

SONATRACH AN INTERNATIONAL GAS DIMENSION



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Introduction



SONATRACH is Algeria's national oil and gas company, involved throughout the hydrocarbon value chain including exploration, production, pipeline transport, processing and marketing. It was founded following Algeria's independence and has played a pivotal role in the country's economy for over 60 years.



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Hassi R'mel Production

Pioneering Role in Global Gas/LNG Industry

World's First LNG Plant in 1964 and Birth of Commercial LNG

On **September 27th, 1964** the first natural gas liquefaction complex in the world, CAMEL (the Algerian Liquified Methane Company), later denominated GL4Z, was commissioned. A date which marked the birth of the global LNG industry with the delivery, from the port of Arzew on board of the "Methane Princess" tanker, of the first cargo of **27 000 cubic meters** of Algerian methane to the regasification terminal of Canvey Island in Great Britain. This audacious endeavor paved the way for a global LNG revolution, democratizing access to clean energy and altering the very fabric of energy trade.

Signed First Major Long-Term LNG Contract

In **October 1969**, an unprecedented transaction in the world was concluded, SONATRACH signed with the American company El Paso Natural Gas a landmark mega contract for the sale of 10 billion cubic meters per year of gas to be exported to the USA for a duration of **twenty (20)** years. CAMEL and EL PASO mega-contract enabled structuring the gas market on the global scale and making SONATRACH a pioneering company in the LNG industry.

With adopted SONATRACH's vision, long-term LNG and gas contracts, crafted with foresight and forged in trust, became the cornerstone of global gas trade. These contracts, more than mere business agreements, were instruments of stability, ensuring predictable supplies and fostering long-term investments in infrastructure, creating the arteries through which the lifeblood of gas flowed. With pioneering long-term gas contracts, SONATRACH impacted structuring the global gas market and long-term



relationships between sellers and buyers.

This pioneering approach has provided stability and predictability for both producers and consumers. Through the crafting of long-term contracts, SONATRACH has consistently stood as a stable and reliable supplier for its customers. By embracing the principle of risk-sharing, SONATRACH has been able to undertake long-term investments in the necessary infrastructure for gas production, transportation, and distribution, including pipelines and liquefied natural gas (LNG) terminals.

Utilizing innovative pricing formulas adapted to evolving market conditions, SONATRACH's gas sales contracts have played a pivotal role in the global gas industry's development. They have provided a solid foundation for long-term strategic planning and the stability of energy supplies. This proactive and adaptive approach to contractual arrangements has not only benefited SONATRACH but has also contributed significantly to shaping the landscape of the global gas industry.

Key Role in Nationalization of Hydrocarbons

From the sands of **independence in 1962**, SONATRACH emerged, a bold spirit fueled by unwavering national resolve. In a mere nine years, this fledgling entity dared to defy established norms, to reclaim the sovereign birthright of Algerian hydrocarbons.

The year **1971** etched itself in history with the nationalization of hydrocarbons, a revolution led by SONATRACH, reverberating across the globe. What began as a spark of Algerian defiance ignited a fire of nationalization, empowering resource-rich nations to reclaim their rightful place in the energy narrative.

On **February 24, 1971**, Algeria nationalized its hydrocarbon resources, allowing SONATRACH to take control of all oil & gas fields, pipelines, and production assets from foreign companies. This was a major turning point.

SONATRACH played a crucial role in the success of the hydrocarbon nationalization process in Algeria on **February 24, 1971**, an event that significantly impacted the development of the hydrocarbon industry in Algeria and worldwide.

Despite the country achieving independence just nine years earlier, Algeria became the second nation in the history of the global oil industry, following Mexico in **1938**, to successfully complete the full nationalization of its hydrocarbons.

This foundational act, aimed at restoring national sovereignty over fossil resources beneath the ground, is even more remarkable considering that not only did SONATRACH have only seven years of existence and few specialized personnel capable of ensuring operational continuity, but also many other oil and gas-producing countries, particularly within OPEC, drew inspiration from this initiative to take similar actions in the following months, reclaiming total sovereignty over their underground fossil resources.

Since the nationalization of hydrocarbons in Algeria and the pivotal role played by SONATRACH, the global oil and gas industry has undergone profound transformations, redefining the nature of its governance, regulatory mechanisms and overall structure.



Built Multiple LNG Plants Over the Decades

The gas industry is underway, and on **July 29th, 1965**, SOMALGAZ was set up between SONATRACH and Gaz de France for the sale of **1.5 billion m³** per year of liquefied natural gas to the French market. The plant will be located in Skikda and a **40-inch** Hassi R'mel-Skikda gas pipeline is built in this wake to supply the future Skikda LNG complex.

The mega-contract with EL PASO AND opens the way to other contracts for the delivery of LNG to both European and American customers:

- • **Enagas, Spain, April 1975**
- • **Trunkline, USA, October 1975**
- • **Distrigas, Belgium, November 1975**
- • **Distrigas Boston, USA, April 1976**
- • **Brigitta Thyssengaz, German Federal Republic, September 1977**
- • **AustriaFerngas, Austria, Mars 1979**
- • **Sweidgas, Sweden, October 1978**



The implementation of the gas contracts concluded by SONATRACH were the launching point of a major investment program throughout the segments of the hydrocarbon chain, from the Hassi R'Mel gas fields to the loading terminals. An important industrial infrastructure was developed with the construction of treatment units, installation of transport networks, construction of liquefaction units, petrochemical and fertilizers production units, acquisition of a fleet of LNG tankers. This positioned SONATRACH as a major and reliable LNG supplier.

In the same vein, aiming at the development of new gas export capacities, SONATRACH signed, in **October 1977**, with the company ENI ex- SAIPEM, a major contract for the export by gas pipeline to Italy of **12 billion m³** of gas per year via Tunisia.



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Hassi R'mel Boosting

Economic and Social Impact



Driving engine of Algerian economy

The impact of SONATRACH's dedication transcends mere numbers. It is woven into the tapestry of Algerian prosperity.

Today, SONATRACH stands as the driving engine of the nation's economy, contributing **26%** of its GDP and **95%** of foreign currency earnings. It is the guarantor of energy security, ensuring gas penetration rates of **72%** and electricity access for **99%** of the population.

It is the builder of infrastructure, a major creator of jobs, and a dedicated bedrock to support Algerian progress.

Besides its upstream oil & gas activities, and gas industry, SONATRACH is also developing activities in petrochemicals, electricity generation, new and renewable energies, seawater desalination and mining.

SONATRACH carries out these activities, alone and in partnership, in accordance with the law governing hydrocarbon activities and other legal provisions.

The development and exploitation of the deposits are part of a long-term vision focused on the country's energy security and contribution to the well-being of citizens.

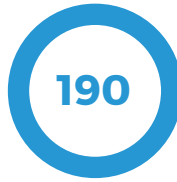
Therefore, SONATRACH has for **60** years fully played its role as a driving engine of Algeria's economy. As a provider of Algeria's energy security, it is regularly ranked as the first African company, ensuring more than **95%** of foreign currency earnings.

SONATRACH
contributes by:

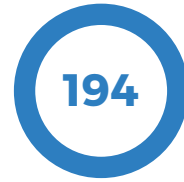


country's GDP

Yearly production



**Million TOE
(2022)**



**Million TOE
(2023)**

60

**Billion USD
(2022)
SONATRACH's
turnover**

+136

**affiliates and
holdings**

≈ 200 000

employees

SONATRACH, through its development, proudly strive to contribute to Algeria's prosperity.

Energy security and social progress

SONATRACH provides a yearly production of **190 million TOE (2022)** and **194 million TOE (2023)** and contributes by up to **26 %** of the country's GDP and **95%** of Algeria's foreign exchange earnings. SONATRACH's turnover reaches nearly **60 billion USD (2022)**.

SONATRACH ambitions and has given itself the means to ensure its statutory mission of satisfying the hydrocarbon domestic market.

It has endeavoured to support the social and economic development of the country, the component of which is energy security. It ensures gas penetration rates of **72%** and electricity access for **99%** of Algeria.



satisfying the
hydrocarbon
domestic market



Maximizing
Algeria's revenues
in the short,
medium and long
terms



participating in the
economic and social
development of the
country

In this sense, SONATRACH has used all means to ensure the supply to the national market with natural gas which has registered a significant growth during the last **60 years**, a result of the economic growth undertaken by the country and in line with the State policy targeting the improvement of natural gas penetration.

At the domestic level, the development of the gas industry led to reach energy security and significantly contributed to food security thanks to the commissioning of a first ammonia plant in **1969** and a first plant fertilizer in **1972** allowing self-sufficiency in fertilizer and its export. Finally, the development of an integrated gas industry has contributed to strengthening basic infrastructures in Algeria and participating in the economic and social development of the country.



Gas storage Tanks

Development of Integrated Gas Value Chain



Hassi R'mel Boosting



Successful Implementation of Massive Investments in Gas Infrastructure

The implementation of the gas contracts concluded by SONATRACH were the launching point of a major investment program throughout the segments of the hydrocarbon chain, from the Hassi R'Mel gas fields to the loading terminals. An important industrial infrastructure was developed with the construction of treatment units, installation of transport networks, construction of liquefaction units, petrochemical and fertilizers production units, acquisition of a fleet of LNG tankers, etc.

The Hassi R'Mel field was a high stakes gamble. This is how, from 1975, this field experienced a tremendous development, entirely carried out by SONATRACH in a period where technologies were not at the cutting-edge as we know today. Thanks to the long-term contracts, stable investment was implemented in the development of natural gas fields like Hassi R'Mel, Rhourde Enouss, Alrar and many others, with all the surface, transportation and processing infrastructure and facilities.

Developed an Extensive Upstream, Pipelines, and LNG Plants

SONATRACH owns an integrated gas industry dedicated to ensure security of supply to its international and domestic clients.

In the Upstream, SONATRACH is present in the national oil and gas upstream with nearly **300 exploration** and **production** perimeters, hundreds of gas production wells and tens of surface and gas treatment installations. It operates, on its own or in partnership with foreign companies, some of the largest deposits in the world in different regions of the Algerian Sahara: **Hassi Messaoud, Hassi R'Mel, Hassi Berkine, Ourhoud, Tin Fouyé Tabankort, Rhourde Nouss, In Salah and In Amenas**. Its natural gas production reached **132 billion m³ (2022 figures)**.

Partnership has been a historical success over the years with majors international partners including TotalEnergies in TFT, Eni & Equinor in In Salah and In Amenas, with Eni in Menzel Ledjmet East and Bir Rebaa North, Repsol and Wintershall Dea in Reggane North, Total and CEPSA in Timimoun, OXY in El Merk & HBNS, Pertamina in Menzel Ledjmet North, PVEP and PTTEP in Bir Sbaa and Hassi Bir Rkaïz and many others.

In Pipeline transport, SONATRACH operates a pipeline transport network made up of **22 Pipeline Transport Systems** with a total length of **21 190 km**, including **11 735 km of gas pipeline**, divided into:



43 pipelines
(23 gas pipelines
& 20 oil pipelines)



**85 pumping
and compression
stations**



128 storage tanks
with a capacity of
4,3 Millions TOE

The pipeline transport network can transport **405 million TOE/year** including **263 million TOE/year** on the North Network and **142 million TOE/year** on the South Network.

Also, SONATRACH owns and operates:

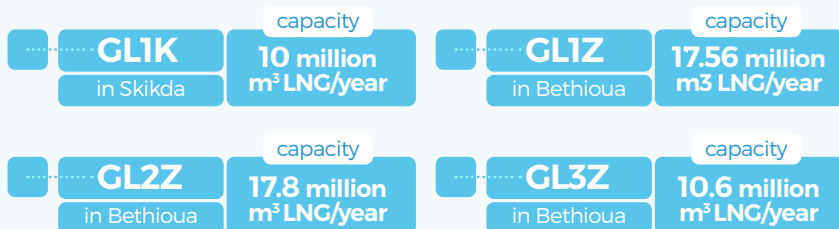
- A unique gas hub in Hassi R'Mel which is the National Center of Gas Dispatching (CNDG) with a capacity of 390 million m³/day, through which transit all the gas produced in the south to intercontinental gas pipelines and LNG facilities, along with domestic market and downstream transformation units.
- A similar liquid hydrocarbons hub (CDHL) with a capacity of 1,4 million barrel/day, is located in Haoud El Hamra (Hassi Messaoud).
- Three (03) hydrocarbons harbours, with a loading capacity of 2,85 million tons/year, equipped with five (05) offshore oil and condensate loading buoys (SPM Type). They allow the docking of large tankers.

In addition, SONATRACH has one **(01) Pipeline Transport Operation's Supervision Center** in Algiers which provides instantaneous monitoring and a centralized, global and detailed view of operations across the entire pipeline transport network. Intercontinental gas pipelines. In order to ensure supplies to its European customers, SONATRACH operates **two (02) transcontinental pipelines** having a capacity of **43 billion m³/year**:



- **MEDGAZ towards Spain.**
- **GEM (Enrico Mattei pipeline) towards Italy via Tunisia.**

Downstream, SONATRACH owns **four (04)** liquefaction plants (LNG complexes) with a global installed capacity of **56 million m³** of LNG per year, distributed as follows:



Another type of gas, LPG represent a substantial part of SONATRACH gas value chain. SONATRACH owns two LPG separation units in Arzew with a total capacity of **10.4 million tons** per year.

SONATRACH has also **two (02)** industrial zones housing liquefaction, separation, refining and petrochemical Complexes, as well as hydrocarbon products shipping terminals in Skikda (East Coast) and Arzew (West Coast), and an important Liquid Hydrocarbons Dispatching Centre (CDHL), with a capacity of **1,4 million barrel/day**, which is located in Haoud El Hamra (Hassi Messaoud)

Adding Value Through Gas Transformation Industry

SONATRACH long term strategy perceived very early the benefits of value added gas transformation industry. SONATRACH operates since the seventies a methanol complex which is CP1Z in Arzew, with a production capacity of nearly **120 000 Tons/year**. It produces methanol, resin, formalin and formulae.

It also developed fertilizer production from gas processing in the late sixties and began production in 1971, in its units in Arzew and Annaba, where it produces **1 million tons** of ammonia and other fertilizers for local and international markets.

SONATRACH's extended its Ammonia and urea production since 2013 via partnership with Orascom and Bahwane, and reaches urea and ammonia production of nearly **3 million tons**.

The fertilizers industry is in a constant growth and represents 1/3 of exports of non-hydrocarbons goods.

Other SONATRACH's portfolio companies such as HELIOS and HELISON produce Helium and industrial gas from charging supplied by LNG complexes, thus, enabling its valorization, with a capacity of **600 million cft** per year each.



Hassi R'mel Production

Reliable Energy Provider



The strategy adopted by SONATRACH for marketing natural gas through long-term contracts, has entrusted it with the position as a trusty and moreover, reliable supplier for natural gas buyers. Besides, this approach favors risk sharing between SONATRACH and its Clients and provides the stability of the projects financing and guarantees a continuous offer of energy.

SONATRACH supplies natural gas to its partners and long-term customers both by pipelines and by LNG tankers, mainly to Europe but also everywhere in the world where opportunities arise.

Since **1964**, SONATRACH, has recorded an exported volume of nearly **1400 million cubic meters** of LNG and the volumes exported since the start of exports in **1979** alongside the commissioning of the GEM, have reached a volume of **1100 BCM**.

These figures certainly show the role played by SONATRACH in the growth of the world natural gas market.



LNG carrier - Cheikh El Mokrani

This flexibility in NG/LNG has allowed SONATRACH to place its name on the international scene among the largest gas suppliers in the world. Moreover, the recognition of its performance and professionalism by its long-standing customers has given it the reputation of a trusty and reliable supplier.

To strengthen its position in its traditional gas markets and ensure the penetration of new segments in the gas value chain, SONATRACH has created two international subsidiaries, namely, SGM (SONATRACH Gas Marketing) and SGC (SONATRACH Gas Comercializadora).

Algeria, through the national company SONATRACH, has undeniable potential with existing and future assets which allow it to consolidate its position as a key player on the global energy scene.



5

Leadership in the Global Gas Industry

Played Key Role in Establishing GECF


Algeria is a member of OPEC since **1969**, and, SONATRACH works to satisfy the country's commitments within this organization which indirectly made it possible to regulate the global oil market. Subsequently, it actively participated in the creation of GECF which is today a leading international Forum.

SONATRACH has always participated, through its leadership and executives to advance the work of the GECF, to defend the position of natural gas as a clean energy, playing an important role in the energy transition and is an essential part of the world energy mix for several decades to come.

SONATRACH contributed to the creation of the Gas Research Institute, and participated since the inception of the project to enrich the proposal and facilitating the work in Algeria by hosting the 1st meeting of the GRI Scientific Committee and regularly contributing to its projects.

Major Producer and Exporter

SONATRACH stands beside the world's major companies, it is regularly ranked among the top world oil & gas companies, among them SONATRACH is ranked as:

- 
- **1st** The first company on the African Continent
 - **1st** Gas supplier in the Mediterranean region
 - **13th** World Oil company
 - **3rd** Gas supplier to Europe
 - **10th** World natural Gas producer

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6

BRN Photovoltaic Station

Commitment to Sustainable Gas Development



Advocates for Gas in Energy Transition

SONATRACH believes in the future of gas as a clean and essential energy for leading a just and equitable energy transition, in particular by supporting the development of renewable energies, while guaranteeing energy security and minimizing the risks linked to climate change. This privileged role of natural gas fits perfectly into the company's climate strategy, which works to strengthen the resilience of its activities in the face of multifaceted risks arising from the global energy and climate contexts.

It is with this in mind that SONATRACH put forward climate objectives in Algeria's "Nationally Determined Contribution (NDC)" and formalized its commitment to reduce its carbon footprint in its HSE policy, adopted in **March 2021**. This strategic commitment of the company resulted in the launch of an integration process, increasingly in depth and at the highest level, of the issue of transition and climate in the governance of the Company, through the implementation of concrete actions on the ground, aiming to reduce greenhouse gas emissions all over its operational activities.

Undertaking Sustainability Projects

It is undertaking projects focused on **seven (07)** main levers: **energy efficiency, reducing fugitive methane emissions and flaring**, with the objective for the latter to reach less than **1%** by **2030**, the use of carbon-free energy sources, the development of natural and technological carbon sinks; seize the opportunities of carbon pricing approaches (credits), the use of low-carbon goods and services and a rational use of fuels.

In terms of energy transition and greenhouse gas emissions control, the main projects carried out by SONATRACH in recent years are:

- The launch, in 2022, of the construction of a 2nd photovoltaic power plant at Bir Rbaa North, with a capacity of 10 MWc
- The inauguration, on November 17th, 2022, of a specialized laboratory in solar energy "Solar Lab"

Many important gas flaring reduction and associated gas recovery have been successfully carried out to reduce emissions.

In the framework of its medium-term plan, SONATRACH intend to realize projects as part of the company's energy transition, in particular projects for the recovery of flared gas at the level of production sites and LNG complexes, projects for photovoltaic power generation with National Company for the Production of Electricity SONELGAZ and also, pilot projects for the production and transport of green hydrogen.



Conclusion

Through pioneering the LNG industry, developing integrated gas value chains and upholding long-term gas supply commitments for over 60 years, SONATRACH has demonstrated outstanding lifelong commitment and leadership in growing natural gas resources and markets globally.

It is a recognition of a legacy carved in resilience, innovation, and unwavering commitment to natural gas. SONATRACH is not just a company; it is a symbol of national pride, a testament to the transformative power of collective will and a pioneer in shaping a sustainable future for the world.

SONATRACH history echos the aspirations of millions who have benefited from SONATRACH's dedication. It's a story not just of success, but of dedication, of impact, of progress, of a future fueled by the unwavering commitment to responsible gas development and the firm belief in the transformative power of natural gas.



Hassi R'mel Boosting III



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