



Gas Transmission Europe

GTE+ Winter Outlook 2009/2010

30.10.2009



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- In preparation for an upcoming ENTSOG task, GTE+ publishes a yearly European Winter Outlook

- Analyze at EU level
 - ✓ EU capacity / demand balance
 - ✓ Integrated flow patterns
 - ✓ Member State capacity / demand balances for
 - ✓ Normal cold conditions
 - ✓ Exceptional cold conditions

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- Background






- Results

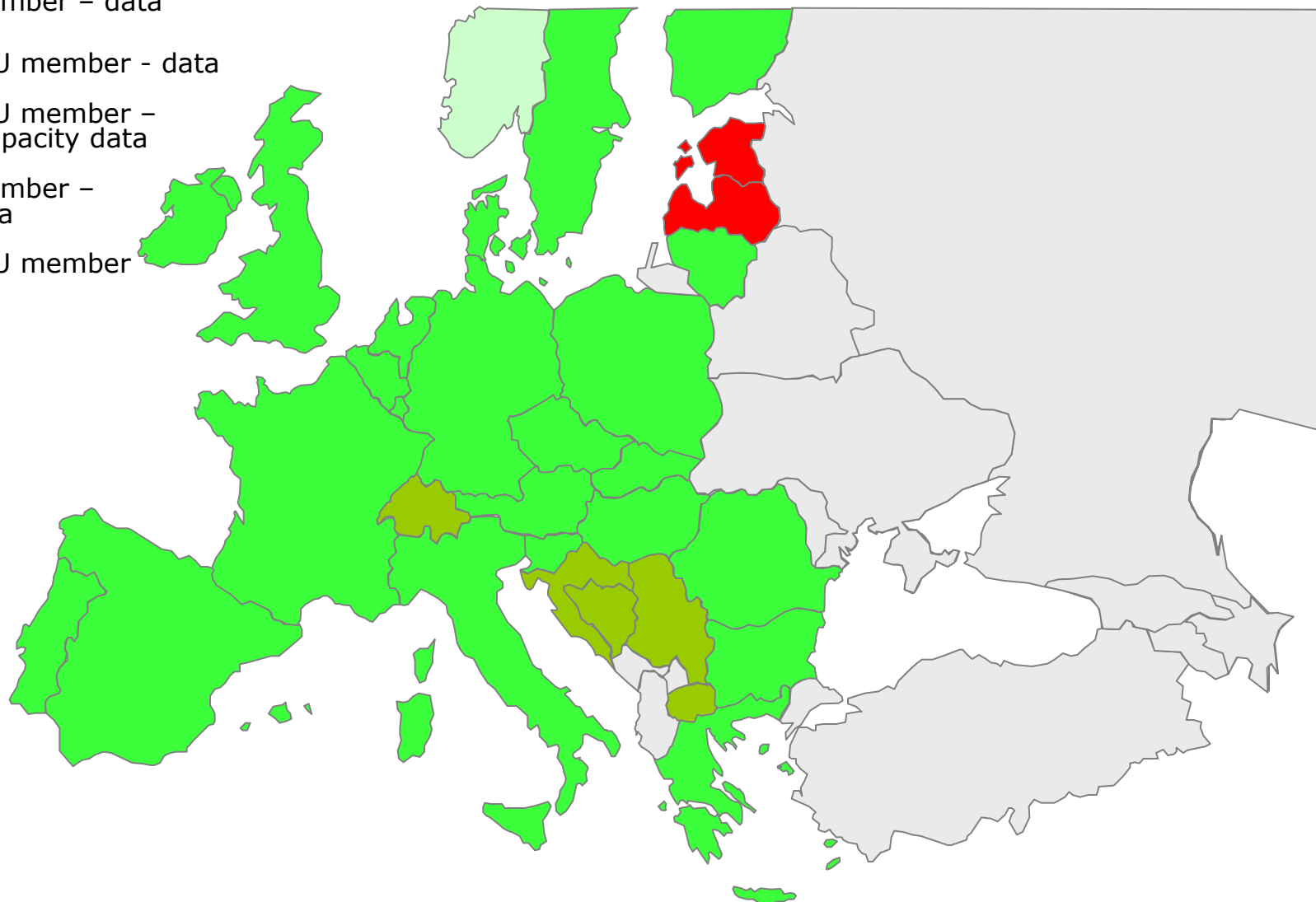
Participating countries

- Data received from 29 countries
 - ✓ Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Former Yugoslav Republic of Macedonia, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and United Kingdom

- Assumptions taken for exit points to countries for which no data was received

Involved countries / data provision

-  EU member – data
-  Non EU member - data
-  Non EU member – exit capacity data
-  EU member – no data
-  Non EU member



EU capacity / demand balance

	(GWh / d)
Total capacity connected with import	12.918
Total capacity connected with LNG	4.834
Total national production	8.386
Total storage	13.669
Sum	39.807
Total Market (Normal cold conditions)	28.557
Total Market (Exceptional cold conditions)	35.546

- **Integrated EU flow patterns**
 - normal cold conditions *
 - exceptional cold conditions *

- **Capacity / demand balances**
 - normal cold conditions *
 - exceptional cold conditions *

** Exceptional cold conditions and normal cold conditions as defined in the individual Member States.*

Integrated EU flow patterns

Derivation of an integrated EU flow pattern, taking into account the following conditions:

- ✓ Entry flows from another country \leq IP capacity at entry points
- ✓ Flows from national production \leq national production past flows*
- ✓ Flows from storages \leq storage send out capacity**
- ✓ Exit flows to another country = national intakes – mkt. demand

* *taking into account the depletion of production fields*

** *taking into account the decrease of storage performance during winter*

For the avoidance of doubt:

- *The integrated flow patterns represent hypothetical cases just for the purposes of this Winter Outlook*

Capacity / demand balances

For each country



- + **IP capacity at entry points***
 - + **National production past flows****
 - + **Storage send out capacity*****
 - **Capacity usage to other countries**
 - **Market demand forecast**
 - *normal cold conditions*
 - *exceptional cold conditions*
-
- = **Capacity / demand balance**
 - *normal cold conditions*
 - *exceptional cold conditions*

* *lesser of entry capacity and upstream exit capacity at the IP. At bidirectional borders only the capacity for the applied direction (see arrows in the flow direction maps) is used*

** *taking into account the depletion of production fields*

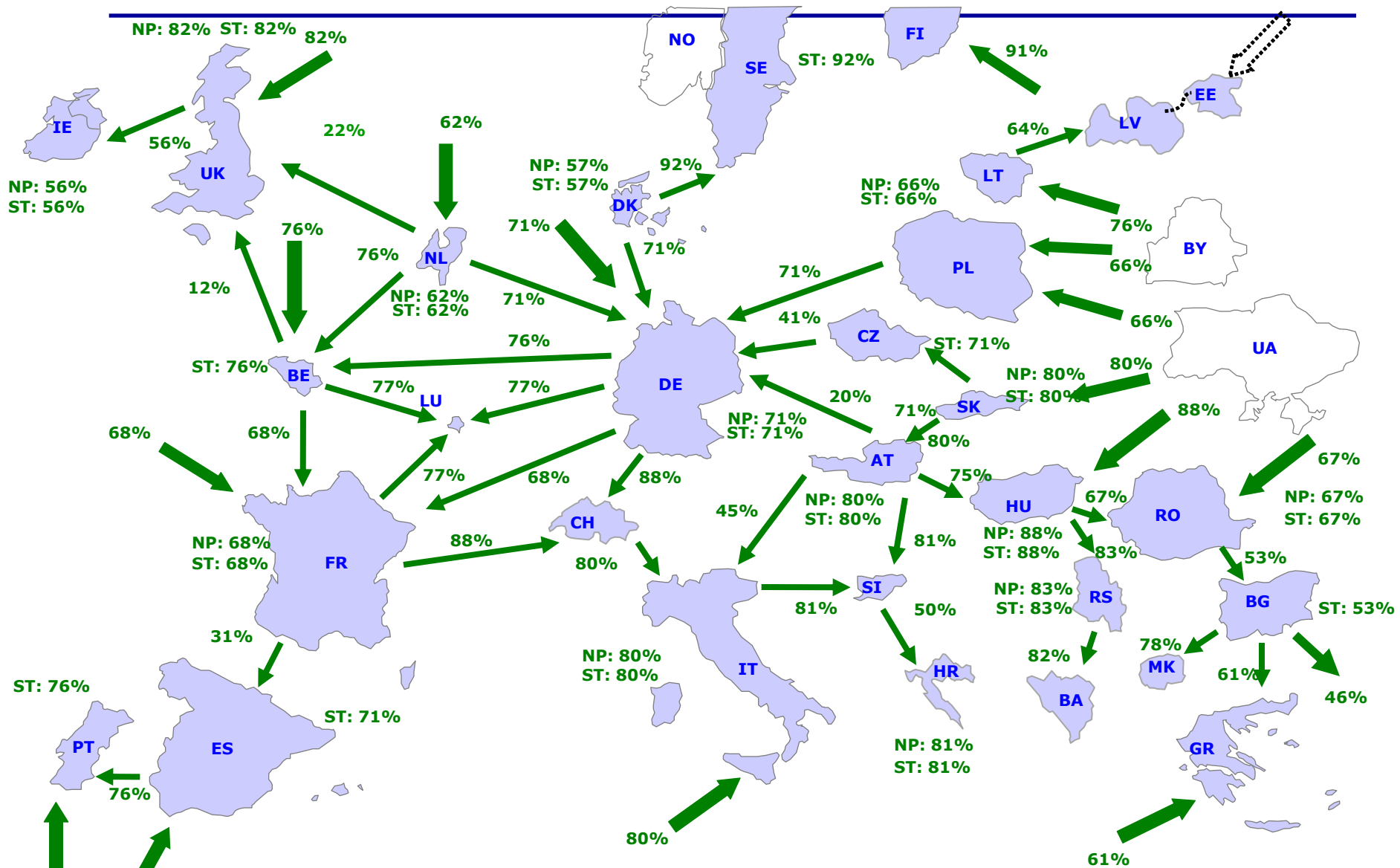
*** *taking into account the decrease of storage performance during winter*

Keys for the subsequent flow pattern maps

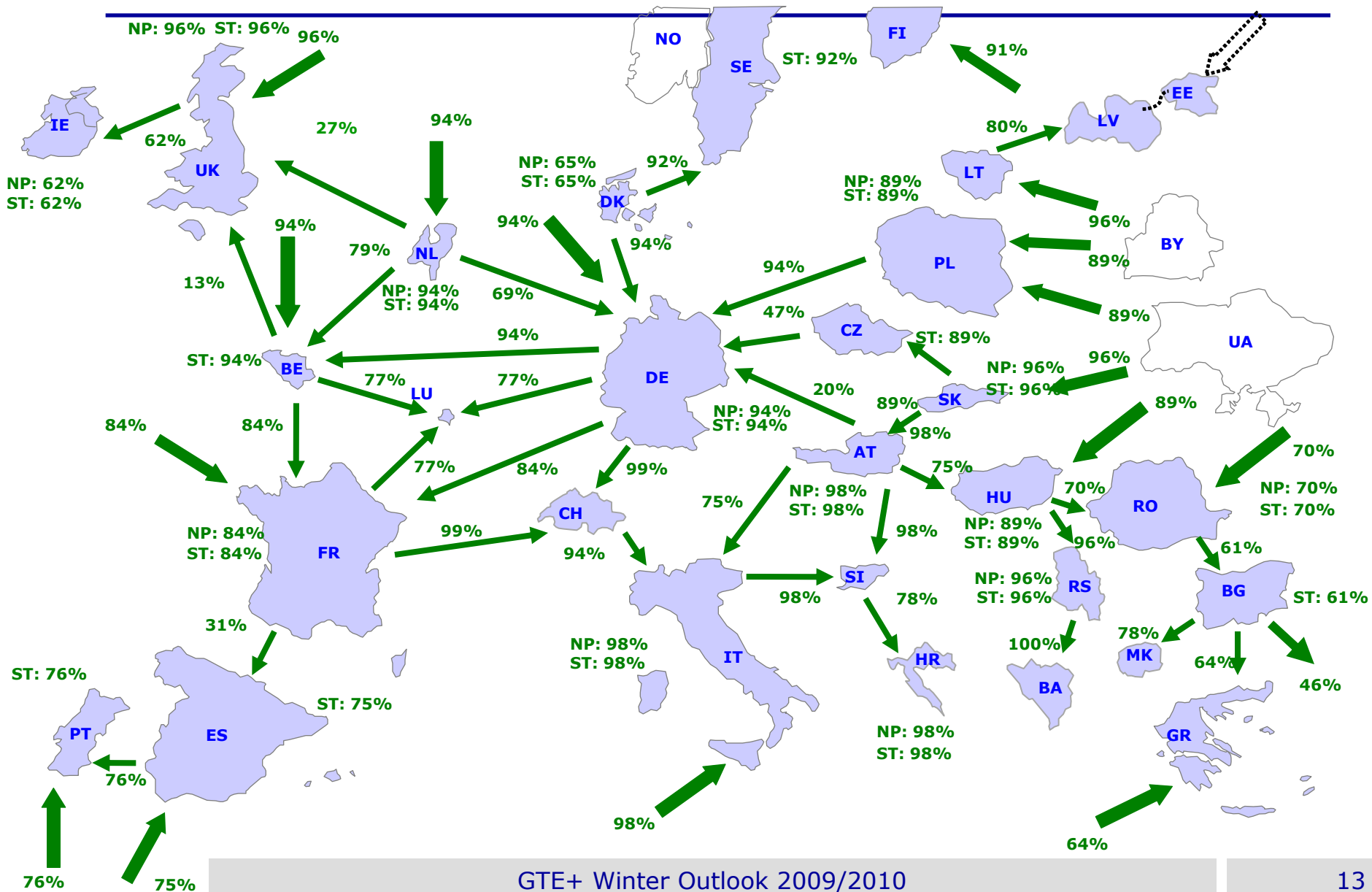
Symbol	Description
	Entry/Exit flows from/to non EU countries
	Entry/Exit flows between EU countries*
NP:	Flows from National Production
ST:	Flows from Storage
%	Utilization ratio of the infrastructure

** IP capacities are aggregated values (lesser of rule applies). At bidirectional borders only the capacity for the applied direction (see arrows in the flow direction maps) is used.*

Integrated EU flow pattern – normal cold conditions

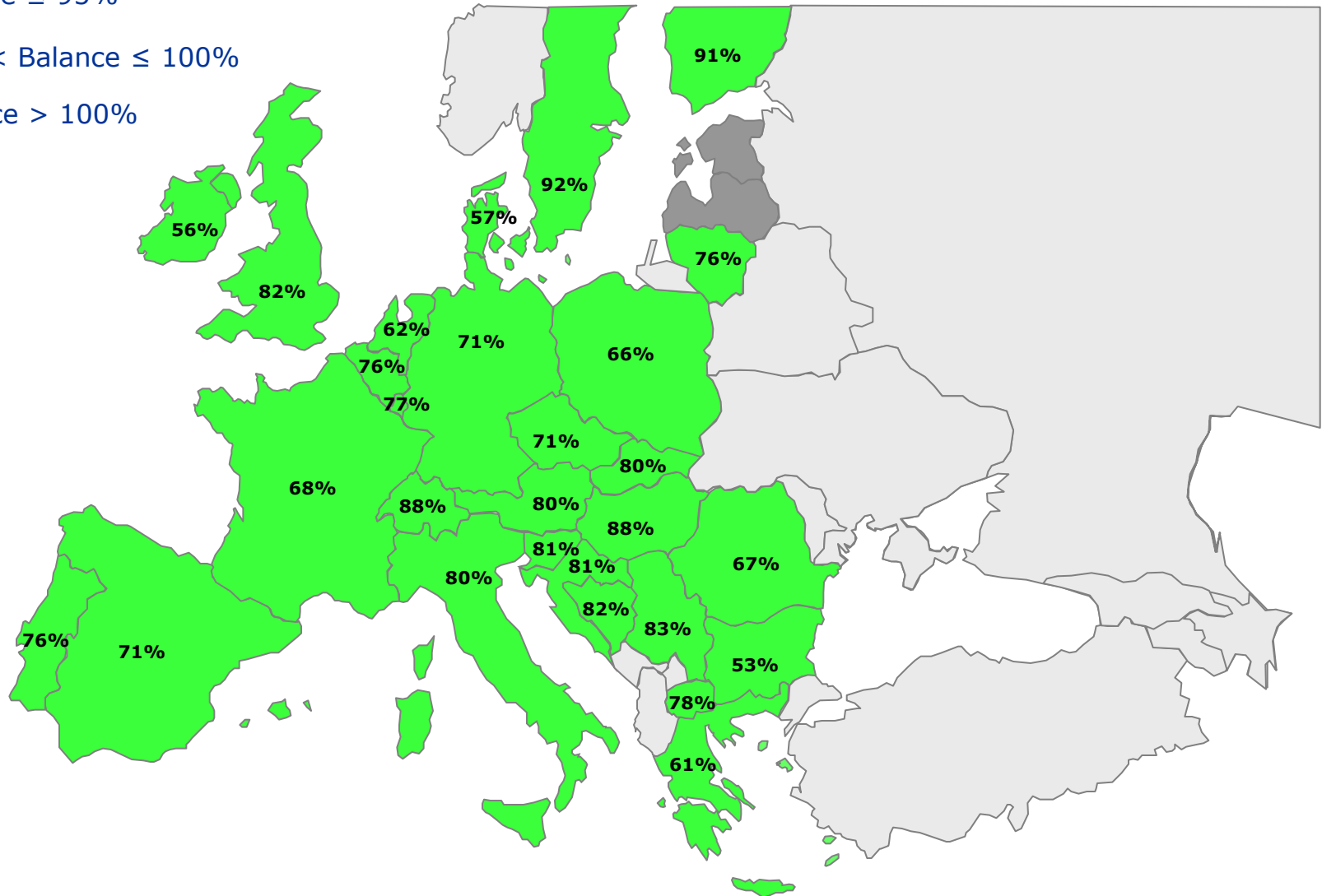


Integrated EU flow pattern – exceptional cold conditions



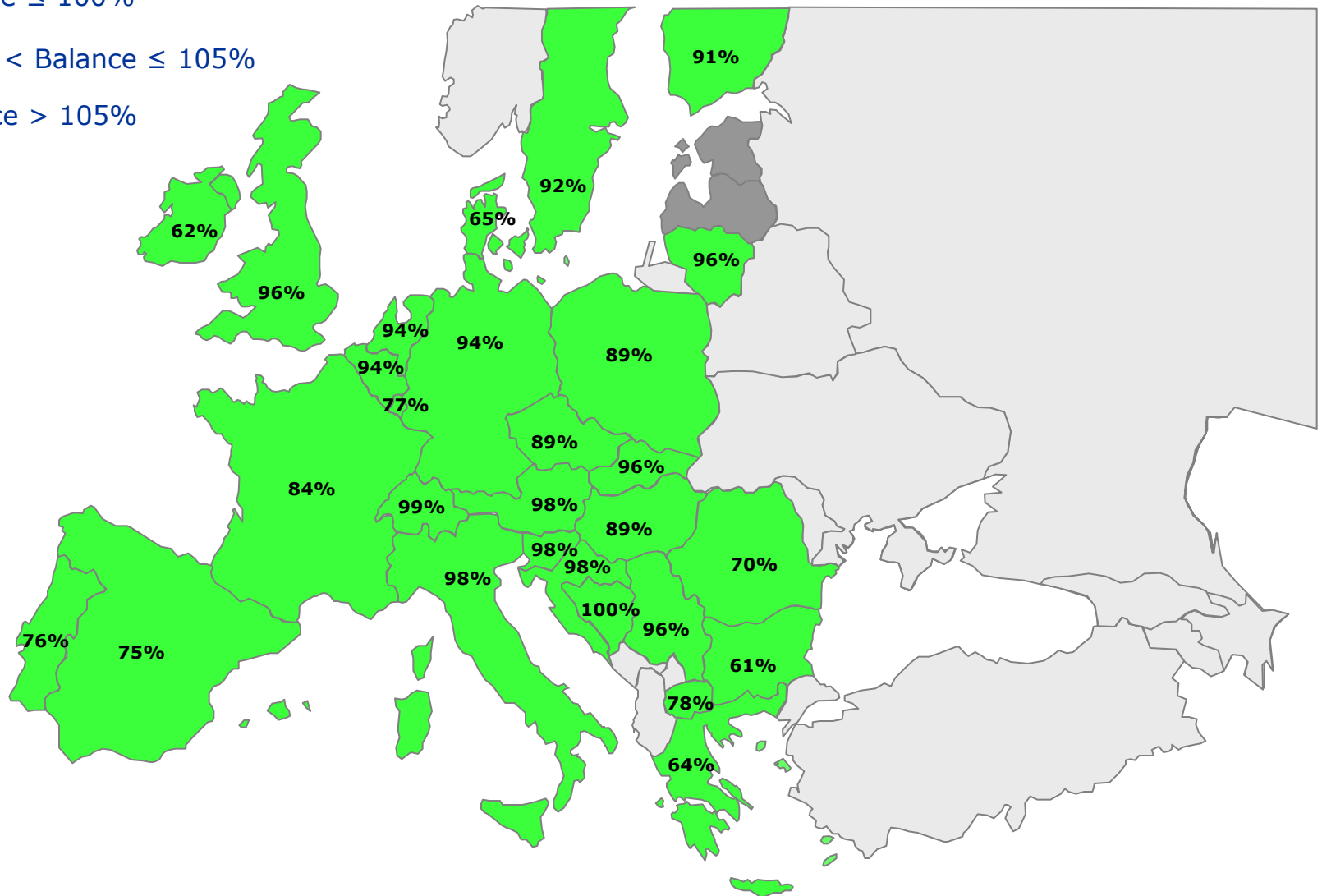
Normal cold conditions – capacity / demand balances

- Balance \leq 95%
- 95% < Balance \leq 100%
- Balance > 100%



Exceptional cold conditions – capacity / demand balances

- Balance \leq 100%
- 100% < Balance \leq 105%
- Balance > 105%



Key findings

- Integrated flow patterns show functioning capacity / demand balances in normal cold conditions and in exceptional cold conditions
- Considerable flexibility in normal cold conditions and in several countries even in exceptional cold conditions