THE ENERGY TRANSITION AND DEMOCRACY AT THE LOCAL LEVEL

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Abstract

The paper describes the importance of the energy transition and energy democracy at the local level. Citizens and local stakeholders can be encouraged to consume locally and be more resource efficient via local renewables using, creation of local currency, alternative banking system, or technical and financial assistance provided by the municipalities.

Key words: energy democracy, energy transition, local level, renewable energy sources

Introduction

Energy is embedded in every action we take and in all sectors of the local economy. We can reduce our territories' energy and carbon footprint by fostering local energy and goods production and consumption; short-circuit food-supply systems, energy efficiency renovation of buildings, improving public transport, keeping cities more compact.

1 Renewables, energy transition and energy democracy

In order to build an adequate low-carbon 21st century energy system that scientists have said is necessary to stave off the worst impacts of climate change, a new report argues that the world must look beyond large-scale, centralized renewable projects - such as industrial solar and wind farms -and take up efforts to build more democratically-controlled and decentralized power grids.

Contained as a chapter in the Worldwatch Institute's State of the World 2014: Governing for Sustainability, the research compiled by professor Sean Sweeney, who co-directs of the Global Labor Institute at Cornell University, says the world's energy systems must be "reclaimed to serve public interests, rather than focus on maximizing sales and profits" for the large corporations who now benefit from the burning of fossil fuels and the centralized grids that distribute most of the world's electricity.

"A timely and equitable energy transition can occur only with greater energy democracy, which requires that workers, communities, and the public at large have a real voice in decision making, and that the anarchy of liberalized energy markets is replaced with a comprehensive and planned approach," writes Sweeney (2014).

According to a 2010 report by the Center for Social Inclusion, true "energy democracy" is exemplified by renewable energy projects that are "small-scale, locally owned or controlled" and "structured to allow local investment, sweat equity, and a transparent process for setting fair market prices."

In order to achieve energy democracy, Sweeney says, three key ingredients are needed:

- ✓ *Resisting the dominant energy agenda*

As of 2012, fossil fuel-producing companies and utilities represented 19 of the world's 50 leading corporations. Their revenue and their critical role in the world economy lend them substantial political influence and staying power. Resisting the agenda of these companies and their political allies - through informed policy changes and opposition to projects that present serious risks to workers, communities, and the environment - is an indispensable part of a democratic approach. But this does not mean uncritically embracing the agenda of large renewable energy companies.

- ✓ *Reclaiming the energy system for the public benefit*

Privatization has led almost invariably to worsening working conditions, falling quality of service, and corporate oligarchies. But energy systems can be reclaimed to serve public interests, rather than focus on maximizing sales and profits. This method would return public control to parts of the energy sector that have been privatized and to public energy entities that are run like private companies, while reasserting the right to develop socially owned energy systems.

- ✓ *Restructuring the energy sector*

Compared to the current centralized system, decentralized generation is likely to be more conducive to local control, opening up off-grid and mini-grid potential even for remote areas struggling with poverty. Renewable energy is poised to grow spectacularly in many countries, but the energy transition that the world desperately needs will happen only if changes in the energy

system are carefully planned and coordinated nationally or regionally.

"So far the kind of global political framework that is needed to drive a truly green transition has failed to emerge," writes Sweeney (2014). Though technically possible, he says the restructuring our energy system is being resisted by powerful forces.

Although global society has largely ignored them, for years there have been alternatives to the dominant worldview that the natural world is a platorm for living situated in a warehouse of resources that are ours for the taking. Ecological economists and others repeatedly have made the case for operating within Earth's system limits. Other eloquent voices have urged consideration of perspectives on the human place in the world that would enable and support this mode of operation.

This worldview must go from being part of the marginal debate, to the centerpiece of the story around climate and energy transformation. Democratic, decentralized power systems must go from being "technically possible," to "politically irresistible."

2 Energy transition at local level

Citizens can become empowered the energy transition with relevant information. There must be awareness in the minds of consumers about energy, and how energy enters their environment and how it operates in their environment. When they are aware, they can chose to take action.

The energy awareness levels are low and that the information is difficult to understand. If people don't have information, they can do nothing really. They are slaves to the energy system because they have no control, writes Donnelly (2015), Director at the European Commission's Directorate-General for Energy.

The first issue is giving people *information*, and this information should be easily accessible and real-time information.

People need to be empowered to understand that they can control their expenditure levels, and that they can choose to take action. Empowering information could include access to different tariffs, to simple technologies like a thermostat. There are levels of empowerment, which can go all the way up to becoming active in the demand-response space, either themselves or through aggregators.

The next issue is *participation*. The most obvious and also most established form of participation today is through local generation. This could be PV panels on the roof or it could be energy cooperatives. The issue of participation – this could be a job for local committees, local government, etc. to start the participation, to get people involved. That is engaging people in a very positive way.

Technology is also driving the energy transition. We have new technologies coming on stream, and these new technologies are of two different types. Firstly, big technologies like wind turbines and offshore wind farms. And then small technologies – like the PV panel.

The small scale new technologies are driving the consumer side of the energy transition because it's facilitating their participation in a way that never would have been possible before. So it's opening up new possibilities. This is leading to the fourth issue – to self-consumption or to the "prosumer". This is where people are saying 'maybe I could produce my own electricity and interact with the grid in a way where I use what I need and I sell when I have excess and we are symbiotic.' And that's also a growing trend from almost nowhere.

It's a collective job within the system to respond to the changing realities. For example, utilities won't change their business model unless they have to. But they do have to because of the Energy Efficiency Directive. Policy issues and utilities have to respond. Then there are other changes – like technology. That's opening up possibilities that perhaps we didn't have before. And slowly but surely, there are growing numbers of consumers, who are also shaping the energy transition. – Donnelly (2015)

3 Energy democracy at local level

Energy democracy is a political, economic, social and cultural concept that merges technological energy transition with a strengthening of democracy and public participation. The concept is connected with an ongoing decentralization of energy systems with energy efficiency and renewable energy being used also for a strengthened local energy ownership. With

new green technologies available, such a transition is possible involving new actors: prosumers, renewable energy co-operatives and municipal, community-owned power stations which replace centralized, power corporations.

There are various definitions for Energy Democracy. One broad definition has been agreed upon by the joint climate camps in Germany in 2012. "Energy Democracy means ensuring that everyone has access to enough energy. However, the energy must be produced in a way that it neither harms nor endangers the environmental or people. Concretely, this means leaving fossil fuels in the ground, socializing and democratizing the means of production and changing our attitude towards energy consumption.

In 2014, this concept was promoted by the city of Boulogne-Billancourt in France. For its participation in the Bloomberg mayors challenge, the city presented an innovative vision of Energy democracy based on the reduction of the use of fossil fuels and a system of incentives to encourage citizens in reducing their energy consumption.

A study on Energy Democracy from 2014 concluded that there is a "universe of a thousand alternatives" across Western Europe that still emerges and expands. However the reshaping of the EU energy- and climate policy scheduled for the end of 2015 threatens to slow down or even stop this development. So far, energy-democracy has been a successful concept of grass roots movements to combine a protest against fossil fuels with a positive alternative agenda.

We all have a vote in the political democracy Not of all of us chose to use it. It's the same with energy. We all are energy users. For those who want to use their vote, they should be allowed and capable and able to do so. We should have structures and mechanisms that allow them to express their position, for example, like the Citizens' Energy Forum.

But citizens need themselves to be proactive. On the other side, utilities as well as policy makers have to be receptive and therefore we need to have structured interaction with consumers. This can happen through stakeholder groups, consumer groups, or it could be local development groups. These dialogues have to be an intrinsic part of the way we do business.

Companies active in the energy market will be successful if they can deliver services to their customers. Understanding the consumer needs and demands in order to be able to deliver what the consumer wants is one big area. The second area is – not just in the energy sector – the impact of ICT. ICT and energy are very close – in terms of infrastructure and system. The ICT industry is very clued in to services. It's not a surprise therefore that you see ICT companies becoming active in the energy space.

Conclusion

To have a global picture of the situation, local authorities should be interested in what amount of money is being annually spent on energy, how much is wasted, how much is kept on the territory and how much goes elsewhere. They should also monitor the investments in energy saving measures and their impact on local economy and job creation. Understanding the relationship between the energy transitions and stimulating a territory's economy is essential to changing the perception of the money spent from "inevitable expenses" to an "opportunity" in terms of resources.

The economic impact of the energy transition at local level needs to be highlighted so that more initiatives are implemented by local authorities and stakeholders.

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