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OPERATIONALIZING ECO-SOCIAL POLICIES:
A MAPPING OF ENERGY POVERTY MEASURES
IN EU MEMBER STATES

Laure-Anne Plumhans



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**Operationalizing Eco-Social Policies:
A Mapping of Energy Poverty Measures
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Zusammenfassung

Wohlfahrtsstaaten müssen sich an die Herausforderungen, des Klimawandels, auf eine sozial integrative Art und Weise anpassen. Sie müssen umsetzen, was in der Literatur als "ökosoziale Politik" bezeichnet wird. Obwohl sie als das ultimative Werkzeug für eine transformierte Gesellschaft dargestellt werden, wurden Maßnahmen ökosozialer Politik noch nie konkret definiert oder systematisch auf einen bestimmten Bereich angewendet. Die Arbeit entwickelt, einen funktionierenden analytischen Rahmen, der die konzeptionelle Linse der Energiegerechtigkeit nutzt, um die Schlüsselemente ökosozialer Politik, nämlich: Generationengerechtigkeit, Verteilung und Anerkennung zu bestimmen. Der analytische Rahmen wird dann auf die Energiearmutspolitik der EU-Mitgliedsstaaten angewandt, um 1.) den Rahmen zu testen und um 2.) zu beurteilen ob es Hinweise auf eine ökosoziale Politik in der EU gibt. Nach der systematischen Überprüfung von 274 Politiken über die EU-Grenzen hinweg zeigen die Ergebnisse, dass die EU-Mitgliedsstaaten ökosoziale Politiken noch nicht auf breiter Front umgesetzt haben. Während einige Länder wie Griechenland und Estland besser abschneiden, scheitern Politiken, die Umwelt- und Sozialaspekte integrieren wollen oft daran dies in ausreichend wirkungsvoll zu tun oder sie schließen nach wie vor die am meisten gefährdeten Haushalte aus, womit die Ungleichheit erhöht wird.

Abstract

Welfare states have to adapt to the new challenges raised by climate change in a way that is socially inclusive, and have to implement what the literature on eco-social welfare calls, 'eco-social policies'. While presented as the ultimate tool towards a transformed society, eco-social policies have never been concretely defined nor applied to a specific field systematically. The thesis takes on the task to develop a working analytical framework using the conceptual lens of energy justice to determine the key elements of eco-social policies, namely: intergenerational justice, distribution and recognition. The analytical framework then is applied to the EU member states energy poverty policies, in order to 1) test the analytical framework and 2) to assess whether there is evidence of eco-social policies in the EU in a field that has both social and environmental ramifications. After systematically reviewing 274 policies across EU borders, the results show that EU member states have not yet broadly implemented eco-social policies. While some countries like Greece and Estonia are performing better than others, often policies which integrate environmental and social aspects, fail to do it in an sufficiently impactful way or still exclude most vulnerable households, thus increasing inequality.

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Introduction

The EU and its member states are promoting a transition towards more sustainable economies and societies, which often stresses the importance of social, ecological and economic goals working together. These three aims, however, are not self-evidently compatible and are hard to reconcile within the current economic system. Social and environmental policies could compete for the allocation of public funds and market-based environmental mitigation policies, such as fuel taxes, often affect disproportionately already disadvantaged segments of society and create additional social tensions. Moreover, the reliance of the social system on economic growth which provides ever growing material living standards, is in contradiction with sustainable living. Nonetheless, synergies between ecological and social objectives are needed and not impossible. As argued by Dryzek; “there is no need for social and environmental policy to be conflictual”(Dryzek, 2003, pp. 334–335). Rather, policies aiming to mitigate climate change can open opportunities for deeper social policies (Gough et al., 2008).

The energy transition agenda presents such opportunities. While uncarefully planned policies in that field could end up hurting lower income households, it could also be the opportunity to tackle a persistent problem: energy poverty. The European Green deal recognizes this point and recalls, alongside its ambition for the energy transition, that policies should pay specific attention to energy precarious citizens (European Commission, 2019).

Energy poverty is a resistant social issue which is commonly defined as a situation where “individuals or households are not able to adequately heat, cool, or provide other required energy services in their homes at affordable cost”(Pye & Dobbins, 2015, p. 1). Energy deprivation exposes people to higher risks of social exclusion, health issues and even death, referred to as winter mortality (Bouzarovski & Simcock, 2017; Bouzarovski & Tirado Herrero, 2017; Healy, 2013; März, 2018; Thomson & Bouzarovski, 2019). While mostly affecting lower income households, energy poverty is caused by multiple factors such as poorly insulated homes, inefficient appliances and high energy prices (Bouzarovski, 2014). Thus, energy poverty is not only a side effect of low income, but its own complex issue which requires appropriate social and energy policies (Thomson & Bouzarovski, 2019). Energy policies can sometimes worsen energy poverty. Lower income households, which are more at risk of energy poverty, are disproportionately affected by policies aimed at decarbonizing energy systems,

even if their carbon impact is relatively low (Jacobson et al., 2015). Similarly, energy poverty policies are often only focused on the social aspect of energy poverty and fail to recognize its connection to the climate crisis, thus excluding solutions that might help mitigate both social and environmental concerns. Energy poverty in the context of the energy transition presents significant opportunities to address both lower and better energy use as well as reducing the burden of energy cost on vulnerable consumers. Thus, tackling both ecological and social concerns. For this to be possible however, policies and measures have to be purposely designed to enable synergies between seemingly disconnected policy area.

Gradually acknowledging energy poverty as an important issue, several European countries have been implementing policies against energy poverty in the last few years. While many studies have been conducted on energy poverty policies in Europe, only a few assess them along their eco-social dimension. Both energy transition and energy poverty alleviation are now recognized as crucial points where convergence is needed, thus it is time to assess the current level of interaction between energy transition and energy poverty policies, or in other words, whether we witness the rise of eco-social policies in the energy poverty policy arenas.

Eco-social policies have been theorized upon in the literature on the eco-social welfare state, which seeks to find grounds for a sustainable and just socio-ecological transformation. In this stream of literature, eco-social policies are presented as the way to reconcile environmental and social aspects of policy. The literature on the eco-social welfare state is relevant to investigate policies according to their environmental and social aspects, because it focuses especially on the capacity of welfare states to integrate climate change mitigation as a new policy goal, while at the same time ensuring or even increasing social welfare. Therefore, in this thesis, energy poverty policies are analyzed according to their eco-social potential as understood by the literature of the eco-social welfare state. This task is rendered particularly difficult by the lack of available analytical framework and concrete definition of eco-social policies. Indeed, to date, most academic work has focused on building theories that do not assess policies in one particular field. Scholars have avoided to concretely define what eco-social policies are and how it differentiates them from any other 'green' or 'social' policy. Thus this thesis first asks: How can (energy) policies be analyzed from an eco-social perspective? To answer this question, the literature is reviewed and an operationalizable analytical framework is built.

Building the analytical framework is a necessary step to start analyzing any policy field from an eco-social prism. The second logical step, considering that scholars have yet to focus on a

specific eco-social policy opportunity, is to analyze a policy field through the newly established analytical framework. In this thesis, energy poverty policies are under review as they constitute the most evident case where both social and environmental goals could converge. In the light of the current policy development at the EU level, and the inclusion of energy poverty within the energy transition discourse, it is relevant to assess how EU member states are performing in terms of eco-social energy poverty policies. To do so, the thesis systematically reviews 274 energy poverty policies across the EU (28) provided by the Energy Poverty Observatory (EPOV), using an analytical framework developed after careful revision of several streams of literature. Each measure is given a score relative to its performance under the core principles of the analytical framework and subsequently a category which classify the policy as either ‘neutral’, ‘co-benefits’, or ‘eco-social’.

The thesis is structured as follows: First, it reviews the literature on the eco-social welfare state and describes the core characteristics of energy poverty and how it is addressed in terms of its connection to climate change. The review identifies the gaps in the literature, justifying the research questions and setting the necessary base to construct the analytical framework. The second section reflects on how to analyze policies from an eco-social perspective and first establish, with the help of the literature on co-benefits, eco-social welfare state and energy justice, the core tenets of eco-social policies. The methodology section elaborates on how the analytical framework has been applied to a concrete set of policies on energy poverty. The results and discussion section present the outcome of the study and assess the performance of EU member states in terms of eco-social energy poverty policies. Finally, the conclusion summarizes the findings, addresses limitations and suggests paths for further research.

1. Literature Review

1.1 The Eco-Social Welfare State

Climate change and the ecological crisis have created new challenges for the way our societies organize themselves. Beyond requiring adaptation policies to counter the direct threats of floods, wildfires, drought etc, it also calls for broader mitigation policies to avoid the occurrences of those events in the first place. This need for a new set of policies, if implemented, will have a transformative impact on our economic and social systems. Climate change poses new risks which have for effect to challenge the social state. A strand of literature has taken interest in investigating how a new ‘green agenda’ would affect the welfare state

systems of the Western world. The field is represented only by a few preeminent scholars such as Gough, Meadowcroft, Dryzek, Laurent, Fritz and Koch.

One question that is often brought to the fore is the synergy and/or contradiction potential between social and environmental policy. Generally, authors report that climate change is compatible with social objectives. Gough, Meadowcroft and Koch, highlight the similarities between both policy realms (Gough et al., 2008; Koch & Fritz, 2014; Meadowcroft, 2005). One line of argument asserts that both social and environmental policies emerge as a response to negative externalities created by the market economy. Drawing on Polanyi, Gough (2008) states that, akin to the commodification of labor which generated the rise of social policy, the commodification of land, or of nature, will bring forward the need for environmental policy. Moreover, the rise of ecological problems are generated by similar changes than those that induced the development of the welfare state. For Meadowcroft and Koch, those are tendencies arising from capitalist development, such as urbanization and industrialization forces (Gough et al., 2008). Meadowcroft further argues that both cannot be solved individually nor by market mechanisms (Gough et al., 2008).

The second argument common in the literature is that climate change is actually an opportunity for social policy. Environmental policy can foster social policy advancement and vice versa. Climate change disproportionately affects lower income households, who are the least responsible for its effect. Through mitigation policies, environmental policies could prevent further burden on the least well off segments of society which have less adaptation resources (Gough et al., 2008). Some policies introduced to mitigate climate change could ameliorate living standards. For examples, they can prevent health issues related to pollution or, as we have seen in the case of COVID-19, infectious diseases induced by ecological destruction. Living conditions can be improved through housing retrofitting and decreased energy bills. Alternatively, social policy can also contribute to tackle climate change by including climate mitigation elements within its policy making. Thus, climate policy is understood as a 'social opportunity agenda'(Gough et al., 2008). Nonetheless, the need for environmental policies raises new challenges for social policy.

The argument that those two policy arenas are in opposition rests on three assertions: risks posed by climate change are of different nature than social risks, climate change exacerbates distributional conflict and might worsen social inequalities, and lastly, the premises of the social

state depends on growth which is argued to be in itself incompatible with a sustainable future.

The notion of risk is central to welfare state theory where social policy is understood as the collective management of social risks (Esping-Andersen, 1999). Uncertainties become social risks when they enter the realm of social policy (Laurent, 2014). Climate change raises a new set of uncertainties which are to some extent different from traditional social risks handled by the welfare state. Public management of social risks render individual uncertainties collectively predictable while climate change induced risks are still unpredictable regardless of whether they are integrated into public policy making (Stern, 2007, p. 25). Hazards related to climate change are hardly predictable which makes policy making in that field even more complex than social policy.

The second assertion is that climate change will raise distributional conflict and could potentially overshadow social policy (Gough et al., 2008). There are concerns that public resources will be diverted from social policy to fulfill the needs of environmental policies. Authors usually recognize that this is not yet empirically relevant as environmental policies account for a small share of spending compared to social policy expenses (Dryzek et al., 2011). A stronger argument is made regarding the potential for environmental policy to exacerbate inequalities. Some carbon mitigation policies, such as a carbon tax, usually work regressively and have already proven to disproportionately affect lower income households (Dryzek et al., 2011; Gough et al., 2008; Koch & Fritz, 2014).

Lastly, the incompatibility between economic growth and climate change is seen as a major obstacle to the synergy potential of social and environmental objectives. The welfare state is deeply embedded into the capitalist system which relies on economic growth. Indeed, social policy derives its resources from taxation and aims at keeping its population within the market economy. In addition, the aim of social policy has been, among others, to increase material living standards (Dryzek et al., 2011; Gough et al., 2008; Koch, 2018). Thus, the welfare state relies on increasing production and consumption which are GHG emission generating activities. Climate change actually “suggests that the economic model that underpinned the current welfare state is unsustainable” (Dryzek et al., 2011, p. 4). Thus, questioning the validity of living standards acquired under the welfare state (Koch et al., 2016).

New risks brought by climate change will create tensions for the welfare which 1) has been

focusing on increasing material welfare at the expense of environmental sustainability 2) might see social policies replaced by environmental concerns and thus create distributional tensions. The literature argues that those tensions must be overcome for social policy to be compatible with ecological sustainability. New risks arising from climate change require a new type of governance. The welfare state and its policies have to be re-thought to integrate both distribution, equality and environmental sustainability.

This new welfare state can take different names (environmental state, eco-social state, sustainable welfare, socio-ecological state), but usually supposes the following: welfare states must move away from material accumulation and curb inequalities. For Gough and Koch, a human needs approach which relies on the satisfaction of mostly non-material necessities for a good life is necessary, emphasizing better distribution and planetary boundaries (Gough, 2015; Koch et al., 2016). In contrast, Laurent advocates for using a capability approach, which recognizes differentiated needs to be met by the social system (Laurent, 2014; Laurent & Pochet, 2015). Both group of authors postulate for a welfare system which would include environmental aspects at its core while enhancing social progress in an equal way (Gough et al., 2008; Meadowcroft, 2005). Gough recommends for social and environmental policy to merge, not towards material accumulation, but with the common goal of producing socially and environmentally just outcomes. For this, the welfare state should extend the scope of social policy and produce eco-social policies (Gough, 2013a; Koch et al., 2016).

Eco-social policies are understood as policies that can achieve “ecologically beneficial and socially just impact”(Gough, 2013a, p. 14). Authors generally fail to describe in greater details what is meant by eco-social policies and what differentiate them from other types of policies. Common grounds are found in the literature which considers eco-social policies as policies enhancing social and environmental progress. Progress is determined by equality and also by the scale and transformative potential of a policy (Gough, 2013c; Laurent & Pochet, 2015). Thus, any policies which enhance social objectives while creating some positive environmental impact does not necessarily qualify as an eco-social policy. In the literature, what this means exactly is quite unclear. Gough and Koch affirm that eco-social policies would include the human needs approach requiring in general for the eco-social state to focus on redistribution of time, work, income, wealth and carbon emissions (Gough, 2013a; Koch, 2018). The concept of hampering and rectifying inequalities is present for both authors which focus on the distribution impact of some policies and advocate for large scale investments for environmental gains,

especially attentive to generate socially just impact (Gough, 2011, 2013b, 2013a). The concept of equality and justice is central to the work of Laurent, who understands inequality as the cornerstone of the socio-ecological transition.

Laurent has introduced the concept of environmental justice in his idea of the socio-ecological welfare state. Environmental inequalities refer to the unequal impact that environmental risks and environmental mitigation policies can have on a population that is least responsible for the generation of environmental problems in the first place (Laurent, 2011). For Laurent, who advocates for policies to take a capabilities approach, “An environmental inequality, which may be the mere empirical observation of a disparity (the observation, for example, that in the Paris Region the air is of variable quality), translates into a social injustice at the point where the wellbeing and the capabilities of a given population are disproportionately affected by their environmental conditions of existence”(Laurent & Pochet, 2015, p. 14). What prevents the flourishing of capabilities is therefore unjust. The socio-ecological welfare state ought to create policies based on a principle of intra and intergenerational justice, which is a prerequisite for “true social-ecological policies” to “become building blocks of a fairer European welfare state”(Laurent, 2011, p. 1852).

Laurent’s approach provides more concrete elements on what eco-social (or in his words, socio-ecological) policies would look like, by emphasizing the concept of inequalities and justice. Nonetheless, his approach is mostly focused on normative and theoretical arguments. In the literature, eco-social policies are rarely investigated as such and have never been concretely operationalized. This arises from the lack of clarity and common understanding of what eco-social policies actually are. Without properly defining what eco-social policies are, any policy which somehow seems to accommodate environmental goals without worsening social issues, even if disregarding overall welfare impact could qualify as an ‘eco-social policy’.

Therefore, this thesis tries to answer a first question: How can (energy) policies be analyzed from an eco-social perspective? To answer it, this thesis focuses on a core environmental and social concern: Energy poverty.

1.2 Energy poverty

The energy sector in particular has been identified in the eco-social literature as a core policy field which can benefit from eco-social considerations (Gough, 2011; Gough et al., 2008; Koch et al., 2016; Koch & Fritz, 2014). Energy poverty is a situation where “individuals or households are not able to adequately heat, cool, or provide other required energy services in their homes at affordable cost”(Pye & Dobbins, 2015, p.1). It can also refer to disproportionately high costs related to energy, compared to one’s income. It has dire consequences for those that it affects exposing them to a large range of health and social risks (Bouzarovski & Simcock, 2017; Bouzarovski & Tirado Herrero, 2017; Healy, 2013; März, 2018; Thomson & Bouzarovski, 2019). Energy poverty was first recognized in the UK and in Ireland, under the term of fuel poverty. Fuel poverty only refers to the inability to heat one’s home, and does not encompass other aspects of energy deprivation. The gradual recognition of energy poverty in several member states and within the EU institutions, fostered policy making and academic research in the field. Within the last decade, studies have gone beyond fuel poverty and have investigated the multifaceted concept of energy poverty. There are now several country case studies outside the UK and Ireland, few cross-European work, and some research on Central Eastern European states (CEE). The literature generally investigates the causes and consequences of energy poverty.

Energy poverty is recognized as a multi-causal and space dependent problem. Energy poverty policies have struggled to identify vulnerable households due to the quite diverse causes of energy poverty. The literature has thus considerably focused on investigating who energy poverty affects and where. There is a general understanding that energy poverty touches households which are already in precarious situations. People suffering from chronic diseases or elderly people often need to maintain their homes at higher temperatures, while often also having a relatively low disposable income. Households with lower income also tend to live in inadequate and inefficient housing. Often, people in situations of energy poverty live in rented apartments, where the ‘tenants-landlord’ dilemma hampers high standards in terms of property maintenance and investment in energy efficient solutions (Bouzarovski, 2014; Bouzarovski & Tirado Herrero, 2017; März, 2018; Middlemiss & Gillard, 2015; Preston et al., 2014; Pye & Dobbins, 2015; Rehdanz, 2007).

Thus, causes identified in the literature are a combination of low income, high energy prices, inefficient dwellings and overall socio-economic situation. Moreover, some regions are more affected than others. Depending on the region's structural energy infrastructure and historical development some variables tend to influence more heavily the rate of energy precarious households (Bouzarovski & Simcock, 2017). Bouzarovski & Herrero (2017) report that there are disparities on how households are affected within Europe depending on their regional location. They identify an energy poverty divide in Europe between a relatively well off 'core' in Western Europe, and a more deeply impacted 'periphery' composed of Central Eastern European states and Southern European countries. It is argued that those disparities will deepen as a consequence of energy transition policies (Bouzarovski & Herrero, 2017). Energy transition is recognized as having an impact on energy poverty, which could either benefit from synergies or suffer from tradeoffs. The authors emphasize that this development will be different depending on the region.

Prior to this analysis, Tirado Herrero and Ürge-Vorsatz, established a list of energy poverty and energy transition policies organized around their synergy/tradeoff potential to achieve both social and environmental objectives (Ürge-Vorsatz & Tirado Herrero, 2012). The authors provide a useful reflection on the connection between energy poverty with energy transition policies, using the theory and literature around co-benefits to determine what constitute a synergy or tradeoff. The co-benefits perspective diverges from the understanding of eco-social policies as approached by the eco-social literature, difference which will be elaborated upon in the next section of this thesis. While the paper is one of the first attempts to consider the environmental aspects of energy poverty, especially from a cross-policy aspect, it also does not look at specific policies in place but rather at general policy types and their expected consequences. Other studies rather focus on one policy or method, such as installing solar panels on social housing, and do not address either cross national disparities nor other policies in place. Thus, energy poverty has not been sufficiently investigated upon with regards to its environmental component.

This thesis addresses two main gaps in the literature. First, the lack of research on eco-social policies in general. Second, the absence of studies addressing energy poverty policies from an eco-social prism. The first guiding question of this thesis as stated earlier asks: How can (energy) policies be analyzed from an eco-social perspective? The second resulting question is then to ask: Is there evidence of eco-social energy poverty policies? Lastly, having identified

national/regional disparities from the literature the thesis then investigates how EU member states perform in terms of eco-social energy poverty policies. The following section elaborates on the analytical framework used to answer that question.

2. Analytical Framework

It is clear from the literature review that while eco-social policies are an integral part of the eco-social welfare state, there is no clear definition of what they actually are. In this section, using the practical example of energy poverty, the traits of eco-social policies are elaborated upon in the intend to create a working analytical framework responding to this thesis guiding question: How can (energy) policies be analyzed from an eco-social perspective?

What is then an eco-social perspective? To answer this question, it is first helpful to define what it is not.

2.2 The Co-Benefits Perspective

The literature on co-benefits is one perspective to assess policies which could create a positive impact for both environmental and social issues. This concept has been used for the last decade to investigate the synergies between the policy fields of economics, social, environmental, health and development policy. Mayerhofer and Gupta (2016), having noticed the increase of the concept in the context of climate and development policies, systematically reviewed the co-benefits literature and extracted its defining characteristics. While lacking a generally agreed upon definition, the co-benefits literature shares a common understanding of co-benefits as “a ‘win–win’ strategy through which at least more than one objective is achieved through a single policy.”(Mayerhofer & Gupta, 2016, p. 28). Co-benefits happen when positive outcomes are created in several key areas. The origin of co-benefits can be traced back to the economic concept of cost-benefits, where co-benefits are seen as positive externalities which ought to be harnessed. Following this line of thought, co-benefits decrease the costs of a policy option and increases its viability and desirability which makes them strategically interesting as they can help push forward a policy agenda (Mayerhofer & Gupta, 2016). The co-benefits perspective offers a certain vision of the synergy potential between environmental and social goals (as well as other goals) which contains several flaws.

First, the literature on co-benefits focuses on the impact of certain policies without ever investigating the causes of climate and social problems, and thus offer patchy solutions which tend to be overly concerned with maximizing efficiency. Puppim and Oliveira (2013) who first analyzed the potential of co-benefits, recognize that it is often approached from a purely efficiency gains perspective without looking for a connection between the global and local nor does it substantially assess underlying causes of the policy fields it addresses. Indeed, the co-benefits approach offers a problem based, isolated understanding of complex problems which is reflected in the definition of co-benefits given by the IPCC which describes co-benefits as “the positive effects that a policy or measure aimed at one objective might have on other objectives, irrespective of the net effect on overall social welfare”(IPCC, 2014, p. 14). Here the last words give away what co-benefits can claim to achieve; positive effects only “irrespective of the net effect on overall social welfare”, thus failing to assess the overall effect of a policy on more than a few selected targets. When considering the complex interlinkages of challenges such as climate change, any attempt of addressing it in isolation from the global system will fall short.

This is exacerbated by the fact that the co-benefits approach often perceive social, health, economic and environmental issues as un-related problems but which can be solved together, thus failing to explore the deeper connection between social and environmental issues. This has a consequence on the depth of policies and measures which are considered as providing an efficient solution to global challenges. This is particularly evident in Ürge-Vorsatz & Tirado Herrero work’s which considers that “Climate change and energy poverty are two largely different phenomena both often partially rooted in the inefficient use of energy buildings.” (Ürge-Vorsatz & Tirado Herrero, 2012, p. 84), perfectly illustrating the lack of consideration for underlying causes which may be more than technical. Of course, climate change can be linked with inefficient buildings, as can energy poverty, however, the co-benefits perspective fails to address the structural causes of such outcomes and does not ask the deeper question of who lives in inefficient buildings nor does it addresses the needs for overall less consumption.

Second, the lack of reflection on the causes and connections between problems in seemingly different fields leads co-benefits proponents to stay unspecific about what constitutes a positive externality which seems to depend on the author’s own underlying assumptions. Neither positive nor negative outcome rests on a clear understanding of what actually qualifies a certain

outcome as social or environmental progress. This is reflected in Ürge-Vorsatz & and Tirado Herrero's article who have used a co-benefits approach to investigate the synergy potential of energy poverty and climate change objectives in determining best policy practices. In their analysis, they also integrate potential tradeoffs of certain policies alongside policies that ought to generate co-benefits. Ürge-Vorsatz and Tirado Herrero created a typology of interactions made of tradeoffs and synergies. Synergies are situations "when the effect on both the energy poverty alleviation and climate change mitigation goals point into the same direction" (Ürge-Vorsatz & Tirado Herrero, 2012, p. 85). In contrast, tradeoffs "allow advancing on a policy field only at the expense of the other" (Ürge-Vorsatz & Tirado Herrero, 2012, p. 85). Synergies can be either positive, when a policy enables both energy poverty alleviation and climate change mitigation, or negative when it worsens advancements in both policy fields. Policies that create 'co-benefits' are positive synergies.

Once again, what qualifies something as positive is unclear. This is the same regarding tradeoffs and negative synergies. For Ürge-Vorsatz & Tirado Herrero, carbon taxes policies and winter fuel payments equally represent a tradeoff, generating a negative outcome in one of the policy objectives. Carbon taxes, for example, work digressively and impact the lower income quartile the most dramatically. The environmental gains of this policy thus constitute a tradeoff, undermining social progress. By inverting the logic, a policy that aims at mitigating the problem of energy poverty while increasing overall consumption also constitutes a tradeoff. For Ürge-Vorsatz & Tirado Herrero, measures such as fuel payments or subsidies targeted at energy poverty mitigation represent a tradeoff where the temporary alleviation of energy poverty generates an increase in overall emissions by enabling energy use. Regarding both policies as equally tradeoffs is incoherent because it seems to rely on different assumptions of what constitutes a negative outcome. Indeed, carbon taxation is described as counterproductive because of its unfairness for the least well off segments of society. Thus calling upon the idea of equality in determining what is desirable or not. However, when considering the opposite argument regarding fuel payments, social tariffs for energy and disconnection protection measures, the concept of inequality and justice is no longer taken into account reflecting both the lack of clarity of positive outcomes and the way social and environmental issues are seen in isolation. Take the case of disconnection protection; a policy that would prevent companies to shut the power from households that are not paying their bills does allow for less emissions to be generated than if the policy was not instigated. However, not doing so leaves you worse off in terms of social progress. Thus, the neutral 'doing nothing' policy option also constitutes

a tradeoff, while maybe allowing for less energy to be used. This perspective considers that by allowing vulnerable households to consume what they need, the increase in overall emissions suffices to render this policy a tradeoff. This completely overlooks concepts of justice and inequality as it does not reflect on who is able to consume energy to their liking and who is not enabled to consume a decent level of energy for their survival. Therefore, Ürge-Vorsatz & Tirado Herrero do not only have an inconsistent understanding of what constitutes a positive nor a negative externality, they also fail to address those outcomes in their overall welfare effect.

The discussion above helped establish co-benefits as policies that bring positive outcomes in more than one field through the use of one policy. What constitutes a positive outcome (or negative) can be determined on any grounds as long as it benefits some policy goals, regardless of the overall welfare effect. Thus the bar for a policy to qualify as generating co-benefits is rather low. Simply looking at policies from this perspective will fail to assess their potential to truly address climate change and social challenges which is necessary to achieve the realization of an eco-social welfare state.

Looking at co-benefits is useful to identify what an eco-social perspective could build upon and should be wary of. In the literature on the eco-social welfare state, eco-social policies are tools that will be necessary to profoundly transform our societies towards eco-social heavens. For policies to be eco-social and be able to bring this transformative change, they need to go beyond co-benefits. Thus, an eco-social perspective must define the type of change that is deemed positive, not in isolation but with regards to justice grounds.

2.3 The Eco-Social Perspective and Energy Justice

While poorly elaborated upon in the literature, concepts of inequality and justice are recurring in the literature on the eco-social welfare state. This is apparent in the definition of eco-social policies given by Gough who describes them as policies that produce “socially and environmentally just outcomes”(Gough, 2013b, p. 14). Researchers of the eco-social welfare state often highlight the ‘triple injustice’ of climate change which is illustrated by the way certain policies disproportionately affect groups which are the least responsible for causing climate change in the first place and are the least resilient to face its consequences. To solve those inequalities authors then assert that policies should consider either basic needs (Gough,

2013b, 2013a; Koch, 2018; Koch et al., 2016) or ensure for people's capabilities to be enabled while at the same time respecting planetary boundaries (Laurent & Pochet, 2015). Often even, respecting planetary boundaries is considered as interlinked with enhancing equality: Laurent argues that inequality is strongly correlated with environmental impact (Laurent & Pochet, 2015). Inequality and justice are used almost interchangeably but while inequality rather refers to consequences, justice is a tool that could guide the new welfare state. Justice is a powerful concept which links both today's inequality issues and tomorrow's unequal consequences on future generations. In the eco-social discourse justice thus refers to an intergenerational and intragenerational scope which enlases social and environmental issues in an inseparable pair.

The eco-social perspective understands eco-social policies as policies that both advance social and environmental progress, whereas progress is understood as reducing inequalities based on intergenerational and intragenerational justice, which operates in an open system. Justice being a key element of this perspective, eco-social policies are to be determined on the basis of criteria founded on justice principles. Justice has been used also in the literature on energy poverty, recognizing energy poverty as an unequal phenomenon both within and between countries. To operationalize the eco-social perspective into a working analytical framework capable of analyzing energy poverty policies, it is useful to refer to the literature on energy justice.

Energy justice has its grounds both in social and environmental justice literature and therefore emphasizes key tenets of social justice together with environmental justice preoccupation for both local, global and intergenerational justice (Gillard et al., 2017; Jenkins et al., 2016). Energy justice is a field that investigates energy issues using a justice perspective. Energy justice has mostly focused on social inequalities which can be associated with energy policy. More recently, it has added the concept of intergenerational justice as to encompass today's energy use's impact on future generations. Energy justice approaches energy policies and its consequences by asking questions on who pays and who benefits (Sovacool & Dworkin, 2015). Thus, going beyond co-benefits. In addition, energy justice has a well-developed conceptual background that can be used as an analytical tool to research energy and thus energy poverty (Sovacool & Dworkin, 2015).

Energy justice relies on three core tenets: distributional, recognition and procedural justice. Jenkins et al.(2016) sums up those three axes by asking three questions; where are the injustices, who is ignored (who is not) and is there a fair process? In more detail, distributional justice

refers to the allocation of resources and its related benefits linked to having access and the problems arising from not having access to (affordable) energy. It asks where and who has access and who does not. Distribution justice also looks at the fairness of the allocation of benefits and how they can create additional inequalities (Jenkins et al., 2016, p. 177). Energy justice is concerned with how to allocate resources and how poor allocation can result in inequalities. Energy justice proponents often take a capabilities approach when arguing for what a proper distribution ought to be, similarly to Laurent in the eco-social welfare state literature (Gillard et al., 2017; Jenkins et al., 2016; Sovacool & Dworkin, 2015).

The capabilities approach fits the second tenet of energy justice: recognition. Recognition justice is concerned with problems of unrecognition, misrecognition and disrespect (Fraser, 1998; Jenkins et al., 2016) It “acknowledges the various needs, rights and experiences of different groups, often setting out a rationale for social and political action.”(Gillard et al., 2017, p. 54). It insists on the need to recognize differentiated needs of the population and who is in the most vulnerable position. It calls on public policies to effectively aim to recognize who suffers most.

The last aspect of energy justice is procedural justice. Procedural justice concerns equal representation in decision making, processes and access to information. It draws from recognition justice as it is concerned with groups’ inclusion into the decisional process and the respect of their knowledge and capabilities as a community and individuals (Jenkins et al., 2016). Once again procedural justice asks the ‘who question’: who has “(1) access to information; (2) access to participation in decision-making; (3) lack of bias on the part of decision-makers; and (4) access to legal processes for achieving redress” (Sovacool & Dworkin, 2015). Procedural justice is much about due process and is reflected in the space that is given to certain groups in terms of participation and representation in policy making (Gillard et al., 2017).

Each aspect defined above is not entirely distinct from one another and they constitute what ought to be looked at when trying to determine the justice element of energy policies. While energy justice often refers to environmental concerns in the form of intergenerational justice, each aspect is often not clearly linked with this key component. However, social arrangements defined around those three axes also will have consequences for the next generations and their capability to live a good life. Thus, in this thesis, the three central axes are defined as key

determinants of intragenerational justice, to which intergenerational justice elements must clearly be added to enable the analysis of energy poverty policies from an eco-social perspective.

The discussion on co-benefits and energy justice was useful to further define what an eco-social perspective is and to determine what eco-social policies are. The eco-social perspective looks at policies from their capacity to generate environmental and social progress (not at the expense of one another) from a perspective of intragenerational and intergenerational justice drawn from the energy justice literature which consists of an evaluation of distributional, recognition and procedural justice. This perspective goes beyond co-benefits as it 1) sets criteria for what is considered progress or positive outcomes and 2) does not ignore the overall welfare effect (both social and environmental). Drawing on this analysis, the next section describes the analytical framework that will be used to identify eco-social policies.

The analytical framework provides four typical scenarios that are determined by the ability of a policy to foster both intra and intergenerational justice. The criteria of intergenerational justice refer to the ability of the policy to mitigate climate change and preserve the natural environment. In the context of energy poverty policies, the level of intergenerational justice depends on the type of policy: Building isolation and retrofitting provide higher environmental yields than information on efficient use of energy, which itself will be more beneficial for the environment than a disconnection protection measures which in effect does not contribute to mitigation efforts.

The criteria for intragenerational justice rests on the three core tenets of energy justice: distributional, recognition, and procedural. Intragenerational justice evaluates whether the policy enhances the fair distribution of resources (distribution), whether those most vulnerable are benefiting from the policy, and thus does not increase inequality (recognition), and finally, whether most vulnerable groups have access to information and to participation (procedural). Applied to energy poverty policies, a retrofitting policy which would include vulnerable households by enabling them to benefit from the scheme under differentiated terms will curb inequalities and redistribute energy use while at the same time enhancing climate change mitigation. Procedural justice however, is harder to identify at the policy level and a distinction has to be made between analysis which looks at particular policies isolated from their overall legislative context, and those who might focus on the entire policy framework, including how

political representation is distributed. In the context of the thesis, identifying procedural justice is hardly possible since it only investigates energy poverty policies, thus the procedural element is not taken into account. However, it is relevant to investigate procedural justice when looking at a country's overall welfare system.

Based on those two criteria, policies can fall into four categories: eco-social, co-benefits, neutral, and tradeoffs. Eco-social policies have both a high environmental impact (ensuring intergenerational justice) and ensure re-distribution of energy use so that most vulnerable households are recognized so as to bridge inequalities (intragenerational justice). Co-benefits have both a positive environmental impact and create some social benefits, while not enhancing intragenerational justice on either (or both) distributional and recognition grounds, thus risking to increase inequalities. Inversely, co-benefits policies could fulfill all criteria but at a very low scale. The neutral qualification comprises those policies which do not include components of intergenerational justice but are necessary for social protection and respects the ground principles of distributional and recognition; or at least do not increase inequalities but rather aim at curbing them. Lastly, tradeoffs are the last category under which policies can fall: they tend to foster intergenerational justice clearly at the expense of any social improvements. Inversely, social policies that are worsening climate change mitigation efforts are considered as tradeoffs, but only if they do not fulfill the recognition and distribution criteria.

Those four ideal types are the basis for the analysis of policies and measures from an eco-social perspective. It offers key basic principles around which research on eco-social policies can be done independently of which policy area is studied. This analytical framework is adapted for studies focusing on particular policies and therefore does not include the principle of procedural justice. Table 1 summarizes the criteria and how their fulfillment or not will lead to different scenarios.

Table 1: Categories determined by the fulfillment of core criteria from the eco-social perspective

	Intergenerational justice		Intragenerational justice	
	Environmental potential		Distributional	Recognition
Eco-social	✓		✓	✓
Co-benefits	✓		✓	×
	✓		×	✓
Neutral	×		✓	✓
	×		×	✓
	×		✓	×
Tradeoff	✓		×	×

The analytical framework provides a frame to analyze policies to investigate whether they can be considered eco-social policies or not. Identifying eco-social policies will help to evaluate the current status quo and at the same time gather best practices that could be used as examples of eco-social policies necessary for the eco-social welfare state. In this thesis, the analytical framework described here is used to investigate the status quo of energy poverty policies in the EU with regard to their eco-social potential. The next section describes how this is done.

3. Methodology

The thesis aims at answering two questions: “How can (energy) policies be analyzed from an eco-social perspective?” and “How do EU member states perform in terms of eco-social energy poverty policies?”

The first question has been the focus of the analytical framework, which uses several relevant literature sources to elaborate a framework capable of analyzing policies from an eco-social perspective. The second section of this paper uses the analytical framework to investigate what kind of policies are found in the EU member states looking specifically at energy poverty policies. This enables to 1) test the analytical framework to a specific policy field 2) fill the gap in the literature on energy poverty which has not been very attentive to analyzing energy poverty policies beyond their social components 3) fill the gap of in literature on eco-social welfare states which has not yet empirically investigated eco-social policies systematically and cross-nationally.

To do so, the thesis will apply the analytical framework on a sample of energy poverty measures provided by the Energy Poverty Observatory (EPOV). EPOV is an initiative of the European Commission launched in January 2018. The role of the observatory has been to collect knowledge and elaborate on innovative solutions to alleviate energy poverty in the EU member states. For this purpose, it has gathered numerous resources and created a database of energy poverty policies in Europe. The measures constitute the sample data under analysis.

The policies found on the website are relevant to assess the overall status quo regarding energy poverty policies in the EU because they have been selected by members of the EPOV consortium which have deemed relevant, on the basis of their expertise, to classify those policies as energy poverty policies. Unfortunately, no information on how the measures were collected and according to which criteria could be retrieved from their website, and attempts to communicate with the consortium has failed. While the policies found on the database do not cover all policies enacted in the various member states, the 274 policies collected provide a good sampling base to investigate energy poverty policies in the EU. To avoid double counting, some policies were excluded of the analysis: those which concerned more than one country, and those that were referenced separately by EPOV but were subsections of one single policy.

In addition, EPOV also gathers some policies which have been implemented in associated and third countries to the EU. Since the thesis focuses on the EU 28 countries, those policies were also excluded from the sample. While the United Kingdom (UK) is no longer formally part of the EU, energy poverty policies implemented in the UK are included in the sample because the political and scholarly discourse on energy poverty (or more specifically on fuel poverty) has been initiated in the UK, which makes it an interesting case. It is important to note that EPOV has entered a transitional phase between phases one and two of the project, thus the database has not been updated since August 2020.

EPOV provides for each policy a description of its main elements and sometimes also includes results. For the sake of illustration, a policy description as provided by EPOV is found in Annex A. To extract results from the available data, each measure is processed as follows: First, the description provided by EPOV is read and information on the type of measure, the target socio-economic group, the target housing situation, and the financing method is retrieved. Then additional information not provided by the description is sought on the policy dedicated website (or page). The information collected aims to evaluate how far the policy 1) enhances intergenerational justice and thus contributes to the efforts to mitigate climate change 2) embraces principles of intragenerational justice with regards to distribution and recognition justice.

Four categories provided by EPOV are particularly relevant for the aim of the analysis: the type of measures, the target socio-economic group, the target housing situation and the financing method. The type of measures provides information on the degree of intergenerational justice achieved. For the purpose of this analysis, the different policy types were organized from the highest to lowest expected contribution to intergenerational justice as illustrated in table 2. The classification follows which policies are expected to generate greater climate change mitigation, if at all. The neutral category comprises policies which do not generate a positive environmental impact. This categorization provides a first clue into the type of policy and its potential environmental impact. For example, a policy that provides information on efficiency measures will be classified as a higher environmental impact than one that provides transparent information on energy prices. The classification was created for the purpose of this analysis and is not provided by EPOV.

Table 2: Policy types and their intergenerational justice potential

Building insulation	High
Renewable energy	High
Heating system	Medium
Energy storage	Medium
Household appliances	Medium
Energy audits	Medium
Information and awareness	Low
Energy bill support	Neutral
Social tariff	Neutral
Social support	Neutral
Disconnection protection	Neutral
Cooling system	Neutral

To assess the distributional component of the policy, the type of policy is again taken into consideration. Distributional potential is determined by the level to which the policy is expected to yield change on the energy distributive patterns: whether it enables a greater energy ownership and control over energy consumption. The distributional effect is higher when the policy effectively reduces the dependence of households on their high energy consumption. Thus, building insulation measures have a higher distributional potential because they allow more households to break their dependence to energy use. Renewable energy investments also have a high distributional potential as they allow for ownership of energy production. Thus, the distributional component follows a similar logic that the one of intergenerational justice with some exceptions as described in table 3.

Table 3: Policy types and their distributional justice potential

Building insulation	High
Renewable energy	High
Social tariff	High
Energy storage	Medium
Heating system	Medium
Household appliances	Medium
Energy audits	Medium
Cooling system	Medium
Information and awareness	Low
Energy bill support	Low
Social support	Low
Disconnection protection	Neutral

Recognition justice is determined thanks to a few information provided by EPOV. First, the target socio-economic group provides information on whether most vulnerable groups are considered by the policy under analysis and thus provide information on whether recognition justice is fulfilled. This category is useful as energy poverty affects certain segments of society more acutely as illustrated previously in the literature review. The target housing situation of the policy is also used to provide additional information on whether recognition of justice is respected as housing situations have an impact on whether most vulnerable households will be efficiently targeted as some housing situations are more at risk. Finally, the financing method is also looked at as it sometimes affects who benefits from a policy such as retrofitting schemes. For example, some grants are paid to the beneficiaries only after the renovation works have been done, which excludes lower-income households that are not able to pay ahead. Looking at those four categories of information enable to assess whether the intergenerational justice principle and the components of the intragenerational justice principles (distribution and recognition) are respected.

Based on the above mentioned indicators, the policy will be given a qualifier defining the extent to which it fulfills the necessary principles from the analytical framework (from negative (-

0,33), neutral (0), low (0,33), medium (0,67), to high (1)). Each principle is weighted according to its relative importance. The relative scores are then added up. The closer the total score to 1 to more the policy achieves eco-social standards. The different weights are presented in Table 4.

Table 4: weighted principles per importance in determining eco-social policies

50%	16,66%	33,33%
Intergenerational justice	Distributional	Recognition

The intergenerational justice principle accounts for half the required achievement of an eco-social policy. By definition, if the policy does not help mitigating climate change, it cannot be eco-social. The distributional and recognition justice components constitute the other 50%. Recognition justice is given a higher weight than distributional justice because recognition justice determines whether the policy helps the most in need, therefore closing the equality gap. In addition, policies are given an additional 1/6 (0,33) points if they achieve positive scores both in the intergenerational justice and in the intragenerational justice section, and none if it failed to do so. This ensures that a policy which has scored points only under the intergenerational justice (and vice-versa) principles cannot be considered as neither eco-social nor co-benefits.

Thus for each policy the following equation is applied:

If the policy score points according to both intergenerational (*I*) and intragenerational principles (*D & R*)

$$\frac{(I * 0,5 + D * 0,16 + R * 0,33) + 0,3}{1,3}$$

If the policy only derive its score from achievements under one meta principle:

$$\frac{(I * 0,5 + D * 0,16 + R * 0,33)}{1,3}$$

From the resulting scores, policies are classified in the following way: policies which earn a score between 0 and 0,39 are considered as neutral. Policies which range between 0,4 and 0,69 will be considered as achieving co-benefits policies and any policy which reaches a score above 0,7 will be considered as achieving more than just co-benefits and thus be classified as an eco-social policy.

Using scores is relevant because it sets policies on a range within their own classification. A co-benefits policy which earns a score of 0,4 is clearly respecting eco-social principles to a lesser extent than a policy which scores 0,6. Moreover, it simplifies the results of the analysis and makes it more appropriate for graphical representation.

Once all the measures have been collected and assigned a score thanks to the analytical framework, two things will be looked at allowing to answer how EU member states perform in terms of eco-social energy poverty policies. First, the share of policies classified as eco-social will be compared to the share of co-benefits, and of neutral policies. The mean and the median score will also be calculated to provide an idea of how the EU actually performs in terms of energy poverty policies from an eco-social perspective. Second, the data will be analyzed in order to compare countries' relative performance. For this, scores will be added per country and divided by the number of energy poverty policies of that country in order to retrieve a country score, which will give an indication of the country's relative position with regards to energy poverty policies which qualify as eco-social policies. This aims only to provide an indication on the relative position of a country as each country's relative score can depend on many factors outside of the scope of this analysis. The next section presents the findings of the study.

4. Results

As illustrated in table 5, among the 274 policies evaluated most have been classified as ‘neutral’ or in other words, as policies which do not achieve environmental and social goals simultaneously. In the selection under study, all neutral policies but one, somewhat achieve intragenerational justice without scoring any points in the intergenerational justice category. The other way around is only recorded once. In the selected sample we find that 96 policies belong to one of the following categories: Social support, social tariffs, energy bill support or disconnection protection. The other 17 neutral policies are policies which provide information on energy prices and providers, but not on energy efficiency, with one exception only. The mean value of neutral policies is 0,159. This signifies that most neutral policies, while not being detrimental to eco-social aspirations, are also not scoring very high in terms of distributional and recognition justice, even though generally no single category is achieved to a greater or lesser extent than the other. Let's take the example of a Swedish measure on disconnection safeguards¹. The measure is directed at indebted households, and therefore focused on providing support to people that might be in a situation of energy poverty. While focusing solely on indebted households might exclude some households which may need support, the measure is not at risk to deepen inequalities and is awarded a medium score (2/6), in the recognition justice component. However, it yields no points in the intergenerational section, as it does not contribute to the efforts to mitigate climate change. Nor does it contribute to a better distribution of energy use and consumption, which also explains why no points are attributed to the measure for its distribution potential.

Table 5: Frequency of policy types

Eco-social	94	34%
Neutral	113	41%
Co-benefits	67	24%
Total	274	100%

¹ The policy description is available here: <https://www.energypoverty.eu/measure-policy/disconnection-safeguards>

Co-benefits policies represent 24% of the sample. In this category, most policy types are represented with the exception of social tariffs, energy bill support, social support (with one exception) and disconnection protection. Policies which fall in this category share one or two of the following characteristics: they do not target any socio-economic group nor housing situations most relevant to the problem of energy poverty, and have inappropriate funding mechanisms (tax incentives, low and not differentiated grants) which often leads to exclusions of key demographics from the scheme (recognition), and/or they have low re-distributive effects (distribution), and/or low potential in terms of climate change mitigation (intergenerational). For example, the energy savings initiative implemented by the city of Bonn in Germany² provides free of charge energy audits and small energy efficiency material such as more efficient light bulbs to low income households and households on social benefits. This measure thus obtains a medium score (2/6) in terms of recognition justice but only achieves low grades in terms of intergenerational and distribution justice. The policy expected impact on energy dependence and distributive patterns, while being positive, are not high as is the expected impact on climate change mitigation. Energy audits, while a first step towards potentially conducting energy efficiency renovations, are not in themselves sufficient to generate a positive impact on climate. In addition, more efficient light bulbs do not fully enable the households to break from patterns of energy dependency nor does it re-distribute energy use. In this example, the low expected impacts of the policy prevent it from being classified as eco-social. This example illustrates a type of policy found in the co-benefits category. When looking at the overall score of co-benefits, the mean value is 0,522, which indicates that co-benefits policies fluctuate between the lower and the medium end of the spectrum between neutral and eco-social categories.

As can be seen in table 5 eco-social policies represent 34% of all policies under analysis, which makes it the second most common policy type. The policy types that compose the eco-social sample are similar than for co-benefits, however their respective share is different. The differences are illustrated in table 6.

² The policy description is available here: <https://www.energypoverty.eu/measure-policy/energy-savings-initiative-bonn>

Table 6: Most common policy types under the eco-social category

	Eco-social	Co-benefits
Renewable energy	13,83%	1%
Building insulation	64,89%	6%
Heating system	3,19%	31%
Information & awareness	5,32%	37%

The mean value of eco-social policies is 0,852, which signifies that eco-social policies are often in the middle range between the higher end of co-benefits policies and reaching the highest standard of eco-social policies. This relatively good number does not forgo that some policies classified as eco-social can be flawed. For example, some policies which scored very high in intergenerational and distribution components but rather poorly in the recognition field, can reach a score of 0,7 and thus be classified as eco-social policies. For example, In Spain, the regional energy efficiency programme³ provides, through grants, assistance to households that want to conduct energy efficiency works in their home and/or install renewable energy infrastructures. Because of its high environmental potential and high capacity for households to not only control their energy consumption but to gain ownership over their energy production, the policy yields high scores both in terms of intergenerational and distribution justice. However, the policy only covers parts of the renovation costs and the grant is paid after the renovations have taken place. Considering that many households in situations of energy poverty are often also income poor, the scheme is then inaccessible to them and widens the gap between energy poor households and those who have access to affordable and controllable energy. Therefore, the policy yields zero points in the recognition category.

³ The policy description is available here: <https://www.energypoverty.eu/measure-policy/regional-energy-efficiency-programmes>

Policies which achieve high standards in all categories are more rare, however some have been identified. The Dampoort⁴ renovates measure, is a good example of a policy which achieves high standards according to all key principles determining eco-social policies. This housing renovation scheme initiated by the city of Gent in Belgium, is directed at low income households living in inefficient buildings. The scheme enables households to borrow money for the totality of the renovation costs, to be repaid at a zero percent interest rate only if the household decides to sell its property. The measure yields a maximum score in each category because it respects high standards in terms of intergenerational justice through the building insulation's work, while at the same time enabling families most in need to have access to a scheme which will effectively allow them to have control over their energy consumption. The way the measure is set up recognizes the needs of families most at risk of energy poverty and enables them especially and in priority to benefit from energy transition policies.

No evidence is found in the energy poverty policies sample of policies which constitute a tradeoff according to the analytical framework. Indeed, most policies which would have been considered as tradeoffs according to the co-benefits approach, are classified here as neutral policies because no policies found in the sample failed to yield at least some points under either the distribution or the recognition categories, which was the prerequisite for policies to be considered as tradeoffs in this analysis.

The previous paragraphs have illustrated the distribution of the policies per categories. It is also interesting to look at the score beyond their categories but also as a nexus. The more a policy reaches a very high score, the more it achieves eco-social standards. Thus, the mean and median values of all policies are calculated as well as the mean and median value for each country. The sampling mean is 0,470, while the median value is 0,408. The relative closeness of those two scores indicates that there are no outliers in the sample affecting the overall score significantly.

In table 7 per country mean and median values are given. The values are organized from the lowest to the highest score. While there are some variations between the mean and the median values, most countries retain a comparatively similar position in the rankings. At the lower end,

⁴ The policy description is available here: <https://www.energy-poverty.eu/measure-policy/dampoort-renovates>

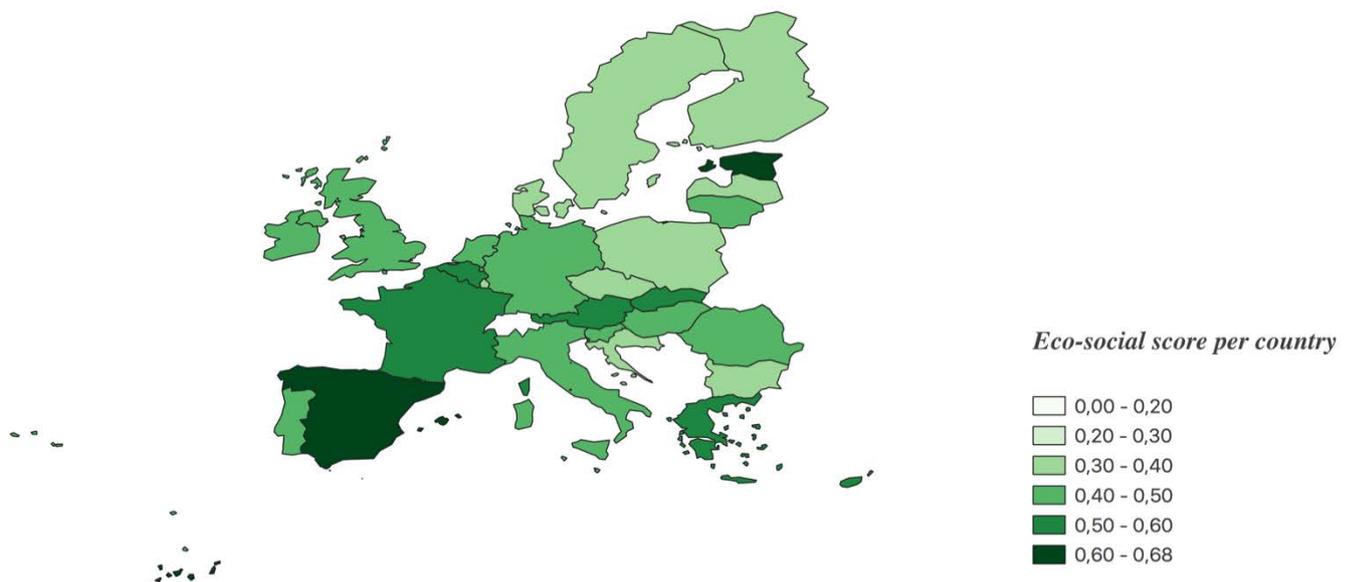
we find Latvia, Poland, Denmark, Bulgaria, but also Finland and Sweden. Greece, Estonia, Slovakia and Spain are situated at the higher end of the eco-social spectrum, quickly followed by France, Austria and Belgium.

Table 7: Mean and Median scores per country

Country	Mean	Country	Median
Finland	0,325	Latvia	0,171
Latvia	0,326	Poland	0,171
Poland	0,343	Sweden	0,214
Denmark	0,368	Denmark	0,214
Bulgaria	0,369	Bulgaria	0,235
Sweden	0,373	Finland	0,235
Luxembourg	0,395	Croatia	0,256
Czech Republic	0,402	Ireland	0,329
Croatia	0,405	Slovenia	0,329
Slovenia	0,431	Romania	0,372
Hungary	0,436	Czech Republic	0,402
Germany	0,458	Italy	0,402
Portugal	0,467	Luxembourg	0,402
Italy	0,472	Portugal	0,402
Romania	0,486	Hungary	0,415
United Kingdom	0,489	Republic of Cyprus	0,487
Ireland	0,492	Germany	0,487
Lithuania	0,494	Malta	0,487
Malta	0,496	Netherlands	0,487
Netherlands	0,498	Lithuania	0,530
Belgium	0,541	United Kingdom	0,530
Austria	0,552	Belgium	0,573
France	0,554	France	0,573
Slovakia	0,556	Austria	0,594

Republic of Cyprus	0,558	Greece	0,658
Greece	0,586	Estonia	0,701
Spain	0,613	Spain	0,744
Estonia	0,680	Slovakia	0,786

Figure 1 illustrates the distribution of scores per country, using the mean value. Note that no country reaches a score higher than 0,68 and most countries are clustered between 0,30 and 0,6. No country is situated in the lowest ranges (0-0,3).



5. Discussion

From the data presented in the previous section, it can be said that European member states are in general not yet integrating environmental concerns within energy poverty policies. The average score of 0,4 is situated right at the limit between ‘neutral’ and ‘co-benefits’ policies. This low score is coming from the relatively high share of neutral policies in the sample as well the relatively low score of those policies within their category. Thus, the energy poverty policies are not only often failing to reach the intergenerational benchmark, but they also fail to achieve high standards in the intragenerational justice component. Policies found in the neutral category, such as energy bill payments and disconnection protection have often been used in attempts to alleviate energy poverty and have proven to provide only short term fixes to a deeper problem of inequality and distribution. It is therefore without surprise that neutral policies score relatively low in terms of distributional and recognition justice which has for consequences to lower down the sample’s mean value. Nonetheless, no policies were identified that effectively constituted a tradeoff, as policies always secure at least some points in the distribution or recognition category.

When looking at the distribution of policies between categories, ‘eco-social’ is the second most attributed category in the sample. Co-benefits also represent a substantive share of the sample, meaning that some environmental concerns are integrated with the energy poverty policy realm. Policies that are found in those two categories are either policies which start from an energy poverty perspective (mostly the case for information and awareness, household appliances and heating systems), or from a sustainable/green energy perspective (building insulations, renewable energy). In the first ‘perspective’, policies tend to score higher rates in terms of recognition justice but a bit less in terms of distribution and intergenerational justice because those policies are often of lower scale. They are mostly found in the co-benefits category.

The ‘green perspective’ concerns policies which usually have high standards in terms of intergenerational justice but often less so in terms of recognition justice. Indeed, policies which necessitate larger renovation work or installations, while being most efficient in curbing energy poverty in the long term, are sometimes not designed to target lower income ranges and vulnerable households. Some policies which score very high on intergenerational and distribution justice, but low in terms of recognition constitute the lower end of eco-social policies and the upper end of co-benefits policies.

There are also in the sample some policies with high positive environmental impact which also efficiently integrate vulnerable households via fully subsidized renovation work or differentiated grants scheme. Those policies constitute the upper end of the eco-social category, but are not the most common policies found in the eco-social category, which explains the mean value of the eco-social category.

When assessing the overall results, the mean value and the distribution of policies per categories indicate that the bulk energy poverty policies are either 1) not integrating ecological concerns 2) integrating social and ecological concerns at a low scale 3) integrating ecological concerns and social ones but to less extent for the latter and with little concerns for inequality. Thus, only the upper end of eco-social policies constitute a satisfactory outcome which could serve as a guideline for further energy poverty policies in the future.

The per country scores provide valuable information on which countries perform best in terms of implementing energy poverty policies with respect to eco-social principles. A few countries stand out from the rest: Estonia, Greece and Spain. The common ground between those countries is that a relatively high share of the policies available have higher standards in terms of intergenerational justice which sometimes integrate recognition concerns by prioritizing vulnerable households or targeting certain communities. The mean value per country however, even in those countries, does not reach higher scores than 0,68 which suggests that while some countries perform relatively better, there is still room for improvement and no country reaches a very high standard in terms of respecting eco-social principles.

The results provide a first understanding of eco-social policies in one policy field: energy poverty. While the sampling base is rather broad, the material provided by EPOV does not cover the entirety of energy poverty policies out there, and thus the analysis can only make conclusions based on the sample collected. Therefore, some countries might have more eco-social policies than suggested by the data collected here. While cross country comparison is still useful, further evidence should be provided for the results to be generalizable. Nonetheless, the overall results indicate a trend in the EU which shows that eco-social standards are not yet the norm in the field of energy poverty policies.

Conclusion

The European Union and its member states are in the process of reshaping the welfare state as to integrate the necessary actions to mitigate and adapt to climate change and eco-system collapse. In this context, the EU Commission has issued a ‘green deal’, which considers the energy transition as a core foundation of the necessary change towards more sustainable societies. In this document, and within scholarly and civil debate, the question on how environmental concerns and social ones will be integrated is central as many climate mitigation policies have resulted in increased inequality and worsen the situation of the most vulnerable. Recognizing that the environmental transition must also be social, some scholars have tried to elaborate on how European welfare states could transform themselves to respect those two core principles. Their answers has been to advocate for eco-social policies. In this thesis, the concept of eco-social policies has been explained and elaborated upon as to create a working analytical framework enabling the concrete study of policies through an eco-social perspective. The literature that developed the concept in the first place, set the base for the analytical framework to be constructed: it recognized the necessity of eco-social policies to be based on justice and equality. However, the concept of eco-social policies have, previous to this essay, never been operationalized. The analytical framework produced here is the first attempt to identify the core elements of eco-social policies and to enable their analysis thanks to a defined frame.

The analysis that led to the construction of the analytical framework highlighted the different perspectives which try to apprehend policies from both a social and environmental outlook. The key learning from the analysis of the co-benefits literature, is that eco-social policies must consider more than positive externalities and rely on the core concept of justice. Drawing from the literature on energy justice, the elements of intra and intergenerational justice were sketched out. The results is a set of key principles that one must take into consideration when looking at policies from an eco-social perspective: intergenerational justice, distribution and recognition.

Having answered the first research question, the analytical framework was used to answer the second key question of this thesis: how are EU member states performing in terms of eco-social energy poverty policies? Ideally, this framework could be applied to any policy field. Energy poverty was deemed particularly relevant to test the analytical framework as it is a very obvious case where both environmental concerns (through the prism of energy) and social ones (through

the poverty element) could be harnessed together. While being such an obvious field for eco-social policies, the results of the empirical analysis showed a less clear cut picture. There are evidence of policies in the EU member states which tackle energy poverty in an eco-social way. However, those are rare and most policies from the sample don't integrate climate concerns at all. Those that do, however, tend to be either of lower scale or to respect key determinants of intragenerational justice to a low degree. While the results display generally rather low performance in terms of eco-social energy poverty policies, some measures truly stand out of the sample for their ability to reach high scores on the eco-social scale. Those policies are interesting to investigate further and represent best practices examples which could be used in policy making.

Trough the analysis of energy poverty policies, the thesis not only aimed to provide a first cross national study of energy poverty policies according to their consideration for environmental aspects, it also had for ambition to test the analytical framework. The framework is useful as it provides ways to identify and single out a few components of policies which are determinant of the eco-social perspective. Rarely, policies are analyzed through their recognition and distribution potential in combination to their environmental aspect. Thus, it provides a fresh lens to analyze policies from the prism of priorities which were identified in the eco-social welfare state literature.

While the analytical framework has proved to be useful, it is not without flaws. Concepts of intergenerational, distribution and recognition justice offer leads on what eco-social policies consist in, however, those concepts are themselves elusive. The thesis tried to make them more tangible when looking at energy poverty policies by using indicators to determine how those three principles were respected (socio-economic target, housing situation, policy type, financing method). However, due to the scope of this work, concrete indicators applicable to more policy field were not identified. Therefore, a greater refinement of what distribution, recognition and intergenerational justice concretely means is necessary for a greater use of the analytical framework. Nonetheless, the thesis identification of basic principles of eco-social policy, constitutes a first contribution to the operationalization of the theory on eco-social policies, necessary for the analysis and the further elaboration of policies fitted to face the social and environmental challenges of our time.

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Energy advice by consumer associations

COUNTRY

 Germany

NAME OF MEASURE (LOCAL LANGUAGE)

Energieberatung der Verbraucherzentralen

ORGANISATION TYPE

National government

IMPLEMENTING BODY

Federal Ministry for Economic Affairs and Energy
Verbraucherzentrale

TYPE OF MEASURE

Energy audits
Information and awareness

TARGET SOCIOECONOMIC GROUP

Low income households

TARGET HOUSING SITUATION

No specific housing situation

GEOGRAPHIC SCOPE

National

ENERGY CARRIER

No specific energy carrier

STARTING YEAR

2012

TAGS

Energy audits, Low income

DESCRIPTION

Advice on energy saving is provided free of charge to low-income households. Advice is provided via telephone or email, as well as advice points at municipalities.

RELATED LINKS

-  [View measure online](#)
-  [View information online](#)

Die Autorin:

Laure-Anne Plumhans absolvierte an der WU-Wien das Masterstudium Socio-Ecological Economics & Policy und verfasste diese Studie bei Michael Soder, MSc. PhD. als Abschlussarbeit im Studienprogramm für Socio-Ecological Economics and Policy. Die Arbeit wurde im Rahmen des Netzwerke Wissenschaft Programms von der Arbeiterkammer Wien gefördert.

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