

GIES OCCASIONAL PAPER

The Global Energy Crisis | January 2023

THE CASE OF ALGERIA

EU Short-Term Energy Policy Inconsistencies and their Possible Long-Term Consequences

Reinhilde Bouckaert

UN University, Institute on Comparative Regional Studies – Ghent University

Since 2014 Algeria's hydrocarbon sector has been under stress. Declining production and rising internal consumption, tumbling global hydrocarbon prices and security concerns across the region combined created a challenging environment for its hydrocarbon sector. This instigated Algeria to look for alternatives. Between 2014 and 2020 the government made regulatory efforts to promote renewable energy. Further, a national fund to support renewable energy as well as a new economic growth model saw light. The new thinking about the unsustainability of its high reliance on hydrocarbons and about the consequent needs for economic diversification was clear. In 2016 Algeria and the EU agreed upon an annual action plan dedicated to renewable energy and energy efficiency which was a 'first' in their relationship that would remain for the years to come.

A new Commission and a new Government: towards an energy transition

In Algeria, the new government under President Teboune worked further on the needed enabling framework, creating a Commission on Renewable Energy and Energy Efficiency within the Prime Minister's Office in October 2019. Further, a renewable energy college at the University of Batna as well as a new Ministry of Energy Transition and Renewable Energy were established in

2020. Meanwhile in the EU the newly elected Commission von der Leyen pursued the same direction, enshrining its net zero emission goal by 2050 into law.

By March 2020 the COVID-19 pandemic caused an extreme drop in hydrocarbon demand. As the Algerian government had been distributing more than it earned to the population in exchange for public acquiescence it was desperately looking to attract new investments and created a new legal framework to open up the market to attract foreign investors.

During the first two months of 2021, the European Commission and the European Council were focused on a green recovery, also externally. They declared in the Joint Communication¹ and Council Conclusions² the need to invest in a green future with a focus on importing green hydrogen, discourage further investments into fossil fuel-based energy infrastructure projects in third countries, while taking action to reduce methane emissions.

Algeria saw an opportunity to replace its diminishing rents from hydrocarbons, agreeing in May 2021 on a national plan for the production of green hydrogen. Its aim was to become one of the best students in the fossil fuel exporting countries class proposing to export hydrogen via its pipelines to Spain and Italy. The government agreed

on a transition plan based on energy efficiency and renewable energy. It reformed the 2002 law on electricity to open up the market for SME's working in the renewable energy sector and created a stand-alone renewable energy company, SHAEMS.

By the end of 2021, Algerian leaders announced plans to rein in unsustainable deficit spending and green its taxation. It seemed the path dependent process known as carbon lock-in was at its end, being on track breaking out of the rentier state. With carbon prices too low since many years, lack of investment in its hydrocarbon sector, diminishing hydrocarbon demand and a rising internal energy consumption, the government had few other options.

The invasion of Ukraine

The invasion of Russia in Ukraine a few months later however, profoundly changed the political and economic landscape. The EU Member States changed their energy policy priorities, including towards Algeria. While it took some time for the European Commission being able to take concrete action, the EU Member States fast excelled by acting alone, promising new middle to long-term investments in Algeria's gas infrastructure as well as agreeing upon price increases. It has to be noted that in each agreement, renewable energy cooperation is mentioned as well, however this seemed to be rather in the margins.

The Italian Energy Minister signed up present in Algeria only a few days after the invasion, with the respective national oil companies closing a Memorandum of Understanding a few months later. This included a permission to increase gas flow capacities of Gazoduc progressively to 9 billion cubic metres of gas per year in 2023-2024.³ The Memorandum also covers the technical and economic evaluation for a green hydrogen pilot project, with the goal of supporting the decarbonisation of a gas plant. In July, a "production sharing" contract had been signed for approximately 4 billion euro for 25 year to exploit oil and gas deposits in the Berkine basin between Sonatrach and Italy's Eni, the US-based Occidental and France's Total. President Emmanuel Macron

visited Algeria on 25th of August 2022 in the context of a "declaration for a renewed partnership." Details about the energy matters discussed remained scant, however reports were that deliveries could rise by 50%. The CEO of Engie announced this would only come in the medium to long-term as opposed to this winter.⁴

The last Member State visiting Algeria up to now has been Slovenia, agreeing in November on a contract for three years. Willing to buy about 300 million cubic meters of gas per year from Algeria, the Slovenia's partially state-owned fossil gas trader Geoplin aims for a longer-term agreement and higher quantities.⁵ The officials agreed to sign a Memorandum of Understanding soon. In addition to increasing the volumes and extending the duration of the agreement, the Memorandum would also define strategic cooperation in renewable energy and the exchange of digital competences.

After the Summer, also the European Commission leaders started their diplomatic efforts in Algeria. The President of the European Council Charles Michel visited Algeria on the 5th of September 2022, and stated that "Given the international circumstances that we are all aware of, energy cooperation is obviously essential, and we see Algeria as a reliable, loyal and committed partner in the field of energy cooperation." On October 11th, the EU's Energy Commissioner Simson Kadri hailed a long-term strategic partnership with Algeria, "being the EU's reliable supplier."

The EU's inconsistency causing long term carbon lock-ins?

These investment agreements seem difficult to match with the Green Deal and its external component, neither with the REPower EU plan that was published after the invasion on the 18th of May.⁶ The REPower EU plan claims that in the new reality, "the EU's gas consumption will reduce at a faster pace, limiting the role of gas as a transitional fuel." If this gas shock follows the same trend as the oil shock did in the 1970s, decline of gas will be structural. This will have consequences, certainly for Algeria, reliant for more than 80% on the EU for its fossil fuel export.⁷

Recently, some exploration efforts have delivered (limited) oil and gas discoveries, however, not enough to deliver the demanded export volumes in the short term. After years of underinvestment, the Member States agreements with Algeria are focusing on the need for more gas exploration, production and infrastructure investments to fulfil demand. At the start of 2022, Sonatrach announced plans to invest approximately 40 billion euro over five years for exploration and extraction of gas as well as oil exploration, production and refining, however adding in June that it counted on the buyers of Algerian gas to make the investments in upstream development.⁸

Urgent need to refocus and grasp the moment

Although the boom in global hydrocarbon prices seems to have limited Algeria's interest in focusing on an energy transition, Algeria had reached a moment of 'plasticity'. As Davis claims, you need to seize the opportunity during moments of plasticity. If not grabbing that moment, it is unlikely the transition will succeed as this will result in a new carbon lock-in⁹ or stranded assets when new investments will be made in its hydrocarbon infrastructure. Further, these investments are to the detriment of renewable energy and energy efficiency.¹⁰

Algeria's export potential of hydrocarbons had been diminishing because of a lack of investments and rising internal consumption.¹¹ This means that in order to fulfil the external hydrocarbon demand, investments are needed. However, the EU shouldn't make those in new hydrocarbon infrastructure or expansion for at least three reasons. First of all, the rise in demand for gas from the EU is focused on the short-term. Investment in new extraction takes time and could cause a carbon lock-in for the decades to come.¹² Secondly, these are incompatible with the Communication and Conclusions the EU and its Member States made one year upfront. All of this dismisses many of the efforts Algeria (and the EU) made the last couple of years towards diversification away from hydrocarbons. Third, investing in new gas fields is not consistent with the Paris Agreement. Science

clearly indicates that to stay within a 1.5°C carbon budget (50% probability) implies leaving almost 40% of 'developed reserves' of fossil fuels unextracted.¹³ This would be incompatible with the EU aims to be a climate leader.

However, there are solutions, that are aligned with the Paris Agreement as well as the Green Deal, which would result in more gas delivery to the EU in a shorter term. First of all, the focus should be on energy efficiency and demand reduction in Algeria. Here the EU can come in through knowledge sharing, technology and research development and making investments focused on the energy efficiency of the industry as well as the households. One of the tricky points for decades has been the subsidy system. The IEA estimates that the Algerian subsidies for electricity and gas are almost EUR 8 billion representing 4% of its GDP.¹⁴ Although some tentative measures were taken in 2016 when subsidies temporarily went down because of the lower hydrocarbon price, in 2018 they were rising again reaching an all-time high. A new attempt in 2021 has soon been reversed with rising gas prices. The gas price in Algeria is estimated at EUR 0.46/MMBtu¹⁵ which is below the cost of production, transmission and distribution. This doesn't stimulate energy efficiency as well as leaves little room for the renewable energy sector to enter the market.

This leads to the second solution. The renewable energy sector has a gigantic potential. Algeria is Africa's most electrified country, with more than 99% connectivity.¹⁶ However, 99% of the electricity comes from burning fossil fuels. This makes Algeria, with sun and wind abundantly present on a possible fast track to decarbonise. The EU should use this opportunity, focusing on knowledge sharing, strengthening the legal and regulatory framework, build institutional capacity and making investments in enabling technologies such as batteries, EV-smart charging, digital while improving financing availability and establishing guarantee schemes to mitigate specific risks. Diversifying Algeria's energy policy towards using more renewable energy internally, while using its hydrocarbon rents from its export to finance this

transition, could make Algeria less vulnerable to the financial instability of hydrocarbon rents in the future while aligning itself with its climate targets.¹⁷

Third, also diminishing gas flaring should be addressed. In the Commission's Communication 'external energy engagement in a changing world' from May 2022, actions to ensure its energy security include as well diminishing flaring. The aim of the EU is to couple additional gas with technical assistance to tackle methane leaks and to address venting and flaring with the "you collect, we buy" schemes. Through this, the EU can collect more gas faster than through investing in new extraction facilities. Algeria is currently one of the fossil fuel extracting countries with the highest flaring numbers.¹⁸ Focusing on recovery rates would result in quick wins. Italy aims to buy an increasing 9 bcm of gas per year in 2023-2024.¹⁹ This is exactly the known flaring number of Algeria through which could fulfil very soon the needs of Italy.

Conclusion

With the invasion of Ukraine, the crisis mode has been turned on in the EU Member States which seems to have resulted in inward-looking actions neglecting the wider implications for its fossil fuel supplier Algeria. While the Commission declared in its REPower EU Plan that it enters a fast path towards the diminished use of fossil gas, its Member States rushed towards Algeria begging for

more gas entering into middle to long-term agreements. This shift could jeopardize the urgently needed decarbonisation shift, cause a lock-in for the concerned fossil fuel exporting country as well as the EU losing its attractiveness to convince others to follow its climate leadership. The EU should pay attention to act consistent in order to assure others to follow as well as give consistent signals to investors and fossil fuel partners in regards to which direction it aims to go.

Since Algeria exports the majority of its gas to the EU (83% of total gas exports in 2019)²⁰, the EU could, in theory, strongly influence Algeria to pursue its own green energy transition, if coherent politics, policy and diplomacy are accompanied by targeted investments in energy efficiency, renewable energy as well as reducing flaring. This is an inexpensive way of combating climate change and for EU companies to enter rapidly growing markets and it would boost economic development and diversification in partner countries while the EU can remain a thrustable climate leader it aims to be.

Reinhilde Bouckaert is a Doctoral Assistant at the Department of Public Management and Administration at the University of Ghent. Her research focuses on the changing relationship between the MENA and the EU in the context of the energy transition.

¹ European Commission, "Renewed partnership with the Southern Neighbourhood: A new Agenda for the Mediterranean," SWD(2021) 23, February 9, 2021.

² European Council, "Council conclusions on Climate and Energy Diplomacy - Delivering on the external dimension of the European Green Deal," ST 5545/21, January 25, 2021.

³ Sud Ouest, "Le premier ministre Mario Draghi obtient un accord de l'Algérie pour plus de gaz à l'Italie," 11 April 2022, <https://www.sudouest.fr/international/afrique/algerie/le-premier-ministre-italien-a-alger-pour-solliciter-plus-de-gaz10566371.php> - Last consulted 14 April 2022.

⁴ Aydin Calik, "Algeria And France Talk Gas," MEES, Issue: 65 / 35, 2 September 2022, <https://www.mees.com/2022/9/2/news-in-brief/algeria-and-france-talk-gas/a3444190-2ab5-11ed-a675-59c7ec4c9da2> - Last consulted 22 December 2022.

⁵ Sebastijan R. Maček, "Slovenia secures Algerian gas to cover third of its needs," *Euractiv*, 16 November 2022.

⁶ European Commission, "Repower EU plan," COM(2022) 230 final, 18 May 2022.

⁷ EIA, "Natural gas exports," 25 March 2019, <https://www.eia.gov/international/analysis/country/DZA> - Last consulted 18 December 2022.

-
- ⁸ Monika Bolliger, “Könnten Sie morgen Gas nach Deutschland liefern, Herr Arkab?,” *Der Spiegel*, June 19, 2022, <https://www.spiegel.de/ausland/algerien-interview-mit-energieminister-mohamed-arkab-ueber-moegliche-gas-lieferungen-a-8822f45c-39c7-4b78-9d57-6d09d87cc862> – Last consulted 13 December 2022.
- ⁹ Steven Joseph Davis et.al., “Carbon Lock-In: Types, Causes, and Policy Implications,” *Annual Review of Environment and Resources* 41(1) (2016): 29.
- ¹⁰ Reinhilde Bouckaert and Claire Dupont, “Turning to Algeria to replace Russian gas: a false solution,” Policy and Research Report 2/2022 University Ghent, <https://www.ugent.be/eb/publiek-management/en/news-events/bijlagen/policybriefturning> - consulted 25 November 2022.
- ¹¹ British Petroleum, “Statistical Review of World Energy”, <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/energy-charting-tool-desktop.html#/results/et/oil-prod/unit/kb/d/regions/DZA/view/area> - Last consulted 17 December 2022.
- ¹² Claire Dupont and Sebastian Oberthür, “Decarbonization in the European Union: Internal Policies and External Strategies”, *Palgrave Macmillan* (2015): 184.
- ¹³ Kelly Trout, Greg Muttitt, Dimitri Lafleur, Thijs Van de Graaf, Roman Mendelevitich, Lan Mei and Malte Meinshausen, “Existing fossil fuel extraction would warm the world beyond 1.5 °C”, *Environmental Research Letters*, Vol. 17 (6) (2022).
- ¹⁴ IEA, “Fossil-fuel consumption subsidies by country, 2018,” IEA, October 26, 2022, <https://www.iea.org/data-and-statistics/charts/fossil-fuel-consumption-subsidies-by-country-2018>.
- ¹⁵ International Gas Union, “Global Gas Report 2019,” <https://www.igu.org/resources/global-gas-report-2019-2/> - Last consulted 10 April 2022.
- ¹⁶ International Trade Administration, “Algeria Country Commercial Guide, Department of Commerce,” 10 November 2021, <https://www.trade.gov/country-commercial-guides/algeria-power> - Last consulted 17 December 2022.
- ¹⁷ Thijs Van de Graaf and Michael Bradshaw, “Stranded wealth: Rethinking the politics of oil in an age of abundance,” *International Affairs* 94(6), (2018):1309-1328.
- ¹⁸ Ouki Mostefa, “Algerian Gas in Transition: domestic transformation and changing gas export potential,” *The Oxford Institute for Energy Studies*, (2019): 20.
- ¹⁹ Sud Ouest, “Le premier ministre Mario Draghi obtient un accord de l’Algérie pour plus de gaz à l’Italie,” 11 April 2022, <https://www.sudouest.fr/international/afrique/algerie/le-premier-ministre-italien-a-alger-pour-solliciter-plus-de-gaz10566371.php> - Last consulted 14 April 2022.
- ²⁰ EIA, “Natural gas exports,” 25 March 2019, <https://www.eia.gov/international/analysis/country/DZA> - Last consulted 17 December 2022.