LNG MARKET UPDATE
Ekaterina Dukhanina, LNG Analyst
# SUMMARY

## 1. Price environment

### 1.1 Price environment

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### 1.2 Policy context

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### 1.3 LNG imports in H2 2022

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## 2. LNG supply in H1 2022

### 2.1 LNG supply in H1 2022

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### 2.2 LNG infrastructure update

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### 2.3 European LNG developments

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## 3. LNG Outlook

### 3.1 LNG Outlook

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### 3.2 LNG Shipping

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### 3.3 Contracts

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TIGHTER MARKET - HIGHER PRICES; STRONGER COMPETITION - HIGHER VOLATILITY

Europe establishing as premium market, narrowing spreads with HH

MARKET UPDATE - H1 2022

Source: EIA, Heren, Platts, METI, JOGMEC
Since the start of the Russia-Ukraine conflict the EU, its Member States and Asian countries are taking measures to guarantee energy security.

<table>
<thead>
<tr>
<th>POLICY CONTEXT</th>
<th>EU</th>
<th>FR</th>
<th>NL</th>
<th>DE</th>
<th>JP</th>
<th>CH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce dependence on fossil fuel imports</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>Increase LNG imports</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Diversification of LNG imports (increased partnerships with other suppliers other than Russia)</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>Additional investments in LNG and pipeline gas</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Common purchases of LNG</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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</tr>
<tr>
<td>Storage (filling levels, obligations on operators, incentives, capacity increase)</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Increased/restart nuclear generation</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>Increased/restart or slower reduction of coal generation</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>Expand oil reserves</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Mechanism to regulate gas prices</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Energy saving measures: rationing of natural gas, power generation</td>
<td>✔</td>
<td>✔</td>
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</tbody>
</table>
EUROPE DRIVING IMPORT GROWTH DESPITE HIGH PRICES

Global LNG imports up by 9.2 MT or +4.9% in H1 2022 vs. H1 2021, European imports up by 53%

LNG Imports: H1 2022 vs H1 2021

- **Europe**: +21.1 MT (or +52.7%)
- **Middle East**: +0.7 MT (or +26.1%)
- **Americas**: -2.5 MT (or -30.1%)
- **Asia**: -10 MT (or -7.3%)

Source: GIIGNL, Kpler

MARKET UPDATE - H1 2022

Lockdowns, Domestic production, Gas-to-coal switch
EUROPE BENEFITS FROM US LNG AND DEMAND DESTRUCTION IN ASIA

European imports up by 53% YoY despite high prices

MARKET UPDATE - H1 2022

LNG Imports change: H1 2022 vs H1 2021

Source: GIIGNL, Kpler
EUROPE FACES LOWER PIPELINE GAS SUPPLY AND USES LNG TO REFILL STORAGE

As of beginning of July 2022, European gas storages 60% full

EU6* includes Belgium, France, Italy, Netherlands, Spain, Portugal

EU8** = EU6 * + Germany + Austria

Source: GIIGNL, AGSI, ALSI
CHINESE DEMAND BACK TO 2019 LEVELS
Chinese LNG imports down by -20.2 % (-7.9 MT) in H1 2022 vs H1 2021

Source: GIIGNL, Kpler
SOUTH KOREA PRIORITIZING NUCLEAR AND COAL

South Korean LNG imports down by 3.7% (-0.9 MT) in H1 2022 vs H1 2021

Source: GIIGNL, Kpler
INDIAN LNG IMPORTS CURTAILED DUE TO HIGH SPOT PRICES

Indian LNG imports down by 12.9% (-1.6 MT) in H1 2022 vs H1 2021

Source: GIIGNL, Kpler

MARKET UPDATE - H1 2022
JAPAN LNG IMPORTS HOLDING UP

Japan’s LNG imports down by 4.1% (-1.6 MT) in H1 2022 vs H1 2021:

Source: GIIGNL, Kpler

MARKET UPDATE - H1 2022
TAIWAN HIGHER LNG DEMAND DUE TO LOWER NUCLEAR GENERATION

Taiwan’s LNG imports up by 6.1% (+0.6 MT) in H1 2022 vs H1 2021

Source: GIIGNL, Kpler
US LIQUEFACTION DRIVES SUPPLY GROWTH

US LNG ramps up, Hammerfest resumed production

New capacities: Sabine Pass T6; Calcasieu Pass

Source of LNG Imports: H1 2022 vs H1 2021

Atlantic +6.9 MT (or +10%)

Pacific +1.8 MT (or +2.5%)

Middle East +0.5 MT (or +1.1%)

Source: GIIGNL, Kpler
USA - RECORD EXPORTS, RECORD DELIVERIES TO EUROPE

Notwithstanding the Freeport outage, USA outperform, sending around 70% to Europe in H1 2022

**MARKET UPDATE - H1 2022**

**US LNG Exports 2020-2022**

**US LNG Deliveries 2020-2022**

Source: GIIGNL, Kpler
EUROPE: PLAYGROUND OF THE “BIG THREE”

US – quick ramp up for European needs

Top 3 European suppliers in H1 (MT)

- **USA**: 27 MT in 2021, 46% of total
- **Qatar**: 20 MT in 2021, 20% of total
- **Russia**: 19 MT in 2021, 15% of total

European LNG suppliers in H1 (%)

- **USA**: 27% in 2021
- **Qatar**: 20% in 2021
- **Russia**: 19% in 2021

Source: GIIGNL, Kpler
New liquefaction capacity in H1 2022 is 15 MTPA, all from the US. Receiving capacity additions reach 23.6 MTPA

**NEW RECEIVING CAPACITY OUTPACES LIQUEFACTION CAPACITY ADDITIONS**

Source: GIIGNL, Kpler

- **Sabine Pass T6** (5 MTPA)
- **Calcasieu Pass** (10 MTPA)
- **Acajutla** (2 MTPA)
- **Hammerfest (restart)** (4.2 MTPA)
- **Swinoujście** (+1 MTPA)
- **Adriatic LNG** (+1 MTPA)
- **Al-Zour** (+11 MTPA)
- **Niihama** (1 MTPA)
- **Nong Fab** (7.5 MTPA)
- **Maleo** (0.1 MTPA)

**MARKET UPDATE - H1 2022**
POLICY-DRIVEN DEVELOPMENT OF NEW FSRU IN EUROPE

Around 60 MTPA of regasification capacity under construction, 80% offshore

Utilization rate >80%

- FSRU-based projects decided in Germany (5), Italy (3), Netherlands (2), France (1), Finland/Estonia (1), Greece (1), Cyprus (1)

- FSRU-based projects proposed in Germany (1), Albania (1), Greece (4), Latvia (1), Poland (1), Slovenia (1), Turkey (1), UK (1)

Source: GIIGNL
TOWARDS A NEW CYCLE OF OVERSUPPLY?

2 FID in 2022 for around 24 MTPA, around 147 MT of liquefaction capacity under construction

Liquefaction capacities under construction expected online by 2026*

Source: GIIGNL, IHS

*LNG demand in the Inflections scenario IHS, 3.95% annual growth rate

MARKET UPDATE - H1 2022
LNG SHIPPING DEVELOPMENTS - H1 2022

- 14 new LNG ships (>50 000 m³) delivered since January 2022

- Record LNG carrier newbuild orders:
  - 88 newbuilds in the orderbook, incl. 57 for Qatar (+39 during H1 2022)

- Rising price of newbuilds due to increasing cost of materials, shortage of manpower, labor strikes:
  - From $200M in January 2022 to $230M in June*

- Prompt spot charter rate moderate but volatile

*for a 174 000 m³ newbuild
CONTRACTS: SECURITY OF SUPPLY FIRST, SUSTAINABILITY ON THE BACK-BURNER?

31 long-term contracts signed in 2022 for more than 35 MTPA

Contracts signed by duration

<table>
<thead>
<tr>
<th>Year</th>
<th>4-10 years</th>
<th>11-15 years</th>
<th>16-20 years</th>
<th>&gt;20 years</th>
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<tbody>
<tr>
<td>2019</td>
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<td>2020</td>
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<td>2022</td>
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Contracts signed by importers

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>China</td>
<td>33%</td>
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<tr>
<td>South Korea</td>
<td>8%</td>
</tr>
<tr>
<td>Germany</td>
<td>4%</td>
</tr>
<tr>
<td>Singapore</td>
<td>8%</td>
</tr>
<tr>
<td>Germany</td>
<td>4%</td>
</tr>
<tr>
<td>China</td>
<td>33%</td>
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<tr>
<td>Portfolio</td>
<td>16%</td>
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<tr>
<td>Others</td>
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<tr>
<td>Mexico</td>
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<tr>
<td>Multiple</td>
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<td>France</td>
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Source: GIIGNL
KEY TAKEAWAYS

- LNG imports growth in H1 2022 driven by Europe due to Ukraine-Russia conflict thanks to
  - Expansion of US capacity
  - Demand destruction in Asian countries

- Tight market in the short term taking into account higher LNG demand and necessary time to put new projects in operation
  - Pipeline supply disruption from Russia could further boost LNG demand in Europe
  - Asian demand is expected to rebound due to summer heat wave and approaching winter season

- Accelerated infrastructure development could relieve the situation in the medium/long term
  - FSRU development in Europe later this year
  - New wave of US LNG and Qatar additions to come in 2026

- Demand destruction could be significant and persistent
  - Affordability issues for emerging markets
  - Risk of economic recession
THANK YOU

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