US-QATAR BUSINESS COUNCIL

Business Opportunity Report:

Qatar's Energy Sector

Prepared by the US-Qatar Business Council



Washington, DC
August 2020



For questions and verifications, please consult our offices:

USQBC Headquarters:

1220 L ST NW
Suite 350
Washington, DC 20005
+1 202 457 8555
AmandaMichetti@usqbc.org

USQBC Qatar Office:

Tornado Tower
Level 22
Doha, Qatar
+974 4429 4977
DimaWahbeh@usqbc.org

Disclaimer:
USQBC is not responsible, should any of the texts, information, published data and links to other websites be found to be inaccurate or not updated, incomplete or not up to date, readers are reminded that the content exists solely for information purposes and has no value of an official nature.

US-QATAR BUSINESS COUNCIL

Table of Contents

About the Council 4

The Path Forward for Qatar's Enegy Sector 5

Featuring His Excellency Mr. Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and President & CEO of Qatar Petroleum

Qatar Energy Sector Overview 14

Qatar's Energy Relationship with the United States 17

Key Projects 19

Energy Exports 21

Tawteen Localization Program 22

Key Organizations and Executives 23





About the Council

The US-Qatar Business Council promotes, enhances and advances the bilateral business relationship between the United States and the State of Qatar.

The Council envisions a seamless relationship between the US and Qatar; a permanent partnership built on a foundation of mutual interests and strong business, cultural, and security relations. The Council is the leading organization dedicated exclusively to enhancing the bilateral commercial relationship between the US and Qatar.

The Council offers business advisory services, consultancy services, and coordinates trade missions for US and Qatari companies to facilitate bilateral business. The Council utilizes various vehicles to highlight Qatari happenings and engage stakeholders, including partnerships, events, and articles.

Visit our **official website** for the latest updates.

The Path Forward for Qatar's Energy Sector

A Virtual Briefing Presented by the US-Qatar Business Council

Featuring His Excellency Mr. Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and President & CEO of Qatar Petroleum

On May 21st 2020, the US-Qatar Business Council (USQBC) hosted the virtual briefing: "The Path Forward for Qatar's Energy Sector." The event featured His Excellency Mr. Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and President & CEO of Qatar Petroleum.

USQBC President, Ambassador Anne Patterson, delivered opening remarks and USQBC Managing Director, Mohammed Barakat, moderated the discussion. The event was attended by nearly 100 senior-level officials from both the United States and the State of Qatar as well as international media including *The New York Times*, *Bloomberg*, *Financial Times*, *S&P Global Platts*, and *Reuters*.

To view the virtual briefing in its entirety **click here**.



Bio:

His Excellency the Minister joined Qatar Petroleum (QP) in 1986 as a student studying Petroleum & Natural Gas Engineering at Pennsylvania State University in the USA. He graduated in 1991 with a Bachelor of Science degree in Petroleum & Natural Gas Engineering, and joined Qatar Petroleum's Reservoir & Field Development Department, where he progressed through various petroleum engineering, technical, commercial and supervisory positions.

In September 2014, Mr. Al-Kaabi was appointed as President and Chief Executive Officer of Qatar Petroleum, where he oversaw Qatar Petroleum's gas, oil and petrochemical developments in Qatar and internationally.

On November 4, 2018, His Excellency Mr. Saad Sherida Al-Kaabi was appointed Minister of State for Energy Affairs and Cabinet member of the State of Qatar, and Deputy Chairman of Qatar Petroleum, in addition to his position as President & CEO.

The Path Forward for Qatar's Energy Sector

A Virtual Briefing Presented by the US-Qatar Business Council

USQBC: Given the challenges presented by Covid-19 and the oil supply glut, how would you describe the current state of the overall oil & gas industry?

HE Mr. Saad Sherida Al-Kaabi: If you just step back to the end of 2019, there were many on-going issues. In addition to the trade dispute between the US and China, the US was also in a dispute with Iran. With the possibility of military action, these events really overshadowed the whole oil and gas industry. Once 2020 came along, a whole host of new things were added to the backdrop of these events. Nobody really understood the magnitude of the situation with Covid-19 and how it could take over the world. A very untimely dispute between OPEC/non-OPEC on production levels basically flooded the market. Immediately after that, people started to understand the gravity of what was happening with Covid-19 and then started taking immediate action. The timing of both of these events are what Americans would call a "double whammy" for the oil & gas industry.

And then at the tail end of that episode and due to the global quarantine, we had a very clear decline in demand due to flights being canceled, mass transportation being halted, and people driving a lot less. When everybody quarantined, we basically went into a induced recession which contributed to the negative price on oil prices in the US due to storage and the expiry of options and so on.

It's a terrible situation where you have a flooding of the market and demand destruction. For the storage issues to clear around the world, it really depends if there is a second wave or not. Scientists and doctors are telling us there could be a second wave and it could be stronger in some regions or lighter in some regions. How this second wave affects us and how we react to this will determine demand going forward. To the extent of which we have learned or adapted to these circumstances will indicate what the outcome might be. Depending on how winters turn out around the world, I think it will take anywhere from a year or two years for storage and demand to return to previous levels. The induced recession will take time to get out of as well. How long it takes is anyone's guess.

In addition to this, the entire industry got hit in a big way. Even the players that were trying to flood the market immediately realized they got themselves in too deep and they had to retract. Now you're seeing a much more aggressive approach to try to salvage what can be salvaged, but I think it's a little too late. To recover from this, it will take much longer than anyone expected.

The Path Forward for Qatar's Energy Sector

A Virtual Briefing Presented by the US-Qatar Business Council

I don't believe the oil & gas market will be good for some time, especially for liquid fuels; jet fuel especially. People aren't traveling to meetings as much and technology has enabled people to stay home. If you take away the operations side, 80% of QP's employees are working from home. I think people are going to adjust and do things without traveling as much. The airline industry will be in deep trouble for a very long time and that will affect jet fuel demand, refinery capacity, and so on down the line. You won't have the expansion or the demand that you thought you could have. Natural gas is going to be a challenging market but less so because it's used for electricity and households.



USQBC: How will these events affect the global gas markets specifically?

HE Mr. Saad Sherida Al-Kaabi: I think gas would be a little bit better but won't be far off. All the capital expenditure has been taken away and everyone is cutting costs. There is no one that hasn't been affected. The question is: Who will invest in these bad times? In my view, you continue your plan and you invest in the bad times because these projects take time to develop and deliver. If you're going to invest when it's an upcycle, by the time it is the next down cycle, that's when you have your production. Our projects are five to seven-year projects so we're in it for the long haul. This is something that we are used to; the ups and downs of the industry, and it's always a cycle. This is just a much more severe cycle because it's man-made and there is no fundamental change in the business itself. While the effects will linger for some time, I'm still confident in the long term as far as Qatar is concerned. We've also been working a lot on efficiency and cutting gas internally; for instance, in addition to joining Qatargas, RasGas and QP have also reformed about five to six years ago. We're already a very lean and efficient organization across the board in all of our upstream and downstream initiatives.

USQBC: How do you foresee the Covid-19 pandemic affecting Qatar's LNG initiatives, specifically the North Field Expansion Project?

The North Field Expansion (NFE) project is moving full steam ahead.

HE Mr. Saad Sherida Al-Kaabi: There's no delay there, and the only issue being affected by Covid-19 is on the supplier side. The technical bids are already in, but the commercial bids are not in yet. They were going to be in April/May 2020 but we are expecting a three to four-month delay because everyone is stalling around the world. Now we're on schedule to award all the contracts by the end of the year. We've already awarded the drilling rigs and have four platforms out of eight that are actually installed in the sea. The additional four, which will complete all the offshore structures, are going to be ready by the end of the year. We've already contracted ship slots to build a few ships in China that we've signed. In the beginning of June, we'll be signing an agreement for about 100 ship slots with the Korean shipyard that will be announced in a ceremony in the first week of June. After 2027, we expect around 126 ships.



USQBC: How do you foresee QP's international investment plans being impacted by Covid-19?

HE Mr. Saad Sherida Al-Kaabi: The Covid-19 issue and the effect on us and others is exactly the same. Because any oil and gas operation has expats and drillers that are working month to month, we have offshore operations where the virus can be easily contracted because you're in a closed work environment. We're managing hotels that we bring people into quarantine for 14 days and then we take them out and test them. We bought our own world-class testing facility for our own equipment and we're testing people before we take them in. We're doing everything that we can to make sure our operations can continue. It's not affected our investment strategy per se; we're still planning to invest. We actually might step up our entry into some blocks around the world because there are opportunities that will arise and we're a company that has resources, in a very good financial position, and a very lean company. We are confident about what we are doing and have a great leadership team working with me. We also have great leaders in our subsidiary and sister companies as well. Everyone is doing a great job and we're as confident as ever and are moving forward. Fortunately for us, we're in a position to take advantage of some of the situations where we can enter a better deal and are hoping opportunities come out of the situation.

USQBC: Do you expect a cut in Qatar's LNG production?

HE Mr. Saad Sherida Al-Kaabi: No matter what market you're looking at; oil, petrochemicals, textiles, etc., when you have an issue demand for that product, the most expensive producers go out first. They can't sell or they're selling at a loss. This means that a lot of people would have to close down the production of LNG before we do. We're the cheapest energy producer in the world from an efficiency and cost of production point of view. If lots of people stop production, we'll probably get a better price boost rather than stop producing. If we stop selling LNG because of cost, that means there is something drastically wrong with the LNG market and not us.

There is absolutely no way we would be reducing production.

We have terminals that we're on in the UK and Italy and we just bought additional capacity in the Zeebrugge terminal in Belgium until 2044, and another terminal in France. We also have access to many terminals through our partners and there is a lot of demand for gas around the world. The demand slowed down definitely because of the pandemic, and the prices are absolutely too low for anybody. We are very far down on the pecking order for LNG prices, so we would feel the pain of a low-price after many others. I'm not worried about gas at all. **We're full steam ahead, we're going to expand.**

The Path Forward for Qatar's Energy Sector

A Virtual Briefing Presented by the US-Qatar Business Council

USQBC: How would you describe the evolution of the US-Qatar relationship in the energy sector?

HE Mr. Saad Sherida Al-Kaabi: US companies will be participating in the North Field expansion and things are going well there. It's just that we're waiting to have all the capital costs elements. We decided to bring in all the EPC costs, everything to be put on the table and know exactly what it will cost, so that whoever comes in and wants to come in, comes in with open eyes understanding the costs, knowing where we are and then moving forward. We want to eliminate as much risk, de-risk the project if you will as much as possible from guessing what the final costs could be. US companies, Exxon, Chevron, and ConocoPhilips are participating in this and we hope that they will all have a chance to come and work with us.

Around this time last year, we signed with ExxonMobil the Golden Pass investment decision in the presence of Secretary of Energy in the US in Washington, D.C. an $11 billion dollar project between us in Texas. We had the honor of having President Trump and His Highness, the Amir sign our downstream project, which is one of the largest or the largest petrochemical plants in the world with our long-term partners CPChem whom we have a very good relationship here in Qatar. **Now with ExxonMobil and CPChem, excellent partners with whom we have many businesses with, we're building a good base in the US.** This investment is the largest we have outside Qatar by QP by far.

USQBC: Considering Qatar recently invested in US with its Golden Pass project, how do you expect the pandemic to impact US LNG producers?

HE Mr. Saad Sherida Al-Kaabi: We are already in the US gas market and are building the largest single investment for LNG exports in the US with Golden Pass. With the cost of the project and the way we have structured Golden Pass with our global investment portfolio, we are not worried at all. I think more gas coming out of the US is going to be good for us. Single players that are looking at singular developments are not going to make it. But players that have a portfolio like ours and are looking to integrate will make it. I always keep saying, we don't compete with anybody, we compete with ourselves. We want to make LNG safe, reliable, and efficient. We want safety for our facilities and our people and to have the best efficiency from a cost perspective.

We've had customers that have had 20+ years without a single shipment missed, even during blockades and the Gulf War. That's the reliability that we're proud of.

USQBC: Qatar Petroleum is already a leader in environmental initiatives globally. What are some of the key opportunities for US-based companies?

HE Mr. Saad Sherida Al-Kaabi: We actually do not talk enough about what we're doing on the environment, and we're doing a lot of things in that regard. Because we're not a listed company, we don't have environmental regulation or somebody that's chasing us in pursuit of emission numbers. We reduce our emissions because we think that's the right thing to do. We already have 2.5 million tons of CO2 sequestration, the largest injection in the region. With our expansion of both North Field East and North Field South expansions, we are going to have another 5 million tons of CO2 sequestration that will happen when these projects are online and producing. We're already injecting about 7.5 million tons of CO2 into the ground annually. That's a very substantial amount and is unheard of as far as the size and proximity. In addition, we have deployed the best NOx and SOx emission technology available through our vendors including General Electric to ensure about 50% reduction in these emissions. We also have a huge program in Methane emissions across our entire industry and ambitious targets for every company.

In my capacity as Minister for Energy, I also oversee electricity in the country and we have just awarded a 25-year contract where QP is part of a company that will develop solar power. We and our foreign partners are building the first-ever solar farm with a capacity of about 800 Megawatts which is around 10% of our summer capacity. That's pretty substantial in one shot and we have many plans to do more.

USQBC: How do you foresee OPEC's role in the market going forward?

HE Mr. Saad Sherida Al-Kaabi: When we left OPEC we were very clear about our reasons. We didn't like our role there and we don't have enough say in the organization. We're a very small player. These are the main elements and we're heading into the gas business where we are the biggest player. We're going to be expanding gas and that's where our efforts are going to be. You can read how OPEC is faring, but I think with what we've seen happen recently,

I'm happy that we're out of OPEC.



USQBC: Will QP be cutting its prices in the Asian market and will there be any storage capability problems in the Asian region?

HE Mr. Saad Sherida Al-Kaabi: LNG prices are not set prices like oil. Gas is mostly long-term contracts, and most of the countries that depend on gas want long term supply. These are strategic assets that they have with one supplier, like a power generation company. The majority of countries would have a large portion of their gas and long term contracts secure with credible partners that can deliver consistently and have an established track record like us. There is a premium cost for that, but as far as prices are concerned, these are set over different discussions and times based on certain market conditions. The time at which the deal was struck will dictate the type and duration of partnership that you will have which will ultimately dictate the pricing mechanism you have at the time. It's difficult to say whether you cut prices to gain market share. We're not in a hurry to do that, we're doing our deals methodically. Even if we stay without long term deals for a long time, we will be able to withstand that while others cannot.

USQBC: What is the ultimate goal of QP's expansions and how will it measure its success?

HE Mr. Saad Sherida Al-Kaabi: I want people to talk about QP as an international company and no longer be considered as a national oil company (NOC). As a team, we've been working towards this goal and don't want to be seen as another NOC. We're a very special organization and His Highness, the Amir, has given us the duty to become a company like ExxonMobil or Chevron. In doing so, we're going to expand in a big way outside of Qatar. You're going to see us in the upstream business in a big way.

Our ambition is to be everywhere where there are excellent exploration and development opportunities.



The Path Forward for Qatar's Energy Sector

A Virtual Briefing Presented by the US-Qatar Business Council

USQBC: Can you explain Qatar's localization initiative TAWTEEN and how that creates opportunities for international investors?

HE Mr. Saad Sherida Al-Kaabi: TAWTEEN in English means roughly "nationalizing the supply chain." We want as much of the supply chain as possible in our country, so we invite companies to have a home base here in Qatar. No one is going to come just to be located in Qatar, so we do our best to ensure there is good business for them if they set up. We want to create an ecosystem where if GE has a workshop, then we'll have an eco-system of some smaller companies that will be around to serve them. On top of that, we'll have a scoring scheme where these companies get an advantage in pricing and projects awarded. This means that we might award a company with a slightly higher bid of 5% to 10% because of their in-country value. We have a very methodical scoring system, but do expect some teething problems as the initiative ramps up.

Ultimately, we want to help the economy by doing this. Due to the blockade, we had a supply chain issue, and now want all of our requirements for the supply chain of our industry inside the country. Additionally, this program will help the economy by driving GDP growth since work is being done inside the country. Of course, this will also bring white-collar workers into the country which will also be good for the economy.

USQBC: How would you describe women's evolving role at Qatar Petroleum and the country's oil and gas sector?

HE Mr. Saad Sherida Al-Kaabi: In Qatar today, more girls actually graduate from high school compared to boys. They study more and I think they're more focused and get into great schools like Texas A&M here in Qatar. QP takes the best students, male or female, and we have a lot of women graduating and coming to work with us. We have women in all disciplines: public relations, engineers, geologists, and accountants, etc. I don't talk about gender because we don't care what the gender is. It is work and everyone is treated the same and they get the same salaries. When people think of traditional Arab countries, they don't imagine this, but we take many strides to ensure everyone is treated fairly in the workplace.



Qatar Energy Sector Overview

Current State of Energy

In 1971, engineers found a 6,000 square kilometer natural gas field just 80 kilometers off the northeast coast of Qatar in the Persian Gulf. The discovery of that reserve would become known as the North Field, the largest natural gas field in the world. The North Field has over 900 trillion standard cubic feet (tscf) of recoverable reserves, equaling 10% of the known natural gas reserves in the world.[1]

Today, Qatar is a world leader in producing and exporting liquified natural gas (LNG), currently producing 77 million tons per annum (tpa). In 2017 Qatar produced 172.4 billion cubic meters of natural gas; in 2018 production rose to 175.5bn cubic meters or 4.5% of the world's total natural gas production. This is a 10.2% increase from 2017 to 2018. While Qatar is mainly a natural gas producer, the country has small proven oil reserves with the production of oil in Qatar totaling to 611,900 barrels per day (bpd).

The proven natural gas reserves of Qatar were measured at 872.1 trillion standard cubic feet; This is third-most in the world, only behind Russia (1375 trillion standard cubic feet) and Iran (1127.7 trillion standard cubic feet). However, in 2019, His Excellency Saad Sherida Al Kaabi, Minister of State for Energy Affairs, and President & CEO of Qatar Petroleum, confirmed gas reserves of Qatar's North Field were 1760 trillion standard cubic feet, making it the largest natural gas reserve in the world.[2]

Qatar has ten total oil and gas fields, six of which are operated by Qatar Petroleum (QP). In 2018, the oil and gas fields that are under the management of QP produced 312,770 (bpd) and 332.7 million standard cubic feet per day (scfd) of natural gas. There are also four oil and gas fields in Qatar, which are operated by other large international oil corporations. Their fields produced a yield of 299,170 bpd and 216 million scfd of natural gas in 2018.[3]

Most of the gas from the North Field is directed to the two gas-to-liquids (GTL) plants, the Oryx GTL Plant and the Pearl GTL Plant, both of which are located in Ras Laffan Industrial City, Qatar. The Oryx GTL Plant is a joint venture between Qatar Petroleum (51%) and Sasol (49%), of South Africa. The Oryx GTL Plant came online in 2006 and has a capacity of 32,440 barrels per day, converting treated natural gas into low-Sulphur diesel, naphtha and liquified petroleum gas (LPG).[4]



[1] http://www.qatargas.com/english/aboutus/north-field
[2] https://www.business-standard.com/article/pti-stories/qatar-says-to-sharply-raise-gas-output-119112501019_1.html
[3] https://oxfordbusinessgroup.com/qatar-2020
[4] https://qp.com.qa/en/marketing/Pages/RP_GasToLiquids.aspx

Qatar Energy Sector Overview

The Pearl GTL Plant, which was constructed in 2011 is a revenue-sharing project with Qatar Petroleum and Shell. In 2012, the Pearl GTL reached its full capacity of 140,000 barrels per day. This makes it the largest gas-to-liquid plant in the world.[5] Here natural gas is converted into gasoline, kerosene, naphtha, paraffin, and base oils for lubricants.



Impact of the Blockade

In 2017, Saudi Arabia, the United Arab Emirates, Bahrain, and Egypt severed diplomatic relations and implemented a complete economic blockade of Qatar. Even though many facets of the Qatari economy have shifted, the complete blockade has not greatly impacted Qatar's liquified natural gas production.

The Dolphin Pipeline supplies the UAE and Oman with 2 billion cubic feet of gas from Qatar per day. The Dolphin Pipeline saw a small increase in exports to the two neighboring countries in 2019 from 2018; 135.7 billion standard cubic meters of LNG and 22.5 billion standard cubic meters of gas, compared to 135.8 billion standard cubic meters of LNG and 22.4 billion standard cubic meters of gas respectively. To keep to its commitment, QP has gone so far as to even ship LNG to the UAE when there was a disruption of production via the Dolphin Pipeline in April 2019.[6]

[5] https://www.shell.com.qa/en_qa/about-us/projects-and-sites/pearl-gtl.html
[6] https://www.aljazeera.com/news/2019/05/qatar-ships-lng-uae-dolphin-pipeline-outage-report-190519094717695.html

Qatar Energy Sector Overview

Qatar's Energy Plan

Qatar's energy plan goes hand-in-hand with Qatar National Vision 2030 (QNV2030), which is a roadmap that aims to guide Qatar into a better and brighter future. QNV2030 has four main pillars: Economic Development, Social Development, Human Development and Environmental Development.[7]

The 'Economic' Pillar strives to find a healthy balance between Qatar's strong natural gas industry and a knowledge-based economy, adding more diversity and stability to the country's economy.



Qatar Sustainability Initiatives

As the world looks to transition to cleaner energy, Qatar's natural gas reserves are becoming increasingly more in demand. With this push to 'go green' Qatar is taking advantage of the economic benefits, while also securing a strategy for the long term.

Qatar Sustainability Week (QSW) was inaugurated in 2017. QSW aims to raise awareness in the community with many sustainability-oriented activities while also showcasing the progress Qatar has made in its green sustainability initiatives.[8]

Qatar also hosts the Qatar Sustainability Summit (QSS) every year. QSS is the leading sustainability event in the Middle East/North Africa region where experts and researchers convene to discuss sustainability and climate change.[9]

Qatar also aims to become the first country to host a "carbon neutral" FIFA World Cup in 2022. FIFA has established a new sustainability strategy that aims to make all future World Cups 'carbon neutral'. FIFA will use the Global Sustainability Assessment System (GSAS), a green building certification system made and used by the Gulf Cooperation Council countries, to track Qatar's progress. As result of this system, GSAS believes that the stadiums built for the 2022 FIFA World Cup will see energy savings of 47% and water savings of 44%.[10]

[7] https://www.psa.gov.qa/en/qnv1/pages/default.aspx
[8] https://www.sustainabilitysummit.qa
[9] https://www.qatargbc.org/outreach/qsw/home
[10] https://www.euractiv.com/section/health-consumers/news/fifa-commits-to-carbon-neutral-2022-football-world-cup/

Qatar's Energy Relationship with the United States

History of U.S. Investment in Qatar

The discovery of the North Field has proven to be one of the most attractive ventures in the energy industry in the world. Qatar has partnered with some of the largest American energy companies through their work in the North Field. These include ConocoPhillips, ExxonMobil, Chevron Phillips Chemical, Excelerate Energy, and Occidental Petroleum. The world's largest foreign investor in the North Field is ExxonMobil. All of these companies have invested billions of dollars into projects in Qatar's North Field or into projects relating to Qatar's energy sector. As a result of these investments, a host of other American corporations like Honeywell and General Electric have also invested in Qatar's energy sector providing key technologies to Qatar to drive production efficiencies.

US-Qatar Energy International Joint-Ventures

Qatar Petroleum is also working with American oil and gas companies outside of Qatar and the United States. QP, along with their American partners, are currently involved in two exploration block projects that are located in Latin America.

Off the shore of Brazil, Qatar Petroleum won the exploration rights to three blocks. Two of these blocks (659 and 713) are located in the Campos basin. This will be a joint venture between Qatar Petroleum (25%), Chevron (35%) and Shell (40%).[11]

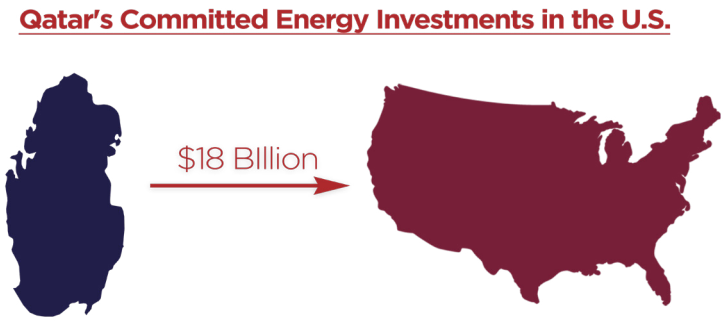
Qatar Petroleum is also partnering on five exploration blocks of the coast of Argentina. Three of these blocks will have QP as a 30/70 partner with ExxonMobil's subsidiary ExxonMobil, Argentina Offshore Investments B.V.[12]

Petrochemical Complex in Ras Laffan Industrial City

In 2019, Qatar Petroleum and CPChem signed an agreement to build a new petrochemical facility in Ras Laffan in a 70/30 joint venture. It will include an ethane cracker that will produce 1.9 million tons of ethylene per year, an 82% output increase. This will make it the largest of its kind in the region and one of the largest in the world.[13]

[11]https://www.nsenergybusiness.com/news/qatar-petroleum-exploration-argentina/
[12] https://qp.com.qa/en/MediaCentre/Pages/ViewNews.aspx?NType=News
[13]https://www.reuters.com/article/us-qatar-petroleum-petrochemicals/qatar-teams-up-with-chevron-phillips-for-petrochemical-project-idUSKCN1TP0U7

Qatar's Energy Investment in the U.S.



Golden Pass LNG Terminal

The Golden Pass LNG Terminal, constructed in 2009, is a liquified natural gas terminal and regasification facility in Sabine Pass, Texas. It is one of the largest liquified natural gas terminals in the world. Just ten miles south of Port Arthur, the Golden Pass Terminal is an ideal location due to it being one of the only deep-water ports located along the US Gulf Coast. This project will be a key catalyst to the US ambitions to become a leading LNG exporter worldwide.

The joint venture between QP (70%) and ExxonMobil (30%) is a $10+ billion liquefaction project that will be able to produce 16 million tons of LNG per year. Over the five-year construction period, it will create 9,000 jobs and more than 200 permanent jobs when the project is completed. An independent study estimates the project could generate up to $31 billion in U.S. economic gains and $4.6 billion in direct federal, state and local tax revenues over the life of the project.[14]

U.S. Gulf Coast II Petrochemical Project

Shortly after agreeing to build a petrochemicals complex in Qatar, Chevron Philips Chemical (CPChem) and Qatar Petroleum have embarked on a $8 billion joint venture to build an ethylene cracker on the U.S. Gulf Coast called U.S. Gulf Coast Petrochemical II. QP will hold a stake of 49% in the USGC II petrochemical complex, with CPChem owning the remaining stake of 51%. The project slated to begin operations in 2024, will have a capacity of two million tons per annum, and two high-density polyethylene units, each having a capacity of of one million tons per year. The location of the project is key as it gives it direct access to significant quantities of ethane produced from the Permian Basin and other US shale basins.[15]

[14] https://corporate.exxonmobil.com/News/Newsroom/News-releases/2019/0205_ExxonMobil-Qatar-Petroleum-to-Proceed-with-Golden-Pass-LNG-Export-Project
[15] https://www.nsenergybusiness.com/news/chevron-phillips-qp-usgc-ii-petrochemical-project/

Key Projects

North Field Expansion

Qatar Petroleum will soon commence operations of their North Field Expansion Project. The expansion project has two phases (1) the North Field East expansion (NFE) and (2) the North Field South expansion (NFS).

Phase one will see their LNG production jump from the current output of

77 Million Tons of LNG per year to

110 Million Tons

year by 2025, a 43% ***increase.***

Phase two will see their LNG production jump from the current output of

126 Million Tons from the current production.

per year by 2027, which will be a 63% ***increase***

Included in North Field Expansion, Qatar Petroleum will also see 5,000 tons of ethane per day, 260,000 barrels per day of condensate, 12,000 tons of liquified petroleum gas per day, 1,800 tons of sulfur per day, and 20 tons of helium per day. In addition, 4.6 billion standard cubic feet per day of feed gas will be produced in the North Field South Expansion.[16]

The NFE expansion, which consists of four new trains that will transport 7.8 million tons per year, has already been awarded. The additional two trains included in NFS expansion, have yet to be tendered.[17] Also included in NFE expansion are eight wellhead platforms[18] with new 80 development wells, the first four of which have been installed. There will be more added in phase two which will help reach the 126 million tons of LNG per year.[19]

[16] https://www.offshore-technology.com/projects/north-field-expansion-project/
[17] https://www.mees.com/2020/4/10/oil-gas/qatar-pushes-back-lng-expansion-but-still-plots-dominance/0d7e4f20-7b32-11ea-af7a-7de82c05a017?gclid=CjwKCA-jw8df2BRA3EiwAvfZWaDsEklCPakliheInwGTdzYu364t5yvAI-2nbR24zTaj4PTV2L9s6jhoCoTgQAvD_BwE
[18] https://www.offshore-technology.com/projects/north-field-expansion-project/
[19] https://www.offshore-technology.com/news/qatar-petroleum-drilling-nfe-project/

Key Projects

LNG Vessel Fleet Expansion

As the largest LNG producer in the world, QatarGas needs to have a shipping fleet that can transport its products across the globe. QatarGas currently has 70 fully operational LNG transport vessels in its fleet. Out of the total vessels, 25 are conventional vessels with up to 152,000 cubic meters of capacity, which ship to the Far-East, Indian sub-continent, Europe and Mediterranean. 31 Q-Flex and 14 Q-Max vessels round out the remainder of the fleet; these ships are the largest LNG vessels in the world, with a max capacity of 266,000 cubic meters of LNG.[20]

With plans to expand its LNG production, QatarGas needs to bolster its shipping fleet. To do so, QatarGas agreed to a $19 billion deal with Daewoo, Hyundai and Samsung (all of whom have previously built LNG vessels for QatarGas) to secure more than 100 ships through 2027.[21]



Al Kharsaah Solar PV IPP Project

In January 2020, Total (France) and Marubeni (Japan) won the bid to build a new solar field in Qatar. This project will have an 800-megawatt capacity, which equals 10% of Qatar's peak energy demand. This joint venture between Siraj Energy and Kahramaa (60%), and Total and Marubeni (40%) will be completed in 2022 ahead of the FIFA World Cup.[22]

[20] http://www.qatargas.com/english/operations/qatargas-chartered-fleet
[21] https://www.reuters.com/article/us-south-korea-shipping-qatar/qatar-petroleums-19-billion-lng-vessel-order-boon-for-south-korean-shipbuilders-idUSKBN23908K
[22] https://www.aljazeera.com/ajimpact/qatar-build-solar-power-plant-200120061111553.html

Energy Exports

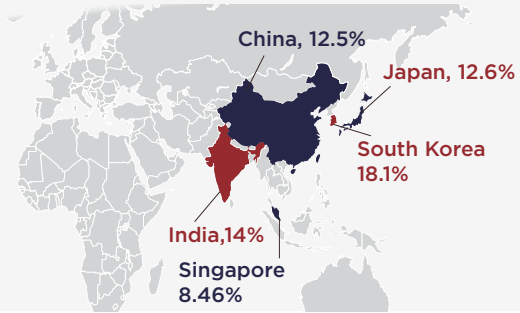


Qatar has the largest natural gas reserves in the world and is the largest producer of liquified natural gas in the world. Qatar has large, long-term contracts with countries all over the world with its largest importers being from Asia. With rising demand for LNG globally, Qatar is increasing its production capacity.

Qatar produces
77 million tons per annum
of liquified natural gas, ***making it the LARGEST LNG producer in the world***

Qatar's natural gas reserves are
1760 trillion **standard cubic feet**

Qatar's **5 largest** LNG export destinations in ***2018***



Qatar's ***North Field Expansion*** will see its production jump up to
126 million tons per year by 2027.

Tawteen Localization Program

Through Qatar's interest to diversify its economy and increase opportunities in the domestic market for American companies, Qatar Petroleum has developed the Tawteen Localization Program. Tawteen has three key factors: (1) new investment opportunities, (2) supplier development initiatives, and (3) a new In-Country Value policy.

The localization program will provide hundreds of new investment opportunities, which will supply over 5,000 new white-collar jobs. It will promote the collaboration of suppliers and energy sector companies, which will be managed by QP. Through Tawteen, the companies that do move to Qatar, or set up a branch/headquarters in Qatar will gain a slight advantage in the bidding process for in-country projects due to ICV (In-Country Value). There are currently no opportunities listed, but more are to come soon.[23]



[23]https://www.tawteen.com.qa

Key Organizations and Executives

Qatar Petroleum

Established in 1974, Qatar Petroleum is the state-owned petroleum company that operates all oil and gas activities in Qatar. It operates all oil and gas activities in Qatar, including exploration, production, refining, transport, and storage. Its subsidiaries include companies such as QatarGas, Qatar Petrochemical, Qatar Fertilizer, Qatar Chemical, Qatar Vinyl.

Leadership: His Excellency Saad Sherida Al-Kaabi, Minister of State for Energy Affairs for the State of Qatar, and President & CEO of Qatar Petroleum

Qatar Petrochemical Company

Established in 1974, Qatar Petrochemical Company (QAPCO) Q.P.J.S.C. is one of the worlds largest and most successful producers of low-density polyethylene (LDPE). QAPCO produces a wide range of LDPE grades that are suitable for all thermoplastic processing techniques, which are used for various applications.

Leadership: Dr. Mohammed Yousef Al-Mulla, Managing Director and CEO of Qatar Petrochemical Company

Qatar Fertilizer Company

Qatar Fertilizer Company QSCC (QAFCO) was incorporated in 1969 as a joint venture, and is currently owned by Industries Qatar (IQ) with 75%, Fertilizer Holdings AS (10%) and Yara Netherland BV (15%). QAFCO has two subsidiaries, Gulf Formaldehyde Company (70%) and Qatar Melamine Company (60%). Its fertilizer products are Ammonia, Urea, and Urea Formaldehyde Condensate (UFC-85).

Leadership: Abdulrahman M. Al-Suwaidi, CEO of Qatar Fertilizer Company QSCC

Key Organizations and Executives

Qatar Chemical Company

Qatar Chemical Company Ltd. (Q-Chem) is a Qatari company owned by Mesaieed Petrochemical Holding Company Q.S.C., Chevron Phillips Chemical Qatar, and Qatar Petroleum. The facility is a world-class integrated petrochemical plant capable of producing high-density polyethylene and medium-density polyethylene 1-hexene, and other products.

Leadership: Nasser Al Kuwari, CEO of Qatar Chemical Company

Qatar Vinyl

Qatar Vinyl Company was established in 1997. It produces 370 ktpa of Caustic Soda (Dry Basis), 180 ktpa of Ethylene Dichloride (EDC), 355 ktpa of Vinyl Chloride Monomer (VCM) and 15 ktpa of 32% Hydrochloric Acid solution.

Leadership: Hamad Al-Nuaimi, CEO of Qatar Vinyl

QatarGas

Established in 1984, QatarGas is the largest liquified natural gas company in the world. It produces and supplies the globe with 77 million tons of LNG annually from across its four ventures—Qatargas 1, Qatargas 2, Qatargas 3, and Qatargas 4.

Leadership: Sheikh Khalid bin Khalifa Al Thani, CEO of QatarGas

Key Organizations and Executives

ConocoPhillips

Established in 2002 by the merger of Conoco and Phillips Petroleum, ConocoPhillips is one of the largest multinational energy companies, and is based in Houston, TX. It is the world's largest independent pure-play exploration and production company

Leadership: Ryan Lance, Chairman and CEO of ConocoPhillips

J. Todd Creeger, President of Qatar Business Unit for ConocoPhillips

ExxonMobil

Established in 1999, ExxonMobil is one of the largest oil and gas companies in the world, based in Irving, TX. It is the largest descendant company of Standard Oil, which was founded by John D. Rockefeller. ExxonMobil is an industry leader in almost every aspect o fthe energy and chemical manufacturing business and operates across six continents and most of the world's countries

Leadership: Darren Woods, Chairman and CEO of ExxonMobil

Dominic Genetti, President and GM of Exxon Mobil Qatar

Chevron

Established in 1879, Chevron is one of the largest worldwide energy corporations. Chevron is engaged in every aspect of the oil, natural gas, and geothermal energy industries, indlcuding hydrocarbon exploration and production, refining, marketing and transport, chemicals manufacturing and sales, and power generation. It is one of the oldest energy companies and is now active in nearly 200 countries.

Leadership: Mike Wirth, Chairman of the Board and CEO of Chevron

Key Organizations and Executives

Excelerate Energy

Established in 2003, Excelerate is the pioneer and market leader in innovative floating LNG solutions, providing integrated services along the entire LNG value chain with the objective of delivering rapid-to-market and reliable LNG solutions to customers. Excelerate offers a full range of floating regasification services from FSRU to infrastructure development to LNG supply.

Leadership: Steven Kobos, President and Managing Director of Excelerate Energy

Chevron Phillips Chemical Company

Chevron Phillips Chemical Company (CPChem) is a petrochemical company jointly owned by Chevron Corporation and Phillips 66. The company was formed July 1, 2000 by merging the chemicals operations of both Chevron Corporation and Phillips Petroleum Company.

Leadership: Mark Lashier; President & CEO of CPChem

Jay Bickett; Vice President of CPChem and Deputy CEO of Qatar Chemical Company (Q-Chem)

McDermott International

Established in 1923, a Panamanian-domiciled multinational engineering, procurement, construction and installation company with operations in the Americas, Middle East, the Caspean Sea and the Pacific Rim. Incorporated in Panama it is headquartered in Houston, Texas.

Leadership: Dave Dickson, President and CEO of McDermott International

Dustin Whiteley, General Manager of McDermott Qatar

Key Organizations and Executives

Honeywell

Honeywell is a multinational conglomerate headquartered in Charlotte, North Carolina. It primarily operates in four areas of business: aerospace, building technologies, performance materials & technologies, and safety & productivity solutions.

Leadership: Darius Adamczyk, Chairman and CEO

Rachad Abdallah, President, Honeywell Kuwait, Qatar, & Iraq

Bechtel

Bechtel is a global engineering, construction, and project management company. The company operates through four global businesses: Infrastructure; Nuclear, Security & Environmental; Oil, Gas & Chemicals; and Mining & Metals.

Leadership: Brendan Bechtel; Chairman and CEO

Ambassador Stuart Jones; Regional President for Europe and Middle East

Zachry Group

Established in 1924, Zachry Group is North America's turnkey construction, engineering, maintenance, turnaround and fabrication services to the power, energy, chemicals, manufacturing and industrial sectors.

Leadership: John Zachry; CEO and Chairman of the Board

Kahramaa

Established in 2000, Kahramaa is the general electric and water corporation for Qatar. It regulates and maintains the supply of electricity and water for the population of Qatar. Kahramaa is the sole transmission and distribution system owner and operator for the electricity and water sector in Qatar.

Leadership: Essa bin Hilal Al-Kuwari, President of Kahramaa

Key Organizations and Executives

Dolphin Energy

Established in 1999 and headquartered in Abu Dhabi, UAE, Dolphin Energy's main priority is the Dolphin Gas Project that transports LNG from the North Field to UAE and Oman.

Leadership: Hassan Al-Emadi; General Manager in Qatar

Oxy

Occidental is an international energy company with operations in the United States, Middle East, Africa, and Latin America. They are the largest onshore oil producer in the U.S., including in the Permian Basin, and leading offshore producer in the Gulf of Mexico.

Leadership: Vicki Hollub, President and CEO

Parsons Corporation

Founded in 1944, Parsons Corporation is focused on defense, intelligence and critical infrastuructre markets. Parsons delivers cyber/converged csecurity, technology-based intellectual property, and other innovative services to clients worldwide.

Leadership: Charles Harrington, Chairman and CEO

Flour Corporation

Flour is a global, publicly-traded engineering, procument, construction (EPC) and maintenance company. Flour works with clients in diverse industries around the world to design, construct, and maintain their capital projects.

Leadership: Alan Boeckmann, Executive Chairman

Carlos Hernandez, CEO

Prepared and owned by:



US-Qatar Business Council
1220 L Street, Suite 350
Washington, DC 20005
programs@usqbc.org