19 From Energy Poverty to Vulnerability

A Discourse Analysis of the European Union's National Energy and Climate Plans

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19.1. Introduction

Great efforts to study EP have been undertaken since 1975–1985 (Primc et al., 2019, 727; Stojilovska et al., 2022, 1). Yet, many claim that research on EP – especially in Europe– is "insufficient", "less developed", or has "a distinct gap in knowledge" (e.g., Thomson and Snell 2013, 564; Okushima 2017, 1159; Ntaintasis et al. 2019, 160). Additionally, the political economies and the different day-to-day experiences of EP are "poorly understood" within Europe (Bouzarovski et al. 2012, 78). Further research is needed for a better understanding of the complexity of EP, which remains considered "largely under-researched" (Stojilovska et al. 2022, 1).

We set out from observing some research on EP treating the phenomenon mono-dimensionally, as if it could be identified by a single cause or measured by a specific singular indicator (Sovacool et al. 2012; Scarpellini et al. 2015). However, other research suggests EP is identifiable in varied ways, exists in different forms, or is caused by different conditions within different contexts (Castaño-Rosa et al. 2019, 36–37; Ntaintasis et al. 2019, 160; 162; 163; 168). Supposedly, that multidimensional characteristic of EP makes it very hard to measure, and any attempt to mono-dimensionally define EP is most likely to fail in many contexts. Moreover, neither common nor official standardised ways of assessing EP in Europe exist (Castaño-Rosa et al. 2019, 37). However, attempts to metricise EP for governance towards green and just transitions critically hinge on how EP is understood (Lippert and Sareen 2023). Following Castaño-Rosa et al. (2019, 37) and Bouzarovski et al.'s research and policy agenda (2021, 7), we engage two of their points. First, they reflect increasing attention towards understanding, analysing, and defining the concept of "*vulnerable consumer*" as a way to grasp EP; second, they point to the notion of vulnerability but do not make the relationship to EP clear.

In this chapter, employing a document-based discourse analysis of EU member states' policy documents, we problematise conceptualisations of EP. Next, we shed light on the historical emergences and contemporary negotiations of EP in Europe. Subsequently, we present the methods and concepts underlying our analysis. This allows us to ascertain policy imaginaries of the relationship between EP and vulnerability.

19.2 Scholarly discourse of Energy Poverty

Energy Poverty is a term that refers to the incapability of a household/consumer to either access or afford certain basic energy services (Okushima 2017, 1159; Castaño-Rosa et al. 2019, 36–37; Bouzarovski et al. 2021, 02). The related term *Fuel Poverty (FP)* creates a dilemma in relation to EP (Bouzarovski et al. 2012, 76; Thomson and Snell 2013, 564; Okushima 2017, 1159; Castaño-Rosa et al. 2019, 36). Some authors use both terms to indicate the same phenomenon,

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using them interchangeably (Bouzarovski et al. 2012, 76; Boemi et al. 2017, 167–168). Others suggest that EP describes the lack of access to energy services and is more developing-countries oriented, while FP indicates social/material issues and focuses on developed countries (Bouzarovski et al. 2012, 76; Ntaintasis et al. 2019, 160; Castaño-Rosa et al. 2019, 36–37). In short, the scholarly discourse seems open, even open to whether EP/FP is one phenomenon or several phenomena. We zoom in by exploring the historical emergences and current use of these terms.

19.2.1 Temporal-spatial emergences of the terms Energy Poverty, and Fuel Poverty within Europe

Historically, the terms EP and FP first appeared in literature between 1975 and 1985 (Moore 2012, 1; Papada and Kaliampakos 2016, 157). According to Castaño-Rosa et al. (2019, 37), it was Isherwood and Hancock who first introduced the term EP in 1979, as a result of the inflation in fuel and energy prices that followed the 1973–1974 petroleum crisis. Moore (2012, 1) claims that Bradshaw and Hutton were the first to introduce FP back in 1983.

Geographically, the term FP originates in the United Kingdom (UK) and Ireland, where it is still widely applied (Boemi et al. 2017, 168). Originally, FP was mainly referring the state of being "*depriv[ed ...] of domestic energy*" (Boemi et al. 2017, 168). In contrast, the term EP is more commonly applied across continental Europe, especially in central and eastern Europe (Boemi et al. 2017, 167–168; Ntaintasis et al. 2019; 160).

Boardman (1991) is widely considered the first author to formulate a definition of FP, considering a household as fuel-poor when its expenditure on basic energy services exceeds 10% of its total income (Moore 2012, 01; Thomson and Snell 2013, 564; Primc et al. 2019, 730; Ntaintasis et al. 2019, 162). This definition by Boardman is widely mobilised as the 10% rule and is considered the "ground-zero", on which manifold definitions of EP/FP build (Papada and Kaliampakos 2016, 157; Sareen et al. 2020, 30).

Zooming into Boardman's *Fuel Poverty: From Cold Homes to Affordable Warmth* (1991), we find the problem of FP has deep roots. Defining it in terms of a percentage of a household's income is merely the tip of the iceberg (Boardman 1991, 230). Boardman does not introduce the 10% definition until about the last fifth of the book, and she introduces it as a "first [*quantitative definition*] of FP". However, she acknowledges it should be neither seen as an absolute nor a grounded definition (Boardman 1991, 205).[1] Boardman lays out a complex network of intertwined factors, such as historical/economic/social events, health impacts/status, demographic status/statistics, governmental/social actors, weather/housing stock conditions, national subsidies, inflation rates, and domestic fuels/fuel prices; all these factors are temporally and spatially contextualised (Britain, early 1960s to late 1980s) (Boardman 1991, 1; 5; 12–14; 16–21; 24–25; 230).

This brief historical background on how EP/FP was imagined and understood illustrates that among both terms EP and FP, and the phenomenon/phenomena they refer to, a range of relations exist. These relations change through time and across scholarly and expert conversations. In sum, across these relations, it remains open whether EP/FP is a singular phenomenon, a multidimensional one, or two distinct phenomena. Therefore, historically, we have identified EP/FP as a complex concept.

19.2.2 The EP/FP-Complex within present Europe

Shifting to the early 21st century, we show that such complexity also characterises the contemporary situation of EP/FP in Europe. For that, consider the following definition samples, illustrating the ambiguity and the multiple ways of rendering EP/FP governable.

- *General EP*: One way to define EP is as a condition, in which a household cannot access energy services, rendering it incapable of achieving the socially and materially necessitated

level of comfort (Boemi et al. 2017, 167; Castaño-Rosa et al. 2019, 36; Sareen et al. 2020, 26; Bouzarovski et al. 2021, 2).

- *FP, and different national contexts*: Thomson and Snell (2013, 564) describe FP as a by-product of a complex interaction of, for example, low income, insufficient domestic energy efficiency, the absence of savings, and living in rented accommodations. Furthermore, Thomson and Snell (2013, 564) differentiate among three FP definitions across three national contexts (i.e., Ireland, France, and the UK). In Ireland, FP is either the inability to afford adequate warmth at home or being unable to achieve it due to the home being energy-inefficient (Thomson and Snell 2013, 564). In France, FP occurs when a person/household faces difficulties having the required energy supply at home, which covers the elementary energy needs; either these difficulties are financial or related to housing conditions (Thomson and Snell 2013, 564). In the UK, FP is a case of lacking sufficient financial resources, which are enough to keep the home adequately warm (Thomson and Snell 2013, 564; Castaño-Rosa et al. 2019, 37).
- *EP, and different thresholds*: González-Eguino (2015, 379) defines EP as a state, in which a household suffers an "absence of sufficient choice" to access "adequate, affordable, reliable, high-quality, safe and environmentally benign energy services". González-Eguino (2015, 380) adds that EP can also be defined in terms of technological, physical, or economic thresholds. Technological EP is the lack of access to modern energy services (e.g., electricity but not biomass) (González-Eguino 2015, 380). Physical EP refers to the case of a household being unable to meet the minimum energy consumption threshold for covering its basic necessities (González-Eguino 2015, 380). Economic EP occurs when a household's expenditure on energy services surpasses a certain threshold of its total income (González-Eguino 2015, 380).
- *EP, FP*: According to Castaño-Rosa et al. (2019, 36–37), FP does not only refer to a household that is deprived of heating/cooling but also of hot water, electricity, or any other energy services that are essential for the household. While EP is related to the geospatial status of the household, referring to areas with higher poverty levels (e.g., old parts of towns, suburbs, socially excluded zones, rural areas), in which many buildings/housing stocks lack energy-efficient infrastructure/equipment (Castaño-Rosa et al. 2019, 36–37).
- *Hidden EP*: In Italy, EP comes in two forms, depending on the situation; the first is the inability of a household to afford high energy bills, and the second is when a household is forced to constrain its energy consumption to avoid having high energy bills in the first place (Betto et al. 2020, 3). When a household is "forced to under-consume" its energy needs to avoid high energy bills, this particular case is called "hidden energy poverty" (Betto et al. 2020, 1–3).

Castaño-Rosa et al. (2019, 37) state that despite the countless definitions and the variety of indicators of EP/FP that "were developed in Europe", neither a standardised definition nor an indicator was unified across the EU. The more literature on the phenomenon is reviewed, the more complex, ambiguous, and elusive defining EP/FP becomes (Thomson and Snell 2013, 568; Primc et al. 2019, 727; Sareen et al. 2020, 28).

According to Bouzarovski et al. (2012, 78), delimiting the phenomenon of EP/FP to a single cause (e.g., low income, inefficient buildings, high prices of energy) ignores a multitude of other technical and socio-economic causes of a complex phenomenon. Additionally, Primc et al. (2019, 728) claim that the factors affecting EP/FP are "diverse and sometimes contradictory". Therefore, for "explaining" the phenomenon of EP/FP, "consider[ing]" the "interaction" of multiple causes is necessary. Furthermore, Pachauri and Spreng (2011, 7497) suggest that

EP/FP is difficult to measure because of diverse factors that "influence" it, such as "economic growth", "social and infrastructure development", "environmental factors", and "behavioural factors", which can also interact, causing variations in both the form and the magnitude of EP/FP. Mitigating EP/FP as a multidimensional phenomenon might benefit from attempts to define it through the consideration of a range of indicators that are relevant for a specific national, sub-national, regional, or even household context (Nussbaumer et al. 2012, 234).

In sum, this section reveals that the research literature widely considers EP/FP ambiguous, complex, and multidimensional. We find two terms (EP and FP), and each has its own plethora of definitions. Both terms came to exist within specific temporal-spatial contexts. We wonder then how the policy discourse reflects or reconfigures this definitional plethora. But before applying discourse analysis to the NECPs, in the next section, we introduce some basic concepts upon which our framework and methodology are established.

19.3 Data, concepts, and methods

To explore how the policy discourse relates to EP, we require empirical material, analytical concepts, and/or a methodology. To render these transparent, we next introduce the corpus, the empirical material we analyse. Then, we address the concepts of discourse and the perspective of discourse analysis. This allows us to introduce SKAD as our framework and finally specify our methodology.

19.3.1 The corpus: NECPs

The NECPs are integrated and established plans that cover the ten-year period (2021–2030) of how the EU-27 member states intend to meet their energy and climate objectives. Each of the 27 NECPs addresses themes like energy efficiency, renewable energy, greenhouse gas emissions reductions, or research and innovation. For our analysis, we use the English-language versions of the 27 plans.

We chose the NECPs for two reasons. First, the NECPs approach EP/FP as a policy target, a problem that is yet to be monitored or mitigated, which differs from other EP/FP documents. Second, we treat the NECPs as the "state of the art" understanding of the distributed EP/FP governance apparatus, specifying not only EP/FP in general but also the specific natures of the phenomenon and its indicators across 27 different national contexts.

19.3.2 Discourse and discourse analysis

A Discourse is an "ensemble of ideas, concepts, and categorisations, which are produced and transformed in a specific set of practices", which construct an aspect of truth about a particular social reality (Leipold et al. 2019, 447). In that sense, discourse is a *medium* through which knowledge about a particular social reality can be constructed and produced (Marvasti 2004, 107–108; Rosenthal 2018, 206; Leipold et al. 2019, 447).

Keller et al. (2018, 20) define discourse as a practice, that regulates formulating a statement in response to a problem. Empirically, this practice can be accessed with a corpus containing communication evidence (e.g., speech, written/printed texts, visual representations, etc.) (Keller et al. 2018, 19–20; 26; 31).

Discourse Analysis critically interprets the language in a corpus, that is, a selected body, of particular texts, to identify patterns of how a specific issue (e.g., EP/FP) is rendered thinkable and understandable (Keller et al. 2018, 26; 169). As Rosenthal (2018, 205) puts it, "The term

'discourse analysis' should not be understood as referring to a specific method, but rather as a '*research perspective*'", which we present in detail in the next two sub-sections (Framework and Methodology).

19.3.3 Our framework

For analysing the NECPs, we employ the discourse analysis approach SKAD. It allows designing and adapting strategies for interpreting the data and analysing how a specific topic is known, including, for instance, its processing through classifications (Keller 2011, 48; Keller et al. 2018, 5–6; 27–28; 74). This capacity of SKAD is key for our analysis of the NECPs because their technical policy language employs a range of implicit lists and classifications to render EP/FP known and, thus, governable.

To analyse a discourse, SKAD recommends the use of the Foucauldian notion of "dispositifs", as discourses "exist through and in [dispositifs]" (Keller 2011, 49; 58; Keller et al. 2018, 4). Keller et al. (2018, 4) define the dispositif as the "infrastructure established by social actors or collectives to resolve a particular situation". SKAD specifies two different types of "dispositifs": the first refers to the set of all entities that construct/enable/generate the discourse, while the second is the "discursive outcome", that is, the set of effects that intervene within the discourse (Keller 2011, 56; Keller et al. 2018, 27; 162).

According to Keller (2011, 46; 55–56; 64) and Bacchi (2012, 4–5; 7), discourse does not appear out of nothing; it is rather "[*brought to life*]" through processes of a variety of interactions, which are historically situated in social fields. To analyse such processes implies turning the discourse into a problem that offers historically and politically specific solutions. Analysts have addressed such problems with a variety of case studies, including, for instance, on discourses of ecological modernisation (Hajer 1995). In such studies, we find that discourses construct the phenomenon they are concerned with. SKAD builds, *inter alia*, on Foucauldian analyses, for which we mobilise the concept of *Problematisation*.

To "*problematise*" a phenomenon is to study its history, relations, and politics, which led to its appearance, and to access both temporal and spatial spaces, within which it came to exist (Bacchi 2012, 6–7). Bacchi (2012, 1) adds that "problematisation" or "thinking problematically" is a theoretical approach that has two components. First, when analysing a specific problem, the aim is to explore how this issue is discussed from different viewpoints within particular historical period(s), and under particular conditions. Second, the analyst must explore how the phenomenon is thought of and why it is turned into a problem.

19.3.4 Methodology

We mobilise the concept of discourse as a theoretical device for ordering the NECPs, in which language on EP/FP is used, and through and by which a context of EP is structured. For this, we build on Prior (2003) to argue for using documents as key forms of text (data). According to Prior (2003, 51), "texts [do not] merely represent some aspect of the world, [but they] are also involved in making the world. In part, they constitute the world". Hence, any documents concerned with EP/FP, however they contextualise the phenomenon, do not just reflect an aspect of it; they also participate in constituting and forming the phenomenon and its discourse(s).

Using SKAD's interpretation of dispositif, for our study, the "particular situation" to be "resolved" is the EP/FP phenomenon. The "established infrastructure" is the collection of all the documents concerned with the phenomenon. In this chapter, we specifically focus on the NECPs, which represent the second dispositif in Keller's typology. We treat the NECPs as

EU-level "national statements", which are concerned with EP/FP.[2] We specifically focus on the variations within the terms EP and FP, exploring the ways this problem is textually approached within the NECPs.

19.4 Discourse analysis of EP/FP within the NECPs

The NECPs present the respective member states' plans concerning climate change, energy infrastructure, and transition in highly technical policy language. Their structure typically involves many sections and subsections.

Almost all the NECPs emphasise EP/FP under the subsection "Internal Energy Market". Then, given 27 different internal energy markets, we can expect 27 different market constructions, different political circumstances, different consumption conditions, different suppliers, different policies and policymakers, etc. Hence, from this formalistic vantage point, we can potentially expect –at least– 27 different forms of EP/FP.

In terms of the terminology used, we find that the majority of NECPs refer to the phenomenon only as EP. The exceptions are four NECPs (Belgium's, France's, Ireland's, and Spain's) that refer to the phenomenon with both EP and FP. Let us turn from mentioning EP/FP to how these are approached. Here are four examples:

> Definition of energy poverty
>
> (heading in Austria NECP 2019, 97)

> 'A household is considered energy poor if its income is below the at-risk-of-poverty threshold and, at the same time, it has to cover above-average energy costs.'
>
> (Epigraph under the heading in Austria NECP 2019, 97)

> A comprehensive state policy oriented towards solving the problem of energy poverty is planned to be developed.
>
> (Poland NECP 2019, 44)

> Italy has no official definition of energy poverty. … the phenomenon of energy poverty (EP), [is] understood to mean the inability to purchase a minimum energy basket of goods and services …
>
> (Italy NECP 2019, 116)

> Energy poverty is not an isolated phenomenon; it is an integral part of overall poverty.
>
> (Belgium NECP A 2019, 309)

Analysing the patterns of how and whether EP/FP has been defined in the 27 NECPs reveals a wide range of variations. As shown in Figure 19.1, the NECPs of countries in *Group A* identify EP/FP as a specific phenomenon, with an official definition and specific measures to mitigate that phenomenon. NECPs in *Group B* identify EP/FP as a problem/phenomenon that is yet to be defined, monitored, and mitigated, with plans to do so. And the NECPs of *Group C* claim that EP/FP is a phenomenon that has no official definition yet is recognised/discussed under

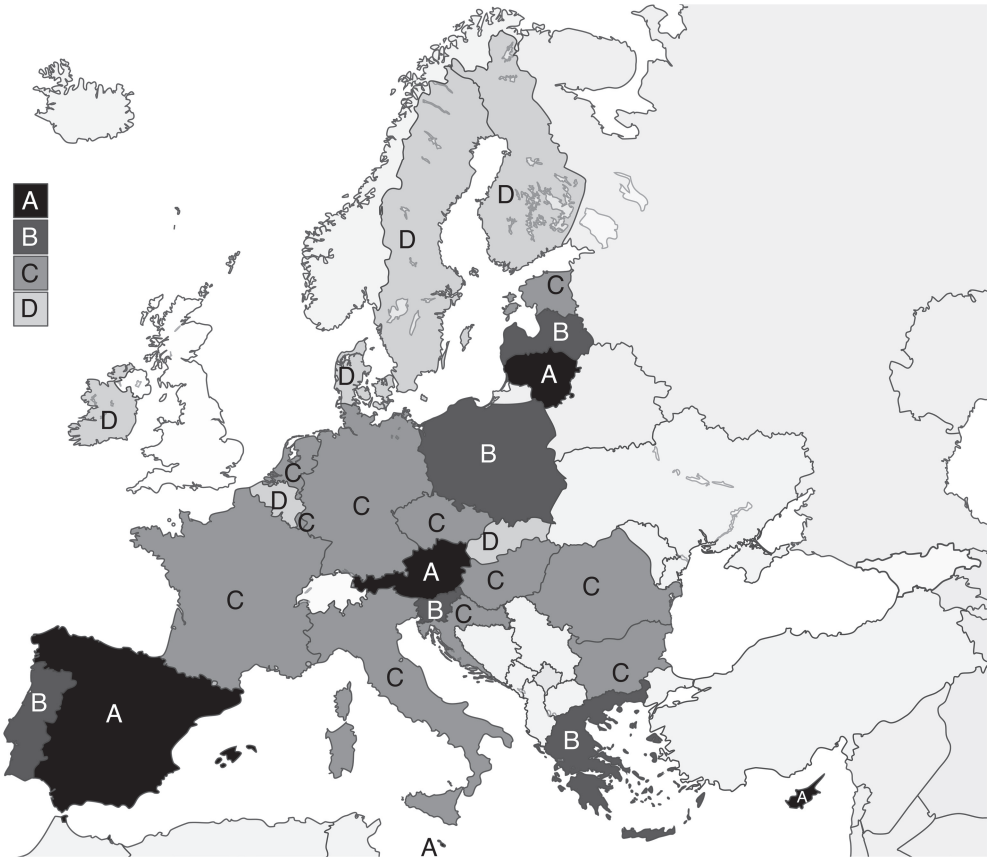

Figure 19.1 Variations of identifying EP/FP within the EU.

Source: Adapted by Ingmar Lippert from https://commons.wikimedia.org/w/index.php?title=File:European_Union_Enlargement.svg&oldid=715430364, CC by-sa/4.0 license. [Country Group A: Austria, Cyprus, Lithuania, Malta, Spain; B: Latvia, Poland, Portugal, Slovenia, Greece; C: Croatia, Germany, Hungary, Luxembourg, The Netherlands, Italy, Bulgaria, Czech Republic, Estonia, France, Romania; D: Belgium, Denmark, Finland, Ireland, Slovakia, Sweden].

particular conditions. Finally, NECPs of *Group D* identify EP/FP not as an independent phenomenon but as an effect of general poverty.

Zooming into individual NECPs shows that EP/FP is evoked with a range of textual actions, such as EP/FP being "defined", "indicated", "measured", "caused", "mitigated", and "tackled". To illustrate, here are two cases of evoking EP via listing "causes" of the phenomenon:

> Energy poverty is caused by four main problems: energy inefficiency, high energy prices and low household incomes, as well as lack of consumer awareness.
>
> (Lithuania NECP 2020, 45)

> Energy poverty is caused by a combination of three basic factors at household level: energy prices, energy efficiency and household income.
>
> (Czech Republic NECP 2019, 69)

In these two cases, EP was related to several causes. Analysing such causes across the 27 NECPs indicated five patterns through which EP/FP is approached: (1) *financial issues/difficulties* (e.g., low income, over-expenditure, affordability, arrears on energy bills, energy tariffs, high energy prices); (2) *vulnerabilities/vulnerable groups/consumers* (e.g., lack of energy services, specific socio-economic vulnerabilities/issues, struggling with energy supply/disconnection, energy saving misbehaviour/lack of awareness); (3) *low/bad-energy efficient buildings/housing* (e.g., need for renovations, poor insulation, insufficient heating); (4) *over/under/mis-consumption of energy*; and (5) *general poverty*.

To illustrate the variations within such patterns, consider a "generally poor" household. This would indicate that this household is facing "financial difficulties", entailing a form of socio-economic "vulnerability", which can be mitigated through different types of "financial/social support" policies.

"Vulnerability", we suggest, is also reflected in the "energy consumption" pattern. Throughout the 27 NECPs, when EP/FP was contextually related to "energy consumption", they evoked "underconsumption" (which is caused by "financial vulnerability"). Households in "hidden energy poverty" are forced to "under-consume" their essential energy needs. NECPs also mentioned that forms of "misbehaviour" towards "energy use" or "energy consumption" are caused by a household's "lacking awareness" in that regard. And if a household lacks certain required knowledge regarding their energy needs, services, supply, or consumption, then this constitutes another dimension of "vulnerability".

"Energy efficiency of buildings/houses" constitutes a strong discursive pattern that we find nearly throughout all the 27 NECPs. This pattern appears in diverse forms and conditions, including "old buildings", which were built in certain period(s) of time, and are in need of "renovations". Or through specific types of households, which are inhabited by specific "socio-economic groups/individuals", who need "financial support" for a proper "heat/energy supply", or for "renovating" their houses. This pattern also emerges when "renewables" are evoked to "improve energy efficiency", or to minimise "energy costs". Or through "vulnerable/low-income groups" who live in homes characterised as "lacking modern energy standards buildings/houses". We find that any instances of the pattern "energy efficiency of buildings/households" reflect a specific "vulnerable socio-economic group", or reflect the "vulnerability" of specific buildings themselves, as these buildings need to be "renovated", or upgraded on a technical level due to variations of technical "vulnerabilities".

19.5 From EP/FP to vulnerability

Across our analysis, we find patterns in the NECPs that support defining EP/FP in terms of "vulnerabilities", or as a phenomenon that is an effect of some form(s) of "vulnerability". The "vulnerability" is ascribed to either social entities (e.g., consumers or households) or non-human infrastructures, especially buildings, in which some "vulnerable" social entity might live, or a combination of human/non-human entities. Thus, we find a techno-political textual pattern that understands EP/FP as a consequence of some form of vulnerability (rather than as a self-contained phenomenon or as sub-ordinary to "general poverty").

Vulnerability provides a wider and richer variation than general poverty. Vulnerability can include a technical dimension to express the technical vulnerability of a building, for example, which does not necessarily indicate a state of financial poverty/deprivation. Vulnerability can also express the "behavioural" and "awareness" dimensions of the phenomenon. As for a social group to "lack the required/needed awareness" about the "most efficient" or "best energy/financial saving" practices towards their energy services, this could entail a form of

"social/cultural vulnerability". Our analysis aligns with Bouzarovski et al.'s (2021, 7) theorisation of energy vulnerability: "It could include income levels, the share of energy expenditure of disposable income, the energy efficiency of homes, critical dependence on electrical equipment for health reasons, age or other criteria".

In Bouzarovski et al.'s (2021) analysis of the NECPs, the term *Vulnerability* plays a significant role. In their concluding remarks, they identify "an acute need to [*rethink theorisations*] of the causes of energy poverty so as to expose the wider injustices and policy failures that lead to deprivation and vulnerability" (Bouzarovski et al. 2021, 14). Our analysis shows that the contemporary policy language in the NECPs supports a theorisation of EP as an effect of vulnerabilities, rather than as merely something that is vaguely related to vulnerabilities.

We argue that our reading of the NECPs provides indirect support for the concept of "contextualised identification" by Sareen et al. (2020). They define contextualised identification as a strategy that allows for identifying and measuring individual EP at the household or doorstep level.

This orientation directs theorising EP/FP towards addressing "*Who is energy/fuel poor?*" or "*How, and why are they energy/fuel poor?*" instead of answering "*How is EP/FP measured/defined?*" (cf. Pachauri and Spreng 2011, 7499; Primc et al. 2019, 734). This implies that the more individual (on national/sub-national/regional/neighbourhood/household levels) cases of EP/FP are allocated, the more EP/FP becomes a multidimensional phenomenon (Moore 2012, 1; Papada and Kaliampakos 2016, 163; Ntaintasis et al. 2019, 160; Sareen et al. 2020, 28; Bouzarovski et al. 2021, 5; 6). For a better diagnosis of EP/FP we need to set out from identifying who is the "*Vulnerable Consumer*", and the reasons for their vulnerability, and then consider the measures to combat/mitigate that specific kind of vulnerability (cf. Castaño-Rosa et al. 2019, 37; Betto et al. 2020, 1; Sareen et al. 2020, 32; Bouzarovski et al. 2021, 6). We thus argue that the NECPs' framing of EP/FP exemplifies well EP/FP as a phenomenon that is being "[*socially shaped*]", with a "[*varied*]" and "[*multidimensional*]" identity (Sareen et al. 2020, 2).

19.6 Conclusions

This chapter sets out from a literature review, analysed as the scholarly discourse of energy poverty. This indicated a multitude of conceptualisations of EP/FP within Europe, through history, and to the present, in a variety of contexts. Still, some research on the phenomenon seeks to establish a unifying definition or a singular indicator for EP/FP that can be applied across diverse contexts. Analysing critiques of such approaches suggested that the phenomenon of EP/FP is well described in terms of ambiguity, complexity, and multidimensionality. The literature further indicated an emerging discussion of EP/FP in relation to vulnerabilities. Against this backdrop, the core of the chapter consists of exploring how the technical policy language of the European Union member states' National Energy and Climate Plans defines EP/FP and how that language relates to vulnerabilities.

Our analysis of the NECPs indicates a variety of EP/FP concepts within the 27 national contexts. Across these concepts, we identify vulnerabilities as key. Specifically, we identified five patterns of causes of EP/FP, all of which we traced to forms of vulnerability. Recognising forms of vulnerability explains the ambiguous, complex, and multidimensional characters of EP/FP. Noteworthy is that the NECPs are not strong at conceptualising EP/FP explicitly in terms of vulnerabilities; instead, the technical policy language leaves vulnerability mostly implicit.

Furthermore, our analysis now allows to address the shared problematisation in the literature that claims EP/FP is poorly understood, under-researched, and suffers from a knowledge gap. Against attempts to establish a unified definition or singular method for assessing EP/FP, our

analysis of the NECPs indicates that EP/FP is imagined as occurring in diverse forms. These diverse forms cannot be reduced to a singular condition. Our research suggests that the NECP's technical policy language is in principle able to approach EP/FP as a multidimensional and complex phenomenon. However, we observe that only a few NECPs use that language to achieve such recognition.

While our analysis of the NECPs, thus, confirms identifying EP/FP as an ambiguous, complex, and multidimensional problem, promises of the recognition of these characteristics and the multiplicity of EP/FP as effectively establishing the capacity for policy action require caution. That is, we recommend caution because EP/FP can be effectively discursively addressed as an umbrella term that allows heterogeneous and even contradictory phenomena of EP/FP to be ignored by a coalition of actors that performs policy action on EP/FP. However, the analysis of the NECPs also underlines that research now can draw on these policy documents themselves to call for research and monitoring resources to study energy poverty as a multidimensional phenomenon that reflects and produces a variety of vulnerability forms, which can vary greatly within a single national, including sub-national, context. Identifying EP/FP in such a manner might provide critical insight that can inform and problematise future policies and plans to mitigate the phenomenon.

Notes

1 For further details on the technicalities and the calculations, check Boardman (1991, 199–219).
2 Note that our literature section on the scholarly discourse on EP has been constructed based on the SKAD discourse analysis of the first dispositif in Keller's typology. That analysis focuses on scholarly documents that are EP/FP related. In that analysis, we investigated the emergences of EP/FP, the claims regarding the appearance of both terms EP and FP, the different contexts and conditions underlying these emergences, and the different socio-economic and historic dimensions of the phenomenon, specifically addressing the ways EP/FP is rendered defined and measurable. For details on this methodology, see El-Sherbini (2022).

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