



# Gas supply forecast for winter 2022-23

Press conference - 14 September 2022

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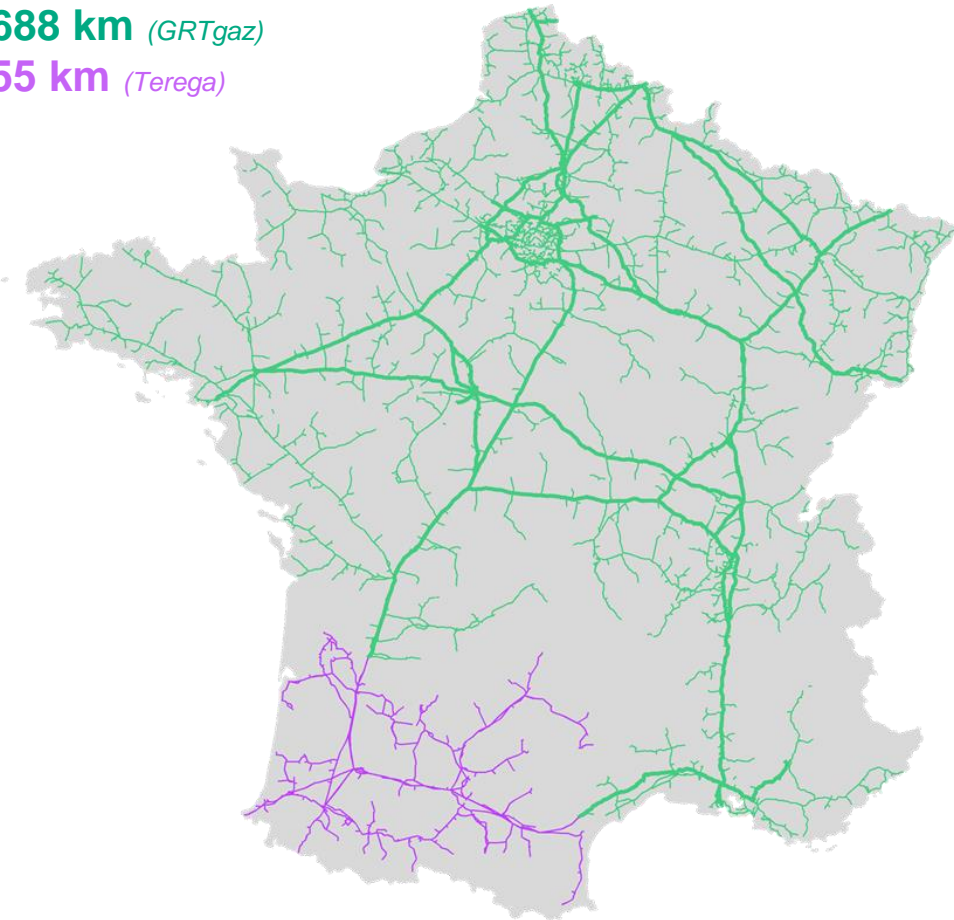
**Report on the network's current state of balance:  
flows, storage facilities, LNG terminals**

# Transport infrastructure serving consumers

**Network length: 38,835 km**

**33,688 km** (GRTgaz)

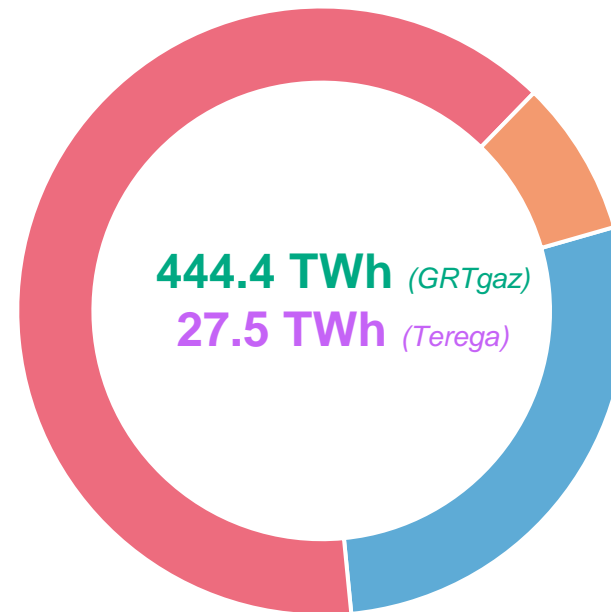
**5,155 km** (Terega)



## Gross gas consumption in France in 2021

**474 TWh** of which 284 TWh in winter (Nov-March)

**Distributions  
publiques;  
303 TWh  
(64%)**



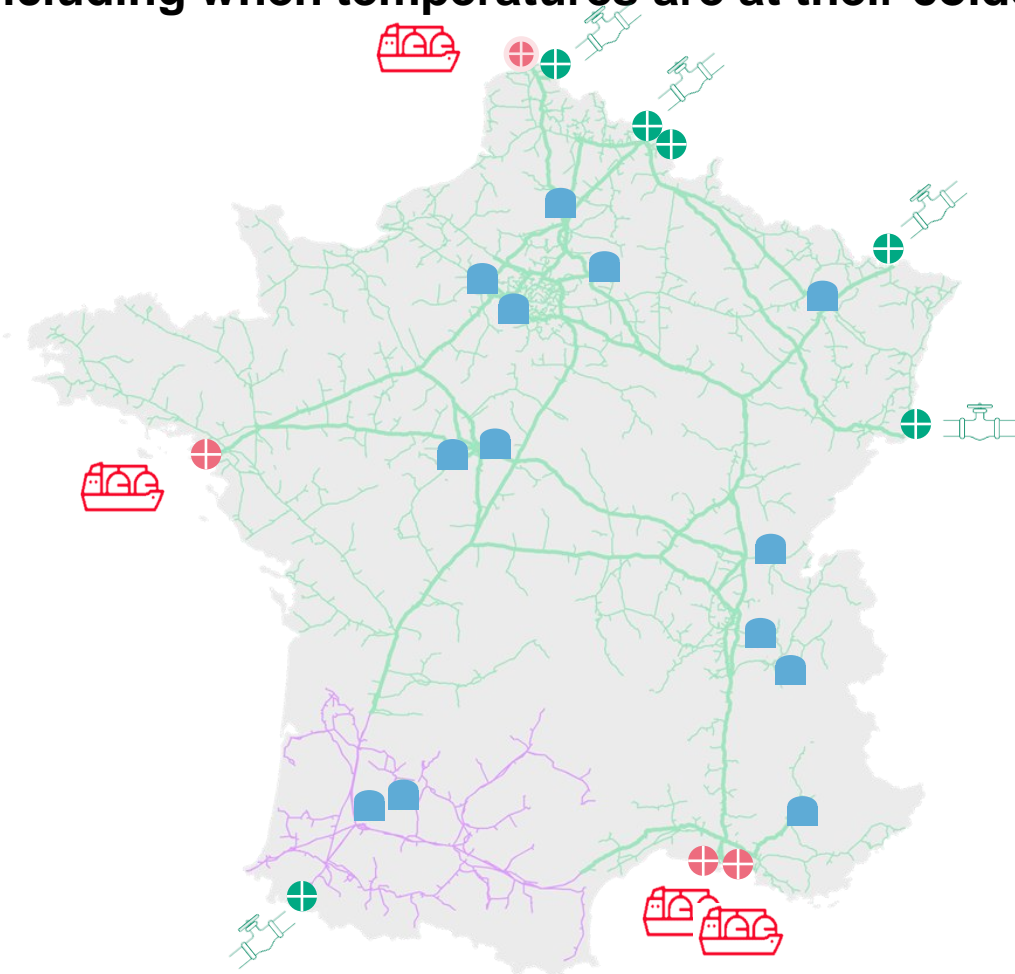
**Centralised  
electricity  
production  
(PEC)  
39 TWh (8%)**

**444.4 TWh** (GRTgaz)  
**27.5 TWh** (Terega)

**Industries  
connected to the  
transport  
network  
(excluding CEP);  
132 TWh (28%)**

# Powerfully interconnected infrastructure

... To ensure security of supply for consumers in France and solidarity with European countries, including when temperatures are at their coldest



**4 LNG terminals** on 3 sea fronts,

- Peak capacity: 59 GW
- A 5th terminal will be operational in Le Havre in summer 2023

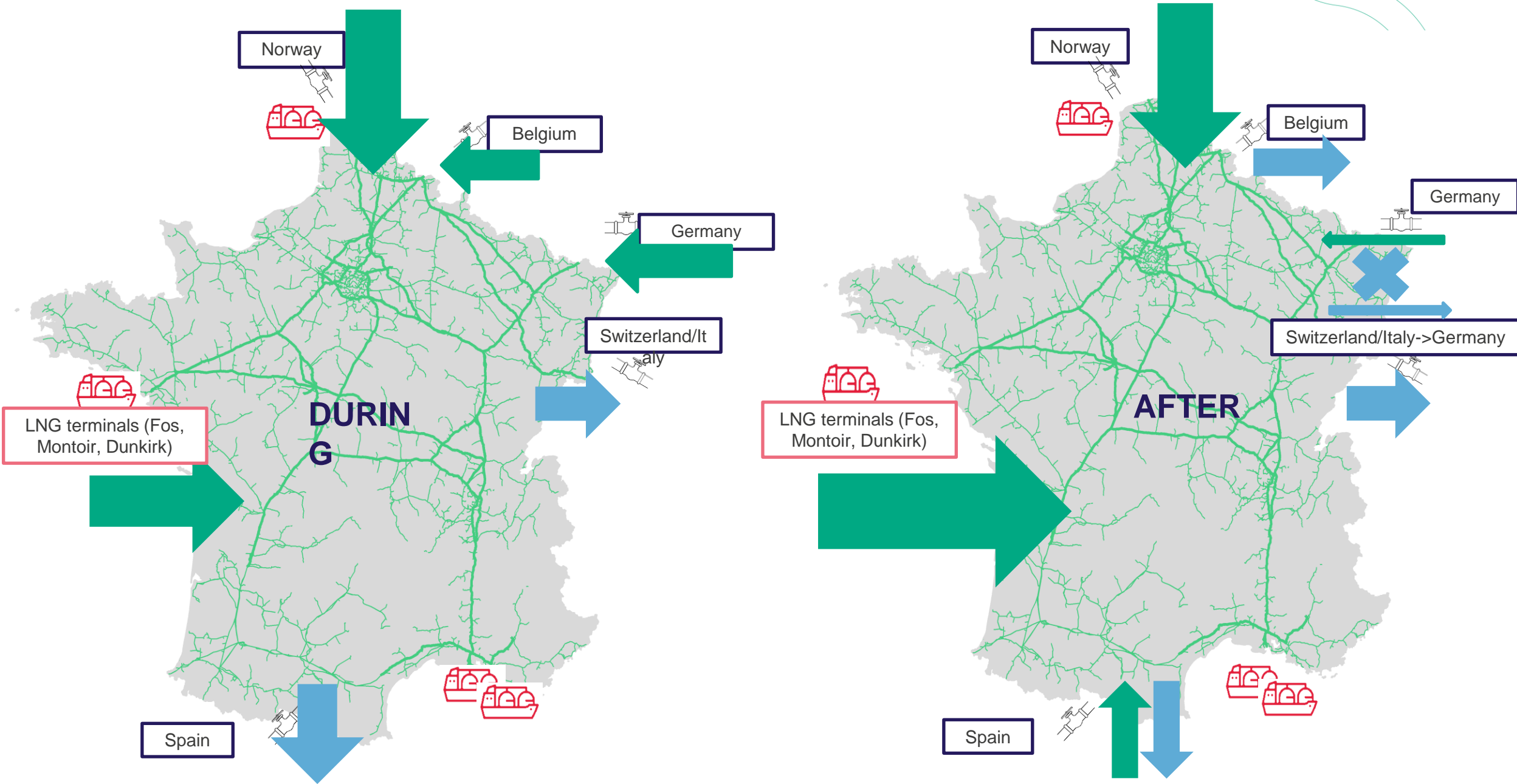
**6 interconnection points with adjacent countries**

- Norway, Belgium, Germany, Switzerland/Italy, Spain
- Import capacity: 98 GW
- Export capacity: 29 GW

**13 storage facilities**, representing a third of consumption in France, essential for catering to seasonal variation in demand

- Maximum withdrawal capacity: 103 GW

# Flows before the start of the war in Ukraine and during it



Norway

Belgium

Germany

Switzerland/Italy

LNG terminals (Fos, Montoir, Dunkirk)

**DURING**

Spain

Norway

Belgium

Germany

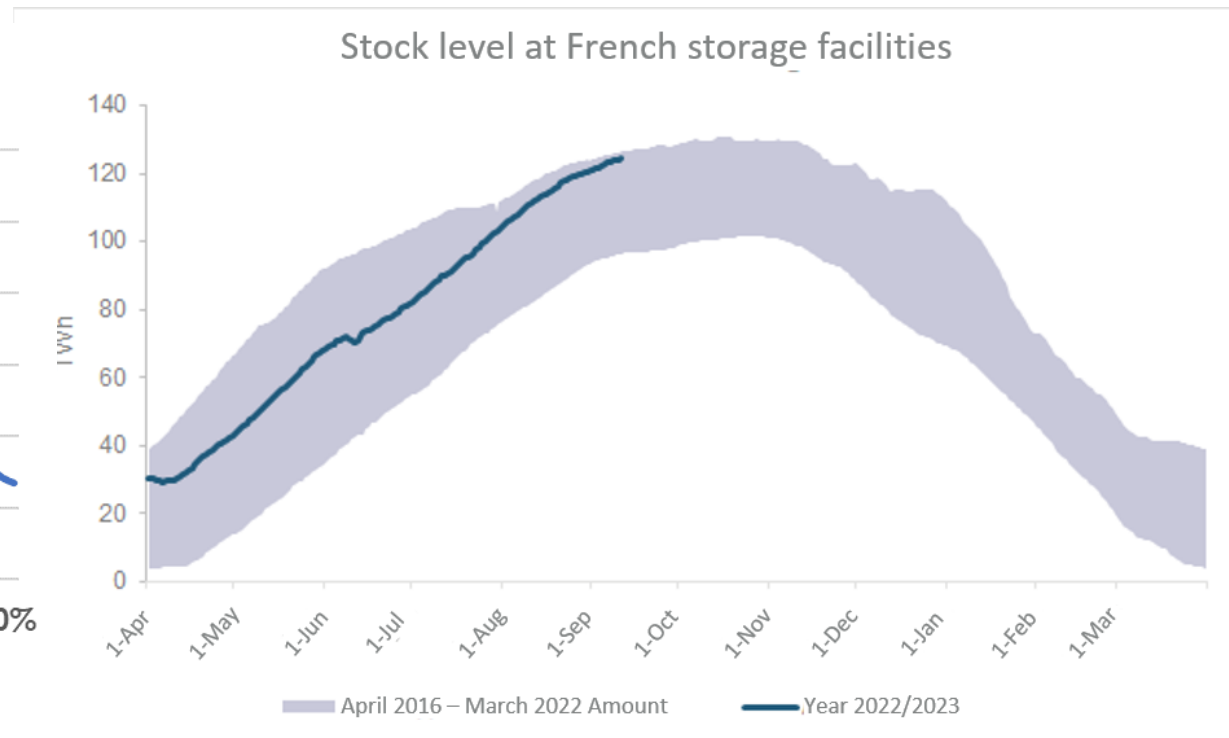
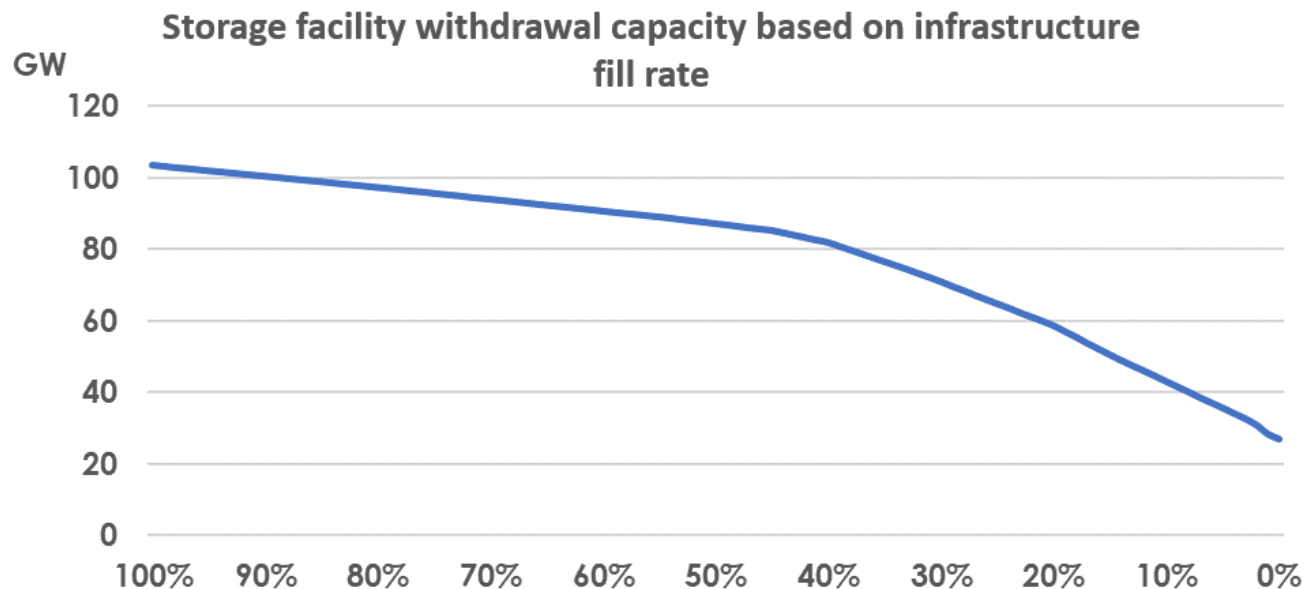
Switzerland/Italy->Germany

LNG terminals (Fos, Montoir, Dunkirk)

**AFTER**

Spain

# Storage facilities: crucial for next winter

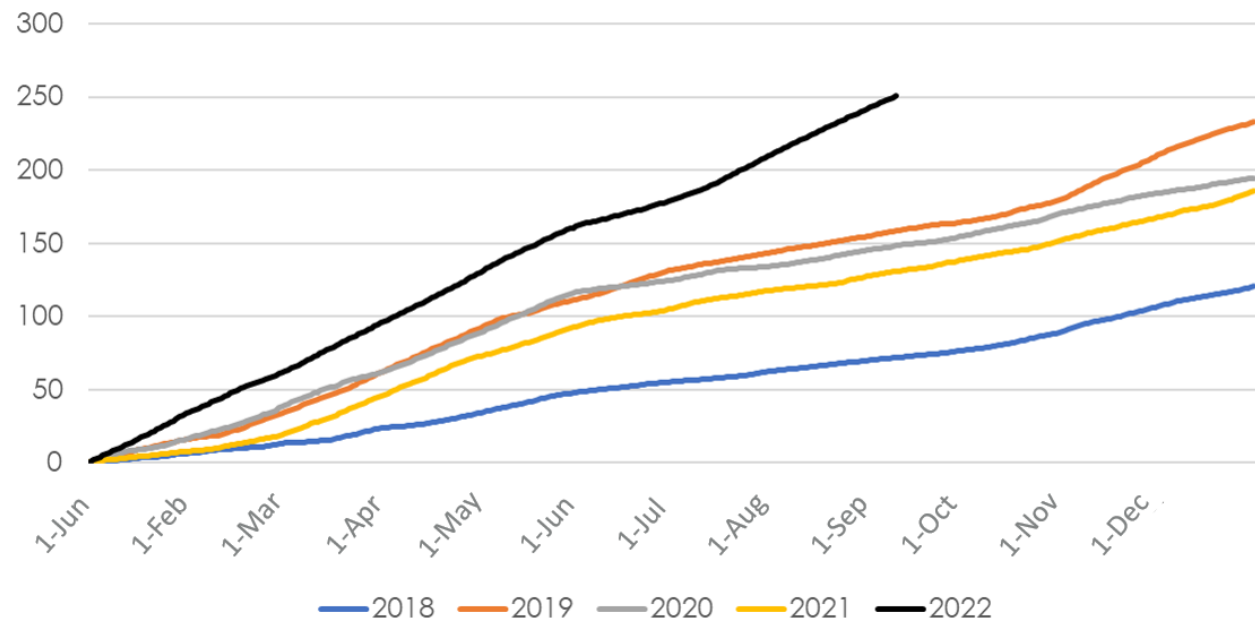


- Extraction power depends on fill levels
- As long as storage facilities are at least 50% full, the extraction power is above **85 GW**

- Storage facilities **in France will be nearly 100%** full at the start of winter 2022/2023
- They are 94% full as of September 12 (compared with 84%, the European average)

# Terminals which have played a significant role in supplying France and Europe since the beginning of the year

Aggregated LNG emissions across the French network since 1 January per year (Twh)



- **The absolute record for LNG issued** over one year has already been broken – it now stands at 251 TWh<sup>(1)</sup>
- The previous record was 233 TWh for the whole of 2019
- 1391 GWh/d of peak throughput available, namely **58 GW** of power

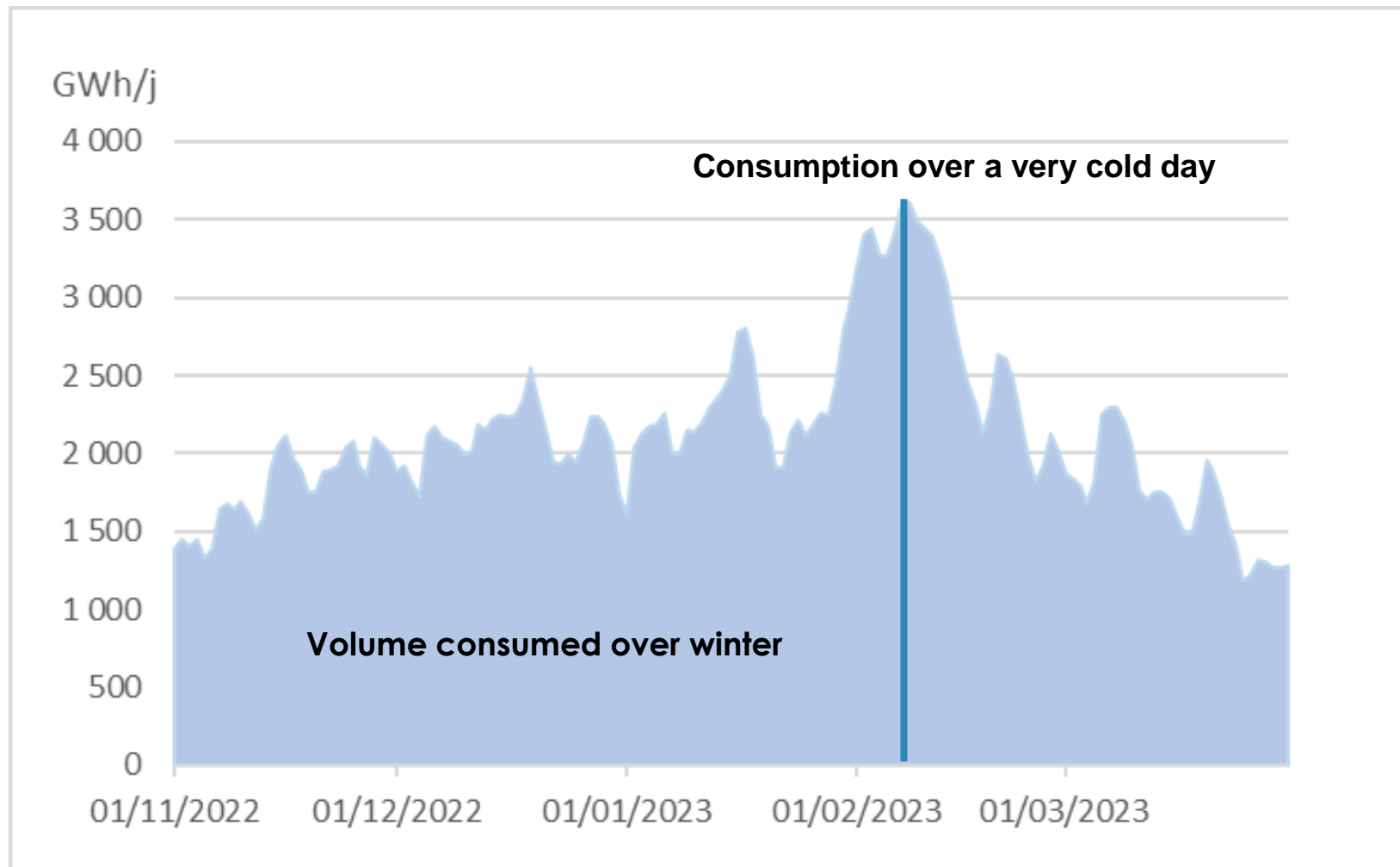
<sup>(1)</sup> As of September 10, 2022





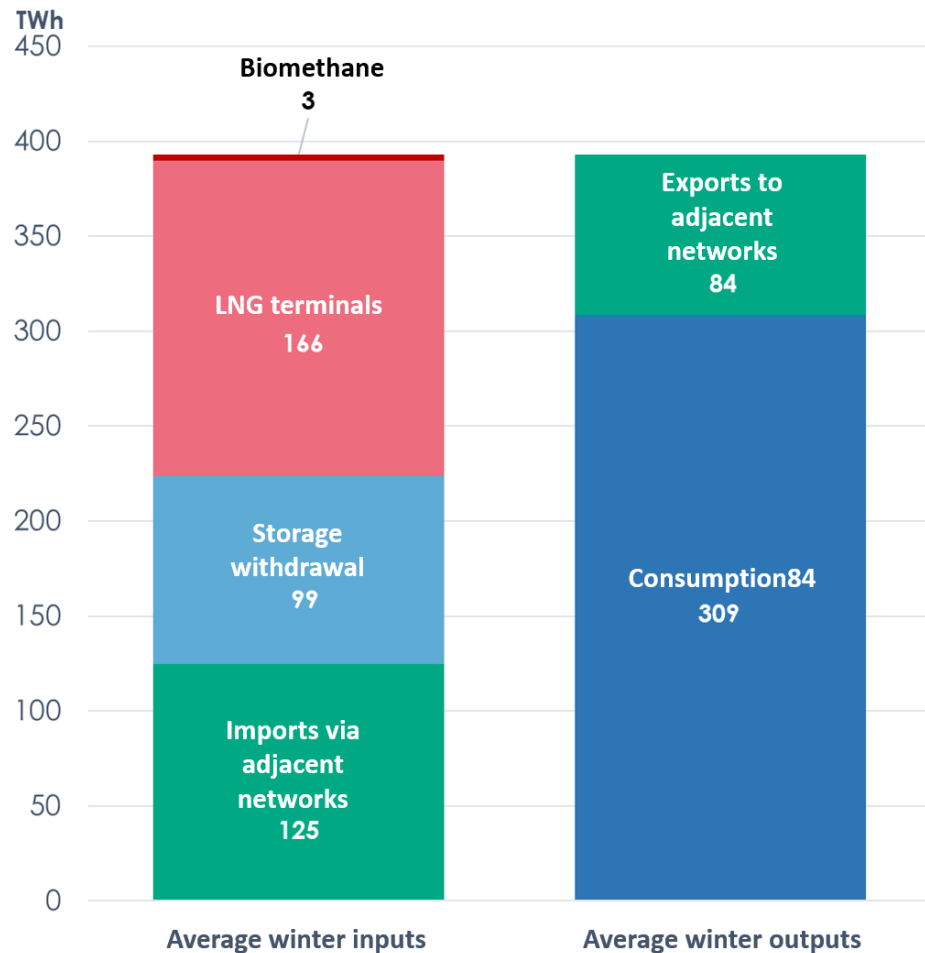
## Outlook for winter 2022 / 2023

# Two components of consumption to satisfy



# Simulations of the winter energy situation (November 2022 – March 2023)

**Reference simulation:  
average winter → balanced system**

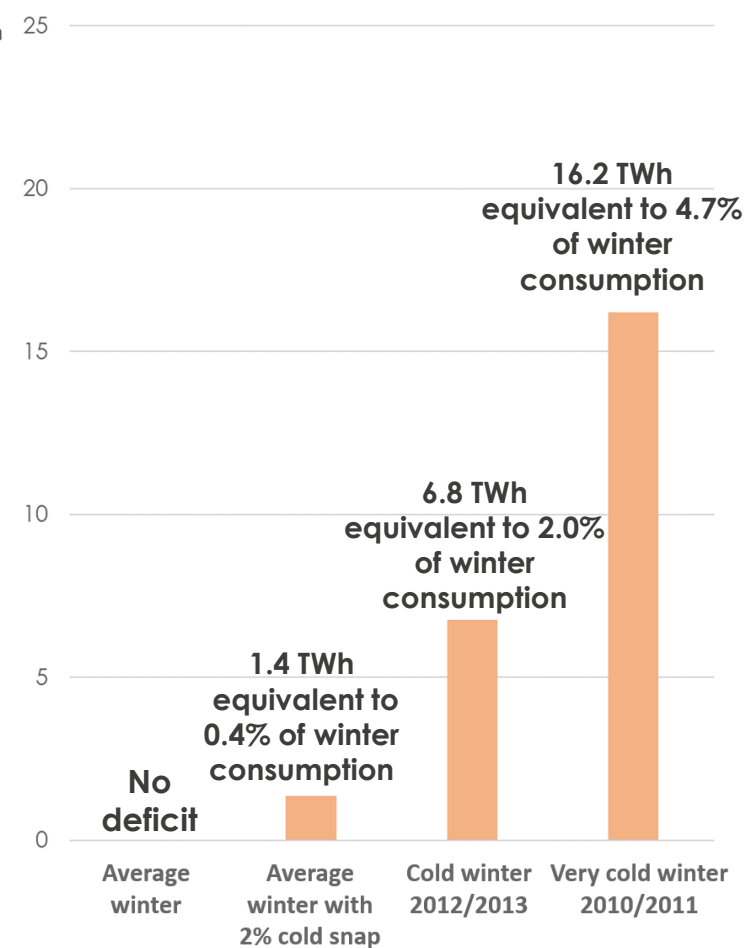


- **In an average winter**, the system is perfectly balanced, no gas deficit.

However, there is little room for manoeuvre, especially on days when consumption is very high. All sources must then be drawn on.

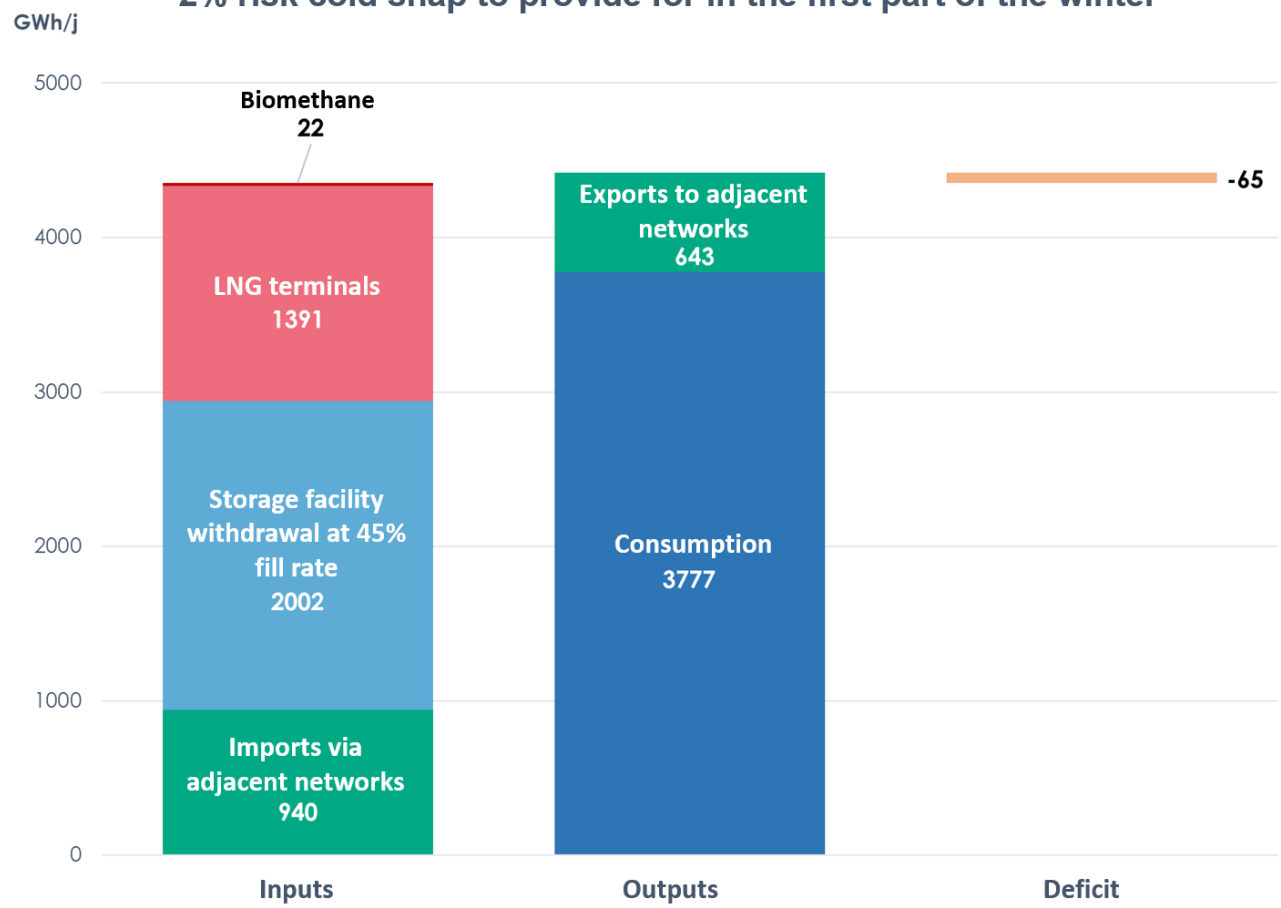
- **An average winter** with a few days of intense cold (cold snap) results in a marginal deficit.
- **A cold or very cold winter** results in a bigger deficit.
- **Levers exist** that can be used to manage these deficits.

**Deficit  
in various scenarios**



# A limited deficit in the event of a cold snap in the first part of winter...

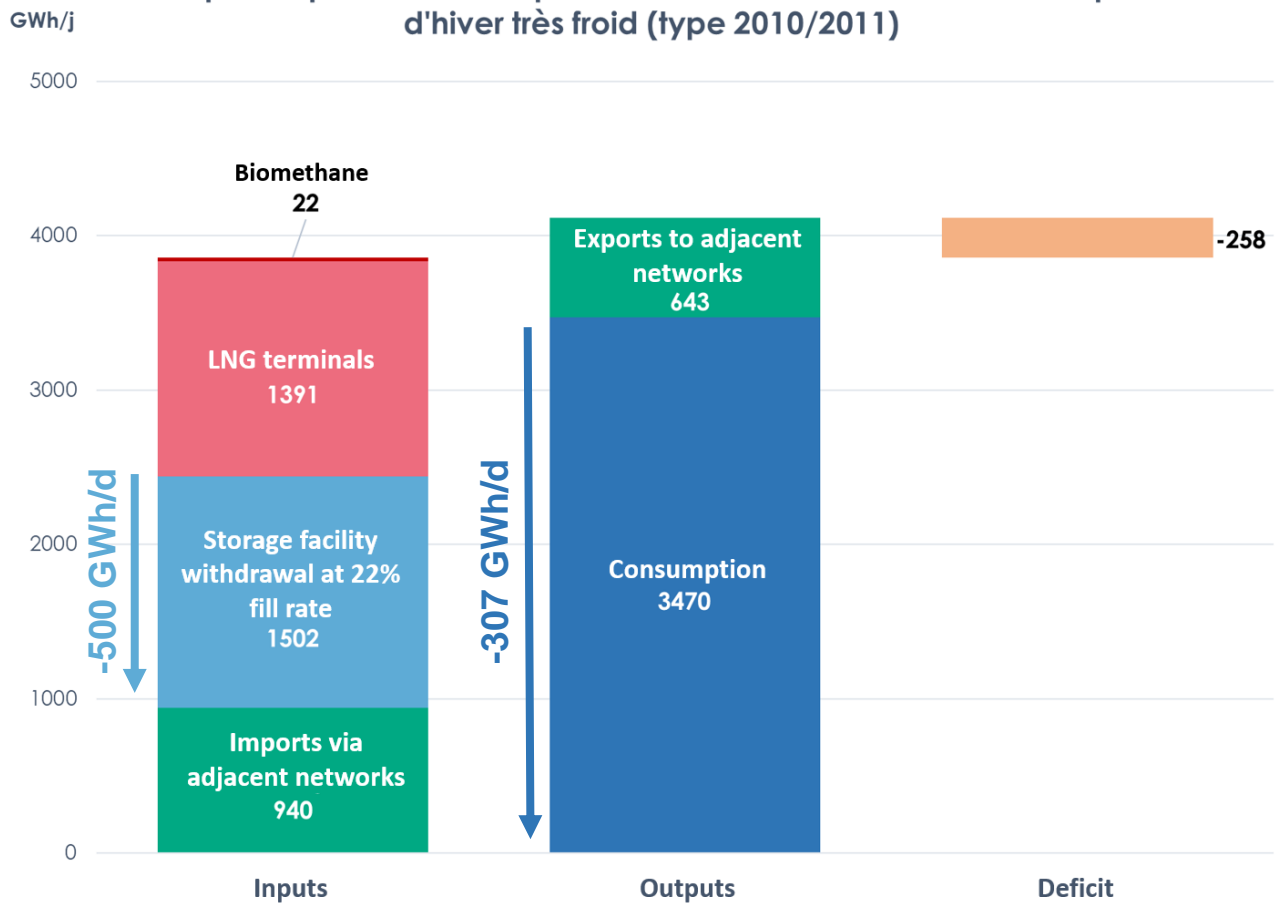
2% risk cold snap to provide for in the first part of the winter



- In the first part of winter (December to mid-February) the cold snaps to cater to are the greatest.
- The 2% cold snap (likely to occur up to twice per century) results in a **limited deficit** given the significant withdrawal power available (stocks filled).

# ... the decline in stocks during the cold winter results in a greater risk of not being able to meet demand on a cold day

Exemple de pointe de froid plus modérée à couvrir en deuxième partie d'hiver très froid (type 2010/2011)



- **Measures will be implemented to manage these deficits**
- In all cases:
  - **stocks must be preserved starting at the beginning of winter** so as to provide sufficient flows at the desired time
  - there must be LNG in the tanks so that the terminals can send out as much as possible over the peak period
- In the second part of a cold or very cold winter (after mid-February), the cold snaps during which demand needs to be met are less intense.
- However, they result in **larger deficits** due to the reduced available withdrawal power (stocks are lower).



**Action levers for next winter and  
for the future**

## Levers for re-absorbing any potential deficits



### Responsibility of suppliers

- Preserving stocks for the end of winter and replenishing them in the event of a one-off period of mild weather
- Adapting to inputs / outputs across the country.

### Responsibility of consumers (sobriety)

- 1°C less reduces consumption by about 7% (170 GWh/D or 17 TWh)
- An information and awareness programme like Ecowatt applied to gas to allow residents, local authorities and businesses to know the amount of pressure on France's gas supply and play their part in balancing it by adopting a number of environmentally friendly habits.



### Interruptibility / Load-shedding

- Activation of compensated interruptibility measures to help industrial companies voluntarily lower their consumption in the event of imbalances on the network. Maximum potential is 200 GWh/d
- Load-shedding as a last resort aimed at major consumers (to protect residential customers).

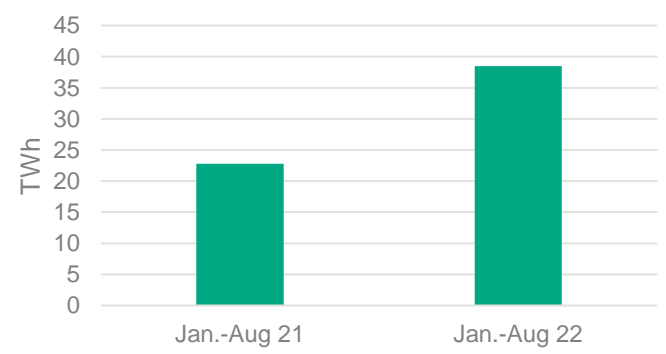
# Interdependent gas and electricity

Gas is involved in electricity generation – particularly in recent months

Using less energy involves using gas or electricity for heating

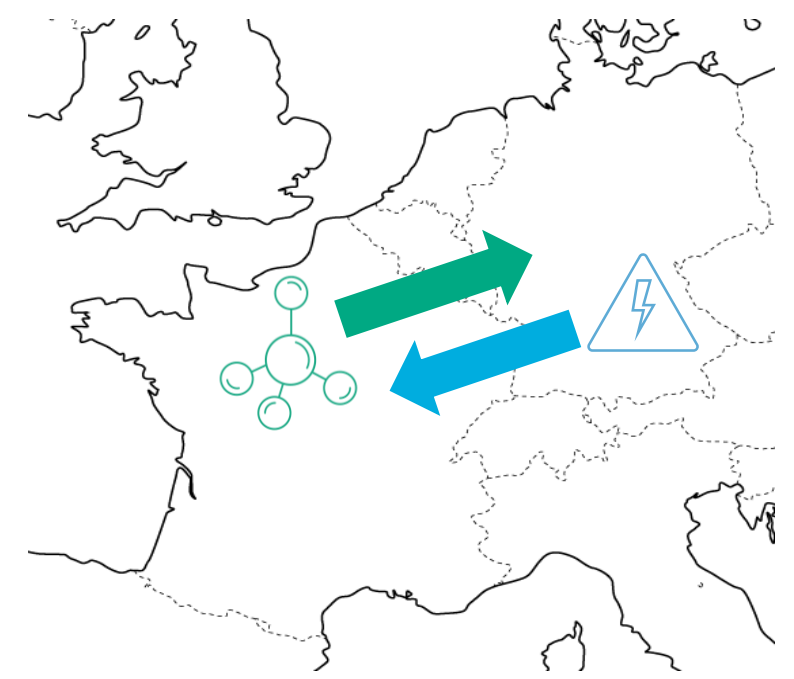
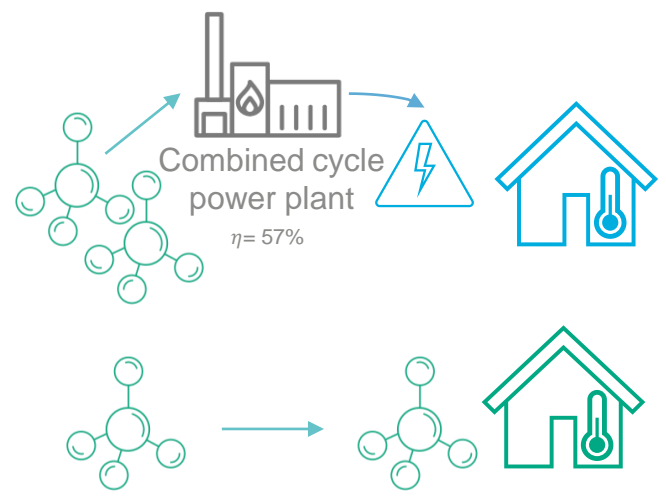
It also plays a part – via gas exports – in meeting electricity demand in France

Gas consumption for non-cogeneration electricity generation



-> agreed assumptions for winter

**-1°C with an electric convector saves twice as much gas as on a gas boiler.**



Support from France to Germany for gas and from Germany to France for electricity



## Conclusion

- Gas distribution operators are making every effort to manage the gas supply in close conjunction with the electric transport operator RTE and the public authorities.
- Sound management by the suppliers of inputs/outputs on the French network and underground storage throughout the winter is required.
- In an average winter, French gas supply can meet demand while keeping the electricity transport network running and actively contributing to Europe's solidarity policy.
- Tensions may however arise during the winter months.
- To prevent these situations, gas and electricity sobriety measures need to be introduced immediately.
- For the following winters, the commissioning of the floating terminal in Le Havre (FSRU) and speeding up the development of renewable gas would further reduce risks.



Thanks

