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Energy and conflict: A case study on the role of energy in the 2022 Ukraine conflict

What role does energy play in the 2022 Ukraine conflict?

by

Felix Oberhausen Krippler

felix.ok@me.com

Little academic research has been done in the field of energy and conflict with regard to the Russian invasion of Ukraine in 2022. The aim of this thesis is to try to fill this gap by analysing the relationship of energy and conflict in this ongoing war. A further goal is to relate the findings back to the theoretical framework provided by Månsson (2014), in which the different roles that energy can play in a conflict are described. The analysis is conducted in the form of a qualitative case study of the Ukraine conflict of 2022 and will be analysed using secondary sources. The results show that energy has in fact been used as an instrument in this conflict, both in the form of deliberately stopping flows of energy resources, as well as in the form of disturbances induced by third parties. However, the findings do not show that energy was a secondary cause of the conflict. The possibility of energy being a primary cause and objective of the invasion is discussed, but further research into this will be needed in order to draw conclusions. The implication of this conflict on the energy security of Europe can be highly significant, with the conflict having the potential to reshape the geopolitics of energy and to alter Russia's position in the world.

Keywords: Conflict, Energy, Instrument, Månsson, Ukraine

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1 Introduction

The ongoing conflict in the Ukraine, which began on the 24th of February 2022, has gained international attention from governments and people around the world. It is representative of Russia's perceived rivalry with the North Atlantic Treaty Organisation (NATO) and Western Europe. Russian president Vladimir Putin reasons the brutal invasion of Ukraine as a matter of national security for Russia following the enlargement of NATO in the past decades. The war is going into the fourth month at the time of writing and it seems like no end is in sight. Apart from the incredible toll that the war takes on the people of Ukraine, it also represents an immediate threat to the energy security of Europe. Ukraine plays a pivotal role in ensuring a stable supply of energy resources for Europe, as it acts as a transit state between Russia and Europe, as well as an energy producer. More than a decade ago Ukraine joined the European Energy Community. This decision was made in an attempt to be part of a pan-European energy market that provides stability and security of energy supplies. However, as a result of the 2022 Russian invasion of Ukraine, this very market, and as such the stability of energy supplies in Europe, is now at risk. The war has the potential to reshape the geopolitics of energy and it has the potential to change Russia's position in the world. It is therefore necessary to understand the role that energy plays in this conflict, as it has the prospective to affect hundreds of millions of people around the world.

1.1 Research Problem and Aim

The research problem at hand is that publicly available investigation into the relationship between energy and conflict in the Ukraine war of 2022 has been scarce so far, with there being a gap in academic research. Although the media and news outlets report extensively about the conflict, little has been done in the academic sector. The aim of this paper is to fill the gap in academic research concerning the Ukraine conflict of 2022 and as such contributing to the field of energy and conflict studies. The intended research goal is to analyse the interplay of conflict and energy in this war and to understand what this relationship looks like, under the assumption that there even is a relationship. The intention is to relate the findings of this study back to Månsson's (2014) theoretical framework, which categorises the different roles that energy can play in the war, and to draw conclusions about the potential relationship, which could then be used in the future to better understand the role that energy played in this conflict and how this can contribute to the understanding of the energy-conflict relation in general.

1.2 Outline of the Thesis

Following the introduction, section 2 is going to focus on the theory. In this part, previous research in the fields of energy and conflict are going to be presented, as well as the theoretical

approach for this thesis. This is followed by sections 3 and 4, which are covering the methods and data used for this analysis. This will enable the reader to gain a better understanding of what will be done in the analysis. Section 5 covers the analysis, where the case study of Ukraine is going to be introduced and the findings will be discussed. This is followed by section 6, which is the final part of the study and which aims at concluding what has been done.

2 Theory

This section is going to present what has been found in the literature concerning previous research as well as laying down the theoretical framework for the paper. It will begin by discussing energy as its own topic, followed by briefly defining conflict for the purpose of this study. The main part of this section explores the relationship between energy and conflict as found in previous research. Lastly the theoretical approach intended for the analysis will be laid out and it will be explained what is entailed by it.

2.1 Energy

What is energy? Although seemingly a relatively easy to answer question, energy can take on many forms and differing meanings. In general, energy is defined by scientists as the ability to do work (EIA, 2021). There exist various forms of energy sources, including oil, coal, natural gas, nuclear (such as uranium), solar, wind, hydro, geothermal and biomass. For example, energy sources such as coal, oil and natural gas made up 85% of total primary energy in the United States in 2009 (Clemente, 2009). These types of energy are commonly referred to as primary energy and can broadly be categorised in two categories: renewable energy and non-renewable energy. Renewable energy sources can easily be replenished and include, amongst others, solar, wind and hydro. Non-renewable energy sources include, amongst others, oil, coal and natural gas. According to Ritchie (2022), energy can be measured in four ways: primary energy, secondary energy, final energy and useful energy. Primary energy is energy in the way that it is found, i.e. as resources, while secondary energy is the result of converting primary energy into a transportable form, such as electricity or liquid fuels (Ritchie, 2022). We speak of final energy when the secondary energy has been transported to the end user, for example the electricity that the consumer receives in their home (Ritchie, 2022). Lastly, useful energy is the amount of energy that is finally produced when the end user consumes it for a desired output (Ritchie, 2022). Primary and secondary energies are what is referred to in the context of this paper, when discussing energy. It is important to understand the differences in types of energies, as an unclear conceptualisation of energy can lead to confusion and misinterpretation.

2.2 Economics of energy

In economic terms, energy plays a significant role, as it is a key source of economic growth, given that energy is a basic input for many consumption and production activities (Asghar

, 2008). Energy and economic growth have a strong and deep-rooted relationship, with energy having been a critical source for the provision of food and the survival and development of societies (Cicea, Ciocoiu & Marinescu, 2021). There exists an interaction between the production/consumption of energy and Gross Domestic Product (GDP), as the economic and social development of countries is partly determined by energy (Cicea, Ciocoiu & Marinescu, 2021). The direct link between energy and GDP can come through exports and imports, consumption or investments, given that all these components of aggregate demand are affected by consumption and energy production (Sharma, 2010). As a result of this strong positive correlation between economic growth and energy, positive or negative shocks will have a similar effect on GDP, i.e. a negative shock will negatively affect GDP (Sharma, 2010). Additionally, in terms of economic development, energy can be seen as one of the most important inputs, as its use drives economic productivity and industrial growth, therefore making it crucial for the proper functioning of any modern economy (Asghar, 2008). The relationship between energy and economic development can be seen as hand in hand, with economic development rising with increased energy input per capita (Boulding, 1973). It becomes evident that energy plays a significant role in national and international markets, as it is a big source of income for companies and governments, and because changes in energy regimes can have geopolitical consequences.

2.3 Energy as a driver of transformation

Energy is one of the driving forces of economic development and, along with the accumulation of income and wealth, plays a crucial role in transforming agrarian societies into modern industrial societies (Clemente, 2009). Primary energy sources, such as coal, oil and natural gas are the very same energy sources which have allowed modern industrial societies to improve the quality of life of billions of people (Clemente, 2009). The importance of energy in our everyday lives and human transformation is undeniable, and it can be argued that energy is a part of the major building blocks of modern society (Hinrichs & Kleinbach, 2012: 1). As such, the growing availability and reliability of energy supplies has made modern society what it is today. Humans today are dependent on fossil fuels as well as solar energy, as our food supplies are entirely dependent on it (Valavanidis & Vlachogianni, 2013). It is easily observable to which extent energy affects our daily lives; we use it to heat our homes, to fuel our cars, to cook our food on stoves and much more. Life as we know it (at least in the developed world) would not be the same without having access to constant energy supplies, as we depend on them on a daily basis and because energy can dictate how we live our lives. This is one of the major reasons why it has become so important for countries and societies to focus on energy security (Özdamar, 2010).

2.4 Energy and the environment

The acquisition and usage of energy has directly affected the environment in past centuries and still plays a significant role in the degradation of the environment today (Valavanidis & Vlachogianni, 2013). Different sources of energy have different effects on the environment. According to the European Environment Agency (EEA, 2004) there are numerous ways in which energy production and consumption negatively affect the environment, including air pollution, for example from combustion engines or from the burning of fossil fuels, and water pollution, which could occur in the form of oil spills from oil tankers or pipelines that malfunction and consequently leak large amounts of oil into the environment. Policymakers today focus on how to make use of energy in greener and more sustainable ways in order to reduce greenhouse gas emissions and to limit global warming. In a response to the ongoing climate crisis, 196 parties, including the EU and most countries and regions in the world, signed the Paris Agreement in 2015, which is a legally binding treaty aiming to keep global warming well below 2 degrees Celsius compared to pre-industrial levels (United Nations Climate Change, 2015). As part of the Agreement, countries around the world are ramping up renewable energy sources and aiming at reducing greenhouse gas emissions related to energy production and consumption (IRENA, 2019). This shift of focus from fossil fuels and non-renewable energy sources towards renewable and more efficient energies will have significant impacts on geopolitics and with it potentially create or exacerbate conflicts between actors. Current events, like the war in Ukraine in 2022, have further accelerated this shift to alternative energy sources, especially but not exclusively to renewable ones.

2.5 Conflict

The term “conflict” can be interpreted as a rubber concept, meaning that one can stretch it to fit one’s purpose (Mack & Snyder, 1957). Lebow (2010) argues that for the past 350 years, interests, such as security, revenge and standing, for example a country position in the world, and material interests, such as energy resources and land for cultivation, can largely be connected to conflicts, i.e. interests of actors in the past have mainly led to conflicts or the risk of conflicts. In the context of this study, conflict is conceptualised to include violent conflicts, political disputes and social instability, based on Månsson’s (2014) work in the field. The terms ‘conflict’ and ‘war’ will be used interchangeably.

2.6 Energy and Conflict

This part of the paper serves as a literature review and aims at exploring the extent to which previous literature focuses on the relation of energy and conflict, what that connection looks like and whether one causes the other.

In his paper on “Energy, conflict and war: Towards a conceptual framework”, Månsson (2014) focuses extensively on how energy and conflict are connected to one another and also lays down a theoretical framework, which this paper is going to build upon. Although Månsson (2014)

maintains that there exists no agreement on how energy interacts with conflicts, he argues that the presence of fossil fuels and contextual conditions, i.e. economic, social and political factors, can play a part in the emergence or exacerbation of conflicts. Månsson (2014) builds on Ciută's (2010) framework and argues that energy can have different roles in conflicts. It can be used as an instrument in a conflict, sometimes even referred to or viewed as the "equivalent of nuclear weapons" (Morse & Richard, 2002), meaning that parties active in the conflict can for example use energy, or threats regarding energy, as leverage over competitors. Another role that energy can play in a conflict is that of primary cause and objective. In this case, active parties, or often the "aggressors" or initiators of the conflict are aiming at improving their own energy security by gaining access, or even control over parts of the energy system. Lastly, energy can also be a secondary cause in a conflict, where energy users and producers typically have no intention to contribute to or to exacerbate a conflict, but where the energy system has destabilised a society and therefore contributed to the conflict. This does not mean that any conflict is merely reflected by one of these different roles of energy, as some conflicts can be explained by interactions of several roles. Månsson (2014) further explores these three roles of energy in a conflict.

He finds that when energy, for example the securing of energy resources, transport routes and infrastructure, is the objective in a conflict, it relates back to several factors that have consequently contributed to the emergence of said conflict. These factors include, but are not limited to, the geographical distribution of potential energy sources, which are unevenly spread around the world (eg. Fossil fuels), the routes taken, or infrastructure used to transport energy from one place to another can at times be geographically concentrated and may have hindrances and/or holdups (Månsson, 2014), like for example the Suez Canal which was blocked for weeks in early 2021 and negatively affected the world's supply chain with disruptions (Lee & Wong, 2021). Actors may also get into conflict regarding energy as a result of the economic value that energy has and because it is an input that can create wealth and prosperity for a country and its population (Månsson, 2014). According to Månsson (2014) another distinction between conflicts can be made, one in which actors pursue and secure energy to improve security and one where actors compete with others over energy resources. In the first type of conflict, actors will try to influence global energy flows, either through political and diplomatic leverage or through military involvement, while in the second type of conflict, they may arise when actors try to sustain uninterrupted access to energy for their states and people, as the survival and prosperity of states can depend on this (Månsson, 2014). Vayrynen (1998) argues that there will be ongoing conflicts between industrial countries over the usage and distribution of natural resources, and that these countries are even more likely to be involved in resource rivalries, which can ultimately lead to further conflicts.

When energy is used as a means in a conflict, Månsson (2014) makes a further distinction and finds that suppliers can either deliberately reduce the flow of energy or that a third party disturbs the energy system. The action of deliberately reducing the flow of energy to others, or threatening to do so, is also referred to as the 'energy weapon' and it occurs when exporters take advantage of other actor's dependence or vulnerability, in order to improve their own political position and to influence policy decisions in the interest of the exporting country (Månsson, 2014). A very interesting future case study will be the retrospective analysis of the war in Ukraine, started in 2022 by the Russian invasion, and the assessment of whether the influence of Russia in the world further increased or whether the exact contrary occurs as a result of this intervention. In the case of third parties influencing the energy system, we speak about third parties issuing embargos as well as hostile action that targets strategically important infrastructure and energy systems, given that a relatively little disturbance to the flow can have disproportionately large consequences to consumers and producers (Månsson, 2014).

Lastly, Månsson (2014) focuses on energy as the cause of a conflict and finds that certain features of the energy system, for example the strains of energy on the environment, can cause or exacerbate conflicts; this is sometimes also referred to as a ‘threat multiplier’ (CNA, 2007) and ‘threat catalyst’ (CNA, 2014) kind of relationship. Månsson (2014) distinguishes between four categories of destabilisers that can cause and exacerbate conflicts or the risk of conflicts: abundance of resources, environmental strains caused by energy, reduced security of supply, and the interaction of energy and food prices. Collier and Hoeffler (2004) found two explanatory models for the abundance of resources, one based on the resource curse, often also referred to as ‘Dutch disease’ and the other one based on bad governance. According to them, states that have an unequal distribution of resource wealth are often times more likely to have weaker institutions, higher levels of inequality and corruption, and violations of human rights are more likely to occur. Colgan (2014) found that states, which have acquired much of their wealth from oil, can have the tendency to act in a more autonomous manner, engaging more in foreign politics and can ultimately have a higher risk of engaging in violent conflicts with neighbours. He also found that oil-producing states are vulnerable to the resource curse, in turn leading to corruption and an increased risk of civil wars and domestic conflicts. However, a distinction between petro-revolutionary states and states without oil must be made, as petro-revolutionary states are much more likely to cause conflicts than non-oil states (Colgan, 2014). In more general terms, Colgan (2013) argues that oil is a leading cause of war, stating that oil has been linked to between one quarter and half of all interstate wars since 1973. Similarly, Ross (2008) finds that countries that produce oil have a growing share of wars and conflicts, both within their borders and with other countries, arguing that oil wealth often causes mayhem for a country’s politics and economy. He argues that this chaos allows for an easier funding of rebellions for insurgents and that it aggravates ethnic grievances. Consequently, Månsson (2014) argues that this energy wealth allows for authoritarian political systems, in which national security objectives can be prioritised over human security and well-being. In his research, Chondrogiannos (2020) focuses on the relation between gas and geopolitical conflicts and analyses the situation regarding gas imports into Europe. He argues that as a result of the gas ambitions of countries in the Eastern Mediterranean region and Russia’s current dominance, in terms of Russia being a major supplier of gas for Europe, the risk of conflict is increasingly high. This is in part due to Turkey not recognising some of Greece’s and Cyprus’ Exclusive Economic Zones (EEZ), followed by Turkey sending out research vessels, accompanied by warships, into those zones. The issue of not recognising legitimacy of borders or exclusive zones is also addressed by Månsson (2014), who argues that conflicts, in which actors attempt at securing access to energy resources while infringing the sovereignty of others, are closely related to disputes over legitimacy. Contrary to Colgan (2014), John (2005) concludes that oil abundance per se does not cause and exacerbate conflicts, although he finds that some types of natural resources can prolong conflicts that are already underway. He bases this on his findings that factor endowments do not determine politics.

In terms of environmental strains caused by energy, Månsson (2014) finds that the extraction and use of energy can have degrading effects on the environment, and that these side-effects can affect local societies and ultimately trigger ‘ecological conflicts’ (Vayrynen, 1998). However, these side-effects are generally not enough to trigger conflicts themselves, but rather add on to other issues which then may result in conflicts between actors. If societies or individuals are unable to handle environmental degradation and change, then this could become an issue which could trigger unrest and conflicts (Adger, 2006). Rønnfeldt (1997) reviewed the literature concerning the relation between the environment and security and found that there are three generations that research this connection, with the second generation focusing largely on

the relation between renewable resource scarcities and violent conflicts. He writes that, based on Homer-Dixon's (1991) previous research, scarcity of renewable resources can induce instability and conflicts under certain circumstances and that this environmental scarcity is instigated by the exhaustion and degradation of renewable resources. Rønnfeldt (1997) highlights that scarcity of renewable resources is rarely the only cause of conflicts, but much rather that it adds onto other issues, such as political, economic and social. This segment is of importance for this paper, as the findings may indicate what may happen now that there is an increasing search for and use of renewable energy resources, and how conflicts and environmental scarcity are intertwined with one another. Disruptions to or reduced security of supply can destabilise a society if persons or society as one is struggling to adapt to spontaneous reductions in said supply (Månsson, 2014). Such reductions in the supply of energy can raise the prices of the energy resource, consequently meaning that individuals now have to spend a larger amount of their disposable income on energy or energy services. Given that the macroeconomy is more negatively affected by sudden price spikes than by a gradual increase in the cost of energy (Månsson, 2014), this could ultimately result in an economic depression which in turn could initiate or exacerbate civil unrest (Gurr, 1970).

The issue of people having to spend a higher proportion of their income on energy goes hand in hand with the fourth and final category: the interaction of energy and food prices. Not every member of society is able to adapt to changing energy prices as easily as another, and low-income groups are the ones suffering the most from sudden price spikes, as this directly reduces the money that is available to them to spend on food and other necessities. Energy and food prices move in tandem (Månsson, 2014), but their relationship is a bit more complex than just that. Energy is not only needed as an input for agriculture, but it is also connected to demand factors, such as the demand for biofuels (Månsson, 2014), which consequently means that if more biofuels are demanded, more agricultural space will be used to produce biofuels instead of food, and this will ultimately increase the price of foods, as there now is less supply and an ever-growing demand. Evans (2011) also argues that the diversion of crops to biofuels was one of the main drivers of the rise in food prices for the 2008 food/fuel price spike. Baffes and Dennis (2013) found that food commodity prices responded strongly to energy prices, with crude oil prices being the most significant and Mitchell (2008) found that the production of biofuels is one of the main drivers of food prices. These increases in food prices can at times be directly or indirectly linked to energy and can lead to social unrest and conflict if people are unable to afford food and mere necessities for their survival. More generally, conflicts can occur or be explained by several of these categories and interactions between them (Månsson, 2014).

Correljé and Linde (2006) provide an important insight into the relation between energy supply security and geopolitics, displaying this in a European perspective. Their paper lays emphasis on the importance of energy policy and energy security needing to become part of the European Union's (EU) security policy, arguing that securing energy supplies is one of the vital features of energy policy. They (Correljé & Linde, 2006) argue that doing so is crucial for the future, as the EU, which in itself is a large consuming area of energy services, will become more and more dependent on gas and oil supplies from Russia, the Persian Gulf and the Caspian Sea region (BP, 2004). Correljé and Linde (2006) broadly follow two storylines concerning the supply of oil and gas into the EU: 'Markets and Institutions', which essentially represents an integrated world, in terms of economies and politics, with effective institutions, and 'Regions and Empires', in which the world is broken up and in which actors compete over resources and markets with each other. In the former storyline, conflicts relating to energy are much less likely to appear, given that countries and economic blocks will be deeply integrated, cooperating among each other, as well as sustaining a constant development of the multilateral system

governing international relations. It should be noted that this storyline follows an optimistic ideology and Correljé and Linde (2006) also concluded that, at the time of writing, this would be a best-case scenario for the EU. The 'Regions and Empires' storyline on the other hand is rather less optimistic. Here countries and regions divide the world into competing EU, US Russian and Asian spheres, based on ideologies and politics. As a result of this division and the subsequent security concerns and conflicts, international economic integration is much less likely to occur. Correljé and Linde (2006) argue that in the 'Regions and Empires' storyline, consumer countries will fuel conflicts as a result of the competition for scarce resources, and that this ultimately heightens the risk of producer countries and regions falling into chaos. Correljé and Linde (2006) identify two main disruptions to energy security. The first category includes sudden disruptions, which can be caused by military conflicts, countries or actors following a political decision to stop the flow of oil into the market, or merely due to operational and technical issues. The other category covers slowly emerging supply gaps, which can be caused by lagging investments into production and infrastructure (Correljé & Linde, 2006). This is a good example to show how and to what extent conflicts, i.e. a sudden disruption, can impact oil and gas supplies. Correljé and Linde (2006) argue that in the case of disruptions that are experienced by one of OPEC's (The Organization of the Petroleum Exporting Countries) major suppliers, not necessarily sudden disruptions, that this can ultimately result in military interventions in order to assure access to oil production. They (Correljé & Linde, 2006) conclude by highlighting the importance of a good energy policy for the EU, one that is capable of securing public services and that can maintain good market conditions, because this can then be used to respond or to prevent disruptions caused by conflicts.

Similarly, Özdamar (2010) stresses the importance of securing energy resources; this is especially important for modern militaries. Hancher and Janssen (2004) define energy security as the situation in which a country and all (or most) of its people and industries are able to access adequate energy resources at affordable prices for the foreseeable future, without having to worry about serious risks coming from disruptions of this service. Such disruptions, or energy insecurity, may arise, among others, from geopolitical instability, terrorism and natural disasters (Redgwell, 2004). He argues that this concern for energy security began with the Arab-Israel war of 1973-1974 and OPEC's use of the 'oil weapon' (Özdamar, 2010). The 'oil weapon' is a term used to describe the action of cutting back oil production and imposing an embargo and is generally referred to when discussing the Arab-Israel war (Licklider, 1988). In this example, the 'oil weapon' was used for political motives regarding Israel and concerned territories (Licklider, 1988). Energy security became a big concern again in 1991, when the Soviet Union collapsed and the now independent ex-Soviet countries had emerged (Özdamar, 2010). Özdamar (2010) shows that Malthus (1798) already argued more than two centuries ago that conflicts over natural resources will come about as a result of population growth and environmental degradation. Similarly, Mandel (1988) indicates that non-violent conflicts will also become more frequent as a result of global resource scarcity, fossil fuels being among resources. Although Russett (1981-2) was wrong about his assumptions that resources will cause confrontations of great powers in the 1980's, conflicts and rivalry did occur in the new millennium because of increased energy demand. Campbell's (1977) study on the Middle East in the 1970's and the occurring changes of power between oil producers and consumers, found that the relations between Iran and Saudi Arabia, and the Western industrialized world changed, resulting in a shift of power towards the producing countries, ultimately changing the geopolitics of these oil producing countries. Kemp (1978) offers a different perspective to Campbell (1977), looking at the energy security and foreign policy relationship through the lens of military intervention. Here, Kemp (1978: 413) identifies three types of military intervention: Military conflict to control, destroy or protect a given resource, military deployments to areas

believed to potentially be resource rich and lastly military conflicts that are affecting access routes leading towards or coming from sources of supply. In all these cases, the resources that may lead to said conflicts can be energy resources (Özdamar, 2010). Similarly to Månsson (2014), he (Kemp, 1978) also makes the distinction between resources, for example oil, being the primary or secondary cause of the conflict. Özdamar (2010) also presents Kalicki and Goldwyn's (2005: 570) theoretical framework in which they find a "positive relationship among energy, foreign policy and national security". The main aspects of the relationship that Kalicki and Goldwyn (2005) describe are protection against disruptions of supply, energy as a means of overcoming conflict and stimulating development, energy as a means of fostering foreign policies, and lastly strategic reserves used to protect domestic demand from disruptions (Özdamar, 2010). Their (Kalicki & Goldwyn, 2005) overall argument is that energy policy should become part of the US foreign policy, given that energy's importance in achieving other objectives, such as economic and humanitarian objectives, is ever growing.

The analysis of this paper is based on Månsson's (2014) framework. More specifically, the research goal is to analyse whether Månsson's (2014) theory about the role of energy in a conflict can be applied in practice in the case study of the Ukraine conflict of 2022. The focus is put on the three links between energy and conflict that Månsson (2014) has found: energy as a primary cause and objective in a conflict, energy as an instrument in a conflict, and energy as a secondary cause of a conflict. The aim is to relate the findings back to the three roles that energy can have, as according to Månsson (2014).

3 Methods

This section focuses on the method of choice for this research. The qualitative approach was deemed as the most appropriate way of conducting the research. Furthermore, the case study of the Russian invasion of Ukraine in 2022 was selected to facilitate the analysis.

3.1 Research Design

This study is of a qualitative kind. The decision to do so is based on the research goal, which aims at exploring the role that energy plays in the currently (2022) active Russian invasion of Ukraine. The qualitative approach was deemed as the most appropriate and best possible method for answering this research topic. A qualitative study provides the researcher with an opportunity to go much more into depth than would be possible in a quantitative study, and it focuses more on the nature of the research issue at hand, rather than trying to find statistical generalisations (Baskarada, 2013). Furthermore, a qualitative study is often of an exploratory kind and explores both sides of a discussion or argument. Unlike quantitative methods, which mainly focus on whether a statistically significant connection exists between variables, a qualitative study focuses more on the ‘why’ and what’s behind those connections. Additionally, the qualitative approach enables the researcher to discuss different and far-reaching issues in an easier and more investigative fashion. It allows researchers to understand and interpret their observations (Jackson, 2009). Another reason for the decision of choosing the qualitative approach is that, as the analysed conflict is still ongoing and evolving, not enough data exists to draw clear conclusions and to make statistically significant findings. At least not to the extent to which the qualitative method allows researchers to do. In the qualitative approach, data is collected continuously, and although this is seen as a weakness of this method by many, it actually strengthens the reliability of this study (Jackson, 2009). It allows the researcher to continuously update the study on newest findings and information, which is crucial when it comes to an ongoing conflict such as the current Russian invasion of Ukraine. A further advantage of the qualitative research method is that it explores many different sources, instead of relying on a single source (Creswell, 2014). If the study was done quantitatively, the results would have merely shown whether there exists a statistically significant correlation between energy and conflict, but by approaching the study in a qualitative way, it was possible to analyse what this relationship looks like and what is really behind it. It is worth noting that researchers that are following the quantitative path often use similar methodologies as those who analyse qualitatively, and that the main difference between the two lies in the intent of the study (Jackson, 2009). In addition to this, qualitative researchers often have no intention to manipulate causal variables (Jackson, 2009). For these reasons it was deemed appropriate that this study is going to be conducted in a qualitative manner, rather than in a quantitative manner.

The research method of choice for this analysis is the case study. Its advantage lies in the fact that it focuses on a single case, rather than a broad spectrum of cases, which can be intensively examined (Halperin & Heath, 2020). As in this case, case studies in general address theory and issues which have ampler intellectual relevance and also use concepts that one can apply to other contexts (Halperin & Heath, 2020). Case study research allows the researcher to gain a deep holistic view of the issue at hand and can enable for a better understanding and explaining of a research problem (Baskarada, 2013). For the context of this study, the case study of Ukraine allows for the implementation of Månsson's (2014) framework in a real-life example, and can be used to find strengths and weaknesses, based on what is happening in the current conflict in Ukraine, in his theory. Contrary to common belief that a case study is a soft research method, it is in fact difficult to execute it well in practice, and it can contribute greatly with its results and findings (Baskarada, 2013).

3.2 Case Selection

The ongoing conflict in Ukraine was chosen as the case study for this research for a number of reasons. First, Ukraine is a very interesting case for the research of conflict and energy, as its geographic location between Europe's West and Russia and its role as a transit country for energy flows between the two regions make it a crucial and active player in the energy security of Europe. Given that Ukraine is the country that transits the most natural gas in the world (IEA, 2020), a conflict within its borders will have far reaching consequences for many countries and regions around the world. This conflict is about more than just Russia and Ukraine; it has massive implications on the rest of the world, and it has the potential to reshape Russia's geopolitical position in the world. The fact that the fate of Europe's energy security partly rests on the outcome of this conflict makes it an even more interesting and significant case study. The interconnectedness of energy and conflict in the Ukraine war provides the researcher with an opportunity to analyse how the theoretical plays out in practice. Second, as it is a current and relatively new conflict, which has been going on for nearly three months at the time of writing, it has not largely been researched by others and therefore contributes to the academic field of conflict and energy studies. It is worth noting that while Ukraine and Russia have previously been involved in conflicts, for example in 2014 when Russia made territorial claims for Crimea and subsequently invaded the peninsula, the focus of this analysis is on the very recent Russian invasion of Ukraine in 2022. While other conflicts could have been used as the case for this study, they have often already been extensively explored and written about. Ukraine served as a new and especially interesting case.

4 Data

Given the scope of the study and the fact that the conflict which this study analyses is still ongoing, the use of predominantly qualitative secondary data was deemed the most appropriate and the most reasonable. As such, news articles, reports, official press releases and statements, research papers and official statements were used throughout the study. The sources vary greatly and include, but are not limited to: Aljazeera, Harvard International Review, the World Bank, the Australian Government Department of Defense, the BBC, Business Insider, the New York Times, Foreign Affairs, Investigative Europe, The Journal of Energy and Development, Energy Research & Social Science, Oxford Economic Papers, Economics Observatory, The Atlantic, the European Council, the IEA, The Journal of Development Studies, the World Economic Forum, The Wall Street Journal, Reuters, NATO, MIT Technology Review, The Guardian, Journal of Peace Research, the Financial Times and the United Nations.

It becomes evident that a wide range of relevant secondary sources have been used. This was done for a few reasons. First, when using a wide range of sources, the bias that some individual sources have gets reduced, if not eliminated. Doing so allows the researcher to gather and analyse a great number of opinions and views, helping to reduce bias and to improve the overall reliability of the research. Second, due to the analysed conflict still being fairly new and because it is still ongoing, little has been written about it academically. In addition to this, given the conflict's active nature, information is being updated daily as the conflict evolves. Furthermore, importance was laid on using appropriate, reliable and well-known sources in an attempt to reduce the bias that some secondary sources could create. The secondary sources used in this study include many reporters and investigative journalists who are in the heart of the conflict and who are collecting their data first hand. While it is impossible to eliminate bias from secondary sources completely and to guarantee that no source is unbiased, it was attempted to reduce it as much as possible by fact checking findings and comparing them to other sources, in order to use the most neutral sources possible. Where official statements and press releases were used, they were indicated as such, to give the reader the opportunity to make up their mind about the reliability and validity of these sources. The strength of the selected sources lays in its width and far reach, which allows for a less biased and more reliable result. However, it must be clarified that bias could not be eliminated to its entirety. The data found and used for this study is representative for this case study and focuses on the Russian invasion of Ukraine in 2022. The data chosen is relevant for the purpose of this study and is used to support the findings of this analysis. They are therefore deemed valid. Given the nature of the study, predominantly up to date sources were used in order to ensure relevance.

Although the wide array of different sources improves the reliability, a possible limitation of this study may still be found in the reliability of certain sources, which may either be biased due to the political orientation of the agency, or as some of the sources include official institutions which have their own agenda.

5 Case Study: Ukraine

This part of the paper analyses the Russian invasion of Ukraine in 2022 using the framework stipulated by Månsson (2014). It analyses the role and the significance of energy in this conflict and more specifically what this role looks like. The focus of this case study is to find whether, and to which extent, energy is used as an instrument in this conflict, and what the implications entail.

5.1 Country profile for Ukraine

5.1.1 Economy

Ukraine, the second largest country in Europe by area, plays a significant role in Europe's energy distribution and supply, as it is the country that transits the most natural gas in the world, but also because of its near proximity to Russia, which is one of the major gas suppliers of Europe (IEA, 2020). Owing to its large population and its high energy demand, Ukraine is one of the largest energy markets in Europe (IEA, 2020). The country is also rich in mineral resources, being home to the second largest, after Norway, known gas reserves in Europe, with an estimated one trillion cubic meters of natural gas (Katser-Buchkovska, 2017), as well as having large oil reserves and storage facilities (Amelin, Prokip & Umland, 2020). However, a lot of these reserves are underexplored and underused to this day (Amelin, Prokip & Umland, 2020). In 2020 Ukraine had a population of over 44 million people (World Bank, 2020a), but it has declined from over 52 million in 1993 (World Bank, 2020a) as people are emigrating due to, among other reasons, poverty and the hopes of a better future elsewhere, low living standards and due to the fact that mortality rates are exceeding birth rates in the country (Edwards, 2020). It is very likely that Ukraine's population will further decrease this year as a result of the ongoing conflict, and estimates suggest that nearly 12.8 million people have already been displaced, both internally and externally, since the begin of the conflict (United Nations, 2022).

In the years following 2000 up to 2007, the country witnessed a long period of strong economic growth, mainly due to low gas prices and a resilient national currency, the hryvnia (IEA, 2020). Following the national currency's devaluation in 2014, Ukraine witnessed a falling GDP per capita, which has been slowly recovering since 2016 (World Bank, 2020b). In 2020, Ukraine imported goods and services worth 54 billion US Dollars (USD) and exported goods and services worth 49 billion USD (Conte, 2022). Its major trading partners in 2020 were China, Germany, Poland and Russia, with cereals, iron, steel and animal- and vegetable oils being the top exports (Conte, 2022). Ukraine heavily depends on foreign fuels and imported up to 85% of its total petroleum products consumption (Konończuk, 2017). The country is exposed to

foreign markets and changes in energy supply, access to export markets and price trends, among others, can have significant impacts on Ukraine's economy (IEA, 2020).

5.1.2 Energy profile and policy

In terms of energy resources, Ukraine is still heavily reliant on imports of natural gas and oil products (IEA, 2020), partly since its vast mineral resources are underexplored (Amelin, Prokip & Umland, 2020). Nonetheless Ukraine plays an important role in Europe's energy trade. In 2010, Ukraine decided to join the European Energy Community, which is an organisation that unites the EU with its neighbouring countries to set up a united pan-European energy market (Energy Community, 2021). The Community's overarching goal is to provide security of energy supplies for its members. In a speech held in 2015, Šefčovič (2015), former Vice-President of the Energy Union, stated that Ukraine's integration into the Energy Community allowed for the expansion of a competitive and strongly interconnected energy market, as well as for a transition away from Ukraine's inherited Soviet model of energy markets. The benefits of Ukraine joining this community are evident, as by 2015, 4 years after joining, the country had already increased its energy imports from the EU by more than fourfold, reducing its dependence on countries like Russia (Šefčovič, 2015). The importance of Ukraine for Europe's gas supply can easily be understood, as almost 15 European countries receive their gas through pipelines that are coming from Russia and going through the Ukraine (Katser-Buchkovska, 2017). Prior to 2022, Ukraine was seen as a reliable partner for the gas transportation into Europe, as well as being home to one of the world's most powerful gas transmission systems and to 12 gas storage facilities (Katser-Buchkovska, 2017). Furthermore, Ukraine's integration of energy resources into the EU's energy market is pivotal for the region's energy stability (Katser-Buchkovska, 2017).

5.1.3 Geopolitics and war

Currently however, Ukraine is engaged in a conflict with Russia, following the Russian invasion of Ukraine on February 24th, 2022. This is not the first altercation between the two countries, as Russia had previously annexed the Crimean Peninsula in 2014, which at that point in time was a south Ukrainian region. This was described by some as one of the gravest European crises since the end of the Cold War (Mankoff, 2014). Estimates suggest that the Russian invasion could become Europe's biggest refugee crisis since the second World War (Pita & Costa, 2022). More than 3700 people, among them 251 children, have already been killed and more than 4100 people have been injured as a result of this war (Statista, 2022). Some argue that the initial goal of Russian President Vladimir Putin was to depose of Ukraine's government in order to end the country's ambition to join the North Atlantic Treaty Organization (NATO) (Kirby, 2022). It is especially important for Putin to hinder Ukraine from joining NATO, as he sees NATO's expansion in the past years as an existential threat and a personal insult (Bender, 2015). In 2014, President Putin also signed a new military doctrine that made NATO out to be Russia's number one enemy (Bender, 2015). Others argue that the Russian invasion can partly be traced back to Putin's belief that Ukraine culturally and historically is a part of Russia and that it is his right to take it back into Russia's sphere of influence (Bilefsky, Pérez-Peña & Nagourney, 2022). Fear of a Russian invasion was growing back in 2021 when Russia started a large-scale military build-up near Ukraine's eastern border

(European Council, 2022). Putin recognised the non-government controlled areas of the Donetsk and Luhansk region in eastern Ukraine as independent and consequently ordered Russian troops into Ukraine to take control of these areas on the 21st of February 2022 (European Council, 2022).

Countries and entities around the world have responded to the Russian invasion of Ukraine in a number of ways. In response to Russia's invasion, nearly 1000 Western businesses have either reduced their operations within Russia or have left the country entirely (Reuters, 2022). By the time of writing, the EU has adopted a fifth package of sanctions against Russia, in which, among other sanctions, the EU bans the imports of Russian coal and other solid fossil fuels, it denies access to EU ports for all Russian vessels, and it bans the export of jet fuels and other goods to Russia, as well as sanctions against individuals and entities affiliated with Russia (European Council, 2022). The EU is also currently preparing a sixth sanctions package against Russia (Rankin, 2022). Now is also a time for Europe and countries around the world to reduce their dependence on Russia as a strategic energy trading partner, as Russia has had a somewhat tight control over them in the past. On the 8th of March 2022, the European Commission proposed an outline of a strategy that aims at reducing its dependence from Russia for fossil fuels, with the goal being to make Europe independent from it well before 2030 (European Commission, 2022). NATO has condemned the invasion in the 'strongest possible terms' and has demanded an immediate withdrawal of troops (NATO, 2022). The United States (US) and President Joe Biden condemn the invasion and have since made up to \$3.9 billion available to Ukraine in the form of military assistance (Blinken, 2022). Additionally, the US provides \$13.6 billion for humanitarian, security and economic assistance to Ukraine (Congressional Research Service, 2022). The US have also imposed sanctions on Russia, fully blocking Nord Stream 2 AG, which is a parent company for a project that connected Russia and Germany with a natural gas pipeline, suspending normal trade relations with Russia and Belarus, and banning the import of, among others, Russian crude oil, petroleum products and liquified natural gas (Congressional Research Service, 2022). The effects of the sanctions imposed by many Western and pro-Western countries will be felt by many in Russia and its neighbouring countries, with estimates suggesting that Russia's GDP will drop by 11% by the end of the year, inflation will rise up to 22% and exports will drop by 31% (Cygan, Disney & Szyszczak, 2022). A more long-term consequence of the economic suffering could be a potential brain drain of Russians, as the ties with the West are currently being broken and younger people may prefer moving to the West (Cygan, Disney & Szyszczak, 2022).

In a response to the sanctions imposed on Russia and Russian entities, President Putin demanded that companies, based in countries which have enforced sanctions, pay their energy bills in roubles, the Russian national currency, instead of in euros or US dollars (Reuters, 2022). This however became an issue for energy companies, as part of the EU sanctions were targeting the Russian central bank and did not allow for any transaction with it, which ultimately led to Poland and Bulgaria being cut off by Russia, as they were unable to, or refusing to pay their bills in roubles (Reuters, 2022). Russia has also imposed their own sanctions on what Putin refers to as 'unfriendly countries'. Among those sanctions is a ban on European and US aircrafts entering Russian airspace, an export ban on several hundred Russian products and investment bans (Reuters, 2022). It is noteworthy that Russia's export revenues of oil and natural gas make up 45% of its federal budget (IEA, 2022), showing that blocking imports of Russian oil and gas can have severe economic consequences for the state. Furthermore, Russia is also the largest exporter of gas worldwide and it even has the largest gas reserves (IEA, 2022).

5.1.4 The invasion's impact on energy

The Russian invasion of Ukraine has stirred up energy markets and the geopolitics of energy and it has substantial consequences for the European energy market (Tollefson, 2022). This conflict had driven up oil and gas prices to levels that have not been seen in nearly a decade (Tollefson, 2022). According to the International Energy Agency (IEA, 2022), member countries have on two occasions released oil from emergency reserves in order to support the market and the pressure that it is facing, as well as to send a message that supply will not fall short. The conflict has only worsened conditions that were already bad due to the Covid-19 pandemic, i.e. demand for energy and food already exceeded supply during the pandemic, consequently driving up prices, and the conflict in Ukraine is going to make these conditions even worse (Benton, Froggatt, Wellesley, Grafham, King, Morisetti, Nixey and Schröder, 2022). This can pose immediate threats to human society, especially to people in the vulnerable and low-income category (Benton et al. 2022). In an attempt to reduce the impact of rising energy prices, the European Commission (2022) has proposed an outline of a plan in which they would seek to diversify gas supplies as well as accelerating the roll-out of renewable gases. Ukraine is an important country and a significant actor with regards to energy, since it plays a crucial role in supplying Europe with Russian energy.

Reports have shown that the war also provides countries, that are currently dependent on Russian fossil fuels, with an opportunity to accelerate their transition to green energy. Germany's finance minister Christian Lindner said that renewable energy should be considered as the 'energy of freedom', as it eliminates, or at least significantly reduces the dependency on other countries (Hook & Hume, 2022). Reducing energy dependency on Russia through this would go hand in hand with the pledge made at the COP26 climate summit in Glasgow in 2021, in which governments pledged to achieve net zero emissions (Hook & Hume, 2022).

5.2 Energy as an instrument in the 2022 Ukraine conflict

5.2.1 Energy as a means in a conflict

As outlined in the section covering the theoretical framework, Månsson (2014) distinguishes between three roles that energy can play in a conflict: energy as a primary cause of and an objective in a conflict, energy as a secondary cause of a conflict and energy as an instrument in a conflict. This study focuses on the third category where energy is used as an instrument or a means in a conflict; using this to analyse the role that energy plays in the Russian invasion of Ukraine in 2022. Here Månsson (2014) specifies that energy can be used as a political leverage in order to damage other parties involved in the conflict, for example to disrupt their energy security or national security. He (Månsson, 2014) also argues that energy can be used to achieve other goals that have nothing to do with energy per se. As stated in the theory section, Månsson (2014) further distinguishes this by conceptualizing two subcategories: the act of suppliers or user deliberately reducing the flow, and disturbances that are produced by third actors. In the context of this study and the Ukraine conflict, both categories can be displayed and analysed.

5.2.2 Deliberate decreases in the flow of energy

Although Russia is the EU's main supplier of energy, the EU has proposed a ban on oil imports from Russia as a result of the violent invasion of Ukraine (Chappell, 2022). This move to cut itself off from Russian oil has several implications. The ban would allow the EU to reduce or end its dependence on Russian energy altogether, but it would also serve as political leverage over Russia. This would be a very significant move, as Russia has used energy and threats of cutting supplies as political leverage over European countries in the past. This can be seen in the example of Russia cutting its supply of gas to Poland and Bulgaria during the current conflict in Ukraine (Reuters, 2022). The decision to stop supplying these two countries with natural gas comes as a response to sanctions imposed by the EU and other countries. This visualizes how Russia, and more specifically Putin, uses natural gas as a political leverage in this conflict. Rapoza (2022) describes this as a 'political weapon'. Weeks after Russia's decision to stop the flow of gas to Poland and Bulgaria, Russia has halted the flow of gas to Finland as well, following Finland's refusal to pay for the gas in roubles (Aljazeera, 2022). Finland is in the same position as Poland and Bulgaria, where Russia demands it to pay in roubles, but EU sanctions do not allow for any transactions with Russian banks. While gas coming from Russia accounts for the majority of Finnish gas imports, it is unlikely that the disruption is going to have large negative effects on Finland, as gas only makes up 5% of its annual energy consumption and because the country is connected to the Estonian gas system via a pipeline and because the government has been preparing for this scenario in the weeks prior to it (Aljazeera, 2022). This halt in the supply of gas to Finland comes days after the country announced that it, together with Sweden, will apply to become a member of NATO. Given President Putin's distrust and detestation of NATO and its expansion in Europe, this move can very well also be seen a retaliation for Finland's decision to join 'Russia's number one enemy'. US Energy Secretary Jennifer Granholm has described the actions taken by Russia as 'weaponizing energy' (Egan, 2022). She further argued that this is another reason why countries should move forward in their transition to green energy sources, as this would reduce or even eliminate dependency, but also because energy could then not be weaponized anymore (Egan, 2022).

Similarly, the EU's decision to potentially stop all imports of Russian gas and oil can also be seen as a political weapon, with the essential goal of these sanctions being the end of the invasion of Ukraine. The consequences of a European import ban of energy resources from Russia will by no doubt disrupt the Russian economy. The effects of the implemented sanctions can already now be witnessed, with the exchange rate of the Russian rouble considerably increasing and Russia having less opportunities to access and utilize its gold and foreign currency reserves (Rosalsky, 2022). Even Russia's head of the central bank, Elvira Nabiullina, acknowledged that these sanctions may lead Russia into a disastrous recession (Rosalsky, 2022). By using energy as an instrument in this conflict, the EU is using non-violent means to put pressure on Russia's leadership. At the same time, the US is banning all Russian gas and oil imports, while the UK has planned to phase out all oil imports from Russia by the end of 2022 (BBC, 2022).

These are merely a few examples of how a deliberate reduction or a decision, such as sanctions, that leads to a reduction or halt of energy flows is being used in the Ukraine conflict. It shows how Russia is using their control over energy resources and energy flows to achieve other, political, objectives, while Europe and other actors are following their agenda by imposing sanctions against Russian energy imports. Here, energy is used as an instrument to achieve other objectives that are not necessarily related to energy.

5.2.3 Disturbances induced by third actors

In his framework, Månsson (2014) also touches upon the issue of virtual attacks on software systems which are increasingly important to control and maintain a stable energy sector. Included in the types of attacks are cyber-attacks, in which hackers attempt to either take over a computer network or system, or where they intend to cause damage or destruction of such systems. Cyber-attacks which are targeting energy facilities and infrastructure are believed to be one of the most aggressive types of cyber-attacks that a government may make use of (Collier, 2022). This has become an increasing issue in the world of technology and in the energy sector more specifically, as there now exists an increased reliance on computer systems to regulate and measure flows of energy resources (Månsson, 2022). Such cyber-attacks can have detrimental effects on the supply chain and can cause operational complications (Jaffe & Nephew, 2022). In the past, Russia has been known to conduct cyber-attacks, like for example in the US presidential race back in 2016, where hackers attempted to interfere in the voting of the president elects (O'Neill, 2020). It is therefore little surprising that Russian hackers are now again trying to target energy systems as a result of Russia's invasion. Evidence has been found that Russian hackers have been scanning through energy companies and US energy systems in order to find out more information concerning a company's defences and to find an entry point from which to launch cyber-attacks (Lynch, 2022). This poses a real threat to US national security and to the infrastructure surrounding the energy systems in the US (Lynch, 2022). These hacks and attempted hacks had already begun weeks before Russia's invasion on the 24th of February 2022, with US security firms identifying attempts of Russian hackers to launch cyber-attacks into several big US based natural gas suppliers and exporters (Jaffe & Nephew, 2022). The US energy market and infrastructure is currently a very attractive target for cyber-attacks, especially those being launched out of Russia, as Russia could reap great benefits from a disruption of US energy supply (Jaffe & Nephew, 2022). Additionally, through its support of Ukraine in the current conflict, the US has made itself even more of a target for Russian retaliatory cyber-attacks.

The US however are not the only country targeted and affected by Russian cyber-attacks, which have emerged and escalated as a consequence of the Ukraine conflict. Ukraine has also become a target for Russian cyber-attacks that could assist and support the Russian military operations on the ground. In April of 2022, the Ukrainian government reported that it had managed to stop a Russian cyber-attack which aimed at destroying software systems at a Ukraine based energy company (O'Neill, 2022). If the attack would have been successful, it would have led to the largest cyber induced blackout in history, leaving roughly 2 million people without access to energy sources and as such aid Russian military operations in the eastern parts of the country (O'Neill, 2022). A couple of weeks prior to this failed attack, Russian hackers were able to temporarily shut down several electric substations in a Ukrainian power company (O'Neill, 2022). The attack, which only came days after Ukraine had joined the power grid of Europe in a move to reduce its dependence on Russian energy, can be interpreted as a retaliation act by Russia (O'Neill, 2022). Such cyber-attacks that are targeting energy facilities and infrastructure can have great potential for the attackers in times of conflict, as the response to it by the victims can take longer if the affected infrastructure is in the midst of a region in which the conflict is occurring. This can both buy time for the attacker, in this case Russia, but at the same time it can also be used as an advantage in terms of it being strategically synchronized with military operations on the ground. In retaliation to the increased cyber-attacks by Russia-backed hackers, a horde of pro-Ukrainian hackers have started to infiltrate Russian and Belarusian systems, ranging from state television to Russian based companies (Srivastava, 2022). Among

those hacked by pro-Ukrainian hackers are a Russia based company that operates oil pipelines, as well as a Belarusian power supplier (Srivastava, 2022). Although in this case it is noteworthy that the hacks were not aimed at destroying infrastructure or stopping the flow of energies, but that the attacks leaked hundreds of millions of documents of the affected companies and targets (Srivastava, 2022). The EU is currently working on imposing an oil embargo against Russia as part of their sixth sanctions packet, but no concrete sanctions have yet been implemented. A reason for the slow progression of concrete sanctions is Hungary and the demands that they are making. While the majority of EU countries is agreeing on an oil embargo against Russia, Hungary is stalling these negotiations, arguing that the sanctions will negatively affect their national energy security (Rankin, 2022). In response to this, the EU has offered Hungary a prolongation of the phasing out of Russian crude oil until 2024, but the issue that remains is of financial nature, with estimates suggesting that a complete modernization of the national energy infrastructure would cost up to 18 billion euros (Rankin, 2022). Their actions are being referred to as ‘holding the EU hostage’ in order to improve their standpoint and to gain economically in this time of insecurity (Rankin, 2022).

5.3 Discussion

It becomes evident that energy plays a significant role in this conflict. Although it is neither the primary nor the secondary cause of the conflict, it is being used as an instrument by both sides to achieve their respective goals. Russia is using its powerful position of being a major energy supplier for Europe to its advantage. Russia unilaterally changed the terms of their contracts with energy companies in Europe following the sanctions imposed by the EU and consequently makes good on its promise that the supply of gas will be shut down if the gas payments are not made in the Russian currency. The ability of Russia to threaten and to actually implement these threats by deliberately stopping the supply of energy resources puts them in a strong position and gives them political leverage over European nations which have been dependent on Russia in the past. At the same time Europe seems united, in terms of condoning the Russian invasion and calling for an end of the conflict, and confident that they can and should sanction Russia. At the same time, this conflict is also a big opportunity for Europe to reduce or to completely end its dependence on Russian energy imports. However, the fact that the EU has so far still not imposed concrete sanctions, rather than proposals on sanctions on Russian oil and gas, is due to the fact that such sanction will hurt Europe too and will shake up the European energy market (Vakulenko, 2022). A reason for this delay in concrete sanctions can be attributed to European leaders wanting to make sure that the impact of these sanctions on Russia will be maximized, while trying to keep their impact on the European market to a minimum, as well as Hungary’s demands towards the EU. The events that have transpired and that have been included in this paper support Månsson’s (2014) theoretical framework on how energy can be used as an instrument in a conflict.

As discussed in section 2.1 of this paper, Månsson (2014) argues that the presence of energy resources, such as oil and gas, and contextual conditions can play a part in the emergence and exacerbation of conflicts, though he acknowledges that no agreement exists on how energy and conflict are related. The analysis of the relationship between energy and conflict in the Ukraine conflict of 2022 demonstrates what this relationship can de facto look like. Though it is specific

to this conflict, the case study of Ukraine relates a practical interplay of energy and conflict back to the literature, confirming Månsson's (2014) hypothesis that energy can be used as an instrument in a conflict in different ways, and that energy can play a significant role in the progression of a conflict. While this analysis provides evidence that energy is being used as an instrument in this conflict, it does not show whether this was intended from the beginning on or whether this evolved over the course of the war.

While it may seem apparent that energy is being used as an instrument in this conflict, it doesn't rule out that energy could also be a primary cause and objective of the conflict. It may be possible that the role of energy evolves from one of Månsson's (2014) categories, concerning the role of energy in a conflict, to another. Some also argue that the conflict is going to turn into an 'energy heist', as Russia stands to gain a lot of political leverage over the West, given the West's dependence on Russian energy, if Russia manages to integrate the Ukrainian energy system into the Russian system (Legg, 2022). Legg (2022) argues that under the surface of the war, Putin is taking control of Ukraine's immense and precious energy resources and assets. Reasons that suggest that this may turn into an energy heist include Russian national interests, Putin's geopolitical power following a successful takeover of Ukrainian energy systems, and because Russian military operations were focused and intensified in regions of vast energy resource wealth (Legg, 2022). If this does turn out to be the case, one could then argue that this conflict also falls into the first category of roles that energy could play in a conflict, based on Månsson's (2014) work. In this category, energy is the primary cause or objective in a conflict. This is however fairly speculative and can only be confirmed or refuted once the conflict has come to an end, or when more is known about Putin's true intentions in this war.

The findings of the analysis invite another interesting discussion concerning the Russian-Ukrainian relationship. While there has been tension and conflict between these two countries in the past and Russian territorial claims to Crimea and Ukraine are not new, the invasion may have been triggered by new Russian interests. Russia's interest in especially resource rich parts of Ukraine could be traced back to a changing role of energy in the world, or even to changes in energy systems. Although this is highly speculative, one should not neglect the fact that changes in the role of energy in the world may have altered Russian interests in Ukraine. There are however no official arguments that support this, as Russia argues that this is a 'military operation' meant to protect Russia and national interests from NATO through a buffer zone. Another argument relates back to Russia's historical claims of Ukraine.

Lastly, the analysis has not provided any evidence concerning Månsson's (2014) final category: energy as a secondary cause of a conflict. At the time of writing, no significant evidence was found that the energy, as a side effect, has further destabilized Ukrainian society and contributed to the war. This however does not mean that Månsson's (2014) theory is lacking or incomplete, but rather that this category was not applicable in the context of this study. It is important to understand that energy has played different roles in this conflict, some being more obvious than others, but nonetheless all of them being important for better understanding energy's role in the Ukraine conflict of 2022.

6 Conclusion

This section concludes the research and summarises the most important findings of the analysis. It also suggests interesting topics and questions for future research.

6.1 Research Aim

The aim of this study was to analyse the relationship between energy and conflict by using the Ukraine conflict of 2022 as a case study. The goal was to find out whether they were related at all, and if so, to find out what that relationship looks like. The objective was to relate the findings back to the theory by using Månsson's (2014) framework on the different roles that energy can have in a conflict.

6.2 Future Research

An interesting question that could be further researched is whether energy was intended to be an instrument in this conflict from the beginning on, or whether it has become an instrument over the course of the war as a response to sanctions, affecting energy, imposed by Europe and other actors. Exploring this could answer some questions regarding the use of cutting energy flows as a means of applying political pressure by both Russia and the other actors involved in these sanctions, or whether Russia was surprised by Europe's forceful and coordinated response and therefore turned to using energy as an instrument in this conflict. Another interesting research topic would be to examine whether energy has in fact been or become a primary cause and objective in this conflict. In doing so, one could learn more about Russia's true intentions in this conflict and if this were to be true, it could potentially say a lot about how the role and importance of energy has changed over time. A final suggestion for future research is to explore the effectiveness and the timing of energy as an instrument in this war. Research in this could answer questions asking whether imposing sanctions and discontinuing energy supplies were done at the right time, as well as identifying the effectiveness of such actions. By analysing the effects and consequences of the sanctions and the discontinuation of energy supplies, governments and institutions could learn from these events and implement them in a more useful manner when they are needed again.

6.3 Conclusion

The analysis of the Ukraine conflict in 2022, which began on the 24th of February as a result of a Russian invasion, finds that energy and conflict are related to one another. The findings show that energy is being used as an instrument in this conflict by Russia and the other actors, among which the European Union and the United States of America are. The results seem to be compatible with Månsson's (2014) theory concerning the different type of roles that energy can play in a conflict. The analysis findings suggest that energy is being used as an instrument by Russia and the opposing actors in order to achieve other, non-energy related objectives. The EU's use of sanctions on Russian energy imports, as well as other sanctions, have the goal of putting Russia under pressure to end their deadly invasion of Ukraine. In retaliation to sanctions and embargos, as well as other political reasons, Russia has suspended energy flows to a number of European countries. The case study of the Ukraine conflict in 2022 with regards to energy and conflict, relates practical events back to the theoretical framework developed by Månsson (2014), in which the role of energy can be as a primary cause and objective in a conflict, an instrument in a conflict, and a secondary conflict. The results support the theory concerning energy as an instrument in this conflict, but rule out the role of energy as a secondary cause of the conflict. The research aim has therefore been fulfilled. Further research is needed in order to find out whether energy is an objective in this conflict as well and whether the role of energy changes throughout this conflict.

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