entsog
european network of transmission system operators for gas

Gas Infrastructure Europe

SYSTEM DEVELOPMENT MAP

2021 / 2022

entsog
Avenue de Cortenbergh 100
1000 Brussels - BELGIUM
T +32 2 894 51 00
Twitter @ENTSOG
info@entsog.eu
www.entsog.eu

GIE
Avenue de Cortenbergh 100
1000 Brussels - BELGIUM
T +32 2 209 05 00
Twitter @GIEBrussels
gie@gie.eu
www.gie.eu

The System Development Map 2021 / 2022 presents existing gas infrastructure and capacity information for 2022. Data presented in the capacity matrix were obtained from the ENTSOG members and approved by gas TSOs on 20 December 2022. Cross border capacities within countries sharing the same balancing zone (Denmark-Sweden and Estonia-Latvia) are not considered.

The 2021 / 2022 historical data on gas demand and supply are presented aggregated in the form of charts (using data during summer 2021 and winter 2021/2022 to allow the analysis of gas storage usage) – these data are available in the ENTSOG Summer and Winter Review Reports.
Information regarding the gas storage fill rate was obtained from GIE AGSI platform.

The Country Profiles include demand data that represent actual country demand for the days / periods shown. Storages and LNG capacities were obtained from GIE AGSI / ALSI platforms according to the interconnection to the country's transmission system. Installed gas-fired power generation capacity was obtained from ENTSO-E Transparency Platform. The gas production data reflects the maximum deliverability achieved.

All data provided in the map are for information purposes, should be treated as indicative only, and should not be used for commercial purposes.

polaris graphik_technik Version : December 2022
WGS 84 / Pseudo-Mercator projection

KEYS

Countries

- 🟩 EU Countries
- ⬜ Other Countries

Transport by pipeline

- — under 24″
- — 24″ to 36″
- — 36″ and over
- - - - project
- - · - not operational

Gas Reserve areas

- gas field
- ▲ drilling platform

Gas storage facilities

- Acquifer
- △ Salt cavity - cavern
- ◇ Depleted (Gas) field on shore / offshore
- Other type
- Unknown
- Gas storage *projects*
- Etzel* multiple storage facilities operated by different SSOs

Map points

- ● Trading Points / Market Areas
- ○ Intra-country or intra balancing zone points
- ● Cross-border interconnection point within Europe or export point to non-EU country
- ● Cross-border interconnection point with third country (import)
- ● LNG Terminals' entry point intro transmission system
- ● LNG Export Terminal
- ○ Virtual Point
- ○ Third country cross-border interconnection point
- ○ Cross-Border Europe *Under construction or Planned*
- ○ Cross-Border third country import/export *Under construction or Planned*
- ○ LNG Import Terminal *Under construction or Planned*
- ○ LNG Export Terminal *Under construction or Planned*

Data keys

- NATIONAL PRODUCTION (NP)
- RUSSIA (RU)
- NORWAY (NO)
- ALGERIA (DZ)
- LIBYA (LY)
- CASPIAN REGION (CA)
- UGS (UGS)
- LNG (LNG)

Import & Transmission Capacity

31 December 2022 (GWh/d)

(Lesser Rule applied - Lowest value submitted by cross border TSOs)

Import Capacities

TO	CA	DZ	LNG	LY	NO	TR	RU	UK	Total
AT									0
BA									0
BE			477		488			652	1.617
BG							576		576
CH									0
CZ									0
DE			500		1.247		0		1.747
DK					322				322
EE							27		27
ES		780	1.910						2.690
FI			145				220		365
FR			1.106		570				1.676
GR	350		225			23			598
HR			85						85
HU							517		517
IE								387*	387
IT		1.149	498	493					2.139
LT			122				325**		447
LU									0
LV							105**		105
MA									0
MD									0
MK									0
MT			22						22
NL			744		965			168	1.876
PL			227				1.074		1.302
PT			200						200
RO							1.113		1.113
RS									0
RU									0
SE									0
SI									0
SK							1.914		1.914
SM									0
TR									0
UA							121		121
UK			1.616		1.499				3.116
Total	350	1.929	7.878	493	5.091	23	5.992	1.207	

FROM

Cross-Border Capacities

TO	AT	BE	BG	CH	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IT	LT	LV	MD	NL	PL	PT	RO	RS	SI	SK	UA	Total
AT						339									194										1.570		2.104
BA																							14				14
BE						435					270								1.387								2.092
BG												66										259	338				663
CH						347					223				443												1.013
CZ						2.145																			447		2.592
DE	334	416		182	1.232		4												1.223	0							3.392
DK						124														91							215
EE										90																	90
ES											165										80						245
FI								55																			55
FR		840		100		614			224																		1.778
GR			117																								117
HR														78										54			131
HU	153												52									73	246		129	517	1.170
IE																											0
IT	1.174			637								494												26			2.331
LT																	65			21							87
LU		49				24																					73
LV																90											90
MA									32																		32
MD																						55					55
MK			27																								27
MT																											0
NL		338				510																					848
PL					28	326	322									58									174		908
PT									144																		144
RO			183											77				22									282
RS			401											142													543
RU																114**											114
SE																											0
SI	113												8		28												149
SK	247				1.246									51						144							1.865
SM															4												4
TR			497																								497
UA														85											437		522
UK		803																	494								1.297
Total	2.021	2.447	1.226	919	2.506	4.864	326	55	400	90	658	560	59	433	670	262	149	22	3.104	256	80	387	584	79	2.771	694	

FROM

* Part of this technical capacity (89.3 GWh/day) is allocated to PTL for Northern Ireland.

** Part of these technical capacities is only available for transit to a third country.

EUROPEAN DEMAND

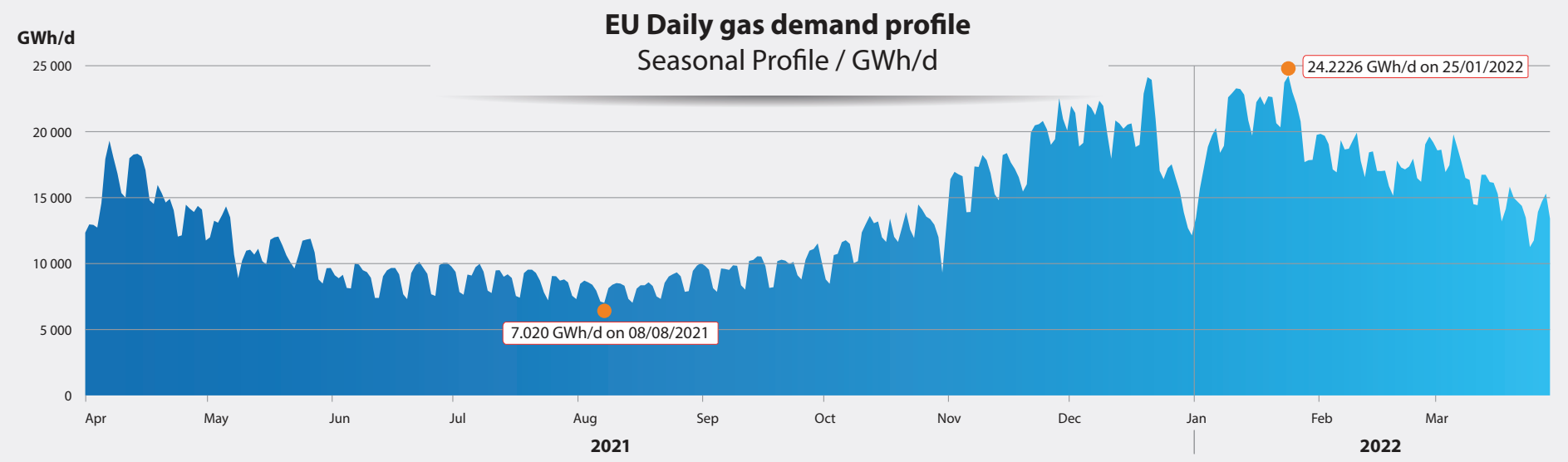
EU Total 2021 5.189.480 GWh

EU 1 Apr 2021 - 30 Sep 2021 (Summer) 1.893.530 GWh
EU Min. Day (08/08/2021) 7.020 GWh/d

EU 1 Oct 2021 - 31 Mar 2022 (Winter) 3.127.848 GWh
EU Max. Day (25/01/2022) 24.226 GWh/d

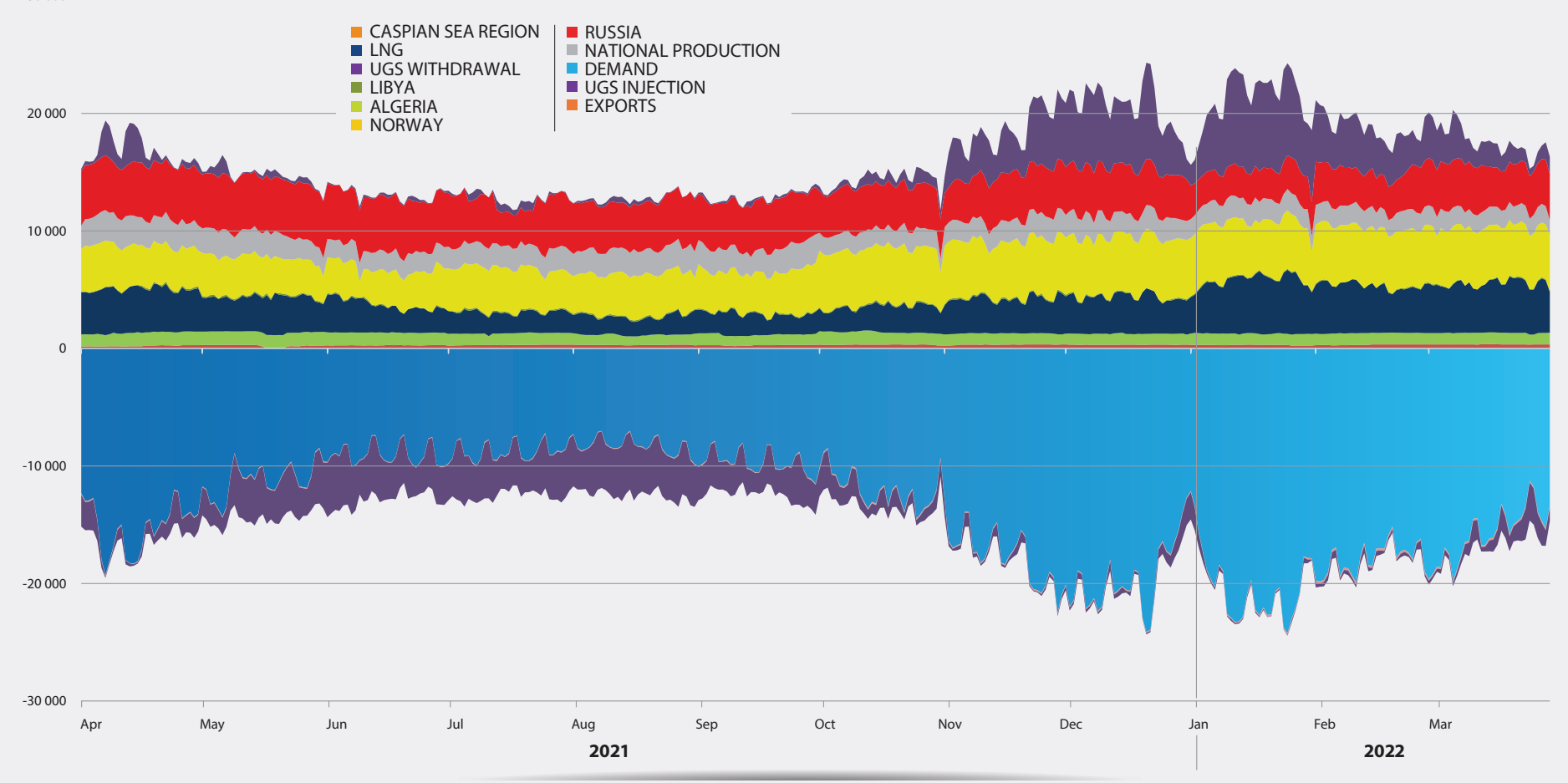
EU Daily gas demand profile

Seasonal Profile / GWh/d



DEMAND

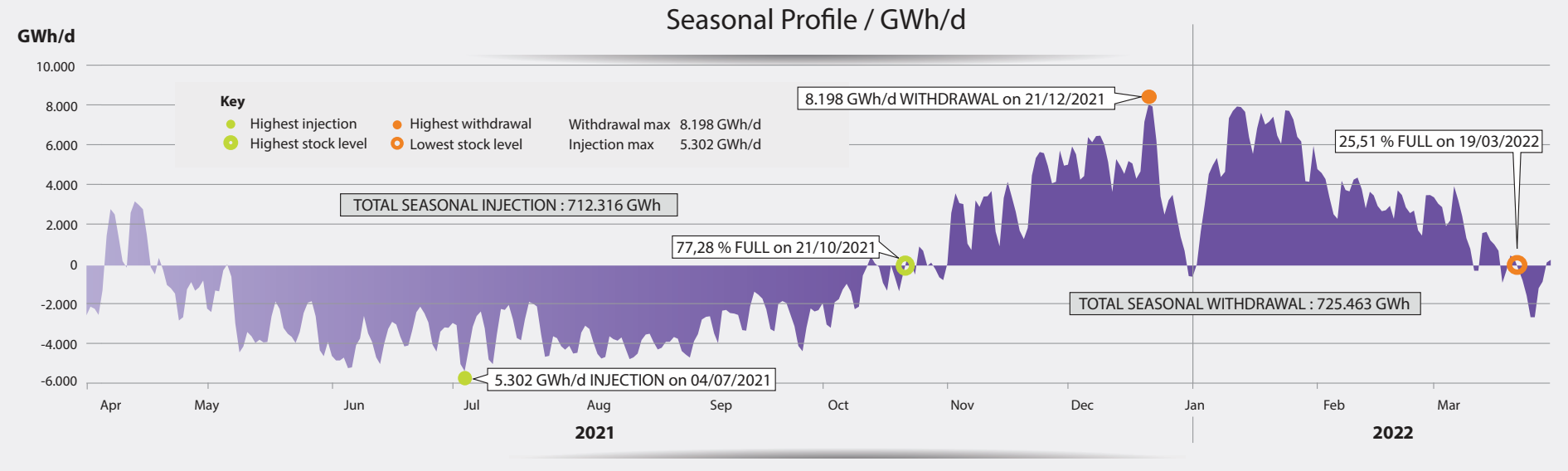
EUROPEAN SUPPLY & DEMAND



SUPPLY

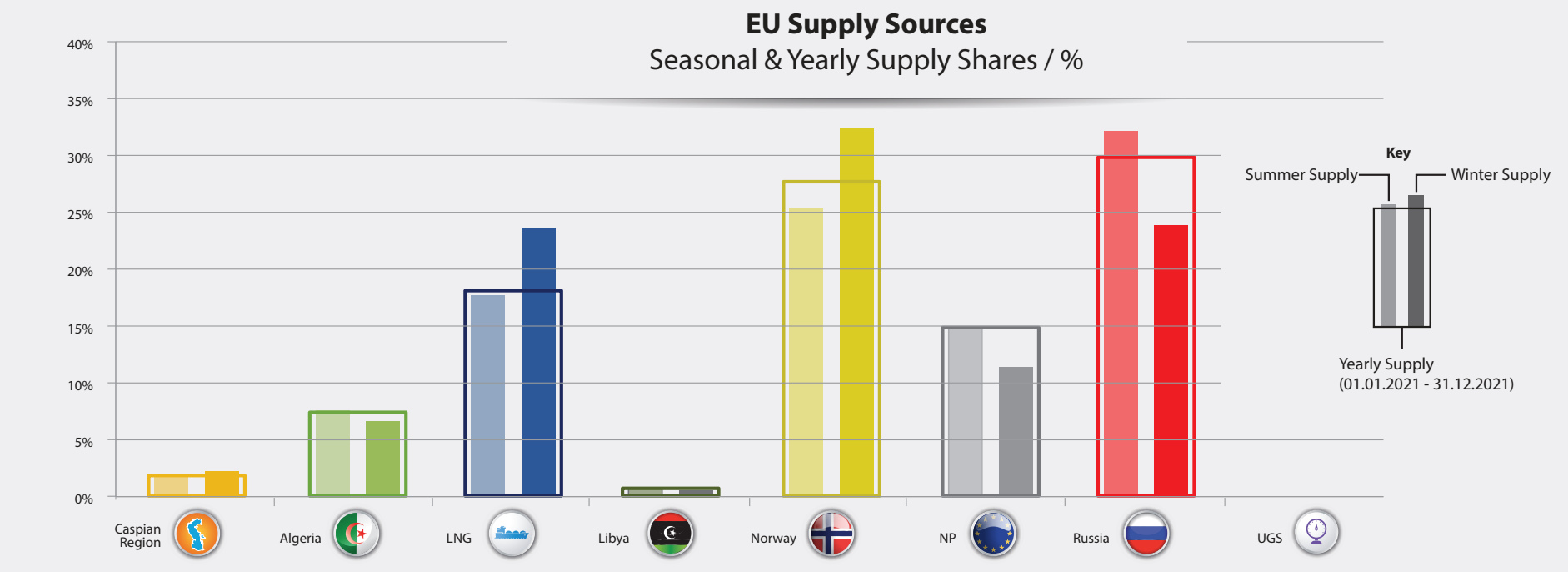
EU Storage / Injection / Withdrawal

Seasonal Profile / GWh/d



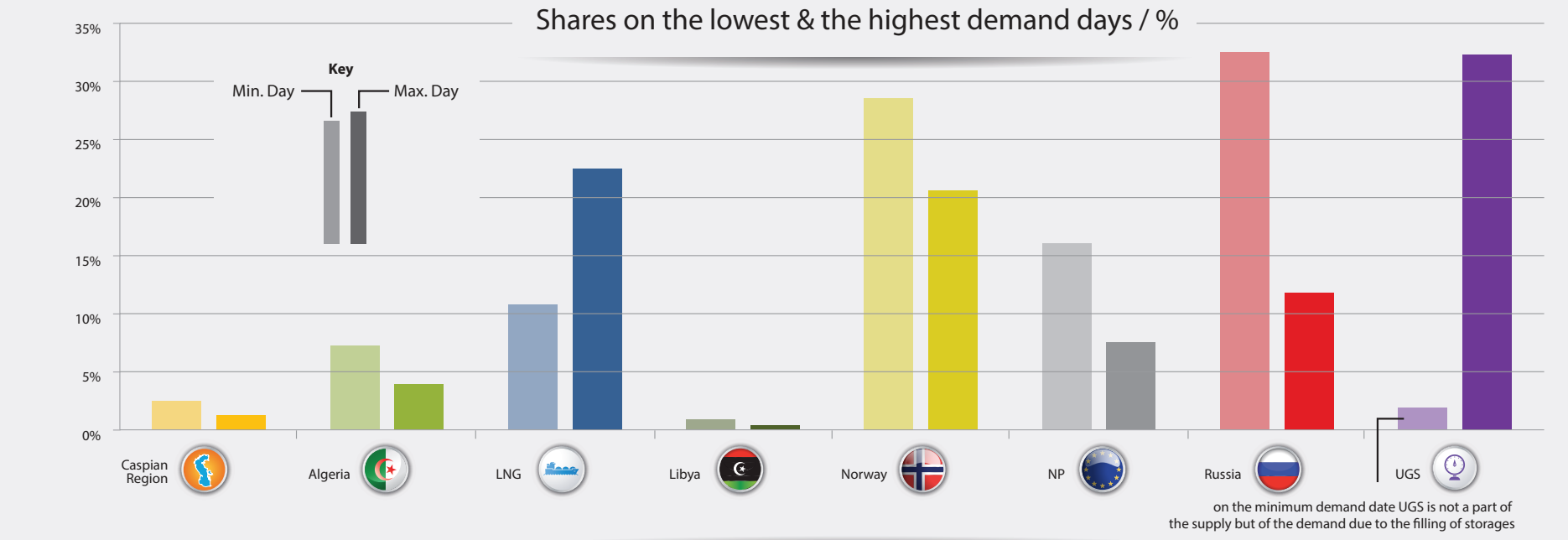
EU Supply Sources

Seasonal & Yearly Supply Shares / %



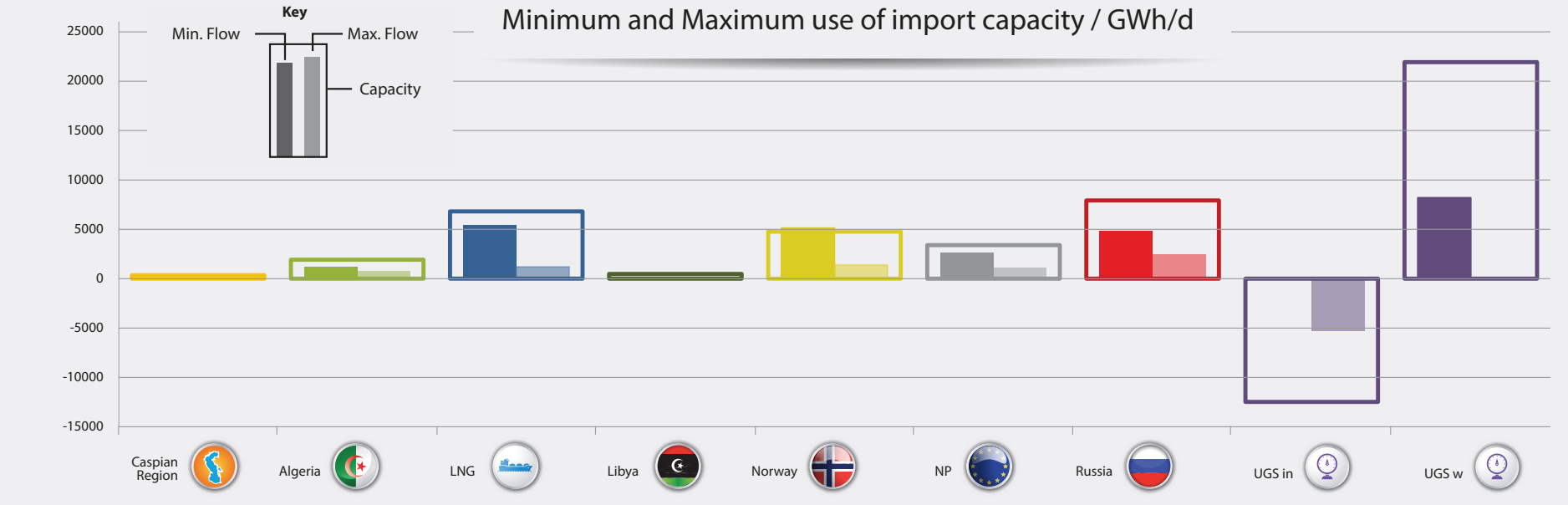
EU Supply Sources

Shares on the lowest & the highest demand days / %



EU Supply Sources

Minimum and Maximum use of import capacity / GWh/d



Country Profiles

Total 2021
1 Jan 2021 to 31 Dec 2021
Summer
1 Apr 2021 to 30 Sep 2021
Winter
1 Oct 2021 to 31 Mar 2022

DEMAND · PRODUCTION · STORAGE CAPACITIES · LNG CAPACITIES · POWER GENERATION

	Total 2021	Summer	Winter	Max. Day	Min. Day	EU Max. Day	EU Min. Day	Maximum Production	Deliverability	Injection	WGV	Send-out	Storage	Installed gas-fired capacity
AUSTRIA	96.194 GWh	30.757 GWh	64.442 GWh	(11/01/2022) 494 GWh/d	(31/07/2021) 102 GWh/d	466 GWh/d	106 GWh/d	23 GWh/d	1.060 GWh/d	843 GWh/d	95.547 GWh	- GWh/d	- GWh	4.449 MWe
BELGIUM	186.086 GWh	64.994 GWh	110.263 GWh	(10/01/2022) 933 GWh/d	(25/07/2021) 209 GWh/d	932 GWh/d	231 GWh/d	- GWh/d	170 GWh/d	88 GWh/d	7.610 GWh	477 GWh/d	3.801 GWh	6.819 MWe
BOSNIA-HERZ.	2.176 GWh	544 GWh	1.733 GWh	(24/01/2022) 14 GWh/d	(26/06/2021) 2 GWh/d	11 GWh/d	2 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	- MWe
BULGARIA	35.325 GWh	14.577 GWh	19.708 GWh	(25/01/2022) 155 GWh/d	(10/10/2021) 53 GWh/d	155 GWh/d	60 GWh/d	1 GWh/d	40 GWh/d	38 GWh/d	5.803 GWh	- GWh/d	- GWh	1.266 MWe
CROATIA	29.634 GWh	11.315 GWh	17.888 GWh	(12/02/2021) 143 GWh/d	(06/06/2021) 28 GWh/d	141 GWh/d	55 GWh/d	19 GWh/d	52 GWh/d	44 GWh/d	4.773 GWh	86 GWh/d	927 GWh	750 MWe
CZECH REPUBLIC	100.333 GWh	32.361 GWh	61.838 GWh	(10/01/2022) 471 GWh/d	(31/07/2021) 97 GWh/d	424 GWh/d	107 GWh/d	5 GWh/d	705 GWh/d	504 GWh/d	43.774 GWh	- GWh/d	- GWh	1.240 MWe
DENMARK	27.688 GWh	9.323 GWh	15.528 GWh	(04/12/2021) 106 GWh/d	(17/07/2021) 18 GWh/d	94 GWh/d	24 GWh/d	20 GWh/d	180 GWh/d	91 GWh/d	9.232 GWh	- GWh/d	- GWh	1.621 MWe
ESTONIA	5.123 GWh	1.546 GWh	3.207 GWh	(06/12/2021) 42 GWh/d	(23/06/2021) 4 GWh/d	20 GWh/d	6 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	94 MWe
FINLAND	25.088 GWh	8.775 GWh	10.704 GWh	(08/12/2021) 143 GWh/d	(15/05/2021) 19 GWh/d	64 GWh/d	45 GWh/d	1 GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	1.935 MWe
FRANCE	474.784 GWh	135.579 GWh	318.459 GWh	(22/12/2021) 2.596 GWh/d	(15/08/2021) 370 GWh/d	2.589 GWh/d	410 GWh/d	19 GWh/d	2.483 GWh/d	1.201 GWh/d	132.605 GWh	1.253 GWh/d	8.871 GWh	12.391 MWe
N. MACEDONIA	4.495 GWh	1.557 GWh	2.790 GWh	(28/10/2021) 19 GWh/d	(25/06/2021) 0,25422 GWh/d	17 GWh/d	12 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	251 MWe
GERMANY	1.005.600 GWh	331.000 GWh	648.500 GWh	(21/12/2021) 5.001 GWh/d	(15/08/2021) 1.021 GWh/d	4.750 GWh/d	1.092 GWh/d	176 GWh/d	6.879 GWh/d	4.029 GWh/d	245.452 GWh	- GWh/d	- GWh	30.553 MWe
GREECE	70.150 GWh	35.005 GWh	36.240 GWh	(21/12/2021) 311 GWh/d	(09/05/2021) 88 GWh/d	299 GWh/d	193 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	270 GWh/d	1.489 GWh	5.213 MWe
HUNGARY	117.477 GWh	35.025 GWh	82.033 GWh	(24/01/2022) 656 GWh/d	(21/08/2021) 121 GWh/d	644 GWh/d	128 GWh/d	85 GWh/d	840 GWh/d	488 GWh/d	67.703 GWh	- GWh/d	- GWh	3.979 MWe
IRELAND	55.073 GWh	25.352 GWh	28.719 GWh	(24/01/2022) 234 GWh/d	(01/01/2022) 87 GWh/d	230 GWh/d	101 GWh/d	51 GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	4.265 MWe
ITALY	799.401 GWh	294.365 GWh	507.127 GWh	(25/01/2021) 3.997 GWh/d	(08/08/2021) 999 GWh/d	3.997 GWh/d	1.039 GWh/d	101 GWh/d	2.914 GWh/d	1.698 GWh/d	193.443 GWh	560 GWh/d	3.059 GWh	41.961 MWe
LATVIA	12.526 GWh	3.371 GWh	7.495 GWh	(08/12/2021) 86 GWh/d	(11/07/2021) 6 GWh/d	53 GWh/d	7 GWh/d	- GWh/d	315 GWh/d	178 GWh/d	24.074 GWh	- GWh/d	- GWh	1.162 MWe
LITHUANIA	24.186 GWh	9.846 GWh	11.345 GWh	(26/04/2021) 110 GWh/d	(21/12/2021) 29 GWh/d	63 GWh/d	31 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	122 GWh/d	1.094 GWh	1.527 MWe
LUXEMBURG	8.655 GWh	3.079 GWh	5.311 GWh	(11/01/2022) 40 GWh/d	(13/08/2021) 9 GWh/d	40 GWh/d	11 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	96 MWe
NETHERLANDS	382.742 GWh	145.003 GWh	205.786 GWh	(22/12/2021) 1.772 GWh/d	(08/08/2021) 481 GWh/d	1.605 GWh/d	481 GWh/d	1.191 GWh/d	2.783 GWh/d	1.405 GWh/d	138.991 GWh	741 GWh/d	4.602 GWh	18.530 MWe
POLAND	207.616 GWh	79.297 GWh	119.400 GWh	(27/12/2021) 895 GWh/d	(11/09/2021) 343 GWh/d	777 GWh/d	359 GWh/d	82 GWh/d	596 GWh/d	345 GWh/d	36.410 GWh	220 GWh/d	2.118 GWh	3.705 MWe
PORTUGAL	61.683 GWh	31.793 GWh	30.831 GWh	(16/06/2021) 259 GWh/d	(01/01/2022) 58 GWh/d	227 GWh/d	88 GWh/d	- GWh/d	86 GWh/d	24 GWh/d	3.670 GWh	200 GWh/d	2.582 GWh	4.520 MWe
ROMANIA	119.742 GWh	36.546 GWh	78.334 GWh	(25/01/2022) 636 GWh/d	(01/08/2021) 110 GWh/d	636 GWh/d	142 GWh/d	254 GWh/d	312 GWh/d	265 GWh/d	32.794 GWh	- GWh/d	- GWh	2.218 MWe
SERBIA	- GWh	- GWh	- GWh	- - GWh/d	- - GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	486 MWe
SLOVAKIA	59.227 GWh	19.446 GWh	37.406 GWh	(12/01/2022) 284 GWh/d	(01/08/2021) 62 GWh/d	274 GWh/d	67 GWh/d	2 GWh/d	492 GWh/d	411 GWh/d	35.048 GWh	- GWh/d	- GWh	- MWe
SLOVENIA	10.186 GWh	3.808 GWh	6.307 GWh	(13/01/2022) 48 GWh/d	(01/08/2021) 12 GWh/d	45 GWh/d	13 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	626 MWe
SPAIN	378.297 GWh	170.578 GWh	219.170 GWh	(18/01/2022) 1.803 GWh/d	(31/10/2021) 682 GWh/d	1.743 GWh/d	704 GWh/d	4 GWh/d	218 GWh/d	132 GWh/d	3.500 GWh	1.910 GWh/d	21.955 GWh	29.927 MWe
SWEDEN	8.916 GWh	3.205 GWh	4.596 GWh	(06/12/2021) 51 GWh/d	(18/09/2021) 9 GWh/d	26 GWh/d	15 GWh/d	0.3 GWh/d	9 GWh/d	6 GWh/d	101 GWh	- GWh/d	- GWh	- MWe
SWITZERLAND	35.404 GWh	8.975 GWh	26.084 GWh	(13/01/2022) 203 GWh/d	(31/07/2021) 18 GWh/d	191 GWh/d	33 GWh/d	- GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	- MWe
UNITED KINGDOM	855.671 GWh	346.509 GWh	446.604 GWh	(25/01/2022) 3.713 GWh/d	(31/03/2022) 850 GWh/d	3.713 GWh/d	1.458 GWh/d	1.060 GWh/d	- GWh/d	- GWh/d	- GWh	- GWh/d	- GWh	- MWe