supportive framework to participate across the energy system. However, provisions for LECs and active customers must be strengthened if citizens are going to become central players and help the EU to meet its climate and energy objectives.

Key Points

The market design initiative is essential for providing a supportive EU framework for REScoops and active customers. To be fit for purpose, the following is needed:

The Electricity Directive:

1. The definition of 'local energy community' should clearly specify the characteristics that distinguish an LEC from traditional public and commercial energy companies, and acknowledge equally all the activities that LECs engage in throughout the power sector.

2. All European consumers should be entitled to participate in an LEC. Likewise, LECs should be entitled to have administrative and market barriers removed so they can access power markets on a level playing field with larger traditional actors.

3. LECs should be entitled to set up and operate *virtual* and *physical* micro-grids (community networks) to enhance consumer engagement and provide services to the

[1] CE Delft (2016). *The Potential of Energy Citizens in the European Union*. http://www.cedelft.eu/publicatie/the_potential_of_energy_citizens_in_the_european_union/1845

grid. For this, 'community networks' need to be defined. Community networks must also receive equal treatment with other resources to provide flexibility services to DSOs/TSOs.

4. The role of LECs in addressing energy poverty, particularly in national energy action plans, should be better acknowledged.

5. LECs and active customers should benefit from oversight from national regulatory authorities to prevent discrimination and ensure regulatory barriers are removed.

6. To help reveal the true value of distributed energy resources, or 'DER' (e.g. solar, storage, electric vehicles and demand response), and encourage 'smart' investments and behavior from active customers and LECs, national energy regulators should base distribution tariffs and remuneration for DER on an assessment of their benefits to the grid, society and the environment – not just their costs.

7. Comparison tools should provide consumers with clear and understandable information on the overall energy mix and investment policy of the supplier.

The Electricity Regulation:

1. Until subsidies and other market distortions for inflexible overcapacity are dealt with, priority access/dispatch rules for renewables should be maintained.

2. Balancing responsibility must be coupled with full access to balancing markets for LECs, taking into account their size, particularly of renewable energy communities, and ensure they receive a fair value for balancing and other flexibility services.

3. The introduction of capacity mechanisms by Member States should be tightly regulated and overseen at EU level to ensure they do not raise costs for consumers, discriminate against renewables, discourage flexible consumption, or disincentivise energy efficiency.

4. The development of EU network codes for distribution should be led by independent regulators, not self-interested DSOs, and should ensure adequate representation of all stakeholders, including small REScoop DSOs.

1 Giving local energy communities a name – definitions matter

In its '*Clean Energy for All Europeans'* Package, the European Commission proposed two new legal definitions of community energy: '**local energy community', or 'LEC'** (Electricity Directive) and '**renewable energy community', or 'REC'** (Renewable Energy Directive). This is an important first step in providing a supportive EU framework for REScoops, as it acknowledges 'who' these actors are, what activities they perform, and how they are different from traditional commercial and public market actors. However, several clarifications are necessary.

Distinguishing local energy communities from commercial and public market actors

In its proposed definition of LECs, the European Commission included *local control and value-driven purposes* – as opposed to solely profit-driven purposes – as key features. While providing a good basis for a definition, more clarity is needed on the distinction between LECs and other traditional commercial and publicly-owned energy companies.

Specifically, the definition should more clearly articulate the following:

- Open, or non-exclusive, economic participation of all local potential shareholders, in their capacity as final consumers and non-professional investors;
- Direct democratic governance based on equal decision making rights; and
- A predominant aim of providing local social, economic, or environmental community benefits over profits for its shareholders.

While the LEC definition should be broad and flexible, it should also contain clear and distinct criteria so that the definition is not abused by larger or traditional commercial energy companies.

Distinguishing LECs from public and private commercial energy companies

	Community initiatives of citizens	**Public initiatives of local authorities**	**Initiatives of private investors**
Services (energy efficiency, aggregation, DSO, storage)	LEC	Local public energy company	Local private energy company
Production / supply • **RES**	LEC/REC	Public local RES energy company	Private local RES energy company
• **FF**	LEC	Public local energy company	Private local energy community
Emphasis on Value / profit	Value over profit	Value over profit	Profit over value
Citizen participation	Direct	Indirect	Customer relations
Nature of members or shareholders	Final household and SME customers, which are non-professional investors	Local authority as sole shareholder, and/or institutional investors (public-private partnerships)	Professional investors

Acknowledging each of the activities that local energy communities perform

In its definition, the Commission listed most of the existing – and potential – activities that LECs can perform. We welcome this broad acknowledgment of activities that our members already perform. However, further clarification is needed in order to:

- de-emphasize a necessary link to distribution. The current definition could be interpreted as depicting LECs as de facto distribution system operators (DSOs). While it may be possible for an LEC to be a DSO (REScoop.eu has some DSO members), the definition should not place more emphasis on this activity than any other activity.
- acknowledge that LECs also provide energy efficiency services and storage.

These clarifications are necessary, both to acknowledge that LECs are capable of performing various activities across the energy system, but also to clarify that the aim is not to create local integrated energy companies.

Renewable energy communities as a subcategory of local energy communities

The Commission proposed a separate definition of RECs in the Renewable Energy Directive. There is a need to clarify that RECs are a subcategory of LECs. Specifically:

- RECs should be defined in the Renewable Energy Directive through a simple cross-reference to the Electricity Directive; and
- the criteria for being considered an REC in Article 22 of the Renewable Energy Directive should be strengthened to be consistent with the definition of LEC provided in the Electricity Directive.

'Local' should be left open to provide flexibility for different activities

It would not be appropriate to specify what 'local' means in the definition of an LEC, as this will vary between different activities and different markets. For instance, a supplier or aggregator may be required to operate across the entire market, which for some Member States will be regional, for others national. For distribution activities the 'local' aspect of the activity can be defined by the geographic and technical limits of the operated or controlled infrastructure.

For operation of a community network (i.e. micro-grid), it may be appropriate to define a geographical scope in a definition of 'community network'. However, the Commission provided no such definition in its proposals, which amendments must now address.

For renewable energy production installations, it may be appropriate to provide a limiting scope; however, this should not be set too narrowly, otherwise it will serve as a barrier to citizen participation. We therefore support the flexible approach taken by the Commission in the criteria it proposed for RECs in Article 22 of the Renewable Energy Directive. This should be maintained.

2 Opportunities for local energy communities in the market design

The market design will be essential to ensure the development of supportive national frameworks for LECs so that, as an SME or not-for-profit legal entity, they can participate throughout the energy system. While the Renewable Energy Directive can support REScoops, the activities they participate in go far beyond renewable energy production. Therefore, REScoops also need support rooted in the Electricity Directive to guarantee access to power markets generally, and to provide a basis for legal and policy backing for the other activities they engage in.

Opening up market access opportunities for local energy communities

Currently, administrative barriers and market rules designed for larger traditional commercial and public market actors prevent LECs from accessing the market, particularly for wholesale and retail supply. If left unaddressed, this will also affect the ability of LECs to access balancing markets and markets for flexibility services.

The Commission proposes to guarantee market access for LECs in a non-discriminatory manner, as well as fair, proportionate and transparent procedures. We welcome this proposal, as it will provide a level playing field across all Member States for REScoops that want to become suppliers or aggregators.

Requirements for national regulation to enable DSOs to procure distributed 'flexibility' services could provide REScoops with new local market opportunities. However, the provisions need to be clarified to ensure that standardisation of flexibility products does not result in the exclusion of LECs.

Supply REScoops already assume balancing responsibilities, while balancing is factored into the price many REScoop producers receive. However, new balancing responsibilities should not discriminate against, or overly burden, new smaller REScoops from being able to develop renewables production. As such, we support the Commission's proposal to exempt small installations. However, provisions on balancing responsibility in the Electricity Regulation need to be clarified so that balancing responsibility is conditioned on the ability for LECs to fully access balancing and other flexibility services markets, either individually or through an aggregator, and receive a fair value.

Local energy communities should benefit from regulatory oversight

The Commission proposes to oversee Member States' implementation of rules to empower LECs and self-consumption under its proposed Regulation on Governance. However, REScoops face significant regulatory and market barriers that are not well understood or acknowledged by national energy regulators, and there is a need for more information as national markets develop. Therefore, LECs should also benefit from oversight of regulatory authorities, to ensure market access and fair and equal treatment.

The package proposes no new duties for regulators, leaving a large gap when it comes to implementing national frameworks to create a level playing field for LECs. The Electricity Directive should be clarified to provide national energy regulators with a duty to monitor and enforce EU rules on market access and a level playing field for LECs, non- discrimination, and respect for new and existing rights of active consumers.

3 A market design to empower citizens and drive decentralisation

Under the old model, citizen participation is often perceived as a cost to the grid and other consumers. On the contrary, especially when coupled with incentives to engage in other distributed energy resources (DER) such as storage, energy efficiency, and demand response, renewables self-consumption, as well as electrical vehicle charging, can provide a number of grid/system, environmental and societal services, including allowing for higher penetration of renewables and efficient operation of the grid. The Commission's market design proposals do not yet reflect this opportunity.

Network charges and remuneration for self-consumers and energy communities

The Electricity Regulation should be clarified to require distribution tariffs and compensation to reward smart behaviour and incentivise investments from citizens and communities that benefit both themselves and the system in the long term. At the very least, distribution tariffs should be required to promote flexibility in order to optimise when renewables self-consumers and energy communities feed into or draw out of the grid.

Furthermore, the Electricity Directive should provide national regulators with a duty to ensure that network tariffs for DER are calculated according to an objective and transparent long-term cost benefit analysis (CBA) that takes into account the wide range of benefits of DER to the energy system, society and the environment. To ensure a holistic approach towards such an analysis, the Electricity Directive must provide a definition of DER.

Allowing all EU citizens to benefit from participation in renewables

The recitals to the Electricity Directive state that community energy can help fight energy poverty through reduced consumption and lower supply tariffs. However, no provisions in the Commission's proposals address LECs and energy poverty. This is a large gap, and a missed opportunity.

Many REScoops are established with the aim of combatting fuel poverty, in particular through the establishment of renewable energy projects combined with encouraging building renovations or energy efficiency measures. There are many successful examples of such REScoops across Member States, and a higher level of visibility for such initiatives in EU policy could result in numerous benefits for vulnerable consumers and households experiencing energy poverty. Article 28 of the Electricity Directive should be clarified to encourage Member States to reflect how LECs can contribute in this area.

More transparency for consumers and preventing greenwashing of offers

At the moment, REScoop suppliers rely on Guarantees of Origin (GOs) to prove to their member/customers that the electricity they are consuming is locally-produced renewable energy. The current system of GOs is not perfect – it enables a significant amount of greenwashing and needs to be improved to provide more transparency to consumers. However, none of proposed legislative amendments to the Renewable Energy Directive, either by the Commission or by the Parliament, aim to fix this problem. If anything, it is likely that GOs will come to be seen as an additional form of financial support for renewables, further weakening its original purpose as a reliable statistical tracking tool.

There is a need to develop more straightforward tools to support informed choices by consumers about whether their purchase of electricity goes towards supporting additional renewable energy production, or whether suppliers use GOs as a 'green façade'. Specifically, the comparison tool that has been proposed in the recast Electricity Directive should be clarified to include a requirement to provide clear information on the overall energy mix and investment policy of the supplier.

4 Addressing overcapacity and subsidies for inflexible dirty baseload

Priority access and dispatch for renewables needs to be maintained

The Commission proposes to remove priority access and dispatch for renewables. However, until market distortions for inflexible overcapacity have been addressed, withdrawing priority access and dispatch for renewables will harm investment certainty for renewables, make investments in flexible demand response less attractive, and should be considered as a subsidy for inflexible conventional electricity production. It will also disrupt the business model of supply REScoops, which is to cover 100% of its members energy needs. This is not an issue which cannot simply be dealt with through compensation.

Rather, existing rules for priority access and dispatch of renewables should be maintained until market reforms demonstrate (through a scheduled review) a level playing field for renewables and other distributed energy resources, and curtailment/redispatch of renewables are fully driven by market prices, including negative prices.

Preventing inflexible fossil fuels from distorting the market

The Commission has yet to fully address a major barrier preventing citizen participation in the energy market: subsidies for fossil fuels. Newly proposed EU rules on capacity mechanisms could allow fossil fuel generators to hoodwink consumers out of their money for at least another decade. With a market that is already saturated with energy production, this will lock in dirty energy and continue to distort markets, preventing signals being sent to businesses and consumers that they should pursue energy savings and become active.

5 The opportunities for energy communities at the distribution level

The distribution grid is where a vast majority of the opportunities exist for REScoops. If given the opportunity, they will drive integration of higher amounts of renewables while contributing to more efficient and flexible networks operation.

Empowering REScoops to assume more responsibility for local networks

REScoops envision an energy transition where some LECs are able to participate in entities capable of strengthening the local public grid in the long term, rather than weakening it or abandoning it entirely. By using ICT technology to aggregate different distributed energy resources provided by active customers, LECs can provide balancing, ancillary and other services to the system operators that allow them to realise cost-savings, including through avoided or deferred investments, and reduced transmission and distribution losses. In particular, LECs can set up and operate a virtual community network that acts as a virtual power plant, or a geographically confined community network that is still connected to the public distribution network but is capable of operating in an isolated mode.

In line with this vision, REScoops should be allowed to voluntarily assume more responsibility for the grid. We therefore welcome proposed rules that would enable LECs to set up and operate 'community networks' (i.e. micro-grids) and connect them to the general grid according to fair and proportionate rules and procedures. This would allow REScoops to integrate into the market, innovate locally, cooperate with DSOs to help them maintain grid safety and security, and engage active consumers in contributing to flexibility. We fully support voluntary participation by consumers in these initiatives, as the first operating principle of REScoops is voluntary and open participation.

The proposed provisions of Article 16 of the Electricity Directive need to be clarified to help stakeholders understand how these provisions would operate in practice. There is also a need to provide a definition of 'community networks' and to distinguish virtual micro-grids, whereby the LEC performs no DSO responsibilities, from physical micro-grids, where the LEC is in effect operating as a DSO, which implies more responsibility.

In general, Article 16 needs to be rearranged to clarify that community networks are not the primary activity of LECs. Currently, there is a misperception that an LEC is a de facto DSO, while in reality distribution system operation makes up a small minority of REScoop activities, and few REScoops are currently looking into the possibility of participating in both physical and virtual micro-grids.

Allowing REScoops to participate in distribution grid planning

REScoops rely on transparency and constructive dialogue from DSOs to assess opportunities for rolling out different activities and investments. With more distributed generation and other distributed energy resources, such as community networks, seeking to connect to the grid, foresight will become ever more necessary for DSOs. Therefore, we welcome proposed requirements for DSOs to develop network development plans. However, the proposal should be clarified so that all DSOs – even small ones – have this requirement.

The proposal should also be strengthened to ensure LECs and other stakeholders have sufficient opportunity to input into the plan as it develops. Such engagement will help DSOs identify new opportunities to achieve savings and other system benefits through cooperation with LECs.

REScoop DSOs abide by the same rules as any other DSO

REScoop DSOs benefit from, and comply with, the same rules under existing national and EU law as other DSOs, including unbundling exemptions for DSOs with less than 100,000 customers.

Where national laws permit, as long as REScoops meet necessary competency and licencing requirements they should also be entitled to hold DSO responsibilities just as any other actor. This is not an area for the legislative proposals to decide. Nevertheless, where the need exists, for instance in remote rural regions or islands, the legislative proposals should enable LECs to establish, own and manage such infrastructure.

National regulations should enable DSOs to invest in smarter grids that are more efficient and can integrate more renewables – this is one of the primary aims of REScoop DSOs. Therefore, we welcome requirements to ensure DSOs are encouraged and remunerated for investments in smart grids and other innovative solutions.

Furthermore, we support rules that would provide non-DSO REScoops with better opportunities to compete for rolling out storage and electrical vehicle charging infrastructure. Nevertheless, these rules should not overly prohibit innovative REScoop DSOs from engaging where market conditions are appropriate.

Avoiding corporate capture in regulatory decision-making

The Commission has proposed the creation of a new DSO body at EU level. We acknowledge the potential benefits of having such a body. However, we are concerned that it would put members of large integrated utilities, some of which are not in favour of the energy transition, in charge of developing EU network codes on integration (including curtailment) of renewables and storage, development of demand response, grid tariffs for prosumers, and deployment of smart grids. To be credible and to ensure non-discrimination, such rules need to be developed in a transparent and open process led by an independent regulator (e.g. ACER) – not industry. The process must also ensure that the voices of smaller DSOs (such as REScoop DSOs) are heard from within the DSO body, and that the voice of REScoops and other small actors are heard in general when new network codes are being drafted.