

## **ENERGY COMMUNITIES IN ITALY.**

### **Analysis on the internal national gap between North and South.**

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#### **1. Introduction and Background**

Technologies for distributed energy generation have reached a level of maturity that will favour the creation and diffusion of local energy systems. Nevertheless, technology issues are only part of the energy debate. The progressive involvement of local communities in the ownership, decision-making and organization of energy production plants is leading to the birth of a new socio-energy system based on distributed generation from renewables. In this context, the energy communities will play a crucial role in the re-discussion of the entire infrastructural system and the energy market. In this paper we have studied, through a comparative analysis, the socio-economic, cultural and historical factors that characterize the energy communities in the two macro areas of Northern and Southern Italy and that determine their level of diffusion.

At the European level, the evolution of energy legislation is increasingly aimed at promoting new ways of developing, efficiency and use of renewables. For this reason, particular attention is dedicated to increasing production and consumption initiatives at the local level. On the one hand, the European Commission within the Clean Energy Package has set the guidelines and requirements in terms of renewable energy to be achieved by 2030 for each state. On the other hand, it has introduced, through two directives, EU 2018 / 2001

(Renewable Energy Directive II, or REDII) and UE 2019/944 (the Internal Electricity Market Directive, or IEMD), two new figures: Renewable Energy Community '(REC) and' Citizen Energy Community '(CEC). In both cases, the goal is to allow the open, voluntary and autonomous participation of individual citizens, businesses, local authorities in energy generation, distribution, supply, storage and consumption initiatives. With this package, therefore, the European Commission intends to offer to the consumers not only tools that guarantee them more information on energy services and products or more freedom when they want to change the energy supplier but also opportunities to aggregate their energy demand / offer or to become prosumers, single or associated. At the national level, EU countries are enacting legislation to adopt these directives. In Italy, for example, the parliament approved the law no. 8 on 28 February 2020, which entered into force on the first of March. This law, pending the complete transposition of Directive (EU) 2018/2001, allows activating collective self-consumption from renewable sources or creating renewable energy communities. From a social and territorial point of view, energy communities can create development and aggregation, especially at the local level, playing an important role as diffusers of structured practices in the shared management of energy resources. The introduction of new and different forms of organization in the energy sector entails at the same time a complex of social, cultural and technological innovations, which require a complex set of conditions in order to develop them fully. Indeed, these processes are not implemented in the same way and with the same degree of difficulty, despite the unique national legislation. Italy reveals a clear internal difference between North and South, although a first analysis of the initiatives planned and / or launched shows how these are widespread throughout the national territory.

## **2. Methodology**

We will analyse the differences between North and South of the Italian country by carrying out a comparative analysis. We have selected these two large areas of the country because they traditionally present an internal gap with respect to the socio-economic conditions of their inhabitants, industrial development and productivity levels.

The North Italy is the most economically developed area of the entire country while the South (Mezzogiorno) is still a depressed area from the point of view of employment levels and the internal economic structure, characterized by a weak industrial and productive fabric, by a predominantly public employment and a resumption of emigration. Based on these structural differences, energy communities are also expected to assume different characteristics, which will be tested using a series of indicators: number of initiatives and project in relation to each area, dimensions, typology of actors involved, typology of energy communities.

## **3. Results and Findings**

The difference between the two main areas of the country is significant both in quantitative and qualitative terms. On a strictly numerical level, a greater concentration of energy communities in the regions of Northern Italy is evident, where these initiatives have features partly different from those emerging in the Southern regions. In fact, in the former, the

funding has a mixed public / private character, while in the South the investments of the larger energy communities in planning come from public actors. In both areas of the country, energy community projects are characterized as place-based initiatives and are the result of an action promoted by intermediaries (local administrations and / or energy companies) who act as aggregators of the citizens in a specific territory. Moreover, in the most cases it can note a sophisticated technological innovation applied in order to obtain maximum efficiency and safety.

#### **4. Discussions and Conclusions**

The differences, and even the gap, between North and South Italy in the diffusion and characteristics of the energy communities can be understood starting from some hypotheses concerning socio-economic, cultural and historical factors.

- 1- The different economic structure of the two areas is one of these basic factors. It is also the product of economic policies that have been repeated over decades. On the one hand, therefore, the income structure and the presence of a more solid entrepreneurial fabric in the Northern areas can be hypothesized as an enabler for a more widespread diffusion of community-type energy experiences. On the other hand, the economy of the South is more dependent on public transfers and is distinguished by a more fragile and fragmented productive fabric. All this appears as a barrier.
- 2- Another difference relates to cooperative and collaborative practices, which could affect the cultural and trust dimension on which community dynamics are based. This dimension seems to have established itself more extensively over time in Northern society, while above all the feeling of trust in community institutions and practices appears less strong in the South, at least in the lower and middle social strata.
- 3- Finally, according to what has been argued, it is possible to detect not so much a different sensitivity towards energy saving and environmental issues in the South in comparison with the North, but rather a lesser willingness to build shared paths for the achievement of objectives related to the energy transition.

According to these results, further research should focus on analysing the success and duration of these initiatives in relation to each area and the different conditions it presents. Furthermore, it should be verified which actors are able to involve citizens in a more participatory and active way and according to which social, cultural and economic mechanisms

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