Key socio-economic elements to energy poverty in the “developed” world: the case of Spain

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Defining Energy Poverty

Energy poverty has been studied mainly for ‘developing’ economies, but barely for ‘developed’ economies, where it is a social phenomenon nowadays taking place.

In Europe 50 million to 125 million people are estimated to be fuel poor, and this figure will increase considering the trends of rising energy prices and increments of fuel bills (Energy Fuel Poverty and Energy Efficiency - EPEE-2009).
Moreover, the possibility of larger social groups not just having difficulties to cope with energy bills, but being forced to disconnection from energy sources might be the basis for serious social conflicts in the next years, and the prelude of an energy crisis in Europe.
Defining Energy Poverty

In the European Union little attention has been paid to fuel poverty, at least not in its importance as a current and rapidly emerging social problem (EPEE, 2009: 7).

We can say energy poverty is nowadays an invisible phenomenon for public administrations in Europe (European Economic and Social Committee, 2011; Santillán Cabeza, 2010; Buzar, 2007).
Defining Energy Poverty

Recently, in 2011, the European Economic and Social Committee adopted a statement on "Energy poverty in the context of liberalization and the economic crisis" (Official Journal of the European Union of February 11, 2011). The proposal was to take into account energy poverty when developing any proposed energy policy, considering it a new social priority that needs support at all levels, and particularly to improve building energy efficiency is a key issue.
Defining Energy Poverty

Although there is *not an agreement* between the **European Institutions** on the use of the terms ‘**energy poverty**’ and ‘**fuel poverty**’ (Thomson and Snell, 2013), ‘**fuel poverty**’ mostly appeals to low **energy affordability**, while ‘**energy poverty**’ refers to a **wider range of problems** related to **energy access** (Bouzarovski et al., 2012).
The first definition of energy or fuel poverty can be attributed to Brenda Boardman (1991).

In wide terms, we can define energy poverty as the inability of a household to meet a minimum amount of energy services for basic needs, such as keeping the house under conditions of climate suitable for health (18-20 º C in winter and 25 º C in summer).

Similarly, energy poverty can be defined as a condition wherein a household is unable to access energy services at the home up to a socially- and materially-necessitated level (Buzar, 2007).
Defining Energy Poverty

Measuring fuel poverty is a difficult task, counting on a wide range of methodical possibilities, and with not all the desirable available data in Europe (Gordon et al., 2000; Healy and Clinch, 2002; Dubois, 2012; Healy and Clinch, 2002).
Defining Energy Poverty

In recent years scales to measure it have been reviewed in order to determine what are an ‘adequate standard of warmth’, a satisfactory heating, or the income percentage (DOE, 1996; DETR, 2000; DTI, 2001).

Not just income as well as the possibility to reach these temperature levels vary between countries and regions within a country (regional climate differences), but also cultures or traditions, education background, live style and ways of living, consumption patterns, or experience with energy management in the household (energy saving).
In Spain, 10% of households (3 to 4 million people) could be affected by energy poverty (OSE, 2012). Regarding its most extreme consequence, recent estimations show that energy poverty is the cause of 2,300 to 9,000 deaths.

Since the 90’s Spain has one of the highest mortality rates in winter among the occidental countries, and 10% to 40% of additional winter deaths are attributed to energy poverty.
Two types of energy poverty have been measured in Spain, with different results: the objective and the subjective measurements. According to objective measurements such as the energy expenditure and annual household income based on the Survey of Household Budget, the highest rates of energy poverty take place in the North / Center regions of the country (registering lower temperatures throughout the year).
But, when considering subjective indexes like the Survey of Living Conditions, mostly the South or non-peninsular populations (those living in the Canary or Balearic islands) are the most affected regions by energy poverty, caused in this case not just by the population’s lower incomes, but as consequence of poor isolation conditions of households.
Other data shows how from the year 2008 to 2011 the **default rate** (in paying the electricity bill) **has kept constant** in 1,5%, but reaching **1,8%** of energy contract in **2012** (mostly due to the business closure).
The identified causes of energy poverty or fuel poverty are usually increasing (or high) energy prices, decreasing family incomes (or low household incomes), inadequate household efficiency (or bad quality of buildings, poor heating and insulation standards) (EPEE, 2009).
Even though in Spain there is a growing social debate and concern with high coverage in the media motivated by the continued increase of the electricity bill, there is not a political recognition of energy poverty, or at least not with enough relevance as a serious social problem, neither the term energy poverty or fuel poverty is part of institutional documents.
Causes E.P. in Spain
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While 17 million users are part of the Regulated Unique Tariff (TUR), the most similar but indirect measure addressed to energy poverty is the so called ‘social bonus’. However, this bonus benefits to about 3 to 4 million electricity customers, it is a palliative rather than a preventive measure, it counts on very strict requirements for beneficiaries, and allows engage no more than 3KW electricity power, constraining enormously the access and usage of energy in the household.
Causes E.P. in Spain

For a better understanding of energy poverty in Spain, it is necessary to pay attention to two relevant paths that are taking place in the country.
On the one hand, **while the deterioration of the living conditions** has extended widely to different social layers (having as the most relevant exponent the high unemployment rates), **electricity prices have dramatically raised**, currently positioning the country as the **third European country with highest electricity fares** (just after Cyprus and Ireland).
Causes E.P. in Spain
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On the other hand, the Government, either by inaction for example to change the energy market rules, or by action with the recent implemented policies in the energy sector, both are having serious consequences on all energy consumers, and particularly on most vulnerable social groups (elder, women, children and unemployed).
Causes E.P. in Spain

It is pertinent to talk not just of energy poverty, but of energy impoverishment, that is, the process by which the confluence of the economic crisis, increasing electricity prices, and the policies implemented (or not implemented) in the energy sector do have severe negative social effects on the living conditions of all population.
Consequently, what takes place is a situation of *energy injustice*, or social injustices with origin in the conditions of the energy sector not adapted to the economic trends by means of political intervention.
Causes E.P. in Spain

The Spanish electricity market is characterized by its lack of competitiveness, its complexity and opacity. In Spain, in current times of economic crisis, it seems a paradox that electricity demand has slowed down, while electricity prices have doubled since 2000 and from the period 2003-2011 have increased 63%.
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There are three factors explanatory of the inflation of electricity prices in Spain:

1. Spain has a high energy dependency - importing 80% of the energy that consumes (gas and oil) that represents 4.5% of its GDP (45,000 million Euros in 2012).
2. The sector of electricity providers (and in general energy providers) is an oligopoly.
3. The tariff deficit does not stop increasing.
Causes E.P. in Spain

17% of energy consumption stems from households, due to three main reasons:
1) more than half of the buildings are older than 30 years, 50% of these are at least 50 years old, and consequently 60% of edifications in Spain were built without any efficiency normative;
Causes E.P. in Spain

2) the intense and disordered process of urbanization that started in the 60’s and in the recent years, resulted in disperse residential or secondary housing urban areas instead of housing blocks;

3) the predominance of individualized gas systems in buildings installed during the 60’s and 70’s instead of centralized systems represents about 20% to 30% more of electricity consumption.
Many combined gas installations are shut down, working the system at its 10% capacity (UNESA (2011), and in what respects to installed electricity power, half of the 104.000 MW installed is not used. In sum, energy companies try to compensate loses from the gas sector crisis with increments in electricity prices.
Causes E.P. in Spain

Oligopoly
Currently 80% of the energy generation and 90% of distribution are controlled by a few companies: Iberdrola, Gas Natural Fenosa, Endesa, EDP Portugal, EON Germany. Moreover, Endesa and Iberdrola represent 80% of the electricity distribution (high probability of prices pact between these companies).
Causes E.P. in Spain

The **tariff deficit**, it is estimated in **26.000 millions Euros**, and **does not stop increasing** because of the continuing increase of **interest rates**. It is mostly paid by **increments in the electricity bill** (that is, by consumers), and thus can be considered a **relevant cause** of the increment of electricity prices as well of **energy poverty** in Spain.
Causes E.P. in Spain

In sum, the socialization of the energy debt, speculation and consumers’ vulnerability.
Causes E.P. in Spain

The electricity bill:

- **One half** of the electricity bill can be attributed to **pools** (agreement on energy prices among a few actors), while **the other half is a fixed amount established by the government** (items such as fixed costs, tolls, the financial help to renewable energies...).
Causes E.P. in Spain

One of the most polemic measures taken by the current Government is the recently approved order of tolls over electricity (Order IET/1491/2013, August 3th 2013), since it discourages energy saving in households; moreover, this measure could lead to many low incomes households to contract less than 3KW power, or even to energy disconnection.
Currently, 40% of Spanish electricity comes from renewable energies. This has positioned the country as one of the world leaders in the production and technological development of this kind of energies.
Renewable energies Spain

Not only renewable energy subsidies have totally been dramatically cut, but the government recently approved a new tax on renewable energy production. Both measures are addressed to reduce the tariff deficit as well as electricity prices, but less than 25% of the tariff deficit can be attributed to renewable energy subsidies payments.
Conclusions

What we are equally talking about is of energy injustice causing severe energy impoverishment of the population. Energy dependency (country and individuals dependency), energy market organization based not on free market rules but on oligopoly dynamics, together with the non-intervention of the State, or even worse in the Spanish case with the implementation of measures that worsen the conditions of energy consumers.
Conclusions

In that sense, we can talk of captive consumers who do not have the opportunity of having more control on the cost of the electricity bill, by means such as choosing between a sufficient range of energy providers, the self-production and consume of energy throughout renewable energies, or by influence on public policies.
Conclusions

The development of renewable energies, could mean not just more opportunities for cheaper energy supply, but less energy dependency and a decisive step to face climate change. Renewable energies present themselves as democratizing energies, as energies that facilitates consumer’s sovereignty.
Conclusions

The necessity of public intervention on the energy market in order to implement rules based on social justice principles and on inclusive social principles.

In summary, in order to deal with energy poverty or fuel poverty it is necessary to implement a system of energy governance addressing the problem in a holistic, integral, integrated, and multidimensional perspective.
Thank you for your attention
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