

Energy Transition: when energy politics meets community

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In the 2030 Agenda for Sustainable Development of the United Nations (UN) seventeen (17) Sustainable Development Goals (SDGs) are agreed on. For the next years, states will try to deal with all forms of poverty, inequalities and to tackle climate change, while ensuring that everyone takes the same path (UN, 2016).

As it is mentioned on website of U.N. “energy is central to nearly every major challenge and opportunity the world faces today. The role of energy is crucial for the jobs, security, climate change, food production or increasing incomes.” Because of this, a specific Sustainable Development Goal refers to energy transition and explicates the need to ensure access to affordable, reliable, sustainable, and modern energy for all. This underlines the new perspective of energy, especially clean energy, which is the key for the further progress of humanity and the planet (UN, 2016).

Sustainable energy is a delicate issue which will determine the future of societies, economies, political orientations and the future of the planet as the whole. The energy transition or energy revolution is on its way. And it is close related, with the inherent potential to create the new environmental modernization, the post-modernist society as Mol (2001) named it or post-carbonist society according to Urry (2011).

This means that the transition from the current ‘dirty’ energy system to a sustainable energy system is a system’s issue. This requires addressing all the issues which make up a system such as infrastructure, technology, innovation, economy, culture, law and institutions, state and policy, ethos and values. The procedures of energy transition encompass alteration, transformations and changes, not only to technologies and organization and structures of energy facilities, but also to the broader social and economic institutions that depict energy production, distributions and consumption (Elliott 2015).

Energy systems, according to Miller et al. (2013) are socio-technological systems that involve not only machines, pipes, mines, refineries, grids, but also individuals, enterprises and social groups, institutions, management strategies of energy use and consumption. All of these shape economy, policy, cultural and social practices, norms, values, institutions and a network of relationships, between them.

Thus, in the core of the energy transitions the key question is not what type of energy we should use, but how to a new energy system will be set up for the welfare around the globe, through the creation of thriving, innovative, sustainable societies (Elliott 2015). Under this perspective the changes in energy system provoke different planning and coordination of policies (environmental and social) and strategies about the governance of energy (Miller et al., 2013).

Geller (2002) in his work noted that today the knowledge and the technology for a clean energy revolution are either academic or commercially available or emerging in the marketplace. The main challenge is how to overcome the barriers which ignore the need of a differentiation of the current needs contributing to the unequal distribution of power and wealth and how to implement a clean energy system that will allow to achieve energy democracy, energy justice and to erase energy poverty.

Energy transition is throughout human history a harbinger for a new era and for the emergence of new economic and social schemes and systems. The ability to introduce more and more energy to production lay at the transformation of societies. The more energy used, the more complex organization of society with the development of new modes of cultural behaviors (Rosa, 1998).

Since humans discovered fire, energy is an essential resource for their survival. Easily accessible wood used to meet their needs for cooking, heating. Fire was regarded by Darwin as the greatest discovery made by humanity, beyond language (Gowlett, 2016). In 1780s there was the second revolution from wood to coal, when the second surpassed the first. A century later, with geology knowledge and technology innovation oil and gas production were the source of the energy (Unger, 2013). These energy resources transformed again human society, creating our throwaway and consumer society. The 'throwaway' describes the current social, economic and cultural structure of society. The separation between human and nature is in the core of the throwaway culture.

Nevertheless, we live in an era that the human-nature relationship is determined by neoliberal policy, ethos and economy. Moore (2014) argues that now we are in the orbit of change and because of climate change we maybe have to pay today a high price for our unreasonable egoistic profit-maximizer behavior, acted generously by now. It is the realization that everything is interdependent and that humans do not master, but are part of the nature.

Burning fuels produces large amounts of greenhouse gases which cause climate change and have negative impacts on people's and planet's well-being. This affects everyone and every living organism. Climate change, caused by neoliberal societies and their lifestyle, structured on certain energy resources, could be seen as the crisis of modern civilization (Koumparou, 2018). The industrial and market growth bring further inequality and injustice for more than two centuries and still continue. The mode of political organization of 19th and 20th century seems to be drained. Under globalization, states seem to lose their sovereignty by market forces. If sustainability is in the core of every environmental policy, we should bear in mind that sustainability encompasses the idea of societal change both in the industrialized countries and in the developing world. Therefore, a rearrangement of existing socio-technological and socio-ecological frames is required. This rearrangement could lead us to the new era of the green or post-carbon or another society. This new setting presupposes the breaking of current energy resource dependence (Urry, 2015) and a new way of thinking and behavior (Koumparou, 2018).

Our post-modern society or post-carbon society that is imagined casts doubts on the fundamental style of life and on the modes of production and consumption. The 'greening of the societies' demands a transformation of behaviors, values and priorities of the contemporary society.

Through the pass of the time, from the age of the Renaissance until now, natural resources have been “socialized”. This socializing of the resources seems not to have served the needs of the society equally and fairly, provoking environmental degradation or even destruction, causing social problems too. An establishment of a new form of socialization is the new challenge for a sustainable present and future. The socializing of energy points that issues like poverty, justice, democracy should be addressed under this process.

If energy revolution is on its way then new forms of social institutions and governance, new social structure emerges (Lowe et al. 2013; Whittington 2016) and a systematic shift will probably take place.

While public is aware of the urgent need to reduce carbon emissions, many of those who have to change their attitudes have not yet accepted that the threat posed by climate change is not theoretical, but it is a reality. The necessity to change their actions and to organize their lives in a new-fangled style is not established yet.

As Koirala et al (2016) note, new decentralized low-carbon energy systems are developed. The greening of the energy requires more actors than the past. Energy transition is implemented through the restructuring and new interpretations of the energy sector like energy community

“Energy Community” is an alternative strategy in the US for encouraging citizen awareness and participation, according to Klein and Coffey (2016). The introduction of this strategy is supported by the long history of environmental social movements and the recognition of the complex interrelationships among individuals, innovation, technology and institutions (Klein and Coffey, 2016; Schot and Geels, 2008; Heisknen et al., 2010).

In the European Union (EC, 2016) Winter Package – “a package of measures to keep the European Union competitive as the clean energy transition changes global energy market”. – their role is described: “Local energy communities (LECs) can be an efficient way of managing energy at a local community level with or without a connection to distribution systems.... Local energy communities are authorized to own, establish, or lease community networks and to autonomously manage community networks”. In the European Energy landscape with the introduction of “energy community”, citizens are transitioned from passive consumers to active prosumers and this also redefines the way the EU connects with its citizens.

According to the Winter Package member-states should adopt a legal framework that ensures the new operating framework for energy communities (EC, 2016).

In Greece the law 4513/2018 “Energy Communities and other provisions” introduces the institutional framework for the establishment and operation of the Energy Communities, with the aim of promoting social and solidarity economy and innovation in the energy sector, addressing energy poverty, promoting energy sustainability, production, storage, self-consumption, distribution and supply of energy, enhancing energy self-sufficiency and security, and improving energy end-use efficiency at local and regional level.

This work tries to identify how the Greek state envisions the implementation of the strategy for the energy community, satisfying the principles of energy autonomy, self-sufficiency and social economy. The paper presents the Community Energy Systems in Europe and how Greek institutions empower them, ensuring that the energy transition will take place in terms of social justice while society plays an active rather than a passive role. Greek Community Energy Systems are emerging with the aim to establish the social and solidarity economy and to promote energy democracy.

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