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How can metropolitan authorities address urban energy poverty through energy communities?

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What's at stake?

After housing and food, energy is the greatest expense for Europe's homes (Eurostat, 2023). Up to 16% of European citizens are confronted by energy poverty, defined as a lack of access to essential energy services including heating, cooling, electricity, and water (European Commission, 2024). Given their burden on overall household budgets, reducing energy costs would also not only address energy poverty, but help lower broader cost of living in Europe, too.

Energy communities can be an effective mean of restructuring energy systems by empowering citizens to drive the energy transition locally and directly benefit from better energy efficiency, lower bills, reduction of energy poverty and creation of job opportunities. Municipalities play a crucial role in addressing energy poverty by supporting citizen-led initiatives. By becoming part of the energy community, they can better understand, and address challenges faced by energy-poor households and supporting them in different ways.

To tackle energy poverty with an energy community, vulnerable consumers' needs must be valued from the start and at every moment, not only as an afterthought at the end of the implementation stage. Energy-poor households will often need specific provisions to join the energy community, such as reduced or non-existent investment and operational costs while identification, engagement, selection criteria, and approaches need to be well defined.

Key challenges with addressing energy poverty in metropolises through energy communities:

- **Identifying energy poor homes.** Defining, identifying, and engaging the relevant energy-poor households is a key barrier in developing effective solutions. Locating vulnerable groups is administratively complex, while social stigma and fear of disclosing one's financial situation has been found to discourage participation.
- **Retrofitting buildings is necessary, yet slow and costly.** Deep renovation to reduce baseline energy consumption yields instant energy, cost, comfort, and health savings to households, while also being more environmentally sustainable than constructing new housing. It is increasingly legislated through European policy e.g. the latest EPBD (2024/1275) requires residential buildings to be energy label E by 2030. However, the roll-out of building renovation is notoriously capital intensive, slow, and lacks a clear business case outside of heavy subsidisation.
- **Subsidies are necessary but not sufficient.** Subsidies are an ideal response to short-term crises and for encouraging new measures and behaviours. Yet, since grants and subsidization are linked to political priorities and budgets, they are unreliable, short-term, and insufficient to fully fund the technologies and measures needed.
- **Existing approaches to energy poverty often address consumption and ignore generation.** Beyond renovation, addressing energy poverty by generating green, local, and affordable energy is an alternative, and often less considered by metropolitan authorities. European legislation already recognises local energy generation: the *Renewable Energy Directive* (2023/2413), *Clean Energy for All Europeans* package (2019), and *Internal Electricity Market Directive* (2019/944) together provision for unmet household energy needs to be covered by local renewables. Energy community legal structures and tax incentives in Europe allow for low-cost energy sharing.
- **Energy communities are not a silver bullet to energy poverty.** While energy communities are often initiated to address energy poverty, their approach for doing so is not always clear, and their creation is by itself often assumed to be evidence of success. Sector-wide agreement on KPIs is needed to clearly measure the benefits for homes.

How COMANAGE is addressing energy poverty

To foster energy communities and address energy poverty, the COMANAGE[1] project has created the *COMANAGE Open Platform*. This includes a toolkit for local authorities and citizens, an e-learning platform, and inclusive social tools to empower and train citizens and administrations to be more inclusive in the energy communities governance, for example, the three steps to overcome quotas as an entry barrier by drawing alliances with social actors, defining eligibility for subsidies and setting up subsidy mechanisms.

Creating inclusive energy communities that target the energy poor

COMANAGE pilots show how energy communities can meaningfully benefit those most affected by energy poverty. In **Lazio region (Italy)**, over 34 energy communities have been supported, including in smaller or remote areas where energy community initiatives help ensure broad participation. In **Krakow Metropolitan Area (KMA) (Poland)**, energy communities are viewed as one response to high energy costs, offering shared savings, greater self-reliance, and aggregating requests for financial support from residents.

Raising awareness and improving energy literacy

The COMANAGE toolkit consolidates tools and guidelines to include vulnerable groups most unaware of the financial opportunities of energy communities. In Lazio, public awareness campaigns reached over 3,600 stakeholders, offering anonymous participation to reduce stigma associated with energy poverty. In KMA, more than 2,500 citizens are estimated to be engaged. The e-learning platform offers accessible training for citizens and public officers alike.

Lowering financial and administrative barriers to entry

Despite offering economic benefits in the longer-term, joining an energy community may involve costs including membership and participation time. To reduce this burden, **Barcelona Metropolitan Area's (AMB)** "La Teulada" One-Stop-Shop created a legal template for the constitution of energy communities that eliminate or reduce the entry fees for vulnerable households, while in KMA and ANCI Lazio, One-Stop-Shops provide hands-on support to navigate legal and financial complexity.

Enabling access to public funding and trusted support

Through energy communities, citizens are well-positioned to jointly apply for finance to deliver renovation and local energy generation. In **Madrid Municipality**, as a COMANAGE replicator, the project tools have helped citizens to apply for grants covering <80% of renovation costs. Furthermore, as demonstrated in both Madrid and KMA, municipalities are generally trusted by citizens, able to act as credible intermediaries between vulnerable communities and private energy service providers to deliver energy poverty mitigation measures.

1. The EU-LIFE funded COMANAGE project produced a toolkit for citizens and municipalities to create and scale Energy Communities and implemented it in 3 pilot hubs in the metropolitan areas of Barcelona (Spain), Krakow (Poland) and Lazio (Italy).

"Since energy poverty can be stigmatized, energy communities need to offer tangible value to vulnerable people, without further ostracizing affected groups."

Barcelona Metropolitan Area (Spain)

"Local governments aim to reduce their citizens' energy bills, and to invest in renewables. Yet, legal complexity and unfavourable national policies for energy communities are significant barriers."

Krakow Metropolis Association (Poland)

"The COMANAGE communication tools are designed to engage vulnerable groups and ensure their involvement in co-creating energy communities."

Lazio Pilot Hub (Italy)

Questions and recommendations for policymakers

The questions below encourage practical reflection among policy makers and metropolitan actors. They capture key insights from the COMANAGE project and provide general principles able to be adapted by cities outside of the project, guiding scalable energy community design.

01

Reframing energy poverty from a cost to an opportunity

How could your city put energy affordability at the heart of a city-wide strategy?

Many of the COMANAGE pilots report difficulty with defining, identifying, and engaging with "energy poor" households. Though well-meaning, this approach often proves administratively burdensome, does not always lead to compelling results, and may overlook more efficient approaches to delivering affordable energy to wider metropolitan end users. Instead of investing resources towards such a particular demographic, metropolitan authorities could consider levers to unlock affordable energy for all, such as making collective self-consumption more accessible.

02

Acting upwards

On what issues could your city advocate towards legislators, to remove the underlying regulatory barriers to scalable energy communities?

Metropolitan authorities are uniquely positioned to address energy poverty through downwards support to local projects, alongside advocating upwards for new energy policies. For example, authorities could lobby their national government for more favourable local energy market and tax regulations, reflecting in the final energy costs the proportional use of the grid, thus increasing the affordability of locally produced energy. Within COMANAGE, replicators as **Diputació de Girona** and Pilot hubs as **AMB, Lazio Region, and KMA** all demonstrated initial successes with this approach, aiming to improve the underlying market conditions for viable energy communities.

03

Delivering measurable value for local people

What KPIs would help to deliver real impact for homes and businesses, and identify the most useful innovations for replication?

The existence of energy communities alone does not necessarily signify their impact – without a clear measurement of benefits, they may in fact be well-meaning but costly initiatives. To ensure scalability, energy communities should be genuinely attractive to their end users, and community engagement should be led by clear aspects that households care about, such as cost, convenience, and reliability of energy.

04

Finding a balance

How can your city balance inclusive engagement with commercial scalability, ensuring that participation benefits and doesn't burden energy projects?

Interviews with the COMANAGE pilots, particularly KMA, and replicators all revealed a common challenge that households and businesses may sometimes perceive energy communities as complex policy initiatives with unclear short-term value, requiring time and effort that can be difficult to prioritise, rather than as practical solutions with direct benefits to their daily lives. Engagement by metropolitan authorities should therefore be sensitive to local needs and histories, minimal and not for its own sake, and engage local technical specialists to deliver a community vision as much as possible.

05

Choosing the right tools

When do subsidies address a problem – and when do they simply mask one? When should your city invest in structural solutions instead of short-term relief?

Grants and subsidies are effective forms of short-term relief to vulnerable citizens. However, energy communities dependent on repeated subsidies are vulnerable to changing policies and budgets. Metropolitan authorities should therefore invest in the foundations of long-term market viability such as business, legal, and management capacity. For example, within COMANAGE, Diputació de Girona, as project Replicator, helped its energy communities to activate the collective self-consumption market model and unlock a long-term source of local green energy.

All details about the projects are available on COMANAGE's website.