

GAS NO ES SOLUCIÓN

WHERE DOES SPANISH FOSSIL
GAS COME FROM? PART 4

ALGERIA



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A background image showing a crowd of people with their hands raised, suggesting a protest or a public gathering. The image is in black and white and has a slightly grainy texture.

EXECUTIVE SUMMARY

¿Where does Spanish fossil gas come from? Part 4: Algeria

- In **2025, Algeria was Spain's largest gas supplier**, as it has been **throughout the period studied (2004-2025), except for 2022**, when it was surpassed by the US. In 2024, it accounted for 38.69% of total imports, and in 2025, 34.57%. This highlights a structural relationship of **energy dependence**.
- **Algeria** is a country that is highly dependent on **fossil fuels**, especially **fossil gas, which is the backbone of its energy system and economy**. In 2024, fossil gas accounted for 65% of Algeria's energy supply and generated 99% of its electricity.
- **Gas is Algeria's main export, with Spain being its second largest buyer**. This extractivist model is largely controlled by the **state-owned company Sonatrach**.
- **Algeria** is increasingly facing the impacts of the climate crisis. The country has suffered **recurrent droughts and severe water stress**, ranking among the ten most affected countries worldwide between 2020 and 2022. These impacts severely affect agriculture, food sovereignty, ecosystems, and access to water.
- **The country's climate action is clearly insufficient**. Algeria does not fully comply with the Paris Agreement, has only submitted one of its two NDCs, and continues to prioritize the expansion of hydrocarbons over a just energy transition based on renewable energies. However, it has prepared a National Climate Change Adaptation Plan for 2025.
- One of the most worrying aspects of the Algerian gas sector is **gas flaring**. In 2024, **Algeria was the sixth country in the world with the highest volumes of flaring**, with Sonatrach responsible for around 80% of this practice. **International pressure, motivated by satellite detection of leaks, has caused Algeria to begin to take action, although this is still insufficient**. As an importing country, **Spain** is one of the main **parties responsible** and should take coordinated action with Algeria to reduce methane emissions, in line with European regulations. ▶

- **The Hassi R'Mel complex is the heart of the Algerian gas system and one of the largest gas fields in the world.** Key infrastructure to Europe departs from this enclave. Of particular note are the **Medgaz gas pipeline**, which transports gas to **Almeria**, and the **Trans-Mediterranean gas pipeline**, which transports gas to **Italy**. There are also connections to **liquefaction plants on the coast**.
- Gas infrastructure poses high environmental risks. **Hassi R'Mel is known for its "super-emitting" methane leaks**, with some emissions exceeding 40 tons of methane per hour. It is also increasingly **vulnerable** to the impacts of climate change, such as **extremely high temperatures**.
- Algeria legalized **fracking** in 2013 and, in 2025, has announced new talks with **US companies (ExxonMobil and Chevron) to reactivate its exploitation**.
- **Fracking** poses a direct **threat** to water resources, public health, and human rights in a context marked by water scarcity and the repression of social dissent. For this reason, it is **banned in Spain**, although **the country** does not hesitate to purchase it from other territories that suffer the consequences.
- In the coming years, everything indicates that **gas extraction in Algeria will continue to be fundamental to its economy**. Sonatrach has plans to start exploiting new fields, increase production from existing ones, build new gas pipelines, and expand power plants. In addition, take-or-pay clauses and the duration of contracts make a future beyond fossil fuels difficult.
- In the face of this model, **social resistance has been key**. There have been historic mobilizations in **2015 against fracking**, which contaminates aquifers, and **recent protests over drought and the resulting lack of access to water**.
- **The protest over water in such a repressive regime shows its importance to Algerian society** and highlights the **high social and environmental cost of the gas consumed by the Spanish state**.



INTRODUCTION

This is the fourth installment in a series of reports analyzing the largest gas exporters to Spain. **Algeria was the largest gas exporter**, accounting for 38.69% of total gas exports in 2024. In 2025, it accounted for 34.57% (Figure 1), continuing along the same path. Historically, it has been **our largest gas supplier every year in the series** (2004-2025), except in 2022, when it was surpassed by the United States.

Algeria is unique compared to the other exporting countries analyzed (the United States, Russia, and Nigeria). As can be seen in Figure 2, it has been the largest supplier of gas to Spain via pipeline.

It should be noted that Algeria is a long-standing supplier. The data series analyzed begins in 2004, but the first shipment of fossil gas from Algeria to Spain was in 1974. It was transported by ship and arrived at the Barcelona regasification plant, the first to be built in Western Europe (1969). Following the construction of other regasification plants, gas pipeline transport with Algeria was launched, first with Maghreb-Europe (1996, Algeria - Morocco - Spain) and then with Medgaz (2011, Algeria - Spain).

The pipeline supplied Spain until the end of 2021, when the contract expired and Algeria decided not to renew it due to Morocco's position on Western Sahara.

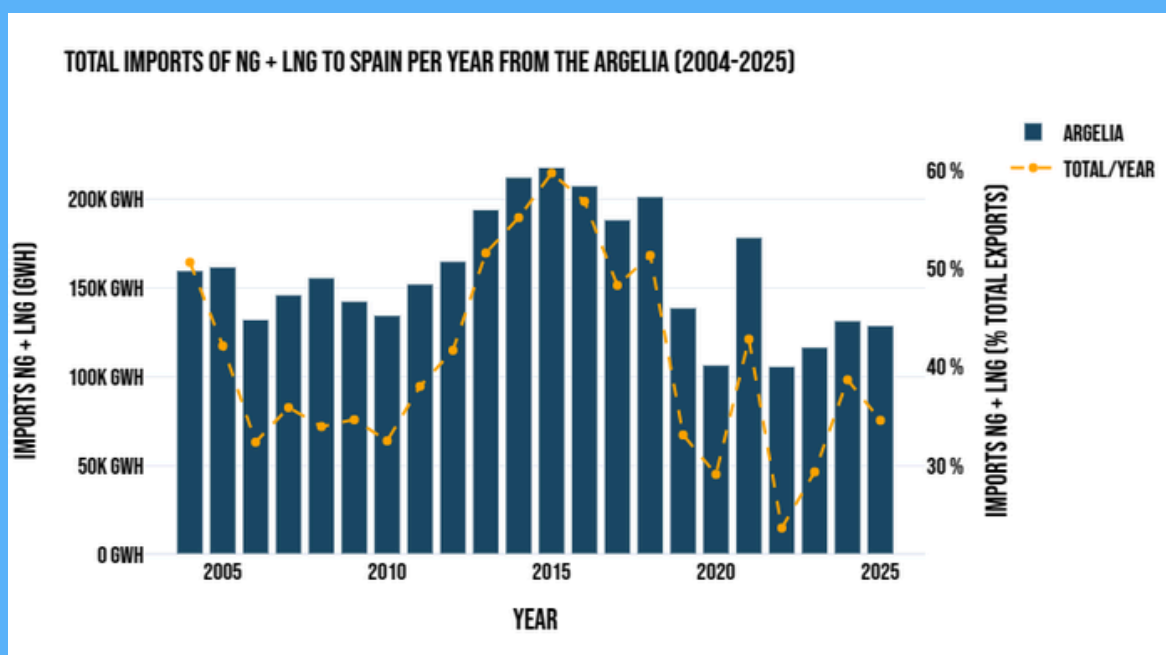
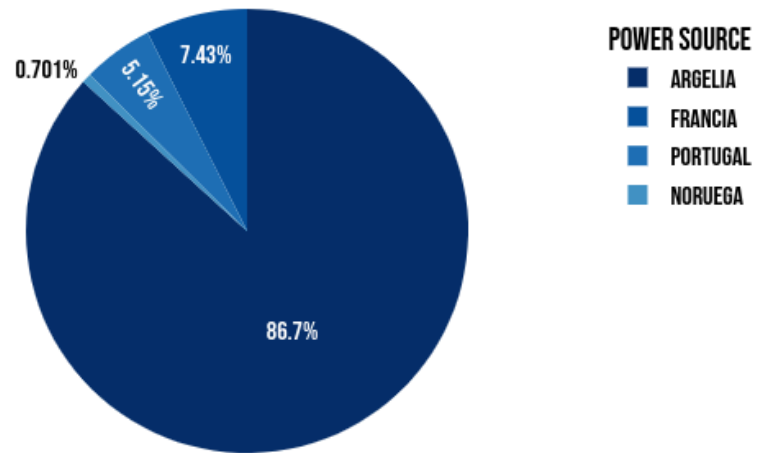


FIGURE 1. TOTAL ALGERIAN GAS, NG (NATURAL GAS) + LNG (LIQUEFIED NATURAL GAS), IMPORTS TO SPAIN PER YEAR FROM ALGERIA (2004-2025). TOTAL IMPORTS IN BARS AND PERCENTAGE OF IMPORTS (GAS IMPORTED FROM ALGERIA BY SPAIN * 100 / TOTAL GAS IMPORTED BY SPAIN) IN LINES. DATA: CORES. SOURCE: RED GAS NO ES SOLUCIÓN.

FIGURE 2. MAIN COUNTRIES SUPPLYING FOSSIL GAS VIA PIPELINE TO SPAIN. DATA: CORES. SOURCE: RED GAS NO ES SOLUCIÓN.

TOP COUNTRIES BY PERCENTAGE OF FOSSIL GAS IMPORTS VIA PIPELINE IN 2025



What is the situation with Western Sahara and fossil gas?

In 1976, Western Sahara ceased to be Spanish national territory and since then Sahrawi refugee camps have been established on Algerian territory, in the middle of the desert. Algeria has defended the self-determination of the territory. All humanitarian aid arrives from Tindouf (Algeria), while the conflict remains unresolved. For its part, the Spanish state has not assumed its responsibilities for its colonial past.

In 2021, Algeria stopped supplying gas to Spain through the Maghreb-Europe gas pipeline (which crossed Morocco) as of November 1, 2021, after failing to renew the contract with Rabat due to the breakdown in diplomatic relations. All supplies have been diverted to the Medgaz gas pipeline (direct to Almeria) and methane tankers.

In March 2022, to make matters worse, the Spanish state declared its agreement with Morocco's plan for the occupation of Western Sahara (presented to the UN in 2007). In addition, it began pumping fossil gas from Spain to Morocco, reversing the direction of the Maghreb-Europe pipeline. A few months later, in July 2022, it assured Algeria that Algerian natural gas would not be diverted to Morocco.

Despite this, everything indicates that Algeria and Spain will continue to collaborate closely.

WHAT ABOUT ALGERIA?

Algeria, officially the People's Democratic Republic of Algeria, is located in North Africa, in the **Maghreb**. It has a population of 43.9 million. Arabic and Amazigh are the official languages, and it is mainly a Sunni Islamic country.

It functions as a multiparty republic with two legislative chambers (the Council of the Nation and the National People's Assembly). However, in reality, the **right to freedom of assembly and association is severely restricted, as is freedom of the press**. **Torture** is one of the ways in which these rights are restricted. One of the most egregious examples is elections: political parties are subject to strict government control and political opponents are persecuted.

Algeria has a Mediterranean climate in the coastal areas, where most of the population lives. Further inland, the climate becomes semi-arid, turning desert-like once you cross the Saharan Atlas. In recent years, it has been facing **droughts** and between 2020 and 2022 it has been among the **10 countries suffering from the greatest water stress in the world**. These types of droughts in the Mediterranean have **an impact on agriculture, and therefore on food sovereignty, ecosystems, drinking water, energy, and fires**. In **2025**, **droughts** in Tiaret and Bouira, two **agricultural areas**, are particularly noteworthy.



EVOLUCIÓN DEL SUMINISTRO ENERGÉTICO DE ARGELIA DESDE 2000: VALORES ABSOLUTOS Y PORCENTAJES

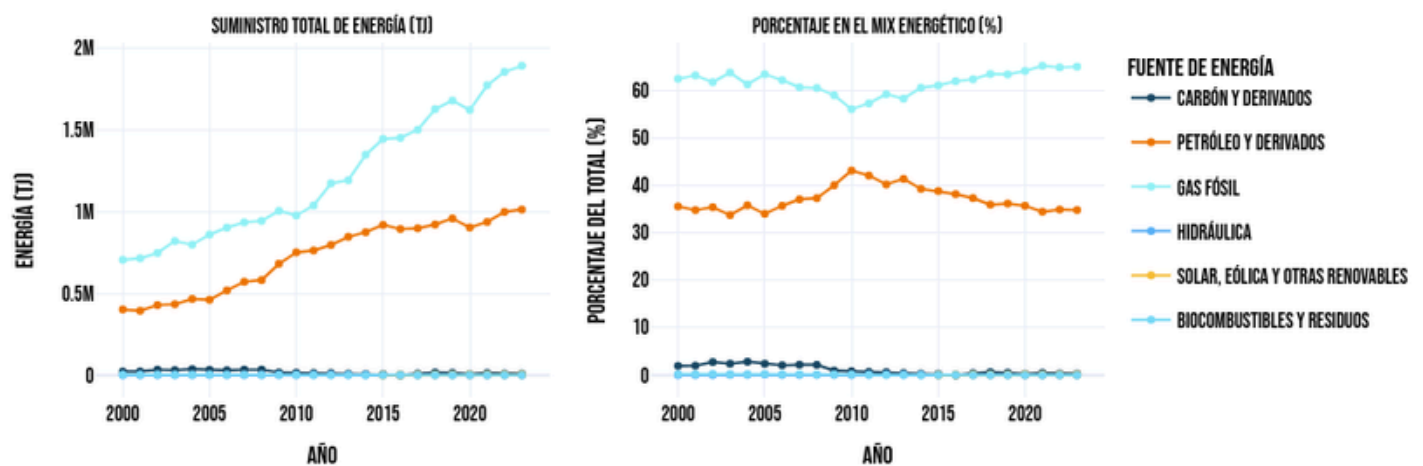


FIGURE 3. EVOLUTION OF ALGERIAN ENERGY SUPPLY BETWEEN 2000 AND 2024. DATA: INTERNATIONAL ENERGY AGENCY (EIA). SOURCE: GAS IS NOT A SOLUTION NETWORK.

In response to this situation, Algeria has presented its **national** climate change **adaptation plan** for 2025. However, it has not yet formally communicated this to the **UNFCCC** (United Nations Framework Convention on Climate Change).

In terms of **mitigating the climate crisis**, **Algeria's action is lacking**. **Fossil fuels** are an important resource for the country and are **managed** through its **national company**, **Sonatrach**. This company has been the subject of serious investigations for **corruption**.

Algeria's energy system is heavily dependent on fossil fuels, mainly **gas**. In 2023, fossil gas accounted for 65% of total energy supply, much more than any other energy source. In addition, fossil gas generates 99% of electricity.

Looking at the country's trade balance in 2023, we see that **Algeria's main exports were LPG (r gas de petróleo)** and LPG (), crude and refined oil, nitrogen fertilizers (which are **produced** with fossil gas), and cement (which can be **produced** with fossil gas). During that same year, **Algeria's main imports included** wheat, automobiles, concentrated milk, corn, and raw sugar. **This highlights the importance of fossil fuel extraction in the country's economy.**

Of course, Algeria is a member of the **Organization of Petroleum Exporting Countries (OPEC)** and was **Africa's largest gas exporter in 2023**. **Spain is the second largest buyer of Algerian gas**, after Italy.

Algeria also fails **to comply with** its international commitments under the Paris Agreement. **It has only submitted one of its two NDCs** . NDCs represent each country's efforts to reduce national emissions and adapt to the effects of climate change.

Finally, it should be mentioned that in 2024, **Algeria was the sixth largest country in terms of gas flaring**, but what does this mean?

Gas flaring

This practice, which consists of **burning gas associated with oil extraction**, is often justified by the economic, technical, regulatory, and safety difficulties involved in capturing and utilizing it. While flaring is a relatively safe method of removing excess gas and managing pressure variations, it is harmful to the environment. Burning **methane produces carbon dioxide. In addition, methane is itself a powerful greenhouse gas, which is also emitted in this process due to the inefficiency of flare combustion.**

The European Union Regulation is the fundamental strategic pillar for climate security, energy independence, and transparency in fossil fuel import flows within and outside member states. From January 1, 2027, all oil and natural gas imports into the European Union must have Measurement, Reporting, and Verification (MRV) systems equivalent to those of the EU. Despite the obvious delay and its undermining by the influence of the United States, the urgency is paramount for current operators. Current geopolitical tensions have forced a redistribution of gas flows against a diversification of importing countries, consolidating Spain's strategic dependence on LNG suppliers with alarming methane emission profiles and detected leaks. IMEO/UNEP data for 2025 reveal a direct correlation between the concentration of suppliers and the increased risk of imported indirect emissions, with a global tripling of satellite-detected leaks in the *oil & gas* sector from 2024 to 2025. In the case of Algeria, detected leaks grew by 240% from 2024 to 2025, a record that could begin to decline as the regulation is effectively enforced.

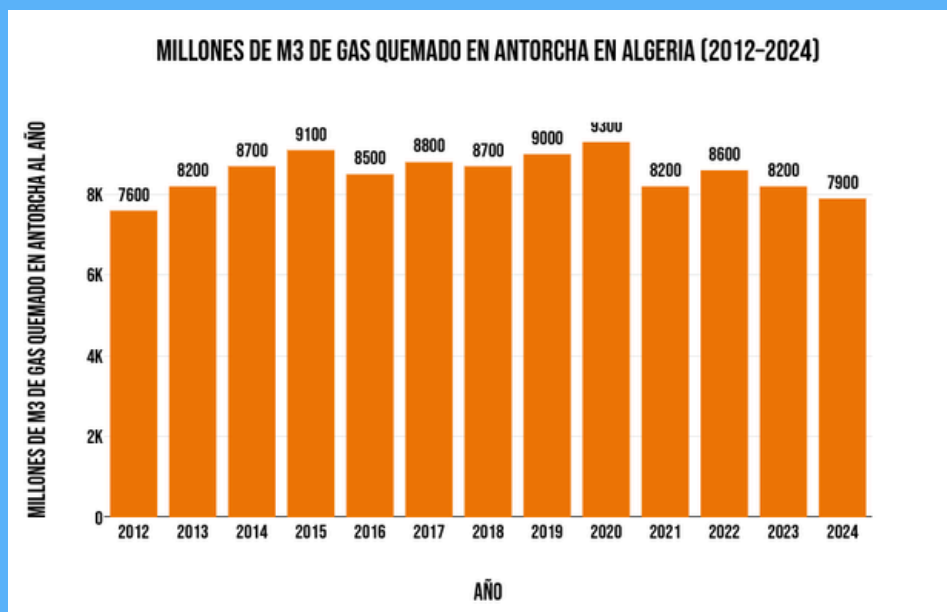


FIGURE 4.
MILLIONS OF
M³ OF GAS
FLARED PER
YEAR IN
ALGERIA DURING
2012-2024.
DATA: WORLD
BANK. SOURCE:
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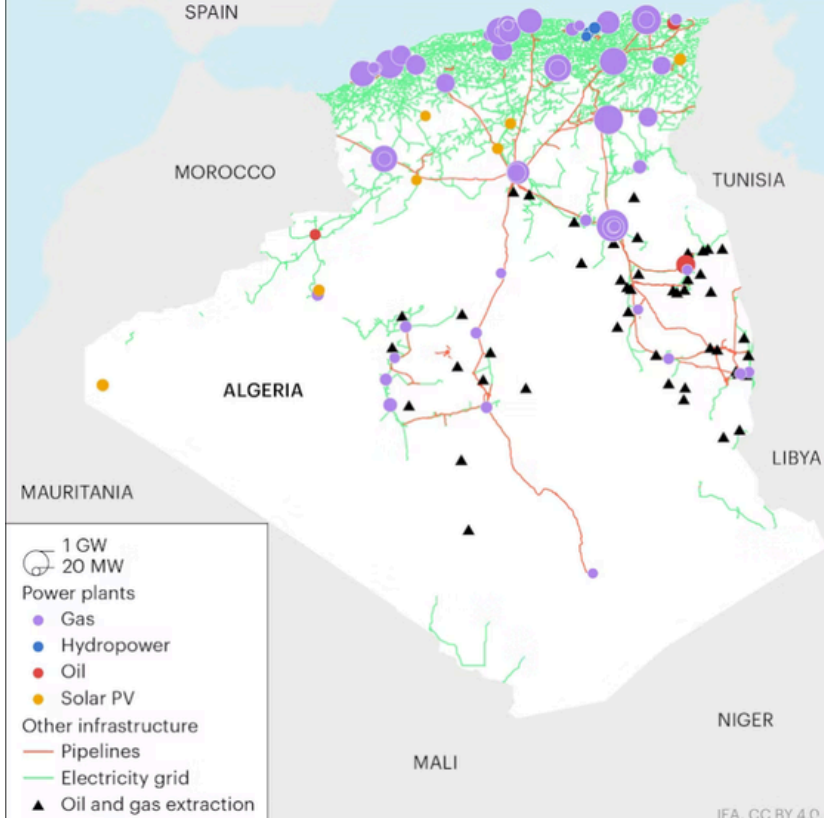
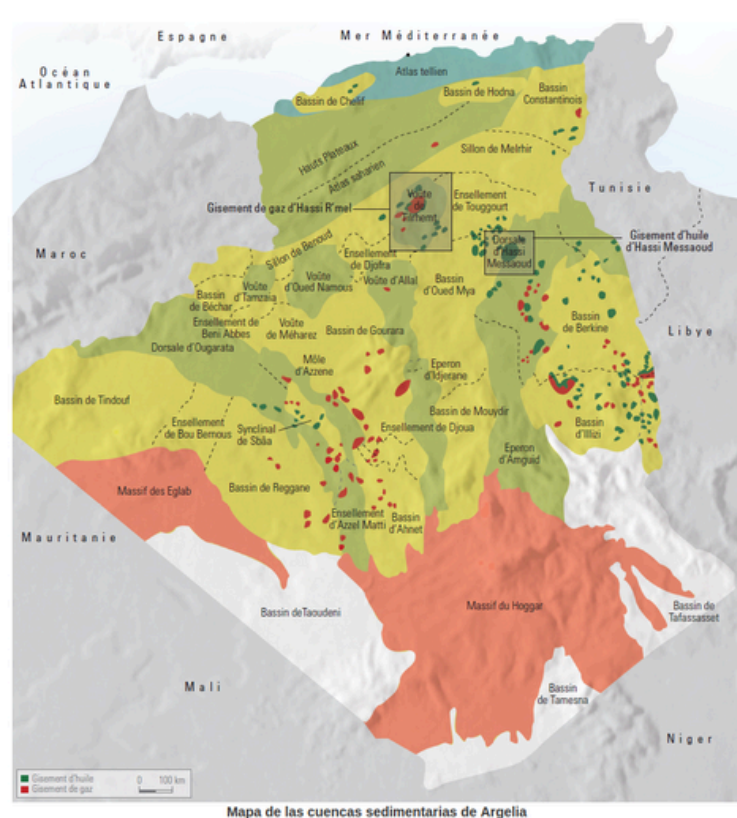
It should be noted that this practice is slowly declining in Algeria, with **2024** being the second lowest year in the 2012-2024 series. However, although flaring decreased, Algerian oil production declined even further, increasing the "intensity" of flaring. Again, what is flaring intensity? *

* *Most of the gas burned worldwide is produced in association with crude oil (associated gas). Flaring intensity is the volume of gas burned, in cubic meters, per barrel of oil produced.*

Sonatrach, the Algerian company, accounted for 80% of gas flaring in Algeria in 2024. However, it should be noted that the lack of measures by the Algerian government makes it necessary to estimate leaks. Without accurate data, it is very difficult to implement appropriate policies.

Internationally, Algeria has not joined major gas reduction initiatives such as the GMP (Global Methane Pledge) or the OGMP (Oil and Gas Methane Partnership), although it is part of "Zero Routine Flaring by 2030" and has included some reference to it in its NDC. **International pressure, prompted by satellite detection of leaks, has led Algeria to begin taking action**, such as collaborating with the World Bank's GFMR (Global Flaring and Methane Reduction Partnership) in the search for best practices and participating in studies on methane emissions with UNEP (United Nations Environment Programme). Even so, as can be seen in Figure 3, it is still not enough.

Finally, it should be noted that **in order to measure and hold accountable countries that import oil from countries that burn gas in flares**, the "Imported Flare Gas (IFG) Index" has been created. In 2024, **Spain ranks 4th among the Annex I countries** in this index. It is essential that **both Algeria and Spain take coordinated action to prevent these leaks**.



ZOOM: HASSI R'MEL

FIGURE 5. THE LEFT PANEL SHOWS A MAP OF ALGERIAN SEDIMENTARY BASINS AND THE RIGHT PANEL SHOWS AN OVERVIEW OF ALGERIA'S ENERGY INFRASTRUCTURE. SOURCES: MINISTRY OF HYDROCARBONS AND MINES OF THE PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA AND INTERNATIONAL ENERGY AGENCY, RESPECTIVELY.

Hassi R'mel is a **crucial point of production and distribution in the Algerian gas system**, the "**heart**." Hassi R'Mel was discovered in 1956 and extraction began in 1961. It covers an area of 3,500 km² 1,350 sq mi, making **it one of the largest fields in the world**. It is located in the Sahara, 550 km south of Algiers, in the north-central part of the country. It is a gas condensate field with a ring of oil to the east.

From Hassi R'Mel, the gas is distributed throughout the country (and around the world). In particular, gas is also distributed to other fields. There are both pipelines in which the gas travels in a gaseous state and pipelines in which the gas travels in liquid form, such as Ohanet-Hassi R'Mel LPG, Alrar-Hassi R'mel LPG, and Hassi R'Mel-Arzew LPG.

Of particular note are the **gas pipelines** connecting Hassi R'Mel with its neighbors for **export**, such as:

- Hassi R'Mel-Oued Saf Saf "G01," part of **the Trans-Mediterranean gas pipeline**, which reaches **Tunisia** and then crosses the Mediterranean to **Italy**.
- **Medgaz**, which crosses directly from **Algeria to Almeria**. It is owned by Sonatrach (51%) and Medina Partnership (49%), which in turn is owned by Naturgy (50%) and BlackRock (50%). **Naturgy** financed the increase in its stake in the pipeline through a loan granted by **Banco Santander**, ING, Banca IMI, and Natixis in November 2019.

- **Maghreb-Europe** (MEG) **crosses Morocco to Córdoba**, where it connects with Portugal. In 2021, the contract with the Maghreb-Europe gas pipeline expired, and the diplomatic crisis between Algeria and Morocco was used as an excuse **not to renew it**.

The pipelines connecting the field to the **regasification plants** on the country's coast are also essential. From there, methane tankers set sail with gas for export. The main ones are:

- **Hassi R'Mel-Skikda**, also known as GK1 and GK2. These are two pipelines that reach the **Skikda regasification plant** (northeast Algeria), known for the explosion of a steam boiler in January 2004, which killed 27 people and injured 80.
- **Hassi R'Mel-Skikda-El Kala**, which runs parallel to Hassi R'Mel-Skikda, but after reaching the terminal, **continues on to El Kala**, further east.
- **Hassi R'Mel-Arzew** carries gas to the **Arzew-Bethioua regasification plant**, which is also served by Medgaz.

It is impossible to forget the **Trans-Sahara Gas** Pipeline, a project that would transport gas from extraction areas in Nigeria, such as the threatened **Niger Delta**, to Hassi R'Mel, passing through Niger. This would facilitate the **delivery of gas to Europe**. This proposal competes with a pipeline that would pass through Libya, Algeria's neighbor.

In addition to gas production and distribution, this gas complex includes power plants (**Tilghemt I, II, and III**) and the **Hassi R'Mel ISCC power plant** (or Hassi R'Mel Gas Solar Hybrid, SPP1 Thermal, Tilghemt ISCC).

Hassi R'Mel is also known for its **"super-emitting" methane leaks**, with some emissions exceeding 40 tons of methane per hour, **equivalent** to the emissions of 261 gasoline cars driven for a year per hour. Some of the leaks in this field have been found at the compression station, which pumps gas to Europe.

Finally, when talking about gas infrastructure, we must not forget **how it is affected by the climate crisis**, which it itself causes. In recent years, Algeria's energy system has been affected by flash floods and forest fires caused by drought and heat waves. This will only get worse.

By mid-century, more than 70% of Algeria's gas-fired power plants are expected to face at least 40 days with a maximum temperature above 35°C, in all global warming scenarios assessed by the **International Energy Agency**. These events cause **gas plant capacity to decline and reduce the load capacity of the grid**. Combined with **increased demand** during high-temperature events (**cooling equipment**), **the result is clear: power failures and outages, if no action is taken**.

WHAT ABOUT FRACKING?

First, what is fracking?

Fracking, or hydraulic fracturing, involves injecting large amounts of water, sand, and chemicals into geological formations at high pressure to extract oil and gas. This technique allows gas to be extracted from shale.

Fracking contaminates drinking water and generates large amounts of toxic wastewater, posing a risk to the health of communities and threatening the rights and lands of indigenous peoples, and can even trigger seismic activity. As the Permanent Peoples' Tribunal states, **"fracking materials and infrastructure inherently and necessarily violate human rights."** According to the Compendium of Scientific, Medical, and Media Findings Demonstrating the Risks and Harms of Fracking and Associated Oil and Gas Infrastructure, **"fracking cannot be practiced in a way that does not directly threaten human health or endanger the climate stability on which human health depends."** It is banned in Spain, but imports continue.

Although Algeria has a long history as a gas-exporting country, **the first pilot well exploited** through fracking took place in **2014, courtesy of Sonatrach**. This was thanks to **fracking being legalized** in Algeria in **2013**. This sparked **Algerian mobilization**. The population did not want the little water available to be contaminated.

For a while, it came to a standstill. But there are constant attempts to revive this type of project. Sadly, **Algeria announced in 2025 that it is working to sign two major agreements with American companies, ExxonMobil and Chevron, to extract gas through fracking**, putting its population at risk.

WHAT ABOUT THE FUTURE?

Over the next few years, it is difficult to imagine that there will be substantial changes in Algeria's energy system. Although the government wants **to diversify its energy mix and implement more renewables, it is prioritizing hydrocarbons for sale.**

Sonatrach has plans to start exploiting new fields, increase production from existing ones, and expand power plants. The possibility of gas extraction through **fracking is** of particular **concern**.

Other **alarming projects** should be highlighted, such as the **Trans-Sahara Gas pipeline that would link the Niger Delta with Hassi R'Mel**, or the construction of a new section of the **Southern Algeria Gas Transmission Network**, which supplies gas to the southwestern provinces, reaching the border with Tunisia.

It should be noted that these types of projects trap society in a fossil fuel future. Gas pipelines are the materialization of political and diplomatic agreements between countries. As ODG points out, "most gas import contracts between Spanish companies and exporting countries such as Algeria are long-term (20-25 years), with the price of gas indexed to that of oil and with 'take or pay' clauses, meaning that the importer must pay for the gas even if it ends up not importing it." These clauses were created to give exporting countries greater assurance that importers will comply with the agreement, i.e., to remain trapped in a fossil fuel-based economic system.

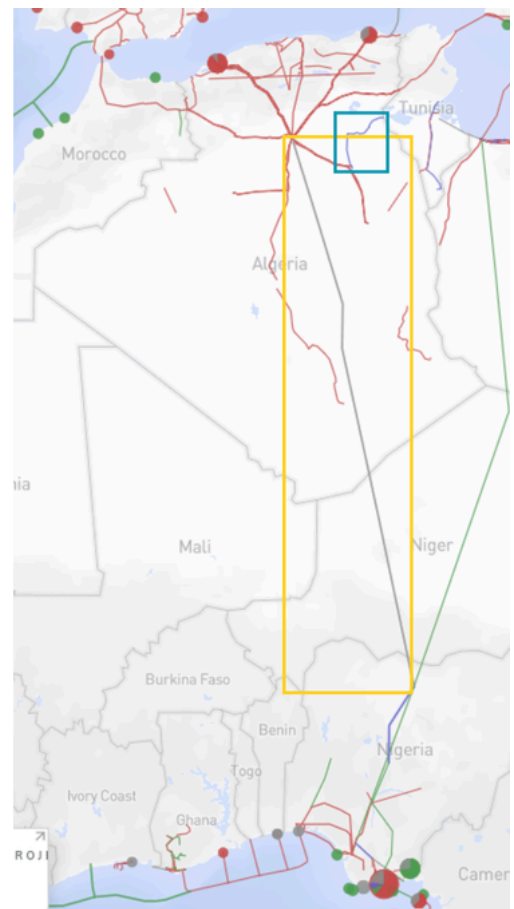


FIGURE 6. MAP OF THE TRANS-SAHARA GAS PROJECT OUTLINED IN YELLOW AND THE SOUTHERN ALGERIA GAS TRANSMISSION NETWORK OUTLINED IN BLUE. SOURCE: GLOBAL ENERGY MONITOR.

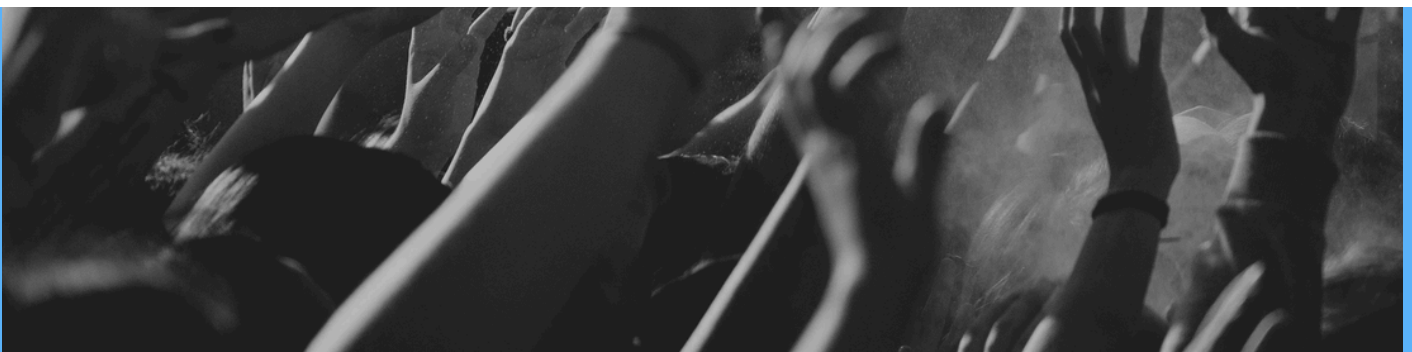
RESISTANCE

Water is an essential part of life. This is especially true for people living in a predominantly arid climate with little rainfall and a bleak future outlook. This has led to resistance in the region to projects that make intensive use of the scarce water available.

The unemployed workers' movement, CNDDC (National Committee for the Defense of the Rights of the Unemployed), began in Ouargla in 2013 (near extraction areas) and managed to mobilize tens of thousands of people to demand decent work and take a stand against economic exclusion, social injustice, and the underdevelopment of the region, despite its resources. That same year, Ouargla was the first town in the Sahara to mobilize against the regime's fracking plans.

Another example is the **Collectif national pour les libertés** citoyennes (CNLC, translated as the National Collective for Citizen Freedoms), created in 2012 in **response to proposals for extraction using fracking, which would contaminate the area's aquifers**. Despite the struggle, in **2013, a law was passed legalizing fracking**, without any social legitimacy. In **2014, the first pilot project was carried out** in Ahnet near In Salah. This caused a **new wave of unprecedented protests against fracking in 2015**.

These protests were **harshly repressed**. One example is the **conviction of cartoonist Tahar Djehiche** in November 2015: six months in prison and a fine of 500,000 Algerian dinars (about €4,500) for a Facebook post (Figure 5) in which he "insulted" the president and "urged" people to join protests against fracking. He appealed against this ruling.



Another example is that of **Dahmane Keram**, who in 2016 **served a year in prison for "participating in 'unarmed gatherings' and 'obstructing traffic' during the 2015 peaceful protests in Tamanrasset against fracking and in support of workers laid off by a local mining company engaged in gold extraction."**

Although fracking was halted for a time, in 2025, **this time led by American companies ExxonMobil and Chevron, the threat is once again present.**

Another, more recent dispute over water took place in **June 2024. Protests broke out in Tiaret** (an agricultural area in the northwest of the country) after **months of shortages**. They led to the **dismissal of local authorities** and the government "mobilizing tanker trucks and announcing the construction of an aqueduct." This news spread like wildfire on social media, but **barely appeared** in the **Algerian press**. Once again, we see the **repression suffered by the press** in a state that imprisons journalists.

Finally, when discussing resistance in recent Algerian history, we must mention the **Hirak movement of 2019, which sought greater democratization and increased freedoms, calling for the "dismissal of all" those linked to the ruling power**. This led to the **president stepping down after 20 years in power, arrests for corruption, and elections**. However, his **successor remained linked to the "power."** Since 2019, **the authorities have used the criminal justice system to strongly repress peaceful dissent, leading to a steady erosion of human rights in the country**. It should be noted that **this repression intensified prior to the 2025 elections, in which the president was re-elected in a less than democratic environment**.



FIGURE 7. CARTOON FOR WHICH TAHAR DJEHICHE WAS CONVICTED. THE POSTER TRANSLATES AS "ADJUSTMENTS" AND THE POST WAS ACCOMPANIED BY THE PHRASE "DON'T LEAVE IN SALAH ALONE ON FEBRUARY 24." SOURCE: CARTOONING FOR PEACE.



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