

December 2020

Keywords: ecofeminism, energy insecurity, right to energy, community management, childhood

Energy insecurity from an ecofeminist perspective

Irene González Pijuan (irene.gonzalez@esf-cat / [@irenegonzalezpi](https://twitter.com/irenegonzalezpi))
Member of Engineers Without Borders

Energy insecurity is a complex, multi-dimensional problem that cannot be dealt with in an isolated manner without undertaking a global analysis of the energy model that is in use and its consequences for people and the environment. It is therefore necessary to force a discussion that goes beyond the capacity of households to pay, asking questions about regulations, the political context, social assumptions and, above all, the commercial perspective of energy. Energy insecurity has a major impact on the physical and mental health of families, and has a differential effect during childhood and adolescence. Similarly, the current energy model has a differential impact on women, by means of extractivism, the lack of access to energy services for carrying out the work of social care and reproduction and their exclusion from the decision-making process. It is therefore essential to review this energy model from an ecofeminist perspective and using social justice criteria that ensure a public and community control of energy which is in accordance with general interest, minimising the impact on territories and considering energy as a basic right for enjoying decent living conditions.

1. From energy poverty to energy insecurity

Covid-19 has had a major impact on our society. This mainly concerns the number of deaths caused, but it has also revealed the precarious management of some essential services for people—the clearest examples being healthcare and residencies for senior citizens—and it has focused attention on social inequalities, due to the measures proposed for dealing with it; lockdown and a partial shutdown of the economy.

The obligation to stay at home has further increased the insecure housing situation of a large proportion of the population: people who find it extremely difficult to meet rental or mortgage payments, who are enclosed in small spaces, with bad lighting and ventilation, or in a situation of energy insecurity. In this article, we will be taking a look at the concept of energy insecurity, a complex, multi-dimensional problem that has acquired relevance in the public agenda over the last decade and which, until now, was difficult to define, identify or measure.

We could say that there is a set of factors that indicate whether a household is at risk of falling into a situation of energy vulnerability, understood as a propensity for experiencing a situation in which the household does not receive a sufficient quantity of energy services (Tirado, 2018 citing Bouzarovski and Petrova, 2015). Energy vulnerability is a wider concept than the term traditionally used, energy poverty, as this is seen as a dynamic phenomenon (households can get into and out of energy poverty situations, depending on internal and temporary factors).

Table 1. Factors that may determine an energy-poverty situation. 2015

Factor	Driving force
Access	Low availability of suitable energy vectors to cover the household's needs.
Affordability	Disproportionate relationship between energy cost and household income, including the role of taxes and assistance mechanisms. Inability to invest in the construction of new energy infrastructures.
Flexibility	Inability to change to a means of energy provision that would be more appropriate to the household's needs.
Energy efficiency	Disproportionate loss of useful energy during conversion to household energy services.
Needs	Discrepancy between the household's energy needs and the available energy services, due to social, cultural, economic or health reasons.
Training contracts	Difficulties in gaining access to support programmes or efficient forms of energy use in the household.
Safety	A high risk of fire or electrocution, due to the presence of illegal supplies or the use of risky ways of providing heating.

Source: Own production based on Bouzarovski and Petrova (2015)

Table 1 lists the factors that may help in determining a situation of energy vulnerability. We identify those that were considered within the traditional definition of energy poverty, such as affordability—referring to both the price of energy and household income—and energy efficiency, but also others that describe other aspects of energy insecurity, such as flexibility, needs, practices or even access to energy services. It is also necessary to highlight safety as a relevant factor, linked to the risks of electrocution and fire, caused by illegal connections to supplies or the use of risky measures for obtaining heat—the use of candles, or the burning of newspapers, wood or pallets—

Although it offers a more global vision of energy vulnerability situations and integrates a North-South perspective into the various factors (such as access or accessibility), this definition is still overly based on the household as a measurement unit and practically the only space determining the lack of energy services. We propose a broadening of the perspective to include the structural causes of the problem, approaching it from the concept of energy insecurity.

We base this on two aspects to propose a change of concept. Firstly, energy-supply companies are clearly interested in installing the concept of poverty or vulnerability, which moves the entire onus of responsibility onto the person who “cannot pay for a service they are using”, and therefore, the only possible action is the intervention of social services to “provide financial help to households so that they can access the service”. This is a way of preventing the “service” itself from being questioned. Secondly, the concept of insecurity is much broader and also infers political responsibility. In fact “energy insecurity complements the frameworks of energy poverty and vulnerability by broadening knowledge about energy privation outside the home and linking it to institutional and political circumstances, which may (mobilise) particular socio-demographic groups to take action on the matter (Petrova, 2017: 3).

Therefore, the concept of energy insecurity makes it possible to consider all the factors involved, including abusive prices and opacity in invoicing costs, economic vulnerability in terms of meeting payments, the poor state of dwellings (damp, mould, etc.), the poor state of repair and maintenance of wiring and pipes, lack of safety in energy supplies (illegal connections) and even question the primary production of energy (fossil fuels, pollution, etc.) or its management model and marketing.

Indeed, one of the most worrying considerations, which makes detecting and tackling energy insecurity more difficult, as well as its consequences for families, is the stigmatisation and blaming of households that are in this situation. In this regard, it is important to propose the use of concepts that do not place the responsibility on households. It is therefore advisable to speak of neglected families rather than vulnerable ones, as this in some way recognises the role that society and public policies play in their situation. It seems obvious, but it is necessary to frequently insist on the fact that the families concerned do not wish to be in this situation, but that it is the result of processes that surround them, such as the job market becoming more insecure, the increase in social inequality and, in this specific case, the commodification and opacity inherent in energy

management. Therefore, we should complement individual and short-term solutions (vital for tackling family emergencies) such as specific financial transfers to households, with improvements in terms of regulations and public policies which lead to structural changes.

2. Clarifying concepts concerning energy insecurity

In Barcelona, “the results of the analysis of the Living Conditions Survey (ECV 2016) and the Barcelona Public Health Survey (ESPB 2016), both from 2016, indicate that around 170,000 people were unable to maintain their homes at a suitable temperature during the colder months or were in arrears with their basic utility bills, including electricity, gas and water. Of these, several thousand people also suffered the loss of some habitual energy sources at some time, i.e. they were disconnected either voluntarily or involuntarily, due to financial difficulties in the household” (Tirado-Herrero, 2018: 59).

The difficulty in measuring energy insecurity with a certain degree of accuracy is due to various factors. Sometimes, the perspective of energy as a commodified asset means that families assume that their inability to pay must result in them living in cold conditions and energy austerity (situations of energy insecurity that are not detected). Meanwhile, households develop various strategies for countering the difficulty of gaining access to energy services: some people minimise their use of these services, and therefore perceive their dwellings as being very cold in winter and very hot in summer; some people get into debt with companies so that they can keep warm, cook and have light; others reduce their expenditure on other essentials, such as food and, finally, there are families who feel they are obliged to illegally tap into supplies, with the resulting consequences of insecurity and social rejection.

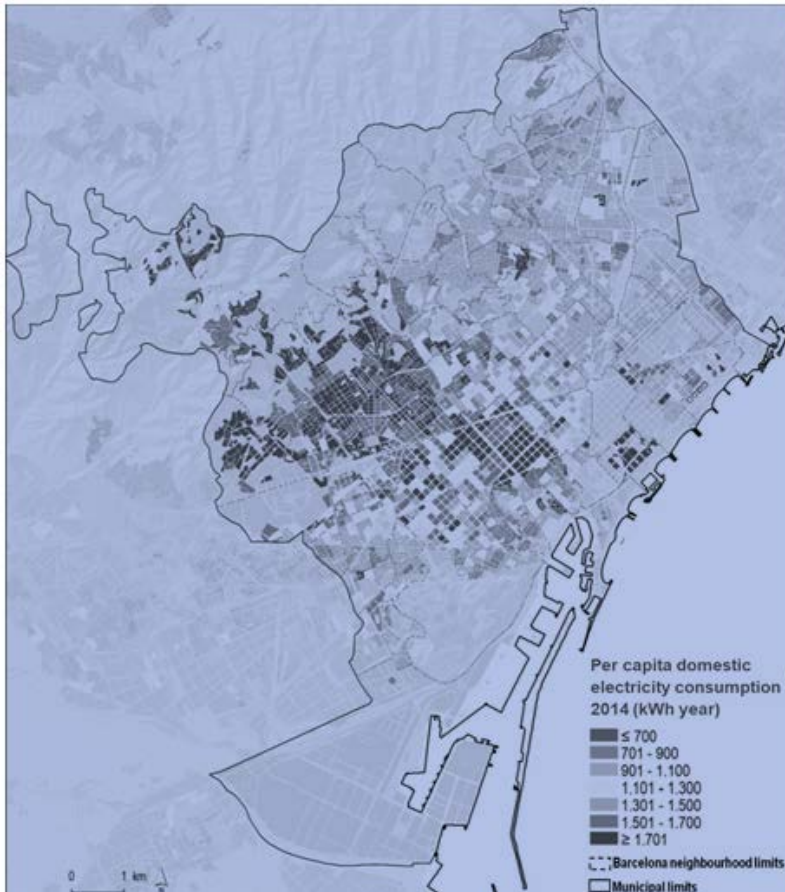
The stigma and the blame that accompany households in a situation of energy insecurity are a result of the existing aporophobia in our society, but it is also because of some deeply entrenched misconceptions.

For example, training for households in energy saving or energy habits tends to be seen as a possible measure for dealing with energy-insecurity situations. Dangerous concepts are adopted, such as “if families ask for help, they have to do their part by reducing their energy consumption to the minimum”. The reality is that, in general, families in this situation consume energy at levels that are below their basic needs. They are perfectly aware of their use of energy and if “energy saving” was in response to a demand for sustainability, as we are led to believe, then it would be applied with the same stringency to families and industries which, although able to pay, consume excessive amounts of energy and should reduce their energy expenditure.

Figure 1, produced by the Barcelona Institute of Regional and Metropolitan Studies, shows the serious disparity in *per capita* domestic electricity consumption in the City of Barcelona and it indicates where it is really necessary to improve energy habits and reduce consumption, not in terms of a family's ability to pay, but as a more profound reflection on energy uses in a climate-emergency context.

Another erroneous concept, which is very widespread and difficult to counter, is the one referring to families that illegally tap into the electric grid “because they don't want to pay” and “prefer to put their neighbours' lives at risk”. The reality is very different. Nowadays, for most families, it is very difficult to gain access to decent housing, and this risk is especially worrying in terms of women who are in charge of single-parent households or who live alone, households with children, migrants, unemployed people or women working in the care sector, among others. Having a dwelling is essential in order to live a decent life and families are forced to resort to squatting to get a roof over their heads. In these cases, the companies supplying gas or electricity refuse to install meters. This means that, in order to get energy services, which as we have said, are essential for living a decent life, they tap into the grid illegally.

Figure 1. Per capita domestic electricity consumption



Source: The Barcelona Institute of Regional and Metropolitan Studies (Domene, Garcia-Sierra, 2017)

Firstly, it is important to put the problem into the correct perspective. Data provided by the *Ara* newspaper for 2018 reveal that, according to sources at Endesa, only 1% of what the company considers to be “electricity fraud” originates with vulnerable families. In reality, the major culprits are some of their “big customers”.

Two years earlier, in 2016, as the firefighters belonging to the UGT warned in a communique, there had been 4,497 fires with 29 fatalities, an increase of 18% over the previous years. They spoke about “substandard housing, electrical risks as a consequence of defective installations, tapping electricity without adequate protection, the overloading of installations and electrocutions”. That year, there was also a 20% increase in CO₂ poisoning as a result of bad boiler combustion or the use of risky methods for heating food or the dwelling. In 2014, four children lost their lives in Vendrell in a substandard dwelling that Bankia had evicted them from, but which they had later returned to as squatters, tapping illegally into the electricity grid.

A survey of 160 households with illegal energy supplies carried out by the Alliance Against Energy Poverty (APE) in the Barcelona Metropolitan Area indicates that over 60% of the families had tried to regularise their electricity supply without success, and that nearly 14% hadn't even been able to register as residents (when it is obligatory in law to do so).

Based on the experiences related to the APE by the affected people (Angel, 2019), many people who are illegally connected do so against their will, as the company concerned does not allow them to regularise the service, and they feel ashamed, guilty and even see themselves as “electricity thieves”. The testimonies often speak about rejection and criminalisation by neighbouring families and public opinion in general, and this leads to isolation and a very high impact on the family's mental health.

Given the situation as a whole, it may be worthwhile to reflect on the need to abandon criminalising discourses born of prejudice and persevere in the demand for regularising meters in all dwellings, in order to prioritise the physical and emotional health of the people concerned and to guarantee their energy rights.

3. The impact of energy insecurity on children

A relevant question about energy insecurity, and something that has received little attention, is finding out what differential impact it has during childhood and adolescence.

In the City of Barcelona, 15% of households with children cannot maintain an adequate temperature in their home during the colder months and 13.4% have fallen behind in utility payments connected to the dwelling. Although these figures are high, they are averages that conceal large inequalities between districts and realities, such as Nou Barris, where 35% of households cannot maintain adequate temperatures and nearly 29% get into arrears with their bills. This data also reveals that the correlation between these two indicators is really rather low; i.e. the families that have problems in keeping their homes at an adequate temperature are not necessarily those that have outstanding bills.

Table 2. Material deprivation of children aged 0-17, by residential district

	Ciutat Vella	L'Eixample	Sants - Montjuïc	Les Corts i Sarrià - Sant Gervasi	Gràcia	Horta-Guinardó	Nou Barris	Sant Andreu	Sant Martí	Total
More than one deprivation	56.2	12.9	41.4	11.3	19.2	19.4	55.2	28.1	30.4	27.1
One or more deprivation	67.4	22.2	58.1	22.5	28.6	42.9	66.5	38.6	44.9	40.0
Cannot make a meal that includes meat, chicken or fish at least every other day	14.2	1.9	7.1	0.9	6.7	3.4	7.5	3.5	3.5	4.4
Cannot maintain their home at an adequate temperature during colder months	31.0	3.1	10.7	8.7	3.9	8.9	26.2	14.9	16.3	12.4
Falling into arrears with household payments	27.3	6.6	16.4	7.5	7.7	10.7	28.7	12.0	15.5	13.4
Falling behind on payments of deferred purchases	57.5	17.9	41.4	9.2	25.4	34.3	59.2	35.4	36.2	31.7
Falling behind on payment of household utility supplies	42.4	10.7	33.6	6.4	11.7	15.4	45.6	19.2	26.4	21.0
Unable to meet an unexpected expense	12.8	1.4	10.2	0.6	5.3	3.1	14.4	3.0	3.9	5.1

Source: Key data for children and adolescents in Barcelona 2018 (Barcelona City Council, 2018).

The data becomes even more alarming when we start to consider groups that are more stigmatised and invisible, such as families with illicit energy supplies: in the 160 families surveyed by the APE, there were at least 145 minors. These minors live in a permanent state of insecurity and risk of fire or electrocution due to the refusal of energy suppliers to install emergency meters in squats.

In spite of the evidence, the focus of energy insecurity has never been on children and adolescents and there is therefore little data in this regard, along with a lack of specific public policies. However, various studies and interviews with experts and affected families indicate that exposure to deficiencies such as the lack of decent energy services during the first years of a person's life, may have an irreversible impact on the future physical, cognitive and social health of those children.

This impact may be on physical health, with a high incidence of asthma, bronchitis and other airway disorders that are recurrent and difficult to cure; as well as malnutrition, due to the bad diets which families who have to decide between eating well or paying bills often suffer from.

Other factors can have serious effects on the mental health of children and young people, such as those related to a possible lack of personal hygiene, stigma, isolation, family stress due to the impotence of not being able to provide their children with decent conditions and the harassment connected to unpaid debts, guilt, etc. The situation of adolescents is especially delicate: they ask for more privacy, access to technologies, they prioritise a relationship between equals and may seek differentiation or confrontation with the family. A study produced by the United Kingdom's National Children's Bureau notes that one out of every four adolescents living in energy insecurity is at risk of suffering mental health problems (in other adolescents this ratio is one in twenty).

Neither should we underestimate the possible impact of energy insecurity on education, which leads to absenteeism due to recurrent illnesses, lack of concentration, difficulties studying at home, possible bullying situations, stigma or lack of night-time rest.

Lastly, it is necessary to consider the impact on children's safety, due to illegal connections to utility supplies. As we commented earlier, it is essential to understand that, given the energy needs involved in the tasks of caring for and sustaining life, families will seek a way to obtain energy services even if the means is unsafe. Reversing this situation is a matter of urgent necessity.

The situation in the Girona neighbourhood of La Font de la Pólvora is worth a special mention. In spite of the lockdown and the ban on cutting off supplies, there are a massive number of daily disconnections, justified under the classification of "electricity fraud". 80% of the 462 families are forced to have generators that they pay for —just like electricity bills—, they have suffered 7 fires in 4 years, they have gone back to using butane gas and wood stoves, the children are unable to keep up with their school work, etc. Last summer, during the heat wave, they had 20 minutes of electricity in 48 hours and their fridges and freezers stopped working.

Given the consequences that living in energy insecurity can have for minors, it is necessary to take cross-cutting measures to counter this situation. Organisations such as Engineers Without Borders, and the Alliance Against Energy Poverty have proposed an increase in the detection of risk situations, as many families fall outside of official circuits: e.g. working on a proposed detection protocol in education centres. It is necessary to establish financial aid aimed at children and adolescents that do not paternalise the families and which counter situations of severe vulnerability from a perspective of social justice. In other countries, per-child allocations aimed at reducing the risk of poverty in households with children have proved effective. It is necessary to introduce a guaranteed minimum income.

From the perspective of children's rights, if we provide them with education and healthcare, and energy insecurity undermines both of these, why should we not be thinking of decent housing conditions and sufficient water and energy to ensure that their physical and mental health are not compromised? How do we expect equal opportunities to function if we do not include basic supplies and residential security in our basic provisions for children? In other words, what kind of social justice do we expect to achieve if we don't put them at the centre of all socio-economic policies?

4. Energy insecurity from a gender perspective

Today, many voices are raised to denounce how unsustainable the economic system is, from an ecological, social and reproductive point of view. Amaia Pérez Orozco (2012) sustains that the current crisis indicates an ecological crisis, a social reproduction crisis in the Global South (the impossibility of satisfying people's material and emotional reproductive expectations, food/humanitarian crisis) and a care crisis in the Global North (malfunctioning of circuits that ensured the essential care needed to live).

From a physical and material point of view, energy has a major role to play in the fight against the ecological crisis —and the long-awaited energy transition—, a predominant role in the area of social justice and a close connection to the tasks of caring for, reproducing and sustaining life. It is therefore essential that the fight against energy insecurity is undertaken from an ecofeminist

perspective, contrary to extractivism's current logic of plundering and accumulation of economic benefit.

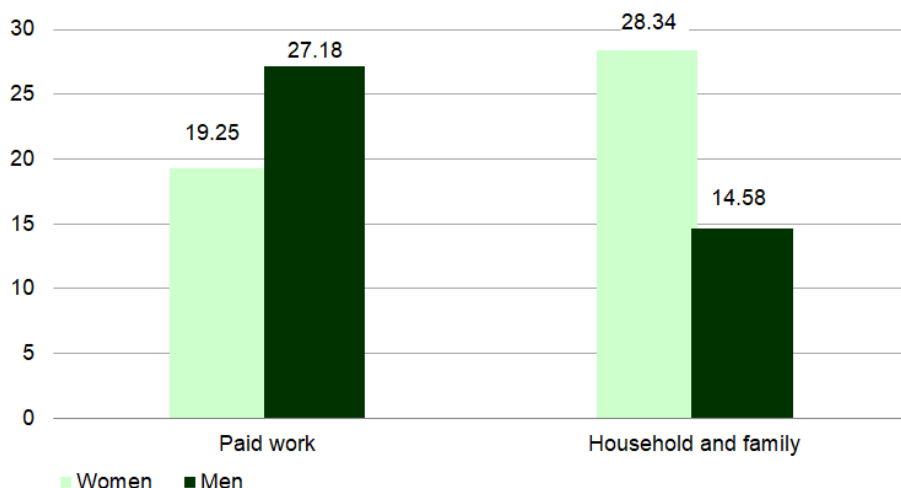
In recent years, we have seen how women's organisations, which have defended and connected their lives to the territory, have now stepped forward to denounce the profound impact of extractivist projects. Latin American groups have denounced the patriarchal violence associated with extractivism and have explained their *modus operandi*, which begins with the deliberate exclusion of women from decision-making processes that affect the territory and their lives (the company's negotiation), superimposing them with pre-existing patriarchal structures. Once the company is established, this is followed by ecological imbalances, depending on the territory: pollution of water sources, the disappearance of fishing stocks or other sources of food, difficulties for agriculture, etc., together with the employment of the male workforce by the company, disconnecting them from the territory and increasing the care workload for women (division of work by gender). In general, the projects are accompanied by the militarisation of the territory (which contributes to its masculinisation), and the reclusion of women into domestic areas, or as an object for sexual abuse in the brothels and canteens that accompany the introduction of a megaproject.

Contrary to what extractive capitalism defends, extractivist megaprojects have no positive economic impact on the communities that suffer them. They transport the energy far from the plundered lands and market it under the principle of economic gain, which in turn generates even more energy insecurity (the lack of decent energy services in households) and more impacts on women.

For example, in the City of Barcelona, the salary gap, the part-time and insecure work available to women (i.e. the vertical and horizontal segmentation of the job market) and the strong presence of gender roles, are some of the factors responsible for what we call the *feminisation of poverty*. Consequently, gender inequality affects energy insecurity, which threatens *single-mother* families, migrant women, women working in the care sector and women who live alone, especially those over the age of 65.

In regard to gender roles, in Graph 1 we can see how, on average, there are still twice as many women connected to care work —household and family— than men. This fact, together with the existing link between basic services and housework, increases still further the impact of energy insecurity on women and explains why organisations such as the APE are deeply feminised and that nearly 70% of financial aid for energy services was requested by women in 2015 (González Pijuan, 2017).

Graph 1. Average number of hours per week for household and family activities and paid work in Catalonia (2011)



Source: Own production based on data from the IQ observatory, extracted from the Catalan Government

Given their connection to essential tasks for sustaining life and their recognition from a human rights perspective, one of the necessary reflections to make on energy services is: why is it that, far from prioritising and protecting family consumption, we take on a disproportionately high cost, 21% VAT and fixed costs on our electricity bills that excessively penalise domestic consumers? In other words, we take it for granted that energy orientated towards economic benefit is prioritised over energy for care work and social reproduction.

Lastly, it is necessary to highlight that decision-making in the electricity sector is also highly masculinised, as recounted in the book *Tenim energia* [We Have Energy], published by the Xarxa per la Sobirania Energètica [Network for Energy Sovereignty]: in 2016, only 5% of Management Board executive and leadership positions in relevant energy and utility sector companies around the world were held by women (Ernest & Young, 2016). The absence of women on executive boards was accompanied by an absence of women in the academic sector and a minority presence in the sector's relevant congresses and debates. However, as we said, women are leading both the defence of their territories against the current energy model in the Global South and the fight against energy insecurity and for a socially fair energy transition in Catalonia and in other countries.

To sum up, approaching energy insecurity from an ecofeminist perspective primarily involves recognising the impact that the current energy model has on women (from extractivism to the lack of sufficient energy services in the home), but also highlights other structural problems, which include the following:

- Those who control the energy sector (is there any public, democratic control, connected to the territory, which ensures the general interest or is it based on the principal of social justice?).
- To what end is energy transformed and consumed? (Do we prioritise vital energy needs, orientated towards decent energy services for households, for care and social reproduction?).
- Where does the energy we consume come from? (What are the sources of the energy we use? Is the "production/transformation" of energy carried out using ecological and social-justice principles?).

5. Who controls the energy model (and how)?

For too long, energy insecurity (or poverty) has been separated from energy's global management model. There is a lot of evidence to suggest that we should think about whether, in reality, increasing energy insecurity is really just a consequence of the model and the commodification of a basic service that should never have been taken out of the public sphere.

However, in recent decades they have tried to convince us that private management was far better than public management: more efficient, less corrupt, more geared towards profit.

In 2009, two European directives (2009/72/EC and 2009/73/EC) helped to consolidate the liberalisation of the electricity and gas sector (initiated at the end of the 1990s in Spain) and separate the processes: generation, transport, distribution and commercialisation.

Since then, a series of things have occurred:

- Between 2008 and 2018, electricity prices went up by 66.8% in Spain.
- In the same period, the CNMC imposed sanctions on big companies for manipulating prices, including Iberdrola (€25 M in 2015), Endesa (€5.8 M between 2016 and 2017) and Naturgy (€19.5 M). In spite of this, the upward trend in prices continued.

- Between 1998 and 2013, a report from the Observatory on Debt in Globalization calculated that illegal payments (outside the interest of the general public) in the electricity sector as somewhere between €81,709 million and €103,899 million.

- From the start of privatisation, 24 ex-ministers have obtained executive posts in the 6 main electricity companies operating in Spain, according to information provided by the newspapers Marea and Crític.

At a European level, the consequences of the liberalisation of the energy sector have been widely denounced by the union of public-service workers (EPSU), who published a report in July 2019 concerning the failure of EU policies on the liberalisation of the energy sector.

The study shows how, under the paradigm of liberalisation and free market, a significant amount of power has been accrued by certain energy companies (the Big Five). Consequently, the prices of gas and electricity have risen throughout Europe (in 2014, European families spent an average of 9% of their income on energy services), energy insecurity has doubled, the rights of workers in the sector have been reduced and renewable energies have been blocked by private initiatives, subsisting on public money that have made their current development possible.

Furthermore, other studies¹ have shown that there is a chronic lack of prevision, investment and maintenance for networks, and an increasingly large number of city councils in Catalonia denounce recurring power cuts without any apparent cause.

In the area of sustainability and the fight against climate change, which is now inescapable, we find that both Naturgy Generación and Endesa Generación are among the 15 most polluting companies in Catalonia, according to a ranking published by *Sentit Crític*, based on data from the Ministry for Ecological Transition².

We should also remember the Energy Charter Treaty, an investment-protection agreement signed in the mid 1990s, although it is not often mentioned. The Energy Charter is the investment-protection treaty that has given rise to the most financial claims made against member states; 129 claims in the last 20 years. Since 2011, Spain has been subjected to 47 claims, due to the changes it made in 2013 to the guaranteed prices for renewable energies.

In regard to energy insecurity, one emblematic case is Bulgaria, which is facing three energy claims from Austrian and Czech Republic companies, because the Bulgarian government promoted a 7% reduction in electricity costs. In 2018, 34% of Bulgaria's population could not maintain their homes at an adequate temperature and 30% could not pay their bills on time, according to data from the European Observatory of Energy Poverty.

A report published by the Transnational Institute and the Corporate Europe Observatory warned of the possibility that, by means of the Energy Charter Treaty, international investors could register claims against Spain (remember that Endesa owns the Italian company Enel) because of the measures introduced during the state of emergency and the ban on cutting off power supplies.

The mere existence of these investment-protection treaties and the threat of claims being registered via arbitration courts are frequently enough to dissuade countries from making major changes to their legislation in favour of the environment and people, or reversing liberalisation processes.

6. Conclusions

Energy insecurity is a complex, multi-dimensional problem that cannot be dealt with in an isolated manner without undertaking a global analysis of the energy model and its implications. It is

1. <https://esf-cat.org/wp-content/uploads/2017/06/ESFeresI9-RecuperantControlEnergia-web.pdf>

2. <https://www.elcritic.cat/dades/aquestes-son-les-15-empreses-mes-contaminants-a-catalunya-49732>

necessary to move towards a discourse and terminology that does not hold families responsible, as their energy rights have been violated.

It is also necessary to avoid discourses that only consider the ecological perspective and ignore social justice. For example, it is necessary to analyse how possibly better forms of energy production and management, such as energy communities, could reach families in a situation of energy insecurity under equal conditions. The struggle for the energy model should not leave any group behind. We have to ensure that everyone has the energy services that are essential for life, ensuring that illegitimate debts don't smother families, ensuring workers' rights, holding companies to account and demanding that basic services return to the public sphere.

At present, energy insecurity affects many families and Covid-19 may cause this number to increase even more. Emergency measures are therefore needed now, including a ban on cutting off power supplies, writing off the debts of vulnerable families and ensuring that they have energy services, through discounts and paying off their bills. Energy-advice offices are needed; they have proved useful in improving access to energy services for families living in the city.

However, this is not enough to solve the problem of energy insecurity. We need to rethink the model, to demand that something that is of public interest, and a right, should be returned to the public sphere, under citizen control and participation, of course. Nationalising the big electricity companies, abandoning international investment protection in order to begin the task of protecting the economic, social and cultural rights of the people.

No more thirst, cold or darkness: the right to energy.

Bibliography

ADAM, S.; MONAGHAN, R. *Fuel Poverty. What it means for young parents and their families*. Economy Energy, National Children Bureau, 2018.

ANGEL, JAMES. "Irregular connections: Everyday energy politics in Catalonia". *International Journal of Urban and Regional Research*. Vol. 43, Nº. 2 (2019), pp. 337-353

BARCELONA CITY COUNCIL. Key data on children and adolescents in Barcelona , 2018.

ERNEST & YOUNG. All tied up. Working capital management report, 2016.

BÁRCENA, L.; APARICIO, M.; FLORES, L. "España expuesta a demandas millonarias por las medidas sociales ante la covid-19. ¿Ha llegado la hora de abandonar los Tratados de Inversiones?" <https://blogs.publico.es/dominiopublico/33087/espana-expuesta-a-demandas-millonarias-por-las-medidas-sociales-ante-la-covid-19-ha-llegado-la-hora-de-abandonar-los-tratados-de-proteccion-de-inversiones/> [Consulta: 2 June 2020]

BAUTISTA, J.; DOMINGUEZ, D.; ROBAINA, E. " Les portes giratòries dels polítics a les grans empreses energètiques". www.elcritic.cat/investigacio/les-portes-giratories-dels-politics-a-les-grans-empreses-energetiques-10509 [Consulta: 27 May 2020]

CARVAJAL, L. *Extractivismo en América Latina. Impacto en la vida de las mujeres y propuestas de defensa del territorio*. Fondo de Acción Urgente América Latina y el Caribe, 2016.

COLECTIVO MIRADAS CRÍTICAS DEL TERRITORIO DES DEL FEMINISMO. "(Re) patriarcalización de los territorios. La lucha de las mujeres y los megaproyectos extractivos". www.ecologiapolitica.info/?p=10169 [Consulta: 27 May 2020]

COTARELO, P. *El coste real de la energía*. The Observatory on Debt in Globalization , 2015.

DOMENE, E.; GARCIA-SIERRA, M. (2017). "El funcionament del sistema metropolità. Cap a una transició sociometabòlica." Barcelona Institute of Regional and Metropolitan Studies. Available online at: <https://iermb.uab.cat/ca/iermb/estudi/el-funcionament-del-sistema-metropolitana-cap-a-una-transicio-sociometabolica/>

FERREIRO, E.; FORNIÈS, D.; TROBAT, A. *Dones, feminismes diversos i drets col·lectius*. Col·lecció Drets Col·lectius. CIEMEN, 2017.

GONZÁLEZ PIJUAN, I. *Desigualtat de gènere i pobresa energètica, un factor de risc oblidat*. Esferes. Engineers Without Borders, 2017.

NETWORK FOR ENERGY SOVEREIGNTY. *Tenim energia*. Icaria Editorial, 2017.

PETROVA, S. "Encountering energy precarity: Geographies of fuel poverty among young adults in UK". *Transactions*. Vol. 43 (1) (2018), pp. 13-30.

PÉREZ-OROZCO, A. *Subversión feminista de la economía*. Traficantes de Sueños, 2012.

TIRADO-HERRERO, S. *Indicadors municipals de pobresa energètica a la ciutat de Barcelona*. Barcelona, 2018.

WEGHMANN, V. *The failure of energy liberalisation*. PSIRU, University of Greenwich, 2019.