SYSTEM DEVELOPMENT MAP
2019 / 2020

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The System Development Map 2019 / 2020 presents existing infrastructure & capacity from the perspective of the year 2020. Planned infrastructure (projects) is based on the ENTSOG TYNDP (Ten-Year Network Development Plan) 2020. The layout is based on the SYSDEV MAP 2018/2019 unless respective ENTSOG members provided any update.

Data presented in the capacity matrix was extracted from Transparency Platform (with application of the 'Lesser-of Rule), then amended and approved by TSOs on 17 December 2020. The 2019 / 2020 historical data on demand & supply are presented aggregated in form of charts (covering summer and following winter to allow to investigate gas storage usage). Values were taken from the respective Summer and Winter Review Report. Information regarding gas storage fill rate was taken from GIE AGSI+.

The Country Profiles include demand data representing actual country demand for the respective days/periods, storage & LNG capacities according to the interconnection to the country's transmission system and installed gas-fired power generation capacity (additional data sources: GSE 2018 Storage Map (including necessary updates), GLE 2019 LNG Map and ENTSO-E Transparency Platform), unless respective ENTSOG members provided any update. The gas production reflects the maximum deliverability achieved.

All data provided in the map are for information purposes and shall be treated as indicative only.
Under no circumstances shall they be regarded as data for commercial use.

polaris — Version : December 2020
WGS 84 / Pseudo-Mercator projection

KEYS

Countries
- ENTSOG Member Countries
- ENTSOG Associated Partner
- ENTSOG Observers
- Other Countries

Transport by pipeline
- under 24"
- 24" to 36"
- 36" and over
- project

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 into transmission system
- LNG Export Terminal
- Virtual Point
- Small scale LNG liquefaction facilities
- 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*
- Small scale LNG liquefaction facilities *Under construction or Planned*

Data keys
- NATIONAL PRODUCTION
- RUSSIA
- NORWAY
- ALGERIA
- LIBYA
- UGS
- LNG

Import & Transmission Capacity
17 December 2020 (GWh/d)

(Values submitted by TSO from Transparency Platform the lowest value between the values submitted by cross border TSOs)

Key
- DEg — market area GASPOOL
- DEn — market area Net Connect Germany

Import Capacities

TO \ FROM	AZ	DZ	LNG	LY	NO	RU	TR	
AT								0
BE			477		488			965
BG						577		577
CH								0
CZ								0
DEg					511	2.973		3.484
DEn					729			729
DK								0
EE						27		27
ES		732	1.911					2.642
FI						220		220
FR			809		590			1.399
GR	350		205				49	604
HR			77					77
HU						517		517
IE								0
IT		1.138	601	420				2.159
LT			122			325		447
LU								0
LV						63		63
MD								0
MK								0
NL			418		963			1.381
PL			158			1.336		1.494
PT			200					200
RO						1.114		1.114
RS								0
RU								0
SE								0
SI								0
SK						2.028		2.028
SM								0
TR								0
UA								0
UK			1.597		1.499			3.096
Total	350	1.870	6.575	420	4.780	9.180	49	

Cross-Border Capacities

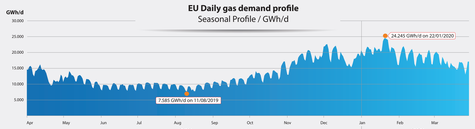
TO \ FROM	AT	BE	BG	CH	CZ	DEg	DEn	DK	EE	ES	FI	FR	GR	HR	HU	IE	IT	LT	LU	LV	MD	MK	NL	PL	PT	RO	RS	RU	SE	SI	SK	SM	TR	UA	UK	
AT								350									194														1.570				2.114	AT
BE							131	189				270											1.437										652	2.679	BE
BG												65														806	21								892	BG
CH								349				258					444																		1.051	CH
CZ						2.306																										400			2.706	CZ
DEg		129			335		34																330	932											1.760	DEg
DEn	390	268		164	896	593		4															1.116												3.431	DEn
DK						101	23																												124	DK
EE									10											168															10	EE
ES												165													80										245	ES
FI																																				FI
FR		850		100		609			224																										1.780	FR
GR			118																																118	GR
HR															77															54					131	HR
HU	153													49											50						129		517		381	HU
IE																																			385	IE
IT	1.150			640								291																		22					2.103	IT
LT																				65															65	LT
LU		49					24																												73	LU
LV																	68																		68	LV
MD																									16										16	MD
MK			20																																20	MK
NL		393			348	245																												168	1.156	NL
PL				28	234																														262	PL
PT									144																										144	PT
RO			148												77																				225	RO
RS			174												142																				316	RS
RU																	114		105																219	RU
SE																																				SE
SI	113												8		28																				149	SI
SK	247			1.246										51																			177		1.721	SK
SM																	4																		4	SM
TR			479																																479	TR
UA																																281			281	UA
UK		803																					494												1.297	UK
Total	2.052	2.492	939	904	2.505	3.713	1.823	4	40	368	10	693	356	57	347	0	670	182	0	170	0	0	3.337	932	80	872	21	0	0	76	2.381	0	0	177	1.297	

EUROPEAN DEMAND

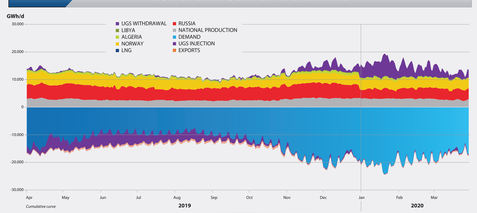
EU Total 2019 5.149.058 GWh

EU 1 Apr 2019 - 30 Sep 2019 (Summer) 1.902.245 GWh
EU Min. Day (11/08/2019) 7.585 GWh/d
EU 1 Oct 2019 - 31 Mar 2020 (Winter) 3.216.144 GWh
EU Max. Day (22/01/2020) 24.245 GWh/d

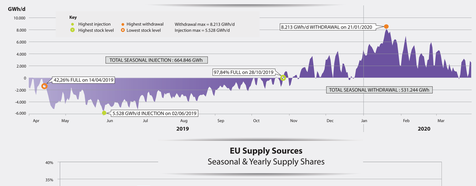
EU Daily gas demand profile
Seasonal Profile / GWh/d



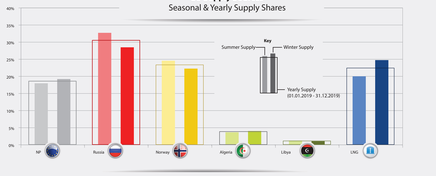
EUROPEAN SUPPLY & DEMAND



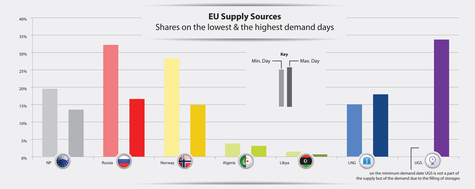
EU Storage / Injection / Withdrawal
Seasonal Profile / GWh/d



EU Supply Sources
Seasonal & Yearly Supply Shares

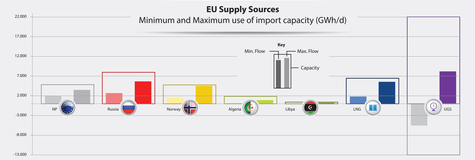


EU Supply Sources
Shares on the lowest & the highest demand days



on the minimum demand date UGS is not a part of the supply but of the demand due to the filling of storages

EU Supply Sources
Minimum and Maximum use of import capacity (GWh/d)



DEMAND

SUPPLY

	AUSTRIA	BELGIUM	BOSNIA-HERZ.	BULGARIA	CROATIA	CZECH REPUBLIC	DENMARK	ESTONIA	FINLAND	FRANCE	N. MACEDONIA	GERMANY	GREECE	HUNGARY	IRELAND	ITALY	LATVIA	LITHUANIA	LUXEMBURG	NETHERLANDS	POLAND	PORTUGAL	ROMANIA	SERBIA	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	SWITZERLAND	UNITED KINGDOM
Total 2019	96.44 GWh	192.51 GWh	1.845 GWh	66.000 GWh	28.502 GWh	90.421 GWh	88.196 GWh	4.979 GWh	35.746 GWh	536.431 GWh	12.818 GWh	993.000 GWh	71.497 GWh	84.000 GWh	8.000 GWh	378.615 GWh	11.002 GWh	24.000 GWh	8.007 GWh	190.014 GWh	178.635 GWh	44.073 GWh	110.472 GWh	16.652 GWh	13.833 GWh	8.448 GWh	194.000 GWh	36.144 GWh	890.992 GWh
Summer	79.200 GWh	77.875 GWh	1.018 GWh	55.000 GWh	15.000 GWh	51.324 GWh	34.965 GWh	1.695 GWh	8.027 GWh	161.165 GWh	5.000 GWh	350.000 GWh	26.775 GWh	32.000 GWh	3.000 GWh	143.000 GWh	4.350 GWh	9.200 GWh	3.502 GWh	69.000 GWh	63.000 GWh	16.561 GWh	42.000 GWh	6.000 GWh	5.000 GWh	3.000 GWh	70.000 GWh	13.000 GWh	329.000 GWh
Winter	17.240 GWh	114.635 GWh	827 GWh	11.000 GWh	13.502 GWh	39.097 GWh	53.231 GWh	2.284 GWh	27.719 GWh	375.266 GWh	7.818 GWh	643.000 GWh	44.722 GWh	52.000 GWh	5.000 GWh	235.615 GWh	6.652 GWh	14.800 GWh	4.505 GWh	121.014 GWh	115.635 GWh	27.512 GWh	68.472 GWh	10.652 GWh	8.833 GWh	5.448 GWh	124.000 GWh	23.144 GWh	561.992 GWh
Min. Day	261 GWh/d	920 GWh/d	12 GWh/d	134 GWh/d	146 GWh/d	467 GWh/d	154 GWh/d	24 GWh/d	106 GWh/d	1.862 GWh/d	17 GWh/d	2.306 GWh/d	272 GWh/d	75 GWh/d	20 GWh/d	1.000 GWh/d	37 GWh/d	42 GWh/d	12 GWh/d	1.720 GWh/d	732 GWh/d	204 GWh/d	1.000 GWh/d	46 GWh/d	39 GWh/d	13 GWh/d	1.000 GWh/d	146 GWh/d	1.027 GWh/d	2.000 GWh/d
Min. Day	0 GWh	1 GWh	0 GWh	47 GWh/d	27 GWh/d	0 GWh/d	36 GWh/d	0 GWh/d	47 GWh/d	1.822 GWh/d	0 GWh/d	1.921 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Fill Max. Day	443 GWh/d	912 GWh/d	11 GWh/d	132 GWh/d	65 GWh/d	403 GWh/d	96 GWh/d	16 GWh/d	49 GWh/d	2.822 GWh/d	0 GWh/d	4.866 GWh/d	202 GWh/d	84 GWh/d	0 GWh/d	1.000 GWh/d	42 GWh/d	79 GWh/d	41 GWh/d	1.600 GWh/d	720 GWh/d	204 GWh/d	1.000 GWh/d	46 GWh/d	39 GWh/d	13 GWh/d	1.000 GWh/d	146 GWh/d	1.027 GWh/d	2.000 GWh/d
Fill Min. Day	0 GWh	0 GWh	0 GWh	36 GWh/d	40 GWh/d	703 GWh/d	107 GWh/d	0 GWh/d	42 GWh/d	1.288 GWh/d	0 GWh/d	1.504 GWh/d	7.216 GWh/d	656 GWh/d	0 GWh/d	1.000 GWh/d	226 GWh/d	330 GWh/d	121 GWh/d	2.875 GWh/d	575 GWh/d	84 GWh/d	1.000 GWh/d	55 GWh/d	40 GWh/d	0 GWh/d	1.000 GWh/d	210 GWh/d	1.861 GWh/d	2.000 GWh/d
Maximum Production	20 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Deliverability	1.647 GWh/d	170 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Injection WGV	652 GWh/d	90 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Withdr. WGV	4.015 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Send-out	1.647 GWh/d	170 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Storage	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh	0 GWh
Invalidated capacity	6.762 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	1.749 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	1.779 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d
Invalidated storage	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	1.669 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d	0 GWh/d

Total 2019: 1 Jan 2019 to 31 Dec 2019
Summer: 1 Apr 2019 to 30 Sep 2019
Winter: 1 Oct 2019 to 31 Mar 2020

DEMAND
PRODUCTION
LNG TERMINAL
UGS FACILITIES
STORAGE CAPACITY/WGV