

ENERGY COUNTRY REVIEW

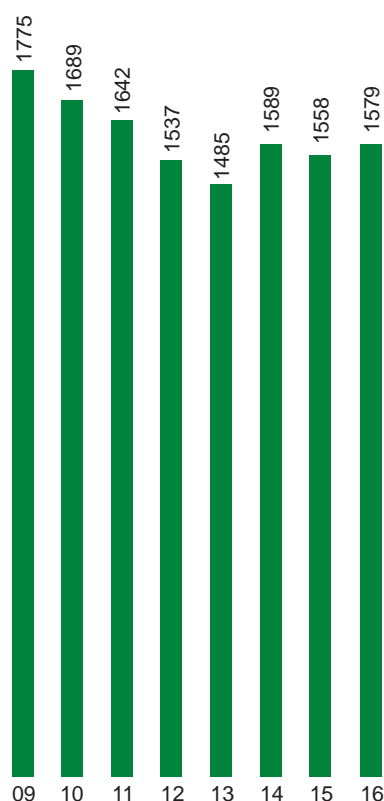
Algeria

keyfactsenergy.com

Country Review Algeria

Algeria oil production

Thousand bbls per day



Source: BP Statistical Review

Covering an area of around 2,382 thousand square kilometres, the Republic of Algeria is, territorially, OPEC's largest Member Country and the largest country in Africa. It is situated in the north of the continent, and shares borders with Morocco, the Western Sahara, Mauritania, Mali, Niger, Libya and Tunisia. To the north is the Mediterranean Sea.

The country achieved political independence in 1962 after more than a century of colonial rule by France. Algeria's struggle for independence was one of the most bitter in Africa's colonial history.

It has a population of more than 38 million, with over 3.5 million living in the capital, Algiers. Arabic is the official language, while French and Berber Tamazight are also spoken. The currency is the dinar.

The oil and gas sector is the backbone of the economy, accounting for about 35 per cent of the gross domestic product, and two-thirds of total exports. The country's other natural resources include iron ore, phosphates, uranium and lead.

Crude oil and gross natural gas production have gradually declined in recent years, mainly because of repeated project delays resulting from slow government approval, difficulties attracting investment partners, infrastructure gaps, and technical problems. In the past four licensing rounds, there was limited interest from investors to undertake new oil and natural gas projects under the government's terms, awarding only 4 of 31 blocks in the 2014 bid round.

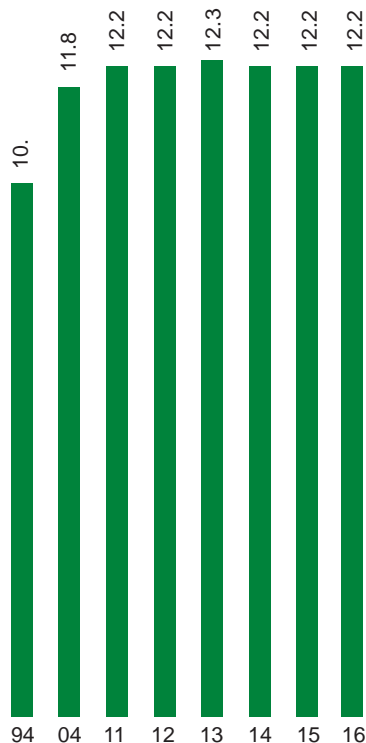
Algeria relies on its own oil and natural gas production for domestic consumption, which is heavily subsidized. Natural gas and oil account for almost all of Algeria's total primary energy consumption

Country Key Facts

Official name:	People's Democratic Republic of Algeria
Capital:	Algiers
Population:	40.32 million (2016)
Area:	2.382 million km ²
Form of government:	Republic
Language:	Arabic, French, Berber dialects
Religions:	Sunni Muslim
Currency:	Algerian dinar
Calling code:	+213

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Algeria year end oil reserves



Source: BP Statistical Review

The 2013 militant attack on the In Amenas gas facility prompted security concerns about operating in Algeria's remote areas, particularly in the south. Any major disruption to Algeria's hydrocarbon production would not only be detrimental to the local economy but, depending on the scale of lost production, could affect world oil prices. Because Algeria is the second-largest natural gas supplier to Europe outside of the region, unplanned cuts to natural gas output could affect some European countries.

Algeria's oil and natural gas industries are governed by the Hydrocarbon Act of 2005. The initial legislation established terms that guided the involvement of international oil companies (IOCs) in upstream exploration and production, midstream transportation, and the downstream sector. The original 2005 legislation was more favorable to foreign involvement than its predecessor, which was passed in 1986. However, amendments to the bill were made in 2006, and some of the favorable terms were reversed. In the 2006 amendments, Algeria's national oil company, Entreprise Nationale Sonatrach (Sonatrach), was granted a minimum equity stake of 51% in any hydrocarbon project, and a windfall profits tax was introduced for IOCs.

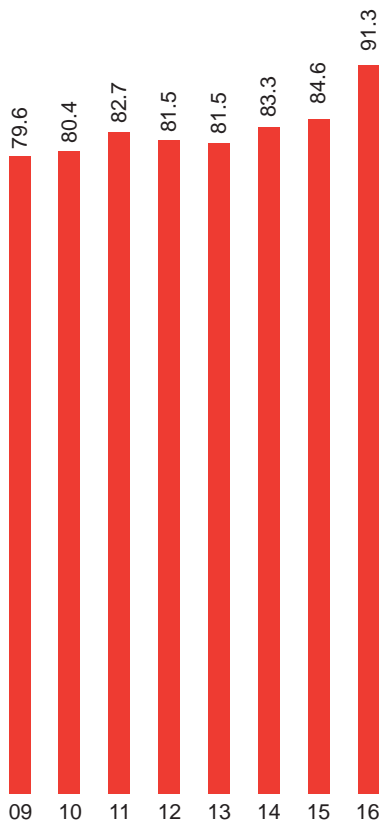
In recent years, Algeria has experienced difficulties attracting foreign investors, particularly at licensing rounds. In the most recent licensing round in 2014, only 4 of 31 blocks were awarded. Some analysts believe that the lack of fiscal incentives to attract foreign investors to new projects, coupled with past Sonatrach corruption allegations, were to blame. Algeria's precarious security environment has also been a concern for investors.

In 2013, Algeria revised parts of the hydrocarbon law in an attempt to attract foreign investors to new projects. Amid declining hydrocarbon production and stagnant reserves, the Algerian government has stated it needs foreign partners to increase oil and natural gas reserves and explore new territories, such as offshore in the Mediterranean Sea and onshore areas containing shale oil and natural gas resources. The 2013 amendments introduced a profit-based taxation, as opposed to revenue-based taxation and lowered tax rates for unconventional resources. The amendments also allow for a longer exploration phase for unconventional resources (11 years compared to 7 years for conventional resources) and a longer operating/production period of 30 years and 40 years for unconventional liquid and gaseous hydrocarbons, respectively (compared to 25 years and 30 years for conventional liquids and gas, respectively). The amendments, however, do not change Sonatrach's mandated role as a majority stakeholder in all upstream oil and natural gas projects.

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Algeria gas production

Billion cubic meters



Source: BP Statistical Review

Sonatrach owns roughly 80% of total hydrocarbon production in Algeria, while IOCs account for the remaining 20%, based on data from Rystad Energy. IOCs with notable stakes in oil and natural gas fields are: Cepsa (Spain), BP (United Kingdom), Eni (Italy), Repsol (Spain), Total (France), Statoil (Norway), and Anadarko (United States).

Petroleum

According to the latest Oil & Gas Journal estimates released in January 2016, Algeria held an estimated 12.2 billion barrels of proved crude oil reserves, an estimate that has been unchanged for many years. All of the country's proved oil reserves are held onshore because there has been limited offshore exploration. Most proved oil reserves are in the country's oldest and largest oil field, Hassi Messaoud, located in the eastern part of the country, near the Libyan border. Hassi Messaoud is estimated to hold 3.9 billion barrels of proved and probable recoverable reserves, followed by the Hassi R'Mel field (3.7 billion barrels) and the Ourhoud field (1.9 billion barrels), according to the Arab Oil & Gas Directory.

Production

Algeria produced an estimated average of 1.1 million b/d of crude oil in 2015, slightly lower than the previous year. Combined with almost 600,000 b/d of noncrude oil liquids, which are not included in its OPEC quota, Algeria's total oil production averaged almost 1.7 million b/d in 2015.

Natural gas

According to Oil & Gas Journal, as of January 2016, Algeria had 159 trillion cubic feet (Tcf) of proved natural gas reserves, the eleventh-largest natural gas reserves in the world and the second-largest reserves in Africa, behind Nigeria. Algeria's largest natural gas field, Hassi R'Mel, was discovered in 1956.

Production

Algeria's gross natural gas production was 6.6 Tcf in 2014, a 4% increase from the previous year. Production has steadily declined over the past decade as output from the country's large, mature fields is depleting. There are several new projects planned to come online, but they have repeatedly been delayed.

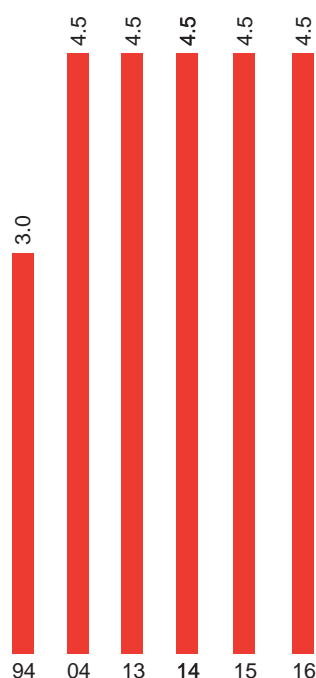
Shale Gas

Algeria is estimated to hold the third-largest amount of shale gas resources in the world. The U.S. Energy Information Administration (EIA) estimates that Algeria contains 707 trillion cubic feet (Tcf) and 5.7 billion barrels of technically recoverable

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Algeria Gas Reserves

Trillion cubic meters



Source: BP Statistical Review

shale gas and oil resources, respectively. Some industry analysts however are cautious about the prospects of Algeria becoming a notable shale producer. To develop these resources, Algeria will face many obstacles including the remote location of the shale acreage, the lack of infrastructure and accessibility to sites, water availability, the lack of roads and pipelines to move materials, and the need for more rigs because shale wells deplete quicker.

Source: EIA

Algeria Ministry of Energy and Mining

Established in Algiers, Algeria in 1962, the Algeria Ministry of Energy and Mining is responsible for the development of the countries resources.

Projects include Berkine Basin and Illizi Basin and the Bellara Integrated Steel Complex.

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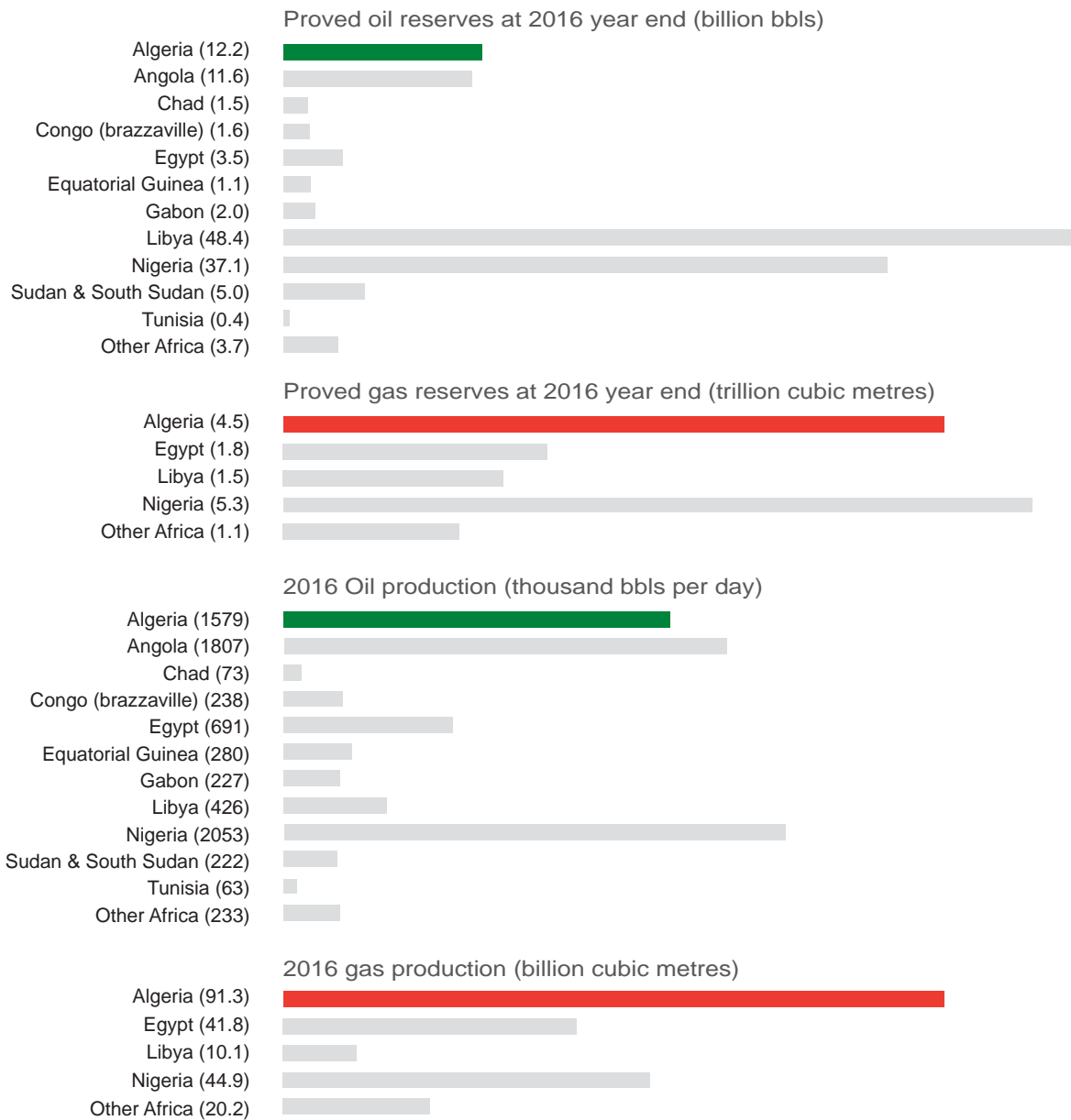
Natural gas projects in Algeria

Project name	Partners	Output (Bcf/y)	Start year
Gassi Touil	Sonatrach	tbd	2014+
In Salah (expansion)	BP/Sonatrach	200	2015
Reggane Nord	Repsol/Sonatrach	102	2016
Timimoun	Total/Sonatrach	57	2016
Touat	GDF Suez/Sonatrach	159	2016
Ahnet	Total/Sonatrach	100-150	2016
Hassi Ba Hamou	Shell/Sonatrach	70-100	2016+
Isarene (Ain Tsila)	Petroceltic/Sonatrach	tbd	2017

- Field expansion at In Salah is to ensure that the current level of output at In Salah is maintained.
- Other gas fields that are expected to begin production between 2018 and 2020 are Hassi Mouina, Zerafa, Djebel Hira, Tinhert, Bourarhet, and field expansion at Haoud Berkaoui.

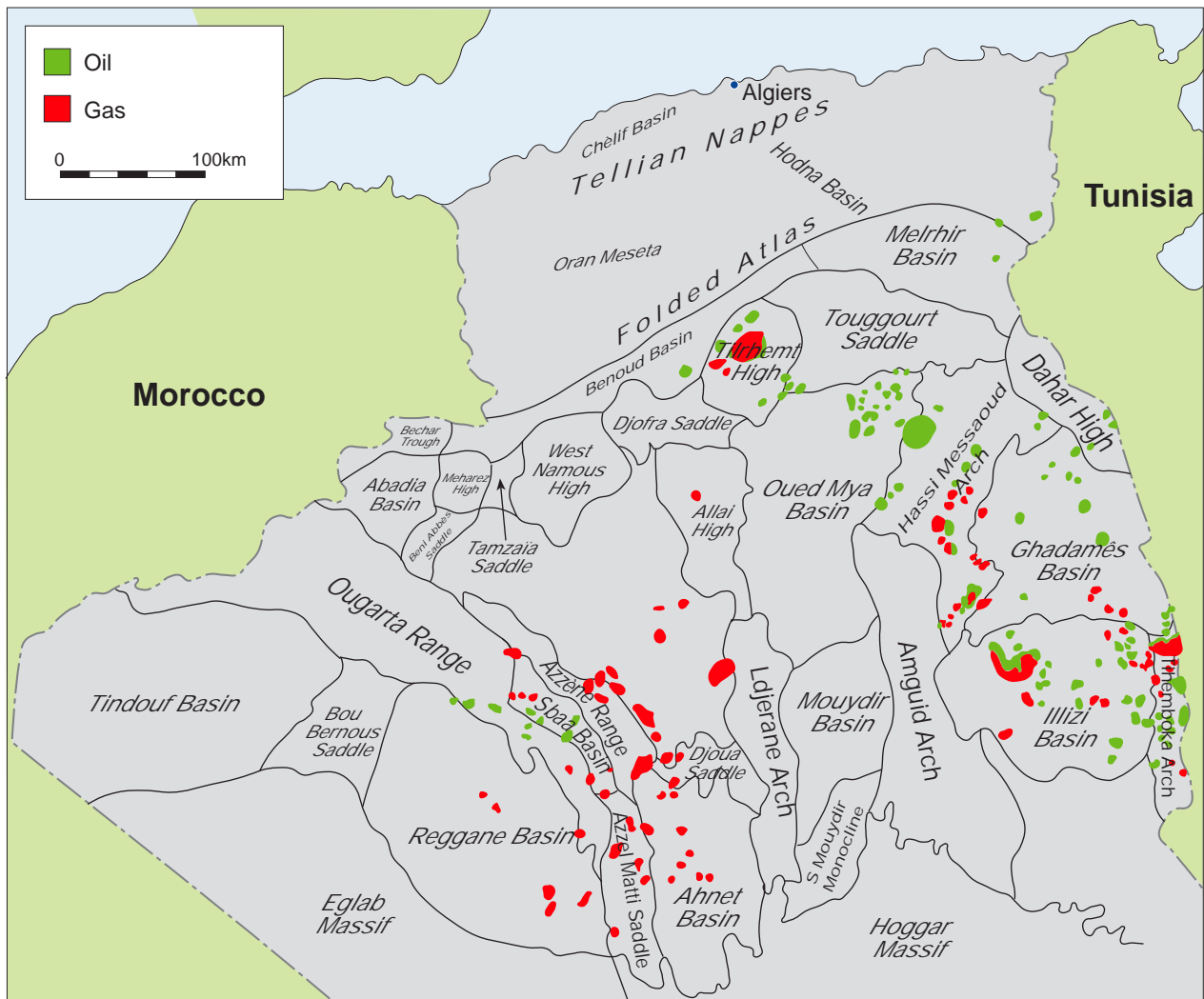
Source: Arab Oil & Gas Directory, Global Insight, Repsol, Total, Oxford Energy, Oil & Gas Journal, and Bloomberg

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Source: BP Statistical Review

Geology Map Algeria



Algeria Geology map | Image source: KeyFacts Energy