

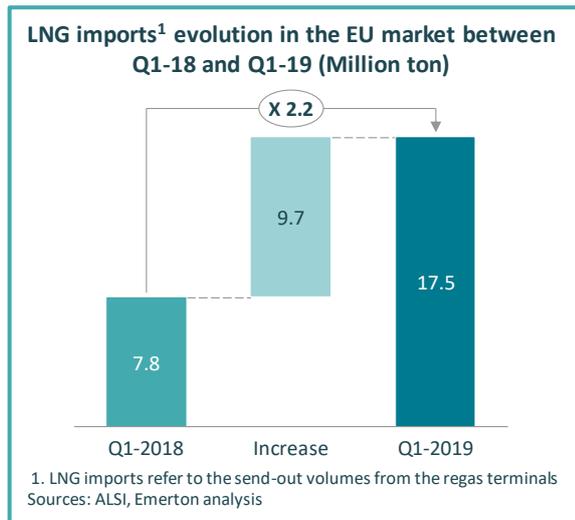


## LNG imports are sharply increasing in Europe: what are the key differentiation factors between the regasification terminals?

European LNG imports have surged during the first quarter of 2019. Some EU wholesale gas markets have been more attractive than others in absorbing these additional LNG volumes. What are the key differentiation factors enhancing the attractiveness of the European regasification terminals?

**By Sébastien Zimmer and Haithem Choukatli**

## European LNG imports bounced during the first quarter of 2019



**Exhibit 1: European LNG imports in Q1-2019 have more than doubled vs Q1-2018**

The long-awaited return of LNG to Europe is starting to materialize. The EU LNG imports bounced during the first quarter of 2019 from ~7.8 Mt in Q1-18 to ~17.5 Mt in Q1-19 as illustrated in the *Exhibit 1*.

This sharp increase is notably driven by the global LNG market dynamics: the spread between the spot Asian LNG prices and the European gas prices (JKM-TTF spread<sup>1</sup>) has strongly narrowed, making Europe more valuable than Asia notably for Atlantic LNG supplies.

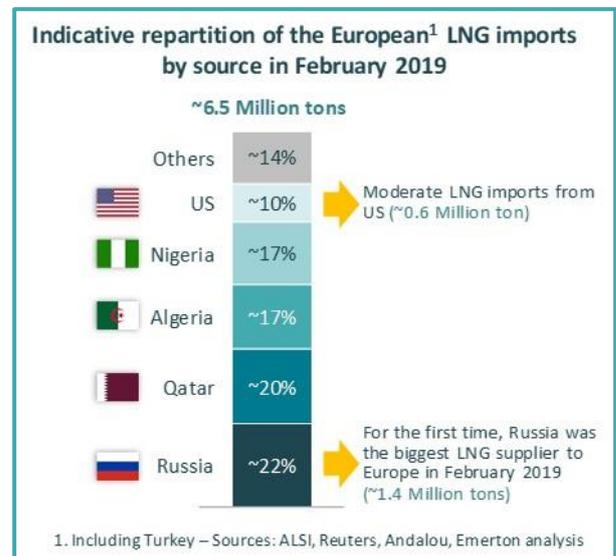
The JKM-TTF spread reached even negative values<sup>2</sup> at the end of March 2019, therefore opening an arbitrage window for spot LNG cargoes from the Middle East to Europe rather than Asia.

## Russia is becoming a significant LNG supplier to the European market

Russia has significantly increased its LNG deliveries to Europe during the first quarter of 2019. Indeed, a substantial part of the Russian LNG volumes, which were intended to be transhipped in Europe and continue their route to the Asian markets, have finally been regasified in Europe<sup>3</sup>.

As a matter of fact, the Yamal<sup>4</sup> project delivered a record LNG amount to the European market in February 2019 (~1.4 Million ton) surpassing Qatar and therefore becoming the biggest LNG supplier to Europe for the first time since the project start-up in December 2017.

Nevertheless, the role played by US LNG in the European LNG supply mix, has been lower than expected. In February 2019, US LNG exports to Europe were limited to 9 cargoes (~0.6 Million ton), their lowest level since November 2018. This can be mainly explained by maintenance operations planned in the US liquefaction plants. Furthermore, the economics of the US LNG deliveries have deteriorated under Q1-2019 market conditions. Indeed, both



**Exhibit 2: Mix of import sources to European LNG terminals, February 2019**

<sup>1</sup> JKM-TTF spread is the difference between the main Asian LNG spot price index (JKM) and the main European gas spot price index (TTF).

<sup>2</sup> On the 28<sup>th</sup> of March, JKM price was traded at ~4.4 \$/MMBtu, i.e. ~0.3 \$/MMBtu below the TTF.

<sup>3</sup> Novatek, the major shareholder of Yamal LNG, arranged swaps to supply its Asian positions with LNG cargoes from the Pacific basin. (source: Reuters)

<sup>4</sup> Yamal LNG is a massive Russian LNG project (16.5 Mtpa) located in the Yamal Peninsula in the Arctic whose shareholders are Novatek, Total and CNPC.

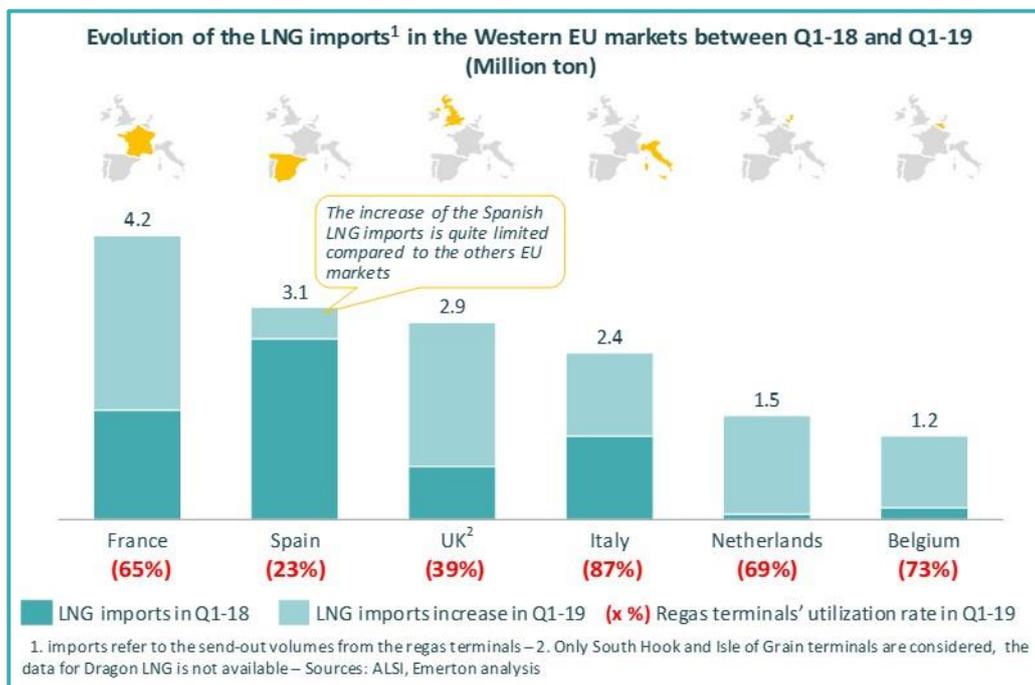
European and Asian spot gas prices reached very low levels close to the profitability threshold<sup>5</sup> of US LNG in these markets.

The LNG market is likely to remain oversupplied within the coming months; the competition between the different sources is likely to intensify as three new US LNG projects (Cameron, Corpus Christi T2 and Freeport) are in their completion or start-up phases. Additional volumes are expected to start hitting the market in the second half of 2019.

### European regasification terminals are gaining momentum globally but some of them have been more attractive than others: a minimum level of wholesale gas market liquidity is a prerequisite to attract additional LNG volumes

The increase of LNG imports is seen across all the Western European markets. However, the Spanish market has been the only one to capture a very limited part of the additional LNG volumes as illustrated in the *Exhibit 3*.

Despite its large regasification capacities located on both the Mediterranean and Atlantic coasts, Spanish LNG imports have only shown a very small increase, maintaining the utilization rate of the regas terminals at a low level of ~23% as compared to other European regasification terminals. The illiquidity of the Spanish hub<sup>6</sup> is one of the main hurdles impeding it from attracting more LNG volumes.



**Exhibit 3: Increases of LNG import in the main EU markets**

All the other western European countries with wholesale markets offering a minimum level of liquidity and tradability, have significantly increased their LNG imports in Q1-2019. The drivers of these increases vary from one market to another:

<sup>5</sup> The Short Run Marginal Cost (SRMC) which refers to the cost of US LNG transported to the regasification terminal without considering the fixed liquefaction costs: SRMC = Henry Hub (HH) + liquefaction fuel losses (15% HH) + shipping costs.

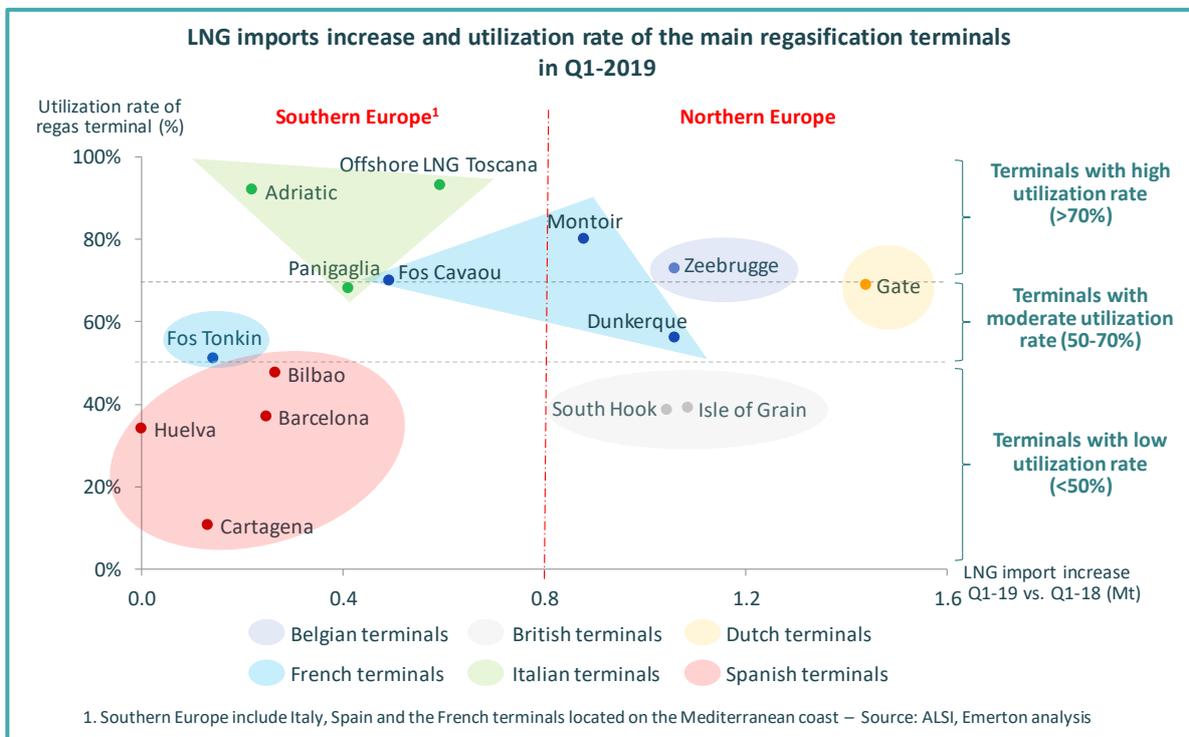
<sup>6</sup> Among the emerging hubs in Western Europe, the Spanish hub has by far the lowest traded volumes (In 2017: ~60 TWh vs. ~24 000 TWh for the Dutch hub (TTF), ~950 TWh for the Italian one (PSV) and ~550 TWh for the French hub (PEG Nord).

- The British and Dutch LNG imports have seen sharp increases compared to their low level of Q1-2018. The strong liquidity of the NBP and TTF is likely to have facilitated the trade of additional LNG volumes in these markets.
- Despite the more limited liquidity of the French and Belgian wholesale gas markets, the long-term transshipment deals in place at Montoir and Zeebrugge terminals have contributed to attract more LNG volumes (See below). It is worth noting that France has massively increased its LNG imports thus becoming the biggest EU LNG importer in Q1-2019.
- Italy has doubled its LNG imports leading to a very high average utilization rate of its regasification terminals (~87%). The price premium of ~1.5 €/MWh offered by Italia compared to North West Europe is one of the main factors explaining such a strong attractiveness.

**Beyond the liquidity of wholesale markets, access to transshipment services and innovative capacity allocation mechanisms are key differentiation factors**

A detailed analysis of LNG import increases by regasification terminal brings out the Northern European terminals as the most attractive in absorbing additional LNG volumes as illustrated in *Exhibit 4*. Indeed, the Northern wholesale gas markets, being more liquid, offer more reliable and easily accessible opportunities for capturing the value of additional LNG cargoes.

Beyond market liquidity, the long-term transshipment agreements concluded between Yamal’s off-takers and the Zeebrugge and Montoir regasification terminals substantially favored the unloading of additional LNG cargoes. The LNG volumes initially intended to be transshipped to Asia, have largely been “trapped” and regasified in Europe; the market conditions being in favor of deliveries in Europe rather than in Asia as the JKM-TTF price spread was lower than the additional logistics costs required to ship LNG to Asia.



**Exhibit 4: LNG imports increase and utilization rate of the main regasification terminals**

Moreover, the further development of new Arctic LNG projects<sup>7</sup> based on seasonal transshipment services of ice-breaker LNG carriers may prove an opportunity for Northwest European regas terminal operators. However, this potential opportunity needs to be assessed carefully as Russian authorities are supporting the development of ad hoc transshipment terminals in Russia.

The Southern LNG regas terminals, mostly located on the Mediterranean coast, have attracted less LNG volume. Indeed, the LNG glut is concentrated on the Atlantic Basin as it mainly results from the ramp-up of the US LNG projects and the Russian LNG volumes taking the “winter route”<sup>8</sup> based on planned transshipments in Northern European terminals. However, clear distinctions have to be made between the various regas terminals in Southern Europe:

- On the one hand, the Spanish regasification terminals did not attract significant additional LNG volumes beyond the structurally contracted imports<sup>9</sup>, despite the price premium offered by the Spanish market compared to North West Europe. This is mainly due to the very poor liquidity of the Iberian gas hub. The existence of a reliable wholesale gas market showing a minimum level of liquidity is a prerequisite to attract additional LNG volumes as it allows market players to easily optimize their positions.
- On the other hand, the two Italian regas terminals OLT<sup>10</sup> and Adriatic LNG, have been running near full capacity (~92%) during Q1-2019. In addition to the ~1.5 €/MWh price premium offered by the Italian wholesale gas market, these two terminals adopted an innovative capacity allocation procedure based on auctions starting from a reserve price lower than the previous tariffs and linked to the LNG market prices. Italy’s former high regasification tariffs tended to discourage the unloading of spot LNG shipments, whereas the new methodology has shown efficient in attracting more volumes.

### In an increasingly interconnected and global gas and LNG market, the flexibility offered by regas terminals brings much value to market players

The global LNG trade is surging thanks to the wave of new LNG supplies coming from various sources including US, Australia, Russia, etc. This is generating a shift toward a more interconnected global gas market.

In such a context, LNG shippers are requiring more flexibility to be able to optimize their positions within the short-term. Therefore, the attractiveness of regasification terminals largely depends on the range of services they offer, e.g. regasification, reloading, transshipment and the option for shippers to reactively shift from one service to another depending on market dynamics and pricing.

In that respect, the commercialization by terminal operators of structured commercial offers combining competitive and optional add-on services in addition to traditional core services (e.g. a regasification core service combined with a reloading optional add-on service, or a transshipment core service combined with a regas optional add-on service) could constitute an attractive way to generate value for market players.

<sup>7</sup> Arctic LNG 2 is gaining momentum even if the US is working on a set of sanctions which targets Russian LNG and aims at hampering the development of new projects.

<sup>8</sup> The “winter route” is the conventional route through the Mediterranean Sea and the Suez Canal which is used to ship LNG from the Yamal peninsula to the Asian market during winter (as opposed to the “summer route” which is a more direct route from Yamal to Asia through the Arctic sea, used during summer with the support of nuclear ice-breakers).

<sup>9</sup> The utilization rate of the Fos Tonkin terminal remained low as well notably because of its inability to accommodate conventional size LNG carriers (the access to Fos Tonkin is operationally limited to Medmax LNG carriers).

<sup>10</sup> Offshore LNG Toscana.

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