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Reducing inequalities with a social energy policy

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Energy policy offers a valuable framework for contributing towards a reduction in inequalities, although the possibility margins depend on the biophysical constraints and intervention methodologies that have prevailed on an international, state and local level since the climate crisis was recognised. Making progress on guaranteeing the right to energy on the supply and demand side is one way of coordinating the different institutional arrangements (from cooperatives to municipalism, for example) but requires the central role of the public authorities to be recognised. The article addresses this question, as well as the strategic space between energy policy and social policy that should be used, citing examples such as the electric social bond, energy advice points, and other potential designs and programmes it is worth considering in a social energy policy. Fighting inequalities cannot be the role of social policy alone. As in other areas of public policy, energy policy also has a lot of potential.

Introduction: inequalities and climate change

Reducing inequalities has become a priority policy objective for many local institutions. An objective that has acquired a central role in the actions of Barcelona City Council with the failure to correct the effects of the 2008 financial crisis and the socio-economic dynamics in an unfavourable Spanish and European context. The current crisis associated with the Covid-19 pandemic means an even more adverse conjuncture, because everything points to some of the improvements achieved recently being rolled back. Likewise, the climate emergency will clearly affect the design and implementation of new local public policies aimed at combating inequalities. The climate crisis means we face a scenario in which it is highly likely that the available resources will gradually become fewer and of less quality, as regards both assets (e.g. energy) and sinks (e.g. the atmosphere, the oceans and plant mass). Moreover, this likelihood will probably occur in a situation where the possibility of accessing a sufficient quantity of these resources will be determined by income level.

The complexity and potential of energy policy, as an element linked to both climate change and material living conditions, offer us a good analysis and reflection framework for trying to draw some conclusions on the role of sectoral policies such as energy in the objective of reducing inequalities. This article intends to make a contribution along these lines.

1. Climate emergency context and institutional architecture

The idea that climate changes poses a real threat to social well-being, not only to future generations but also the current generations who are already suffering it, has taken hold in recent years, especially in Europe. Previously held positions that maintained climate change was not a

problem because it was a natural phenomenon not linked to our socio-economic model, and that, in any case, the effects it might cause would be borne by future generations, are slowly being abandoned. However, the possibility of advancing further down this road, leaving such outlooks behind and putting effective solutions into practice, is rather complex, because it depends on both the biophysical conditions that impose the problem of climate change as well as the political conditions associated with the institutional structure and intervention methodologies for tackling this problem that gradually became fairly widespread and established on an international scale during the last quarter of the 20th century. (Cotarelo, 2015)

As regards the latter aspect (we do not deal with the biophysical conditions in this article), let us recall that the Rio Summit in 1992 is the historical reference point for recognising climate change as a phenomenon with international implications and since when plans have gradually taken shape – notably the United Nations Framework Convention on Climate Change (UNFCCC) and Agenda 21 – that had already begun at the United Nations Conference on the Human Environment (UNCHE) in Stockholm 20 years earlier. In 1997, the Kyoto Protocol (KP) became another reference milestone as the agreement that committed 43 countries, including those belonging to the European Union (EU), to reduce their greenhouse gas (GHG) emissions by 5%, compared to the 1990 levels, between 2008 and 2012.

Global concern for climate change has gradually generated considerable institutional architecture directly linked to the impact capacity of scientific reports published by the Intergovernmental Panel on Climate Change (IPCC) since 1990, which serve as the basis for creating the UNFCCC and the contents of the KP, and have increased the influence capacity of many NGOs on both a local and a global level.

Spain and Europe have also been building their own reference framework which influences their approach to tackling climate change today. The EU¹, beginning with its commitment to the KP, and apart from creating all the institutional apparatus around the Emissions Trading System (ETS), has been and is developing various climate and energy reference tools such as the packet of climate and energy measures up to 2020, the 2030 Climate and Energy Framework and the Long-Term Strategy to 2050, which the European Commission now wants to consolidate by means of a climate law.

On a state level, Spain² has developed the corresponding 2005-2007 and 2008-2012 national emission assignment plans, the 2007-2012-2020 Spanish Climate Change and Clean Energy Strategy, the 2021-2030 National Integrated Climate and Energy Plan (PNIEC in Spanish), and the national adaptation plans for 2006-2020 and 2021-2030 (currently at the drafting stage). Added to these, the autonomous regions have their own plans and strategies and the local authorities their Agenda 21s. Besides the international and state-level plans and agreements for confronting climate change, lower-level authorities have felt obliged, called on and pushed into taking the initiative.

On a local level, Barcelona³ has not remained on the sidelines either. The city drew up the 2011-2020 Barcelona, Energy, Climate Change and Air Quality Plan in 2010 and, subsequently, the

1. For more detailed information and to access the documents, we recommend you consult the following links on the European Commission website: https://ec.europa.eu/clima/policies/eu-climate-action_es; https://ec.europa.eu/clima/policies/strategies/2020_es; https://ec.europa.eu/clima/policies/strategies/2030_es; https://ec.europa.eu/clima/policies/strategies/2050_es; https://ec.europa.eu/clima/policies/eu-climate-action/law_en

2. For more detailed information and to access the documents, we recommend you consult the following links on the Ministry for the Ecological Transition and Demographic Challenge: www.miteco.gob.es/es/cambio-climatico/planes-y-estrategias/; www.miteco.gob.es/es/cambio-climatico/publicaciones/publicaciones/Libros.aspx; www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/Estrategia.aspx; www.miteco.gob.es/es/cambio-climatico/legislacion/; www.miteco.gob.es/es/cambio-climatico/temas/impactos-vulnerabilidad-y-adaptacion/default.aspx.

3. For more detailed information, please go to the following link: www.barcelona.cat/barcelona-pel-clima/ca/el-pla-clima/diagnosis-de-partida/mesures-de-govern-i-plans-estrategics.

2018-2030 Climate Plan, in line with Catalan Climate Change Act (Act 16/2017). During the recent wave of climate change declarations, Barcelona announced its own in January 2020⁴, driven by an explicit spirit of co-responsibility and as a catalyst of the ambition of city climate and environmental policies. The local authority believes that the climate crisis is already having an effect on the organisation of social life and that, in the future, even if the commitments stemming from the 2016 Paris Agreement are met, it foresees a series of biophysical alterations taking place that justify an institutional statement on the climate emergency.

This brief overview of the context makes it clear to us that there is an institutional climate history on an international, state and local level that influences the way the climate emergency situation is being tackled today. Any attempt to gradually introduce new intervention approaches, such as the one announced here of adopting climate policies that incorporate the objective of reducing inequalities, will have to make the most of the possibilities arising from the frameworks outlined above but will also have to overcome the obstacles that those same frameworks might impose, explicitly or implicitly. Given that climate policies have largely been translated into energy policies in recent years, we will now deal with how the latter interrelate with the aforementioned objective. In the next section, we will analyse questions related to the energy institutional framework and its architecture to try to understand where the impulse for an energy policy to reduce inequalities can come from. Then we will look at current and potential intervention methods for making that possible.

2. Reducing inequalities: guaranteeing the right to energy

The question of energy institutions is linked to the 'energy model'. Concern about how the current energy model is unsuitable for covering the social needs of the population and how it contributes to the generation of inequalities has been expressed in various ways in recent years. Assuming that the right to energy is not guaranteed as such at present, various initiatives have been launched to transform this energy model and redress the aforementioned situation. Some approaches pose this transformation in terms of structural and legislative changes in favour of an energy model that provides regulatory and instrumental guarantees for the right to energy (under equity and sustainability criteria) and is based on decentralised institutional and physical architecture, open to citizen participation in the democratic processes of controlling and designing energy policies, as well as in the democratic processes of power generation, through individual and collective self-generation schemes. It is therefore usual to identify this stance in terms of 'energy democracy' (Angel, 2016; Sweeney, 2014; Cotarelo and Riutort, 2017). Equally, however, the strategies for making progress in this democratic direction are diverse and vary, depending on the context.

If we focus our attention on our immediate environment, we can identify two unique strategies. First, those citizen cooperative initiatives that have emerged particularly over the course of the last decade with the aim of not only being collective practices for promoting renewable energies but also for promoting a clearly emancipatory form of relationship with energy based on cooperative principles (Riutort, 2016). One of the most successful cases is without a doubt Som Energia (SE), a non-profit cooperative in the renewable electricity generation and marketing sector. Set up in Girona nearly 10 years ago now, it ended 2019⁵ with over 63,000 members around Spain and a work team of over 70 people, managing more than 107,000 electricity contracts (mainly to individuals but also companies, communities of home owners, public authorities and social economy entities), an annual production of 13,838 MWh through its own projects (photovoltaic, hydroelectric and biogas) and 15 collective purchase agreements of domestic self-production for 875 households. Aside from its business side, SE is also an example of modernising the cooperative model in its more associative side. It has some very diverse in-person and virtual participation, collective learning and territorial-based spaces (53 local groups, including one in

4. On 15 January 2020, Barcelona City Council published 'This is not a drill. Climate emergency declaration', available at: www.barcelona.cat/emergenciaclimatica/sites/default/files/2020-02/declaracio_emergencia_climatica_ca.pdf.

5. For further details you can consult Som Energia's 2019 Social and Economic Report: https://drive.google.com/file/d/1QhN_O4TITTOF_YNGPjdDgTKd4njjR3Jq/view.

Barcelona) which, together with some other activities apart from generating and marketing electricity, help to fertilise a democratic economic and – in this case – energy culture.

Second, we would highlight the role local authorities have been playing in recent years in addressing climate change and equity. In that regard, some cities have taken a step forward and become proactive in the energy sector. In Barcelona's case, that means setting up Barcelona Energia (BE) in 2018. This is a public renewable electricity marketing company which supplies electricity to municipal buildings and facilities and others in the metropolitan area, as well as private homes since January 2019. Its appearance follows energy (re)municipalisation processes (Cumber, 2016) carried out in other European cities and reflects the determination to provide an instrument that contributes to a form of energy provision with a public service vocation, working to defend the right to energy access and restoring the leading role of the public sector. This stance is reflected in the government measure Transition to Energy Sovereignty (Barcelona City Council, 2016).

As far as this article is concerned, it is relevant to ask to what extent these initiatives, one that emerged from the private sector (in this case with a cooperative logic) and another from the public sector (in this case through municipal action), have the capacity to guarantee universal access to energy from every possible sphere in terms of equity in demand as well as supply and generation, including the associated decision-making processes and relevant control mechanisms. Can energy cooperatives and municipal bodies act so people who find themselves in a more vulnerable socio-economic position can gain access to all spheres of the energy model?

Ultimately, the possibility of recognising and guaranteeing basic social rights – among which we would include the right to energy – with regulations and policies rests with institutional politics and public management bodies. The public authorities' role is essential in ensuring electricity is supplied under an overtly public-service logic (decommercialised, cost adapted to income bands and responsible consumption) that guarantees universal access and, therefore, reduces the inequality in accessing electricity use at a time when energy prices are beyond the reach of a growing part of the population. It is also essential in facilitating universal participation on the supply side, devising public policies that would ensure a person's level of income was not an insurmountable barrier to their being a participant in this sphere. In the latter case, therefore, it would contribute to reducing the inequalities in accessing power generation (taking advantage of the capture of flows stemming from common assets such as the sun or the wind), to its efficient management and to the democratic governance processes of energy policy.

In order to move in that direction, the public sector can learn from the innovative experiences like those of SE. We are referring to what can be learnt from the business operations environment (which is related to service provision and management), from the democratic governance model and, finally, from adopting a comprehensive approach that embraces different aspects from an energy and social point of view.

As has already been pointed out, in the last decade, with the effects of the 2008 crisis, the objective of reducing inequalities has been at the heart of many local public policies, in Barcelona too. Nevertheless, we still face the challenge of ensuring that this objective is not tackled from different angles with little integration or from the logic of closed public policy compartments.

3. Between energy policy and social policy

In order to understand the limitations of current energy policies faced with the challenge of reducing inequalities, we will now look at two examples that illustrate an energy policy with a social side and a social policy with an energy side. In both cases, we are talking about public policies designed by the competent areas for each policy – energy and social – and based on their own approach.

3.1. An energy policy with a social character: the electric social bond

The most obvious example of an energy policy with a social character is the 'electric social bond' (*bono social de electricidad*). This is a social discount rate applied to the electricity bills of people who meet certain vulnerability requirements established by law in order to protect this type of consumer. It can only be offered by the so-called 'reference distributors' (*comercializadores de referencia*). That excludes both SE and BE, the initiatives outlined above. The discount is currently applied to the 'Voluntary Price for the Small Consumer' (PVPC in Spanish) with an upper limit on the electricity consumed in the period covered by the bill.

In the initial period following its implementation (by Royal Decree-Law 6/2009) between 2009 and 2014, the social bond consisted of covering the difference between the PVPC, previously called the 'tariff of last resort' (*tarifa de último recurso* – TUR) and a base rate corresponding to the tariff in force when the TUR was launched. That meant freezing the tariff paid by beneficiaries at the 2009 levels, so their saving grew over time. From 2014, it was decided that the social bond would be a discount of 25% on the PVPC.

Until October 2017, the criteria for defining vulnerable consumers, beneficiaries of the electric social bond, were as follows: (1) people with contracted power under 3 kW in their usual home; (2) people over 60 or more in receipt of a minimum retirement, invalidity or widowhood pension; (3) large families, and (4) families where all the members were unemployed. Subsequently, the social bond conditions were modified by Royal Decree 897/2017, which introduced concepts such as 'vulnerable consumer', 'severely vulnerable consumer' and 'vulnerable consumer at risk of social exclusion', for whom the PVPC discounts were basically linked to income criteria.

The results regarding the electric social bond's effectiveness in securing universal access over the last decade are worrying, with the rise of so-called 'energy poverty'. According to a study by the Environmental Sciences Association (Tirado Herrero *et al.*, 2018), around 15% of Spain's population are unable to access sufficient electricity. Moreover, everything suggests there are features that reduce the possibilities of potential beneficiaries actually getting the discount. For example, applicants must use channels that are not universally accessible and they must have a contract with a specific electricity distributor (from a small group of such companies). In fact, according to the same study, out of 9 million potential beneficiaries, only two thirds actually do benefit from the electric social bond, and only 32% of the total would really find themselves in difficulties with regard to accessing electricity. The majority of effectiveness indicators rate the electric social bond below 50%. In other words, less than half the people experiencing conditions associated with energy poverty in their home meet the requirements for getting the new social bond.

In this case, the social bond appears to be a public policy that fails to prevent a situation as worrying as energy poverty. That has undoubtedly got something to do with the vague definition of its aims, the failure to link those with specific measures and the administrative process for applying for it (which is not automatic and in some cases may itself be a barrier so people end up not applying, even though they have a right to it). To sum up, everything suggests that the social bond has little effect if we consider its function is to ensure universal access to energy or, at least, to reduce the inequality in accessing it.

3.2. A social policy with an energy character: the PAEs

In general terms, the relationship between municipal social policy and energy has to do with interventions aimed at guaranteeing basic supplies to people in a situation of socio-economic vulnerability. Initially, the focus was on providing cash benefits on a temporary, discretionary basis to help people pay their bills. Since 2012, these have included the concept of energy poverty (financial help with household supplies). Over time, however, and without stopping the cash benefits, the focus has gradually shifted and crystallised in the current energy advice points (PAEs). Set up in the light of the impact of the 2008 crisis, the PAEs are information points open to anyone seeking information on their energy rights and advice on optimising their energy

consumption. Therefore, it is a universal service. Likewise, they are a place for spotting whether the people who go there are in a situation of energy poverty and vulnerability.

Once identified, the city's 11 PAEs offer people advice tailored to them, with the aim of ensuring their electricity supply and compliance with Act 24/2015, which forbids companies to cut off the supply to vulnerable households and requires them to maintain the service while the situation of economic difficulty lasts. According to the data from 2019⁶, 62% of the people attended to by the PAEs showed one of the three energy poverty indicators: difficulties in maintaining their home at a suitable temperature, difficulties in paying their bills or poor housing conditions. And 39% of people who go to a PAE do so with a warning that their supply is going to be cut off. In 2019, the PAEs attended to 12,079 households, which means 31,569 people.

By way of example, the PAEs actions in that regard include the following: help with getting electricity supplied or the supply reconnected, electric social bond applications (24% of households attended to in 2019 were not getting this discount even though they had a right to it), changing the contracted power, changing the tariff or distributor (actions that can help to generate savings), drawing up the Risk of Residential Exclusion Report (IRER) to prevent people from getting cut off, interventions in homes to apply energy efficiency measures (1,448 households in 2019) or talks, meetings and workshops open to the general public (221 in 2019). The activity of the PAEs has led to a fall in the prescription of cash benefits for energy poverty.

In addition, it is worth pointing out that the PAEs also represent an active policy for fostering employment, another way of combating social exclusion. This line of activity consists of training people having difficulties finding a job in the work of the PAEs, thus giving them the opportunity of gaining work experience in the service itself. Some 40 people, 76% of whom were women, took up this option in 2019. During the same year, 49% of all the people who took part in the PAE employment plans from the start of the service (four insertion plans) found work once their link with the project finished.

The PAEs are a device that has the virtue of managing to attend to the part of the population most in need of help and support in defending their energy rights, as the majority of the people who benefit from their activity are experiencing one of the conditions associated with energy poverty or vulnerability in Barcelona (Tirado Herrero, 2018). Moreover, the PAEs contribute an element of comprehensive vision, as not only do they tackle vulnerability by offering support in relation to energy rights, but they also offer skills training and work experience in the area of energy advice and intervening in households. This is another way of combating social exclusion. However, we wonder whether the energy dimension could be explored even further or integrated much more into social policy, either through the PAEs or other interventions, current or still to be set up in the near future, in order to increase the independence levels and resilience capacity of vulnerable groups.

3.3. An example to illustrate a new approach

We are thinking of an example that would enable us to transcend, to a certain extent, the traditional intervention model. Let us take the case of promoting renewable energy installations based on photovoltaic technology and, more specifically, that of subsidies for using the terraces or roofs of housing and communities of owners. This type of public subsidy system is usually based on the premise that beneficiaries have some initial capital which the corresponding public authority tops up with a certain percentage to cover the total cost of the installation. Here we have an initial barrier at the outset for people on low incomes. Under the logic of universal access to energy and reducing inequalities, the design should not exclude the most vulnerable social strata. Let us imagine for a moment that the logic associated with these kinds of public subsidies were changed so they were clearly targeted at housing with low-income households and that the subsidy covered

6. The data given here come from the '2019 Report on the Work of Barcelona's Energy Advice Points. Service for detecting and reducing energy poverty and improving the efficiency of the households of vulnerable people', drawn up by the Area for Social Rights, Global Justice, Feminism and LGBTI but still pending publication.

100% of the cost of the intervention, making an economic contribution from the recipients unnecessary⁷.

A design of this kind would help to improve the socio-economic situation of those people by providing an economic asset (in this case energy) that would enable them to cut their energy expenditure in the long run and, at the same time, would improve their quality of life, apart from the obvious contribution to improving the city's metabolic balance implied by connecting a new photovoltaic installation to the grid. It could bring about a social balance in the use of public financial resources. In other words, the public investment in this case would obtain a smaller energy return in terms of MWh/year per euro invested, as the total cost of the intervention would fall to the corresponding public authority (the City Council, if that were the case). However, the extra social returns in relation to rights and social cohesion with an energy culture, and, as regards local consumption capacity, would even contribute towards a social energy policy of this kind in an essential future investment.

It is quite usual to use exclusively or primarily economic criteria for designing energy policy, in the municipal sphere too. For example, when planning the installation of photovoltaic energy in private homes (the same would apply to mini-wind installations), planners weigh up the relationship between the power generated and the investment cost. The results of this energy and economic return will determine the public funds allocated for carrying out the interventions. The potential results that may be achieved in social terms are not yet decisive. Carrying out power generation interventions with people on low incomes at the heart of the project is more likely to be viewed as a limiting factor, a hindrance to the project rather than an opportunity. That is mainly because they are profiles with a very limited economic investment capacity, if not nil, people regarded as having an inadequate education (and energy culture) level for understanding the meaning of the intervention and who for the most part rent their homes. At best, the possibility of obtaining social returns might have some bearing on the final decision to allocate resources but there is no sign to say that is linked to a comprehensive and strategic vision.

However, this approach would be in contrast with the concept of resilience which has featured quite strongly in the public policy framework in recent years, including that of Barcelona City Council. Broadly speaking, the concept of resilience refers to the capacity to face changes with some guarantees. As regards the urban context, the definition by Barcelona City Council is (2016b: 3), 'a resilient city is not just a city that protects itself against the impacts or critical situations it expects to face, either because it has suffered them in the past or anticipates them occurring in the future; it is a city with the capacity to plan and to anticipate risk by means of preventive actions, and to intervene in order to modify the boundary conditions that will enable us to move towards the city model we wish to build'. By contrast, the example outlined above would fit in with this perspective of resilience, because it would adhere to the values of mainstreaming, a holistic approach, co-responsibility and generating co-benefits.

4. Towards a new framework for generating public policies?

In the current context, fighting inequality is a challenge facing every area of public policy. It goes beyond the sphere of influence and power of policies traditionally defined as social policies. Or, to put it another way, over the years it has become clear that the fight against inequality is not, nor can it be, the exclusive function of social policy. All areas of public policy (in the municipal sphere, as regards the case that concerns us here) have a role to play. We are gradually seeing that, for example, with regard to urban planning and housing policy, cultural policy or mobility policy. Among those policies that have traditionally been regarded as remote from social policies in

7. It is worth mentioning here that, in 2018, the Barcelona Municipal Institute of Housing and Renovation (IMHAB) promoted subsidies under the programme for fixing the housing of people in vulnerable situations, which was geared to covering all the expenses associated with intervening to improve living conditions and included the possibility of carrying out action to improve home energy efficiency. https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/108864/1/ArrenjamentHabitatges_2018.pdf.

general – and the objective of reducing inequality in particular – it is also opportune to include energy policy.

Mainstreaming it requires putting into practice new methods for designing and carrying out actions which, on the one hand, definitively break away from the traditional way of implementing public policy under the logic of sealed compartments and, on the other hand, consolidate the efforts that can be seen in different areas of municipal intervention to attack all inequality and guarantee rights from a more comprehensive and permeable vision of interdepartmental cooperation. To achieve that, however, it seems essential that a shared methodology be created and put into practice, a methodology that is objective as possible, capable of quantitatively and qualitatively measuring social and economic return in a suitably weighted manner, and sufficiently effective and transparent for both political decision-taking as well as accountability or democratic control processes on the part of our citizens.

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