

Picture courtesy of Gas Connect Austria

Winter Supply Outlook 2020-2021

Results

Kacper Żeromski – System Development

WSO concept and assumptions

Goal

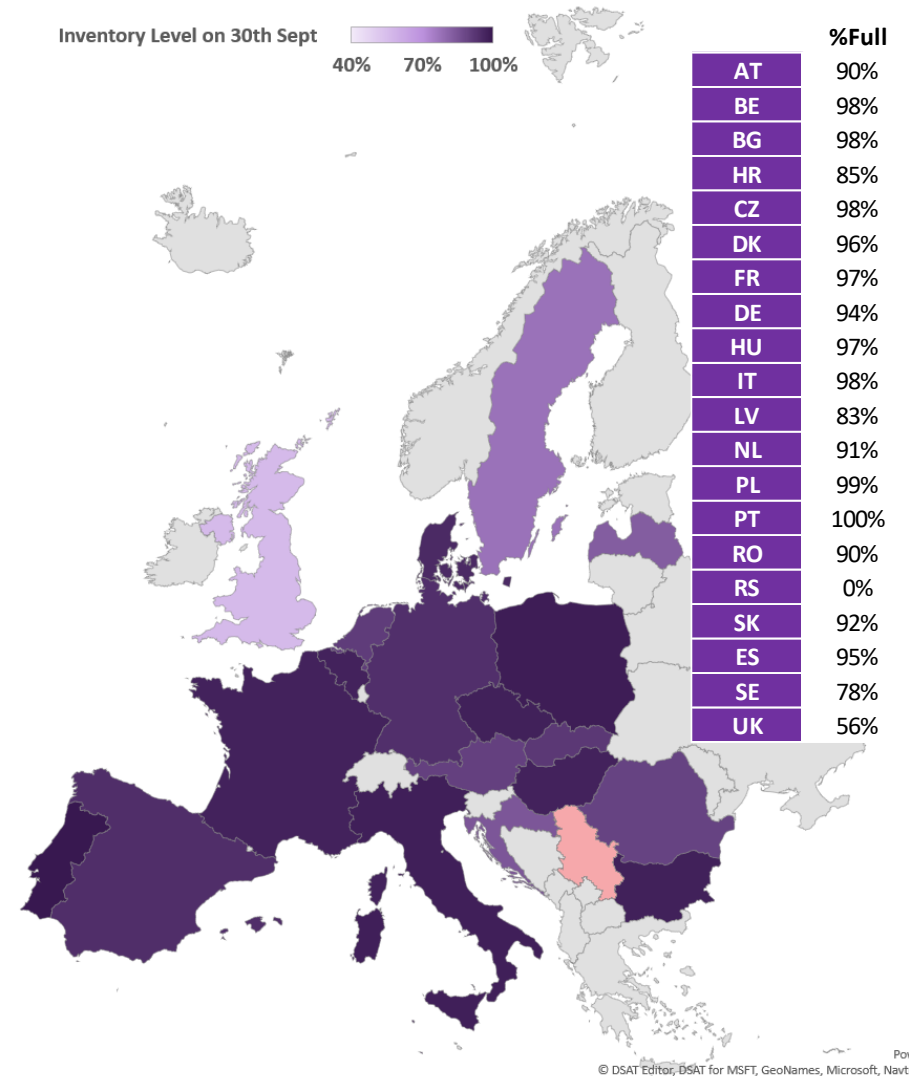
Assessment of the European gas network for the upcoming winter (October 2020 to March 2021). The analysis investigates the possible evolution of the supplies and the UGS inventory along the season as well as the ability of the gas infrastructure to meet the demand, especially to face high demand situations.

Assumptions

- Sensitivity analysis under different demand conditions: Reference Winter and Cold Winter (highest demand since 2009/10),
- Peak day (1-in-20 years) and 2-Week Cold Spell (1-in-20 years),
- Import Potentials based on 9 years of historical data,
- LNG terminals utilization has been significantly higher than observed over the last 9 years.

Supply situation

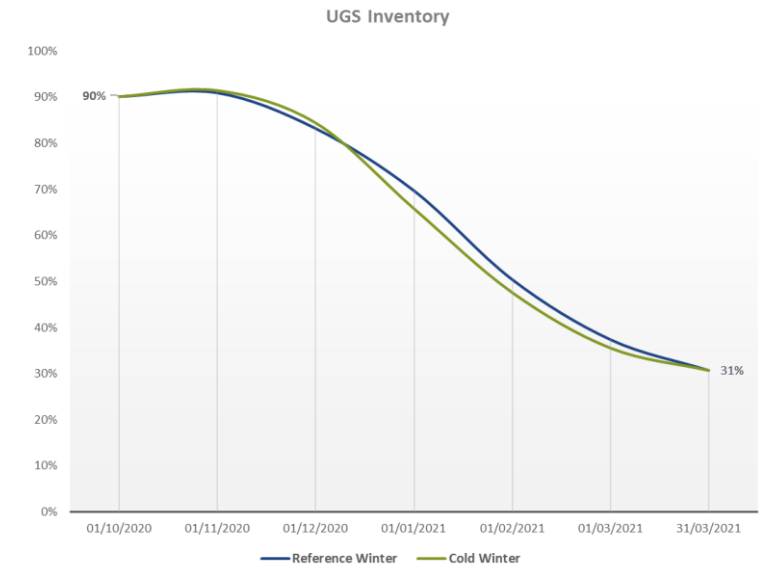
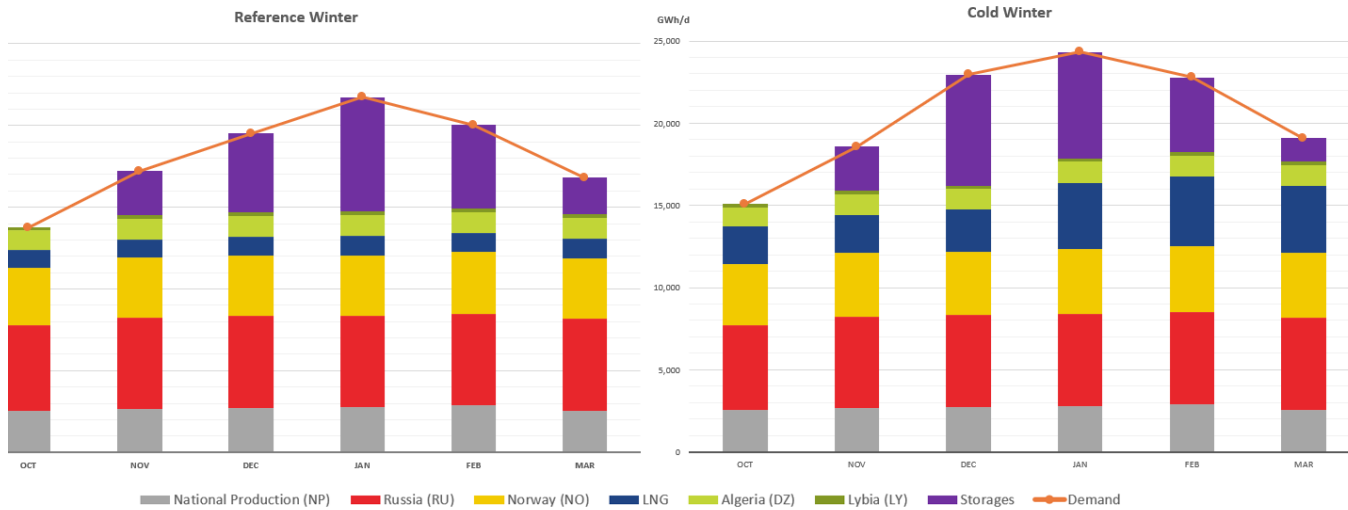
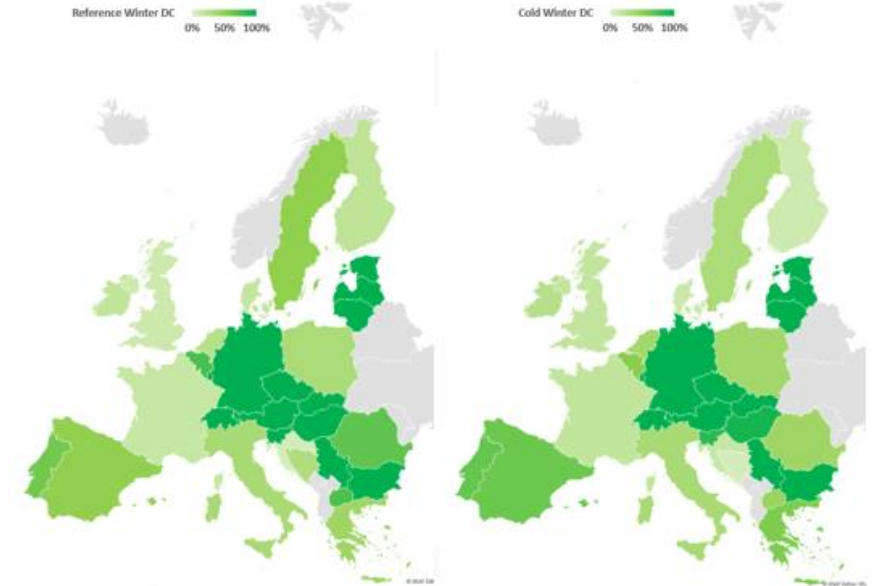
The storage inventory level on 1st October 2020 (1053TWh) is one of the the highest of the last 9 years, due to a high storage level (600TWh) at the beginning of the injection season and relatively high seasonal price spread during the injection season.



Reference and Cold winter – normal and high demand

- 30% UGS level can be achieved in case of an average and cold winter in all demand situations (whole season, Peak Day and 2-week cold spell)
- UGS can provide the necessary flexibility for the winter
- Remaining flexibility in imports (pipeline and LNG)
- Indigenous production keeps on decreasing
- LNG play an important role in terms of flexibility
- No risk of demand curtailment

Results for 1-day Peak Day during Reference Winter vs. Cold Winter



Route disruption cases

Ukrainian transit disruption

Significant improvement with the commissioning of TurkStream and other investments in the region

In case of a Peak Day or a 2-week cold spell, Romania is exposed up to 9% of demand curtailment due to infrastructure limitations with Hungary and Bulgaria

All exports to Ukraine can be maintained

Disruption of the imports to Baltic States and Finland

In case of a Peak Day, the Baltics States and Finland are exposed to a significant level of demand curtailment (42% to 81%)

Those countries are facing infrastructure limitations since their alternative LNG import capacities are fully used and they are not connected to other European countries

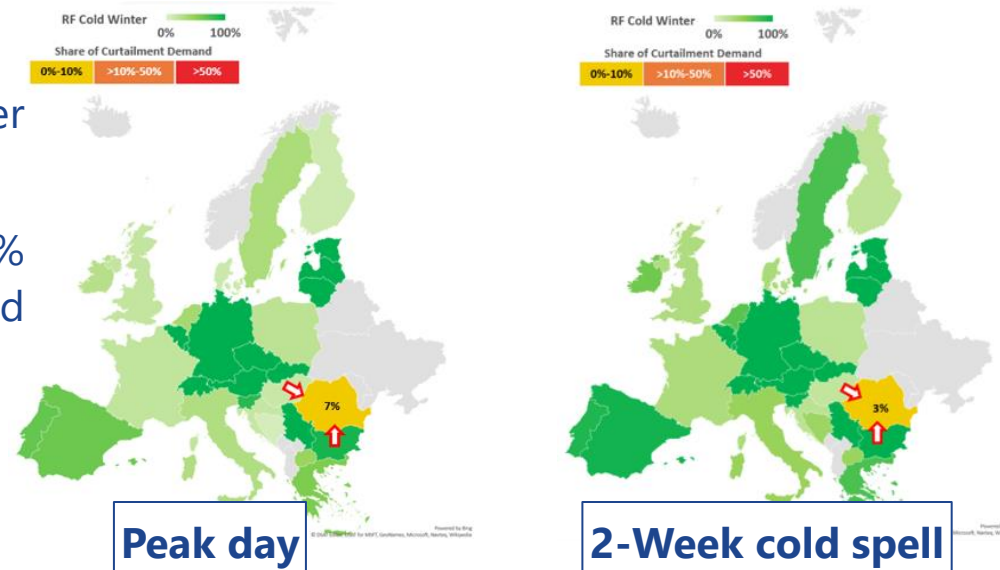
Belarus transit disruption

No risk of demand curtailment.

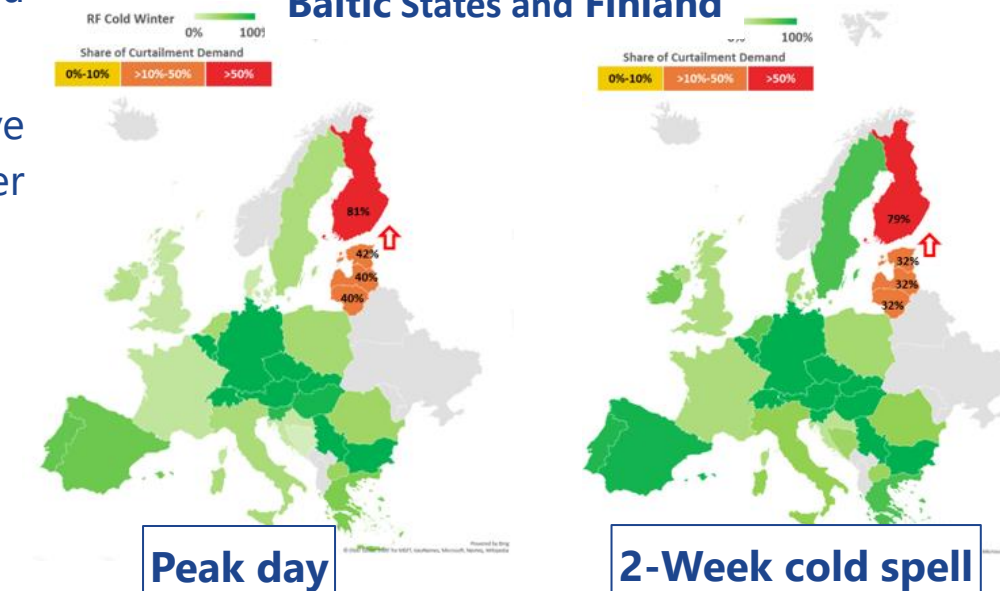
Algerian Pipes and LNG Disruption

No risk of demand curtailment.

Ukraine disruption



Baltic States and Finland



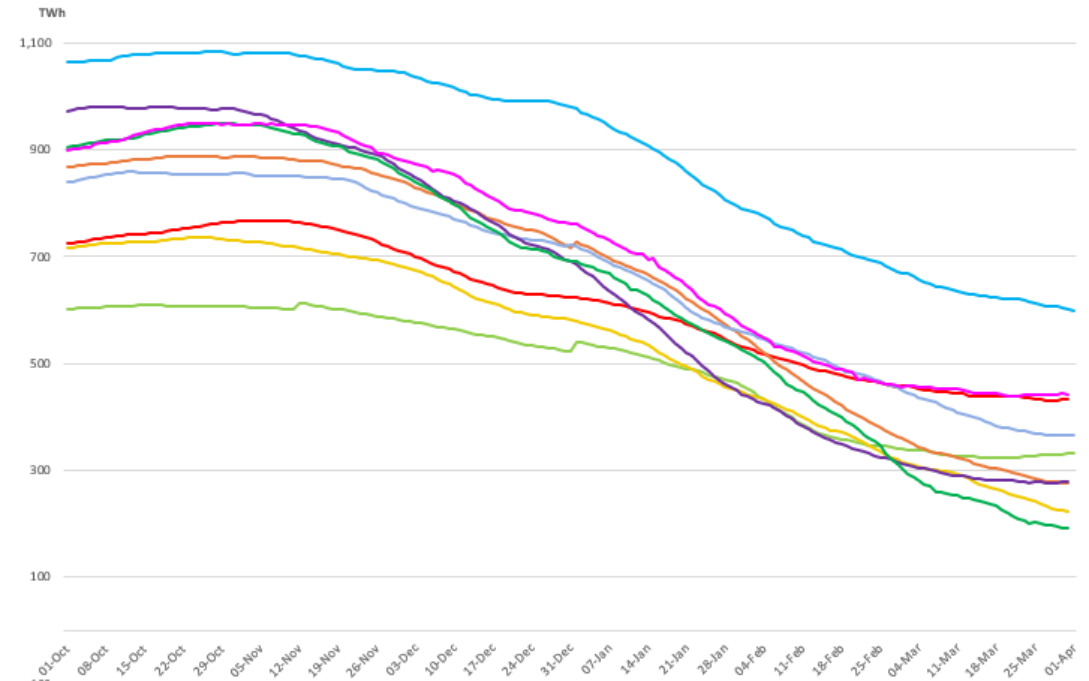
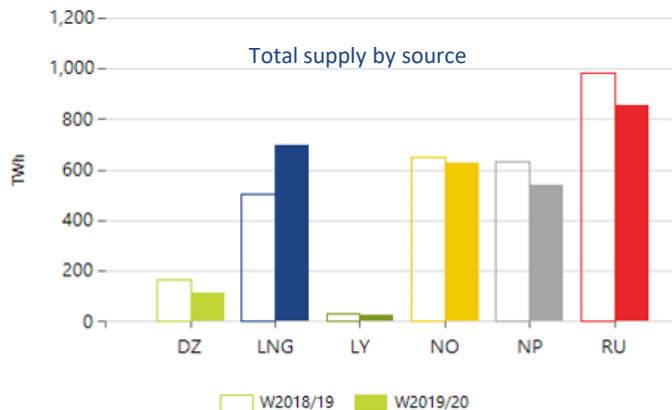
Winter Review 2019/2020



- During the winter 2019/2020 LNG supply increased from 507 TWh to 697 TWh, following the increasing trend of LNG regasification observed during the previous season.
- European gas prices reached the minimum values of the last 8 winters season mainly driven by a weak demand across Europe subdued by mild winter weather, oversupplied market, and some declines in consumption by industry during March due to the COVID-19.
- The storage level at end of the winter season reached 598 TWh, the highest seen in last eight winters, due to the highest UGS level in October in the last eight years and a relatively low UGS utilization.

	1-Oct (TWh)	31- Mar (TWh)	UGS Utilisation (TWh)
W11-12	601.7	331.3	270.5
W12-13	716.2	222.8	493.5
W13-14	724.1	433.4	290.7
W14-15	867.4	274.6	592.9
W15-16	838.6	364.1	474.5
W16-17	972.9	278.1	694.8
W17-18	903.8	191.1	712.7
W18-19	898.8	441.4	457.4
W19-20	1063.2	598.4	464.8

UGS Utilisation (TWh) Winter 2011/2012 – 2019/2020. (Source: AGSI)



Evolution of UGS stock level. Winters 2011/2012 – 2019/2020 (Source: AGSI)

Conclusions

- **European gas network is resilient to high demand situations and supply route disruptions** in most parts of Europe. The gas system offers sufficient flexibility across the season and can secure at least 30% stock level of the gas storages at the end of upcoming Winter.
- European indigenous production keeps on following a decreasing trend.
- **LNG plays an important role in supply flexibility**; LNG terminals utilization has been the highest in the last 9 years.
- European gas system can supply Energy Community Contracting Parties and other EU neighboring countries with significant volumes of gas.
- **Infrastructure development in South-Eastern Europe has significantly mitigated the risk of demand curtailment in the region.** Exposure to demand curtailment is significantly reduced and is limited to Romania in case of Ukraine supply route disruption under high demand situations.
- Storages across Europe significantly contribute to the system flexibility and efficiently participates to the cooperation between Member States.



Thank you for your attention

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