

NOTE TO SOCIETE GENERALE FINANCIAL RISKS OF SUPPORTING FRACKED GAS EXPORT INFRASTRUCTURES

Société Générale, leader of fracked liquefied gas export

In North America, a stunning 55 new liquefied natural gas (LNG) terminals are proposed for construction, while only two have begun exporting LNG – Sabine Pass LNG and Cove Point LNG. These new infrastructure projects aim at exporting on the international market a part of the high level of gas production which is and which will come out of the fracking boom. They are a cornerstone in Trump administration's energy dominance program¹: making the United States an energy superpower by supporting fossil fuels expansion and export, including the most dangerous ones – shale oil and shale gas, which represents today around 60% of total gas production in the United States².

Société Générale positions itself as a leader in this growing industry. The French bank has been involved in the development and financing of all LNG terminals in North America³ – such as Sabine Pass LNG, Corpus Christi LNG and Freeport LNG. Société Générale is, in its own words, *"the global leader in financial advisory services for the LNG sector"*⁴ and became in 2017 the first bank worldwide to finance the LNG sector in North America, with more than 1.1 bln dollars for this same year⁵.

After achieving several financial advisory mandates for Cheniere⁶, the first producer of LNG in the U.S., Société Générale is now advising the company NextDecade for its new fracked gas terminal and pipeline projects in Texas: Rio Grande LNG and Rio Bravo Pipeline⁷. The bank is responsible for raising 20 bln dollars, anticipated cost of the project, and positions itself as a potential financier.

By becoming a major player on the fracked gas export sector in the U.S., Société Générale not only disregards climate imperatives and the goals of the Paris Agreement, but also demonstrates a clear lack of financial caution. Here is why.

The U.S. fracking industry, a minefield for banks

Betting on the U.S. fracking industry now means taking particularly high financial risks. One figure is very revealing: the Wall Street Journal reported that since the beginning of the fracking boom in the U.S. in the middle of the 2000's, energy companies have spent 280 bln dollars more than they have generated from operations on shale investments, which means a net loss of 280 bln dollars over a decade – according to the investment banking advisory firm Evercore⁸. The Economist goes in the same direction, saying that the fracking business has just been burning up cash⁹.

U.S. Energy companies are losing more money than they make. This has already led a large number of them to bankruptcy, and those which survive can only sustain this scenario if lenders continue to bankroll their efforts. The fracking industry drills new wells at loss¹⁰, generating a financial bubble. The

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www.washingtonpost.com/news/energy-environment/wp/2017/06/29/the-white-house-labeled-this-energy-week-and-you-thought-it-was-all-healthcare/?hpid=hp_hp-top-table-main-healthcare:energy-environment%3Afracking%3Ahomepage%2Fstory&hpid=hp_hp-top-table-main-healthcare:energy-environment%3Afracking%3Ahomepage%2Fstory

2 www.eia.gov/tools/faqs/faq.php?id=907&t=8

3 <http://www.next-decade.com/2017/05/nextdecade-engages-financial-advisors/>

4 www.societegenerale.com/en/building-tomorrow/sustainable-commitments/cheniere-energy

5 www.ran.org/bankingonclimatechange2018

6 www.societegenerale.com/en/building-tomorrow/sustainable-commitments/cheniere-energy

7 sec.gov/Archives/edgar/data/1612720/000121390017004508/f8k050217ex99j_harmonymerger.htm

8 www.wsj.com/articles/wall-streets-fracking-frenzy-runs-dry-as-profits-fail-to-materialize-1512577420

9 www.economist.com/business/2017/03/25/americas-shale-firms-dont-give-a-frack-about-financial-returns

10 www.ecowatch.com/wall-street-fracking-revolution-2566742237.html

American fracking experiment has been a financial disaster for many of its investors¹¹, who have been plagued by the industry's heavy borrowing and low returns. Significant obstacles are getting in the way of becoming profitable.

If the companies are not able to cover their costs, their financiers will be in a very difficult position. The growing fracking bubble could be very similar to the one that led to the subprime crisis in 2008: non profitable companies hiding their lack of earnings and borrowing increasing amounts of capitals.

With unsecured supply...

These unsustainable financial practices go with unsustainable production practices. With a replacement rate of 1,5 or 2 years for a well, most of the shale gas sweet spot reserves have already been extracted and producers are growingly forced to move to less productive areas to sustain their production rate, to maintain their extraction licences and to reassure their investors. Their productivity goes down in many basins in the U.S., but the price remain the same for now that is way below the break even price¹². For example, the company Rex Energy, who held at the end of 2016 an estimated 650 bln ft³ of proved gas and natural gas liquids reserves in the Marcellus Shale – the most productive in the U.S. – initiated a liquidation process¹³.

This is the reason why producers in the U.S. are now trying to export their gas to markets where prices are higher and explain why they are now aiming at building many new LNG export terminals. However, for LNG export, the security of supply is at risk since the ability for U.S. gas producers to maintain the current level of production at current prices for another decade is extremely dubious.

While the United States have large gas resources, these are not large relative to the domestic consumption. Industrial Energy Consumers of America criticizes the number of planned LNG export terminals, reminding that if built their capacity would reach 70% of national gas demand – an incredibly high number¹⁴. Of all LNG exporter worldwide, the U.S. is the country that has the smallest natural gas resources in comparison with what it consumes.

The U.S. do not have LNG import terminals anymore – Sabine Pass LNG has been converted to an export terminal – and now find themselves very exposed in the event of a reduction of gas production, which will happen sooner or later. When the U.S. will be confronted with gas production shortage, and considering the high national demand, the LNG export sector will be the first victim.

... And unsecured demand...

These new infrastructure projects also face challenges when it comes to the security of demand. The global LNG surplus makes it harder for export companies to find clients. According to Bloomberg New Energy Finance (BNEF), as LNG demand becomes less certain, LNG buyers are in need of flexibility in LNG contracts more than ever¹⁵. The signing of new LNG term contracts has been declining every year since 2014. Only 20 mln Mtpa of new contracts were signed in 2017, 10 mln Mtpa lower than the previous year. Such changes certainly have a negative impact on supply projects and in particular LNG terminals. For BNEF analyst Maggie Kuang, *“many projects are facing financing hurdles at the moment as buyers want flexible contracts, which is not going to help these projects secure financing”*.

In 2016, when the first LNG tankers were leaving Texas, Thierry Bros from Société Générale explained: *“This LNG comes at a sensitive time. These exports were envisaged after the Fukushima disaster. We were thinking at that time that Asia would always need large imports of LNG, and if not,*

¹¹ www.wsj.com/articles/wall-streets-fracking-frenzy-runs-dry-as-profits-fail-to-materialize-1512577420

¹² <http://shalebubble.org/>

¹³ https://drive.google.com/open?id=1HRj_NliBFEDENYn-ma9L_Gn8L_OG_1UUuq

¹⁴ <https://www.lngworldnews.com/ieca-further-us-lng-export-approvals-not-in-public-interest/>

¹⁵ <https://about.bnef.com/blog/the-future-of-lng/>

Europe would take the gas¹⁶. However, according to him, the demand growth remains low, and U.S. LNG is in competition with Australian LNG in Asia and with Russian and Norwegian gas in Europe. The threat of such a competition has recently been making the headlines with ongoing debates over the Nord Stream II project, greatly opposed by Donald Trump – and for which Société Générale is also the financial advisor.

The protectionist measures taken by the Trump administration and the increasing trade tensions with Asian and European countries will not make it easier for U.S. LNG. In particular, while China is a strategic market for U.S. LNG, the recent tariffs imposed by the United States on steel, aluminum and other Chinese products – including products used for pipelines and tanks –, are keeping some in the industry on pins and needles when it comes to whether the U.S. LNG project developers will be able to capitalize on the opportunities of the Chinese market¹⁷. First, these tariff barriers increase the cost of building new gas infrastructures¹⁸. For NextDecade CEO Matthew Schatzman, the full extent of these impacts is still under evaluation and will not be known until final legislative or regulatory frameworks are in place¹⁹. And second, they are a concern “*from the view of retaliation from other countries*”, according to Center for LNG Executive Director Charles Reid²⁰. The trade war between Washington and Pekin is escalating, fostering uncertainty over the future of U.S. LNG demand and undermining Trump’s own energy dominance program.

The United States are not in a position of strength. Chinese buyers are confident they can buy their LNG from several other producers. China’s three largest LNG suppliers today remain Australia, Qatar and Malaysia. In addition, China aims at becoming increasingly self sufficient regarding its gas supply, by initiating its own fracking boom. If it still is a small shale gas producer today, it will double its production in the next two years, according to Wood Mackenzie²¹. In sum, China does not seem to have any interest in making the United States a key supplier.

... LNG export terminals are the best candidates to become stranded assets

In this context, the bet is very risky for Société Générale, for Rio Grande LNG as well as for all the U.S. fracked gas transport and export projects the bank is continuously involved in, in particular with Cheniere – including its recent deal on Corpus Christi²² –, as their financial viability seems far from being guaranteed in a near future.

Many other risks make these projects perfect candidates to become stranded assets. A study by Bernstein Research shows that amongst the countless number of proposed LNG terminals in the United States and Canada, only six will likely reach a final investment decision (FID)²³. Projects often encounter repeated delays, which seems to be the case for Rio Grande LNG, with an FID expected for 2018 only a few months ago²⁴, and now expected for 2019²⁵. Moreover, according to Wood Mackenzie, up to half of U.S. LNG terminals risk of shut-in over five years, which would lead to losing

¹⁶ <http://atee.fr/energie-plus-magazine/actualites/mar-01032016-1612-entretien-avec-thierry-bros-analyste-gaz-de-la>

¹⁷ www.naturalgasintel.com/articles/114996-lng-awakening-part-3-second-wave-developers-optimistic-about-future-despite-growin-g-trade-disputes

¹⁸ houstonchronicle.com/business/columnists/tomlinson/article/President-Donald-Trump-s-steel-tariffs-holding-13092692.php

¹⁹ www.naturalgasintel.com/articles/114996-lng-awakening-part-3-second-wave-developers-optimistic-about-future-despite-growin-g-trade-disputes

²⁰ Id.

²¹ <https://www.woodmac.com/news/editorial/chinese-shale-gas-production-will-almost-double-in-two-years/>

²² <https://www.businesswire.com/news/home/20180420005061/en/Cheniere-Engages-Joint-Lead-Arrangers-Arrange-Debt>

²³

www.snl.com/web/client?auth=inherit&mkt_tok=eyJpIjoiT0RkaFpEUmhaak13TlIaayIsInQiOiI2N255WHizNTNpK1VDXC9FUDN KUvBSMFByWkJTMGtXQmZPcjVVMmJMwmxjV1wyQzNkM3lnZmpldENYbkxJd2xclzhjZUJmWHdHM2JuQmROMHdRGRG4wcTBzdDVAUmJgaDk5S2VpaWQyWVcrRDB2K0M3ajhGc0hYUuUwcFo2aJcl0Y5WIMifQ%3D%3D#news/article?id=38975920&cid=A-38975920-11304

²⁴ <https://www.lngworldnews.com/nextdecade-could-reach-rio-grande-lng-fid-for-9-mtpa/>

²⁵

www.naturalgasintel.com/articles/114996-lng-awakening-part-3-second-wave-developers-optimistic-about-future-despite-growin-g-trade-disputes

the billions of dollars invested²⁶.

Even the company NextDecade, carrying the Rio Grande LNG and Rio Bravo Pipeline project admits the risks, as they conceded that: *“While the quantum of proposed projects around the world indicates a much larger surplus than projected, many proposed projects are unlikely to take an FID and contribute to global supply for a number of reasons, including feed gas issues, regulatory challenges, environmental opposition, and uncompetitive capital costs and pricing”*²⁷.

For Rio Grande LNG too, the capacity of NextDecade to ensure sustainable supply and demand, and overall the viability of the project is in doubt. The company is considering downsizing the project and stated it could reach an FID for only two liquefaction trains, instead of the six trains initially planned²⁸. This is an undeniable indicator illustrating that the project is in a bad shape, despite NextDecade attempts to reassure potential financiers on the profitability of its project. And the weakness of the project is underlined by NextDecade itself in its tax abatement demands, repeating that any development of the project remains contingent upon securing all potential tax incentives²⁹.

But Société Générale turns a blind eye to the risks

In a recent interview to NGW Magazine, Roberto Simon, Société Générale’s director in charge of project and energy finance in the Americas, acknowledges the uncertainty of the LNG sector: *“We are waiting to see what happens. From 2012 to 2015, we provided 40 bln dollars [of project financing] on the back of tolling agreements and LNG price contracts. Now we are being told that we are no longer going to get these. Maybe we will have to take some project risk, or there will still be some long-term contracts, but of shorter duration”*³⁰.

At a time when a large majority of banks question their support to fracked gas terminals and lower their financing to LNG export projects in North America³¹, we can seriously question the reason why Société Générale agrees to bear such risks. Roberto Simon continues: *“Banks are hungry for product... If we have new projects, they will be well received”*. He explains that for Société Générale, 2017 had been a lean year in terms of lending to US oil and gas projects, and 2012-17 was meagre in U.S. conventional power.

So what remains to be done?

In the light of the risks of banking on fracked gas export infrastructures, Société Générale needs to urgently revise its business strategy on the U.S. energy market.

This is actually the decision that has been taken by another French bank. BNP Paribas adopted in 2017 a new oil and gas policy and committed not to take part in any fracked gas project³², including all LNG export terminals in North America, as well as all companies exposed for more than 30% to this sector – their exposition being calculated on their reserves and revenues. It therefore stepped out of the Texas LNG project, planned just next to Rio Grande LNG, and for which BNP Paribas was also appointed financial advisor.

Considering the risks that fracked gas export projects and companies represent for the bank itself as well as for the climate, the environment and the communities, Société Générale needs to take strong action to reduce its exposure to the sector – starting with withdrawing from the Rio Grande LNG and Rio Bravo Pipeline projects in Texas.

²⁶ worldoil.com/news/2016/3/11/up-to-half-of-us-lng-at-risk-of-shut-in-over-next-five-years-wood-mac

²⁷ <https://www.platts.com/latest-news/shipping/houston/nextdecade-says-no-immediate-need-for-six-trains-21662380>

²⁸ platts.com/latest-news/shipping/houston/nextdecade-says-no-immediate-need-for-six-trains-21662380

²⁹ <https://drive.google.com/file/d/0B4Bobl7milCVdjm4TFRybWo0RI9WQXRzOXZrS1ICX0FWbzdN/view?usp=sharing>

³⁰ <https://drive.google.com/file/d/0B8FfZnKBjErfV1JMdHMymWhSWmRGbXhwbHk5dnVFADm3Q1Z3/view>

³¹ <https://www.ran.org/bankingonclimatechange2018>

³² bnpparibas.com.cn/en/2017/10/11/bnp-paribas-takes-further-measures-to-accelerate-its-support-of-the-energy-transition/