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EU's Foreign Energy Policy Towards its Southern Neighbours: Enhancing the Effectiveness of its Partnerships.

The case of Energy Transition in Algeria and Morocco

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Statutory Declaration

I hereby declare that I have composed the present thesis autonomously and without use of any other than the cited sources or means. I have indicated parts that were taken out of published or unpublished work correctly and in a verifiable manner through a quotation. I further assure that I have not presented this thesis to any other institute or university for evaluation and that it has not been published before.

11 June 2023, Clémentine Gallot

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Abstract-

This paper aims to demonstrate how the European Union’s energy foreign policy is shaped towards its Southern Neighbours, namely Algeria and Morocco. This policy has several objectives, including diversification in the short term and decarbonisation in the medium to long term, and is part of the wider context of the external dimension of the Union's energy policies, as well as the neighbourhood policy. This study is conducted through the case study of the energy transition in Morocco and Algeria, as well as a comparative analysis of the effectiveness of the EU-Algeria and EU-Morocco energy partnerships. It concludes that the importance of the energy transition must be emphasised in the EU's partnerships with its neighbours to the south.

Keywords: Energy; Energy Transition; EU Foreign Policy; European Neighbourhood Policy; Partnerships

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List of Abbreviations

AA	Association Agreement
AfD	Agence Française de Développement
AfDB	African Development Bank
AFSED	Arab Fund for Economic and Social Development
AMEE	Moroccan Agency for Energy Efficiency
ANRE	Moroccan Agency for Energy Efficiency
CEREFE	Commission for Renewable Energy and Energy Efficiency
CSP	Concentrated Solar Power
EBRD	European Bank for Reconstruction and Development
EIB	European investment Bank
EMP	Euro-Mediterranean Partnership
ENI	European Neighbourhood Instrument
ENP	European Neighbourhood Policy
FiT	Feed-in Tariff
G7	Group of Seven
GIZ	German Corporation for International Cooperation
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
JETP	Just Energy Transition Partnership
KFAED	Kuwait Fund for Arab Economic Development
KfW	Freditanstalt für Wiederaufbau

MASEN	Moroccan Agency for Sustainable Energy
METRE	Ministry of Energy Transition and Renewable Energy
MorSEFF	Morocco Sustainable Energy Financing Facility
MSP	Mediterranean Solar Plan
MTEDD	Ministry of Energy Transition and Sustainable Development
MW	Megawatt
NDICI	Neighbourhood, Development and International Cooperation Instrument
NEC	Net-Exporter Country
NIC	Net-Importer Country
ONEE	National Office of Electricity and Drinking Water
PNEREE	Renewable Energy and Energy Efficiency Development Plan
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PV	Photovoltaics
RE	Renewable energy
RES	Renewable energy sources
SDG	Sustainable Development Goals
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union
EU	European Union
UfM	Union for the Mediterranean
WB	World Bank

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Introduction

“We need to understand that the future of humanity will be played out around the Mediterranean basin[1].”

Frans Timmermans, 2022

This sentence was pronounced at the inauguration of the Green Partnership between the European Union and Morocco in October 2022, by Frans Timmermans, the European Commission Executive Vice-President for the European Green Deal (European Commission, 2022a). From the outset, this underlines the importance of the Mediterranean, and in particular of the EU's neighbours to the south, especially in the energy sector.

Energy is a key issue in today's world[2]. Access to energy is a right, a certain level of energy availability is even considered an essential part of human life (Tully, 2006). Energy is closely linked to (economic) development, that can be understood as a mean towards improving the standards of living (Bouraiou *et al.,* 2019). This is in line with Sustainable Development Goal 7, which aims for access to affordable, reliable, sustainable and modern energy for all (United Nations, 2015). It is in this context, as well as that of the Green Deal, currently the flagship project of the von der Leyen Commission, that the subject of energy transition has been highlighted. The IRENA (International Renewable Energy Agency) defines energy transition as: "the transformation of the world's fossil fuel-based energy sector to a zero-carbon energy sector by the second half of this century” (IRENA, 2022). This energy transition must ensure that it does not have harmful effects on people and the environment, otherwise it has the opposite effect to that sought. This is why the EU has introduced the concept of "fair" and "no one left behind” (European Commission, 2022b). Deploying renewable energies (RE) and increasing energy efficiency are two of the key measures that can contribute to this gradual transition away from fossil fuels.

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[1] Traduction. Original sentence (in French): “On doit bien comprendre que l'avenir de l'humanité se jouera autour du bassin méditerranéen.”

[2] It refers partly to the current energy crisis context, triggered in part by the 2022 Russian invasion of Ukraine.

Morocco and Algeria, two countries that are part of the European Union's neighbourhood policy, have begun such a transition with the introduction of ambitious programmes and targets. These countries are crucial for the European Union, as they represent its immediate neighbourhood for the countries north of the Mediterranean, and in view of the central relations that exist in the energy sector between them, and in particular between the EU and Algeria, and since recently Morocco. The strategic importance of these two countries is the main reason why they were chosen for this research, as well as the fact that they are significantly different from an energy sector point of view, despite being neighbours.

Research Design

Research questions

This research is structured around a central question and two sub-questions. The core research question guiding this research is: How is the European Union's foreign energy policy towards its southern neighbours shaped?

The two sub-questions are the following:

- What is the state of play of the energy transition in Algeria and Morocco?
- To what extent are the energy partnerships between the European Union and Algeria and the European Union and Morocco effective in the wider context of the EU foreign energy policy’s objectives?

Methodology

In order to answer these research questions, a mixed methodology is selected. It consists of a case study and a comparative analysis.

Firstly, the case study is that of the current energy transitions in Algeria and Morocco. This case study aims to answer the first research sub-question on the state of play of these transitions. To do this, the rationale behind these transitions is studied, as well as the existing legislative, regulatory and financing framework for establishing such a transition. Finally, this case study analyses the current status of

this transition and its achievements. The time frame covers the period from the beginning of the first regulations or legislative framework for the energy transition, and in particular the deployment of renewable energies, up until the present day. This corresponds to 2004 for the analysis of Algeria's energy transition and 2000 for that of Morocco.

Secondly, the comparative analysis provides a more specific answer to the second sub-question. This comparative analysis focuses on the EU-Morocco and EU-Algeria energy partnerships in order to determine their effectiveness from the point of view of the European Union's objectives. To this end, the partnership relations between the European Union and these two countries in the area of energy, and more specifically the energy transition, are explained, and then analysed comparatively under the prism of efficiency theory (Schunz, 2021). The time frame for this comparative analysis is almost entirely the same as that for the case study, with the difference that the starting date chosen for Algeria begins one year later, in 2005[3].

Both methodologies are based on thorough document analysis. This consists of a review of primary literature, in particular official documents published by the European Union, but also documents from Algeria and Morocco. In addition, the secondary literature is also studied in depth in order to answer the research questions as comprehensively as possible within the word and time limits.

Theoretical framework

The theoretical framework guiding this research is the analysis of European Union foreign policy, and more specifically the theory of effectiveness developed by Schunz in 2021. Central to the study of the EU's external policies, this theory aims to respond to the following question: to what extent and why the EU has been externally effective in a given context and timeframe (Schunz, 2021). This theoretical framework is detailed in Chapter 3 and then applied to the comparative analysis of the effectiveness of the EU-Algeria and EU-Morocco energy partnerships in the context of the European Union's foreign energy policy objectives.

[3] This corresponds to the introduction of the EU-Algeria association agreement in 2005.

Structure

The first chapter provides an overview of the European Union's foreign policy and its energy dimension. It draws on a review of the literature on the concepts of EU foreign policy and EU Neighbourhood policy, and then focuses on the objectives and instruments deployed under these two policies, with a particular focus on energy.

Chapter 2 provides a state of play of the energy transition, presenting the rationale for such a transition in Morocco and Algeria. It then discusses the ambitious policies and targets of these two countries, and concludes with an assessment of the current status and (non-)achievements in the deployment of renewable energies in particular.

The following chapter, entitled 'Case study: Comparative Analysis of the Effectiveness of the EU-Algeria and EU-Morocco Partnerships', is the second part of the mixed methodological approach mentioned above. After analysing the EU-Algeria and EU-Morocco partnerships in the first section, the second section applies the effectiveness theory to assess these energy partnerships in terms of the European Union's objectives.

Finally, Chapter 4, the last chapter before the conclusion, enables a discussion of the results found in the previous chapters. In this chapter, the results are framed in the wider context of the EU's foreign energy policy and the EU's neighbourhood policy, and they are linked together. Then a final discussion is made on how the energy transition can be rethought in the EU's partnerships.

Chapter 1- Overview: The EU Foreign Policy and its Energy Dimension

1.1 The European Union's Foreign Policy

1.1.1 Overview of the European Union's Foreign Policy

The uniqueness of the European Union makes it a complex actor to study, and explains the interest of scholars in examining it and the rapid development of a new field of study: European Studies.

First of all, it is essential to define what is meant by the literature when referring to the EU's foreign policy. Indeed, several terms are used to describe the policies and actions that the EU undertakes externally aimed at third countries or internal policies with external dimensions. The main terms used are EU external action, EU diplomacy and EU foreign policy. This research focuses on the Union's foreign policy, understood as "the area of European policies that is directed at the external environment with the objective of influencing that environment and the behaviour of other actors within it, in order to pursue interests, values and goals" (Keukeleire and Delreux, 2021, p.1). This differs from EU external action, which gives a broader definition, focusing on the composition of the actors, namely "EU institutions and bodies plus the EU Member States if they act as 'trustees of the Union interest'" (Cremona, 2011) and covering a very wide range of areas, such as defence and security, trade, humanitarian and development issues and neighbourhood policy for example (Gstöhl and Schunz, 2021). The notion of foreign policy thus adds a notion of intentionality, which is crucial to the issue at stake in this research. This takes into account the aims and interests defined by the European Union, that are directed externally with the intention of having an influence and an impact (Carlsnaes, 2002).

As European integration progressed, the literature on the EU's foreign policy grew steadily (Tonra, 2000) and began to incorporate existing concepts from political science and international relations, but also to create its own concepts to

talk about the EU and in particular its presence in the world. Although the literature on the topic is relatively recent, as is the subject itself, recent decades have seen the creation of a literature rich in concept and theory (Gstöhl and Schunz, 2021). This field of study has attracted increasing attention and has been organised around central questions. These studies have, for example, been linked to integration theories[4] and to the question of the impact of the development of a foreign policy by the European Union on the integration of the Union itself. There is also extensive literature focusing on the question of how to characterise the EU and its identity in the world, with key concepts such as 'Normative Power Europe' (Manners, 2002), 'Civilian Power' (Duchêne, 1972) or 'Market Power Europe' (Damro, 2012). Another central question in the study of the European Union's foreign affairs is the extent to which the Union is an actor in international affairs (Drieskens, 2021), which has given life to the concept of ‘actorness’ (Bretherton and Vogler, 2006; Cosgrove and Twitchett, 1970; Jupille and Caporaso, 1998). Although all these theories and concepts are significant for the European Union's foreign affairs literature, they are not the main focus of this research. The choice made for this study is to concentrate on the theory of effectiveness of the EU's external affairs (Schunz, 2021), explained and applied in Chapter 3.

As part of an analysis and overview of the European Union's foreign policy, its objectives, institutions and instruments are presented in the following part.

Objectives

Article 21 of the Treaty on the European Union (2012) enshrines the objectives and principles of the Union's external action. Among these, the defence of interests, independence and values is at the forefront, followed by the values of democracy, the rule of law and human rights. Preserving peace, encouraging the economic development of third countries and promoting multilateralism and good governance are other objectives set out in Article 21. However, it is paragraph (f) that will subsequently be essential for our research, mentioning “help develop international measures to preserve and improve the quality of the environment and

[4] The main integration theories are federalism, functionalism and intergovernmentalism, among others.

the sustainable management of global natural resources, in order to ensure sustainable development" (Ibid).

In addition to these objectives defined in the Treaties, other current priorities can be mentioned, such as improving the transatlantic relationship, finding its place in the competition between China and the United States, facing up to Russia's war in Ukraine, while maintaining and improving the European Union's strategic autonomy and resilience (Puglierin, 2019).

Institutions

The conduct of foreign affairs is a prerogative of the Member States as a traditional State-like power. Yet, the Treaty of Lisbon's institutional strengthening altered the practice of external action in the EU by empowering EU institutions to play a more active part in shaping and implementing the Union's foreign policy.

The EU High Representative for Foreign Affairs and Security Policy and Vice President of the European Commission is a double-hat figure created by the Lisbon Treaty, which role is to represent the EU on an international and bilateral level. The HR/VP is expected to operate as a link between the European Commission, where he/she is a Vice President, and the European Union Council, where he/she chairs the Foreign Affairs Council.

Another significant step towards strengthening the EU institutions with the Lisbon Treaty is the establishment of the European External Action Service. The external relations departments of both the European Commission and the Council Secretariat as well as diplomats coming from Member States's Foreign Ministries are gathered in this relatively new service. The EEAS is regarded as an "effective prototype EU foreign ministry," with headquarters in Brussels and EU "embassies" in countries outside the EU (Austermann, 2015, p.52). Following the Treaty of Lisbon, EU delegations gained new responsibilities, such as coordination and representation in third countries (Troszczynska-Van Genderen, 2015).

Instruments

The European Union has a myriad of instruments that it can use to establish its foreign policy. To name but a few, in the field of defence and security, its

common foreign and security policy (CFSP), and its missions and operations, in the economic sphere, the possibility of administering sanctions or providing development aid, but also from a socio-political point of view electoral observation missions or human rights monitoring. The instruments discussed most in this research are political dialogues under association agreements (AA), but also partnership instruments notably under the EU Neighbourhood Policy.

These instruments can be deployed multilaterally, regionally or bilaterally. Renard (2015) reports on the evolution of the European Union's actions, with the identification of an “upgrade of the 'bilateral way'” by the EU, which is increasingly prioritising its direct partnerships with third countries while remaining in a more global context of promoting multilateralism on a global scale. Indeed, according to Renard, the refocus of the EU on more bilateral actions enables the Union to have more interaction with its partners and more immediate gains. The European Union is placing particular emphasis on the creation of strategic partnerships.

1.1.2 The European Union’s Foreign Energy Policy

Energy is a crucial issue for the European Union, both in its internal and external policies and ever more in the current context of fears about energy security[5] and the Union's growing environmental concerns. With the establishment of the European Coal and Steel Community in 1952, following the Second World War, energy lies at the heart of the development of the EU. Since the beginning of the 2000s, alongside the development of European integration at the economic and political levels, the European Commission, particularly, has pushed for the establishment of a joint energy policy, with the creation of a proper internal energy market and an external policy which would enable the European Union to present itself with a unified voice to external suppliers (Nastase, 2022).

This development of European integration in the field of energy coincides with the emergence of a body of literature on the subject. This relatively recent literature is divided into several recurring themes, including the challenges of developing a joint energy policy, the external dimension of the subject and, above

[5] This refers to the Russia invasion of Ukraine, that resulted in some interruptions of Russian gas supplies to the EU.

all, a heated debate on who is in charge of EU energy policy, the Member States or the Commission (Batzella, 2018). In the context of this research, the focus is on the external dimension in particular[6]. This part of the literature is even more recent than the general literature on energy in the Union since the EU developed its external dimension relatively late. This literature has been built around major trends: the EU's energy dependence on Russian gas supplies, which draws on the concept of energy security and intersects with the literature focusing on Russia, as well as, for example, the energy community (Schuber *et al.,* 2016). The concept of energy security dominates this literature when it comes to relations between the EU and its partners outside the Union. Another focus, although less developed, is the creation of an energy corridor from its southern and eastern neighbours, focusing on gas. The literature on renewable energies has only appeared very recently, especially as these sources of energy are often local and do not have any particular geopolitical interest at first sight.

Article 4 of the Treaty on the Functioning of the European Union (TFEU) (2012) enshrines energy as a share competence between the Union and its Member States. It entails that, in theory, both the EU and its Member States may enact legally binding energy rules and regulations. In addition, Article 194 TFEU is entirely devoted to the field of energy, where the first paragraph sets out the objectives for the Union. These include the functioning of the energy market, energy security, the interconnection of electricity networks and the promotion of energy efficiency and the deployment of renewable forms of energy. Yet, paragraph 2 of this article reaffirms that energy is a matter of sovereignty for the Member States and that the EU is unable to make decisions on the composition of the energy mix at the national level. Article 194 TFEU has been described as a "typical political compromise" since it provides "a real and additional strengthening of competencies in favour of the EU" while permitting Member States to diverge from the EU's energy policy (Pielow and Lewendel, 2012, pp.267–8).

The European Union's energy policy is being developed against the backdrop of the triple planetary crisis: climate change, the loss of biodiversity and

[6] It should be added, however, that the internal and external aspects of EU energy policy are two sides of the same coin, and are mutually dependent.

pollution (European Council, 2023a) and a growing energy crisis (European Commission, 2022b). The Green Deal, the flagship roadmap of President von der Leyen's Commission 2019-2024, puts the EU's environmental concerns at the heart of its priorities. The ultimate aim of this Green Deal and its various policies, such as the Fit for 55 package, is to drastically reduce the Union's emissions, namely to reduce greenhouse gas emissions by 55% by 2030. The energy sector, one of the biggest emitters, has not been exempted from directives and regulations, such as the revision of the Renewable Energy Directive[7], the aim of which is to promote RE in order to achieve climate neutrality notably. Moreover, given the concerns about energy security, diversification is at the heart of current energy policy. This is illustrated by the publication of REPowerEU in May 2022, following Russia's invasion of Ukraine. The main aim of this package is to halt imports of fossil fuels from Russia. This strong focus on decarbonisation and diversification in the EU's internal energy policy results in shaping its external dimension (Pastukhova *et al.,* 2020).

Ensuring sustainable, secure and affordable energy worldwide

The main objective of the European Union's external energy policy can be summed up in one sentence: “ensuring sustainable, secure and affordable energy worldwide” (European Commission, 2022b). The EU has a number of ways of achieving this main objective. The first, and perhaps most important, is to speed up the global energy transition (Ibid). This can be achieved by focusing on three underlying objectives: promoting energy efficiency, increasing the deployment of renewable energy sources and phasing out fossil fuels, in particular by reforming harming fossil fuels subsidies (EEAS, 2021a). Secondly, the European Union aims to strengthen energy security, with greater resilience and strategic autonomy (European Commission, 2022b). This can be achieved by diversifying sources of supply and the type of the source. Thirdly, the EU relies on strong partnerships in the energy field with key partners and players (Directorate General of International

[7] Proposal for a Directive Of The European Parliament And Of The Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652.

Partnerships, 2022). The EU intends to propose a strengthening of these partnerships through more political dialogue and financial support, as well as technical assistance and transfers (European Commission, 2022b). This is taking place in the context of the promotion by the EU of strong multilateralism in the international arena, with frameworks for energy relations such as the International Energy Agency (IEA) and the International Renewable Energy Agency (Russell, 2020). Lastly, an additional means of achieving this ambitious objective is the proposal that energy diplomacy should be given more prominence in foreign and security policy, and this could be made by the Commission and the HR/VP (European Commission, 2022b).

In the external dimension of the REPowerEU, the European Union presents two goals with different timeframes (European Commission, 2022). In the short term, Europe has an infinite need to diversify its energy mix and supplies, in order to reduce its dependence on Russian gas imports[8]. In the medium and long term, the EU is proposing decarbonisation objectives, gradually moving away from fossil fuels and increasing the development of RE and energy efficiency.

These objectives mention energy security, sustainability and the environmental aspect, as well as access to energy and the notion of price. This echoes the trilemma put forward by the World Energy Council. For a proper and full transition to take place in an energy system, three major objectives need to be achieved simultaneously: energy security[9], environmental sustainability[10] and energy equity[11], also known as energy affordability (World Energy Council, 2022). However, according to this Council, these objectives can be contradictory to each other and thus constitute a trilemma, in that achieving one of the objectives could have a negative impact on another. As a result, the transition of energy systems in the world is a real challenge that will surely require concessions in some areas.

[8] In the context of the Russian war in Ukraine.
[9] Here understood as the uninterrupted availability of energy sources.
[10] It refers to the transition towards more sustainable energy systems, respectful of the environment.
[11] It means the availability of energy affordable for domestic and commercial use.

According to the European Union, and in particular the latest conclusions of the EU Council entitled 'Bolstering EU climate and energy diplomacy in a critical decade' (2023), an energy transition should be in line with the Sustainable Development Goal (SDG) 7 and the Paris Agreements, and it needs to possess the 'just' component. While SDG 7 is entitled “Ensure access to affordable, reliable, sustainable and modern energy for all” (United Nations, 2015), which echoes the EU's objective, the Paris Agreement compliance hints towards the reduction of greenhouse gas emissions, for example by gradually decarbonising the energy sector. The other crucial aspect for the EU is that people matter. The energy transition must be “just, inclusive and leave no one behind” (EEAS, 2021), in other words, it must be “socially just and fair” (European Commission, 2022b). For instance, a new type of partnership called Just Energy Transition Partnerships (JETP) has recently been set up in the context of the Group of Seven (G7). Three countries currently benefit from such a partnership, namely South Africa, Indonesia and Vietnam, and the EU is leaving the door open for the creation of new partnerships of this type (European Council, 2023a). The energy transition can have benefits such as social and economic development through job creation, support for the local economy and economic diversification, as well as benefits in terms of climate change mitigation by decarbonising energy systems, but only if the environmental sustainability and energy affordability/equity aspects are also taken into account and not just energy security.

1.2 The European Union’s Neighbourhood Policy

1.2.1 Chronology and Concept

The European neighbourhood policy (ENP) is one of the EU's most important foreign policies. It refers to a desire to intensify relations with the Union's neighbours, both to the East and to the South (Schumacher, 2018) while creating a “ring of friends” and “avoid drawing new dividing lines in Europe”[12] (European Commission, 2003, p. 4). This policy applies to a total of sixteen neighbouring

[12] This is happening in the context of the enlargement of the European Union to the east in 2004.

countries[13], including ten for the southern part (European Parliament, 2023a). It is organised around bilateral relations between the European Union and each of these countries, but also through regional cooperation frameworks such as the Union for the Mediterranean (UfM) for the South and the Eastern Partnership (Ibid). This is enshrined in Article 8 TEU (2012), which refers to the special relationship that the EU must establish with its neighbours, based on its values and cooperation.

Since its inception and evolution, this neighbourhood policy has received considerable scholarly attention, yet its theorisation is still considered underdeveloped (Gstöhl and Schunz, 2021; Gstöhl, 2017; Kostanyan, 2017; Schumacher, 2018). Indeed, two main criticisms are levelled at ENP's theory building: that it suffers from the shadow of enlargement studies and that it draws heavily on concepts borrowed from the EU's external relations literature such as governance and Europeanization, which have not been theorized exclusively for ENP and therefore propose research gaps (Cianciara, 2020; Gstöhl, 2017). Nevertheless, three main approaches can be outlined in the literature concerning ENP, namely the use of international relations theories, the use of concepts from the field of EU external relations and the application of foreign policy analysis studies (Gstöhl, 2017). One of the central questions scholars have been asking is about the effectiveness of this policy (Cianciara, 2020). However, one problem that arises in the design of this question and therefore of its answer is that the majority of its scholars focus on a Eurocentric approach, which does not take into account the perception of non-EU actors involved in this policy (Gstöhl, 2017; Schumacher, 2018). It, therefore, seems difficult to understand the effectiveness of the ENP without also focusing on the external perspective and the influence of local players on EU policy and its effectiveness (Cianciara, 2020).

Chronology

This neighbourhood policy, an artificial geographical creation made up of vastly heterogeneous countries, gradually developed, originally proposing itself as

[13] These sixteen countries are Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Palestine, Syria, Tunisia and Ukraine.

an alternative to enlargement (Schimmelfennig, 2018). Figure 1 illustrates this development, focusing on the EU's southern neighbourhood.

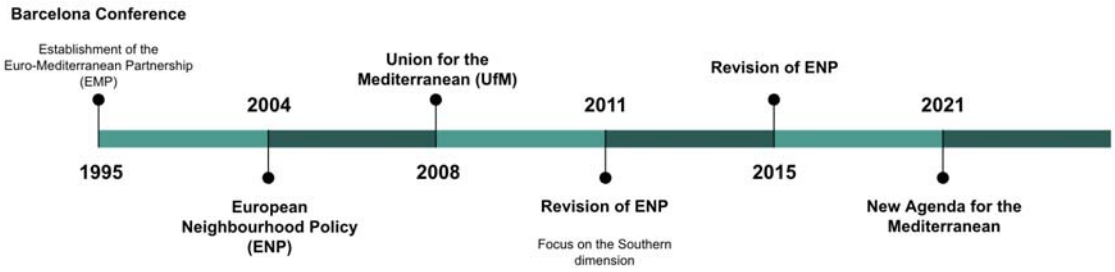

Figure 1 - European Neighbourhood Policy Chronology: Focus on the Southern Partners. (Source: own compilation.)

The privileged relationship between the European Union and its neighbours to the south of the Mediterranean began to be institutionalised in 1995 with the Barcelona Conference and the establishment of the Euro-Mediterranean Partnership (EMP). The scope has become broader, with a Commission communication in 2003 aimed at establishing a new framework for relations with neighbouring countries, from the East and the South. The new dimension of this policy lies in its proposals to increase bilateral relations within the framework of this partnership, with the inherent aim of promoting both prosperity and stability in Europe's neighbouring countries[14] (European Commission, 2003). The European Neighbourhood Policy, launched in 2004, is intended to be based on shared values such as democracy, the rule of law as well as human rights but also sustainable development (European Parliament, 2023a). In 2008, the Union for the Mediterranean is created, replacing EMP. It consists of the EU Member States and 15 other Mediterranean countries, counting the ten southern partners. This Union proposes a framework for regional cooperation centred around the Mediterranean basin, based on the same objectives of strengthening relations and dialogue at the political, economic and social levels (European Parliament, 2023b). This neighbourhood policy was reviewed for the first time in 2011[15] and a second time in

[14] Indeed, by increasing stability and prosperity for the countries at its near or far borders, the EU aims ultimately to increase its own security and prosperity.
[15] This followed the Arab springs and uprisings in the southern dimension of the partnership. It enhances the focus on more stability, democracy and support of the civil society.

2015[16], recommending greater differentiation between the partner countries (Gstöhl, 2017). The latest update on ENP is the Communication from the Commission and the HR/VP in early 2021 on a new agenda for the Mediterranean. The aim is to relaunch the partnership with the countries south of the Mediterranean[17].

Instruments

The neighbourhood policy contains programmes for its partner countries on many levels: bilateral, regional and neighbourhood-wide (European Parliament, 2023a). At the bilateral level, some countries, such as Algeria and Morocco, have Association Agreements with the European Union, but they also have action plans that are supposed to be tailor-made, with a list of joint priorities created for the partnership. The UfM exists at the regional level and as a framework for dialogue and strengthening cooperation for the countries of the South plus some non-EU northern Mediterranean countries.

In financial terms, two instruments, in particular, can be mentioned to support the objectives of the neighbourhood policy. The European Neighbourhood Instrument (ENI) is the instrument used for the period 2014-2020, and it has made it possible to allocate around €15 billion for this period under the ENP (European Parliament, 2023a). A new instrument has been created to cover the period from 2021 to 2027, namely the new Neighbourhood, Development and International Cooperation Instrument (NDICI) - 'Global Europe'. NDICI has been designed to enable more blending of grants with loans and to attract more private investors in particular. The amount allocated is substantial, estimated at 79.5 billion euros, but will not only cover the neighbouring countries[18] (Ibid).

1.2.2 Focus on the Energy Dimension

[16] This revision is largely attributed to Russia's annexation of Crimea and the need for change in the neighbourhood, as well as the wars in Syria and Libya among others.
[17] Five areas are particularly highlighted: good governance and the rule of law, digital transition and prosperity, peace and security, mobility and migration, and the green transition.
[18] African, Asian, and South American, as well as the Pacific and Caribbean countries, are also included in this budget.

Energy is central between the European Union and its partners, particularly those south of the Mediterranean (Tagliapietra, 2016). Therefore, it is no surprise that this component has been an integral part of the EU's neighbourhood policy from the outset. Since 1996, and the Commission's communication on energy cooperation in the region, energy has been at the heart of political dialogue and expert talks. However, this cooperation did not flourish as hoped, and the neighbourhood policy published in 2004 refocused on the EU's main objective, namely to strengthen the internal energy market within the Union[19] (Vantaggiato, 2015). With the creation in 2008 of the Union for the Mediterranean and the energy context[20], energy is once again a core element in the EU's relations with its southern neighbours. With the aim of creating a Mediterranean energy market, three platforms[21] have been established in 2014: one on natural gas, another on the integration of electricity markets, and the third on renewable energies and energy efficiency (Ibid).

In terms of the energy transition and the deployment of RE, many initiatives have been put in place, but often with little success. To start with, in 2008 the UfM launched the Mediterranean Solar Plan (MSP) with the aim of widely deploying solar energy in the region, by creating a proper legislative, regulatory and financial framework (Vidican, 2013). This initiative, which has received almost 10 million euros and a technical assistance programme, has nevertheless not achieved the objectives set of solar generation and a common electricity market across the shores of the Mediterranean (Schuber *et al.,* 2016). Similarly, Desertec[22], with the Desert Power Industrial Initiative (Dii) initiative launched by the Desertec Foundation set up in 2009, has not succeeded in its aim of creating an integrated electricity market for renewables in the region (Vidican, 2013). In 2021, the energy ministers of the members of the UfM presented a declaration addressing the need

[19] The rationale behind this change in energy policy is that the EU would have more power in negotiations with its external partners if its internal market was strengthened.
[20] This refers to the recent temporary interruptions of gas supplies from Russia to Ukraine in 2006 and 2009, which also had an impact on the EU and its Member States, as Ukraine is one of the major transit countries for this supply route.
[21] These platforms, in the framework of the Ufm, operate as a forum for organising dialogues and debating policy objectives and measures in order to identify specific actions and monitor their implementation.
[22] Desertec was originally a concept conceived in the 2000s to demonstrate the feasibility of deploying renewable energies, particularly in the MENA region, for local use and for export to Europe.

for a “green, just and fair energy transition” for the global objective of energy sustainability in the Mediterranean (UfM, 2021). In recent communications from the Commission about external energy policy, the Southern Neighbourhood and the Mediterranean area are considered central to the aim of decarbonisation and global energy transition (European Commission, 2022).

Chapter 2- Case study: State of Play of the Energy Transitions in Algeria and Morocco

In this second chapter, the state of play of the energy transitions in Morocco and Algeria is discussed in detail. Before examining the European Union's partnerships with them, it is important to review the current state of progress of the energy transition in these countries. The first section introduces the rationale presented by Algeria and Morocco to justify the need for such a transition, then the targets and policies implemented by the two countries, and finally an assessment of the current situation and achievements is made in the last section. However, before starting to outline the energy transition efforts of these two countries, it is useful to look at the energy sectors of Algeria and Morocco more generally.

To begin with, Algeria and Morocco have two distinct energy profiles: while Morocco is a net energy importing country (NICs), Algeria is a net energy exporting country (NECs). Morocco imports around 90% of its energy to meet its needs (Department of Commerce, 2022). Algeria, for its part, has a vast reserve of resources, both conventional and renewable, enabling it to meet its energy needs almost entirely on its own (Bouraiou, A. *et al.*, 2019) as well as to export the remaining quantities not needed for domestic consumption.

Around its independence in 1962, oil and gas discoveries have been made in the Algerian Sahara. Since then, hydrocarbons have played a major role in Algeria's political and economic life[23] (Ibid). Indeed, oil and natural gas dominate both exports and domestic consumption, and even electricity generation is largely hydrocarbon-based (Bouraiou, A. *et al.*, 2019). As a result of this large quantity of resources, Algeria has been able to achieve its objective of supplying energy to its entire population throughout the country (Hamiti and Bouzadi-Daoud, 2021). According to the World Bank (2021), 99.8% of the Algerian population had access to electricity in 2020, which is the highest score ever. However, this access to resources has its drawbacks, as Algeria is heavily dependent on natural gas and

[23] The energy sector, with fossil fuel revenues, is rooted at the heart of the economy, replacing the agriculture-based economy of the time.

oil. Hydrocarbons account for 91% of Algeria's total exports in 2021, including 39% of natural gas, making fossil fuel revenues essential for the Algerian State and economy (Direction générale du Trésor, 2022). This represents a major challenge for Algeria, which is dependent on the global fossil fuel market and on agreements, often signed many years ago, with its customers (Boukhatem, 2022).

Compared with its hydrocarbon-rich neighbour, Morocco has no proven gas or oil reserves. Morocco is the only country in North Africa that does not currently have any oil resources and has the highest dependence on energy imports in the region (Bentaibi *et al.,* 2021). Less than 10% of the electricity used in Morocco is produced domestically, with gas coming mainly from Algeria and electricity from Spain (World Bank Group, 2018). This makes the country vulnerable to price changes in the oil and gas market, as well as budget constraints (Vidican, 2015). This represents a major challenge if the country wants to meet its domestic demand while keeping its energy expenditures under control. This is especially the case in the context of rising energy demand in view of demographic growth and industrial and economic development (Economic and Social Commission for Western Asia, 2018). However, despite its issues, Morocco has guaranteed almost total access to electricity for its population in recent years, reaching 100% for the first time in 2020 (World Bank Global Electrification Database (b), 2021).

2.1 Rationale for the Energy Transition in Algeria and Morocco

The focus of this sub-section is on Morocco's and Algeria's drivers to undertake an energy transition. It appears necessary to establish the motivations of these two countries in their respective energy transitions, in order to be able to later assess their achievements.

Taking the Middle East and North Africa region as a starting point, Brand (2015) proposes several objectives that can explain an energy transition: national prestige, diversification of the energy mix, reducing energy dependence for countries that are net importers, such as Morocco, or an incentive to reserve fossil fuel reserves for exports, in order to maximise the gain, as in the case of Algeria.

This may explain some motivations of these countries, but the primary motivation towards an energy transition[24] is the potential of RES on their territories.

Without the significant availability of renewable energy resources, particularly solar and wind power, an energy transition seems more complex and difficult to achieve. Fortunately for the North African region, it has excellent potential for RE, in terms of solar irradiation and wind speed in coastal areas (Vidican, 2013). Algeria and Morocco both have strong potential for the deployment of renewable energies on their respective territories, being located in one of the world's sun belts (Zaharaoui *et al.*, 2021). Algeria's solar energy potential is one of the largest in the world, and combined with its vast territory, offers a great and concrete opportunity for Algeria to turn to RES, and thus begin an energy transition (CEREFE, 2020). Like Algeria, Morocco has good geographical and climatic conditions, with a high potential for wind and solar energy throughout its territory[25].

Having demonstrated the potential for renewable energy deployment in Algeria and Morocco, the main motivation for these countries to engage in an energy transition is economic. It can be either for economic diversification and direct economic gains or to avoid losses by optimising the budget. This varies greatly from Algeria to Morocco.

Algeria wants to deploy RES to meet its domestic demand. The proportion of fossil fuels replaced by renewables in domestic consumption would therefore be exported. These exports would generate interesting revenues for the Algerian State, as opposed to keeping gas and oil domestically. This is particularly crucial in the context of volatile oil and gas prices, which have been affecting the Algerian national economy for many years (Hochberg, 2020). This would make it possible to maintain the current rentier system, while avoiding excessive dependence on hydrocarbon revenues, as is currently the case (Boukhatem, 2022).

Morocco has very different problems. The country suffers from an imbalance between import and export bills, with the import bill, particularly for energy, amounting to 10 billion dollars each year in the early 2010s, for example (World

[24] It is understood here for the purpose of this research as a focus on the deployment of renewable energy sources.
[25] This potential is far greater than that of Europe, for example, with solar energy estimated to be around 30% higher in some Moroccan sites than the best European sites (ESCWA, 2018).

Bank Group, 2018). Morocco is dependent on its energy imports, and thus on the prices and fluctuations of the global oil and gas energy market. This means that a significant proportion of Morocco's national budget is directed towards paying these import bills, which is a financial burden and poses risks to the economy (Vidican, 2013). As a result, an energy transition and the deployment of renewable energies in the Moroccan territory to meet part of the country's domestic energy needs have been identified as a response to this financial and economic challenge.

Moreover, in view of the presumed interest of the European Union and its member countries in pushing forward the energy transition in the world, and in particular their neighbours to the south of the Mediterranean, Algeria and Morocco see an interest in benefiting from new investment in their energy sector (Chibani, 2022). A fuller analysis of the EU partnership with Morocco and Algeria on the energy transition will be set out in the next chapter.

This economic motivation is coupled with other explanations such as energy diversification or the rising demand for electricity and its consumption.

First of all, energy diversification is one of Morocco's main objectives. The country wants to diversify its energy mix so that it is less dependent on fossil fuels and that it can produce its own energy (Brand, 2015). This would make Morocco less vulnerable and more autonomous, providing a source of greater stability for the national economy. For Algeria, this diversification has benefits in view of the stagnation in natural gas production, as well as preserving its fossil fuel reserves (Hochberg, 2020).

Secondly, the demand for electricity is increasing in both countries, providing another reason to turn to a new source of energy supply: renewable energies. This increase in electricity consumption and demand[26] can be explained by a rise in electrification, particularly of households in rural areas in recent years, as well as urbanisation and economic development in both countries (World Bank Group, 2018).

Another reason, albeit a secondary one for the governments of both countries, is the socio-economic benefits. Algeria notably sees solar energy as an opportunity for the country's economic development, and for establishing new

[26] For example in Morocco, electricity consumption has risen from 25.1 TWh in 2010 to 33.5 TWh in 2020 (IEA, 2023).

industries and thus new jobs (Bouraiou, *et al.*, 2019). Morocco uses the same reasoning, considering job creation and the benefits for local economies as incentives for the development of RE, particularly solar energy (ESCWA, 2018).

A key aspect that cannot be overlooked is the environmental aspect and the decarbonisation of the energy industry. For Algeria, sustainability and the reduction of greenhouse gas emissions appear to be a benefit to the deployment of renewables, but not a priority (Boukhatem, 2022; Hochberg, 2020). The socio-economic development of the country and economic growth take precedence over the environment in this North African hydrocarbon-intensive country, which is one of the biggest polluters in the region and the third biggest in Africa after South Africa and Egypt (Bouznit and Pablo-Romero, 2016). Unlike Algeria, Morocco takes environmental concerns more to heart. Indeed, in view of the many incidents linked to climate change that are increasingly occurring in Morocco, as well as its vulnerability in terms of water availability and land degradation, Morocco has incorporated the idea of sustainable development into its policies, particularly in terms of energy, as part of its energy transition (ESCWA, 2018). The reduction of CO^2 emissions in the production of energy is one of the objectives that Morocco is trying to achieve through its energy transition (Ibid).

2.2 Energy Transition in Algeria and Morocco: Implemented Policies and Targets

In this second sub-section, after having reviewed Algeria's and Morocco's motivations for embarking on an energy transition, the policies and objectives proposed and implemented by these two countries are considered.

As a result of a thorough search and analysis of government documents such as reports and regulations, as well as of the literature on the energy sector in Algeria and Morocco, the findings of the policies and targets for the energy transition are presented in a table (See Table 1). This table is joint for Morocco and Algeria, allowing their goals, targets and programmes to be compared at first glance.

		Algeria	Morocco
Main Aims		Energy security Economic diversification	Energy security Access to electricity Environment protection
Focus		Deployment of Renewable Energies Energy Efficiency	Deployment of Renewable Energies Energy Efficiency
Main Programmes		Renewable Energy and Energy Efficiency Development Plan (2011) and its 2015 update Energy Transition Plan (2020) 2020-2030	National Energy Strategy (2009) Solar Plan (2009) Integrated Wind Programme
Targets for Renewable Energy Generation (Most Recent)	Overall Target	at least 30% of electricity generation from renewables by 2030 (set in 2020)	12 900 MW of installed capacity by 2030 / 52% of installed capacity from renewables of the total electricity installed capacity (set in 2015)
	Solar Target	16 000 MW[24] of installed capacity of solar PV by 2035 (set in 2020)	4 800 MW of installed capacity by 2030
	Wind Target	-	up to 5 000 MW of installed capacity by 2030

Table 1 - Implementing the energy transition: policies and targets (Source: own compilation)

The characteristics of the energy transition in Algeria and Morocco are then detailed respectively with regard to the chronology of programmes and regulations, the actors involved and the financing of the transitions.

2.2.1 The Energy Transition in Algeria: Between Policies, Financing and Stakeholders

Since the early 2000s, renewable energies and their development have been progressively included in the Algerian energy regulatory framework. Law No.

[27] Megawatt (MW) is a measure used to measure power.

04-09[28] of August 2004 pertaining to the promotion of RES in the context of sustainable development is one of the most striking examples (Zahraoui *et al.*, 2021). But it was not until 2011 that a proper plan for deploying renewable energies and improving energy efficiency - the beginnings of an energy transition - was put in place. This plan called the Renewable Energy and Energy Efficiency Development Plan[29] (PNEREE), was adopted by the Algerian government in February 2011 (CEREFE, 2020). This ambitious plan, the first of its kind in this country south of the Mediterranean, aims to improve energy use and deploy more sustainable resources across the country (Bouraiou *et al.*, 2019). However, beyond ensuring energy security and the security of supply, one of the stakes for Algeria is the creation of new jobs and wealth (Zahraoui *et al.*, 2021). An implementation schedule for this plan was drawn up by the Ministry of Energy and Mines, based on four stages up to 2030, with a final target for electricity generation capacity of 22,000 Megawatts from RE sources by 2030 (CEREFE, 2020). Of this 22,000 MW, more than half will be used for domestic purposes (12,000 MW), while the remainder (10,000MW) will be exported (Boukhatem, 2022). Three more precise targets have been drawn up for Concentrated Solar Power (CSP), Photovoltaic (PV) and wind power, with an emphasis on CSP (7,200MW) (CEREFE, 2020). In 2013 SKTM, Electricity and Renewable Energy Company, was created by Sonelgaz, the national electricity and gas company. It was established in response to the need to deploy RES as part of the 2011-2030 Development Plan, particularly in the south of the country (Ibid).

In 2015, the PNEREE plan is reviewed after only four years of existence. Indeed, the investment costs of different RE technologies have evolved around the world. Concentrated solar power has seen its prices remain constant, while investment costs for photovoltaic solar energy have dropped significantly (CEREFE, 2020). The targets for CSP adopted in 2011 were much higher (7,200MW) than the targets for PV (2,800MW) (Ibid). As a result, these specific targets were revised in 2015, lowering the objectives for concentrated solar power to 2,000MW and increasing those for photovoltaics to 13,575MW (Ibid). This makes

[28] Loi n° 04-09 du 27 Joumada Ethania 1425 correspondant au 14 août 2004 relative à la promotion des énergies renouvelables dans le cadre du développement durable.
[29] Plan National de Développement des Énergies Renouvelables et de l'Éfficacité Énergétique.

PV the most important renewable energy in the revised 2015 plan, accounting for more than 60% of the total target of electricity generation capacity by 2030 (CEREFE, 2020). This shows the importance of investment prices and fluctuations in the global market for technologies, which is the reason for the targets set in 2011 and their revision in 2015.

From 2019, the Algerian government starts to reconsider the importance of RES and acknowledges the non-achievements of the PNEREE. The Ministry of Energy and Mines has therefore launched a new plan, the National Energy Transition Programme 2020. This plan, initiated in 2021, takes into account the fact that the dominant national companies in the Algerian energy sector, namely Sonatrach and Sonelgaz, were not sufficiently involved in the previous plan, either financially or in terms of technical expertise (Boukhatem, 2022). Without these two companies on board, implementation of the plan will be hampered. In this new 2020 plan, considered by the Algerian government to be the keystone of Algeria's energy transition, targets and programmes are coupled with the creation of a new ministry and a new company, SHAEMS a joint venture between Sonelgaz and Sonatrach. (Boukhatem, 2022).

Firstly, this energy transition programme proposes a new capacity target of 16,000MW by 2035, based exclusively on solar PV, taking up the trend set in 2015 (CEREFE, 2020). This objective takes into account the generation of electricity connected to the national grid (15,000MW) as well as the generation of isolated electricity (1,000MW), with the flagship project 'Tafouk I' of 4,000MW announced in 2020 (Hochberg, 2020). There has been a clear drop in this target for 2035 compared with the PNEREE target for 2030 (22,000MW), which could be seen as Algeria realising that it was too ambitious in the past and that it is difficult and requires a considerable effort to deploy RES.

Secondly, in order to give greater importance to the energy transition, a new ministry has been created, the Ministry of Energy Transition and Renewable Energies (METRE), separate from the existing Ministry of Energy and Mines.

Third, and perhaps one of the most important measures, was the creation of SHAEMS, the Algerian Renewable Energy Spa Company[30]. This is a joint venture between Sonelgaz and Sonatrach, which is under the authority of the new METRE

[30] Société Algérienne des Énergies Renouvelables Spa.

ministry. The role of SHAEMS is to undertake tenders, conclude power purchase agreements[31] (PPAs) and discuss with prospective investors (Department of Commerce, 2021).

Finally, more specific programmes on energy efficiency, the development of renewables and the Algerian energy mix have been drawn up under this broad National Energy Transition Programme, including the target of at least 30% of electricity generation from renewables by 2030 and targets for various sectors such as buildings, industry and transport. The Commission for Renewable Energy and Energy Efficiency[32] (CEREFE) was created in 2019 to help implement these programmes and achieve the goals set out by the Algerian government (CEREFE, 2020).

With regard to the financing of this transition, the crucial issue that partly determines whether the objectives set will be achieved, Algeria has deployed several means: power purchase agreements as mentioned previously, a National Fund for Energy Management, Renewable Energies and Cogeneration and a Feed-in Tariff[33] (FiT) scheme.

In 2009, with Law 09-09[34], a national fund was set up to establish a tax on oil revenues, with the aim of using this money to deploy renewable energies (CEREFE, 2020). This tax has been set at 1% of oil revenues in 2011 and has been operating ever since (Ibid).

In 2004, with Executive Decree No. 04-92[35], Algeria introduced a feed-in tariff scheme, the first on the African continent. The goal is to accelerate the deployment of RES by enabling more suitable conditions and guarantee for energy producers (Zahraoui *et al.,* 2021). It is intended as a boost for renewables projects and initiatives, mainly solar and wind ones (Brand, 2015).

Algeria is trying to develop partnerships with a number of countries in order to benefit from investment in the renewable energy sector in particular (Department

[31] A longer-term contract between a generator of electricity and its customers, in which energy is bought at a pre-negotiated price.
[32] Commissariat aux Energies Renouvelables et à l'Efficacité Energétique.
[33] It is a a policy instrument that aims to promote investment in the renewable energy sector, in which an above-market price is assured to producers.
[34] Loi n° 09-09 du 13 Moharram 1431 correspondant au 30 décembre 2009 portant loi de finances pour 2010.
[35] Décret exécutif n° 04-92 du 4 Safar 1425 correspondant au 25 Mars 2004 relatif aux coûts de diversification de la production d'électricité.

of Commerce, 2023). China, the United States and Germany are considered, with the German International Cooperation Agency (GIZ) providing considerable support for Algeria's energy transition (Boukhatem, 2022).

Therefore, after reviewing the details of the main energy transition programmes, the main actors involved and the main means of financing, Figure 2 provides a summary linking the various elements. Algeria and its successive governments have made considerable efforts since the early 2000s to initiate an energy transition, in particular by seeking to deploy renewable energies.

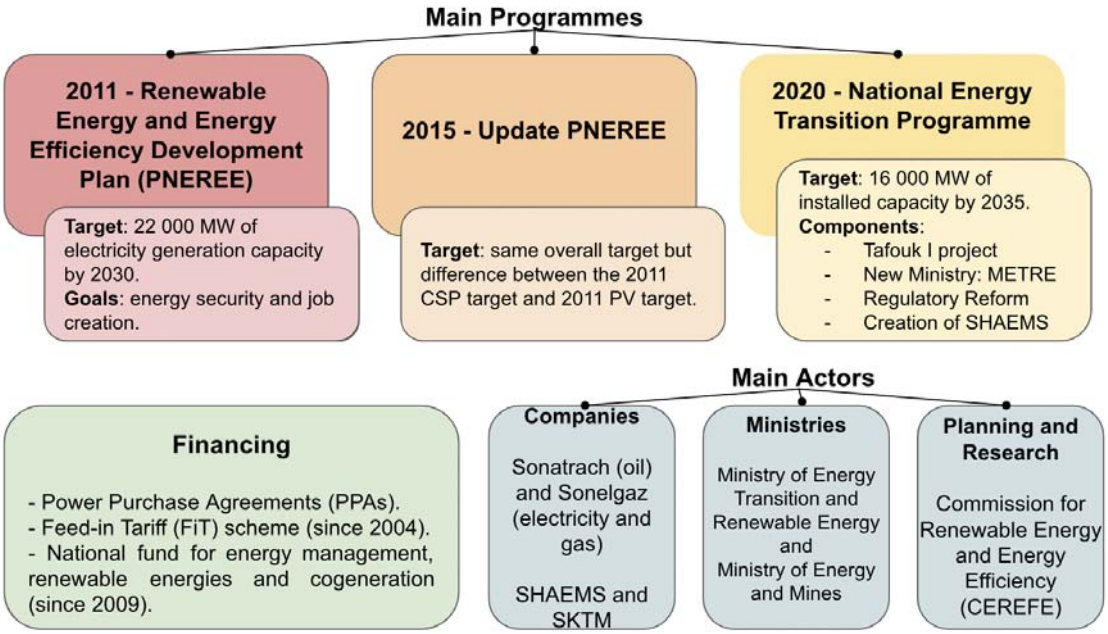

Figure 2 - Overview of Algeria's plan for its energy transition (Source: own illustration)

2.2.2 The Energy Transition in Morocco: Between Policies, Financing and Stakeholders

Morocco possesses a long tradition in the field of renewable energies and is a pioneer among countries in the world and especially in Africa in terms of RE programmes. In 2000, it developed its first large-scale wind power installation (ESCWA, 2018). The year 2009 was a landmark year for Morocco's energy

transition, marking the start of strategies, action plans and programmes for the transition of its energy sector.

The National Energy Strategy was published in 2009, along with the Solar Plan and the Integrated Wind Energy Programme. This strategy aims to diversify the country's energy and electricity mix, in particular by deploying renewable energies, but also to establish energy efficiency as a national priority (Ibid). It is to be done while promoting greater integration in the regional market and maximum access to electricity for its population (Ibid). Reducing greenhouse gas emissions is also one of the objectives of this programme (Bentaibi *et al.,* 2021). The overall target is 42% installed capacity by 2020, which corresponds to 6,000 MW, divided equally between solar, wind and hydropower (Vidican, 2015). This target is accompanied by more specific targets for energy savings and reducing energy consumption in the building, industry and transport sectors, as well as an emphasis on liquefied natural gas (Royaume du Maroc, 2021).

The Solar Plan (Noor) or Solar Integrated Project, also published in 2009, sets out a roadmap for achieving targets for solar energy, whether CSP or PV. It provides for the implementation of five large-scale projects, such as the flagship Ouarzazate Solar Power Station, with the aim of achieving 18% of energy production from solar energy (ESCWA, 2018). This plan is accompanied by the creation of the Moroccan Agency for Solar Energy[36] (MASEN), now known as the Moroccan Agency for Sustainable Agency. This central agency for the deployment of renewable energies, and solar in particular, is responsible for developing projects and coordinating their funding (Vidican, 2015).

The Integrated Wind Programme was launched in 2009 by the National Office of Electricity and Drinking Water (ONEE)[37]. The programme includes the installation of six wind farms, which should generate a total of 1,000 MW, such as in Taza or Tanger (ESCWA, 2018).

The development of this national strategy has been supported by the establishment of a legislative and regulatory framework, particularly for RES. The core law, which has been amended and supplemented many times since 2010, the

[36] Agence Marocaine pour l'Énergie Durable.
[37] Office National de l’Électricité et de l’Eau Potable

date of its introduction, is Law No. 13-09[38]. Thanks to this new law, projects with medium and high voltage can now access the electricity network, which was previously completely owned by ONEE, as well as the possibility for private enterprises to build power plants with a maximum capacity of 50 MW (Vidican, 2015). This open-up of the energy market for renewable energy sources facilitates the deployment of renewables. Another important law that should be mentioned is Law No. 47-09 on the promotion of energy efficiency[39], which follows the creation of the Moroccan Agency for Energy Efficiency[40] (AMEE).

This national energy strategy is revised in 2015 and then presented to the world at COP22 in Marrakech in 2016. The 2015 target is set at 52% installed capacity, or 12,900 MW by 2030 (ESCWA, 2018). This was accompanied in 2016 by the creation of the National Authority for Electricity Regulation (ANRE), responsible for regulating the electricity market, electricity grids and, in particular, the deployment of renewables on grids, in accordance with Law 13-09. The new Ministry of Energy Transition and Sustainable Development[41] (MTEDD) is currently preparing and adopting new roadmaps on a range of subjects, including green hydrogen, biomass, the use of marine energy and the decarbonisation of industry (MTEDD, 2023). In addition, to improve the effectiveness of its measures, an attempt is being made to establish links between the energy sector, in particular the solar sector, and the housing and agriculture sectors. AMEE, for example, is working with the Ministry of Housing and the Ministry of Agriculture to promote solar technologies in new projects (Vidican, 2015).

Morocco has adopted different methods from Algeria to finance its transition. First of all, it is using the public-private partnership[42] (PPP) framework. It is the case between the Moroccan government, and specifically MTEDD with notably MASEN, the Agency for Sustainable Energy. MASEN is responsible for organising bidding processes for projects, mainly solar, as well as managing grants and loans from bilateral, regional and international donors (Vidican, 2015). The main donor

[38] Dahir n°1-10-16 du 26 Safar 1431 (11 février 2010) portant promulgation de la loi n° 13-09 relative aux énergies renouvelables.
[39] Loi n° 47-09 relative à l'efficacité énergétique au Maroc.
[40] Agence Marocaine pour l'Éfficacité Énergétique.
[41] Ministère de la Transition Énergétique et du Développement Durable.
[42] It refers to a partnership between an agency from the government and a private company to finance and operate public projects.

agencies include the World Bank (WB), the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) for the European Union, the African Development Bank (AfDB), the Arab Fund for Economic and Social Development (AFESD), the Kuwait Fund for Arab Economic Development (KFAED), the French Development Agency (AfD), the Freditanstalt für Wiederaufbau (KfW) and one of the major one, the German International Cooperation Agency (Vidican, 2013). Furthermore, the Morocco Sustainable Energy Financing Facility (MorSEFF) has been created in 2014 by the EBRD and EIB in cooperation with France with AfD and Germany with KfW. This involves the provision of credit lines worth around €110 million to two leading Moroccan banks. The aim is to support private companies by providing financing for renewable energy projects and technologies (MorSEFF, 2014).

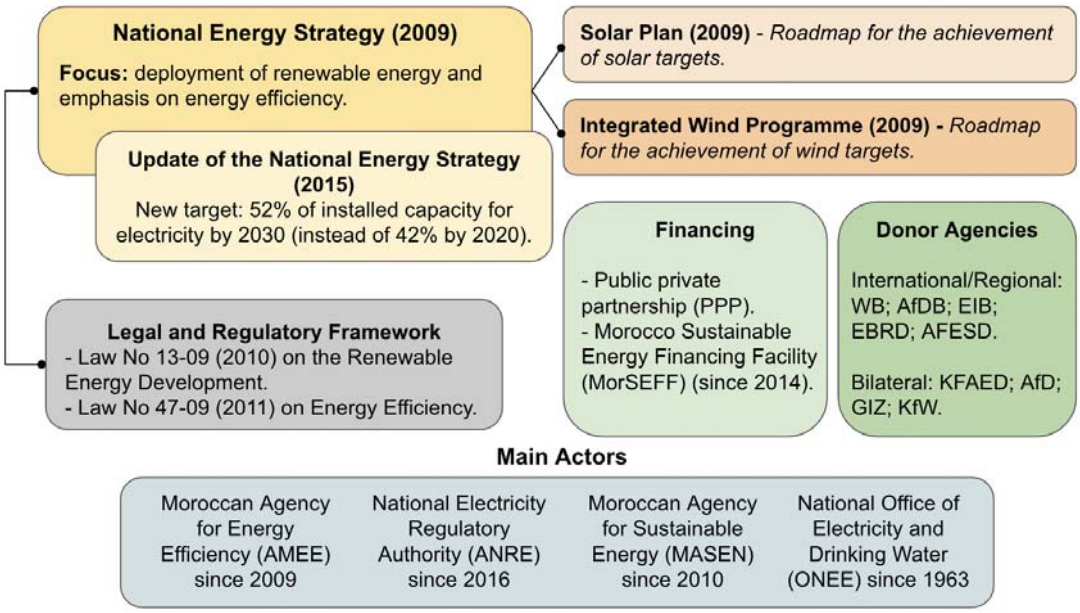

Figure 3 - Overview of Morocco's plan for its energy transition (Source: own illustration)

To conclude, this section presented the efforts made by Morocco in its energy transition, with the introduction of programmes and regulations, the creation of agencies dedicated to RE, and the development of funding and collaboration with external donors. This is summarised in Figure 3 above, providing an overview of the major programmes and their targets, as well as the actors and funding framework.

2.3 Current Status and Achievements

The aim of this section is to provide an update on the status of renewable energy deployment in Morocco and Algeria, and to outline their (non-)achievements, to assess whether the stated objectives are being achieved.

Algeria

As mentioned above, Algeria has presented ambitious targets and made considerable efforts to develop a legislative, regulatory and financing framework. Despite this and the potential for renewable sources in its territory, a wide gap remains between its objectives and its current achievements (Hamiti and Bouzadi-Daoud, 2021). In fact, there appears to be a failure to implement the 2011 and then 2015 targets of the PNEREE, with insignificant results (CEREFE, 2020). Table 2 below summarises the targets set by PNEREE 2015 for the deployment of renewables by 2020, and the current installed capacity of renewables in Algeria in 2020.

Source		Target by 2020 (MW)	Installed in 2020 (MW)	Achievement (%)
Solar power	PV	3 000	400	13.33
	CSP	-	25	-
Wind power		1 010	50	5
Bio-power		360	0	0
Geothermal		5	0	0
Total		4375	475	10.8

Table 2 - Status of the achievement of the 2015 PNEREE in Algeria in 2020 (Source: Zahraoui *et al.*, 2021)

It is clear from this table that the targets are far from being achieved, with a very low score of 10.7% of achievement. As a result, there is a certain scepticism about the implementation of the new 2020 programme, and its targets in view of the non-accomplishments of Algeria's first plan (Department of Commerce, 2021), and

of the 2035 targets considered ambitious in view of their timeframe (Hochberg, 2020).

Morocco

Morocco, regarded as a North African leader in the deployment of renewable energy sources, has made great efforts in recent years to meet its ambitious targets for diversifying and decarbonising its energy sector. In 2022, 38% of its installed capacity for electricity came from RES. However, the target of the 2009 strategy advocates for 42% by 2020 (Ministère de la Transition Énergétique et du Développement Durable, 2023). Table 3 presents Morocco's achievements in 2022 in view of its 2009 target for 2020.

Morocco fell short of its first target by a very small margin, which can already be seen as a good step towards the new 2015 objective of 52% installed capacity by 2030. To date, 111 renewable energy projects have been approved and developed or are under development, according to the Ministry (2023).

Source	Target by 2020 (MW)	Installed in 2022 (MW)	Achievement (%)
Solar power	2 000	830	41.5
Wind power	2 000	1 430	71.5
Hydro-power	2 000	1 771	88.55
Total	6 000	4 031	67.1

Table 3 - Status of the achievement of the 2009 Strategy in Morocco in 2022 (Source: own illustration based on Ministère de la Transition Énergétique et du Développement Durable, 2023)

Therefore, this chapter has highlighted the ongoing energy transition in Algeria and Morocco, with its rationale, the policies implemented and the current status of renewable energy deployment. This will serve as a basis for the next

chapter, which provides the key answers to explain the differences in the achievements of their targets in these two countries.

Chapter 3 - Case study: Comparative Analysis of the Effectiveness of the EU-Algeria and EU-Morocco Partnerships

3.1 EU and its Partnerships: EU-Algeria and EU-Morocco

The aim of this section is to analyse the European Union's relations with Algeria on the one hand and Morocco on the other. The focus is on their energy partnerships and, more specifically, on energy transition. Although Morocco and Algeria are both countries included in the European Union's Southern Neighbourhood Policy, their relations vary considerably, notably because of their characteristics as net importers and net exporters respectively, but also because of the political and historical context of these two countries.

3.1.1 EU General Partnerships with Algeria and with Morocco

EU-Algeria partnership

The European Union and Algeria share diplomatic relations since the latter's independence in 1962 (EEAS, 2021b). Signed in 2002 and brought into force in 2005, the Association Agreement between Algeria and the EU sets out the areas of cooperation between the two parties. In 2017, the shared Partnership Priorities were adopted in a context of renewed cooperation and partnership between the EU and Algeria. There are five priorities, including governance and fundamental rights, socio-economic development and trade, security, migration, and of course energy and the environment (European Parliament, 2023b). One of the main areas of cooperation is economic transition and diversification with the EU funding numerous programmes in this area (EEAS, 2021b).

Algeria is a key partner for the European Union in the region south of the Mediterranean. As well as being a major regional player, the country is also seen as a guarantor of stability in the face of tumult in the North Africa and Middle East

region (European Parliament, 2023b). However, although the European Union and some of its Member States are key trade partners for Algeria, it appears that Algeria is reluctant to engage actively with the EU, particularly in the European neighbourhood policy (Schumacher, 2018). This can be explained in particular by Algeria's painful past as a colony of France, which has left its mark on the way Algeria interacts with the outside world, particularly with Europe (Farrand, 2022).

EU-Morocco partnership

The relationship between Morocco and the European Union is one of the most developed in the framework of the south partnership of the European neighbourhood policy (European Parliament, 2023b). This is notably reflected in an association agreement which came into force in 2000, following the establishment of a free trade area signed in 1996. In 2008, Morocco became the first country to benefit from the new 'Advanced Status' under ENP. Advanced status might be viewed as a way to increase cooperation (Jaidi, 2009), such as increased political dialogue, trade liberalisation and more cultural programmes (Kausch, 2010). In addition, Morocco has decided to align part of its legislation with the acquis communautaire of the European Union (Ibid). The shared values and priorities are set out in a joint declaration in 2019 entitled 'Euro-Moroccan Partnership for Shared Prosperity'. These include ecological transition to combat climate change, good governance, prosperity and the economy, as well as migration (European Commission, 2021).

This special relationship between the European Union and Morocco is based on shared benefits. While the European Union is interested in opening up the Moroccan market to European exports, Morocco sees this cooperation as a means of boosting its economy and attracting foreign direct investment (Kausch, 2010). Yet this relationship is about not just economics, but also about political influence. The European Union can assert its influence in the region while ensuring that Morocco acts as a 'buffer' between the European Union and perceived threats from North and Sub-Saharan Africa. Morocco, for its part, enjoys a very close relationship with the EU, probably the closest of all the Mediterranean countries, which enables it to assert a perceived influence and leadership (Ibid).

3.1.2 EU Energy Partnerships with Algeria and with Morocco

EU-Algeria energy partnership

Energy is a key aspect of the partnership between Algeria and the European Union, particularly in terms of natural gas. Algeria is the European Union's third-largest source of gas supplies, after Russia and Norway (Russell, 2020). In return, the European Union is Algeria's major importer of gas. The relationship is therefore interdependent: the European Union needs Algerian gas for its security of supply[43], and Algeria needs the European Union in order to ensure its gas revenues (European Commission, 2022c).

The strategic partnership on energy between Algeria and the European Union, established in 2015, follows from the realisation of this shared interdependence in the energy sector. Its aim is to strengthen the EU-Algeria energy partnership on energy issues, including natural gas, the promotion of renewable energies and energy efficiency (EEAS, 2021b). Under this partnership, an EU-Algeria Political Dialogue on Energy Matters has been established, as well as an EU-Algeria Energy Business Forum in 2016. This Business Forum serves as a framework for discussing how Algeria can attract investment, particularly for gas and renewable energy projects, by bringing together European and Algerian energy companies (Grigorjeva, 2016).

The two main areas of cooperation between the EU and Algeria are gas on the one hand and the prospect of an energy transition with the deployment of renewable energies on the other[44]. This reflects the objectives of the EU's energy foreign policy, which focuses on diversification in the short term and decarbonisation in the medium and long term. This was reaffirmed in October 2022, at the EU-Algeria Energy Business Forum, where European Energy Commissioner Kadri Simson said that the EU was ready to strengthen its partnership with Algeria in the energy field, and not just in the gas sector (Algérie Presse Service, 2022).

[43] This is particularly relevant in the context of gas supply difficulties in view of the Russian war of aggression in Ukraine.
[44] Two working groups have been set up: the working group on gas and the working group on renewable energy and energy efficiency.

This coincides with Algeria's objectives for its energy sector presented in Chapter 2. However, Algeria is wary of the rapid change in the direction of EU energy policies, such as the EU's recent shift in focus from the electricity market in the region to green hydrogen (Farrand, 2022).

EU-Morocco energy partnership

Morocco, a net importer, was not originally part of Europe's external energy policy. Indeed, this country was not considered to be of benefit to the Union energy policy, having no fossil fuel resources that had apparently been discovered and not generating its own energy. However, in recent years and with the European Union's new focus on the energy transition towards a system that incorporates more renewable forms of energy into the energy mix, Morocco has become an essential partner. Indeed, as analysed above, Morocco has ambitious targets and programmes for the deployment of renewables in particular, which are in line with the EU's objective of decarbonisation.

The EU-Morocco Green Partnership was launched in 2022 ahead of COP 27. This partnership is the first of its kind and is the first initiative with a third country to be part of the external dimension of the EU Green Deal (European Commission, 2022d). This partnership, entitled 'Energy, Climate and Environment', has three areas of cooperation: protection of the environment, conservation of biodiversity and the fight against climate change (Ibid). Morocco, perceived by the European Union as a leader in terms of climate and environment, thus benefits from the most comprehensive partnership that the European Union has with an African country, which according to Frans Timmermans also has the most potential (Ibid). The joint objective of these two parties is to strengthen their partnership on environmental and energy issues, with the aim of boosting the green transition on both sides of the Mediterranean.

This green transition includes a key energy transition, with the deployment of renewable energy sources. The development of the green hydrogen sector is also a major area of cooperation between the EU and Morocco (European Commission, 2022b). For the green transition, the European Union has invested

around €700 million in Morocco in recent years (European Commission, 2022d). However, it is important to note that this is not just generosity on the part of the EU, as Frans Timmermans states last year “We are doing this for Morocco, but also for ourselves - let's be clear: there is an interest on both sides. Let's not hide it.[45]” (European Commission, 2022a).

Differences between the two partnerships

This section has shown that the European Union has a relatively different partnership with Algeria than with Morocco. The names of the partnerships, their main objectives and the main areas of cooperation are different, as summarised in Table 4.

	Algeria	**Morocco**
Type of partnership with the EU	Strategic partnership on energy	Green Partnership
Aims of the cooperation	Security of supply and security of demand	Boosting the green transition in Morocco and the EU
Areas of cooperation	Natural gas Deployment of renewables and promotion of energy efficiency	Protection of the environment and biodiversity Fight against climate change Energy issues (transition)

Table 4 - Comparison EU-Algeria and EU-Morocco partnerships (Source: own illustration)

The focus of these two partnerships is fundamentally different: while one has a more economic market dimension, the other addresses environmental issues and the climate change crisis. This can be explained by the different nature of these two countries in terms of their energy sectors and the difference in their rationale for an energy transition, and thus of what they can and will be able to offer the European Union. It is also important to mention that neither of these

[45] Traduction. Original sentence (in French): "Et on fait ça pour le Maroc, mais aussi pour nous-mêmes – soyons clairs : il y a un intérêt des deux côtés. Il ne faut pas le cacher.”

partnerships has an exclusive focus on energy transition. This is just one of a number of priorities, which can be explained by the EU's short-term diversification objectives, but also by the geopolitical context and internal context in Algeria and Morocco.

3.2 Effectiveness in EU-Algeria and EU-Morocco Energy Partnerships

This second and last section builds on the findings of the first section on the type of energy partnerships that the European Union has with Algeria and with Morocco. The study applies the theoretical framework developed by Schunz (2021) to analyse the effectiveness of the European Union's external action, and here more specifically to assess the effectiveness of the EU-Algeria and EU-Morocco energy partnerships on the part of the EU. This is done by adding to this framework the methodology of comparative analysis to highlight the differences or similarities in the effectiveness of these partnerships.

3.2.1 Theorizing Effectiveness

The question of the effectiveness of the EU's external actions, or to what extent and why the EU has been externally effective in a given context and timeframe, is central to the study of the European Union's external policies or actions. According to Schunz (2021) effectiveness can be understood as the intentional achievement of an actor's objectives. However, despite the importance of this question, and given the challenges of finding an answer, it is often overlooked by scholars in favour of other questions on the nature of the EU as a power or on its actorness (Ibid.) as mentioned in Chapter 1. To address this research gap, a new branch of literature has developed in the early 2010s with the introduction of concepts such as 'performance' (Jørgensen *et al.,* 2011), 'influence' (Schunz, 2010) and previously 'impact' (Ginsberg, 2001). To offer an alternative to these studies, which unfortunately often focus only on short-term effects and overly on EU-centric variables, Schunz (2021) proposes his own analytical framework to explain the degree of effectiveness of the EU's external action in a predefined context and period of time.

In order to accurately answer the question of to what extent and why the EU was externally effective across time, four steps are proposed to be applied to a case study by Schunz (2021).

Identification of EU objectives

The first step is to identify the European Union's objectives for a given external undertaking within a predefined context and setting. According to Schunz (2021), this step is based firstly on an analysis of the objectives set out in official EU documents. However, a cross-check with documents from secondary sources is necessary, in particular, to ensure that the stated objectives are indeed the real objectives behind an EU action.

Comparison between objectives and outcomes

Having identified the objectives, these are compared with the outcome of an external action. This is done in order to determine whether it is a low degree, medium degree or high degree of EU input-output match. It determines the degree of EU goal achievement by analysing whether the EU's 'real' objectives have actually been achieved (Schunz, 2021).

Process tracing

Next, the third step is to analyse whether the objectives achieved are the result of intentional and purposive action on the part of the EU or not (Schunz, 2021). To determine the degree of the instrumentality of the EU, meaning whether the EU was instrumental in bringing about the result, a process tracing can be done by reconstructing how the outcome was made. To do this, the following questions must be answered: 'when', 'what' and 'how', in order to see whether it is the result of the EU's own action or also factors external to the EU that can lead to such an outcome (Schunz, 2021).

Degree of EU external effectiveness and the Alter perceptions

The final step is to determine the degree of effectiveness, based on the results of the previous three steps and including the perceptions of the Ego and the Alter about this effectiveness (Schunz, 2021). In other words, EU goal achievement, which is the degree of outcome match with the objectives, and the instrumentality of the EU in the studied process are analysed jointly and corroborated by the perspectives of the EU itself and the other actors on that said effectiveness.

3.2.2 Applying the Theory

This theory of effectiveness developed by Schunz (2021) is now applied to the case study. The analysis is first framed and then the four steps detailed above are followed.

Framing the analysis

This comparative analysis is a case study of the energy partnership between the European Union and Algeria and between the EU and Morocco, with a particular focus on energy transition. The two central questions are: to what extent and why is the EU-Algeria energy partnership effective? and to what extent and why is the EU-Morocco energy partnership effective? To make this analysis relevant, it is necessary to adopt a time frame. In the case of Algeria, this corresponds to the introduction of the association agreement in 2005, with the partnership intensifying in 2015 with the new strategic energy partnership, until the present day[46]. In the case of Morocco, the timeframe thus begins, as in the case of Algeria, with the introduction of the Association Agreement between the EU and Morocco in 2000 and ends with the start of the introduction of the Green partnership, announced in October 2022.

[46] However, for the purposes of this analysis, the new EU objectives set since the start of the war in Ukraine in February 2022 have not been taken into account, as there is not enough hindsight to assess them.

Identification of EU objectives

To begin with, as far as the EU-Algeria partnership is concerned, it would appear that the European Union has a number of objectives for this partnership, some established bilaterally and others of a general nature as part of the ENP or the Union's external energy strategy. Firstly, the European Union has repeatedly expressed its desire to strengthen the energy partnership and cooperation with Algeria. This was made clear in 2011, for example, in a Commission's communication, which stated that 'the Union has an interest in extending and lifting to a higher level its energy cooperation with Algeria' (European Commission, 2011). Secondly, the European Union has articulated its key objective of ensuring energy security since the beginning of the 2000s with a green paper on the subject (Commission of European Communities, 2000). Algeria, with its proven gas reserves, is an attractive candidate for the EU to diversify its supplies and for meeting this energy security objective (Grigorjeva, 2016). Thirdly, the EU has made energy transition and the deployment of renewable energies one of the objectives of its partnership with Algeria. Behind this presumed objective of contributing to Algeria's energy transition, it appears that the EU's slightly more hidden aim is to benefit from the increase in natural gas exports from Algeria[47] (Tagliapietra and Zachmann, 2015).

The European Union has relatively similar ambitions for Morocco. The major differences are that Morocco is not a fossil fuel producer and that it does not export a large proportion of its energy to Europe, unlike Algeria. The EU sees Morocco as a key partner in the MENA region in the fight against climate change. It, therefore, aims to strengthen its relations with the country as much as possible in order to achieve "a destiny of prosperity and growth" for Europe and Africa (European Commission, 2022a). The second main objective of this partnership for the European Union is to boost Morocco's energy transition as mentioned previously. This drive for greater deployment of renewable energies in Morocco and greater energy efficiency, as well as for the development of green hydrogen, is not just in

[47] Increase that will result if Algeria no longer needs as much for its domestic consumption in case the energy mix includes the production of new energy sources.

Morocco's interests. Indeed, it is openly admitted that the European Union intends to benefit from this transition (See 3.1.2).

Comparison between objectives and outcomes

In this second part, the EU objectives will be compared with the results of the process to determine the EU goal achievement. For both partnerships, a response is provided for each of the objectives.

For the first objective of intensifying relations between EU-Algeria, it can be argued that the degree of outcome match with the objectives is high. As previously mentioned, the European Union and Algeria deepened their relations in 2015, after the EU had been proposing it for years (European Commission, 2011). Then for the second objective of energy security and Algerian gas supply for the EU, it can be argued that indeed the outcome so far matches the objective. Algeria is still a major partner of the EU for gas exports[48], and one which is considered to be 'reliable' (Ghilès, 2009). Finally, it appears that EU goal achievement for the third objective is relatively low. While Algeria has embarked on an energy transition, the production of energy from renewable sources is not yet sufficient to guarantee part of its domestic needs, let alone think about exporting what is produced (See Chapter 2).

As far as the first objective for the EU-Morocco partnership is concerned, namely to strengthen relations with a view to achieving the ambitious goal of joint prosperity, it would appear that goal achievement is rather high so far. Indeed, 2022 saw the creation of an unprecedented new form of partnership, the first in the world with this degree of intensity and commitment with a country outside the European Union (European Commission, 2022d). While it is not possible to judge the effectiveness of this new form of partnership, as it is not yet a year old, it is possible to state that this partnership brings the EU on a steady path towards meeting the first objective. The second objective of boosting the energy transition can be considered with an outcome match relatively high. Indeed, Morocco has ambitious targets and programmes, essential instruments for achieving a transition in its

[48] This is even more evident when considering the problems the European Union has with Russia in terms of gas supplies.

energy system, which are currently achieving very satisfactory results (See Chapter 2).

Process tracing

In order to determine the extent to which the European Union has participated in achieving the outcomes, the action of the EU in its partnerships is traced.

Within the framework of the partnership with Algeria, it appears that the EU is to a large extent instrumental in achieving the first objective of strengthening the partnership. Its action is a little less instrumental in the context of its second objective, because although the European Union has implemented the necessary means to ensure its security of supply of Algerian gas through political dialogue, the signing of long-term contracts and forums in the context of its strategic partnership, this also depends greatly on the context and gas reserves. As for the last objective of energy transition, the European Union is only limitedly instrumental in the outcome, in part because it does not have the possibility of having a game-changing impact on the speed of the energy transition, which depends also on internal factors (See Chapter 2).

With regard to the first objective of the EU-Morocco partnership, it can be asserted from the outset that the EU's action is largely instrumental in the outcome. Indeed, the EU, being the main player behind the impetus for this type of partnership, which it currently has with no other country in the world, has participated for the most part in the process of strengthening this partnership, although it should not be forgotten that Morocco is also largely responsible for this, being the other party to the partnership. With regard to the second objective of fostering the energy transition, the EU's instrumentality is more difficult to determine. The European Union has made a substantial financial contribution in the form of technical and technological assistance, as well as attracting investment in Morocco's renewable energy sector (European Commission, 2022d). Nevertheless, initiatives such as Desertec or the Mediterranean Solar Plan, partly driven by the EU, have not produced the expected results in terms of renewable energy

deployment (See 1.2.2). It can thus be determined that the EU's action is to some extent instrumental in this result.

Degree of EU external effectiveness and the Alter perceptions

For Algeria, the combination of EU goal achievement (step 2) and the instrumentality of EU action in the outcome (step 3) provides good results on the effectiveness of the energy partnership between the EU and Algeria for the EU. Effectiveness ranges from very high for the first objective of intensifying relations to relatively low for the third objective of energy transition. The second objective of Algerian gas supplies to the EU can be considered as highly effective. As explained by Schunz (2021), these results must now be put into perspective with Algeria's perception of the effectiveness of the partnership. While, as mentioned earlier, Algeria adopts a rather distrustful attitude towards the EU, it nevertheless appears that Algeria is partly satisfied with this partnership. For example, in 2016 the then Algerian Ambassador Amar Belani admitted that the EU-Algeria partnership was marked by the “intensity and regularity of high-level exchanges”, described as “mutually satisfactory” (Belani, 2016).

The degree of effectiveness of the EU in its relationship with Morocco can be judged as high. The first objective of more intense and deeper cooperation between the two partners and the second of boosting the energy transition seem to have a relatively high goal achievement. In addition, it has been shown that the EU's action has been mainly instrumental in the outcome. As for Morocco's perception of the effectiveness of the partnership, this seems to corroborate the results found. For example, Nasser Bourita, the Moroccan Minister of Foreign Affairs, said that the EU-Morocco partnership is a "partnership of geographical proximity, shared values and converging interests[49]" (Ministère des Affaires Etrangères, 2023). Nonetheless, the Minister also stated that this partnership “needs to be nurtured and enriched.[50]” (Ibid.)

[49] Traduction. Original sentence (in French): "Un partenariat de voisinage géographique, de valeurs partagées et d’intérêts convergents.”
[50] Traduction. Original sentence (in French): "qui nécessite d’être nourri et enrichi.”

To conclude, this chapter after reviewing the type of energy partnership shared between the EU and Algeria on one side, and between the EU and Morocco on the other, has highlighted the relative effectiveness of these partnerships from an European Union's objectives perspectives. As a result, it appears that these partnerships may be effective in responding to the EU 'real objectives' but they do not necessarily put the major emphasis on the energy transition in both countries.

Chapter 4- Discussion

Chapter Four provides a discussion of the findings of the comparative case study analysis of the EU-Algeria and EU-Morocco energy partnerships, as well as of the findings of Chapter 2. In the first part, the results are put into perspective with the wider context, it is then followed by a discussion of the place of the energy transition in these partnerships and, in the final part, recommendations are provided for boosting and enhancing these energy partnerships.

4.1 Placing the Findings in the Wider Context

In order to make this analysis as comprehensive as possible within the given framework, the results found by applying the theory of effectiveness developed by Simon Schunz (2021) are placed in the wider context of the study conducted in the first two chapters. This is advocated by Schunz (2021), who argues that it is also necessary to explain how it fits into the respective context.

In this case study, the bigger picture of these partnerships between the European Union and its two southern Mediterranean countries is the regional neighbourhood policy framework and the EU external dimension of its energy policy.

To start with the framework of the neighbourhood policy, the European Union has in fact developed privileged relations of cooperation in many sectors, notably energy, because Algeria and Morocco are part of the more general neighbourhood policy. These countries are valuable to the European Union, especially as they are the direct neighbours of its Member States to the north of the Mediterranean Sea. The current context in North Africa[51], and in particular between neighbouring countries, is troubled. In recent years, Algeria and Morocco have maintained very tense relations, culminating in Algeria breaking off diplomatic relations in the summer of 2021[52] (Rachidi, 2022). The Middle East and North Africa region is even considered to be one of the least regionally integrated in the world (Rouis and Tabor, 2013). These tensions make it difficult to enshrine energy partnerships in a more integrated regional approach. Indeed, this is

[51] This refers to a context of recurrent uprisings since the 2010s as well as the ongoing armed conflict in Libya.

[52] This can be explained in part by the dispute over the Western Sahara, where Algeria supports the territory's independence while Morocco asserts its sovereignty over it. Tensions intensified between the two with the normalisation of relations between Morocco and Israel in 2020.

what happened with the Union for the Mediterranean and the desire to set up the Desertec Initiative and the Mediterranean Solar Plan. Unfortunately, these initiatives did not materialise, partly because of the lack of a joint and common approach on the part of the countries to the south of the Mediterranean, which maintain few relations with each other but all with the European Union (Tagliapietra, 2016). This explains why the European Union and its partners are focusing on bilateral partnerships, which are more likely to achieve their objectives than regional initiatives.

The findings of the analysis of energy partnerships' effectiveness may also be placed in the wider context of the EU external dimension of its energy policy. Chapter 1 outlined the European Union's two main objectives for its energy policy, namely diversification and decarbonisation. Through the analysis of the effectiveness of the EU-Algeria and EU-Morocco partnerships, these objectives have been illustrated, to reveal that the former objective is more involved in the EU-Algeria partnership, while the latter is more involved in the EU-Morocco partnership. It can be noted from the findings of the analysis that the objective of security of supply appears to be more important in the EU-Algeria relationship than the objective of promoting energy transition for the EU. Indeed, these two objectives are distinctly contrasting, and often in competition, as reflect by the trilemma put forward by the World Energy Council (2022). However, where they differ most is in their timeframe. Although the European Union intends to realise these aims simultaneously, there is a real focus on diversification in the short term and on decarbonisation and energy transition in the medium and long term. This balance between short term and medium/long term can be difficult to achieve, and can be misleading for the EU partners if not properly understood. It has led to criticisms about an ‘EU double discourse’ and confusion about the priorities because of ‘mixed signals’ from the EU (Farrand, 2022). At first glance, it might appear that the EU is benefiting from supplies of fossil fuels from Algeria, for example, while it is helping Morocco to develop its renewable energy sources. However, it should be acknowledged that this is in line with the respective wishes and interests of the Algerian and Moroccan governments, as well as with the EU's ultimate goal of ensuring sustainable, secure and affordable energy.

4.2 Rethinking the Energy Transition in the EU Partnerships

This following part focuses on the repositioning of the energy transition as a key priority in European Union's energy partnerships with Morocco and Algeria. The analysis

carried out in Chapter 3 of the case study highlights the place given to energy transition in these two partnerships. While the promotion of the energy transition appears as the second objective after security of supply and the logic of trade and the market in the EU-Algeria partnership, the green transition, including the energy transition, is placed as the central objective of the new form of partnership between the EU and Morocco. This has to do in particular with the different political wills of the countries, and their rational for effecting such a profound change in their energy system, as well as the global nature of the partnership they maintain with the EU. Nevertheless, the need for a profound change at global level in the energy sector is clear and urgent.

4.2.1 Placing the Energy Transition at the Heart of EU Partnerships

Both Morocco and Algeria have embarked on their energy transitions, with national programmes in place and ambitious targets planned for 2030 and 2035 respectively (See Chapter 2). To achieve their ambitions, further efforts will be required, particularly in terms of finance and the regulatory framework. The European Union and its Member States are currently in the process of carrying out their own energy transition to achieve climate neutrality. These two countries and the European Union therefore have an interest in working together more intensively on this issue, particularly in the context of their existing energy partnership. Through cooperation initiatives on the technical side, with apprenticeship programmes and the transfer of expertise on both sides, particularly in universities or other training centres, the partnership could be intensified.

4.2.2 Emphasis on the ‘Just’ Transition

Emphasis must also be placed on the just and fair aspect of the energy transition. Indeed, it is not just a case of promoting a change in the energy system that increases energy efficiency and allows for a greater share of RES in the energy mix. The energy transition that is underway on both sides of the Mediterranean should take into account the dimension of social, economic and environmental justice.

The European Union has very recently set up Just Energy Transition Partnerships, which are seen as a real opportunity to switch out of fossil fuels, and coal in particular in this case, with a focus on the social aspects of the energy transition (Kramer, 2022). These partnerships are based on the pillars of commitment by countries,

accelerated technical and financial assistance, dialogue for and by countries geared towards finding solutions, as well as on achieving the SDGs (Élysée, 2022). It could be interesting to draw inspiration from these pillars to increase the effectiveness of the the partnerships EU-Algeria and EU-Morocco, particularly for the review of the one with Algeria energy partnership, which dates back to 2015. For example, although a working group already exists between Algeria and the EU on the deployment of renewables and energy efficiency, it could be engaging to extend its scope to include the 'just' component of the energy transition.

This ‘just’ component ought to be considered in ongoing energy transitions, and placed as a non-negligible part of the EU's partnerships with its southern neighbours to ensure a fair phase-out of fossil fuels notably.

Conclusion

The aim of this research was to analyse how the European Union's foreign energy policy's objectives were shaped in the context of its neighbourhood policy, and in particular its southern dimension, and the wider context of the external dimension of its energy policies. To this end, a case study on the energy transition in Morocco and Algeria and a comparative analysis of the effectiveness of the EU-Algeria and EU-Morocco energy partnerships were carried out. As a result, it appears that the European Union has adopted two major objectives of diversification and decarbonisation under the umbrella of the ultimate purpose of ensuring secure, sustainable and affordable energy.

Chapter 2 provided a satisfactory answer to the first sub-question, namely what is the state of play of the energy transition in Algeria and Morocco. This was done through a case study of the energy transition in these two countries, outlining their rationale for initiating such a transition, explaining the various existing policies and targets, and providing a section on the current status of this transition, particularly in the renewable energy sector. The answer is that Algeria seems to be a long way from achieving these targets, if the results in 2020 for its 2020 targets are any indication. However, the new National Energy Transition Programme published in 2020 gives hope that Algeria will really take its energy transition into its own hands, and make even greater efforts to increase its energy efficiency and deploy renewables. Morocco, for its part, is proposing very satisfactory results in view of the installed capacity in 2022 compared with its targets. It demonstrates its relentless efforts to diversify its energy mix, in order to no longer depend on fossil fuel imports and commit to the fight against climate change.

Chapter Three focuses on answering the second sub-question: to what extent are the EU's energy partnerships with Algeria and Morocco effective in the wider context of the EU's energy foreign policy objectives? To do this, a comparative analysis is carried out based on the theory of effectiveness developed by Schunz (2021). The analysis concludes that these energy partnerships are relatively effective, particularly the one between the European Union and Morocco. These results were then set against the wider context of the regional neighbourhood policy framework and the EU external dimension of its energy policy, in order to ensure as comprehensive an approach as

possible in the frame of the limit of word. This reinforces the finding that the EU-Algeria partnership for the time being seems to respond more to a short-term objective, namely the diversification of supplies for the EU, while that between the EU and Morocco corresponds to an objective based more on the medium- to long-term, which is decarbonisation. This chapter concludes by stressing the importance of repositioning the energy transition as a core priority for the EU in its energy partnerships, particularly with Algeria and Morocco.

Limitations and Future Research

Some limitations can be identified with regard to this study, notably due to the word limit and the time allotted to complete it, which could provide perspectives for future research.

The analysis of the effectiveness of the partnerships between the European Union and Morocco and the EU and Algeria could have included a more comprehensive analysis of how Algeria and Morocco perceive the partnership. This is due, on the one hand, to the difficulty of accessing documents from the respective governments of Morocco and Algeria and, on the other hand, to the fact that the focus of this analysis is on the EU's objectives and their achievement within the framework of these partnerships, in order to determine effectiveness, and not the objectives of these two countries. This could be an approach for future research with more resources, to be more comprehensive and adopt a less Euro-centric approach.

Furthermore, with the possibility of writing more words, it would be interesting to extend the research on the barriers to energy transition in the two countries chosen for the case study, Morocco and Algeria. Identifying the problems is the first step towards finding solutions. Once the barriers have been determined, solutions could be proposed, and it would be possible to see how the partnership with the European Union could make an effective contribution to addressing them.

Finally, it would be relevant in the coming years to assess the new forms of partnership that the European Union currently established with its partners. To analyse the EU-Morocco Green Partnership, for example, could be useful to determine whether it

results in an increase in effectiveness in the partnership for the EU. The same applies could apply to the new Just Energy Transition Partnerships.

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