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Energy Poverty, Vulnerability, and Human Rights in BiH: A Historical and Contemporary Analysis

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Abstract

This paper deals with the concept of energy poverty, in relation to vulnerability and human rights. Energy poverty, as a relatively contemporary concept is closely linked to energy justice and energy democracy. In this study, the concept of energy poverty is elaborated based on the theoretical framework of energy justice, as a narrower understanding of social justice and fair distribution of resources, through the perspective of human rights and social justice, alongside energy vulnerable consumers and their rights. The case study of this work is based on Bosnia and Herzegovina, and through the proposed framework, the polices of the country concerning energy issues are analyzed from the past to the present day, in light of the country's process to join the European Union, while still struggling with internal issues. The paper is divided into three main chapters, apart from the introductory and the concluding chapters, and this written body of work represents a research period of several months based on literature review, the analysis of policies and available data, and gathering data through personal interviews.

Keywords: *energy poverty, vulnerability, human rights, policies, Bosnia and Herzegovina*

Introduction: Context of the Research

"I don't know what I will do if we have a harsh winter, I'm scared."[1] Statements like this one can often be heard in everyday conversations between elderly people in the Western Balkans. The elderly pensioners, especially those widowed or living alone, often reside in older dwellings, and receive pensions frequently insufficient to cover their basic monthly needs, including bills and heating during the winter months. Fearing the winter due to the uncertainty of being able to provide heating is a reality for a number of people. It is a concept that "describe issues of domestic energy deprivation in many European countries"[2], as Bouzarovski and Petrova point out in their 2015 article "A Global Perspective on Domestic Energy Deprivation"[3], often referred to as the article that laid the foundations for further research on energy poverty.

The elderly pensioners are pointed out as one of several categories of socially disadvantaged groups of people living in energy poverty. In particular, pensioners and women living in rural areas are more vulnerable in comparison to others, as Hesselmens summarized in his work "Energy Poverty and Household Access to Energy Services in International, Regional and National Law"[4]. In its 2009 report "Tackling Fuel Poverty in Europe, Recommendations Guide for Policy Makers"[5], the European Commission noted that energy poverty is a "widespread problem across Europe", with some 50 to 125 million persons in Europe not being able to afford proper indoor thermal comfort, resulting in problems regarding health and social isolation. In the Wester Balkans, the issue has not been precisely measured; however, it has been increasingly studied in recent years, one example being the work of the ENGAGER project network of researchers[6], with important contributions to public awareness from both academia and civil society organizations[7].

1 Fatima, anonymous. Personal Interview. 9 July 2020.

2 Bouzarovski, Stefan, and Sashka Petrova. "A Global Perspective on Domestic Energy Deprivation: Overcoming the Energy Poverty–Fuel Poverty Binary". *Energy Research & Social Science 10* (2015): 31. http://dx.doi.org/10.1016/j.erss.2015.06.007 (accessed 29 June 2020).

3 Ibid., 31-40.

4 Hesselman, Marlies. "Energy Poverty and Household Access to Energy Services in International, Regional and National Law". In: *Encyclopaedia of Energy Law and the Environment,* by Martha Roggenkamp et al. Cheltenham: Edward Elgar 2020 (forthcoming).

5 European Commission Policy Report. *Tackling Fuel Poverty in Europe, Recommendations Guide for Policy Makers.* Brussels: EPPE, 2009. available at: https://www.finlombarda.it/c/document_library/get_file?p_l_id=1313844&folderId=1327936&name=DLFE-6278.pdf%20

6 Guyet, Rachel. Personal Interview. 24 September 2020.

7 In Bosnia and Herzegovina, the Heinrich Böll Foundation is one of the important partners in energy-related projects implemented by the civil society in BiH and the Western Balkans Region (https://ba.boell.org/en).

In the past decade, there has been an emergence of research work, initiatives and policies reports tackling energy poverty. In 2014, the European Commission launched the Western Balkan 6 initiative[8], with a conference in Berlin[9] gathering the leaders of Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia. The goal of the initiative is to work on strengthening regional cooperation in the Western Balkans region, with sustainability being one of the main perspectives[10]. With this perspective in mind, addressing energy poverty in the Western Balkan countries is expected to become increasingly important. However, despite the research work done until now, in the Western Balkans region it is still considered as a topic not sufficiently researched on a larger scale.[11] Additionally, the number of people living in energy poverty is estimated to be very high, while the energy prices are rising[12].

Across Europe, the awareness on energy poverty is growing rapidly and the issue is being increasingly integrated within the activities of the European Union, evidenced by the European Commission's flagship legislative proposal "Clean Energy for All Europeans" announced on 30th November 2016[13]. Some of the leading institutions working on energy poverty are the EU Energy Poverty Observatory and the European Energy Community. The EU Energy Poverty Observatory urges all relevant stakeholders working on energy poverty to build and expand a specialist network dedicated to addressing the issue across the Continent[14]. According to their official website[15], the Observatory has been developed by 13 different institutions, including organizations, universities, and businesses. The advisory board is comprised of over 70 leading stakeholders from across Europe and it was officially established in 2018. Its creation is an effort of the European Commission to address energy poverty in a more systematic way, provide resources for public engagement, disseminate information and facilitate knowledge sharing[16].

The reason behind this research work is to understand the condition of energy poverty more closely and to present some of the main factors influencing energy vulnerable consumers[17],[18] and their human rights. Having Bosnia and Herzegovina as a case study provides a tangible context for reviewing the issue. The country is considered to have a high number of individuals and households struggling to pay their monthly bills, living in inadequate housing or without warmth during the winter months. In BiH, as across whole Europe, some of the groups of vulnerable people living in energy poverty are elderly pensioners, single parents, and households from rural areas[19]. Widowed women and displaced families, as a result of to the Bosnian War from 1992 to 1995[20], are seen as categories of vulnerable people specific to BiH. The country, however, is yet to recognize energy poverty as an existing condition in its legal framework and does not possess any official national definitions in that regard.

8 The Civil Society Forum of the Western Balkans. *The Berlin Process Information and Resource Center.* Available at: https://berlinprocess.info/ (accessed 15 May 2020).

9 The Initiative is also often referred to as "the Berlin process", according to the location of the first conference.

10 EU Energy Poverty Observatory. *Indicators & Data*. Available at: https://www.energypoverty.eu/indicators-data (accessed 2 July 2020).

11 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

12 Jana, anonymous. Personal Interview. 17 August 2020.

13 European Union. *Clean Energy for all Europeans Package*. Available at: https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en (accessed 19 June 2020).

14 EU Energy Poverty Observatory. *The Consortium*. Available at: https://www.energypoverty.eu/about/consortium (accessed 2 July 2020).

15 Ibid.

16 European Union. *Launch of the EU Energy Poverty Observatory (EPOV)*. Available at: https://europa.eu/newsroom/events/launch-eu-energy-poverty-observatory-epov_en (accessed 19 June 2020).

17 According to the EU Energy Poverty Observatory, the vulnerable energy consumers can be detected from several indicators, which can be divided into two groups: primary and secondary indicators.

18 EU Energy Poverty Observatory. *Indicators & Data*. Available at: https://www.energypoverty.eu/indicators-data (accessed 2 July 2020).

19 Agić, Sejfudin et al. *Energetsko siromaštvo u Bosni i Hercegovini* [*Energy Poverty in Bosnia and Herzegovina*]. Tuzla: Centar za ekologiju i energiju & Heinrich Böll Stiftung, 2017.

20 Tešanović, Majda. Personal Interview. 5 October 2020.

This paper is divided into three main chapters. After the introductory chapter, it continues with the 1st Chapter entitled "Understanding Energy Poverty", where the theoretical framework and the concept of energy poverty are presented. The next chapter presents an analysis of the energy policies of Bosnia and Herzegovina, starting with reviewing some of the legacies from Yugoslavia and moving towards today, including the impact of the EU on the energy policies. Its title is "Case Study of Bosnia and Herzegovina: Overview of its Energy Policies" and it is interconnected to the 3rd Chapter, "Energy Poverty in Bosnia and Herzegovina", where the data on the matter is discussed, including important statements from experts and vulnerable people, as a highlight. In addition, it deals with how the liberalization of the energy market, access to cheaper energy, and the efficiency of production and the security of energy supply have affected the vulnerable groups in society, focusing on pensioners, the poor, and people living in rural areas[21]. The paper ends with a concluding discussion and some recommendations derived from the research work.

21 Centar za ekologiju i energiju [Center for Ecology and Energy]. *Energija*. Available at: http://ekologija.ba/publikacije/energija/ (accessed 26 June 2020).

1. Understanding Energy Poverty

By simply observing the term "energy poverty", one could assume that it refers to a condition where deprivation occurs in relation to access to any type of energy resources[22], or lack of it. In other words, energy poverty is a condition when a person or a household are being deprived from access to energy, unable to satisfy their basic energy needs. This could be further extended by discussing if basic energy needs would include heating, electricity, fuel, and other things. From this logical correlation, there already is an understanding of what energy poverty represents: a condition that removes some core basic needs from people's lives, with the potential to push people into becoming generally poor. This broad understanding of energy poverty and who the energy poor are, is included in the body of work by Stefan Bouzarovski[23], one of the leading experts on energy poverty. He is also currently the Chair of the EU Energy Poverty Observatory[24]. In several of his publications, as his book *Energy Poverty (Dis)Assembling Europe's Infrastructural Divide*[25], easily understandable descriptions are found on who is energy poor.

Another view on deciding who can be considered energy poor is derived from the inability to access an appropriate level of sources of power to accommodate one's needs. As Dr. Rachel Guyet points out, "Her Majesty the Queen of England is considered to be energy poor"[26]. The conundrum with this example is that the Queen is far from living in actual poverty or being a vulnerable person, in a traditional sense. However, due to the vast number of properties and palaces listed on her name, it is difficult for every dwelling she possesses to be properly isolated and heated during the winter months[27]. Thus, compared to what she owns she only has a small percentage of livable space. Of course, this example of energy poverty should easily be dismissed as being too absurd. Critics say it could potentially cause issues in the process of acknowledging the concept and the real struggles. Nevertheless, it illustrates what energy poverty means.

It is pivotal to understand that general poverty and energy poverty are not the same. Even though the concepts often overlap and can be found in the same categories of people, it is important to understand that the energy poor are not necessarily income-

22 Bouzarovski, Stefan, and Sashka Petrova. "A Global Perspective on Domestic Energy Deprivation: Overcoming the Energy Poverty–Fuel Poverty Binary". *Energy Research & Social Science 10* (2015): 31–40. http://dx.doi.org/10.1016/j.erss.2015.06.007 (accessed 29 June 2020).

23 Ibid.

24 In December 2020.

25 Bouzarovski, Stefan. *Energy Poverty (Dis)Assembling Europe's Infrastructural Divide*. London: Palgrave Pivot, 2018.

26 Guyet, Rachel. Personal Interview. 24 September 2020.

27 Gabbatt, Adam. "Queen Asked for Poverty Grant to Heat Palaces." *The Guardian* (2010). London: Guardian News & Media Limited, 2010. Available at: https://www.theguardian.com/uk/2010/sep/24/queen-poverty-grant-buckingham-palace (accessed 24 September 2020).

poor, as Guyet pointed out[28]. Therefore, the example with the Queen of England serves to understand that energy poverty is a cross-cutting issue. In contrast to general poverty that is of a more static nature, energy poverty can be characterized as a dynamic state, and it can be seen as a process rather than a static state. Roughly, while reviewing who is energy poor, through the work of Bouzarovski and others, we can discern three main causes of and contributing factors to energy poverty[29]:

1) Income: the income-poor often can also be energy poor, but some of the generally poor can still live in an isolated home with adequate heating, thus being considered poor, but not energy poor.
2) Housing: a household or an individual can have a sufficient income above the threshold of being considered poor, but still be unable to afford insulation and regular payment of energy bills, leaving them with a lack of warmth, air-conditioning or electricity.
3) Energy prices: rising energy prices, as a result of changes on the energy market, can push a household or an individual towards energy poverty, even if they have an average income appropriate to the standard of life in a certain region.

Energy poor people could also be viewed as being in "a borderline state", a condition between being income poor and having a decent standard of life. People experiencing energy poverty, according to the interviews conducted with experts[30] and with elderly pensioners[31] living in Sarajevo[32], are not necessarily visibly poor in their daily context within a given society. However, the research published by the Center for Ecology and Energy presents images of houses of people living in energy poverty in rural areas[33], with visibly ruined walls and mold, pointing out the argument that in many cases those who are energy poor are also living in general poverty; or are perceived as generally poor based on their housing.

Aside from elderly pensioners with average or small pensions and people living in poorer rural areas, single parents of underaged children and families with a higher number of family members and few employed[34] are other high-risk categories potentially in danger of experiencing energy poverty. All of those vulnerable categories of people could be part of the so-called "borderline" vulnerable category of people experiencing energy poverty. Meaning that, even though they are not necessarily all income-poor, they are in danger of falling into general poverty if they should experience energy poverty over an extensive period. Mostly due to inadequate housing or the inability to cover monthly bills. Which probably is not the case with the Queen of England, even though she asked for financial assistance for heating purposes from the British Government back in 2010[35]. This example does a good job in showing the blurriness of the energy poverty definitions. Considering all of those factors on how to define energy poverty and on determining who is to be considered energy poor, the research comes to the point of affirming the usefulness of one of the first widely accepted definitions on energy poverty, inferred by one of the leading authorities researching energy poverty, Stefan Bouzarovski, together with Sashka Petrova. According to them, it represents "the inability to attain a socially and materially necessitated level of domestic energy services."[36]

28 Guyet, Rachel. Personal Interview. 24 September 2020.

29 Bouzarovski, Stefan et al. "Energy Poverty Policies in the EU: A Critical Perspective". *Energy Policy* 49 (2012): 76-82. doi:10.1016/j.enpol.2012.01.033.

30 Guyet, Rachel. Personal Interview. 24 September 2020.

31 Semir, anonymous. Personal Interview. 16 July 2020.

32 Fatima, anonymous. Personal Interview. 9 July 2020.

33 Agić, Sejfudin et al. *Energetsko siromaštvo u Bosni i Hercegovini* [*Energy poverty in Bosnia and Herzegovina*]. Tuzla: Centar za ekologiju i energiju & Heinrich Böll Stiftung, 2017. P. 4, 6, 7.

34 Hesselman, Marlies. "Energy Poverty and Household Access to Energy Services in International, Regional and National Law". In: *Encyclopaedia of Energy Law and the Environment*, by Martha Roggenkamp et al. Cheltenham: Edward Elgar 2020 (forthcoming).

35 Gabbatt, Adam. "Queen Asked for Poverty Grant to Heat Palaces." *The Guardian* (2010). London: Guardian News & Media Limited, 2010. Available at: https://www.theguardian.com/uk/2010/sep/24/queen-poverty-grant-buckingham-palace (accessed 24 September 2020).

36 Bouzarovski, Stefan, and Sashka Petrova. "A Global Perspective on Domestic Energy Deprivation: Overcoming the Energy Poverty–Fuel Poverty Binary". *Energy Research & Social Science 10* (2015): 31–40.

This definition nowadays is widely accepted as being broad and inclusive enough to be applied in different geographic regions worldwide. Additionally, at the European level and for the European context, the EU Energy Poverty Observatory points out four primary indicators[37] for energy poverty:

1) the inability to cover utility bills,
2) low absolute energy expenditure,
3) high share of energy expenditure in income,
4) the inability to keep a home adequately warm.

Since definitions on energy poverty and on who is to be considered energy poor have become more elaborated and clearer in recent years, efforts on deepening the work in regard to energy poverty are also more visible as well, through different projects at the European level and in the Western Balkans. One of those projects is ENGAGER, funded by the European Union. As the official website states, it is "aimed at developing and strengthening an international community of researchers and practitioners focused on combating energy poverty". Finally, it can be concluded that energy poverty today is recognized and defined through different methods as a distinct form of poverty, associated with a range of adverse consequences for people's health and well-being.

1.2. Energy Justice and Energy Poverty: The Human Rights Perspective

The concept of energy justice, and its relations to energy poverty, started to be developed from 2010 on. Today, there are several scholars investigating what it means and what the scope of this newly emerged concept that intertwines social sciences and energy issues is. Some of the most prominent ones are Sovacool[38], Jenkins[39], Hesselman[40], and Heffron[41], among others. Energy justice can be described as an interdisciplinary field of work, as Heffron and McCauley explain in the article "The Concept of Energy Justice Across the Disciplines"[42]. In addition, for the purpose of this research some elaboration and discussion of the energy justice concept was done during the interviews with Dr. Rachel Guyet[43] and Prof. Jasna Hivziefendić.[44] Through the methods of literature review and analyzing available data, energy justice could be understood as a state of existence, or a segment of social justice that needs to be achieved or restored while addressing and resolving the issue of energy poverty. Energy justice, as a wider concept that includes energy poverty, provides the human rights' perspective on energy issues, an understanding of the implications of energy policies for vulnerable groups of people. The 2015 publication of Heffron et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric"[45] provides a good framework for analyzing energy justice. According to the metric proposed throughout their work, understanding the aspects of energy justice represents the pathway for solutions when addressing the energy trilemma.[46] The energy trilemma is simply the interaction between the choices of policy-makers of sup-

37 EU Energy Poverty Observatory. *Indicators & Data*. Available at: https://www.energypoverty.eu/indicators-data (accessed 2 July 2020).

38 Sovacool, Benjamin K. "What Are We Doing Here? Analyzing Fifteen Years of Energy Scholarship and Proposing a Social Science Research Agenda". *Energy Research & Social Science* (2014): 1-29. http://dx.doi.org/10.1016/j.erss.2014.02.003

39 Jenkins, Kirsten et al. "Energy Justice: A Conceptual Review". *Energy Research & Social Science 11* (2016): 174-182. DOI:10.1016/j.erss.2015.10.004 (accessed 26 August 2020).

40 Hesselman, Marlies. "Energy Poverty and Household Access to Energy Services in International, Regional and National Law". 2020.

41 Heffron, Raphael J. and Darren McCauley. "The Concept of Energy Justice Across the Disciplines." *Energy Policy 105* (2017): 658-667. Available at: http://dx.doi.org/10.1016/j.enpol.2017.03.018

42 Heffron, Raphael J. and Darren McCauley, "The Concept of Energy Justice Across the Disciplines." 2017. P. 660.

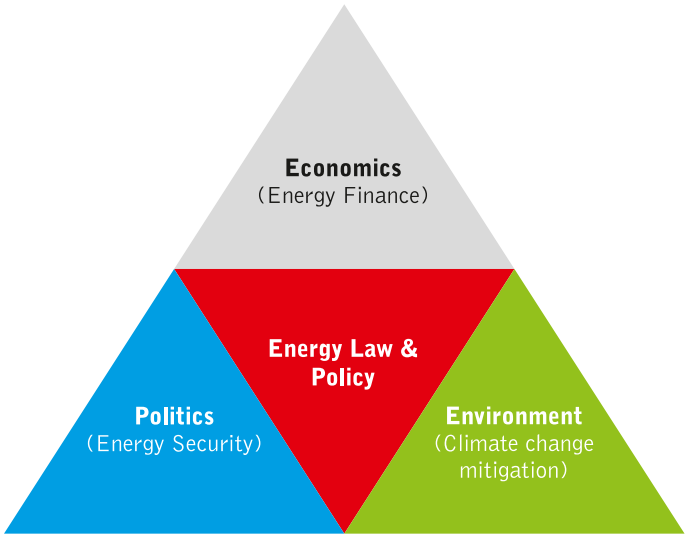
43 Guyet, Rachel. Personal Interview. 24 September 2020.

44 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

45 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric". *Energy Policy 87* (2015): 168-176. http://dx.doi.org/10.1016/j.enpol.2015.08.033 (accessed 3 August 2020).

46 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric", 2015): 168-176.

porting certain benefits when deciding on energy issues, which can be roughly grouped into three main segments: ***benefits for the economy***, ***benefits for the environment*** or ***benefits for the security of energy supply***.



Source: Heffron, "Resolving Society's Energy Trilemma Through the Energy Justice Metric"[47]

The lack of any of the three aspects from the energy trilemma would undoubtedly bring challenges for society, especially to the vulnerable groups of people. Lack of different benefits would bring different type of disadvantages and risks with them. The lack of benefits of an economic nature would affect the access to adequate basic energy services to the vulnerable groups of people; the lack of security of supply would bring about insufficient power, and the lack of environmental benefits risks for people's health and well-being. Therefore, the energy justice comes in as an important concept that helps to resolve this trilemma and balance out all three main aspects that energy policies bring to society. Energy justice, as pointed out by Dr. Rachel Guyet, links energy poverty, governance, liberalization of the energy market, energy democracy and human rights. Moreover, the trends and conclusions form the body of work by Heffron[48], Sovacool[49] and Jenkins[50], among others, show three main aspects of energy justice, often mentioned in their work, highlighted by Heffron as follows[51]:

1) Procedural justice[52]: refers to the way the policies are adopted. This aspect of energy justice could be achieved through energy democratization, or the inclusion of local communities in the decision-making process, in particular vulnerable energy consumers. The lack of inclusion of vulnerable groups of people would represent the lack of the procedural aspect of energy justice.
2) Distributive justice[53]: refers to the fair distribution of energy resources, on how to make the energy transition equitable to all, sharing equally the burdens and benefits. There is a trend in the literature claiming that the market liberalization did not bring any benefits to the vulnerable energy consumers, but only to the interests of the political and business elites.[54]

47 Ibid., p. 169.

48 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric". *Energy Policy 87* (2015): 168-176. http://dx.doi.org/10.1016/j.enpol.2015.08.033 (accessed 3 August 2020).

49 Jenkins, Kirsten et al. "Energy Justice: A Conceptual Review". *Energy Research & Social Science 11* (2016): 174-182. DOI:10.1016/j.erss.2015.10.004 (accessed 26 August 2020).

50 Sovacool, Benjamin K, et al. "New frontiers and conceptual frameworks for energy justice". *Energy Policy 105* (2017): 677-691. http://dx.doi.org/10.1016/j.enpol.2017.03.005 (accessed 17 September 2020).

51 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric". *Energy Policy 87* (2015): 168-176. http://dx.doi.org/10.1016/j.enpol.2015.08.033 (accessed 3 August 2020).

52 Ibid.

53 Ibid.

54 Guyet, Rachel. Personal Interview. 24 September 2020.

3) Justice of recognition[55]: refers to bringing justice to the vulnerable energy consumers deprived from basic energy needs, such as heating or electricity. The importance of this aspect of energy justice is highlighted, as, in order for the other two aspects to be achieved, the people living in energy poverty should be recognized. In many countries, including BiH, energy poverty has not been recognized at the national level.[56]

While discussing these three aspects of energy justice, Heffron et el.[57] highlight the importance of distributive justice and argue that the importance of this aspect is derived from natural care about the future and what we as humanity will leave to future generations. The other aspects are more concerned with the present-day, which is still significant. Regarding the importance of the distributive justice aspect of energy justice, it is pointed out that: "This final tenet concerns treating future generations as equally important as contemporary ones, treating the 'future tense' as important as the 'present tense'. Energy justice holds that we have an obligation not to diminish the opportunities of future generations to achieve well-being at least equal to those that came before them."[58]

Addressing energy justice would not be complete without opening a discussion on energy democracy. The energy democracy concept is mostly viewed as an important process needed to achieve energy justice. It is the process that links the three aspects of energy justice, aiming towards achieving or restoring energy justice, in a practical sense. Energy democracy is observed as a process, as opposed to energy justice that is often seen as the desired state, or the state to be achieved. The importance of discussing energy democracy and energy justice lies within the circle they form through their interaction with energy poverty. A common notion among researchers is that the involvement of local communities is the number one factor for achieving democratization of the energy transition process[59]. It is widely considered that social movements, especially in relation to decarbonization, pollution and climate change, as Hess points out[60], in large part have contributed to the emergence and popularization of the concept of energy democracy in recent years. Van Veelen[61] argues that democracy is one of the most vital instruments for achieving social justice. Therefore, energy democracy could be viewed as a "participation in democratic governance of resources, as a means of placing power in the hands of ordinary citizens"[62], reinforcing the idea that energy justice is the ideal energy democracy aims for. As seen from the previously elaborated concept of energy justice in relation to the energy trilemma by Heffron, energy poverty is linked to many policy areas. Therefore, addressing and resolving aspects of energy poverty has the potential of bringing multiple benefits. Those include, but are not limited to, less public money spent on health, reduced air pollution, better comfort and wellbeing, and increased economic activity.

55 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric". *Energy Policy 87* (2015): 168-176. http://dx.doi.org/10.1016/j.enpol.2015.08.033 (accessed 3 August 2020).

56 Jana, anonymous. Personal Interview. 17 August 2020.

57 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric". *Energy Policy 87* (2015): 168-176. http://dx.doi.org/10.1016/j.enpol.2015.08.033 (accessed 19 August 2020).

58 Heffron, Raphael J. et al. "Resolving Society's Energy Trilemma Through the Energy Justice Metric", 2015.

59 Burke, Michael J., and Jennie C. Stephens. "Energy Democracy: Goals and Policy Instruments for Sociotechnical Transitions". *Energy Research & Social Science 33* (2017): 35-48. http://dx.doi.org/10.1016/j.erss.2017.09.024 (accessed 29 June 2020).

60 Hess, David J. "Energy Democracy and Social Movements: A Multi-Coalition Perspective on the Politics of Sustainability Transitions." *Energy Research & Social Science 40* (2018): 177–189. https://doi.org/10.1016/j.erss.2018.01.003

61 Van Veelen, Bregje, and Dan van der Horst. "What is Energy Democracy? Connecting Social Science Energy Research and Political Theory." *Energy Research & Social Science 46* (2018): 19–28. https://doi.org/10.1016/j.erss.2018.06.010 (accessed 14 August 2020).

62 Van Veelen, "What is Energy Democracy? Connecting Social Science Energy Research and Political Theory", p. 20.

According to the EU Energy Poverty Observatory, energy poverty is recognized when 10% to 15% of the monthly income of a given household are spent on energy costs, or the inability to provide adequate heating. Defining energy poverty requires keeping in mind that it also includes people that are not yet considered poor. Moreover, it is also crucial to consider that the energy poverty they experience over an extensive period of time could possibly push them towards general poverty, if measures by the state are not undertaken, which is why the term "borderline state of vulnerability" mentioned previously can also be utilized. The common threat for vulnerable people characterized as people living in energy poverty is the lack of access to energy services, or the inability to afford basic energy needs. To sum up, energy poverty is the deprivation of basic energy services.

By connecting the concept of energy justice to energy poverty, the implications of energy poverty on human rights become more discernible. Energy poverty leads to stigmatization[63] and threatens the health and the well-being of individuals. From a broader social perspective, the existence of energy poverty represents the lack of fair distribution of resources, reinforcing the connections between energy poverty to energy justice, human rights issues, and social justice. Hence, the concept of energy justice has a pivotal role in the framework of energy poverty. Technological progress improved our lives to unimaginable lengths and made modern-day civilization dependent on exploiting available energy resources to a large extent. The importance of the right on well-being, food, work, housing, social security, healthcare, etc. remains a matter of dispute, however. One should remember that here we also have the ideological division between civil and political freedom on one side, and economic and social rights on the other. Proponents of a free market often have the standpoint that the economic rights are useless, and perhaps the right to access to energy would be a failed project, since it would probably require a strong state that could endanger other freedoms. Spagnoli[64] provides a good explanation for this hesitation:

> If a right is violated, then it must be possible to redress the situation in a court of justice. It has to be possible to find somebody who is responsible for the violation and who can stop the violation. If nobody can be forced to respect a right because nobody has the power and duty to respect it, then it is useless and wrong to speak about a right.[65]

The concept of energy justice is derived from the placement of energy issues and energy poverty within the broad framework of unequal distribution of energy resources. From there, the link with distributional justice becomes visible. When looking into distributional justice, there is a large amount of literature to be found, providing a broader understanding of the concept of energy justice. One example is the work of John Rawls, and several energy justice theories seem to rely on his views on equal distribution. The review of his work done by Kukatash[66] and by Stanford University's *Encyclopedia of Philosophy*[67], is underlining the importance of Rawls' work on the theories of justice, distributive justice and his principles of justice[68]:

1) Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all.

63 Fatima, anonymous. Personal Interview. 9 July 2020.

64 Spagnoli, Filip. *Making Human Rights Real.* New York, NY: Agora Publishing, 2007.

65 Ibid.

66 Kukatash, Chandran, and Philip Pettit. "Rawls: A Theory of Justice and its Critics." Research Collection School of Social Sciences, Paper 2973 (1990). https://ink.library.smu.edu.sg/soss_research/2973

67 Stanford University. *Stanford Encyclopedia of Philosophy.* "Original Position." Available at: https://plato.stanford.edu/entries/original-position/#:~:text=Rawls%20contends%20that%20the%20most,of%20conceptions%20of%20the%20good (accessed 3 October 2020).

68 Rawls, John. *A Theory of Justice.* Cambridge, MA: Harvard University Press, 1971.

2) Social and economic inequalities are to be arranged so that they are both:
   (a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and
   (b) attached to offices and positions open to all under conditions of fair equality of opportunity.[69]

An important consequence of Rawls' views[70] is that inequalities are justified as long as they benefit the least privileged people, and that today's world should leave behind some material respect for future generations. One of the most comprehensive energy justice frameworks is presented by Sovacool et al., and it is worth mentioning their standpoint on the principles of justice in relation to energy:

> "...We must actively and deliberatively resist projects that are unjust, oppressive and violating all or a majority of our energy justice principles. This performative principle of justice invokes a sense of duty or "political obligation" on a citizen or group of citizens to ensure the adherence of political authorities to these broad principles of energy justice."[71]

Nevertheless, the presented relations of energy poverty to human rights do not necessarily mean that the right to have access to energy is by itself only limited to academic scholars and their contribution. With the UN's Universal Declaration of Human Rights[72] becoming a matter of wide acceptance, human rights should be continuously reviewed and upgraded. Today the discussion on human rights is rich and more interdisciplinary, thus including the human rights aspects in disciplines seemingly unrelated to the human rights framework. Up until some time ago, that would not have been imaginable. As Ignatieff placed it: "human rights has gone global not because it serves the interests of the powerful but primarily because it has advanced the interest of the powerless".[73]

69 Rawls, John. *A Theory of Justice*. Cambridge, MA: Harvard University Press, 1971.

70 Kukatash, Chandran, and Philip Pettit. "Rawls: A Theory of Justice and its Critics." Research Collection School of Social Sciences, Paper 2973 (1990). https://ink.library.smu.edu.sg/soss_research/2973

71 Sovacool, Benjamin K, et al. "New Frontiers and Conceptual Frameworks for Energy Justice." *Energy Policy 105* (2017): 677-691. http://dx.doi.org/10.1016/j.enpol.2017.03.005 (accessed 17 September 2020).

72 Ignatieff, Michael. *Human Rights as Politics and Idolatry*. Edited by Amy Gutmann. Princeton, NJ: Princeton University Press, 2001.

73 "The Universal Declaration of Human Rights" (10 Dec. 1948), U.N.G.A. Res. 217 A (III) (1948).

2. Case Study of Bosnia and Herzegovina: Overview of Energy Policies

Bosnia and Herzegovina managed to overcome many challenges in the past, a major one from the recent past being the Bosnian War from 1992 to 1995, and the struggle after the Dayton Peace Agreement signed in 1995 to consolidate its internal stability. With the Agreement, the three constituent peoples of BiH agreed to govern the country as a federation comprised of two entities, one district, with complicated and somewhat overlapping jurisdictions, contributing to the complexity of the already complex ethnically mixed society.[74] Aside from its governing system, BiH still has issues with internal relations between its peoples and entities, dealing with post-conflict division, brain drain and corruption, to name only a few.[75] Additionally, in recent years BiH has been dealing with enormous air pollution.[76] Its capital Sarajevo, but also other major cities such as Tuzla, have belonged to the most polluted cities worldwide in the past decade [77], especially during the winter months. The reasons behind the worsening of the air quality are the industry, the thermal power plants, and inadequate heating solutions, for which energy poverty could be the cause. In some parts of the country, it can also be attributed to poor local environmental management[78] and the geographic location of the cities, prone to accumulating fog and trapping polluted air in its vicinity.[79] This is often claimed to be the case for the Bosnian capital Sarajevo. The domestic experts[80] are highlighting the lack of awareness for energy efficiency and the lack of action by the authorities. Whereas many other factors can be causes for the pollution and energy resources mismanagement[81], this research is focused on the energy policies; with the assumption that the governance should be able to provide solutions and mitigate crises, with the rights of the energy poor as a focal point of interest.

According to the annual analytical report of the European Commission from 2019 on Bosnia and Herzegovina, the 2018 National Energy Strategy[82], that is setting the long-term objectives at a national level up to 2035, is contributing to the country's ability to address issues related to the security of supply, thus indirectly preventing energy poverty. In reality, however, the adopted energy policies are not always elaborated well when it comes to precisely categorizing and measuring the impact of energy poverty on

74 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

75 Ibraković, Majda. Personal Interview. 21 September 2020.

76 Eko Akcija. "Zagađenje zraka i mala kućna ložišta, problem koji ima rješenje" [Air Pollution and Domestic Firewood, a Problem That Has a Solution]. Sarajevo: Heinrich Böll Stiftung, 2019.

77 Ibid.

78 Ibraković, Majda. Personal Interview. 21 September 2020.

79 Eko Akcija. "Zagađenje zraka i mala kućna ložišta, problem koji ima rješenje" [Air Pollution and Domestic Firewood, a Problem That Has a Solution]. Sarajevo: Heinrich Böll Stiftung, 2019.

80 Jana, anonymous. Personal Interview. 17 August 2020.

81 Heinrich Böll Stiftung. *Posljedice lošeg/(ne)upravljanja u BiH* [Consequences from the Bad / (Mis)governance in BiH]. Sarajevo: Heinrich Böll Stiftung, 2018.

82 Baptista, Isabel, and Eric Marlier. "Access to Essential Services for People on Low Incomes in Europe." *European Social Policy Network Report.* Brussels: European Commission, 2020.

vulnerable energy consumers and their rights.[83] The 2019 report of the European Commission states that in BiH there is no harmonized approach to protecting vulnerable energy customers and that its three entities undertake little efforts within their own jurisdiction, which is not giving any results whatsoever. In addition, the country was obliged to define the concept of "vulnerable customer" under the Energy Community[84] Acquis in 2015, and the agreed deadline in handling the matter passed several years ago.

When discussing energy poverty in a case study context, as in BiH, importance should also be placed on estimating how long-term of a condition energy poverty is. The research, however, did not manage to estimate or measure this in BiH. The difficulty in measuring the number of people living in energy poverty proves points from the theoretical framework and the statement of Dr. Rachel Guyet[85] that "energy poverty should be seen also as a dynamic process, rather than a stable condition"[86]. However, analyzing the energy policies in BiH in relation to its energy poor people is becoming more and more needed, as the country aims towards integrating within the EU. This would mean that governing that process should lead towards alignment with the EU energy policies and targets from the Third Energy Package adopted by the European Commission[87]. Moreover, reviewing the development from the past to the present is an opportunity to estimate if the justice of recognition in relation to energy poverty is achievable in near future.

In the next part of this Chapter, from reviewing the past developments regarding the energy policies in BiH, this paper moves towards the present-day situation. The analysis shows perspectives on how the country is handling energy matters with respect to energy poverty and vulnerable groups of people, including its relationship with the EU in this segment. Other contributions go towards establishing what alternatives and implications the process of improving its policies, deepening EU relations and the implementation of the EU requirements can bring for BiH, specifically in regard to the rights of vulnerable energy consumers. For a better understanding of the current state of energy policies in BiH, this study further moves to the overview of the past developments from the time of Yugoslavia.

2.1. The Energy Sector of BiH during the Time of SFR Yugoslavia

Bosnia and Herzegovina began developing its statehood within its current borders as part of Yugoslavia, being one of its six federal republics. However, when the dissolution of Yugoslavia started around 1990, BiH went through a brutal war from 1992 to 1995 during which much of its institutions were destroyed, only to be restored in new forms and shapes after signing the Dayton Peace Agreement (1995)[88]. From that point on, the modern-day BiH has been established and the country has made good progress considering its past. Being part of Yugoslavia has left some legacies still present to this day in the energy sector, especially in the ways the energy and environmental policies are being taken care of, often decided upon without much public deliberation.[89] Breaking down and understanding the complex history of BiH as part of Yugoslavia can easily be a separate topic with its own complexities and analyses. However, understanding what Yugoslavia has left on the table for modern-day BiH, specifically in the context of its energy sector and its energy policies, helps to understand where

83 Suljić, Vedad. Personal Interview. 23 September 2020.

84 Energy Community. *Implementation, Bosnia and Herzegovina.* Available at: https://energy-community.org/implementation/Bosnia_Herzegovina.html (accessed 25 August 2020).

85 Guyet, Rachel. Personal Interview. 24 September 2020.

86 Ibid.

87 Lindberg, Marie B. "Policies, Actors and Sustainability Transition Pathways: A Study of the EU's Energy Policy Mix." In: *Policy Mixes for Sustainability Transitions: New Approaches and Insights through Bridging Innovation and Policy Studies 48,* No. 10 (2019) https://doi.org/10.1016/j.respol.2018.09.003 (accessed 3 February 2020).

88 Energy Charter Secretariat. *In-Depth Review of Energy Efficiency Policies and Programmes: Bosnia and Herzegovina.* Belgium: Energy Charter Secretariat, 2012.

89 Tešanović, Majda. Personal Interview. 5 October 2020.

the country comes from. Throughout its existence, Yugoslavia established itself as a non-aligned country, with strong ties to countries proclaiming neutrality and practicing moderate communist and socialist systems of rule.[90] Marshal Josip Broz Tito was at the head of the country and the Communists Party of Yugoslavia, up until his death in 1980. The six republics had their own branches of the Communists Party and any tensions between them were solved at the federal level. Over the course of 40 years after World War II, Yugoslavia developed its own model of socialism. It was based on workers' self-management, decentralization, social ownership and increasing reliance on the market mechanism that was also reflected in the managing style of the energy sector. As for the environmental policies, not much can be said. At the time the economy had a primary importance,[91] and little emphasis was placed on strong environmental policies, which could have possibly hindered the economic development.

A distinctive feature of Yugoslavia was that the socialist model was not imposed from the outside. Instead, it emerged from the grass-root partisan revolution during World War II. In the first decade after the war, the Yugoslav economy was organized through centralized planning, state ownership, expropriation of private property, monopolies and administrative control. The planned economy ensured maximum utilization of available economic resources, intensifying the economic development and expanding the country's productive resources, as quickly as possible, including the energy infrastructure.[92] In the 1950s, a new economic model introduced through a set of laws came as a result of the ideological differences between Tito and Stalin. Workers and collectives in most of the sectors managed state property, in manufacturing, mining, communications, transport, trade, agriculture, forestry, etc. These features show signs of the aspect of procedural justice through the presence of the wide public participation. Following these changes, infrastructural, construction and industrial projects were developed and completed, with the people participating in the widely known "people's working actions."[93] Private ownership was restricted to a certain degree, yet not to the extent like in the USSR and China.

Up until the break-up of Yugoslavia, the electric power industry of the six federal republics was organized in the form of economically independent entities, associated in the Yugoslav Association of Electric Power Industry (YUGEL). The political elites directly managed the Association, through a Managing Director and a Board closely related to the centers of power from the Communist Party of Yugoslavia[94], where all functions of the development, planning, system operations, including internal and external energy exchange, were coordinated.[95] Operations of all utilities were interdependent, in the formal and actual sense. Within the YUGEL pool during the time of Yugoslavia, the internal exchange of electrical energy in 1990 was four times more intensive when compared to the years after the independence. Serbia and BiH were net-exporters of electrical energy, while Croatia and Montenegro were net-importers. On the other hand, Slovenia and North Macedonia were almost self-sufficient. Within Yugoslavia, the coordination of operations was practiced on both medium-term through a yearly budget plan, and short-term through daily, weekly and monthly operation schedules. After the disintegration of Yugoslavia, the newly independent countries and power industries were considered as successors of YUGEL, continuing to manage their own energy systems and policies as they saw fit.

90 Uvalic, Milica. "The Rise and Fall of Market Socialism in Yugoslavia." In: *Dialogue of Civilizations Research Institute Project*. Perugia: University of Perugia, 2018.

91 Ibid.

92 Ilic, Marija. "Energy Infrastructure in Yugoslavia: The Past and Challenges Ahead". In: *Energy Planning, Policy and Economy 34*, No. 27 (2002): 723-737. Available at: http://www.socphyschemserb.org/media/enry2001/papers/paper-101.pdf (accessed 1 February 2020).

93 Uvalic, Milica. "The Rise and Fall of Market Socialism in Yugoslavia." In: *Dialogue of Civilizations Research Institute Project*. Perugia: University of Perugia, 2018.

94 Ilic, Marija. "Energy Infrastructure in Yugoslavia: The Past and Challenges Ahead." In: *Energy Planning, Policy and Economy 34, No. 27* (2002): 723-737. http://www.socphyschemserb.org/media/enry2001/papers/paper-101.pdf (accessed 1 July 2020).

95 Ilic, Marija. "Energy Infrastructure in Yugoslavia: The Past and Challenges Ahead", 2002.

Other aspects of the energy governance and policymaking remained in the strong grip of the state. The boom of investments during this time saw an expansion of central heating solutions for the bigger cities in BiH and throughout Yugoslavia. Prof. Tešanović[96] explained that with the expansion of central heating and by keeping a centralized energy market, energy vulnerability would have probably been a minor issue in the time of Yugoslavia, if would have been recognized as a condition. Proving that despite the criticism of other aspects of the political system of Yugoslavia, the people did not have much difficulty to provide heating or to cover their monthly bills corresponding to the energy needs in those times. In addition, Tešanović[97] pointed out that "nationally owned companies were providing certain discounts and programs to assist in covering monthly bills of their employees at the time."[98] Moreover, Yugoslavia had introduced a policy of tariff systems, organized in a way that the buying and selling prices of energy were a responsibility of each of the republics, demonstrating more aspects of decentralization of the energy governance. However, with strong monitoring and control of the republic's governments still in place, and centrally coordinated at the federal level.[99] Regarding the energy infrastructure in Yugoslavia, the transmission networks, for instance, were under the supervision of the governmentally controlled public enterprises, while several energy producers and distribution companies formally remained independent organizations. In conclusion, those examples show what the legacies and patterns of functioning were left from Yugoslavia. After the disintegration of the federation, many of its principles of governance, including the aspects of decentralization, were abandoned almost everywhere during the first years of the newly independent countries.

2.2. Post-war and Contemporary Energy Policies Development

Bosnia and Herzegovina today is a country comprised of three entities: the Federation of Bosnia and Herzegovina (FBH), the Republika Srpska (RS), and District Brcko. After going through the destructive war in the 1990s, the consecutive two decades saw the country struggling to maintain its somewhat fragile statehood, stability and political balance. Today, BiH functions as a complicated state in terms of its internal governance, with a great deal of decentralized power to the favor of its entities. The level of independence is also high within the entity of the FBiH and its cantons, and then in the Republika Srpska, where the governing power is decentralized to its municipalities. To an extent, the two important legacies from the time of Yugoslavia, the infrastructure and the coordinated decentralization of the energy sector, are still present in modern-day BiH. They are mostly mirrored in the policy-making processes nowadays, where efforts to preserve and upgrade existing infrastructure are visible; and attempts to coordinate the decentralized system are being made. However, with the emergence of a completely different governing system after the war, what has been left from former Yugoslavia in BiH is developing in a different direction. Another important legacy from Yugoslavia is the fact that BiH is a net-exporter of energy, thanks to its hydropower potential and infrastructural capacities, which helps the country to balance its economy better and keep lower energy prices in comparison to the European average.[100] During the period of the Bosnian War from 1992 to 1995, most of the institutions were functioning at a "survival" level and it was impossible to do any improvement for a better organization of the energy governance of the country. After the ending of the war in 1995 and with support of external experts, Bosnian institutions were able to take over full control and management of the energy infrastructure built in the times of Yugoslavia.

96 Tešanović, Majda. Personal Interview. 5 October 2020.

97 Ibid.

98 Ibid.

99 Ilic, Marija. "Energy Infrastructure in Yugoslavia: The Past and Challenges Ahead". In: *Energy Planning, Policy and Economy 34*, No. 27 (2002): 723-737. http://www.socphyschemserb.org/media/enry2001/papers/paper-101.pdf (accessed 1 February 2020).

100 Bankwatch Network. *The Energy Sector in Bosnia and Herzegovina.* "CEE Bankwatch Network." Available at: https://bankwatch.org/beyond-coal/the-energy-sector-in-bosnia-and-herzegovina (accessed 5 February 2020).

Soon after the war, the government began implementing state-level and local-level policies on energy and environmental protection.[101] The electric power industry of BiH was transformed into a public service-type of governmentally owned organization. When it comes to the policy-making process and organizational capacities, Yugoslavia possessed a form of decentralization and internal coordination. After BiH adopted a new form of governance following the Dayton Peace Agreement, the legacy of good internal coordination has not been made fully functional until today. As much as the governing structure of BiH appears to be a multilevel system that should theoretically be a promising system for the inclusion of local communities and vulnerable energy consumers, the reality is different. BiH's entities struggle to agree on important decisions, often watered down to political bargaining. Which is why the system is often viewed as "a bureaucratically and politically driven mechanism for satisfying the narrow interests of the governing political parties, representing the three different peoples' groups or their elites and beneficiaries."[102]

The Bosnian entities nowadays often struggle to agree on important issues when adopting national legal frameworks. That was the case for instance with the national Framework Energy Strategy[103] that took years of negotiations in order to be finally adopted in 2018. As the energy sector in BiH has undergone many changes in recent years, benefits from the development of competitive market conditions are barely visible, even though the energy market has formally been considered open since 2015. The issue, in most parts, is that new suppliers do not participate actively, proving the policies merely inefficient. Moreover, energy consumers often remain uninformed about the legal changes.[104] As a domestic expert sums it up[105], all those circumstances in BiH today are making the vulnerable consumers of energy even more vulnerable, remaining unrecognized by the institutions. Most of the consulted experts point out the conclusion that the policies at national level are mostly nominal, without a real executive power. Instead, the power has been delegated down to the local level in both entities and any process of decision-making is often reduced to long political discussions, resulting in final decisions with little impact on energy poor people. Comparing the energy policies and the benefits given to socially disadvantaged groups of people in relation to energy, there are several different subsidies available in different regions of BiH. Republika Srpska has been giving bonus non-fee periods for not paying electricity bills. The Canton of Sarajevo provided subsidies for heating during winter for vulnerable categories, targeted at those utilizing gas as a fuel. Regarding possibilities for citizen inclusion, the FBiH promotes a higher degree of decentralization of the energy policies and presence of more renewables. Republika Srpska is praised for introducing residential energy or promoting the concept of citizen energy. Furthermore, having a high degree of decentralization does not automatically mean that energy poverty can be more easily recognized at the local level, nor that the entities work for the benefit of their local communities. A comparison of the entities of BiH shows they set different priorities and are not fully in function for their people. This is particularly true for the two entities, the FBiH and the Republika Srpska, whereas the Brcko District, as the smallest one, is often perceived as somewhere in between. Unfortunately, an officially adopted definition of energy poverty or its indicators does not exist in any of the entities of BiH. In addition, up until the end of the research performed for this paper, neither the state or its entities have recognized energy poor people as a distinguished category of vulnerable or socially disadvantaged people.

101 Broto, Vanesa C. "Symbolic Violence and the Politics of Environmental Pollution Science: The Case of Coal Ash Pollution in Bosnia and Herzegovina." In: *Antipode 45,* No. 2. London: Bartlett Faculty of the Built Environment, 2012.

102 Falatar, Borisa. "Bosnia is at Risk of Becoming a Failed State. Does the EU Want That on its Doorstep?" In: "The Guardian." Available at: https://www.theguardian.com/commentisfree/2019/nov/12/bosnia-crisis-eu-europe (accessed 4 February 2020).

103 Council of Ministers of Bosnia and Herzegovina. *Framework Energy Strategy until 2035*. Bosnia and Herzegovina: Council of Ministers of Bosnia and Herzegovina, 2019.

104 Amar, anonymous. Personal Interview. 24 July 2020.

105 Jana, anonymous. Personal Interview. 17 August 2020.

Nevertheless, in recent years the country has been credited for doing a great deal of reforms in the energy sector in order to better align its legislation with the EU requirements. According to recent EU reports on the progress of BiH and the 2019 "Survey on Energy Poverty in BiH", the country uses four times more energy to cover the same energy needs of the EU average, making it highly energy inefficient. As part of the Western Balkan countries group[106], BiH has been recognized and confirmed as a potential future member-state of the European Union. With all its flaws, both on the internal and external level, the country maintains a clear strategic goal and prospects, at least nominally, of becoming a part of the EU. While reviewing the latest report of the European Commission[107] on BiH, one could see the possible path dependencies from the legacies of Yugoslavia that led to the current situation in its energy sector. Moreover, becoming a member of the European Energy Community in 2006 meant that BiH was obliged to adopt certain policies. After years of inter-entity negotiations, the country managed to adopt its new Framework Energy Strategy at the national level in 2018, which provides the framework for energy-related policies up until 2035. The Energy Community aims to create an integrated pan-European energy market[108], and BiH has an obligation to facilitate that objective. The key objective of the Energy Community Treaty is "to extend the EU internal energy market rules and principles to the contracting parties in South East Europe, the Black Sea region and beyond, on the basis of a legally binding framework."[109] By signing the Energy Community Treaty, the Contracting Parties committed to implement the key EU energy laws, develop an adequate regulatory framework and liberalize their energy markets in line with the Treaty Acquis and within a fixed timeframe. Since in BiH there is a limited power of the central government in favor of the entities, there are difficulties in implementing the needed reforms. Sub-national levels of governance are often arguing over important issues, with the High Representative remaining, at least nominally, as the only corrective power able to overturn decisions.[110]

Another important point with regard to the two distinctive clusters of policies, energy and environmental, is the usage of renewable energy sources, their presence in the country's energy mix and possible subsidies. The current EU targets on renewable energy are set out to bring sustainable development, democratization and decentralization of the energy sector. The investments in renewable energy in BiH and the potential the country possesses are great possibilities for further democratization of the energy sector. Concerning efforts to decrease energy poverty, future investments in renewables could be locally governed at entity and municipal level.[111] BiH currently exploits its waters to a medium-high extent and as a net-exporter of energy plans to further invest in this form of energy production. This shows the country's plan to emphasize the usage of hydropower as the most convenient renewable energy resource, and an important infrastructural legacy remaining from Yugoslavia's time. As constructions of small hydropower plans accelerate, hydropower is losing the value of a sustainable, renewable energy resource. Due to the rapid construction of new small hydropower plants in the middle of pristine nature, the usage of hydropower is becoming damaging, corruptive, and harmful to the environment.[112]

106 Civil Society Forum of the Western Balkans. *The Berlin Process Information and Resource Center.* Available at: https://berlinprocess.info/ (accessed 15 May 2020).

107 European Commission. *Commission Staff Working Document: Analytical Report, Communication from the Commission to the European Parliament and the Council, Commission Opinion on Bosnia and Herzegovina's Application for Membership of the European Union,* 29 May 2019, SWD (2019) 222, available at: https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/ 20190529-bosnia-and-herzegovina-analytical-report.pdf.

108 Energy Community. *Implementation, Bosnia and Herzegovina.* Available at: https://energy-community.org/implementation/Bosnia_Herzegovina.html (accessed 25 August 2020).

109 Ibid.

110 Fagan, Adam. "Building Environmental Governance in Bosnia-Herzegovina: Europeanisation and Transnational Assistance in the Context of Limited Statehood." Chap. 30 in: *Environment and Planning C: Government and Policy*. London: University of London, 2012.

111 Patricolo, Claudia. Bosnian Energy: A Balancing Act, 15 March 2019. "Emerging Europe." Available at: https://emerging-europe.com/intelligence/bosnian-energy-a-balancing-act/ (accessed 2 February 2020).

112 Von der Brelie, Hans. "Hydro Power to the People: The Fight Against Bosnia and Herzegovina's Hydroelectric Dams." In: *Euronews.* Available at: https://www.euronews.com/2020/07/17/hydro-power-to-the-people-the-fight-against-bosnia-and-herzegovina-s-hydroelectric-dams

Additionally, BiH also uses significant reserves of coal for its thermal power plants and for suppling heating utilities, which has a damaging effect on the air quality, particularly in Sarajevo and Tuzla. Considering the accelerated exploitation of the hydropower, the construction of new dams harms large amounts of natural landscapes and eco-systems, as civic activists are warning.[113] In this reality, the voices of the people living in energy poverty are not considered much[114], as for them it is more important to have any type of energy and heating available, rather than being actively concerned by harmful decisions in terms of governing the countries' energy resources. This attitude would be easily mitigated if the energy policies of the country would be considering their voices, thus providing a degree of procedural justice. If the energy policies are not properly modified to accommodate the energy poor and their needs, the country could potentially have more issues to deal with in the future. Dealing with these realities, for BiH it remains challenging to move forward with positive changes in its energy and environmental policies.

113 Lindberg, Marie B. "Policies, Actors and Sustainability Transition Pathways: A Study of the EU's Energy Policy Mix." In: *Policy Mixes for Sustainability Transitions: New Approaches and Insights through Bridging Innovation and Policy Studies 48,* No. 10 (2019) https://doi.org/10.1016/j.respol.2018.09.003 (accessed 3 February 2020).

114 Ibraković, Majda. Personal Interview. 21 September 2020.

3. Energy Poverty in Bosnia and Herzegovina

The estimated numbers of energy poor people are on the rise worldwide and in the region alike, including Bosnia and Herzegovina. The EU "Survey on Income and Living Conditions"[115] analyzed by researchers working on the issue, from 2012 onwards, shows that at least 10% of the EU population lives in energy poverty, and the numbers continue to have a rising trend as in certain parts the energy prices are rising while the standard of life remains the same. Based on census data and state surveys from the countries across the Continent outside of the EU, similar numbers are being reported for the region, including BiH. On EU level, the EU Energy Poverty Observatory[116] and research projects such as ENGAGER[117] are making efforts to push for an official definition of energy poverty. Such a definition should be included in the legal frameworks at national and European Union level, with additional political efforts advocating to better assess and shrink the problem of energy poverty.

Nowadays in BiH, the number of the population experiencing energy poverty is estimated to be between 30% and 40% at the national level; however, the numbers are far from being precise due to the lack of recognition and mechanisms to measure and address energy poverty and the vulnerable energy consumers. Numbers from different statistics vary from around 20% to 40%, for various regions of the country. Those percentages are an outcome of the comparison done between the research study on energy poverty implemented by the Center for Ecology and Energy with the Heinrich Böll Stiftung in 2017[118], and another one conducted by professors[119] from the University of Tuzla in 2020.[120] The lack of democratization of the energy sector, inefficient energy usage and lack of affordable energy, contribute to the growing trend of energy poverty[121], which is affecting the vulnerable people and their rights to health and well-being, as well as triggering social injustice. However, the country is yet to recognize and systematically address the issues energy poor people are facing at the national level. Another challenge with presenting precise numbers is that the condition is difficult to be measured, due to the dynamic nature of energy poverty, but also due to the presence of the gray economy, as highlighted by the domestic energy experts.[122] Many of the vulnerable categories of people benefiting from some form of social state aid would normally

115 European Union. *Eurostat*. Available at: https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions (accessed 23 September 2020).

116 EU Energy Poverty Observatory. *Indicators & Data*. Available at: https://www.energypoverty.eu/indicators-data (accessed 2 July 2020).

117 ENGAGER – Energy Poverty Action. *Aims and Objectives*. Available at: http://www.engager-energy.net/aims-and-objectives/ (accessed 24 August 2020).

118 Agić, Sejfudin et al. *Energetsko siromaštvo u Bosni i Hercegovini* [*Energy Poverty in Bosnia and Herzegovina*]. Tuzla: Centar za ekologiju i energiju & Heinrich Böll Stiftung, 2017.

119 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

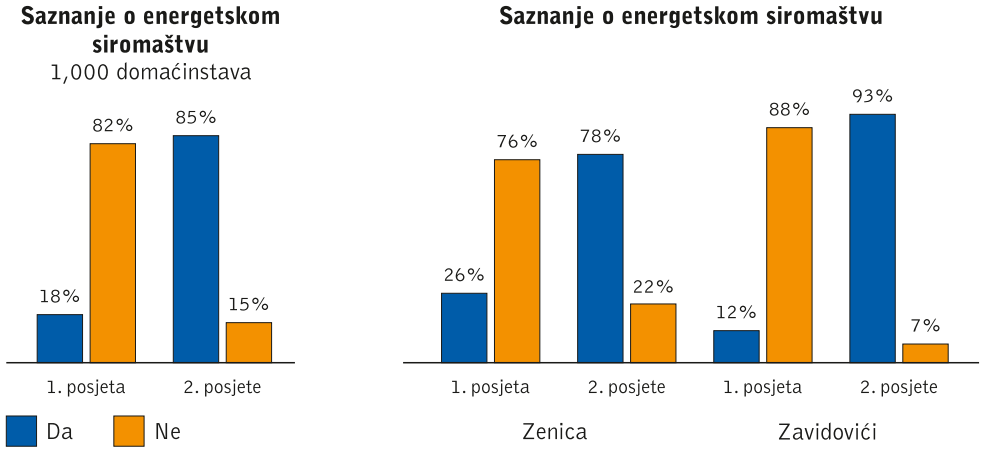
120 Tešanović, Majda. Personal Interview. 5 October 2020.

121 Jana, anonymous. Personal Interview. 17 August 2020.

122 Suljić, Vedad. Personal Interview. 23 September 2020.

not be able to provide heating or cover their monthly bills, if we only look into their monthly income, thus nominally falling under the category of the energy poor.[123] Nevertheless, an unknown percentage of this population is active within the gray economy and able to provide heating, most notably by using firewood or burning materials that are inadequate, and possibly harmful to the environment.[124] The importance of energy governance and energy policies has been additionally highlighted during the interview with Ibraković[125] from the Center for the Environment[126] in Banja Luka, when discussing heating solutions in the country. For instance, the usage of coal for electricity production, and coal and firewood for providing heating during the winter are often singled out as contributing factors to the pollution.[127] They are deemed as undesirable ways of providing affordable heating and the price is paid by the damage done to the environment. Instead of improving the general situation of vulnerable energy consumers, the usage of coal and firewood is potentially causing more damage to the well-being of the population. In any of these short-term solutions, the aspects of energy justice remain absent.

According to the expert[128], the subsidies for heating and monthly bills in practice provide for a small number of people. Again, one of the reasons why these subsidies are not fully successful is the assumption that a number of energy poor people are engaging in the gray economy to cover their energy bills. From the research study performed in the Zenica-Doboj Canton in 2018, with follow-up surveys done by the Center for Ecology and Energy[129], it was reported that the people unable to provide heating and electricity experience financial collapse, the inability to sustain a social life, health issues, and worsened hygiene, among other conditions. The study was done based on field visits to around 1000 households and personal conversations with the people experiencing life as vulnerable groups living in energy poverty. According to this research, only 18% of the households in BiH were aware of what energy poverty is and how it affects their lives and the fulfillment of their basic human rights.



Source: Center for Ecology and Energy. The first part to the left is the comparison between the awareness on energy poverty, during the 1st and the 2nd visit. The second part to the right is the comparison between the households in the city of Zenica and the town of Zavidovici where the research was conducted[130].

123 Ibid.

124 Jana, anonymous. Personal Interview. 17 August 2020.

125 Ibraković, Majda. Personal Interview. 21 September 2020.

126 Centar za životnu sredinu [Center for the Environment]. *Energy and Climate Change*. Available at: https://czzs.org/?lang=en (accessed 17 September 2020).

127 Dolecek, Vlatko. "Renewable Energy Sources in Bosnia and Herzegovina: Situation and Perspectives." In: *Contemporary Materials 4*, No. 2. Sarajevo: Academy of Sciences and Arts, 2013. doi:10.7251/COMEN1302152D.

128 Jana, anonymous. Personal Interview. 17 August 2020.

129 Rizvic, Vanja, and Dzamila Agic. *Pregled situacije u pogledu energetskog siromaštva u Zeničko-dobojskom Kantonu* [*Review of the Situation Regarding Energy Poverty in the Zenica-Doboj Canton*]. Tuzla: Centar za ekologiju i energiju, 2018.

130 Ibid.

Another common issue is that all those people are not always willing to ask for assistance, or talk about their inability to pay their bills, mostly due to the attached social stigma. Whereas the people categorized as poor within the system fall under the assumed category of vulnerable energy consumers. Therefore, they can more easily access assistance programs in comparison to the "borderline" category of the energy poor that is neither clearly measured nor identified. The existence of the "barely visible" or "borderline" category of the energy poor is heavily influenced by the energy reforms and how prices are being formed. Often, these groups of people are unable to respond quickly to the raising prices of heat or electricity. These circumstances make the issue of energy poverty increasingly important, and the system is not fully aware of the actual size of the problem. Due to the fear of being stigmatized, the energy poor people will not discuss their condition much, their inability to provide for heating or cover their bills on a regular basis. These assumptions have been reinforced by the interviews performed with experts, elderly pensioners[131] and single parents[132].

It is important to point out that the liberalization of the energy market has its impact on the vulnerable energy consumers. The energy policies and the legal framework define the quality of the process of liberalization of the national energy market. The verdict is that it is difficult to talk about any impact on vulnerable energy consumers if they have not been recognized yet at the national level. If one considers the general category of socially disadvantaged people, with the assumption of them being income-poor and energy poor, then the market liberalization is seen as more harmful to their rights. Even if the prices have not been drastically increased in recent years in BiH, the indirect cost that is paid is the pollution and its impact on health and well-being, which is disrupting the environmental aspect of the energy trilemma and the right to a healthy environment.

Additionally, the Energy Strategy of BiH does not consider the complete coal phase out[133], in contrast to the National Energy Strategy adopted in North Macedonia, praised for setting ambitious green scenarios and the inclusion of citizens in the process of green energy transition. The National Strategy of BiH, on the other hand, is often criticized for being adopted for the sake of being adopted, with little space for the inclusion of vulnerable energy consumers. While discussing the Energy Strategy of BiH in the context of the energy market liberalization, the consulted experts gave some contrasting views. One expert[134] affirmed that the liberalization gives space for the households to choose their supplier of energy. However, a legal expert[135] claimed that even though that is technically possible, the reality is different due to the complicated legal procedures and inability for the suppliers to reach different regions. The grid connection is still not vastly developed and makes it challenging in some regions of BiH to switch from one supplier to another. Therefore, the conclusion is that for the moment mostly the big companies have benefits from the energy market liberalization, while the vulnerable consumers remain living on the edge of energy poverty.[136]

131 Fatima, anonymous. Personal Interview. 9 July 2020.

132 Maja, anonymous. Personal Interview. 16 July 2020.

133 Udruženje socijaldemokrata u Bosni i Hercegovini. *The Analysis of the Framework Energy Strategy of Bosnia and Herzegovina by 2035.* Sarajevo: 2020.

134 Jana, anonymous. Personal Interview. 17 August 2020.

135 Amar, anonymous. Personal Interview. 24 July 2020.

136 Jana, anonymous. Personal Interview. 17 August 2020.

3.1. Voices of Vulnerable Energy Consumers

The vulnerability of the people struggling to cover their monthly bills and secure appropriate heating during the winter is mostly discernible through the personal interviews conducted during the research period, with selected individuals experiencing energy poverty. Energy poverty as a result of the lack of energy justice in BiH, or social justice in a broader sense, is visible in their statements. Three interviews were conducted during the month of July 2020, with two elderly pensioners and one single mother of two children. Their fear of the winter and sense of uncertainty leaves no doubt that their social and human rights are endangered. In this Chapter, some of their statements are integrally shared with their approval. The following one was given by a single mother of two children:

> After the divorce from my husband, I had to move to a small apartment with my two children. Sometimes he pays me some hundred marks, sometimes I have to cry on the phone and threaten him to go to the court if he does not. I work in the supermarket here and how much do you think it pays? Not enough to pay for everything I need. Sometimes my old parents have to send me money to pay some bills. I always have some bills left unpaid, what else can I do. I asked for help, but they told me you are working. They did not ask if I need to pay rent, electricity, internet, food for the children, clothes, something to give them to school, some little money, the phone bills. I cry on the phone when my mother tells me she will send me money, because I know she will then wash clothes with her hands and buy groceries on debt. The ex-husband drives his car, does not care, he has some other girl now to lie to her and I am drowning in bills to raise the children. Who knows what with happen now from September on, who knows? It's Corona time, schools starts, rain starts to fall, I need to think about warm clothes and not having mould in the house. We always get sick in winter. First the younger one, then the older one, then me get sick. And in winter, what can I do, I go to work, sometimes with a cold shower so not to be dirty, I cannot let my kids take cold water. What is life, other than worries if I will survive the next day? Or worries I will not have electricity or hot water. Everything is very expensive in winter.[137]

137 Maja, anonymous. Personal Interview. 16 July 2020.

Seeing how energy poverty is described and experienced through the words of those living in the condition, it only strengthens the notion that the three aspects of energy justice, distributive, procedural and justice on recognition, do not seem much present in their daily lives in Bosnia and Herzegovina. The justice on recognition should be highlighted as being the one that is lacking more prominently. It seems that, even though some of the vulnerable groups of people experience energy poverty, they are not aware of the importance of acknowledging the condition they live in:

> To whom will I tell I cannot pay the bills always, to my neighbors outside on the streets? Yes, we will complain here on the street and drink coffee, everyone does. But when it is cold outside and winter comes, I put on more clothes and try to stay without heating as much as possible. I will not discuss how I live at home. I will be asked, where do you spend your money. As if people do not know how small the pension is, and how much we need to pay for a normal life, plus medications. Now with this Corona, only God can keep us safe… One time last year, my son came to visit me and he asked me why it was cold inside. What can I tell him, the bill is expensive? I will not, he will give me money that should be for my grandchild. I'm old and close to death, why bother. I just say I like to stay in the cold, and then find another blanket, until I cannot even do that any longer.[138]

In addition to heating issues, one of the interviewed people stated that they were struggling with a proper electricity in their home. Even though they were able to cover the electricity bill, they are not in position financially to invest in rewiring their electricity plugs, which often causes malfunctions. According to the ESPN report[139], in BiH electricity is one of the most expensive energy services, and low-income households usually have old household appliances, requiring higher cost for electricity consumption. The report also states that "additionally, there are estimates suggesting that in the FBiH entity, there are 163 villages whose population was resettled during the war, and which are still without an electricity supply."[140]

For addressing and discussing energy poverty and the rights of the vulnerable energy consumers at a wider public level, the contribution of the civic society, NGOs, foundations, and the academic community should be brought to light and encouraged. During some of the interviews conducted for the sake of this research, it was pointed out[141] that as much as the authorities in the country are lagging behind when it comes to the recognition of the energy poverty issues in BiH, the more the non-state actors are trying to bring forward the importance of addressing energy poverty. Moreover, credit is given to Bosnia and Herzegovina for managing to establish the necessary institutions at state and entity level to oversee energy reforms in accordance with the EU Acquis and targets,[142] even if they are not yet considered as fully in the function of the general population. In addition, regulatory authorities exist at both national and entity level, and certain entity responsibilities for energy and energy efficiency policies have been assigned to the entity energy regulators, thus making efforts towards strengthening the concept of multilevel governance.

138 Fatima, anonymous. Personal Interview. 9 July 2020.

139 Baptista, Isabel, and Eric Marlier. "Access to Essential Services for People on Low Incomes in Europe." *European Social Policy Network Report*. Brussels: European Commission, 2020.

140 Ibid.

141 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

142 Council of Ministers of Bosnia and Herzegovina. *Framework Energy Strategy until 2035*. Bosnia and Herzegovina: Council of Ministers of Bosnia and Herzegovina, 2019.

However, many international organizations and civic activists remain critical of the slow progress, as the country still lacks the resources, the political will and enforcement of policies for creating substantial change.[143] Directions for improvement can be found in the points shared by the experts for the further empowerment of the multilevel governance, through stronger and better, parallel inter-entity collaboration on these issues, and by strengthening local governmental capacities, as well as citizen inclusion. The Center for Energy and Ecology from Tuzla, together with the Heinrich Boll Foundation, are some of the few non-state actors advocating for these types of improvements. Engagement of civic education is also present in the area of energy policies and understanding energy-related concepts, as the work of REIC demonstrated. The organization is a non-profit educational center located in Sarajevo, and their contribution should be highlighted from their participation in the regional training project scheme "Environmental Education for Sustainable Development" for the Adriatic-Ionian basin.

The academic work on the concepts of energy poverty and energy justice in BiH is relatively contemporary, or almost non-existent, especially in relation to social justice and rights. An example of the efforts by the academic community to address the issues with energy poverty is the engagement of domestic experts, such as Prof. Hivziefendić[144] and Prof. Tešanović[145] from the University of Tuzla. During the research performed for the sake of this study, they pointed out that the inclusion of academia is vital in contributing to the recognition of the vulnerability and the rights of the energy poor population and contributing towards energy justice. They highlighted their involvement in raising awareness on the issues within academia through continuous discussions and research work and encouraging the Bosnian academic community to get more involved. In conclusion, addressing issues in relation to energy policies and energy poverty should be a continuous effort of collaboration between all the relevant state and non-state actors.

143 Energy Charter Secretariat. *In-Depth Review of Energy Efficiency Policies and Programmes: Bosnia and Herzegovina*. Belgium: Energy Charter Secretariat, 2012.

144 Hivziefendić, Jasna. Personal Interview. 29 September 2020.

145 Tešanović, Majda. Personal Interview. 5 October 2020.

Conclusion

Living in an age where the access to technology is becoming more and more important to our everyday lives, present in most parts of the world, while our exploitation of resources is damaging the environment, addressing energy related issues has become increasingly important. None of the technological advances would have been possible without appropriate power. The discovery of electricity allowed an explosion of technological advances during the 20th century. The new advancements increased the standard of life, and thus our human needs, bringing new issues to tackle, such as energy poverty and the vulnerability of the people experiencing energy poverty, or the lack of access to domestic energy services at an appropriate level. The case study of BiH shows that the energy policies and the liberalization of the energy market have had an impact on vulnerable people, and that it is difficult to grasp the dimensions of an issue such as energy poverty, that has not been systematically recognized by the institutions.

The lack of systematic actions could potentially bring consequences in the near future. The negative effects of the negligence to address energy poverty will not only be damaging to the health of the people and to the state health-care system, but they can also have a major impact on the economy and GDP of a country. Moreover, recognizing the strategic importance of addressing energy poverty is necessary in order to assist the affected vulnerable population, before this turns into a chain-effect towards the general poverty of the next generations. Some of the ideas regarding what could be done go in the direction of organizing more aggressive campaigns for the concept to be understood and officially recognized. Furthermore, organizing public discussions on the issue in order to minimize the stigma, and any types of activities with a direct impact on a larger portion of the population with the purpose of bringing awareness for the problem and feasible long-term and sustainable solutions.

Since it is difficult to measure a concept that has not been recognized in the legal framework of the country, as is the case with BiH, there are several suggestions on how to indirectly target the vulnerability derived from energy poverty. While awaiting the justice of recognition to be achieved, by defining energy poverty and adopting appropriate measures to mitigate or reduce it, an appropriate energy policy approach would be helpful to indirectly assist vulnerable energy consumers. From the reports on the energy policies, the research data, as well from the contributions of the experts, three main pillars that energy policies should include for assisting energy poor people come forward. Those are income, energy efficiency and education on energy usage. The assumption is that over time the state will naturally integrate these three pillars present in various energy policies under one common framework that will address energy poverty and vulnerable energy consumers, thus eventually providing justice of recognition. Based on the three pillars considered, these three types of policies should

be adopted, and constantly approved, in order to indirectly address energy poverty until the emergence of an official energy poverty definition at the national level:

1) Income-based policies: adopting policies that incorporate social tariffs, cash benefits, discounts, etc. They would not target energy poverty directly, but categories of socially disadvantaged people that perhaps already benefit from other social programs, and many of which might also be energy poor people.
2) Energy efficiency programs and policies: adopting policies that target the standardization of housing and dwellings, offering a benefit for the improvement of energy efficiency. This is particularly useful for the energy poor population if the majority of the general population are homeowners, which is primarily the case in BiH.
3) Advice and training programs and policies: adopting policies that should be aimed at educating the general population on how to better consume and save energy, how to manage the living and working space with the usage of smart technology, thus saving on monthly bills.

These types of policies, when adopted within a system, widely include and consider various vulnerable and socially disadvantaged groups of people. They would bring benefits to the majority of the vulnerable energy consumers and include the main aspects for indirectly addressing their rights until an official recognition of energy poverty is in place at national level. Up to the time of the finalization of this research (October 2020), BiH had not yet adopted a definition on energy poverty in its legal framework, and these recommendations would be useful for the BiH policy-makers to consider. Concluding, these types of policies would contribute towards the procedural and distributive aspects of energy justice, and in time, the assumption is that the justice of recognition would follow.

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