Universiteit Leiden

Master thesis

# What neo-colonial mechanisms are present in Franco-Algerian and EU-Algerian energy relations?

## Examining the cases of Algerian shale gas and solar power

**MA International Relations**

**Global Conflict in the Modern Era**

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# Abstract

This thesis assesses and compares neo-colonial mechanisms in Franco-Algerian and European Union-Algerian relations in shale gas exploration and solar power potential. Neo-colonialism supposes traditional colonial activities have not ended after decolonisation but are continued 'hidden in plain sight'. The criteria to investigate these mechanisms are economic predominance, political influence, and perpetuation of socio-economic disparities by cooperation with an elite in the former colony. The theoretical framework draws from the fields of international relations and anthropology. Energy security being the main priority for Algeria, France, and the EU, it dictates the development of new energy resources, often failing to take into account the effects on inhabitants of the extraction zones thus maintaining neo-colonial mechanisms.



Keywords: Algeria, energy security, energy transition, European Union, France, neo-colonialism, renewables, shale gas, solar power

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# Chapter 1: Introduction, methodology and theoretical framework

## Introduction

Whereas the 2011 Arab Spring swept through the Middle East and North Africa (MENA), notably engendering the Libyan crisis and Syrian war, Algeria largely evaded the tumult. Under the authoritarian regime of the revolutionary Front de la Libération Nationale party (FLN) since its 1962 independence from France, the country was led by President Abdelaziz Bouteflika who remained in power from 1999 to 2019, and was ousted under civilian and military pressure when he announced his candidacy for his fifth presidential term (BBC News 2019). Abdelmadjid Tebboune's appointment did not appease demonstrations, as the candidates of the 2019 presidential elections were politicians from Bouteflika's regime, and he was elected after garnering 58,13% of the historically low voter turn-out (±40%). The regime is known for buying off social unrest through a rentier system, thanks to the revenues from the hydrocarbons export, of which the bulk is exported to Europe (Cavatorta and Tahchi 2019, 8–9). However, it was unable to quell protests from the Hirak movement, as oil barrel prices dropped to historic lows due to the COVID-19 crisis in 2020 and nearly tipped the country into a financial crisis (Abbouzzohour and Ben Mimoune 2020). It was another painful sign that the petrostate[1] is in dire need of economic diversification.

Historically, Algeria has relied on its oil and gas reserves for its national energy supply and export: it is the 17th oil exporter and 7th gas exporter worldwide (Erbach 2014, 10). However, the nation's population growth requires more energy than it can produce while keeping its revenue on the same scale (Aczel 2020). Algeria's dependence on fossil fuels makes its economy extremely vulnerable to fluctuation. In light of increasing conscientiousness of climate change and the effects of hydrocarbons thereon as well as dwindling fossil fuel reserves, many states have started securing new energy sources. Whereas renewable energy (RE) sources are presented as ecological panacea, an unconventional fossil fuel was promoted as an economic panacea (Observatoire des Multinationales and Basta! 2015, 25).

When the US went through its shale gas 'boom' in the early 2000s, it sparked interest across the globe. Algeria is estimated to have the 3rd largest shale gas reserves[2] in the world, after China and Argentina. Gas export accounting for the bulk of its revenue, Algiers was

[1] Algeria qualifies as a petrostate, as hydrocarbons account for more than 90% of total exports, supply 30% of GDP and account for 60% of state budget.
[2] See Figure 2

determined to explore and exploit the newfound riches. Societal awareness of the environmentally harmful practice – hydraulic fracturing or fracking –, led to mass protests in the Algerian Sahara in 2015, where the first explorations took place, in partnership with foreign companies. The French company Total S.A.'s, interest in the endeavour triggered suspicion among the Algerian population that France had neo-colonial interests in Algerian shale gas even as France banned the practice in 2011, with the colonial shadow present in the countries' bilateral relations today (Aczel 2020; Vince 2018). Negative public debate is the main reason fracking has not yielded many results in EU countries either.

Solar power would be a different avenue to relieve dependency on the current hydrocarbon reserves. Algeria has one of the highest potentials for solar power exploitation as more than 80% of its territory lies in the Sahara, which amasses the most sun hours on Earth. Solar power is the fastest-growing energy source and the industry around its exploitation is at the forefront of technological innovation. Algiers aims to harness its solar power potential to alleviate the share of fossil fuels in its exponentially growing domestic energy consumption. RE sources also lend themselves well to the demand for new skills that could stimulate education and job creation. Algeria's young population[3] is a testament to the devastating effects of 1954-62 independence war and 1991-2002 civil war on the socio-economic composition.

Algeria's current engagement in the world order is secured through its powerful position as a gas exporter, meaning its energy export is also its foreign policy. After its independence, the government promoted isolationist policies to ward off Western influences and is now gradually opening up to foreign involvement in light of its energy security conundrum. However, Algiers has a history of perceiving foreign involvement as attempts to interfere with its sovereignty, especially when France is involved. After the Ukrainian crisis and consequent Crimea annexation by Russia in 2014, the EU was forced to thoroughly reassess its energy security as it aims to decrease dependence on Russia, its main gas import, and increasingly turned towards its Southern Neighbourhood (Grigorjeva 2016).

I aim to assess the potential neo-colonial mechanisms in Franco-Algerian relations and EU-Algerian relations in the case of shale gas exploration and solar power exploitation. To facilitate these assessments, a theoretical framework will be laid out that will provide the IR theoretic context and three criteria that will serve as the lens through which the cases will be assessed. The second chapter provides a historical context that will clarify why Franco-Algerian relations still shape the foreign policy behaviour of Algeria and detail its relationship with the EU. The

[3] 70% of the population is younger than 30 years old. 28,5 is the median age.

second part, divided in two chapters, will treat both cases. The third chapter and fourth chapter assess the neo-colonial mechanisms in shale gas exploration and solar power in Algeria on the basis of the criteria distilled in the theoretical framework.

## Methodology

This thesis aims to answer the question(s): **What neo-colonial mechanisms are present in Franco-Algerian and EU-Algerian energy relations?** with a focus on two 'novel' energy sources, shale gas and solar power. It qualifies as a within-case analysis as its subject is the neo-colonial mechanisms in the Algerian energy market and its foreign relations. It does, however, include a comparative cross-case analysis at its core: that of both shale gas vs. solar power, and France vs. the European Union. Franco-Algerian relations are mutually defining foreign policies (Caruso and Geneve 2015). Including the EU for a comparison originated from an initial literature review, which also denoted EU neo-colonial practices in the Maghreb. I selected this case because the access to energy resources shapes contemporary geopolitics and I was curious what this could mean for the power dynamics with former colonisers and Algeria, a petrostate with a high renewable energy potential. It also raises a follow-up question: **Do renewable energy sources diminish neo-colonial mechanisms?** The hypothesis is that they do, as energy anthropologists have previously observed correlations between the increased use of renewable energy sources and democratisation (Mitchell 2009; Ortar, Loloum, and Abram 2020, 12).

Focusing on neo-colonialism means looking at foreign relations we deem universal as a continuation of the colonial past and forces a shift in presuppositions about relations between states from the Global North or South. Although the theory offers quantitative proof of this worldview (e.g. through the relation between the international financial institutions and national debts), initial indications that a mechanism might be neo-colonial can be found in social discontent and protest. Qualitative research (through written primary and secondary sources) lends itself well to a humanities-based and -centred endeavour. The first part of this thesis includes the introduction, this methodology, an extensive theoretical framework that distils criteria with which to assess the neo-colonial mechanisms, and a historical overview to contextualise current Franco-Algerian and EU-Algerian relations.

The cross-case analysis covers the second part of the thesis and uses the political, economic, and internal colonialism criteria from the theoretical framework. The information used is based on a number of primary and secondary sources, ranging from government documents to interviews and data sets. Firstly, the academic corpus consists of academic articles on a myriad of topics related to this case, including but not limited to energy anthropology,

energy security, French (colonial) history, EU policy, and the technological aspects of both shale gas exploration and solar power. I started my initial research with an energy anthropological lens as I wanted to explore the 'human' side of energy. Along the way, I shifted towards a more IR-centric approach as the case was broad enough by itself. It did influence the angle I took in this research: the humanities-based approach should be amplified, as neo-colonialist theory humanises the stakes of global economy and Global North-South geopolitics. As will be detailed in the theoretical framework, neo-colonialist theory stems from the decolonial struggles and aftermath of the French empire on the African continent. It is irrevocably tied to theories of (symbolic, economic, political, cultural) violence and power dynamics.

Secondly, journalistic sources were very useful because neo-colonialism is a contested theory, as it flips the narrative of Global North redemption for colonisation and underdevelopment through foreign aid and international monetary funds (Jackson and Sørensen 2013, 187). For proponents of neo-colonial theory, it is a (c)overt continuation of formal colonisation. As such, mentions of neo-colonialism will not be found in most (Western) media outlets. I used journalistic sources, from news briefings to larger reports, to get a more practical understanding of where and how Algerians felt they were disadvantaged by alleged neo-colonialist practices. These texts were often activist in nature. While this may seem one-sided, the opposing narrative, that of benevolent powers from the Global North promoting democracy and freedom by facilitating access to the global capitalist free market and its politics, is the universal narrative. Additionally, journalistic sources were needed for information of the rapidly evolving and changing technology landscape in the case of renewable energy sources.

Thirdly, I was able to use some government documents and reports from France and the EU in order to observe policy objectives. In contrast, the Algerian government is notoriously untransparent, sometimes nicknamed 'the Russia of the South'. As a consequence, there is a quite limited corpus of open government documents that give precise details on the practicalities of certain policies. This is a vacuum which I have filled with news reports and interviews that seemed to relay certain policy objectives.

## Theoretical framework

This section considers several theories and concepts to provide a theoretical framework applied to the case analysis. To distil criteria with which to test the French and EU cases, an overview of the geopolitical paradigm, energy security, and Global North/Global South relations, grounded in both IR theory and partly touching upon energy anthropology will be provided. This is followed by a discussion on neo-colonialism and its characteristics.

### i. Defensive realism

For this thesis, I will characterise the global state system within the paradigm of defensive realism. After the decolonisation wave of the 1950s-1970s, more emphasis was put on the nation-state, as newly decolonised countries witnessed a rise in nationalist politics (Jackson and Sørensen 2013, 18). In this paradigm, states are the main actors. According to Waltz, it does not do well to strive for maximum expansion, as this provokes hostility from other states in a bid to counterbalance (2013, 84). This theory aligns with my research because I argue Algeria and the EU (including France) do not aim to expand but to secure the perimeters and maintain balance. Neorealism also denotes the aspect of 'uncertainty' in international relations: a state cannot objectively know if a (rival) state pursues maintenance or revision of the status quo. As such, a state always needs to be ready for the unknown: the paradox, however, is that seeking security (e.g. military expansion, securing resources) can be perceived as power-maximising, thus triggering hostility from other states (Jackson and Sørensen 2013, 225). This paradox is called the security dilemma.

### ii. Energy security

In the field of IR, energy security is a concept that has garnered increased attention in recent years and is generally defined as 'the reliable and affordable supply of energy' (Klare 2012; Vikström 2020; Wilson 2019). The International Energy Agency (IEA) distinguishes short-term and long-term energy security: the energy system can react to sudden changes in supply-demand balance and 'timely investments to supply energy in line with economic and environmental needs', respectively (Erbach 2014, 2). This ties in with the assumption that survival is the main goal: energy is an essential condition for a functioning society.

The current global energy climate poses several problems. Most conventional hydrocarbons, oil and its products, will run out in the 2050s (Klare 2012). Since the 20$^{th}$ century, geopolitical tensions have been mostly borne by energy security concerns in the face of rapid global industrialisation and the consequent population boom (Odeh 2010, 346). In Europe, the Russian gas fields are at the origin of geopolitical and geo-economic quagmires, where the valves on the gas pipelines are often used as hard power tools against Russia's Near Abroad as well as its distrustful partners in the European Union (Blackwill and Harris 2016, 85–87; Korteweg 2018). Historically, the 1973 oil crisis was a hard lesson for the Global North: OPEC members, which were mostly Muslim-majority states, raised oil prices and cut production, slowly cutting off states that supported Israel during the Yom Kippur War (Korteweg 2018). Energy as a hard power is often called the 'energy weapon': it threatens politics, states' economies, and civil society.

To avoid energy stock depletion, states should attempt to diversify their energy economy. Recent developments around oil 'cause anxiety', because of 'fears of global output, oil production gravity from the Global North to the Global South, and vulnerability to attacks', the latter reinforced by the statement that many oil extraction sites and pipelines are situated in, or run through, conflict zones (Klare 2012, 538-41).

Consequently, expected resource scarcity is the driving force behind energy transition and the focus on energy security. Odeh points out how pre-industrial societies either moved on or collapsed in the face of depleting resources needed for human and societal survival (2010, 346). To safeguard access to energy resources, states must not only deal with interstate rivalry and hard power, but also with natural threats: climate change endangers necessities like arable land and clean water, adding to the 'race of what's left' (Klare 2012). In the 1990s, scientists realised fossil fuels were not inexhaustible sources for growth and the oil companies shifted towards a securitisation narrative (Mitchell 2009, 323). This securitasation narrative is exacerbated by the depletion of hydrocarbons in the Global North and the consequent power shift towards the Global South.

The 2015 Paris Climate Agreement represents a collective approach to the climate crisis. It can be regarded as universalist and normative, as it demands lower CO2 emission from developing nations, which are now industrialising. The energy transition phase is part of a paradigm shift that originates from the Global North, pushing for sustainable use of the planet's resources and a new 'ecocentric' worldview (Boyer 2014, 318–19). This new paradigm, with a heightened sense of responsibility for the environment, demands developmental and lifestyle changes that are possible in the 'developed' world but quell growth in developing countries, whose newly industrialised sectors naturally emit a lot of CO2.

### iii. North/South divide and energy justice

Naturally, this involves the global North/South divide in energy flow. The current exchange has the North at the receiving end and the South at the production line. Although there seems to be no correct term for this dichotomy, rather than speaking of West/East, or First/Second/Third worlds[4], the preference seems to be 'Global North' and 'Global South'. The Global North is made up of the affluent consumer societies, mostly situated on the Northern hemisphere of the globe and is nearly entirely comprised of old imperial powers (Odeh 2010). These old imperial powers have installed the extractive industries which are still

[4] The term Third World was very current during the period of decolonisation until the end of the Cold War (1950s-2000s). It remains an important term in early anti-/neo-colonialist theory.

present and controlling economies today. The Global South is defined as needing to draw aid from the Global North. There seems to be consensus on the mechanisms but discord exists on the morality of both sides. Usually, the Global North will regard foreign aid as a moral obligation towards a poorer country (from which resources must be extracted) and attach human development-related conditions, of which the political influence can be considered highly invasive in national sovereignty and politics, or necessary if one subscribes to the view of democratic peace (Uzoigwe 2019). Odeh argues the Global North and South still operate within the paradigm of centre/periphery (2010, 340).

We find most extractive industries in the (semi-)periphery. These are notorious for their impact on the area from which resources are extracted, on a political, societal, and environmental level. Gaining, and keeping, control of areas that have substantial fossil fuel reserves has become a driving force of conflict. Depleting natural resources in Europe therefore play an increasingly pivotal role in the Global South (Korteweg 2018). Whereas energy security historically revolved around fossil fuels, states will now also have to secure safe, stable access to RE sources.

Energy has long been studied separately from social sciences, depicted as an apolitical technological subject, and social sciences have excluded energy from their musings on society (Hornborg 2019, 19–21). Hornborg argues that energy (in)justice is often framed as caused inadvertently by developing technologies for energy harvesting and distributing, while he maintains these injustices are endemic: 'societal strategies for the displacement of work as well as environmental loads, inherently contingent on asymmetric global transfers of biophysical resources and an accelerating production of entropy in the form, for instance, of carbon dioxide emissions' (2019, 21). This ties in with extractivism, a term that can be employed to designate 'activities that overexploit natural resources destined particularly for export to world markets' (Hamouchene 2019, 5). This refers to the environmental and social consequences of extractive industries, which are often disregarded by the political and economic elite. Naomi Klein's notion of 'sacrifice zones' is useful as well: zones inhabited by local population whose health, livelihood and resource security are 'sacrificed' for an elite's wealth accumulation (Hamouchene 2019).

Timothy Mitchell argues that industrialisation engendered more democratisation in the workforce. Coal, as a motor of society, depended on autonomous miners, who could strike through their agency and thus negotiate improvements to their condition. The move towards oil and its products effectively diminished labour intensity and moved production and distribution to the elite (Mitchell 2009, 407–8). Ortar et al. follow this logic and claim there is evidence that

(governmental alignments towards) RE sources can shift power dynamics back to a more advantageous position for citizens (2020, 12).

### iv. Neo-colonialism

Although Cooper warns of 'leap-frogging legacies', where ex-colonies are almost exclusively studied through the lens of their ex-coloniser (Vince 2018, 834), I subscribe to Vince's argument that the Franco-Algerian relation *in se* is not 'exceptional', but is *made* exceptional by both parties by holding on to national myths. In Algeria's case, the national myths surrounding decolonisation legitimise the incumbent ruling party, the FLN.

Most influential for the definition of neo-colonialism are Kwame Nkrumah, Frantz Fanon and Jean-Paul Sartre. It should be noted criticism of capitalism is inherent to neo-colonialist theory as colonialism is the logical conclusion of capitalism in that it creates new markets for itself (J. P. Sartre et al. 2005, 11–12).

Neo-colonialism in itself is hard to clearly define (Schuerch 2017, 5). Its standard dictum 'hidden in plain sight' reasserts this: depending on the angle, it can or cannot be perceived. I will distil some criteria from the most common characteristics attributed to neo-colonialism and will apply these to the French and EU cases in both shale gas and solar power.

In *Colonialism is a System* (1956), Sartre denounces capitalism as an entity seeking ever more markets, thus coming to the logical conclusion it needs to create its own markets. In France's case, it used the newly conquered territories as those new markets. Frantz Fanon's *The Wretched of the Earth* (1961), prefaced by Sartre, introduces a 'tricontinental' system, in which the 'third' continents are those historically oppressed by imperialism, Africa, Asia, and Latin America. The theory of the Third World, or the Non-Aligned Movement (NAM), plays a prominent part. Fanon expanded the theory on colonialist systems and made it abstract and conceptual, applicable to all types of colonialism. *Wretched of the Earth* is a key text in the "post-colonial" world. In the process of decolonisation, the acquiring of formal independence, the colonial power often remains in the ex-colony to provide development aid, to help the ex-colony find its bearings and help it create a stable political and economic environment. According to Fanon, that "has nothing to do with transforming the nation" and is but a "transmission line between the nation and capitalism" (Fanon 1963, 152–53, 179). Fanon explicitly advocated for a violent struggle to end colonial dominion, which opposed him to Nkrumah. In Nkrumah expands upon Fanon and Sartre's ideas of neo-colonialism by adding religion, ideology and culture as areas contributing to neo-colonialism in his book *Neo-colonialism, the Last Stage of Imperialism* (1965, 139, 246–47). According to Uzoigwe, the

precursor to the African Union was a first attempt to counter the infiltration of neo-colonialist mechanisms in 'post-colonial' Africa (2019, 63).

Neo-colonialism theory found its roots in revolutionary, anti-capitalist ideologies, at the on-set of the Cold War. Neo-colonialist theory is not without caveats, often criticised for its inherent vagueness and subjectivity (Schuerch 2017). Obadina, however, implies that Africa's use of neo-colonialism as a scapegoat for its underdevelopment blocks it from reaching the rank of developed regions. Rao attributes the vagueness of the concept to the interchangeability and cross-overs of multiple theories within the study of neo-colonialism, imperialism and globalisation (2000, 165). He therefore argues neo- and post-colonial theories lend themselves well to political-cultural analysis but lack a steady underground for studying political-economic aspects, the latter of which should be developed holding on to their Marxist origins (Rao 2000, 178).

### v. Criteria

Although the exact definition of neo-colonialism is fluid and dependent upon the situation, due to its 'hiding in plain sight', there are aspects that are constant in most texts and often follow each other logically. Bearing in mind the critiques on neo-colonialist theory, the topics discussed in this thesis will be assessed exclusively through the neo-colonial lens.

The first criterium is the economic binding of the former colony as the former coloniser becomes a predominant trade partner (Nkrumah 1965, ix). As a criterium, the neo-colonial power must showcase economic predominance.

The second criterium is the political aspect associated with the first criterium: political influence can be exerted through politically normative conditions applied to development projects.

The third criterium is that neo-colonial mechanisms tend to perpetuate socio-economic disparities within the ex-colony by developing projects that solely benefit the political and economic elites and maintain internal colonial mechanisms (Hamouchene 2019, 6).

The thesis will use these aspects to assess what neo-colonial mechanisms are at play in Franco-Algerian and EU-Algerian energy relations by investigation shale gas exploration and solar power potential in Algeria.

## Chapter 2: Historical context

This section provides a historical perspective on the origins of the often bipolar relations between France and Algeria and contextualises EU-Algeria relations. Their histories became

intertwined around 1830 and Algeria is still most often studied in the context of its post-colonial relationship with France. Under Macron, France has attempted to give a new élan and context in its relations.

Until the self-determination referendum, Algeria experienced French rule under the Bourbon Restoration (1815-1830), the Monarchy of July (1830-1848), the Second French Empire (1848-1871), the Third Republic (1871-1940), Vichy France (1940-45), the Fourth Republic (1945-1958) and the Fifth Republic (1958). Algeria was also part of the European Economic Community (EEC) in its last years leading up to independence by liaison with France (Walsh 2020).

### 2.1. Algérie française (1830-1962)

In 1827, a diplomatic row between France and the Dey of Algiers provided a casus belli for French king Charles X, who launched an invasion into Algeria in 1830 to increase his domestic popularity (Labrune, Toutain, and Zwang 2013, 80–81). While France faced Algerian resistance until the 1870s[5], it employed a settler colonisation, driven by direct rule and assimilation. Elsenhans argues this destructive style of colonisation fed the precursor to a pan-Algerian national identity, uniting different tribes under the same banner (2018, 89-90). Because *l'Algérie, c'est la France*, Algerians gradually were 'Othered' on their home soil: French settlers began calling themselves Algerians (the Pieds Noirs), and Algerians became *indigènes* (natives). By 1848, Algeria was divided into three large French *départements* (Oran, Constantine, Algiers) (Schuerch 2017, 48). However, the idea that only French settlers inhabited Algeria is false, as many European migrants settled in Algeria (Vince 2018, 822).

The Algerian Mediterranean climate lends itself to the cultivation of grain and wine, the latter being the focus in French Algeria (Frieden 2006, 89). France turned the collective, tribal system into a maladjusted capitalist copy in which collective ownership of arable land was turned into rent (J.-P. Sartre 2001, 131).

After WWII, calls for independence increased, but were largely ignored by France and attempts to compromise were promoted through French social reforms (Vince 2018, 824). By 1954, France was engaged in Vietnam. The FLN capitalised on the fall of Dien Bien Phu on November 1st and inspired by Fanon, launched a series of attacks on French targets. In response to the FLN, France embarked on a war for decisive victory, rife with counterinsurgency tactics and still notorious for its violence and allegations of torture (Elsenhans 2014). However, what was supposed to be a crushing victory became a 7-year blood bath. The discovery of oil fields

[5] Most notably Abd-El Kader (1830-47) and Lalla Fatma N'Sumer (1957)

in 1956 raised the stakes considerably for both parties. In 1958, General Charles de Gaulle, the acclaimed hero of the French resistance, was called back from political retirement to negotiate a cease-fire. Although De Gaulle initially aimed to preserve French Algeria, it became clear the FLN would not budge (Naylor 2000, 24). In 1960, the peace negotiations began and were concluded in 1962: the Evian Accords were signed, and a cease-fire was called.

On the 5th of July 1962, Algerians voted for independence in a referendum. The Pieds Noirs and Harki, who opposed Algerian autonomy, fled to Europe in fear of reprisal from the FLN, who were out for vengeance as the dictum 'the coffin or the suitcase' clearly communicates (Vince 2018, 826). Despite the inclusion of the Harki's impunity in the Accords, the FLN launched a widespread lynching campaign to punish 'traitors' (Naylor 2000, 45).

The Evian Accords held some conditions for independence, most notably for this research, the clause on oil fields and nuclear tests. After WWI, France had begun oil exploration in the Sahara. Until the founding of the Compagnie Française des Pétroles (CFP) in 1924, it was dependent on the U.S. for hydrocarbons. In 1956, CFP had struck oil in the fields of Hassi Messaoud (oil) and Hassi R'Mel (natural gas). Therefore, the accords house an article that prioritises French companies to explore hydrocarbons for 6 years after the cease-fire (République française 1962). Simultaneously, France used the Southern territories to conduct nuclear tests, codenamed the Gerboises. The most infamous case is the town of Reggane, where the nuclear fall-out still affects its inhabitants, many of whom died of 'unknown medical causes' (BBC News 2021). In March 2021, a storm swept Saharan sand reportedly tainted by nuclear particles into France, symbolically exhuming these actions. The nuclear tests remain a grievance for which France is expected to apologise (Cowell 2009).

Naylor argues that during the negotiations for the Evian Accords, the FLN took France's neo-colonial mechanisms in stride in facilitating independence and decolonisation, recognising the need for foreign investment to boost a nascent national economy (2000, 34, 59). The FLN made it abundantly clear that it wanted to remove all colonial mechanisms within the country (Naylor 2000, 40). After 1971, President Houari Boumediene claimed he dismantled the 'colonial pact drawn up at Evian' (2000, 123).

### 2.2. Hydrocarbons: the building blocks for 'le pouvoir'

Algeria's political elite is ominously dubbed *le pouvoir*, which translates to power, which Daoud likens to the Russian oligarchy. Especially during the last years of Abdelaziz Bouteflika's presidency, suspicion of a shadow government rose: Bouteflika suffered a stroke in 2013 and as a result barely appeared in public and had spokespersons run his presidential rallies (Daoud 2015). His replacement, Tebboune, did not quell discontent, as Tebboune is part

of the same regime of Independence War veterans from the FLN. While the Evian Accords are generally considered a French win, Algeria was granted control of the Southern provinces, Oasis and Souara (Musso 2018, 3).

Algiers rejected capitalism as the economic system which was deemed 'a manifestation of colonialism that would not allow the lower classes to rise' (Musso 2018, 7). Frieden argues colonialism gave the communist bloc ammo to convince the non-aligned that capitalism was 'evil and unfair' (2006, 309). Algeria wanted to create a 'revolutionary, socialist, secular, yet Islamic' identity for itself (Naylor 2000, 134). Although the revolution was built on anti-colonial and therefore anti-capitalist notions, Algeria did not fully embrace socialism. Van der Pijl connects this to the resistance being led by an elite group that held organised military power and not a people's militia, like in other socialist countries (Van der Pijl 1992, 226–27).

Boumediene nationalised the hydrocarbons industry in 1971, ousting foreign companies in the process, as he argued Algerian blood '"makes up one of [oil's] components because the possession of this wealth was paid for in our blood"' (Vince 2018, 829). The company responsible for Algerian hydrocarbons is Sonatrach, founded in 1963 and state-owned. The oil and gas rent allows the FLN to stay in power to this day. Algeria qualifies as a petrostate, which relies heavily on oil and gas exports. In 2019, 93.5% of its exports were hydrocarbons (OEC 2019). Boumediene's nationalisation policies helped develop the country socioeconomically but did not create pathways to a more open and democratic governance. The mid-1980s financial crisis led to political protest and the idea that politics could be liberalised from a *de facto* one-party system. In 1992, the FLN was set to lose the presidential elections against an Islamist party. The FLN staged a coup, and the ensuing civil war lasts until 2002, an era called 'black decade'. During this time, the FLN receives support from Europe, which fears an Islamist revolution. Bouteflika, leader of the Army, becomes President and stays in power until 2019, aided by the rentier system which funnels oil rent to a loyal political elite. To avoid economic instability, Algiers must diversify its economy. However, the current rentier system is used to stabilise the political regime, able to buy off civil unrest (Cavatorta and Tahchi 2019, 15). The 2011 Arab Spring was allegedly bought off through rent, as Bouteflika had gradually shifted political power away from the army to a new economic elite (International Crisis Group 2018, 8). Currently, a new social movement (Hirak) rose when Bouteflika announced his 5$^{th}$ presidential candidacy and aims to remove the old regime.

The Saharan regions Algeria gained from the accords make Algeria the 10$^{th}$ largest country on Earth and more than 80% of its territory lies beyond the Atlas mountains, in the Sahara, where the bulk of its natural resources is extracted. Despite its size, only 10% of the

population lives in this vast area, the rest living along the Mediterranean coastline. After the civil war, fertility rates soared and Algerian politicians are worried about the booming energy consumption this engenders.

### 2.3. Current Franco-Algerian relations

The data from 2019 shows France imports $4,4B, of which 92% are petrol products, whereas imports account for $5,4B, of which the main sectors are machinery, vegetables, and chemical products (OEC 2019). Whereas France was both Algiers' main import and export partner, China now occupies the former position (18%). Looking at these numbers, it becomes clear how much the global hydrocarbons market governs Algeria's economy. Since the 2014 oil shock[6], Algerian export has declined by nearly 50% (from $63,6B).

While economic relations remain relatively stable, Franco-Algerian relations are often characterised as bipolar, and are said to have been on the decline since 2005, when French lawmakers voted on a law promoting 'the positive role of French colonisation' in history class (Lefèvre 2015). This fuelled the demands for an apology for crimes committed during the colonial era and the decolonisation struggle.

In several articles, there are traces of resentment by the Algerian people, as they feel that Western governments' silence in the face of *le pouvoir*'s treatment of its citizens legitimises the regime (Diffalah 2015). France generally steers away from explicitly criticising Algiers, a legacy of their turbulent relationship. Rather, French President Emmanuel Macron has made historical manoeuvres of rapprochement since Tebboune's election. However, Paris and Algiers got into a diplomatic dispute in 2020 on the one-year anniversary of the Hirak as French national television aired two documentaries on the Hirak and Algiers called back its ambassador. Subsequently, tensions climb rapidly when faced with criticism from France: Macron's wish for 'long-term (political) transition' and more transparency, which Algiers regarded as meddling, was met with stern words from Tebboune that Algeria's 'new generation' would not tolerate any French 'tutelage' or interference (TV5MONDE 2020).

### 2.4. EU-Algerian relations

Since Algeria's departure from the EC in 1962, cooperative agreements have existed between the EU and Algeria. The first one was established in 1976, under Boumediene, granting Algeria 'free access to the EEC market for industrial goods and preferential treatment for agricultural products' (Caruso and Geneve 2015). In 1995, relations were revitalised with the Euro-Mediterranean Partnership[7] (EMP), which featured multiple bilateral agreements. The Algerian

[6] Price of barrels declined from 80-110$ to 40-60$ (International Crisis Group 2018)
[7] Also known as the Barcelona Process

aspect was the last one to be finalised, in April 2002, after Bouteflika's rise to power and the effects of 9/11 on global counter-terrorism measures, that gave EU-Algeria relations a new élan (Darbouche 2010, 73). Some Algerians take offence that these deals were negotiated during the civil war (Hamouchene, Pérez, and Wilson 2016, 6). After the civil war, Algeria was asked to join the European Neighbourhood Policy (ENP) in 2003, as part of the EU's 2004 enlargement. The ENP's goal is to 'create a 'ring of friends' in [the EU's] immediate vicinity by 'expanding the zone of prosperity, stability and security beyond [its] borders'' (Darbouche 2008). However, Algeria remained the only country besides Russia to refuse the ENP, decrying its 'normative content' (Darbouche 2008, 378). The Union for the Mediterranean (UfM) followed in 2008, which is one of the few organisations that reunites Israel with other MENA states[8]. The latter was borne of French initiative and faced a lack of interest from Algiers (Darbouche 2010, 76).

## Comparative analysis: shale gas and solar

As a petrostate, Algeria was shown its vulnerability in the face of plummeting global demand for hydrocarbons due to the COVID-19 crisis. Algiers wants to explore new energy sources to diversify and stabilise its economy, among which are shale gas exploitation and solar power. In this section, I will compare France's and EU's roles in Algeria's shale gas and solar power exploration and test the neo-colonial aspects for both energy sources and both actors. This comparison came to be because shale gas is fossil (finite) and solar is renewable (practically infinite). Some scholars have made an interesting case that renewables fuel democratisation which will be examined through this approach.

Minister of Energy Transition, Chems-Eddine Chitour, recently assessed "Algeria has 10 years to get rid of its dependence" on hydrocarbons, for rent and for domestic use (Rabia 2021). Algeria is often called the Russia of the South and historically prefers 'neither allowing other countries to meddle in its affairs, nor meddling in the affairs of other countries' (Chafer 2018, 828). In contrast, Mehdi Abbas goes so far as to say the stability of the Euro-Mediterranean-Sahelian security is intertwined with Algeria's socio-economic and political stability (2016, 45–46), adding that Algeria needs 'Western companies' to revitalise mature fields and develop other reserves (2016, 48).

Although Algeria wants to explore new types of energy sources, unconventional fossil and renewable, Prime Minister Youcef Yousfi did not miss the opportunity to denounce Western deception in EU-MENA energy projects: in 2013, Yousfi addressed the National

[8] EU + 13 MENA states (Libya observer, Syria suspended)

Assembly and called for ignoring "those who pollute the world and demand then that we preserve the environment" and called warnings over 'nefarious' environmental consequences [of fracking] a 'pretext' (Aczel 2020, 1363). This accusation was not uncommon, as several energy projects were criticised for promoting inspirational messages yet failing to acknowledge the North's direct implication in climate change and energy challenges (Hamouchene 2015; Rothe 2016). Algerian activist Hamza Hamouchene recognises Algeria presents a more ambiguous case than Maghrebi neighbours Morocco and Tunisia because of Algiers' heavy state intervention.

# Chapter 3: Shale gas

## Shale gas in Algeria

Now that Algeria's main oil and gas fields are maturing[9], the combination of depleting reserves and the booming population growth caused a rise in domestic consumption, leaving less for export. For a regime that is generally believed to stay in power thanks to hydrocarbon rent, this is bound to cause anxiety (Cavatorta and Tahchi 2019; Klare 2012). It is no surprise then that the discovery of shale gas is perceived as a 'gift from God' (Aczel 2020; Chapelle and Petitjean 2016; Cooke 2017). Prime Minister Ouyahia, under Bouteflika, called on Sonatrach to invest in the shale gas sector, as its exploration is not meant as another business venture but a necessity to uphold the stability of the country (Henni 2018).

Shale gas is a type of gas in the category 'unconventional' fossil fuels. It lies deeper in the ground and must be released through a mechanism called hydraulic fracturing (fracking). Fracking blasts a mixture of water, sand and chemicals through the soil to burst open pockets of gas stuck in hard shale rock formations and is generally known to be very damaging to the environment. The water used during fracking becomes contaminated with toxins which can damage the groundwater, enhance seismic activity and reportedly contains carcinogens (Observatoire des Multinationales and Basta! 2015, 7). Most Algerian shale gas reserves lie in in the South, where water is exclusively pulled from a large aquifer.

The exploration of the shale gas pockets was met with fierce protests throughout the country in 2015 that faced crack-down by the authoritarian regime (International Crisis Group 2016). Algiers had invited multiple companies to come explore the fields, including Total and ExxonMobil. These protests, however, did not deter the government from completing deals with different parties, although Algiers had to acknowledge the civilian pushback had scared

[9] Hassi R'Mel and Hassi Messaoud still represent the bulk of Algerian hydrocarbons infrastructure (see Figure 1)

off investors (Petitjean 2017). A 2019 law refuelled civil unrest, as it aimed to facilitate foreign investment in the hydrocarbon industry by lifting the 51/49-rule, which previously capped foreign investment at 49% (Litamine 2021). The protests were so fierce because they concern the South of Algeria, where hydrocarbon extraction for export has long thrived. It is also the region that is most often socio-economically disregarded by Algiers (Observatoire des Multinationales and Basta! 2015). Algerian people feel disillusioned by a political elite with which they cannot identify, as shown by low voter turn-out and on-going protests throughout the country (Darbouche and Dennison 2011). Hamouchene has noted that the environmental aspects of extractivism are not the primary incentive for the protests, but are used 'to reinforce the bargaining power with the company and the authorities' (Hamouchene 2020, 16). Possible contamination of the aquifer is a 'matter of life and death' for the population (Observatoire des Multinationales and Basta! 2015, 6).

The protests did not deter Algiers from designating shale gas as a remedy for its ominous future in economic security. The 'black decade' is heavily intertwined with attempted measures of austerity and ventures into economic liberalisation, causing elites to fear reforms. Tebboune, allegedly, is more forthcoming than Bouteflika's government; in a news conference he said he is committed to satisfying the demands 'of the blessed Hirak' (The Arab Weekly 2020). Nonetheless, he also decried he did not 'understand people's opposition to shale gas, and preference for 'borrowing money from abroad'' (The Arab Weekly 2020).

## 3.1. France and shale gas

Paris banned fracking in 2011 and has chosen to uphold this in 2013 under Hollande, and again in 2017 under Macron. Whereas Sarkozy proposed the ban, Hollande reportedly did sign an agreement with Algeria to allow French research on shale gas exploration in Algeria on his state-visit for the 50-year anniversary of Algerian independence (Aczel 2020). There is incertitude about the existence of this reported deal (Marzouk 2014; Rivol 2012).

### 3.1.1. The Total story

From the start of the protests, Total was explicitly targeted due to its history in Algeria. Protests in 2020 against fracking featured slogans like "there is no tapping of shale gas; tell France to do it in Paris" (The Arab Weekly 2020).

Total started as CFP and was in Algeria until 1965, introducing gasoline (Total) in Africa and Europe in 1954. In 1985, the company was renamed Total CFP and later lost its 'CFP'-mark when it entered the New York Stock Exchange as a public company. In the 1990s, the French government reduced its share to less than 1% (Britannica n.d.). It does not figure on

the list of companies the French state has shares in (République française n.d.) and is not named in Total's owner structure (TotalEnergies n.d.). It has since undergone name changes: TotalEnergies SE as of May 28th 2021. According to Deloitte, becoming an SE (Societas Europeae), a European company, makes it easier to transfer a registered company type to another EU member state (Brooks 2021). The status of Total is relevant as France does not need shale gas to increase energy security. In 2014, the CEO of TotalEnergies said in a talk with Putin that 'even if Total is a private company, [it] represents [France] itself' and has been described as an extension of French diplomacy (Cosnard 2016).

Its historical roots in Algeria and close ties with Paris, combined with the 2011 fracking ban, raised red flags for the Algerian population. The South remains severely underdeveloped despite heavy investments in the region's energy exploitation. Its population is sensitive to perceived extractivist ambitions per its history.

### 3.1.2. Multinational Corporations

Several scholars argue that IR relies too much on states as actors and foregoes MNCs, whereas their influence in the global system is unmissable and can be characterised as cooperative, neutral, or conflictive (Babic, Fichtner, and Heemskerk 2017, 23–24). In this regard, MNCs can be regarded as corporate empires, looking for new markets now that there is a global shift towards energy transition. Makhlouf posits that MNCs are actors that influence and are influenced by national governments and bound by the laws of national sovereignty. There is discussion on whether MNCs are 'corporation[s] holding substantial foreign investment (FDI) but with a predominant home base' and 'an octopus with tentacles extended to satisfy the appetite of its centre (the parent company)' (Deneault 2020; Makhlouf 2017, 141). Canadian philosopher Alain Deneault argues TotalEnergies is not 'a' 'French' 'oil' 'company', but an *apatride*[10] MNC (Deneault 2020).

Total has increased its global presence and status, and its ambitions are increasingly conflictive with Paris', gradually shifting from MNC with predominant home base to *apatride* 'octopus'. In 2016, Total, with the Spanish Repsol, took Sonatrach to court for retroactively increasing its own shares in profits made on Algerian soil (Cosnard 2016). Although this is a case of private justice, it does not serve Franco-Algerian relations as Sonatrach does represent Algiers. Aczel and Deneault both argue Paris can demand responsibility of Total's actions is the Duty of Care Act, passed in 2017, which allows the government to demand environmental and social constraints on economic endeavours. Additionally, in 2020, Engie[11] was forced to

[10] Without fatherland (French).
[11] Changed from Gaz de France Suez (GDF Suez) in 2015 to reflect 'an evolving energy market'

drop an American shale gas deal, pressured by the French government to prioritise clean energy goals and emission reduction goals, which provoked discontent from Washington (Palaizines 2020). Macron's cabinet seems intent on upholding its eco-conscious image, especially as the French government is Engie's primary shareholder (23,6%). Two facets could have driven TotalEnergies' transition from SA to SE: ridding itself of this 'predominant home base' and evading French territorial taxes which also apply to off-shore activities (Brooks 2021; TotalEnergies 2011).

## 3.2. The EU

Since the US's very effective exploration and exploitation of its shale gas reserves in the early 2000s, the EU became interested in exploring its own reserves as well. Hornborg argues that British colonialism was in great part a solution for 'land constraint' during the Industrial Revolution (2019, 20) and a similar mechanism might be visible here, where the countries of the EU lack space to accommodate fracking sites and have regulations in place to stem negative environmental impacts (Erbach 2014). Erbach's policy paper points out that the EU cannot possibly match the success of the US's shale gas exploration, due in part simply to its of space. Within EU countries the governments' enthusiasm for shale gas exploration was quickly quelled by citizen dissent of the practice, due to the awareness of its nefarious environmental impact. In Spain, Madrid turned back several regions' decision to ban fracking; in response, the regions created a thorough legal framework of environmental and social protective measures that essentially made fracking impossible (Planelles 2017). Fully engaging its shale gas reserves could have made Spain gas independent by 2030 (Erbach 2014, 5).

Bouteflika, eager to remedy Algeria's tarnished reputation after the black decade, reintroduced Algeria within the Mediterranean as an indispensable gas supplier for Southern Europe and has therefore scaled up production for export in the early 2000s (Darbouche 2008, 380). However, in the last years, there has been a lower demand for gas in the EU (Abbas 2016, 49).

### 3.2.1. Gas and EU energy security

Due to its large shale gas reserves and geographical proximity, Algeria is the most adequate shale gas source for the EU. China and Argentina have larger reserves, but the first is not a preferred energy security partner for the EU and the latter is geographically far removed. Additionally, Algeria already has pipelines and ports fit for the transport of shale gas, due to its liquified natural gas (LNG) export.

Currently, the main gas suppliers are Algeria, Norway and Russia (Grigorjeva 2016). EU-Russia relations deteriorated after the 2014 Crimea annexation and fully developing Algerian gas import could offer a way out and simultaneously work towards the goals of the ENP. According to Grigorjeva, the EU-Algeria pipeline could cover 23% of EU gas imports and match the Nordstream 1 pipeline in capacity (2016, 3). Differences between EU countries are notable: whereas the Netherlands is phasing out gas because of its GHG emissions, Germany uses it as a transitional energy source. For the EU, dependent on gas imports, diminishing reserves are cause for anxiety. If the Algerian reserves run out by 2050, there must be a mechanism in place to fill the gap before time.

Energy security for the EU is largely dependent on imports (61% in 2019). Macron's ambitions to fortify the EU and make it less dependent on third states, militarily and for its energy economy, reached a peak during Trump's presidency, when the US distanced itself of the Global North tandem, and he accused NATO of becoming 'brain dead'. The global world order is increasingly become multi-polar, with the West not the indisputable hegemon anymore. It seems Macron supports an increase in fail-safes around the EU, looking for rapprochement with Sahara-Sahel nexus countries. In a similar vein, one could regard EU enlargement as the fostering of a buffer zone between Russia and Western Europe. This buffer zone is meant as a defense mechanism for encroachment from the East. The South's geographically close proximity offers a potential partner in regional (Mediterranean) stability. According to Grigorjeva's policy paper, 'Italy, Spain, Portugal France and Germany could form a 'core group' […] strongly committed of the Algerian energy transition' (Grigorjeva 2016).

Morocco and Tunisia are increasingly liberalising and thus more suitable for European FDI and development. Algeria 'skipped' the 2011 revolution, but the rise of the Hirak shows the inability of the Algerian regime to buy off social unrest any longer. If Abbas' idea that Algeria holds the key to regional stability is correct, the EU must now choose to either continue supporting the regime (by developing more hydrocarbon markets) or push for projects that implicate civil society.

If the EU wants to decrease its reliance on Russian gas, the Southern Neighbourhood rich in hydrocarbons offers a good option. Additionally, according to the same report, Russia was accused by NATO of 'supporting environmental organisations that oppose the development of shale gas' (Erbach 2014, 4). As the EU is a collection of democracies, the ENP is meant to spread the same values to the rest of its neighbourhood. Whereas the ENP boasts its goals to create a prosperous, stable and secure direct neighbourhood, the EU is forced to continue feeding the domestic rentier system. The problem is that the authoritarian regime

clearly goes against the wishes of the Algerian population and is notorious for its crack-downs. If the EU wants to further its democratic values, it has to weigh the benefits of perpetuating the status quo whereas the Hirak movement shows social discontent.

In the EU, citizens have denounced the current fracking technique as harmful and shale gas plans have all but failed in every EU state. Support of exploration in the Algeria could allow the EU to conduct research on less harmful extraction techniques.

### 3.3. Neo-colonial aspects

The French role can be viewed through two lenses, depending on the type of actor assigned to TotalEnergies: either an extension of Paris, or an *apatride* MNC. I choose to adhere to Deneault's arguments to characterise TotalEnergies as an actor separate of Paris and increasingly conflictive.

While Total continues completing LNG deals with Sonatrach, and by extension Algiers, Paris' pressure on Engie to refuse a 'mega' deal in shale gas with the US is a signal that Paris is working on reversing previous perceived hypocrisy. Total's cooperative status has waned under Macron and his ambitious climate goals and interest in RE. Makhlouf portrays MNCs as 'profit-seeking enterprises that can utilise their abundant resources, knowledge and technological know-how to help developing countries in their battle for economic development' (2017, 141). However, in the case of Algeria, this economic development does little to stimulate social and political development as the incumbent rentier system would only be amplified.

The fact that TotalEnergies has made shale gas deals all over the world points more towards its corporate need to get ahead of the competition than a targeted politically neo-colonial plan, in line with its (and many other companies') name change to signal its transition from hydrocarbon company to all-round energy company (Observatoire des Multinationales and Basta! 2015, 22–23). Total's move to SE status can be seen as an affirmation. Energy companies are increasingly held accountable by civil society and France's moves towards being able to legally condemn off-shore activities under its Duty of Care Act precipitates Total's disunion from France as a home base.

In short, if we follow the logic that TotalEnergies and Paris are intimately intertwined, this would endorse the neo-colonial perspective. If TotalEnergies is considered a global actor by itself, its private endeavours may also be characterised as neo-colonial but do not implicate France per se.

The EU is Algeria's main export destination, so the EU energy demand plays a vital role in Algerian economic stability and, thus, in its political stability. In the short term, shale gas exploration provides a stable supply of gas for the EU for the foreseeable future. Despite the

signing of many climate-related deals, the EU has increased investment in gas pipelines. Several EC officials fear the Commission is too focused on gas offer and not on its demand, an aspect that is fuelled by the influence of the industrial and fossil fuel lobby (Petitjean 2016).

The EU does not have space to develop shale gas exploitation and the public debate is generally sceptical of, if not outright hostile to, fracking, which is currently the only viable way to extract shale gas. Negative public opinion has primarily been able to block further exploration on European soil. According to Erbach's report, the swaying of a negative public opinion is an additional expense to take into account for shale gas exploration, acknowledging awareness of unpopularity of the practice. Alleged Russian meddling in these affairs is an especially sensitive issue as shale gas is supposed to help circumvent Russian rising assertiveness and possible uses of the energy weapon. The EU is using its economic tools to foster the buffer between itself and Russia and China by taking advantage of a market that has long been closed as Algeria learns to let go of its isolationist policies. The Paris Agreement call for 'net-zero' which does not mean zero emissions (Gonzalez 2021, 12), so the Global North lacks an incentive to truly diminish emissions. The Global North now focuses on energy security more than climate change.

By displaying interest in Algerian shale gas, the environmental loads and socio-economic pressure is moved to the Global South, essentially aiding Algiers in turning the Sahara into a sacrifice zone. Currently, the town of In Salah, a 'rich' gas town in Algeria and site of initial shale gas explorations in 2015, faces pauperisation as the infrastructure and social amenities wear out and profit is funnelled away (Hamouchene 2019, 5). While the EU interacts with the Maghreb within the framework of the ENP, which aims to propagate the EU's values, it perpetuates the asymmetric global transfer of resources. Besides, demand for gas has decreased gradually over the years, due in part to high prices and ameliorated energy efficiency. The EU is thus setting itself up to be Algeria's top buyer but there are concerns about investing in the gas market on the basis of its peak capabilities instead of the real demand (Petitjean 2016).

Taking all this into account, the EU is prioritising energy security over climate action. The climate agreements allow the Global North to present itself as a normative power, all the while perpetuating the unequal North/South divide by using its signatory status as a guise. It seems the EU has incorporated gas access as instrumental to its security.

Yet, if Algeria is instrumental to regional stability and thus energy security, the shale gas exploration will only delay the moment rising social tension is released. The Arab spring was brought upon by the refusal of national governments to listen to their population's concerns

and Algiers now is unable to buy off social peace due to a drop in revenues during the COVID-19 crisis. This gives the Hirak movement and southern protests more reformative power.

Maintaining an opaque regime known for its corruption and crack-down on societal discontent goes against the values inscribed in the ENP. To keep its gas imports safe, the EU must take growing civil dissent in stride. This ties in with the promoted narrative that gas is a cleaner fuel. The political elite is already in control of the country's economy through state-owned Sonatrach and increasing stakes in a new, even larger, fossil fuel industry would increase the oligarchy's power, with shale being its 'get-out-of-jail-free- card' for any veritable political reform.

The EU thus maintains an unequal North/South resource transfer, as the Algerian population will possibly be further removed from political reforms whereas this era of instability could facilitate gradual economic, political and social reforms to counterbalance the declining gas demands. It seems shale gas exploration maintains the status quo by keeping an authoritarian regime in power and exploiting the Southern regions without providing sustainable economic diversification and job opportunities.

# Chapter 4: Solar power

## Solar power in Algeria

Hydrocarbon companies need to find ways to include RE sources in their repertoire, of which the change to TotalEnergies is a prime example. Renewables are often presented as panacea for climate change, yet they bring with them a plethora of new problems, not unlike fossil fuels. New geopolitical stakes emerge as new energy sources are explored and developed across the globe. In this section, I look at the French and EU neo-colonial influences in the Algerian solar power industry.

The exploration of RE sources caused a surge in innovative technologies developed to harness the power of the sun. It emits enough energy in a day to power the entire planet. Algeria holds the greatest solar power potential in the MENA-region, as its vast territory encompasses a large part of the Sahara, in a band of high irradiance called the MENA Sunbelt[12] (Zahraoui et al. 2021). The Algerian government has created a set of initiatives to develop this energy source. It aims to reduce CO2 emissions while simultaneously creating half a million jobs by 2030 (Ministère de l'Energie 2021). In 2020, Tebboune created the Ministry for Energy Transition and Renewable Energies; Algeria's renewable market is managed through state-owned Sonelgaz.

[12] See Figure 3

Algeria has one of the highest levels of irradiance: more than 2000 hours every year, up to 3900 in the high plains and the Sahara (Cherifi and Haddad 2020). In this sector the 51/49-rule was also lifted (Litamine 2021). There are two types of solar power harnessing: photovoltaic (PV) and concentrated (CSP). Both types are being explored in Algeria.

Since nearly all Algerians have access to electricity, solar power is a useful RE to develop and the goal for 2030 is to connect the last rural areas to the grid (Zahraoui et al. 2021, 26). The costs of solar power were minimised when Algiers decided to construct the materials domestically. Algiers and Sonelgaz started offering international tenders to attract more investors in 2020 for its mega-project Tafouk1 and removed the 51/49 rule.

Until now the Algerian market for solar energy has found distinctly less investors than its neighbour Morocco. Risk analysts blame Algeria's 'unfriendly' business climate, proneness to corruption, combined with an untransparent government (Komendantova et al. 2020). Reportedly, Algerians are disappointed with the slow pace of development and aimed implementation (an energy mix with gas) of solar power (Hadjam 2021). Algiers' goal for solar power harnessing is mainly to free up gas for export and gradually implement RE in its domestic consumption (Darbouche 2010, 77). Algeria was asked to partner in multiple EU energy security projects, such as Desertec and Mediterranean Solar Plan (MSP).

### 4.1 France and Algerian solar power

The French energy needs are met by a 70+% share by nuclear energy. The nuclear reactors were built in the 1980s and 1990s, as a response to the 1970s oil crisis (IEA 2021). These reactors have a life span of about 60 years. France has given itself some of the most ambitious 'green' goals: it aims to be zero-net carbon neutral by 2050, in line with EU goals, and hopes to decrease its dependency on nuclear energy from 70% to 50%, especially after the Fukushima triple disaster in 2011. France also aims to shut down its remaining coal mines in 2022. France wants to create a mix in which solar power and wind turbines provide the bulk of RE and plans to achieve this through cross-border interconnections with neighbouring systems, meaning there will have to be a European supergrid, that travels between different states (IEA 2021, 66–67). A thorough report commissioned by the French Ministry of Energy Transition and the IEA makes no mention of non-European cooperation on renewables. There was no evidence on bilateral French interest in Algerian solar power. Seeing that France, under Macron, increasingly positions itself within a European framework, it is likely that Paris includes energy security in its larger ambitions to decrease dependency on non-EU alliances and wants to improve European hard power. Within (energy) security studies, this behaviour can be seen as

assertive: France wants to create an independent Europe. Therefore, it also needs a strong cooperation on energy security needs.

To understand the Franco-Algerian relations on solar power, we investigate the Desertec initiative and the MSP. Domestically, France is having trouble with its solar power market as investors want their returns to be proportionate to their 2006-2010 investments. The French government ruled that those demands cannot be granted because the price of solar power had dropped significantly since then.

In July 2021, Sonelgaz will launch tenders for the Tafouk1 solar plant. It is possible French companies will want to invest. There is no information available as of yet.

## 4.2. The EU and Algerian solar power

In 2019, 61% of the EU's energy was imported. According to EuroStat, 58,8% is gas and petroleum, whereas 15,3% comes from RE. To attain its 2050 carbon neutrality, the EU wants to increase RE in its energy mix, wherein solar power is the fastest-growing sector.

While distinguishing French involvement in Algeria's solar power market yielded little result, there are more mechanisms at play. This section first treats Desertec and MSP and European ambitions in the MENA and Algeria specifically. In Grigorjeva's report on solar power in Algeria, she promotes the development of solar power for domestic use in Algeria, to free up gas for export to the EU. This aligns with Algiers' planned implementations for solar power, as well.

### 4.2.1. Desertec and MSP

Desertec is a private sector project of German origins that aims to draw from the massive wealth of renewable energies in the Sahara Desert. Its goal to set up solar farms across the MENA desert, the aforementioned Sunbelt, and connect these to the European states through a 'supergrid', which cascades energy over multiple nodes instead of drawing a lengthy line from remote deserts[13]. So far, Desertec and MSP have yielded little result. Remarkably, in 2011, when Algeria and Germany had signed a Memorandum of Understanding (MoU) for Desertec, it is rumoured the Southern European powers sabotaged the project due to their objections at Germany's circumventing of the UfM, although these claims were contested (Grim 2020; Pezet 2019). Desertec Industry Initiative (Dii), the private company at the helm of Desertec, marked the project as an opportunity that would benefit both the EU and the MENA-region. Simultaneously, the UfM under French guidance, set up the MSP, a plan to develop 20GW through RE sources around the Mediterranean by 2020 (de Souza et al. 2018). In 2012, the UfM

[13] Plans on how to connect these grids are subject to change

signed an MoU with Dii over cooperation between the two projects (Rothe 2016, 399). Rothe distils two narratives from Desertec's promotion: 'business opportunity' and 'democratisation', the former appealing to the MENA partners and the latter to the EU partners (Rothe 2016, 411).

While Algeria rejected participation in the initial Desertec plan, its rival Morocco developed the largest solar power plant in the Maghreb (Noor1). Under Tebboune, Algeria seems to have opened the door again: Minister of Energies Mohamed Arkab announced the preparation for the Tafouk1 solar plant project within the Desertec project in May 2020. The project is supposed to create 6500 jobs during its construction and 2000 for its maintenance. Shortly after, in August 2020, Arkab announced, allegedly in accordance with Abdelmadjid Attar (Transition and RE) that Desertec is 'passé' and Algiers wishes to focus on citizen relations for the development of RE. Despite Chitour[14] attributing the failure of the Algerian Desertec project to its high costs, it did not end cooperation.

### Criticism

Although the narrative of a EU-MENA energy partnership already existed at the cusp of the 2010s, it was reinvigorated by the 2014 Ukrainian crisis. The discourse used to promote the Desertec project moved from merely ecological to energy securitisation (Rothe 2016, 412).

Within the EU some were sceptical of the concept, fearing the Maghreb could employ the energy export as a hard power tool (Komendantova et al. 2020). This fear probably was fostered by Russian rising assertiveness and its use of energy as an offensive tool to pressurise its Near Abroad as well as several European countries, as well as the legacy of the 1973 oil crisis (Korteweg 2018). Additionally, the political instability, unfriendly business climate and risks of terrorist attacks in the region triggered alarm bells for risk analysts (Komendantova et al. 2020). Moreover, multiple politicians of the old regime have been tried for embezzlement and corruption, which deters foreign investments. Morocco is a more popular destination for foreign solar power projects as its economy is distinctly more liberalised and thus more transparent .

Initially, Desertec was met with ambivalent reception in the MENA-region. While it was presented as a collective fight against climate change, it also unearthed more sober and pessimistic visions: a business deal *tout court*, or a hegemonic project to secure resources from the MENA-region? In 2009, Algerian minister of Energy and Mines Chakib Khelil, expressed his distrust: 'We don't want foreign companies exploiting energy from our land' (Hamouchene 2015; Rothe 2016, 410–11). Similarly, Hamouchene denounces how projects like Desertec, so-

[14] Who had replaced Attar at that point.

called apolitical tech-fixes, present climate change as a shared problem and responsibility with no political or socio-economic context and raised concerns over water security (Hamouchene 2015). According to the African Network for Solar Energy (ANSE), 'it is a new form of resource exploitation' (de Souza et al. 2018, 92). The Algerian government's opening of tenders under the condition that foreign investors make use of equipment made in Algeria, illustrates a lingering distrust of foreign partners, who were often reluctant to share their knowledge and technology (Bellini 2020). Hamouchene denounces how projects like Desertec, so-called apolitical tech-fixes, present climate change as a shared problem and responsibility with no political or socio-economic context and raised concerns over water security (2015).

### Further implications

The development of RE, as said before, is not a panacea for climate change and resource scarcity. First, the predominance of the South regions of Algeria in the meeting of energy needs is a one-way beneficial relationship: the areas surrounding exploitative activities are the poorest, and suffer the highest unemployment rates (up to 30% of youth), which caused massive protests in Ouargla in 2013 (International Crisis Group 2016). Peaceful protests were met with violent retribution from the national police. As solar power projects once again target the Sahara, there are chances these projects will face similar pushback. While Desertec and MSP boast environmental benefits, the solar mirrors used to produce the potential 13.7 Twh/y energetic output require the equivalent of a yearly supply of water for 160,000 people in Morocco (de Souza et al. 2018, 95). Dwindling reserves and diminishing demand caused a drop in state revenues, coinciding with the rise of the Hirak movement. Algiers cannot afford new protests in the South, as shale gas protests and the Hirak continue.

Secondly, while this is beneficial to GHG diminution, the booming interest in solar PV increases demand for metals[15] thus putting more pressure on the mining industry (Vikström 2020). In 2017, solar power was the fastest growing energy sector (Corneau 2018). Most metals are found in the Global South and Vikström notes a tendency among mining states to secure their supplies, maintaining 'strict resource flows' to answer to domestic needs, which was perceived as protectionist and nationalist by interested companies. These actions originate from a fear of the Global North's usage of 'other countries' resources for their own profits' (2020, 26). For the EU, the fact that crucial metals mainly come from China, South Africa and Russia causes anxiety as it raises fears of the energy weapon (Klare 2012). If solar

[15] Cobalt, lithium, vanadium, silver, 'rare earth elements'

power is produced in the MENA-region, the EU might avoid having to directly import metals from China and Russia.

Klare fears this race for metals could cause 'a bottleneck' in the global energy transition (2012). The metals are essential for developing and constructing materials for RE, but necessity is the mother of invention: the increased demand for metals engendered multiple innovations. A mining company in South America started using desalinated seawater to reduce the risk of water scarcity (Vikström 2020, 25) and Corneau suggests the use of solar PV in the mining industry itself could decrease the industry's GHG emissions (Corneau 2018). Additionally, the TU Delft project 'Blue Harvesting' is investigating ameliorated deep sea mining using a 'vacuum cleaner' to reduce damage to the underwater ecosystem and avoid affecting groundwater in inhabited areas (TU Delft 2021).

Thirdly, tying in to the social discontent in the South, the Noor1 solar plant in Ouarzazate, Morocco, currently the largest CSP plant in the world, is deemed a 'win-win-win' by Morocco and the international community (Ryser 2019). It cost about 9B dollars, largely funded by international financial institutions (IFI). The Tafouk1 project is a similar project, meant to harness 4GW, will cost between $3,2B and $3,6B and spread across a dozen provinces[16] (Bellini 2020). However, both Hamouchene and Ryser (2019) denote the narratives surrounding Noor1's installation: the 'wasteland' (and its inhabitants) would now be made useful (Ryser 2019, 19). The authors criticise the 'green washing' of Noor1: it involved selling ancestral land to a state agency, perpetuation of water scarcity (as local reserves are estimated to run out by 2040) and was mainly financed by IFIs (Hamouchene 2016). Noor1 was meant to cover exports to Spain, yet the sites were never linked (Hamouchene 2015). Gonzalez asserts that Global South communities are not displaced only due to climate change and military conflict, but also due to GHG diminishing measures by making way for RE projects (Gonzalez 2021, 8).

### 4.3. Neo-colonial aspects

There was a lack of evidence of French bilateral stakes in Algerian solar power, owing to the fact France fulfils its energy needs with nuclear power and aims to build upon a European supergrid for electric energy, garnered from RE. However, as Macron increasingly positions France's power in a European context, it is likely the MSP and Desertec facilitate Paris' solar power ambitions. Grigorjeva identified France as one of the EU countries most interested in supplying managing solar power through an EU-Mediterranean partnership.

[16] No precise location could be found in news articles

Solar power exploration and exploitation fit well within the EU's favoured normative role within the global system. The EU and Algeria cooperate in developing RE for domestic energy consumption. However, this is not coupled with a diminution of hydrocarbon extraction. Rather, the increased share of RE in Algeria's domestic energy mix frees up hydrocarbons for export towards the EU. Solar power projects are a temporary reprieve if not combined with economic reforms. The EU uses the Global South to set up the far-reaching technical fixes so it can accommodate and develop the lifestyle needed for a decarbonised energy mix in the centre, whereas the power is produced in the semi-periphery. The MENA region will essentially function as a cleaner battery that powers the centre.

While the solar power projects lay the foundations for a growing share of RE in domestic consumption, it does not solve the problem of the dwindling hydrocarbon reserves. The continuation of the dependency on hydrocarbon rent works for the EU, which wants to secure gas supply from Algeria and Grigorjeva clearly shows this in her policy suggestions. This cycle keeps the Algerian political elite in power and maintains the socio-economic disparities in the country and thus work counterproductively with the EU's promoted 'normative' policies of spreading democracy, rule of law and transparency (through the ENP).

In this case, the advantages of solar power are exposited through a Global North lens: it turns a problem historically exacerbated by the Global North into a collective responsibility. Hamouchene and Hornborg both noted the tendency to portray economic and technological innovations needed to combat destructive consequences of resource exploitation as apolitical and focused on the technical aspects rather than the socio-economic context.

The narratives surrounding solar power in Algeria are supposed to appeal the motivations of the preferred partners. To appeal to MENA parties, the solar power projects are presented as unprecedented 'business opportunities', whereas the EU focuses on promoting normative messages. Grigorjeva's policy paper adopts the same narratives as described by Rothe (2016): the EU positions itself as a guide by 'undertaking [a] role' through which it 'could prove itself the leader in sustainable energy' and simultaneously 'helping Algeria reduce its use of fossils' as a 'contribution towards the objectives of the Paris Agreement' (2016, 4). Fanon described how the coloniser attempted to justify its presence by characterising pre-colonial conditions as backwards and barbaric (1963, 209), tying in to colonialism's *mission civilisatrice*. Where this mission used to be about cultural norms, it can now be identified in normative economic and ecological education of the Global South. However, solar power exploration in Algeria is no new endeavour, as the first photovoltaic solar power central was built in 1998, by Sonelgaz (Cherifi and Haddad 2020, 115). It combines the presupposition of

backwardness in the Global South with the idea that economic projects aimed at socio-political reforms are not meant for domestic stabilisation and social change, but to clear obstructions and liabilities from the 'transmission line between the nation and capitalism' (Fanon 1963, 179). EU-Algerian solar power plans essentially amount to the same goal: the EU wants to secure its gas imports, as shown by its investment in gas pipelines from multiple other regions. Additionally, the national territory is increasingly categorised according to usefulness, a sign of commodification. The land underneath Noor1 was deemed a wasteland by the Moroccan government and bought off to install the power plant.

In Algeria, the North represents the centre and the South the periphery. The protests that originate in the South come from a deep-seated disappointment and distrust of a centralised political and economic elite that disregards socio-economic disparities and instead commodifies the inhabited oases in the Sahara to extract resources that do not benefit the community. Living in the desert is possible because of groundwater, and especially for CSP, a large quantity of water is needed every year for maintenance of the solar power plant. Tafouk1's location is not yet known and it remains to be seen what the announcement of its planned locations will provoke within the communities of the Sahara.

It also does not change the fact that the Southern regions are exploited and historically disregarded by the government. Currently, the EU benefits from maintaining the status quo under the authoritarian regime. In most EU countries, formally imperative to their admission to the EU, public debate can and should influence the government's policies. In Algeria, this is not the case, as criticism is often handled by violent crack-down or social reform that does not increase citizens' agency.

Additionally, the materials needed for solar power come from the mining industry, which is most often located in the periphery. The unbridled growth of the solar power sector could put more pressure on states that have a large reserve of metals. Already it caused a shift towards more nationalist and protectionist foreign policy in metal-rich countries. Algeria did this too in the 1970s, but its isolated position in the global market has in fact amplified its vulnerability as energy is both its national security and its foreign policy. The shocks caused in the mining industry by the rapid growth of the RE sector must be mitigated to protect miners and the environment from further exploitation.

## Conclusion

The shift into a multi-polar world causes anxiety in the Global North, used to a US-led Western hegemony. Whereas the spread of 'universal' liberal concepts, like the democratic peace,

seemed uncontested after the supposed end of the Cold War with the triumph of the liberal world order and its politico-economic capitalist system as a foundation and the rapid globalisation, the rise of semi-periphery states causes new rivalries.

Building legitimacy and prime alliances with the rapidly developing African continent and MENA region is imperative for a secure position in the world system. While gaining and maintain control of hydrocarbons causes enough strife, the securing of alternative energy sources now becomes salient. These alternative energy sources are often developed using Global South resources or territory, as is the case for shale gas and solar power. The continued dependency on the Global South for resources caused some scholars to identify a neo-colonialism, exacerbated through economic development that influence national politics, usually through a powerful elite. In Algeria's case, especially French involvement is cause for concern among citizens and the government alike, as the bilateral relations carry the weight of a violent colonial past.

The aim of the thesis was to investigate what neo-colonial mechanisms were at play in the French and EU explorations of Algerian shale gas and solar power potential. Both industries display a tendency to engender neo-colonial mechanisms, but solar power opens avenues for more citizen participation and sustainable political and economic reforms.

The EU rushes to secure bonne entente and stable, trustworthy energy security in the MENA region. While my research did not touch upon sub-Saharan Africa and the Middle East, it is clear that the EU aims to secure energy resources from its Southern Neighbourhood. France, under Macron, moves under European banner and aims to rely less on the Transatlantic relationship and give the EU more hard power.

Whereas it shares its Atlantic 'border' with the US, with whom it is now reconstructing close relationships after some years of distancing, it needs to secure its Southern Neighbourhood too. In its ENP, the EU laid out that it wants to spread democratic values in its direct neighbourhood. When developing projects in the sensitive regions of the Sahara, the EU should demand insights in local opinions and implications in the project. European governments are accused of playing into the hands of authoritarian elites by developing RE sources, which are said to be motors of democratisation. If both are true, then in the long-term it does serve to indirectly maintain authoritarian regimes, as they will be toppled once the economy diversifies.

Algeria's natural resource wealth, shale gas and solar PV potential, qualify it as a viable partner for increased energy partnerships, especially since the EU is focusing on securing natural gas.

As shown by the societal pushback, shale gas exploration is not a popular move in France, the EU and Algeria. Shale gas explorations potentially destabilises an already underdeveloped, fragile region where the population lives by the grace of large aquifers. Although effective shale gas exploitation would delay Algeria's need for economic diversification, it also delays much needed political reforms by a government previously able to buy off social unrest. The Algerian population is vocal about its demands for political, social and economic reform. Foreign interest in shale gas exacerbates the unsustainable status quo.

The enormous solar power potential of the Algerian Sahara has engendered several projects over the years without yielding many results. This is most likely due to the opacity of the political system and the unfriendly business climate for FDI, something that is now being remedied. Solar power raises concerns about water scarcity in an extremely arid region, as cooling down the installations requires large quantities of water. Algerian solar power projects are not meant for export, but mostly for domestic consumption in a bid to free up more gas for export. Although it fuels innovation domestically, it does not diminish the overall gas extraction. Although there are many interconnected mechanisms at play that reveal a less optimistic side of an energy source otherwise heralded for its positive impact on climate and environment, it holds more potential to stimulate social, political and economic change than other possible avenues.

If Algerian solar power is meant to be used domestically, projects promoting the RE source should benefit the local population. Southern Algeria's 'calm is brittle'. The region has historically suffered under exploitative practices, from nuclear tests to fracking: stable calm can only be achieved through systemic amelioration of livelihoods by making new projects beneficial to the local population. To make the projects fair, foreign partners could share their knowledge and technology so these can be implemented locally, but there are fears the Algerian oligopoly in the industry will continue to deter European companies from sharing their knowledge. In order to ameliorate Algeria's global reputation as an economic partner, it should prove willing to implicate its citizens more so energy projects become less opaque, as the Algerian government announced it was planning to do, in 2020.

Developing RE to further hydrocarbons extraction can be disguised by the Global North within calls for climate justice and within normative rule of law. On the other hand, this normative narrative can be employed by the local population to denounce RE and hydrocarbon extractivism. Historical trauma causes concerns in the government: economic and political reform formerly led to a bloody civil war. Now that a large social movement demands fundamental changes and the ushering in of a new political and economic era, the government

faces a Catch22: either diversify the economy and willingly lose power (not zero-sum), or maintain power and risk socio-political upheaval (zero-sum). The development of RE could naturally allow for more citizen participation in economic and energy affairs.

Despite distrust based on historical trauma and consequent suspicions of neo-colonial motivations, young Algerians might have to allow foreign involvement in their domestic affairs. To create a more stable political and economic situation within the country, free of endemic corruption and opacity, it might be necessary for Algerians to once again take neo-colonial mechanisms in stride to upheave the political status quo.

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# Appendices

## Figure 1: Map of Algerian Oil and Gas Infrastructure

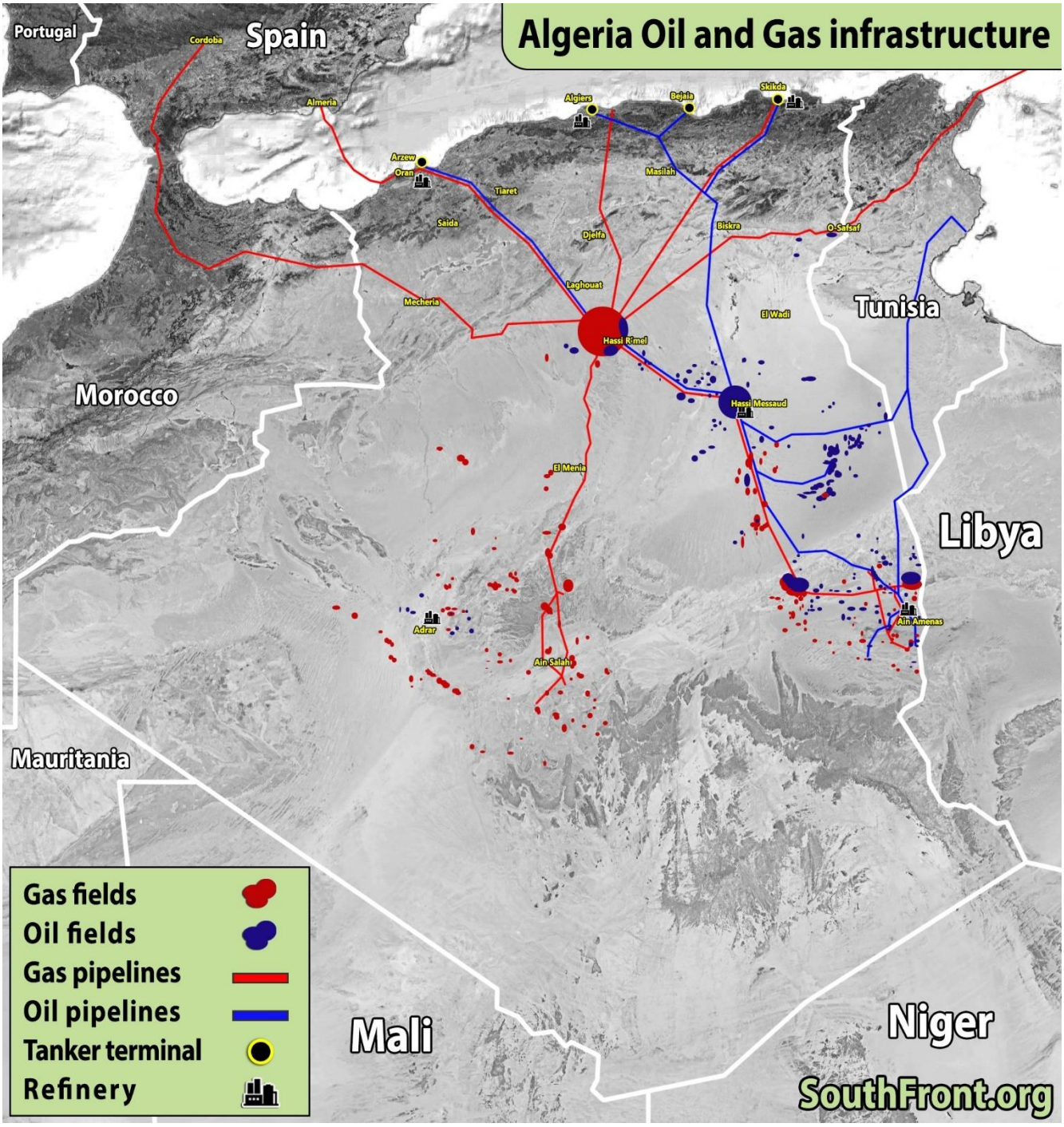


*Figure 1 Algerian oil and gas infrastructure. Source: SouthFront.org (2019)*

## Figure 2: Map of Algerian Shale Gas and Oil Basins

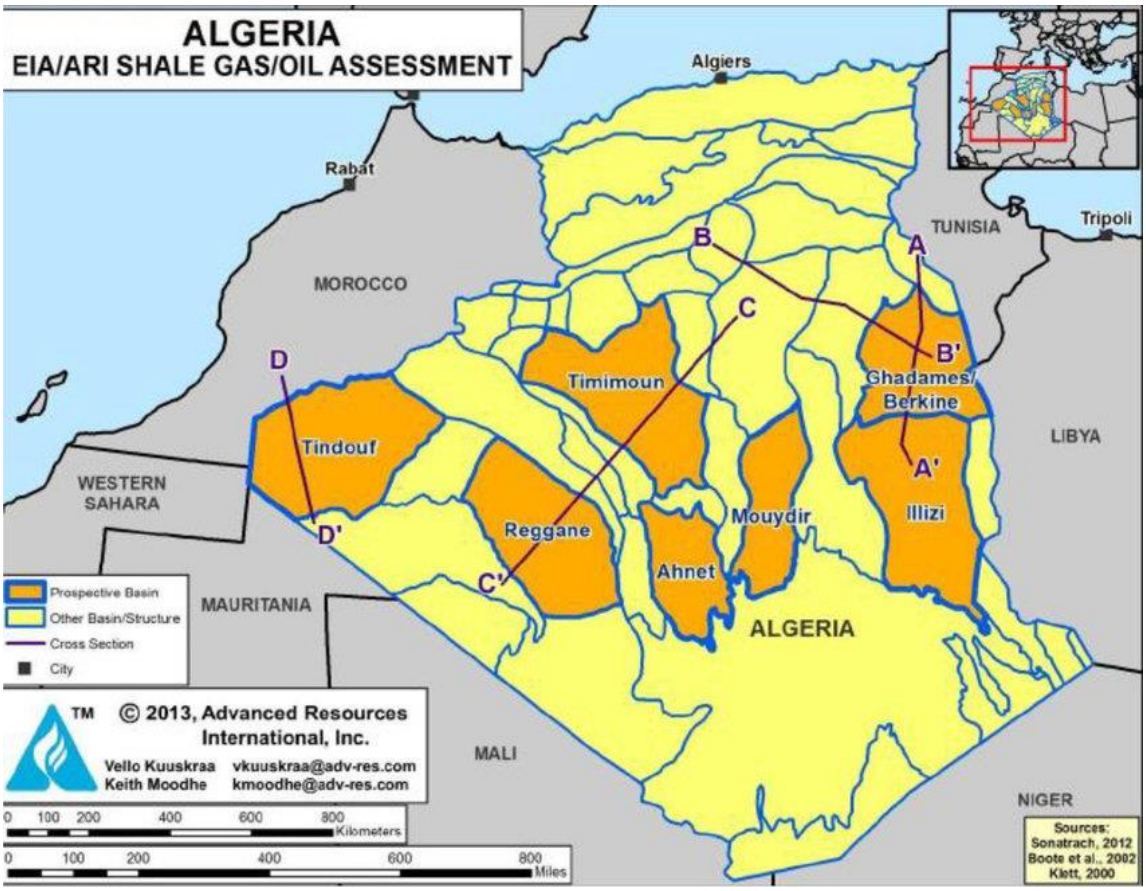


*Figure 2 Algerian shale gas and oil basins. Source: EIA/Advanced Resources International, Inc. (2013)*

## Figure 3 Photovoltaic Power Potential (MENA)

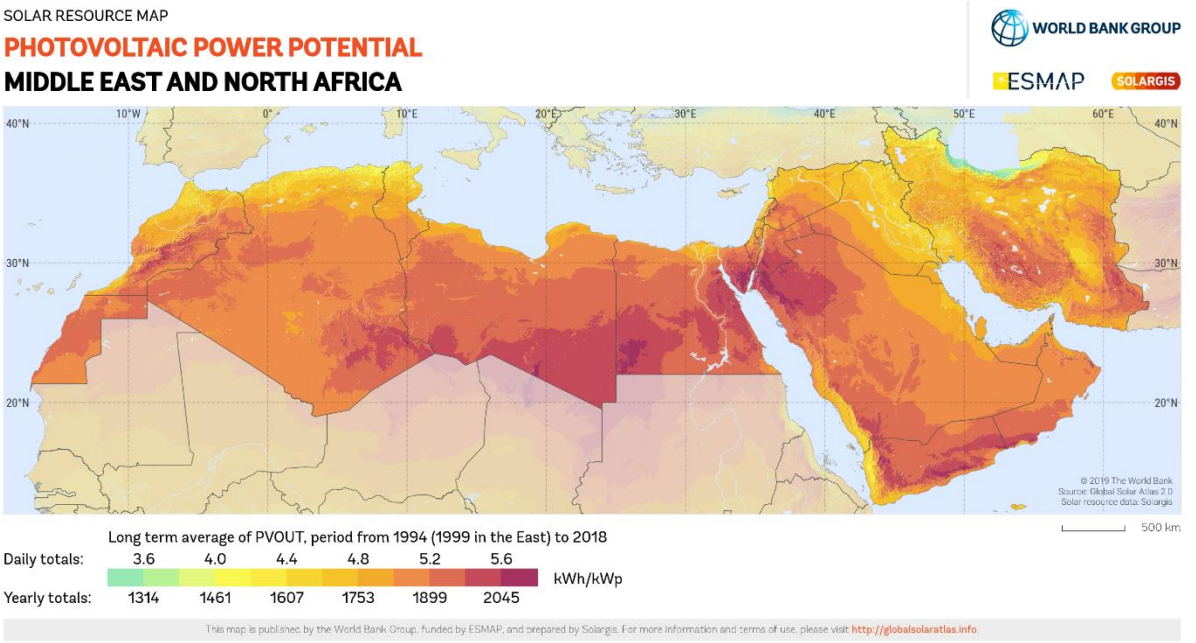


*Figure 3 Photovoltaic Power Potential in MENA. Source: Global Solar Atlas (2019).*