



Interconnected network of Northern Europe 2019

As of 31/12/2018

Source of information	
ENTSO-E members and observer members	entsoe
Russia	European Network of Transmission System Operators for Electricity
Ukraine	System Operators of the UPS of Ukraine
	UKRENERGO National Power Company



Scale: 1 : 3 000 000
 Kilometers
 0 50 100 200 300 400

- Lines and cables**
- 750 kV transmission line
 - 500 kV transmission line
 - 380-400 kV transmission line
 - 300-330 kV transmission line
 - 220-275 kV transmission line
 - 110-150 kV transmission line
 - DC-line
- Power plants**
- Biogas
 - Coal
 - Coal derived gas
 - Fossil fuel
 - Fossil gas
 - Fossil oil
 - Fossil peat
 - Geothermal
 - Hard coal
 - Hydro mixed pump storage
 - Hydro pure pump storage
 - Hydro pure storage
 - Hydro run of river and pondage
 - Mixed
 - Nuclear
 - Oil shale
 - Other fossil fuel
 - Other (not listed)
 - Solar
 - Solar photovoltaic
 - Solar thermal
 - Waste
 - Waste (non renewable)
 - Waste (renewable)
 - Wind farm
- Other elements**
- Substation
 - Phase shifter
 - Converter station
 - Converter station back-to-back
 - Substation & Power plant(s)

This map is a comprehensive illustration of the interconnected networks, showing existing elements and those under construction (power plants, conversion stations and high-voltage collection with voltage converter for voltage of at least 110 kV or higher 110 kV to 150 kV or the area of Cyprus, Denmark, Iceland, Norway and Sweden) and 110 kV to 150 kV phase shifter and converter station and 110 kV to 150 kV phase shifter and converter station. The map also shows the planned elements for the lines with more than 220 kV. The map includes the number of circuits and the voltage of the first stage of construction (depending on the stage of works). The numbers in brackets indicate the number of circuits and the voltage of the first stage of construction (depending on the stage of works).

NGC threshold in MW

Country	Non-renewable	Renewable	CHP included	Country	Non-renewable	Renewable	CHP included
Albania	100	0	n.a.	Iceland	100	0	n.a.
Austria	100	100	n.a.	Ireland	100	0	n.a.
Belgium	100	100	n.a.	Italy	100	0	n.a.
Bulgaria	100	0	n.a.	Latvia	100	0	n.a.
Canada	100	0	n.a.	Lithuania	100	0	n.a.
Czech Republic	100	0	n.a.	Luxembourg	100	0	n.a.
Denmark	100	0	n.a.	Malta	100	0	n.a.
Estonia	100	0	n.a.	Netherlands	100	0	n.a.
France	100	0	n.a.	Poland	100	0	n.a.
Germany	100	0	n.a.	Portugal	100	0	n.a.
Greece	100	0	n.a.	Romania	100	0	n.a.
Spain	100	0	n.a.	Sweden	100	0	n.a.
UK (England & Wales)	100	0	n.a.	Switzerland	100	0	n.a.
UK (Scotland)	100	0	n.a.	Turkey	100	0	n.a.
UK (Northern Ireland)	100	0	n.a.	Ukraine	100	0	n.a.
USA	100	0	n.a.				

Power systems

- ENTSO-E members
- Other power systems

TESS is an ENTSO-E observer member

GB (3)

01 Easton	16 Longannet
02 Gillingham	19 Grangemouth
03 Blyth	20 Blyth
04 Kintore	21 Eastham
05 Dalrymple	22 Glasgow
06 Calder	23 Gifford
07 Calder Water	24 Neilston
08 Anderson	25 Bury
09 Black Law Extension	26 Whitelee
10 Fallis	27 East Kilbride South
11 Tullibardine	28 West Browncastle
12 Fallis	29 Strathaven
13 Fogie	30 Wishaw
14 Dun Law Extension	31 Newarthill
15 Kettle Hill	32 Clydes Hill
16 Shrubhill	33 Hartburn Head
17 Currie	34 Tomteville

GB (2)

01 Manchester	13 Sebeck
02 Brodby	14 Bochford
03 Stockbridge	15 Elberg
04 Sheffalton	16 Rosenblumunde
05 Neatham	17 Scholven
06 Neatham	18 Widen
07 Jordonstone	19 Keeppenhaven
08 Wroocbank	20 Koulou
09 Pitzmoor	21 Elmehorst
10 West Melton	22 Dorndorf
11 Ferrybridge	23 Poppinghausen
12 Bank Fryton	24 Borchum
13 Ebbw Vale	
14 Bank Fryton	
15 Ebbw Vale	
16 Trope Marsh	

Germany

00 Zalkert	13 Sebeck
01 Siemsdorf	14 Bochford
02 Siemsdorf	15 Elberg
03 Puffendorf	16 Rosenblumunde
04 Neatham	17 Scholven
05 Neatham	18 Widen
06 Rommerschen	19 Keeppenhaven
07 Gohrbrunn	20 Koulou
08 Norf	21 Elmehorst
09 St. Peter	22 Dorndorf
10 Eller	23 Poppinghausen
11 Celler	24 Borchum
12 Diken	

Luxembourg

01 Bertrange	02 Breda
03 Esch	04 Esch
05 Esch	06 Esch
07 Esch	08 Esch
09 Esch	10 Esch
11 Esch	12 Esch
13 Esch	14 Esch
15 Esch	16 Esch
17 Esch	18 Esch
19 Esch	20 Esch
21 Esch	22 Esch
23 Esch	24 Esch
25 Esch	26 Esch
27 Esch	28 Esch
29 Esch	30 Esch
31 Esch	32 Esch
33 Esch	34 Esch
35 Esch	36 Esch
37 Esch	38 Esch
39 Esch	40 Esch

