

The Solidarity Renewable Energy Community:

A Model for Addressing Energy Poverty at the Local Level?

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Abstract In 2021, as the EU Renewable Energy Directive was being transposed into Italian law, the environmental association Legambiente and a local third-sector entity in Naples initiated a new form of energy community: the Solidarity Renewable Energy Community (Comunità Energetica Rinnovabile e Solidale – CERS). This model stands out for its development in vulnerable urban contexts, its foundation by civil society actors, and its aim to alleviate energy poverty by redistributing the locally generated value of renewable energy to the benefit of low-income households.

Since its first implementation in East Naples, the CERS model has expanded to several Italian cities. Yet, beyond that initial case, the model remains underexplored in the literature. This research addresses the following question: How is the CERS model designed to address energy poverty at the local level in urban contexts?

To answer this, the study identifies four core dimensions of analysis: (1) the territorial context in which the CERS is embedded, (2) the actors involved and their motivations, (3) the inclusiveness of the design and implementation process, and (4) the intended impact on energy poverty. Following a review of the Italian regulatory framework and of the literature on energy communities and energy poverty, five case studies—three in Milan and two in Rome—are analysed. These cases are based on semi-structured interviews with representatives of the involved communities.

The comparative analysis shows that, while the model adapts to different urban contexts, it is consistently rooted in pre-existing solidarity networks. The CERS can be initiated by local organizations—such as associations, cooperatives, or parishes—or by local public authorities, and often emerges through cooperation between the two. These actors mobilize physical spaces, social trust, and contextual knowledge to activate inclusive energy communities in underserved areas.

The success of these initiatives also relies on intermediary actors—such as national NGOs, foundations, and socially committed energy providers—who translate technical, financial, and regulatory complexity into accessible processes. They enable coordination among diverse stakeholders and help co-design viable governance models.

Equally important is the contribution of multi-level institutional support—from municipalities to EU programs—which provides essential financial resources, particularly for initial investments and the long-term sustainability of energy-sharing schemes.

The CERS model illustrates how energy communities co-developed by public and local actors, supported by intermediaries and anchored in multi-level governance, can advance a more just and inclusive Urban Energy Transition. Future research should assess its long-term impacts and replicability.