



Workshop Gas Prices

GVC_Multiple_Client_Workshop_Virtual

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Introduction

“There are two tragedies in life: not getting what you want and getting everything you want. The latter is much worse.”

(Oscar Wilde)

„The best that could ever happen to gas is that it became a fungible global commodity like crude.“

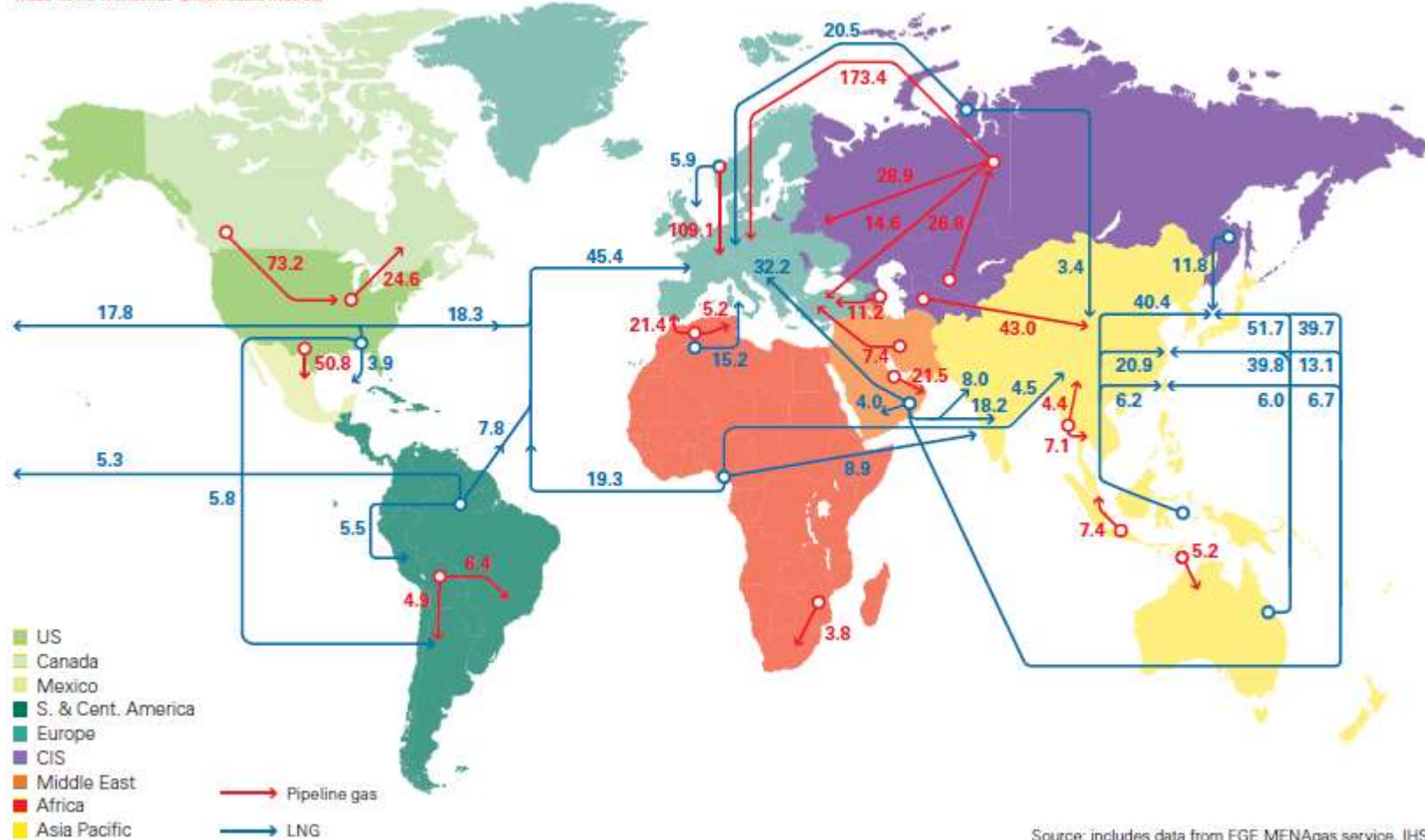
(Wolfgang Peters, Washington 2018)

Now we’ve got it and everybody is upset.

We do have a global gas market – but the regions have different features

Major trade movements 2019

Trade flows worldwide (billion cubic metres)



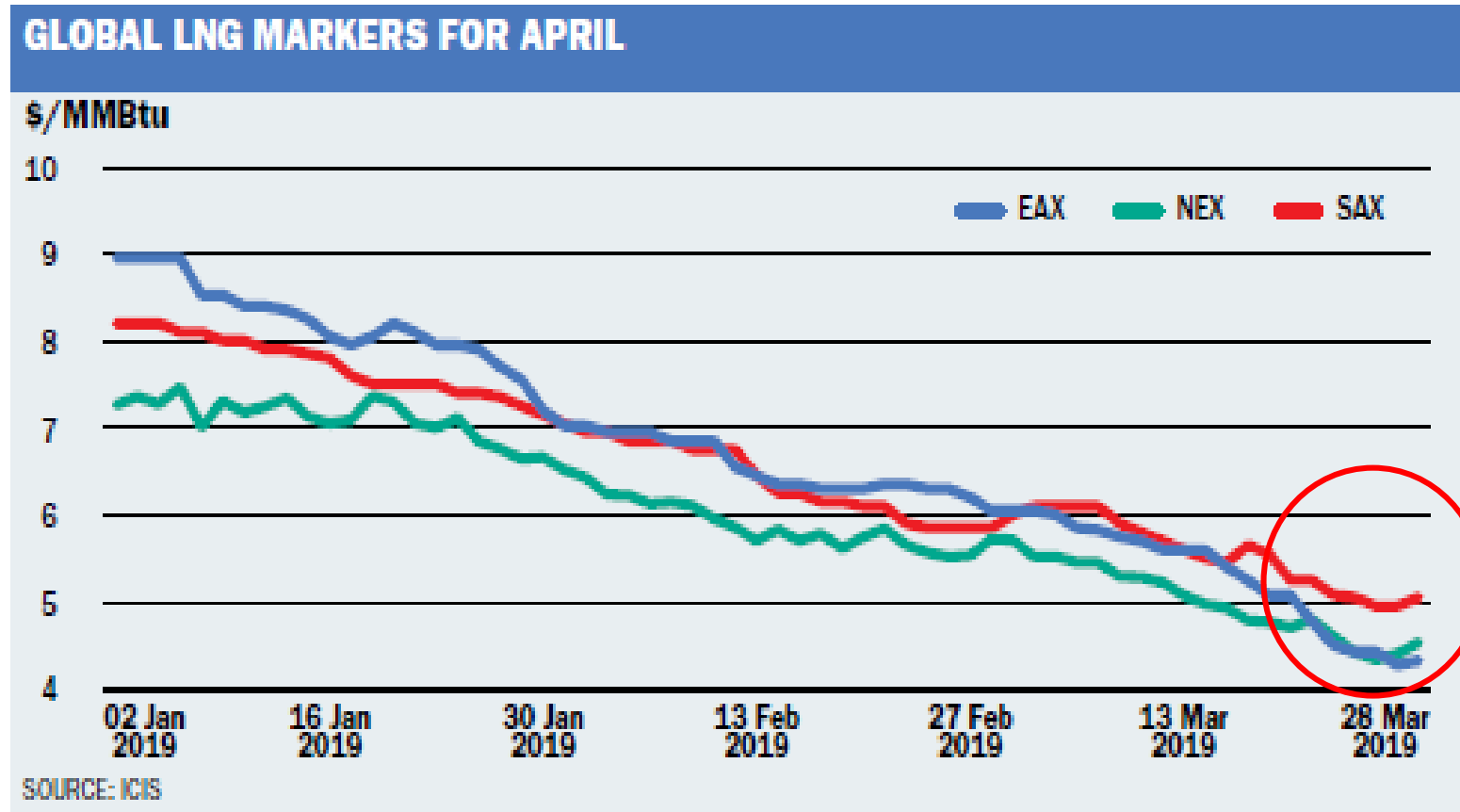
Source: includes data from FGE MENAgas service, IHS.

Source: BP Statistical Review of World Energy 2020

We do have a global gas market – but the regions have different features

- ▶ **Europe:**
 - Indigenous production (declining)
 - Divers pipeline supplies, interconnectivity, traded market
 - vast storages
 - LNG terminals
- ▶ **Asia:**
 - No indigenous production (except China)
 - No pipeline supplies (except China, but poor interconnectivity, no traded market)
 - Limited storages (except China, but insufficient)
 - Heavy reliance on LNG
- ▶ **Latin America:**
 - Scarce indigenous production, scarce, if any, pipeline supplies
 - No storages
 - Heavy reliance on LN
- ▶ **This makes Europe effectively the swing or balancing market for global gas – all other countries/regions mostly (LNG-) demand driven**

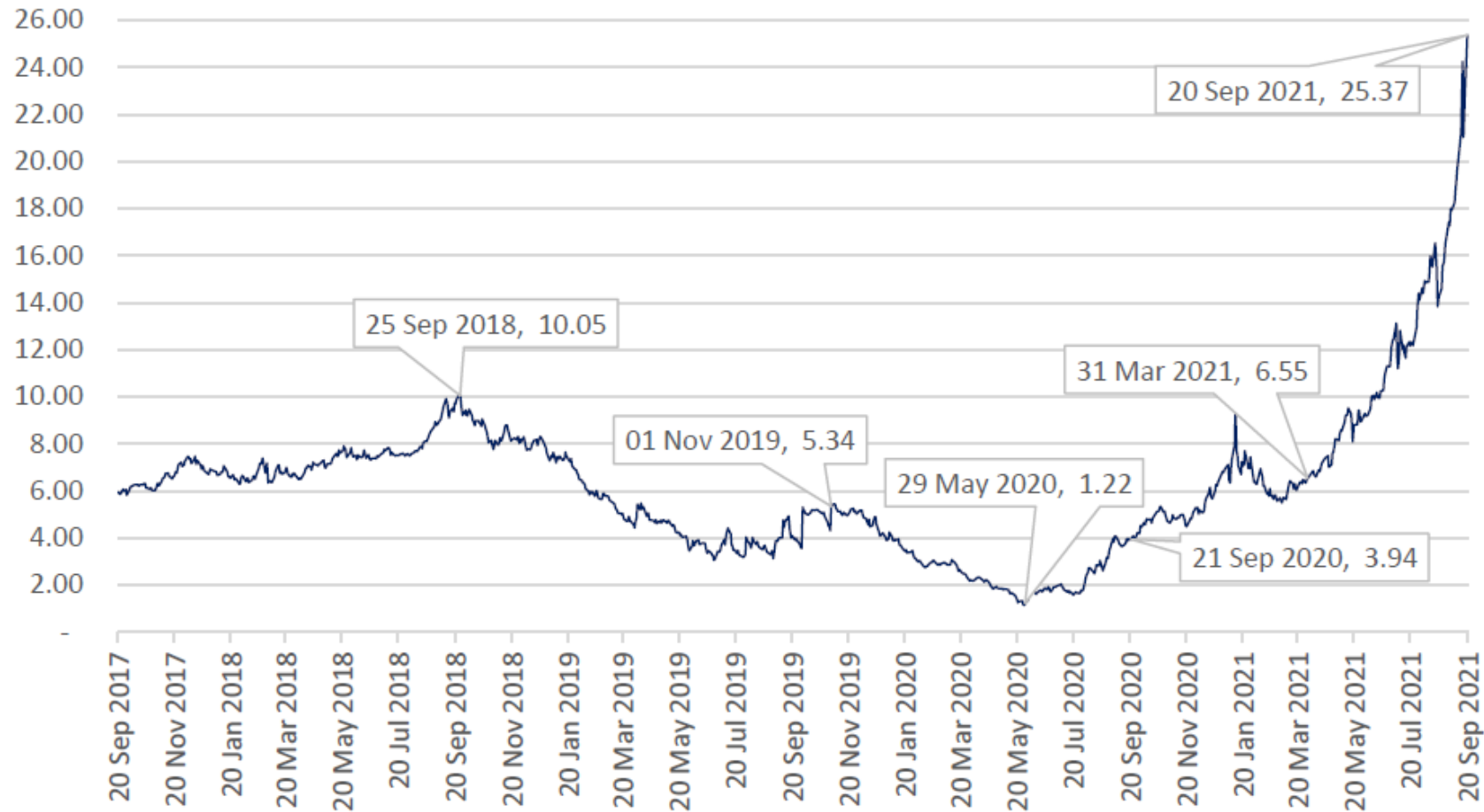
A look back winter 2018/2019: Asian premium collapsed EAX (East-Asia) and NEX (Northwest-Europe) converged In consequence, global LNG flooded European market



Source : ICIS Heren, GLM 15.13 of 28 March 2019

What the hell happened in 2020/2021? Is it Putin? Is it Miller? No, it is the global gas market!

Figure 1: TTF Front-Month gas prices since September 2017 (USD per MMBtu)



Source: Data from Argus Media

Source: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2021/09/Why-Are-Gas-Prices-So-High.pdf>

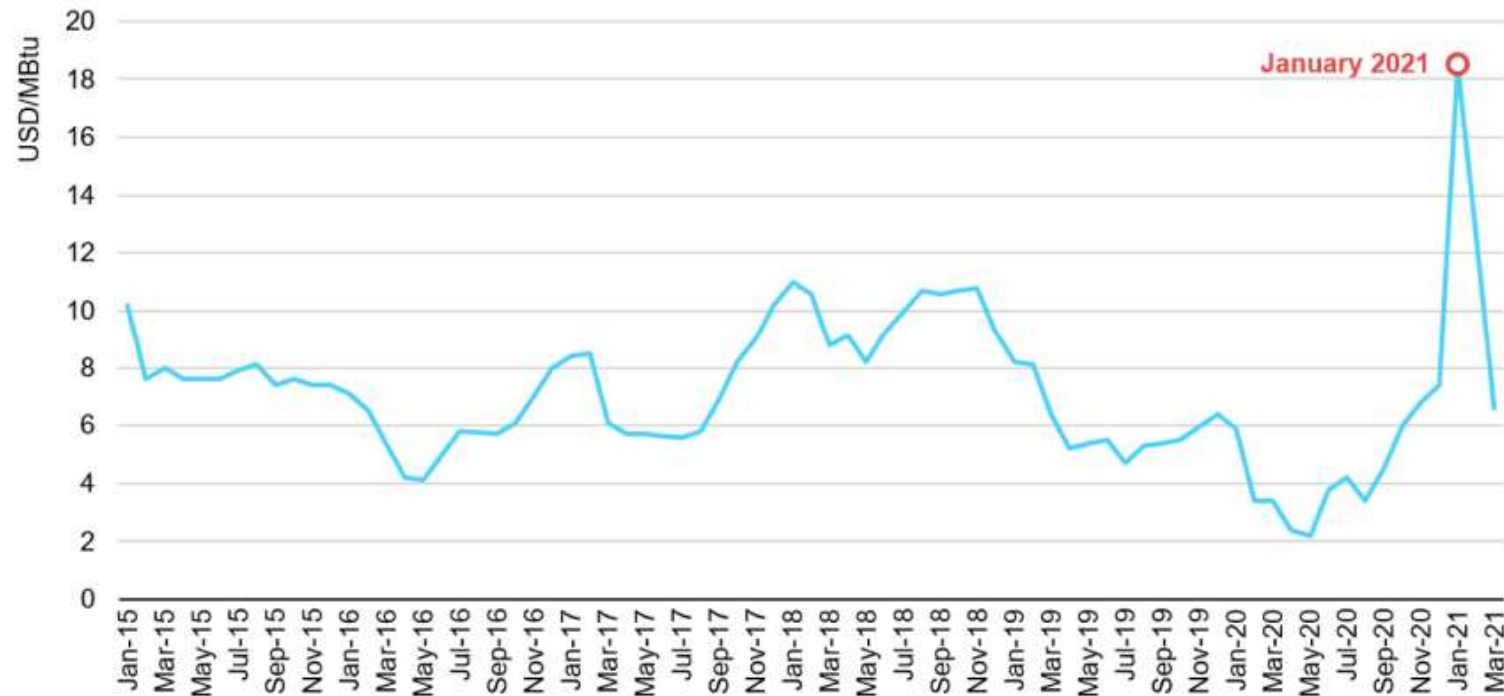
2020/2021 winter crisis Northeast Asia: record high LNG prices Japan: local electricity tightness & LNG bottlenecks push prices

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GGSR 2021 – Review of recent events

Japanese buyers pay record high prices for spot LNG in January 2021

Average import price of spot LNG in Japan, 2015-2021



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Source: METI (2021), [Spot LNG Price Statistics](#).

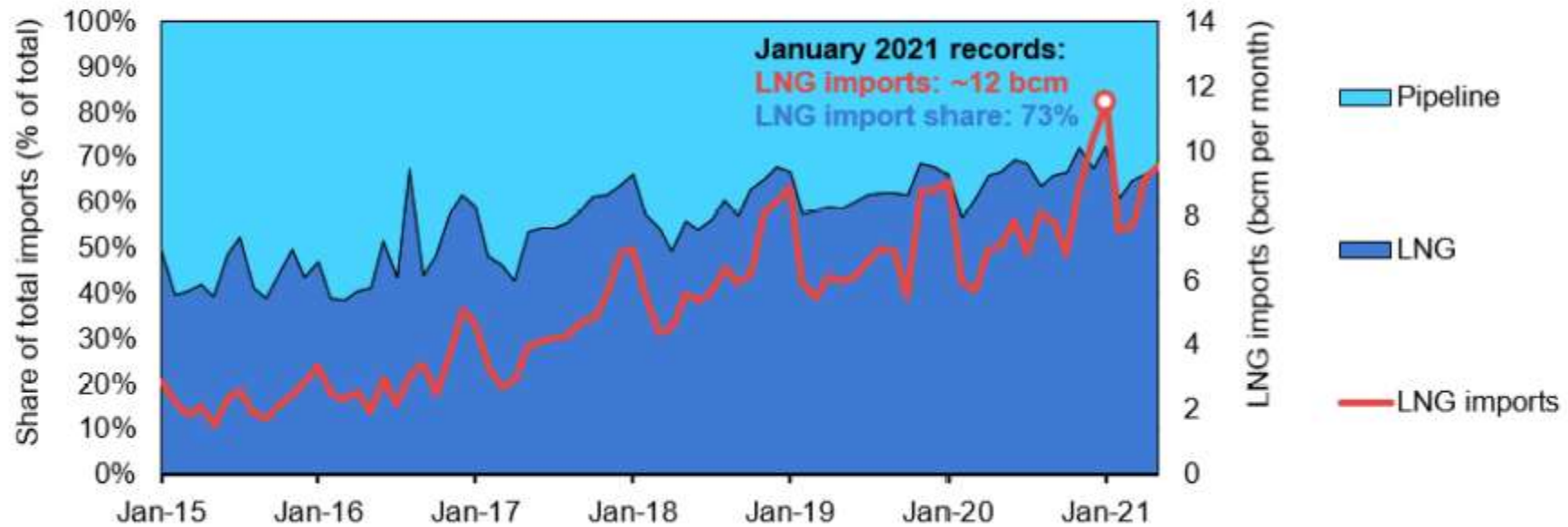
Source: IEA Global Gas Security Review 2021

2020/2021 winter crisis Northeast Asia: record high LNG prices

China: record high LNG imports alleviate supply shortages amid cold spell

Chinese LNG imports broke new monthly records in January 2021

Share of LNG in total gas imports and LNG import volume in China, 2015-2021



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Sources: IEA analysis based on China Customs (2021), [Statistics](#); National Bureau of Statistics (2021), [Monthly Data](#).

Source: IEA Global Gas Security Review 2021

Droughts:

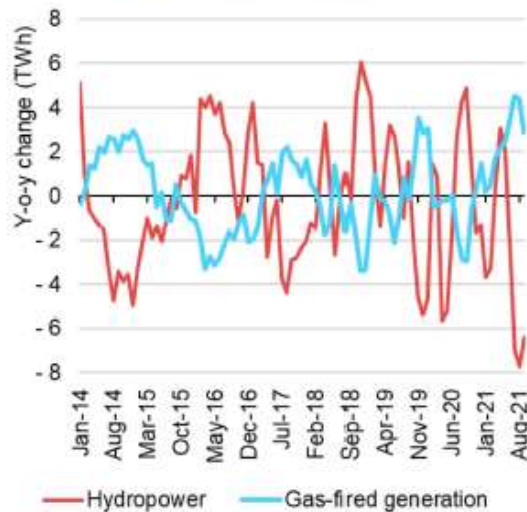
e.g. Brazil Q3 2021: hydro power down, gas fired power generation up => LNG

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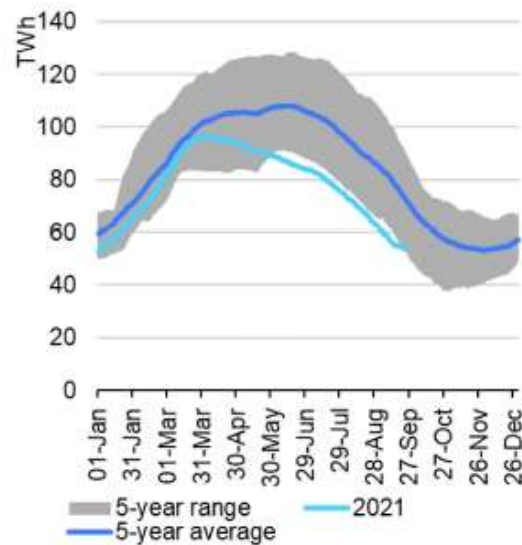
GGSR 2021 – Review of recent events

...with flexible US LNG imports providing most of the incremental gas supply

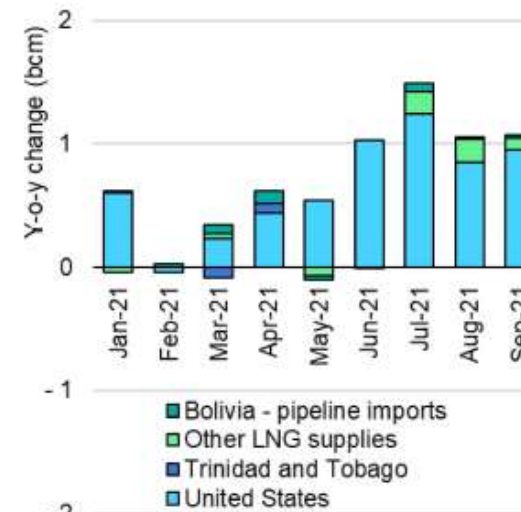
Change in hydro and gas-fired power generation (2014-2021)



Hydro reservoir levels in Brazil (2015-2021)



Brazil's LNG and pipeline imports (2021 vs 2020)



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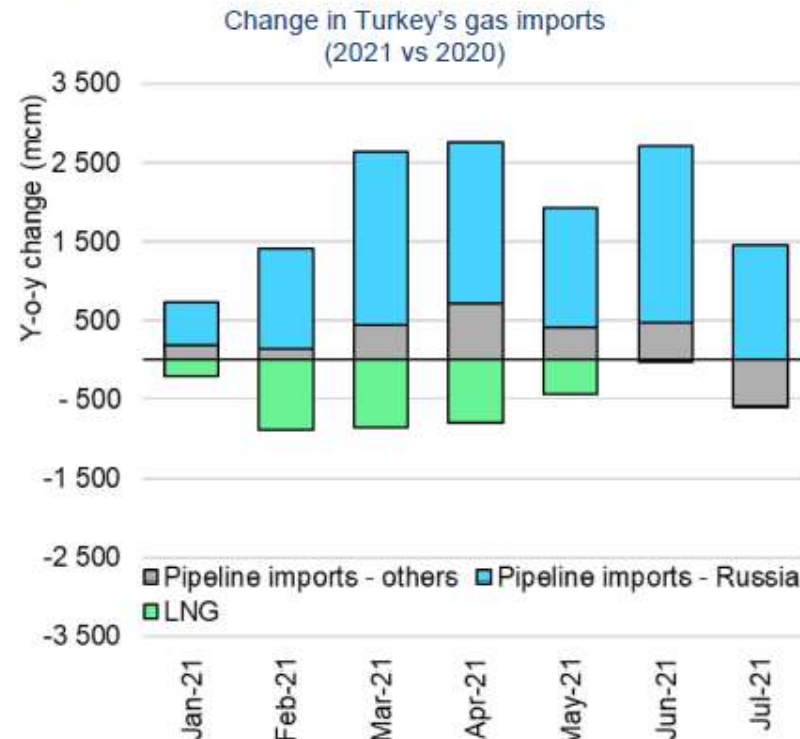
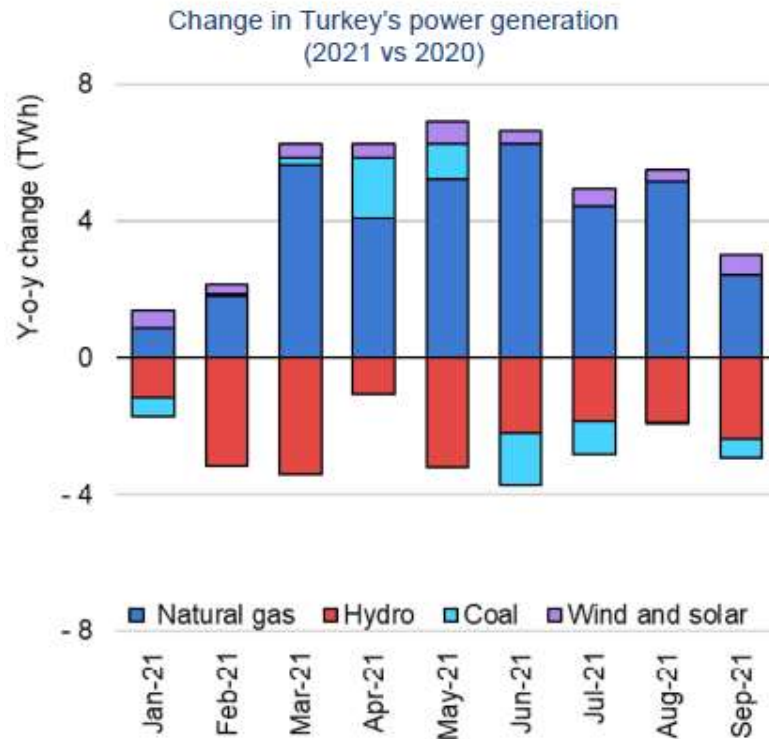
Sources: IEA analysis based on ANP (2021), [Painéis Dinâmicos da ANP](#); ICIS (2021), [ICIS LNG Edge](#); ONS (2021), [Dados Históricos da Operação](#).

Source: IEA Global Gas Security Review 2021

Droughts:

Turkey: hydro power down, gas fired power generation up => Russian pipeline gas

Flexible pipeline supplies ramped up amid the surge in Turkey's gas-fired power generation



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Sources: IEA analysis based on EPIAS (2021), [Transparency Platform](#); Eurostat (2021), [Imports of Natural Gas by Partner Country – Monthly Data](#).

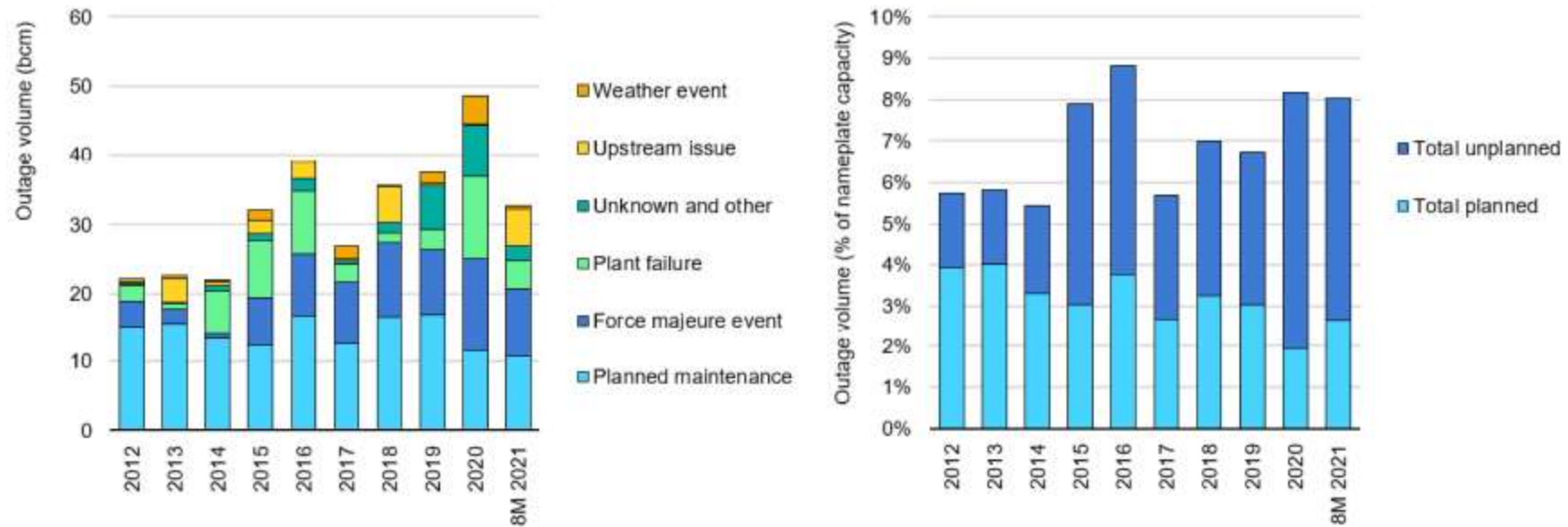
Source: IEA Global Gas Security Review 2021

LNG supply side: record high 'unplanned' capacity outages 2020 & ongoing

Soaring demand combined with supply tightness => high prices

LNG capacity outages hit an all-time high in 2020 and have stayed elevated so far in 2021

Planned and unplanned LNG capacity outages (2012-2021)



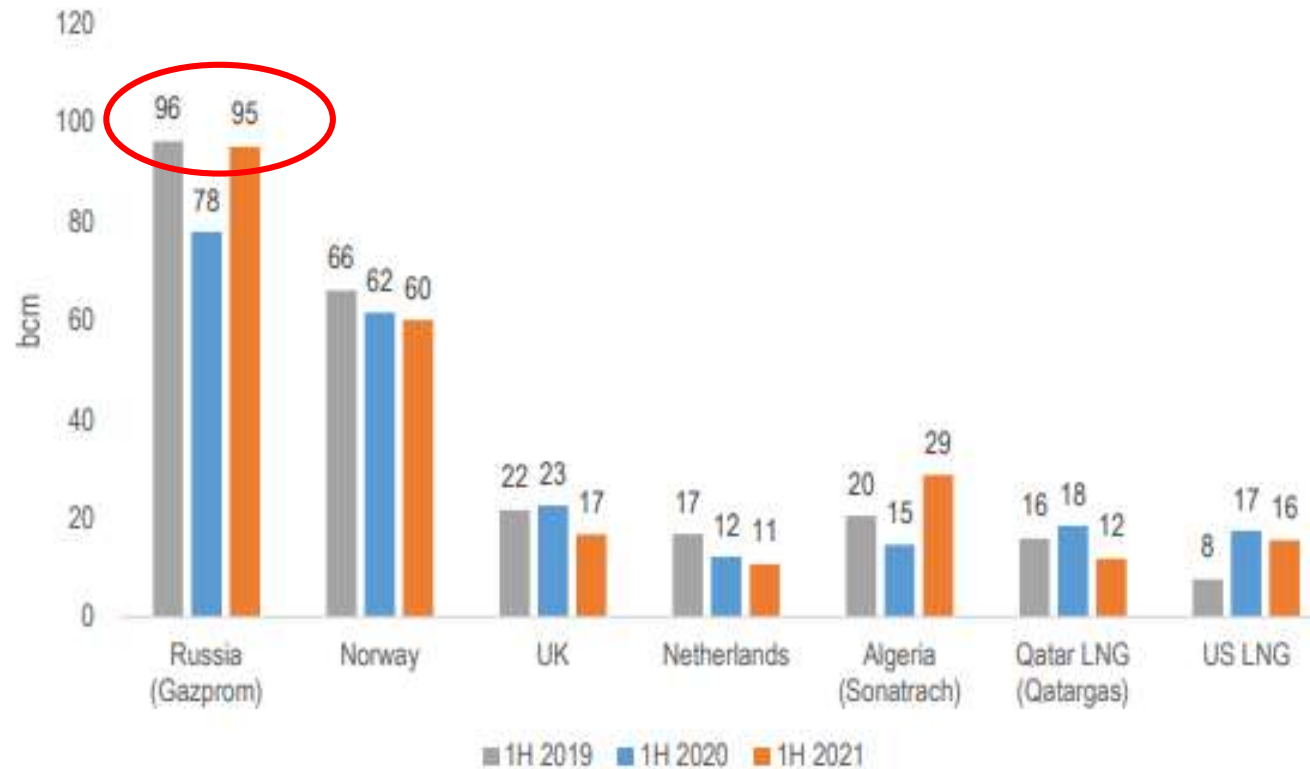
Source: IEA analysis based on ICIS (2021), [ICIS LNG Edge](#).

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Source: IEA Global Gas Security Review 2021

Europe: demand rose by 5% yoy from 1 October 2020 to 30 April 2021
LNG imports fell by almost 30% (~20 bcm)
Numbers do not support accusations against Russia (while glee politically unwise)

Figure 8: Main gas suppliers to Europe in 1H of 2019, 2020, and 2021



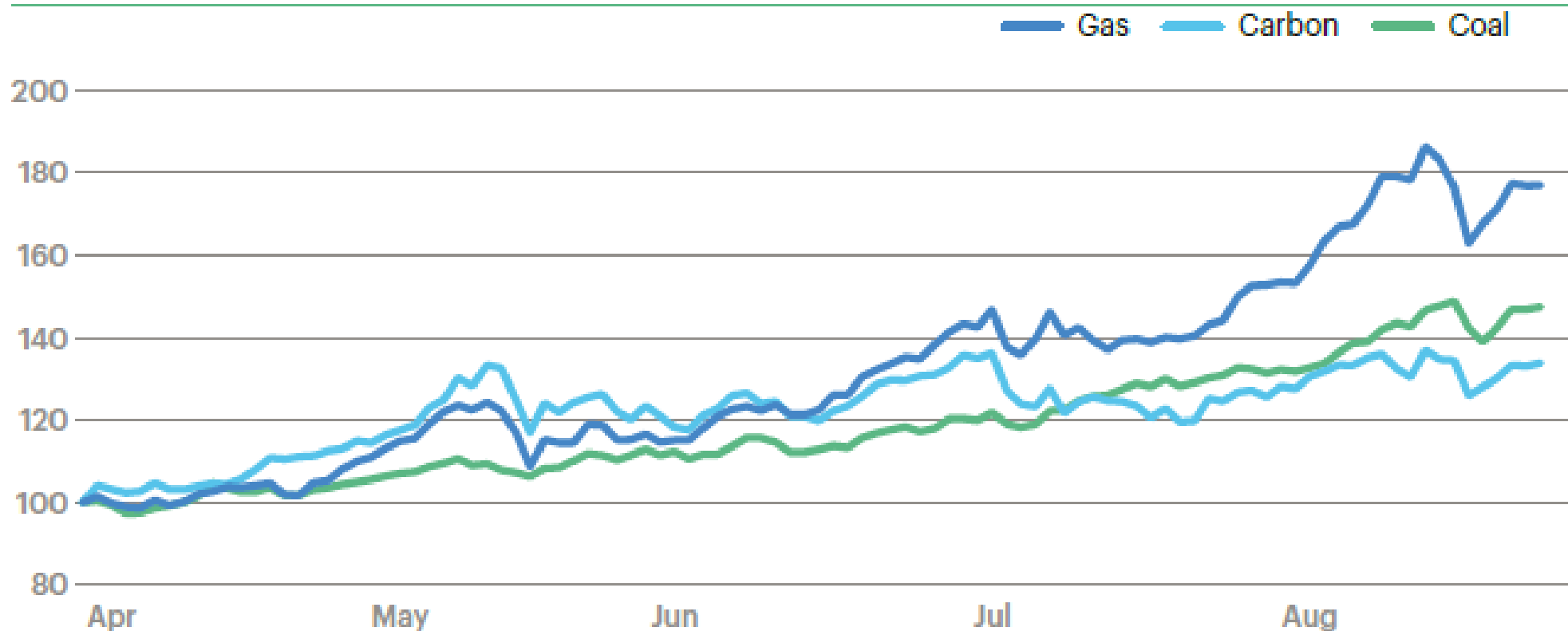
Source: OIES research, data from the market intelligence sections of various Gazprom reports

Source: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2021/09/Russian-gas-amid-market-tightness.pdf>

Germany: low wind in H1 2021

High carbon prices delayed gas-to-coal switching ... exacerbating gas demand & price spikes

Bullish energy complex (1 Apr = 100)



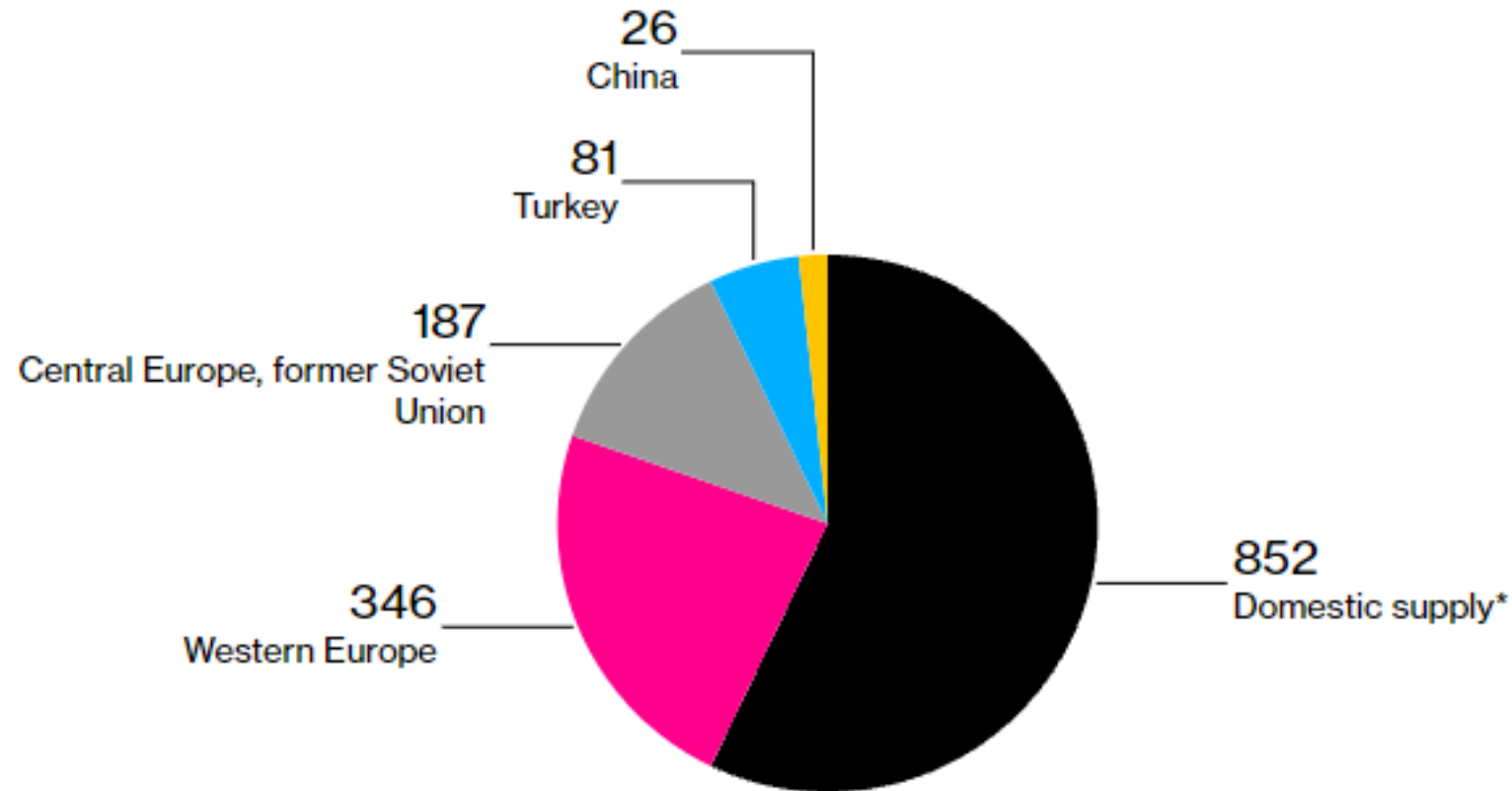
Source: ICIS, ICE

Note: TTF and Rotterdam front years, EUA Dec '21

Source: ICIS Gas in Focus 31.August 2021

Gazprom: besides various export obligations huge domestic market

Gazprom's average daily supplies in the first half of 2021 (mcm/d)

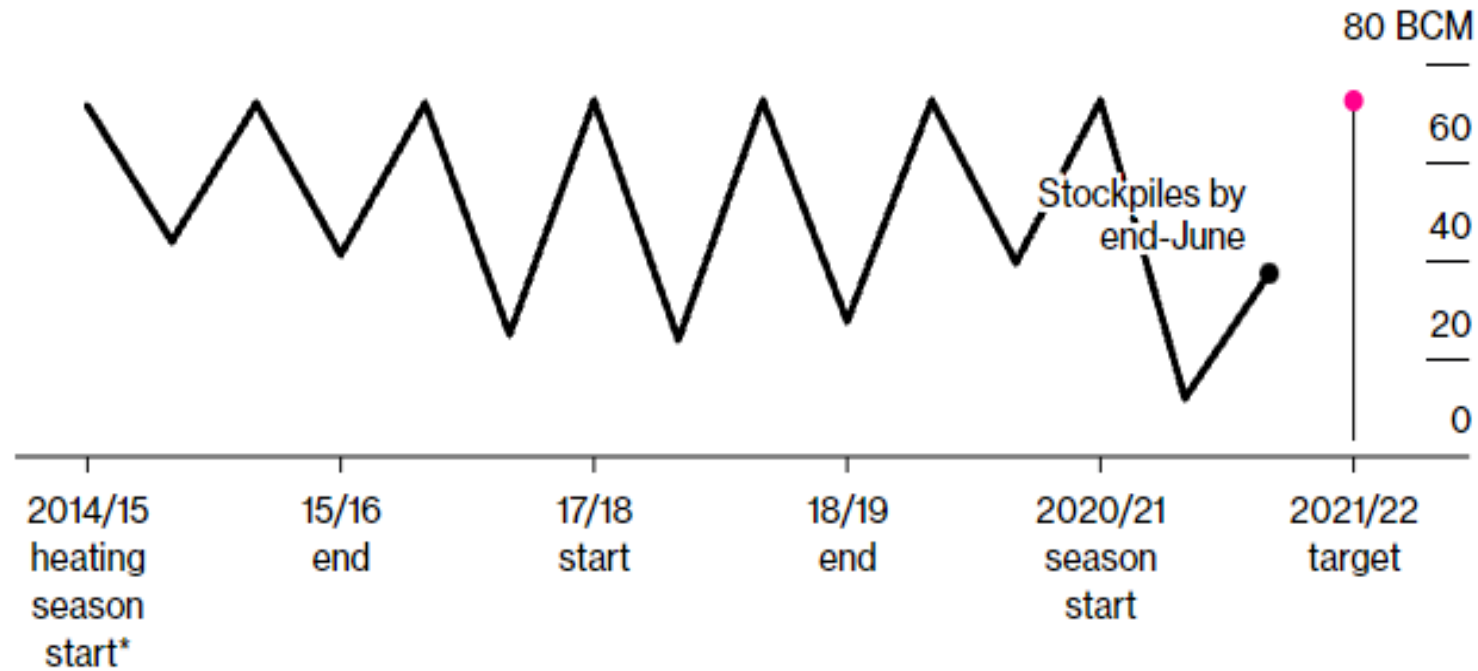


Source: <https://www.bloomberg.com/news/articles/2021-09-03/russia-has-a-gas-problem-nearly-the-size-of-exports-to-europe>

Gazprom: aims to fill Russian storages to 73 bcm by 1 November 2021

To achieve this 280 mmcm/d is required = ~80 % of daily exports to Western Europe

Gas stockpiles in Gazprom's storage sites in Russia



Sources: Gazprom data, Bloomberg calculations

*Heating season normally starts in October; ends in April, depending on region

Source: <https://www.bloomberg.com/news/articles/2021-09-03/russia-has-a-gas-problem-nearly-the-size-of-exports-to-europe>

Gazprom's European storage levels are exceptionally low

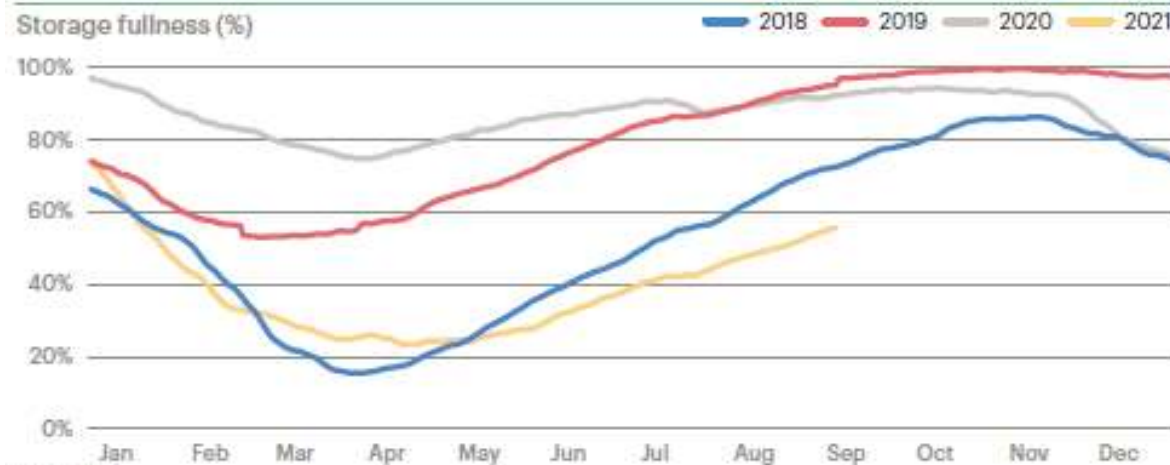
Drawdown occurred to honor European buyers' nominations after a fire in Siberia

Gazprom's sites all remain significantly emptier than last year



Source: ICIS

Despite recent injections, German storage fullness remains significantly lower than recent years



Source: ICIS

Source: ICIS Gas in Focus 15.September 2021

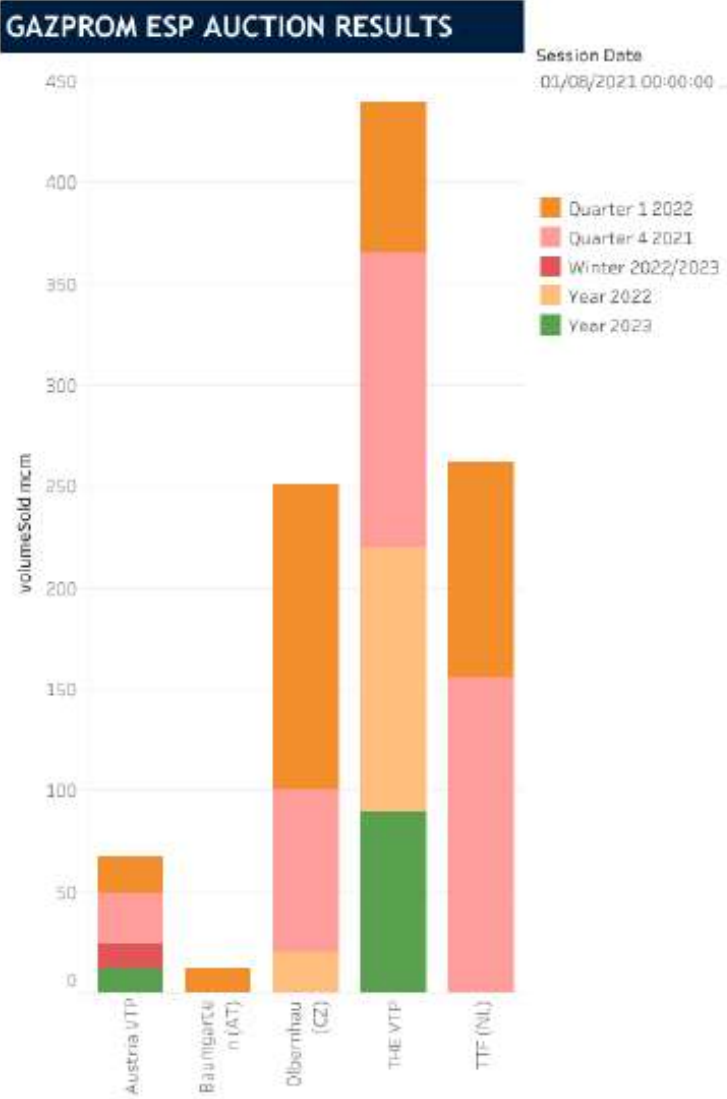
Gazprom: LTCs feature buyers' nominations, all such nominations were honored
 Contrary chancellor Merkel, such buyers' nominations likely at max. DCQ
 Russian (hub-indexed) LTCs are not 'spot' (see e.g. November divergence)

Key Oil And Gas Prices 29 September 2021		
Contract	€/MWh	\$/MMBtu
ICIS Heren NBP Oct '21	84.339	28.730
ICIS Heren TTF Oct '21	84.450	28.768
ICIS Heren RU-DE Contract Oct '21	24.160	8.340
ICIS Heren NO-DE Contract Oct '21	34.723	11.986
ICIS Heren NL-DE Contract Oct '21	32.510	11.222
ICIS Heren AL-SP LNG Contract Oct '21	21.305	7.355
NYMEX Henry Hub Nov '21	17.257	5.880

Source: ICIS Gas in Focus 29.September 2021

Gazprom: Contrary previous practice, ESP short-term products constrained

Reason is the aspiration to fill domestic Russian storages



Source: Gazprom Export

Gazprom: Contrary previous practice, ESP short-term products constrained Reason is the aspiration to fill domestic Russian storages

Session Date	Delivery Point	Volume, MWh	Delivery Period	Delivery Profile
01.10.2021	THE VTP	525 600	Year 2023	Flat
	VTP Austria	525 600	Year 2023	Flat
04.10.2021	THE VTP	262 800	Year 2023	Flat
	VTP Austria	262 800	Year 2023	Flat
05.10.2021	VTP Austria	131 400	Year 2023	Flat

Session Date	Delivery Point	Volume, MWh	Delivery Period	Delivery Profile
01.09.2021	THE VTP	262 800	Year 2023	Flat
02.09.2021	THE VTP	262 800	Year 2023	Flat
	VTP Austria	110 400	Quarter 3 2022	Flat
03.09.2021	THE VTP	262 800	Year 2023	Flat
06.09.2021	THE VTP	306 600	Year 2023	Flat
	VTP Austria	132 480	Quarter 3 2022	Flat
07.09.2021	THE VTP	131 040	Winter 2022/2023	Flat
	THE VTP	525 600	Year 2023	Flat
08.09.2021	THE VTP	262 800	Year 2023	Flat
09.09.2021	THE VTP	525 600	Year 2023	Flat
	VTP Austria	788 400	Year 2023	Flat
10.09.2021	VTP Austria	262 800	Year 2023	Flat
13.09.2021	VTP Austria	87 600	Year 2023	Flat
14.09.2021	VTP Austria	525 600	Year 2023	Flat
15.09.2021	THE VTP	525 600	Year 2023	Flat
	VTP Austria	525 600	Year 2023	Flat

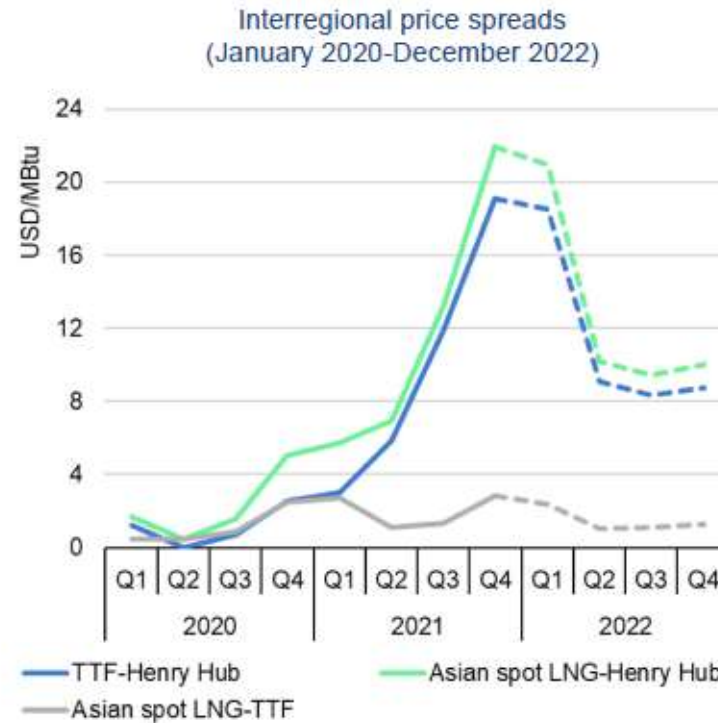
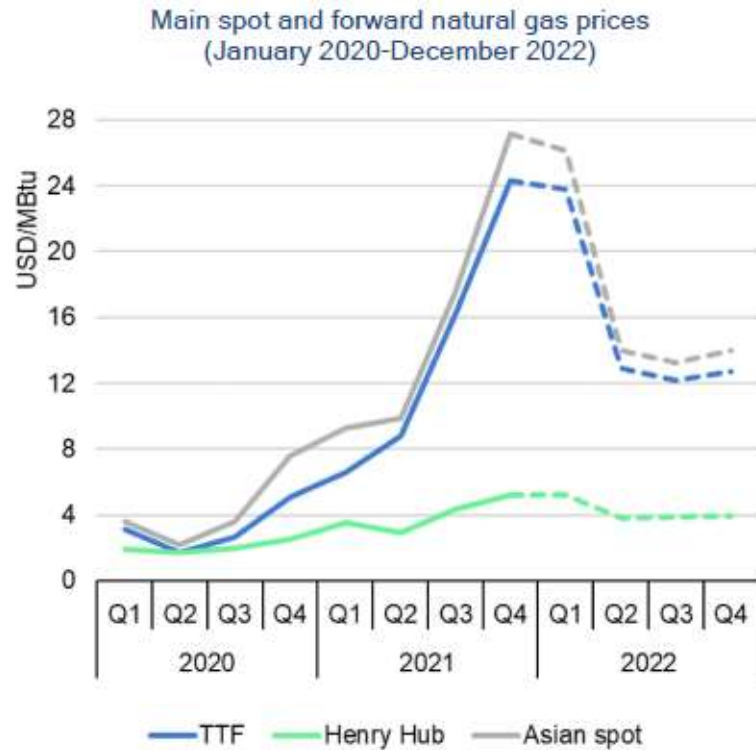
Source: <http://www.gazpromexport.ru/en/esp/sales/>

Outlook: IEA expects prices to moderate in H2 2022

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Gas market update and short-term forecast

Improving supply availability is expected to moderate H2 2022 prices



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Sources: IEA analysis based on CME (2021), [Henry Hub Natural Gas Futures Quotes](#); [Dutch TTF Natural Gas Month Futures Settlements](#); CME Group (2021), [LNG Japan/Korea Marker \(Platts\) Futures Settlements](#); EIA (2021), [Henry Hub Natural Gas Spot Price](#); ICIS (2021), [ICIS LNG Edge](#); Powermex (2021), [Spot Market Data](#).

Source: IEA Global Gas Security Review 2021



Looking forward to our discussion