Exactly who are the right players in mutuals and local utilities is an old, open debate (Birchall, 2011; Montemartini, 1902; Ostrom, 1990; Spiezia Monea, 2004; Tretola, 2004; Borzaga and Tortia, 2005; Spann, 1977; Fici, 2010; Managiameli, 2010; Atkinson and Halvorsen, 1986). Co-operatives are on the edge of the theoretical debate (Hansamm, 2005; European Commission, 2003; Ruiz-Mier Van Ginneken, 2006), but despite this, public and private ways/organizations/enterprises are still indicated in the literature and in daily practice as the only solution and no other players are part of this game. Co-operative firms, for instance, are not considered. But what exactly are mutuals?

Mutuals are part of a class of organisations (also including co-operatives, credit unions, friendly societies and other economic associations) that have one common feature: they are membership-based. While public agencies exist to serve the public in general (or some part of the public that citizens in general wish to serve), and private, investor-owned businesses exist to increase the profits of their investors, mutuals exist for the benefit of their members. Benefit implies ownership and ultimate control, which is why mutuals do not have outside shareholders; they put people before capital, and so usually work on the principle of one-person-one-vote. In this, they can be called ‘people-centred’ organisations. (Birchall, 2011: 147).

Over the last thirty years, the process of privatization of services of general economic interest has been put in place in order to transform the role of the state, and the contraction of public resources available has resulted and continues to result in a process of profound change in this area (Mele, 2003; Bonelli, 2008; Arcangeli, 1995). It is clear that there is a disengagement from the direct provision of services caused by the crisis in public finance, inefficiency of bureaucracy and public demand for more advanced and efficient services (Work Foundation, 2004). The treaties of the European Union, for instance, highlight the importance of respect for the mission of public services and the principle of free competition, considering gradual liberalization and, at the same time, the recognition of certain guarantees.
The transition from a model of monopolistic management to a liberal model in which private companies and profit and non-profit organizations have free access to the market underlines an issue concerning the best type of ownership to choose (Arcangeli, 1995; Fici, 2010, Berry D.M., 1994). However, beside the public and private companies, there is a third player: the co-operative, which is discussed in the theoretical literature but is present in the market too, and the numbers show it.

Economics textbooks do not present this solution (see chapter T: Textbooks, in this publication) but co-operatives could be a more innovative answer than the traditional choice between public and private, one able to combine economic and social effectiveness. The theoretical debate regarding mutuals and local utilities has been raging for a long time. Some scholars, such as Montemartini (1902), have made a distinction between the Private and the ‘Political Firm’ (Impresa politica in Italian), and according to Montemartini’s theory, political-firm policy is more effective than private-firm policy. The latter is by nature oriented to profit while, on the other hand, the ‘political firm’ has the efficient provision of public goods as its objective. Others scholars, including Robert Spann (1977), on the other hand, argue that private firms typically produce similar goods and services at a much lower cost than their public counterparts.

In 1990 the Nobel Prize winner Elinor Ostrom (Ostrom, 1990) suggested that under certain circumstances communities are able to govern public-utility services. Her research demonstrated that human communities have created a number of informal institutional bodies for regulating access to common resources that succeed in creating a stable balance between use and resource renewal.

The values of co-operation can be useful and effective tools in the participation of users in the choices of investment and development for which the costs and benefits, in the case of local public services, spread across the entire citizenry (Mori, Spinicci, Pellizzari, 2014; ECD, 1998).

The co-operative business model is present in numerous sectors of the economy, including public utility co-operatives in telecommunication, water, and electricity (ICA, 2011). The role of co-operatives in local public services has been analysed by numerous scholars (Bernardi, 2009; Hansmann, 2005; Ruiz-Mier and Van Ginneken, 2006), who have outlined the conditions of existence. Analysis by Hansmann (2005) underlines how a co-operative can reduce the transaction costs associated with the production of a service by aligning the interests of the enterprise with users’ interests. He also highlights how the conditions of homogeneity of preferences and the long-term perspective for investing in a particular community can lay the
groundwork for direct management by the users of the service.

In the European Union, the Green Paper on Services of General Interest (European Commission, 2003) indicated that the winning formula of user co-operative entrepreneurship is close to the supply and demand that facilitates the appreciation and the satisfaction of service users. Ruiz-Mier and Van Ginneken (2006) propose consumer co-operative as an alternative institutional model to the management and ownership of public utilities. Many scholars (Borzaga and Tortia, 2005; Mill, 1848; Mori, 2008; Berry, 1994) who have dealt with co-operative firms have focused their attention on the significant positive impact that the co-operative itself produces. Besides the supply of services or goods, besides the business in itself, co-operative firms, the real ones, support communities with contributions other than the mere economic ones (Bernardi, 2007). These are positive externalities and result from the democratic principle that inspires governance and from the goals and shared values of the members and proximity to the local communities (Smith, 2001).

Energy is one of the most important public utilities and the energy sector is at the centre of many theoretical contributions, let alone of a fierce competition between state and private giants. The debate on the role of co-operatives in public utilities and the energy sector is very timely. The first series of hydroelectric co-operatives were created in the early 20th century in Northern Italy and Austria with the aim of supplying services which neither the public nor the private sector could provide (Bernardi, 2009). The supply of electricity to small villages in the Alps at the beginning of the century was a market failure but it was actually not that difficult for small communities to set up a small hydropower plant owned and run by its members. They survived in very good health and there are 34 of them today in Italy (Di Gaspare et al., 2006). Originally, technology and market failure made collective ownership the only feasible alternative. Today, it is clearly possible to buy electricity from private or public suppliers, nevertheless, those co-operatives still exist. This suggests that social and idealistic reasons are today stronger than economic reasons as a motivating factor for joining an electric co-operative.

Over the last few years, successful projects in the renewable energy sector have been typically managed by co-operatives because these projects are based on the positive involvement of the community (Subbarao and Lloyd, 2011). The spillover of mutual ownership is not only of an economic nature. Ownership and participation in the management of local services is an opportunity to foster social ties and build lost community relations.

An interesting case is that of ‘Community Energy’. It is a British community-based initiative for energy production from renewables. It is an important experience in the electric sector because it focuses on electric
energy that can be run by or for local people and is still able to provide them with direct beneficial outcomes (Walker and Simcock, 2012). More recently co-operatives have been created to promote the use of renewable energy, most notably in Canada, the US, the UK, Denmark and Germany. In order to promote the adoption of renewable energy, the co-operatives have to seek to influence the behaviour of their members so that they switch from the use of traditional fossil energy to renewable energy (Viardot, 2013).

Co-operatives are committed to creating projects for energy production from renewables (Jacobs, 2010). In December 2013, the European federation of groups and co-operatives of citizens for renewable energy (Renewable Energy Source COOPerative, RESCOOP) was established under Belgian national law with a European scope. This legal act is a key issue in further developing the activities of the European federation and constitutes a base for building a strong European renewable energy co-operative alliance.

Co-operatives Europe, representative body of European co-operative enterprises, underlines how all co-operatives, combining economic and social purposes, are linked by the definition of the concept of services of general interest (Co-operatives Europe, 2008). This connection is clear because there are several co-operatives that provide, directly or otherwise, different public services and are important actors in this sector (Co-operative Europe, 2008). The co-operative business model is present in public utilities and especially in the energy sector as shown by its presence in Europe and the U.S.A.

### Table 1 – Energy Co-operatives

<table>
<thead>
<tr>
<th>Country</th>
<th>U.K.</th>
<th>Germany</th>
<th>Italy</th>
<th>U.S.A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Co-operatives</td>
<td>15 (large co-ops)</td>
<td>776</td>
<td>77</td>
<td>900</td>
</tr>
<tr>
<td>Number of Users</td>
<td>300,000</td>
<td>_</td>
<td>300,000</td>
<td>42 million in 47 States</td>
</tr>
<tr>
<td>Number of Members</td>
<td>30,000</td>
<td>200,000</td>
<td>40,000</td>
<td>_</td>
</tr>
<tr>
<td>Turnover</td>
<td>_</td>
<td>1,200,000</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Energy from renewable sources</td>
<td>_</td>
<td>_</td>
<td>_</td>
<td>11% of energy produced</td>
</tr>
</tbody>
</table>

Source: Our Data Processing – UK Co-operatives UK; Germany DGRV Die Genossenschaften, is both the apex and auditing association of the German co-operative organization; Italy Confcooperative Federconsumo; U.S.A. NRECA (National Rural Electric Co-operative Association). 2013 figures

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2 There are about 500 Community Energy in the U.K. (Walker and Simcock, 2012).

In the U.S.A. co-operatives have helped to increase the electrification process in rural areas where profit companies do not gain economic advantage from operating; in these areas, the request for electric energy was lower but at the same time more diversified than in urban areas (Cooper, 2008). In rural areas, electric services were inadequate during the early years of the 20th century (Lowery, 2010). In 1933 the Tennessee Valley Authority (TVA), which represents the first federal operation in the rural electrification sector, was created. Citizens and farmers began to organize and create the first co-operatives in order to build electric dams (Lowery, 2010). Today over 900 mainly rural energy co-operatives own 40% of the national power lines and provide light and power to 42 million people in 47 states, and 11% of the power supplied is from renewable energy sources. Most of these energy co-operatives are members of Touchstone Energy, a co-operative federation founded in 1998 (Co-operatives UK, 2011). The importance of these numbers explains the reason for the foundation of NRECA, the National Rural Electric Co-operative Association. NRECA is a national service organization dedicated to representing the national interests of co-operative electric utilities and the consumers they serve. Founded in 1942, NRECA was organized specifically to overcome World War II shortages of electric construction materials, obtain insurance coverage for newly constructed rural electric co-operatives, and mitigate wholesale power problems.

In Europe, co-operatives have appeared more recently and have different features; energy co-operatives are for the most part involved in producing electricity from renewable sources. German energy co-operatives experienced a recent boom (Klemish Maron, 2010). Between 2008 and 2012, the number of officially registered co-operatives in this field increased from fewer than 100 to more than 750 companies (Müller and Holstenkamp, 2013). These are engaged in producing electricity from renewable sources, typically using solar PV or biomass. They are embedded in a particular community with a small membership (usually fewer than 100) and, based on the German feed-in tariff, make most of their revenue from selling electricity. Some co-operatives also run heat grids or are engaged in trade with electricity from renewable resources.

In Britain the last annual reports published by Co-operatives UK show that there is a strong and increasing awareness of environmental issues and people in the community are coming together to create projects that produce renewable energy. According to Co-operatives UK data,

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4 Data from NRECA.
there are 15 co-operatives that supply electricity and gas and ten of these belong to Energy4all.

In Italy there is already a strong presence of the co-operative movement in the electricity sector and we should expect a growing phenomenon in the future. Along with traditional and historical electric co-operatives, a number of very small co-operative producers in the field of photovoltaic and similar technologies are springing up (Spinicci, 2011). Data reported by the Italian Authority for Electricity and Gas\(^6\) in 2013, have identified 77 co-operatives in the energy sector, producing 400 million KWh, with 40,000 members. In Italy these co-operatives are principally limited to a specific geographical area, Alto Adige, where the most important case is the Co-operatives Raiffeisen Federation of South Tyrol with 60 energy co-operatives\(^7\). This is a kind of community business where service is one of the most important components but it is not the only one, and production for the market and creation of value for the community are also very important elements (Di Gaspare et al., 2006).

These data confirm the presence of co-operatives on the market, but, are they also economically efficient? Unfortunately we do not have data on this and so we have analysed some cases in various countries. In all of these, the co-operative energy price is lower than the market price. This confirms that co-operatives could be an efficient alternative and a competitive actor.

**Fig. 1 – Energy Price, 2013 (Euro Cents)**

<table>
<thead>
<tr>
<th></th>
<th>Coop Price</th>
<th>Market Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>10.9</td>
<td>11.7</td>
</tr>
<tr>
<td>U.K.</td>
<td>12.6</td>
<td>15.7</td>
</tr>
<tr>
<td>GERMANY</td>
<td>27.65</td>
<td>28.84</td>
</tr>
<tr>
<td>ITALY</td>
<td>10.0</td>
<td>10.23</td>
</tr>
</tbody>
</table>


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6 Consultation document for the formation of measures following the AEEG ARG/Elt 143/09 resolution.

7 Reiffesisen Verband Federation website.
It is increasingly difficult for local authorities or states to set up public utilities in both Western nations and developing countries. This could be an additional reason for co-operatives to take initiatives at least at local level in providing services to communities. There may be an economic reason for supporting these programmes, but, above all, there could also be a social reason for doing so.

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