

## **COOPERATIVES IN ENERGY MARKET**

Since the beginning of the 20<sup>th</sup> century, diminishing volume of energy resources and resulting the rise in energy prices gave rise to the notion of eliminating adverse effects of energy use, and thus necessitated research and placement into service of environmentally-friendly and renewable energy sources, and this trend has also opened the door for a new model: "*energy cooperatives*".

### **What is an Energy Cooperative?**

A cooperative can be defined as cooperation and economic activities based on cooperation[1]. In this cooperation model, members voluntarily form an independent organisation regulated by democratic rules in order to satisfy economic, social and environmental needs[2]. In accord with the fundamental idea of cooperation, the principle is to admit any person to this organisation without any discrimination. In regard of decision making or policy creation, the cooperative is democratically managed by participating members, wherein each member has the right to one vote. The decisions made by the cooperative are decisions made in line with special principles and values in order to satisfy various needs and expectations of the members. Members contribute in equal shares to cooperative capital. As an autonomous and independent organisation the cooperative provides training and education services to its members, as well as contributing to sustainable development of the society through cooperation between various cooperatives and the policies approved by the members[3].

### **The Importance of Cooperatives in Regard of Energy Market**

Being democratic organisations by institutional structure, "energy cooperatives" are an important tool to achieve the objective, and may also have a positive effect on efficient distribution of resources by their competition increasing effect. Established based on voluntary participation and regulated democratically, this system can meet the local need for services, create employment, struggle against poverty, protect the environment and create base for investments. By all these, it prepares the foundations for local economies and sustainable development, thus allowing the society to develop and the economy to strengthen. For example, in Denmark approximately 23% of wind energy capacity is owned by energy cooperatives, and approximately 150,000 households are members of energy cooperatives[4]. Energy cooperatives play an important role in ensuring the long term investments required to provide sustainable energy supply, as well as realising challenging energy projects by means of multiple partner structure (as seen in the example of electricity supply to rural areas in the USA). The countries, where the energy cooperative model becomes widespread, do not face certain difficulty or impassable barrier while overcoming energy supply challenges. As a matter of fact, where the private sector investors avoid energy investments on the alleged grounds of high investment costs and low energy prices in the market, the supply problem can be solved thanks to "energy cooperatives". Energy cooperatives can also be very effective in providing solutions thanks to cooperation between local and other public institutions and offices. "Accountability" and ensuring rural diversity can be counted among other advantages of energy cooperatives. For instance, it can be possible to bring farmers and landowners under the same umbrella to cooperate on a biomass project[5].

### **Global Examples of Cooperatives in Energy Market**

"Energy cooperatives" are a very common practice in Denmark, Sweden (especially in biogas), United Kingdom, Germany and Holland, and their numbers are rapidly increasing across Europe. For example, in the last four years energy cooperatives hold the first place among new founded cooperatives with an increase of 24% in the United Kingdom. Energy cooperatives in the UK are assembled under the framework of Energy4All[6], which was established in 2002, and solar energy projects are supported in addition to wind energy. Again, Denmark implements the cooperative system to support wind energy industry, and many wind energy projects are supported through cooperatives, including the Hvidovre offshore wind turbine project which is expected to exceed the height of the Eiffel Tower by 2020[7].

Denmark is the country with the strongest cooperative tradition in energy sector. The "Middlegrunden Cooperative" (wind turbine) established by cooperation of three local Danish families in early 1970s today has 8,600 members

and it is the leading energy cooperative in renewable energy sector. In the UK, Baywind energy cooperative constitutes the leading energy cooperative[8].

Other than Europe, energy cooperative model is also practiced in Canada and USA. For example, in the USA, the "rural electricity cooperatives" model was developed in around 1935 in order to ensure uninterrupted electricity to rural areas, and public financing with low interest rates was provided for the first 10 years for the success of the model. In 1944, this financing support was extended to 25 years at 2%. Today, there are more than 900 rural energy cooperatives owning 40% of the national energy lines in the USA, and these supply power to 42 million people in 47 states. 11% of this electricity supply is generated by renewable energy resources[9]. In Canada, the wind energy cooperatives have started to display development starting from 2000s under the framework of the Canadian Cooperative Association[10].

### **Cooperatives in Turkish Energy Market**

While the number of "energy cooperatives" is rapidly increasing around the globe, unfortunately they have not developed yet in Turkey. In the meantime, as stated in the "2012-2016 Cooperative Strategy and Action Plan" of the General Directorate of Cooperatives of the Ministry of Customs and Trade it is hoped that "energy cooperatives" can be developed in Turkey and studies in this direction are initiated. However, as the system is being developed "the importance of support mechanisms" for "energy cooperatives" must be handled with special care, since "energy cooperatives" are an important and essential element of "sustainable energy supply". For instance, in Denmark "energy cooperatives" are supported through various mechanisms like direct public or local authority support, financial support at the preliminary project planning stage, bank loans provided for share purchases by cooperative members and tax-exempt investment opportunities. Other countries also practice various mechanisms to encourage energy cooperatives. Turkey should compose the legal infrastructure for "energy cooperatives" explicitly and as soon as possible, and strong support mechanisms should be established to encourage individuals to form "energy cooperatives".

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[1] Hakkı Çetin, A General Review on Social, Economic and Democratic Effects of Cooperatives in Development Process, p.36, <http://girisim.comu.edu.tr/dergi/1/4in2/cetin.pdf>

[2] Mülayim Ziya Gökalp, Cooperation, Yetkin Yayınları, 2006, p.17

[3] International Cooperative Alliance (ICA) (1995) Statement on Cooperative Identity. [www.ica.coop](http://www.ica.coop)

[4] "Cooperative Energy: Lessons from Denmark and Sweden", p.26. <http://www.uk.coop/document/co-operative-energy-lessons-denmark-and-sweden>.

[5] "Cooperative Energy: Lessons from Denmark and Sweden", p.11.

[6] <http://www.energy4all.co.uk>

[7] Tübitak, Annotation on Preparation of Innovation Strategy, p.11.

[http://www.tubitak.gov.tr/tubitak\\_content\\_files/BTYPD/btyk/22/BTYK22\\_Ek5\\_Enerji\\_Bilgi\\_Notu.pdf](http://www.tubitak.gov.tr/tubitak_content_files/BTYPD/btyk/22/BTYK22_Ek5_Enerji_Bilgi_Notu.pdf)

[8] <http://www.baywind.co.uk>

[9] "Cooperative Energy and Sustainable Social Science", p.3.

[10] <http://www.coopscanada.coop/>