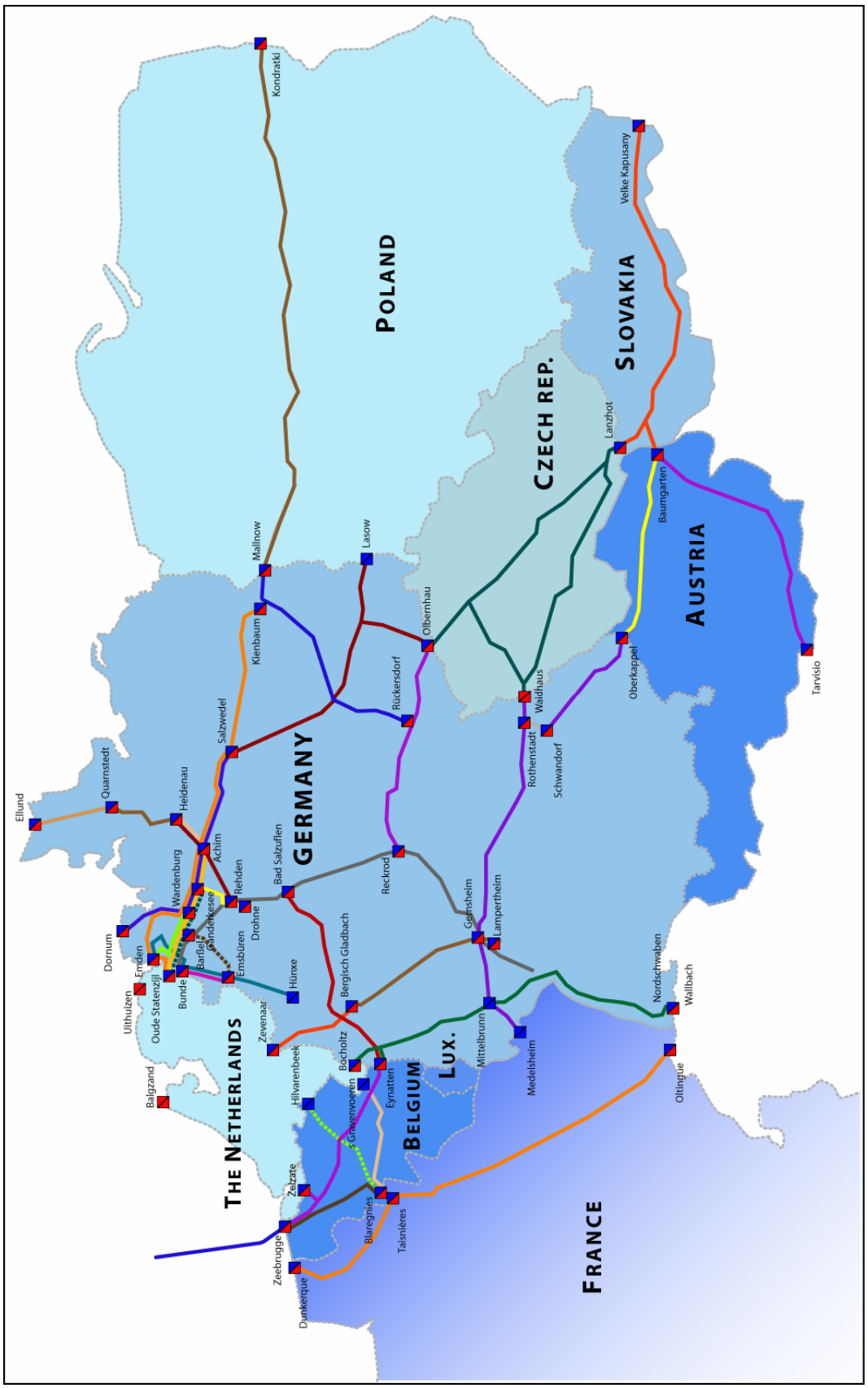
ANNEX A


POLAND
CZECH REP.
SLOVAKIA
AUSTRIA
GERMANY
THE NETHERLANDS
BELGIUM
LUX.
FRANCE
Kondratki
Velke Kapusany
Lanzhot
Baumgarten
Mallnow
Lasow
Olbernhau
Kienbaum
Rückersdorf
Waidhaus
Oberkappel
Tarvisio
Salzwedel
Rothenstadt
Schwandorf
Ellund
Quarnstedt
Heidenau
Achim
Rehden
Bad Salzuflen
Reckrod
Wardenburg
Drohne
Gernsheim
Lampertheim
Dornum
Emden
Emsbüren
Hünxe
Bergisch Gladbach
Nordschwaben
Wallbach
Uithuizen
Oude Statenzijl
Bunde
Zevenaar
Bocholtz
Mittelbrunn
Medelsheim
Balgzand
Hilvarenbeek
Eynatten
Oltingue
Zeebrugge
Dunkerque
Blaregnies
Taisnières

Pipeline	**Technical capacity *mcm / day***	**Route**	**Transit pipeline route**
SPP	315.9	E-W	Velke Kapusany – Lanzhot & Baumgarten
Transgas	180.5	E-W	Lanzhot – Olbernhau & Waidhaus
TAG	95.3	E-W	Baumgarten – Tarvisio
JAGAL	80.1	E-W	Mallnow – Rückersdorf
Ex Hilvarenbeek	67.7	N-S	–
JAMAL-Europa	67.2	E-W	Kondratki – Mallnow
MEGAL Nord	57.1	E-W	Waidhaus – Medelsheim
IUK FF	54.8	N-S	Zeebrugge – Bacton
En Taisniere	50.4	N-S	–
NETRA 1	50.4	N-S	Dornum – Wardenburg
En Dunkerque	49.1	N-S	–
NETG	44.5	N-S	Zevenaar – Bergisch Gladbach
Ex Bocholtz	43.9	N-S	–
TENP	40.5	N-S	Bocholtz – Wallbach
TROLL	40.5	N-S	Zeebrugge – Taisnières
METG	40.1	N-S	Bergisch Gladbach – Lampertheim
STEGAL West	36.0	E-W	Rückersdorf – Reckrod
VTN/RTR FF	30.2	N-S	Eynatten – Zeebrugge / Zelzate
Slochteren	27.5	N-S	Hilvarenbeek – Blaregnies
Ex 's Gravenvoeren	27.1	N-S	–
BEB OTR 1	20.0	N-S	Emden – Wardenburg
STEGAL East	20.0	E-W	Olbernhau to Rückersdorf
Ex Oltingue	19.7	N-S	–
BEB OTR 8	19.3	N-S	Oude Statenzijl – Ganderkesee
En OSZ RG	18.6	N-S	–
WAG	18.5	E-W	Baumgarten – Oberkappel
En Emden EPT	18.2	N-S	–
SEGEO	17.9	N-S	's Gravenvoeren – Blaregnies
En Emden NPT	13.1	N-S	–
MEGAL Sud FF	11.1	E-W	Oberkappel – Schwandorf
RWE OTR 3	10.9	N-S	Emsbüren – Hünxe
BEB OTR 3	9.6	N-S	Oude Statenzijl – Achim
BEB OTR 5	6.9	N-S	Quarnstedt – Heidenau
BEB OTR 10	6.7	N-S	Ganderkesee – Drohne
DEUDAN	6.6	N-S	Ellund – Quarnstedt
RWE OTR 2	3.7	N-S	Bunder Tief – Emsbüren
BEB OTR 7	2.6	N-S	Bunde – Emsbüren
RWE OTR 1	1.6	N-S	Emden – Bunder Tief

Source: Energy Sector Inquiry 2005/2006.

ANNEX B
Geographic markets for electricity

1) As regards geographic markets for electricity, despite efforts by the Community to integrate further the different territorial markets in the EU, the Commission has usually found that the geographic market is most of the time national[442], but that it may sometimes be smaller[443]or larger[444]. Relevant elements which support the existence of a smaller or larger market include in particular system designs, the existence and frequency of congestion at points in the grid, the existence of prices correlation (see table g) and price differentials, and the differing nature of supply and demand on both sides of such congestion points (in particular the existence of an operator that is indispensable to meet demand[445]). This is a preliminary analysis of situations where it has been alleged that geographic markets are smaller or larger than national.

A1. Cases of geographic markets smaller than national

2) Data provided by TSOs regarding congestion inside their networks indicates *at this stage* that only the networks of the Italian TSO and the Austrian TSO experience internal congestion points.. We are thus in a position to consider possible geographic markets smaller that Member States only in these cases and in cases where network and market designs already foresee it. This is at present the case in Italy and Nord Pool (Denmark and Norway). Thus, the most congested links in Italy and the Nord Pool area have been identified, as well as the most frequent "aggregations of zones" in both systems. Also, a correlation study has been performed of prices between zones and in the case of Nord Pool, the prices of the Contract for Differences (CfD) of the different zones have been studied[446]. The data gathered over the period 2004-2005 indicated four smaller geographic markets in Italy (Macro-zone North[447], Macro zone Centre-South[448], Macro-Sicily[449], and Sardinia). It also suggests that, in the Nord Pool area, three (West Denmark, East Denmark and South Norway) areas can be considered as separate geographic markets.

3) More precisely, in the case of Italy[450], this segmentation corresponds to the links which are by far the most congested ones and aggregates the zones whose prices are almost perfectly correlated. The Macro zone Centre-South constitutes a special case in that respect. It does not occur on its own a large part of the time and is sometimes part of a wider aggregation of

442 See i.a. cases COMP/M.3440 EDP/ENI/GDP, COMP/M.3696 E.ON/MOL.

443 See case COMP/M.3729 Edf/AEM/Edison.

444 See cases COMP/M.3268 Sydkraft Graninge and COMP/M.2847 Verbund/Energie Allianz.

445 An operator is theoretically indispensable to meet demand if total demand (D) in the area is larger than the sum of the capacity (SC) of the other generators in the area and of the import capacity (IC) of the area. Given the little flexibility of demand and provided that the capacity of this operator is not much larger than (D-SC-IC), such an operator would be a hypothetical monopolist. Please consult the results of the chapter C.c.III in that respect.

446 fD in Nord Pool commit the seller of the CfD to pay the net difference between the price of the zone and the "average price of Nord Pool" at the time of "delivery" of those contracts: the price of those contracts reflect thus to a certain extent the average price difference between the zones expected by market participants.

447 This includes the Zone Nord as well as four smaller zones (Ene, Enw, Turbigo and Monfalcone)).

448 This includes the Zones Centro Nord, Piombino, Centro Sud, Sud, Rossano, Brindisi, and Calabria.

449 This includes the zones Sicilia, Priolo and Calabria.

450 This result is coherent with the approach taken by the Italian Energy Authority (*Autorità per l'Energia Elettrica e il Gas*, "AEEG") and the Italian Competition Authority (*Autorità Garante della Concorrenza nel Mercato*, "AGCM") in a Joint Report published on 9 February 2005 (the "Joint Report"). The Joint Report "*Indagine consoscitiva sullo stato della liberalizzazione del settore dell'energia elettrica*" is available on the website of AEEG http://www.autorita.energia.it/elettricita/index.htm as well as on the website of AGCM, http://www.agcm.it/index.htm

zones (often including the North zone). However, the Macro zone Centre-South is characterised by the existence of an operator who is indispensable to cover the demand most of the time[451]: the analysis will thus be carried out on the level of that macro zone. The result would of course be subject to revisions if the changes in configuration (e.g. Sardinia becoming far less separated than it used to be) are confirmed in the future[452].

a)

Frequency of congestion of the main links in Italy											
Link	**NOR-TUR**	**NOR-MON**	**NOR-CN**	**CN-PIO**	**PIO-CS**	**CS-SUD**	**SUD-ROS**	**ROS-BRN**	**ROS-CAL**	**CAL-**	**PIO-SAR**
2004	1%	1%	36%	13%	0%	0%	7%	12%	17%	41%	73%
2005	0%	0%	23%	1%	4%	0%	0%	1%	8%	50%	17%
Whole period	1%	0%	30%	12%	2%	0%	4%	7%	12%	45%	46%

Source: GME TUR=Turbigo, MON=Monfalcone, CN=CentroNord, CS=CentroSud, PIO=Piombino; ROS=Rossano, BRN=Brindisi, CAL=Calabria, SIC=Sicily, SAR=Sardinia.
Note: All figures are rounded. Figures for 2005 correspond to the period January-August. All percentages are rounded.

b)

Correlation of prices of the main neighbouring zones in Italy									
	NOR-CN	**CN-PIO**	**PIO-CS**	**CS-SUD**	**SUD-ROS**	**ROS-BRN**	**ROS-CAL**	**CAL-SIC**	**PIO-SAR**
Correlation of prices	0.93	0.99	1.00	1.00	0.99	1.00	0.85	.095	0.71

Source: GME data and COMP calculations on the period January2004-August2005.

4) In the case of Nord Pool, it is likely that West Denmark represents a separate market: it is separated from other markets half of the time and its price is not correlated at all with the prices of other zones[453]. As regards East Denmark, it is usually not separate from other zones but the correlation of its price with prices of other zones remains lower than the correlation between the prices of other zones. Further, the price of the CfDs for that zone is significantly different from the price of the CfD for other zones. Last but not least, there is an operator which is indispensable to meet demand in that zone. Thus there are good reasons to consider this zone as a separate market. South Norway could also be considered as a separate market for similar reasons.

451 See the Joint Report in that respect.

452 Some comments made in the public consultation indeed note that the configurations may have been changing since August 2005 (notably the frequency of a single price area for the whole of Italy has increased). That being said, some other factors have not changed: in particular the existence of an operator which is indispensable to meet demand in the different macro-zones. See the Joint Report in that respect.

453 West Denmark also cannot be considered as in the same market as Germany as the interconenctor between them is congested most of the time. In any event, there is one main operator in West Denmark which is indispensable to meet demand in that zone.

c)

Frequency of congestion of the links in Nord Pool							
Link	**WDK-SWE**	**WDK-SNO**	**EDK-SWE**	**SWE-SNO**	**SWE-NNO**	**SNO-NNO**	**SWE-FIN**
2004	41%	41%	6%	35%	27%	44%	24%
2005	52%	52%	11%	22%	10%	28%	8%
Whole period	45%	45%	8%	30%	20%	37%	18%

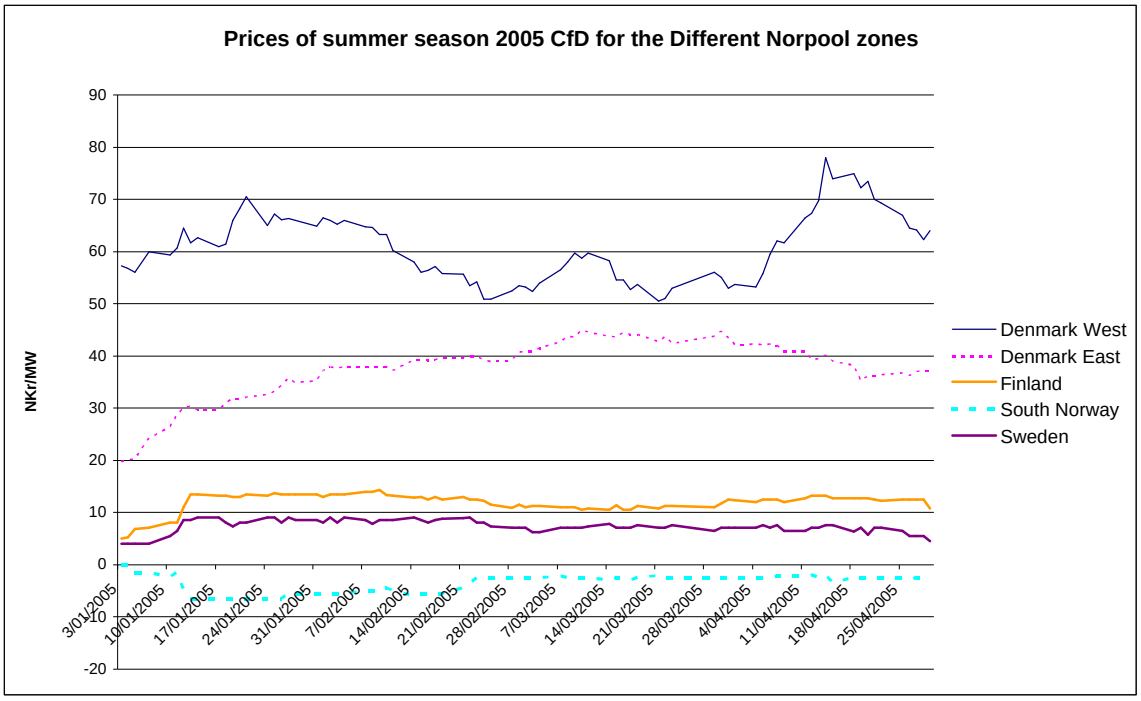
Source: Nord Pool. WDK= West Denmark, EDK= East Denmark, SWE=Sweden, SNO= South Norway, NNO=North Norway.
Note: All percentages are rounded.

d)

Correlation of prices of neighbouring zones in Nord Pool								
	WDK-EDK	**WDK-SWE**	**WDK-SNO**	**EDK-SWE**	**SWE-SNO**	**SWE-FIN**	**SWE-NNO**	**SNO-NNO**
Correlation of prices	0.42	0.45	0.36	0.74	0.74	0.87	0.86	0.83

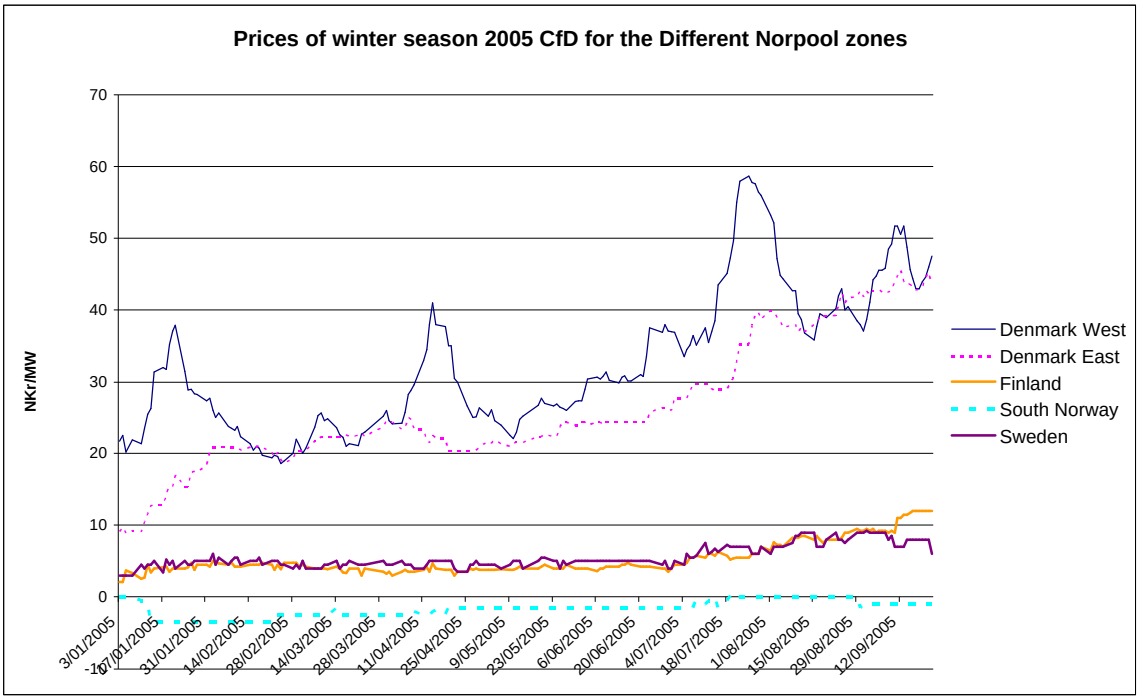
Source: Nord Pool data and COMP calculations on the period January2004-August2005.

e)



Source: Energy Sector Inquiry 2005/2006.

f)



Source: Energy Sector Inquiry 2005/2006.

A.2. Cases of geographic markets larger than national

5) The first case where a market is larger than national could be considered is Nord Pool because of the existence of its integrated market design. According to the analysis above, one could consider at most Sweden, North Norway and Finland to be part of the same geographic market. First the correlation of prices is fairly high. Second the prices of the Contract for Differences between the different zones in the forward markets indicate that operators consider that there is not much risk of trading forward between the remaining zones (except to a certain extent for North Norway). On the other hand, North Norway is separated from Sweden for one third of the time and Finland can be separated from Sweden during substantial amount of hours (especially during certain months separation can reach 40%). It is difficult to conclude without making a detailed calculation of residual demand in each of the zones, which at this stage has not yet been assessed. In line with previous Commission practice[454], the issue will be left open.

6) Some market participants have also argued that the increasing correlation of the prices of the different markets on the continent has already led to the creation of a continental market involving at least France, Belgium Germany, the Netherlands and Austria. First of all, it is important to note that this correlation remains fairly low in most cases as seen below. Second, price level differentials between spot markets and forward market products remain substantial. Further, the chapter on market integration demonstrates that congestion remains high on the borders between these MS and is in some cases even increasing. The same chapter demonstrates also that the procedures to trade between MS contain important administrative procedures that players experience as difficult (e.g. transaction costs) and risky. Further, France and Belgium continue to have a main operator which provides most

454 See case COMP/M.3867 Vattenfall/Elsam and Energi E2.

of the generation in the market and is thus indispensable to meet demand. Thus, at this stage it is not possible to conclude that a continental market has emerged.

g)

Correlation of spot prices between continental exchanges							
Exchanges	**ES-FR**	**FR-IT**	**FR-IT (Nord)**	**FR-DE**	**DE-NL**	**FR-NL**	**DE-AT**
Correlation 2004	0.66	0.63	0.60	0.91	0.55	0.07	0.93
Correlation 2005	0.71	0.58	0.60	0.83	0.69	0.16	0.85

Source: data from the exchanges and COMP calculations.
Note: The figures for 2005 correspond to the period January-September. For Italy, the first column corresponds to the whole system price (PUN), the second column to the North Zone.

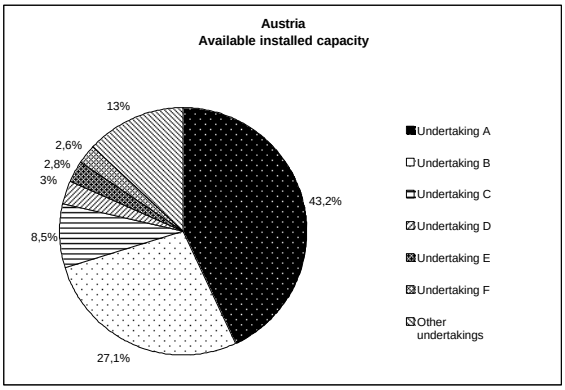
7) That being said, the data about congestion of interconnectors provided in the chapter B.b.II.3 indicates that some borders (DE-AT, DE-CH, CZ-SK) are never or almost never congested in both directions. This could lead to three possible cases where a geographic market could be larger than national. First, for the case Germany-Austria, it must be noted that while the price of the EXAA is rather well correlated to that of EEX, this correlation is decreasing (see table A1). Further there are some congestion points inside the Austrian grid and more importantly, the main operator in Austria generates roughly half of the generation needed to cover consumption, so it is indispensable to meet demand. For that reason, it is difficult to conclude that the market comprises both Member states. The size of the incumbent operator leads to the same conclusion in the case of the Czech and Slovak republics. As regards the possible integration of Switzerland and Germany in the same geographic market, it is first important to note that congestion has started to occur on the border and that an auction mechanism was put in place in early January 2006. In any event, the absence of liberalisation and corresponding regulation of networks in Switzerland[455] make the two national markets too different to be considered as part of the same relevant market.

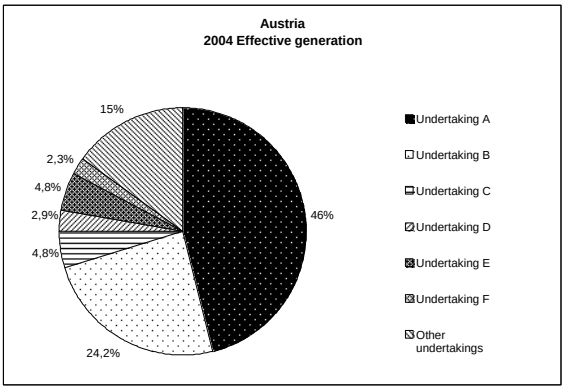
8) Finally, reference is made to the analysis made in chapter C.c.III, in particular as regards residual demand and the existence of an operator that is indispensable to meet demand[456] in several Member States.

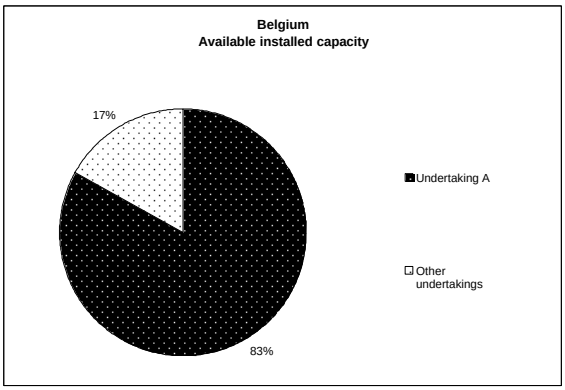
455 This means in particular that there is no regulation of networks which would allow non-discriminatory access, a prerequisite for a true wholesale market to emerge.

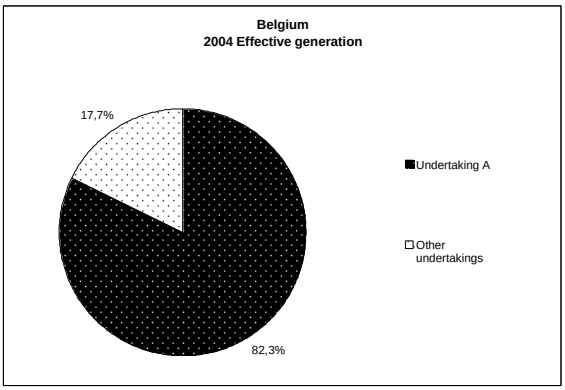
456 An operator is theoretically indispensable to meet demand if total demand (D) in the area is larger than the sum of the capacity (SC) of the other generators in the area and of the import capacity (IC) of the area. Given the little flexibility of demand and provided that the capacity of this operator is not much larger than (D-SC-IC), such an operator would be a hypothetical monopolist.

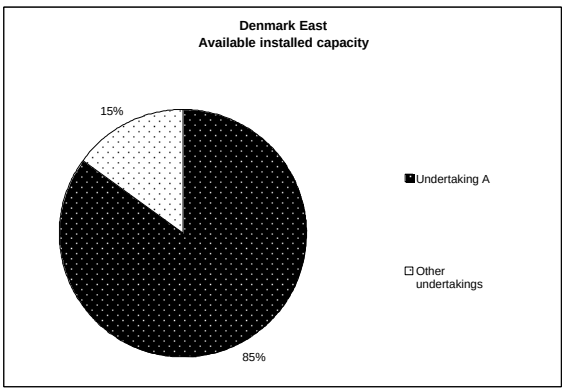
ANNEX C
Shares in available installed capacity and effective generation for a selection of countries, 2004

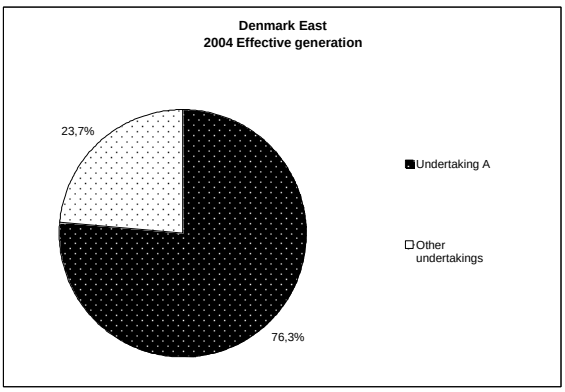


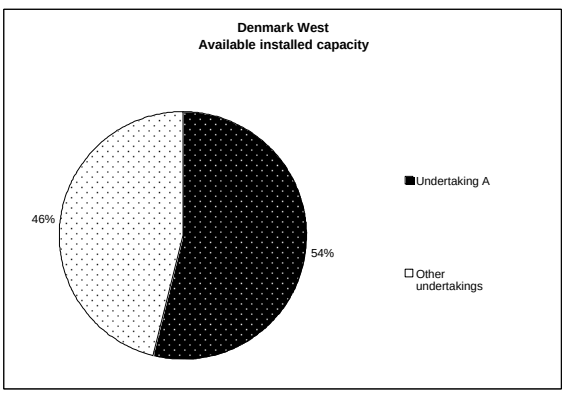


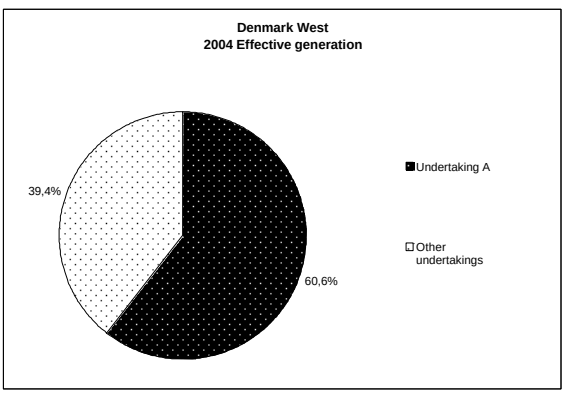


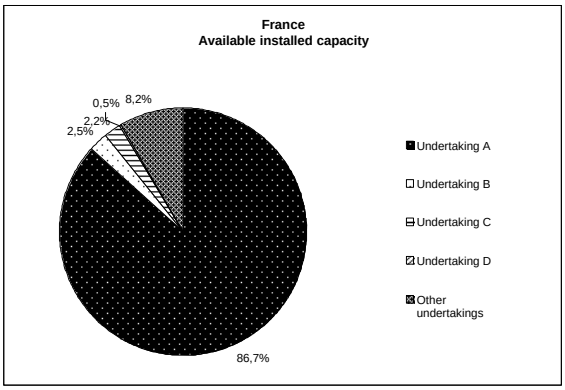


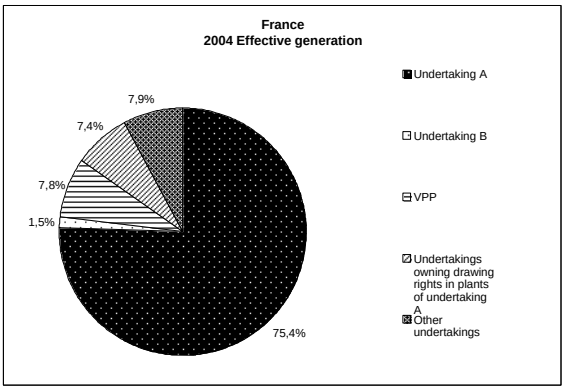


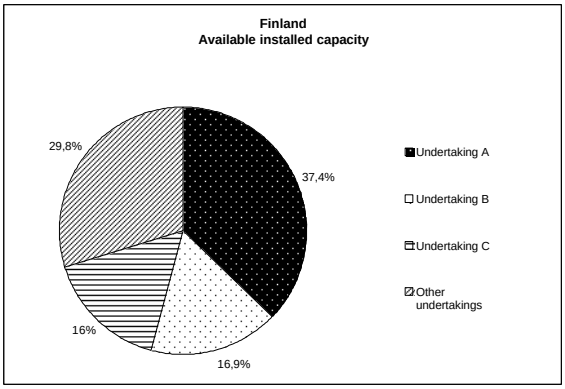


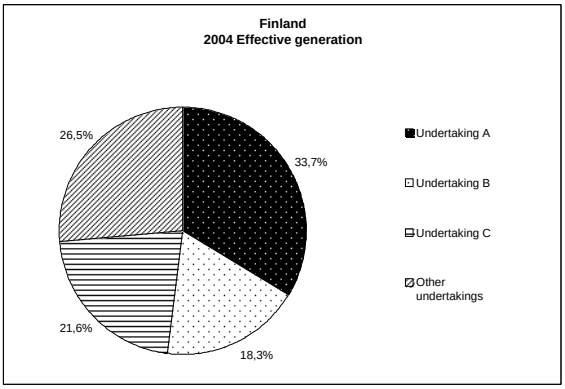


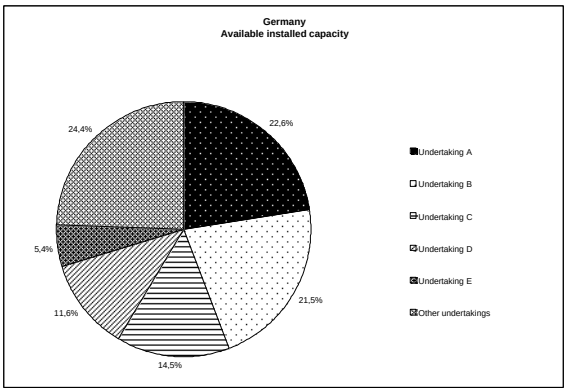


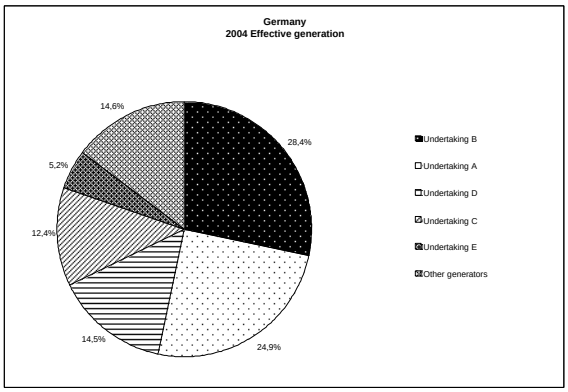

France
Available installed capacity
0,5%
8,2%
2,2%
2,5%
86,7%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Other undertakings

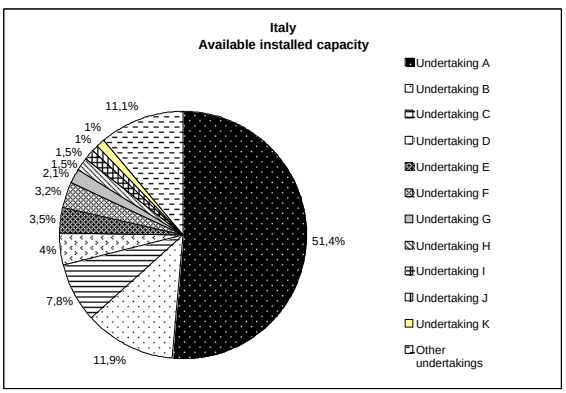

France
2004 Effective generation
7,9%
7,4%
7,8%
1,5%
75,4%
Undertaking A
Undertaking B
VPP
Undertakings owning drawing rights in plants of undertaking A
Other undertakings

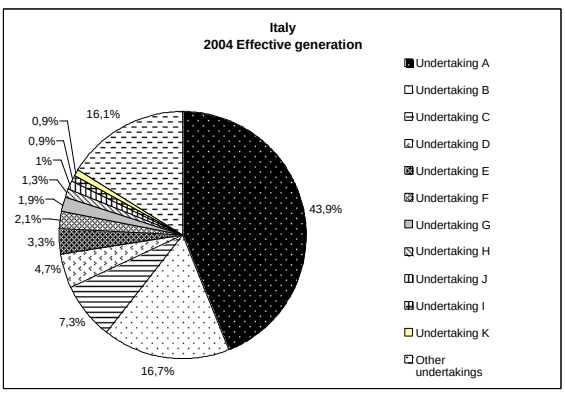

Finland
Available installed capacity
29,8%
37,4%
16%
16,9%
Undertaking A
Undertaking B
Undertaking C
Other undertakings


Finland
2004 Effective generation
26,5%
33,7%
21,6%
18,3%
Undertaking A
Undertaking B
Undertaking C
Other undertakings

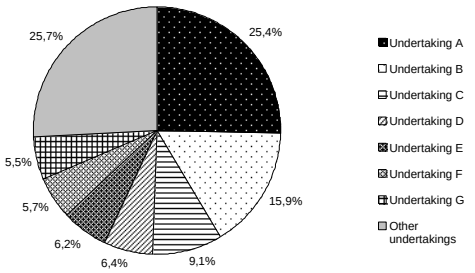

Germany
Available installed capacity
24,4%
22,6%
5,4%
21,5%
11,6%
14,5%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Other undertakings


Germany
2004 Effective generation
14,6%
28,4%
5,2%
12,4%
14,5%
24,9%
Undertaking B
Undertaking A
Undertaking D
Undertaking C
Undertaking E
Other generators

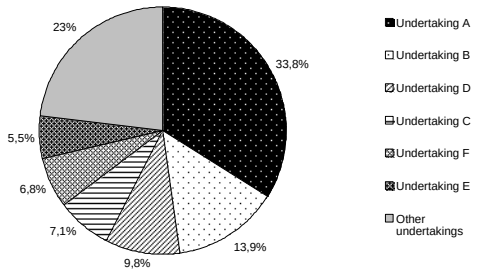

Italy
Available installed capacity
11,1%
1%
1%
1,5%
1,5%
2,1%
3,2%
3,5%
4%
7,8%
11,9%
51,4%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Undertaking H
Undertaking I
Undertaking J
Undertaking K
Other undertakings


Italy
2004 Effective generation
16,1%
0,9%
0,9%
1%
1,3%
1,9%
2,1%
3,3%
4,7%
7,3%
16,7%
43,9%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Undertaking H
Undertaking J
Undertaking I
Undertaking K
Other undertakings

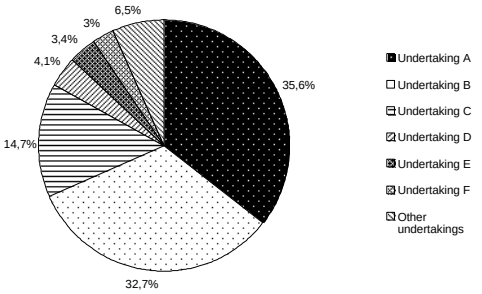
Poland
Available installed capacity



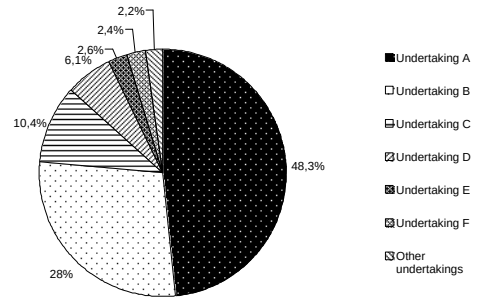
Poland
2004 Effective generation



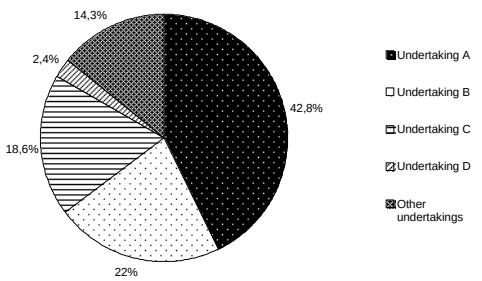
Spain
Available installed capacity



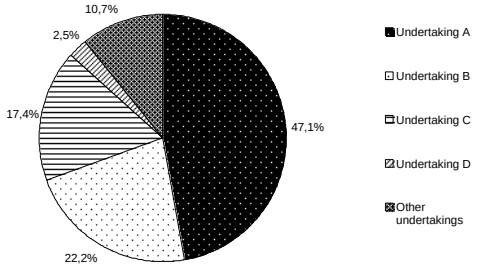
Spain
2004 Effective generation



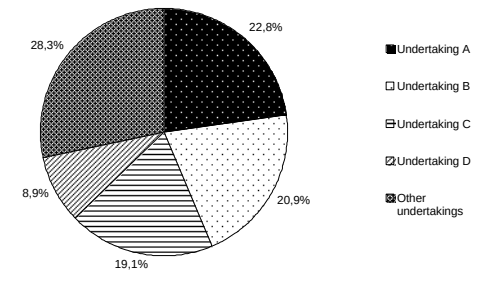
Sweden
Available installed capacity



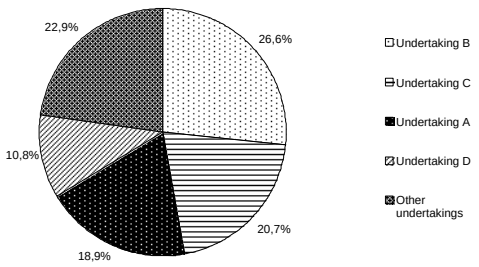
Sweden
2004 Effective generation

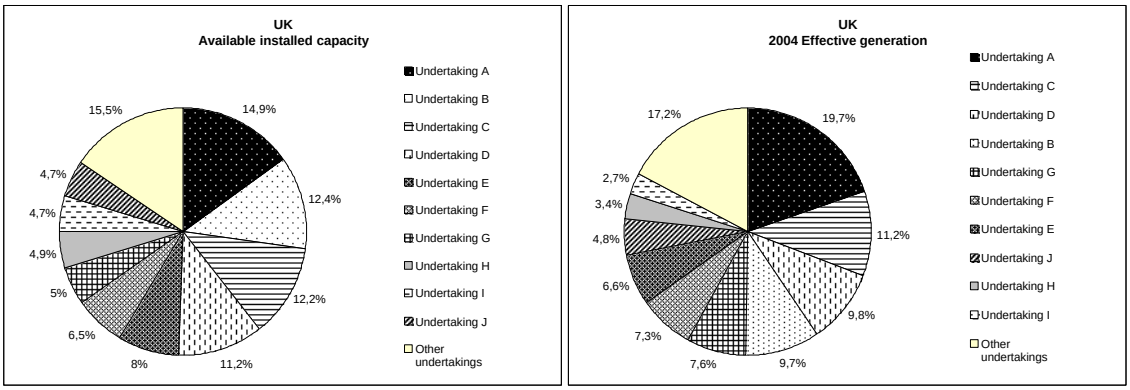


The Netherlands
Available installed capacity



The Netherlands
2004 Effective generation





Source: Energy Sector Inquiry 2005/2006.

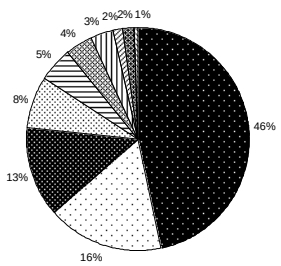
The figures on capacity (graphs on the left) are based on capacity *installed and owned* within the Member State concerned: they do not include capacity owned by the same undertaking in another Member State and do not include capacity which could be used through the use of drawing rights in plants owned by another undertaking. The use of drawing rights is reflected in figures about effective production (graphs on the right) only the extent that these drawing rights and the corresponding output were identified by market participants.

Some comments made in the public consultation argued that the graph of effective production for Spain was not consistent with publicly available figures. The figures have been checked again and the chart remains the same. The graph is based on the data provided by the operators for their own production and for total production on publicly available figures. The discrepancy may result thus from the fact that publicly reported generation for individual generators is not equal to individual generation reported to DG COMP.

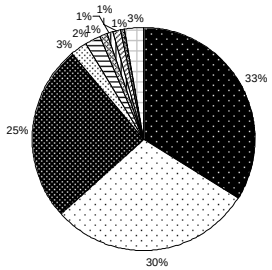
ANNEX D
Sales and purchases shares in existing forward markets, 2004

Note: the graphs represent sellers on the left side and buyers on the right side. The same pattern/color is not meant to represent the same operator in both graphs.
The pattern ▭ represents in each Figure the category "other undertakings", i.e. the aggregation of all undertakings which have not been represented individually in the Figures.

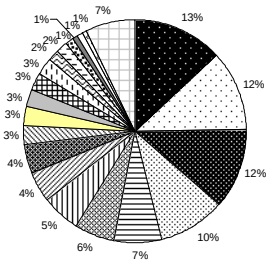
Belgium 2004
Shares of the main SELLERS of yearly foward products



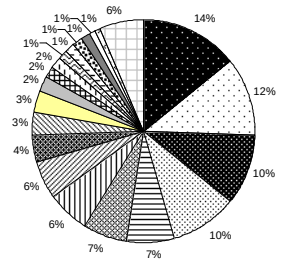
Belgium 2004
Shares of the main BUYERS of yearly foward products



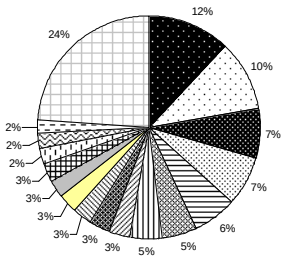
France 2004
Shares of the main SELLERS of yearly foward products



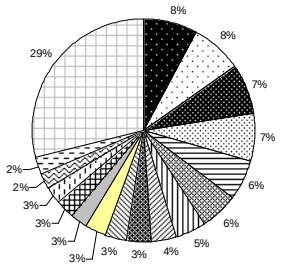
France 2004
Shares of the main BUYERS of yearly foward products



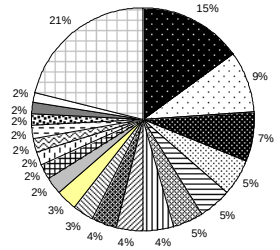
Germany 2004
Shares of the main SELLERS of yearly foward products



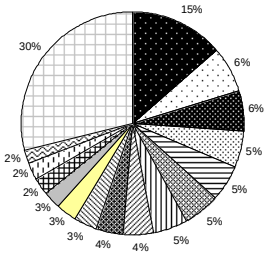
Germany 2004
Shares of the main BUYERS of yearly foward products



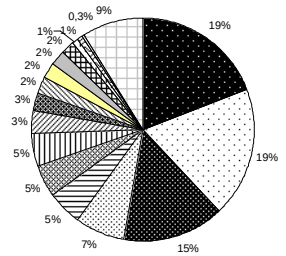
Nord pool 2004
Shares of the main SELLERS of yearly foward products



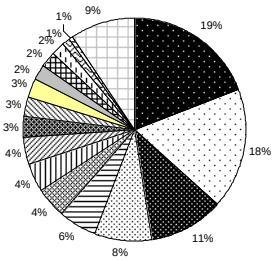
Nord pool 2004
Shares of the main BUYERS of yearly foward products



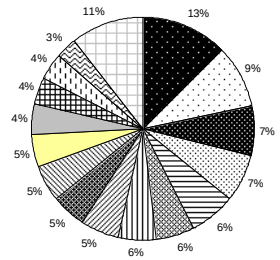
The Netherlands 2004
Shares of the main SELLERS of yearly foward products



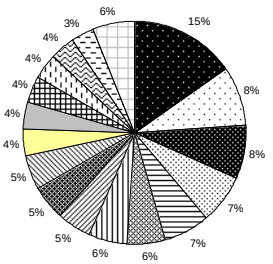
The Netherlands 2004
Shares of the main BUYERS of yearly foward products



UK April-September 2004
Shares of the main SELLERS of season foward products



UK April-September 2004
Shares of the main BUYERS of season foward products

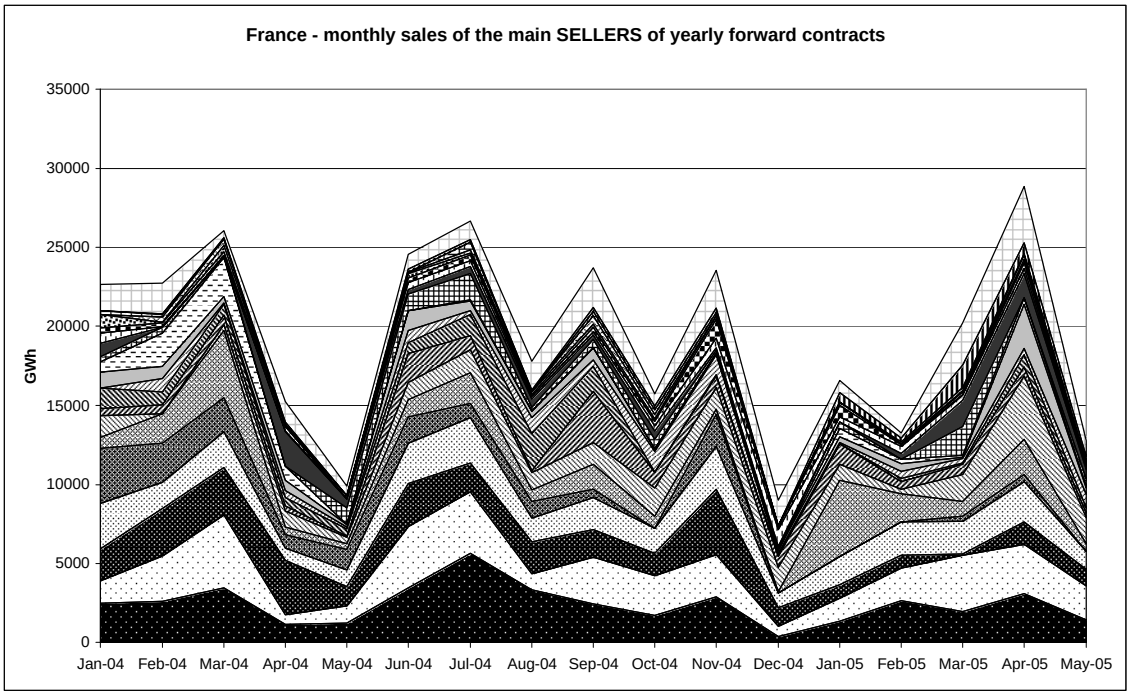


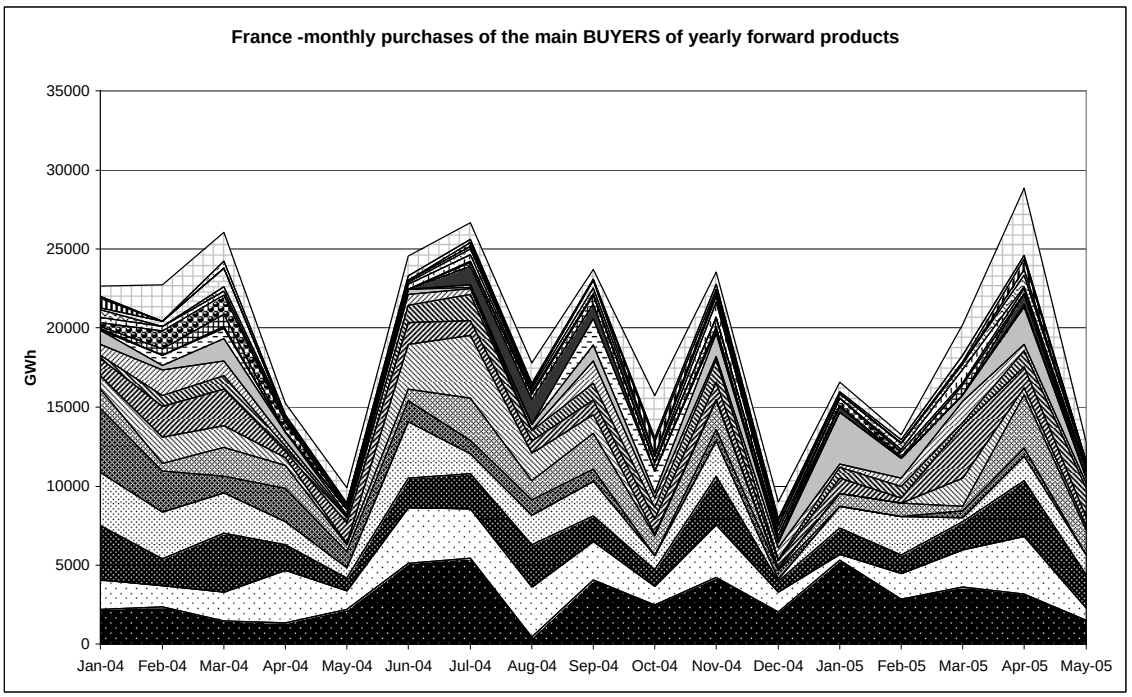
Source: Energy Sector Inquiry 2005/2006

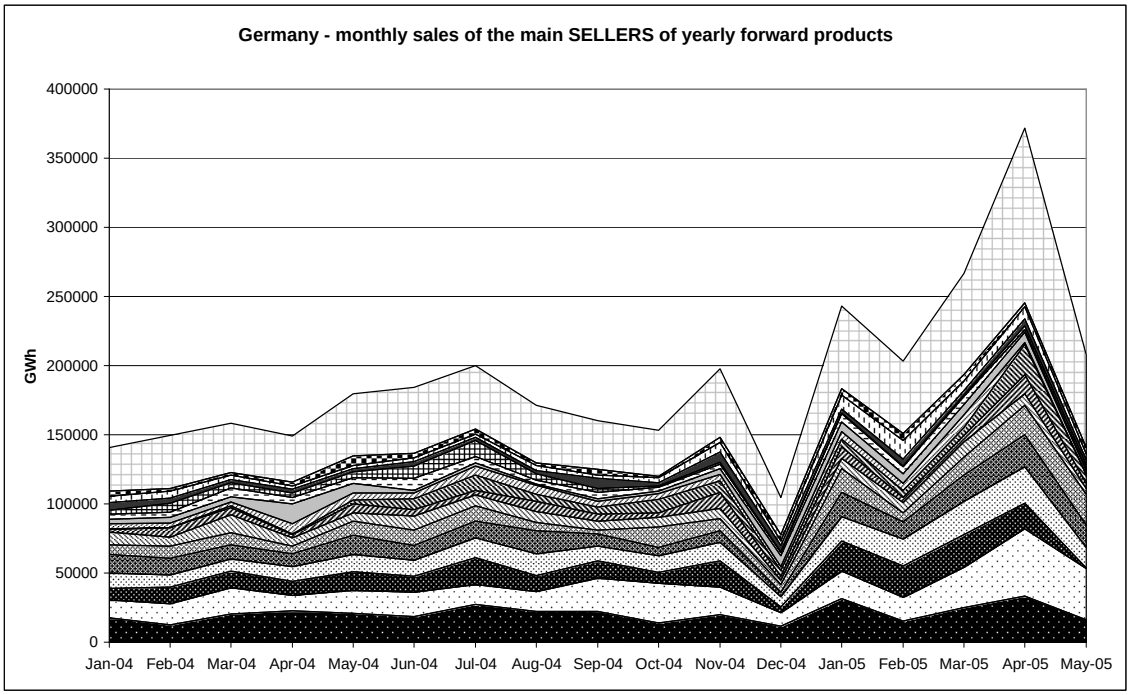
ANNEX E
Evolution of sales and purchases shares in existing forward markets, 2004

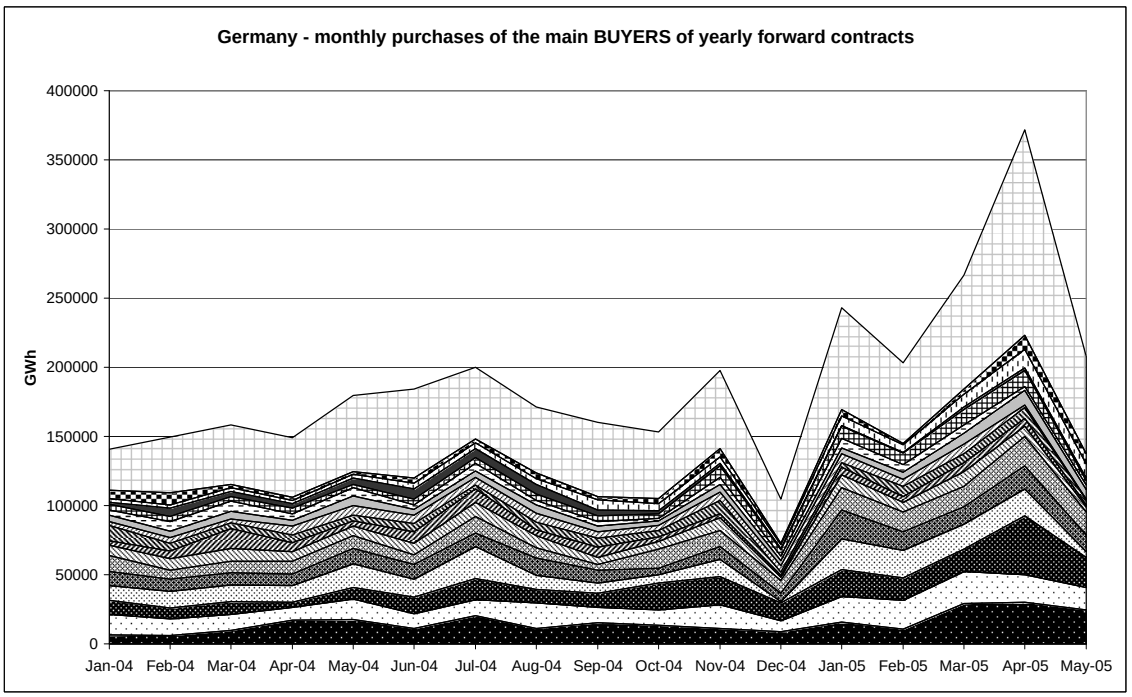
Note: the graphs represent successively sellers and buyers for each market. The same pattern/colour is not meant to represent the same operator in both graphs, but for very few exceptions.
The pattern ▭ represents in each Figure the category "other undertakings", i.e. the aggregation of all undertakings which have not been represented individually in the Figures.

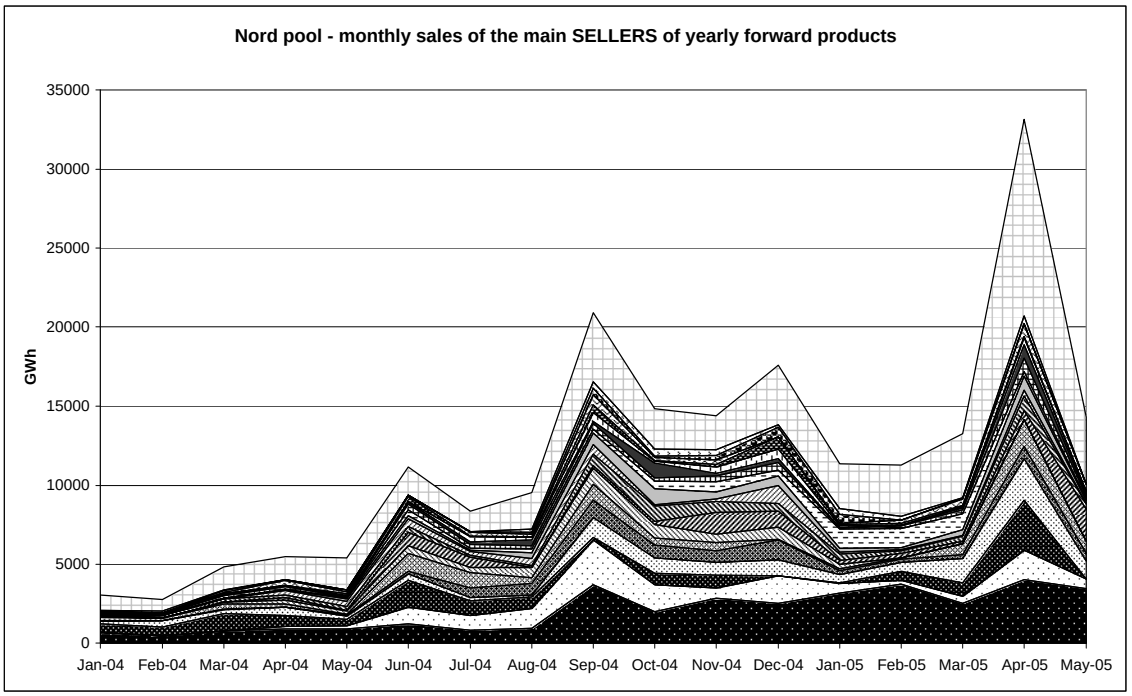
The charts for Belgium cannot be shown given the very few operators actively trading: these charts would reveal the strategy of those operators.

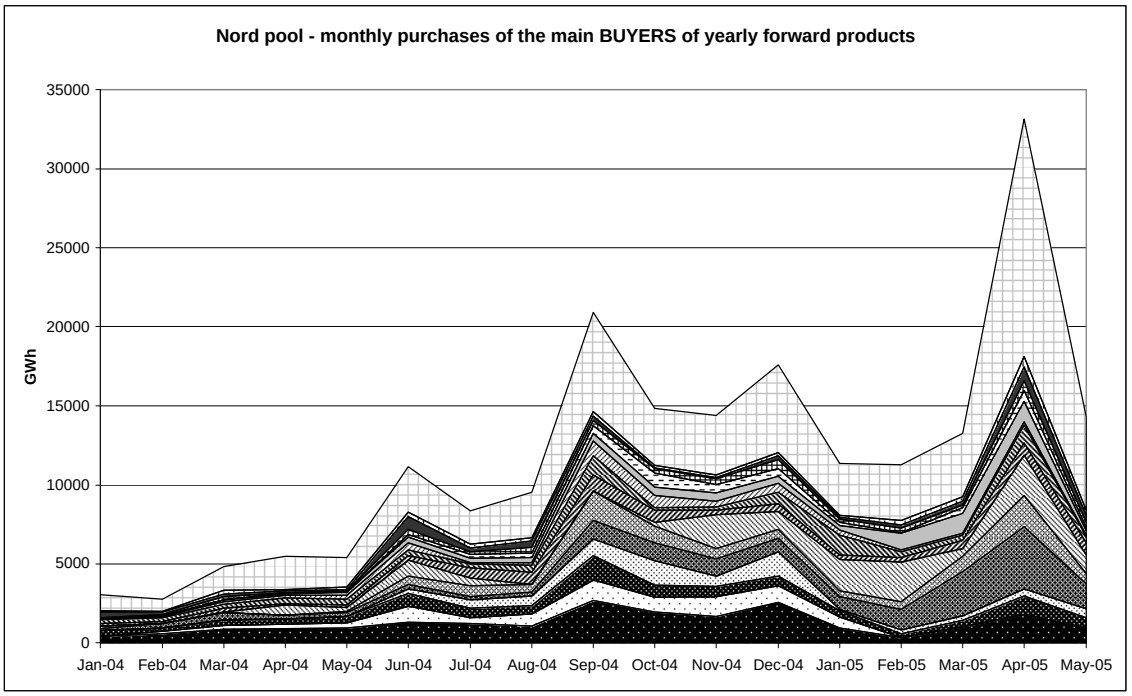


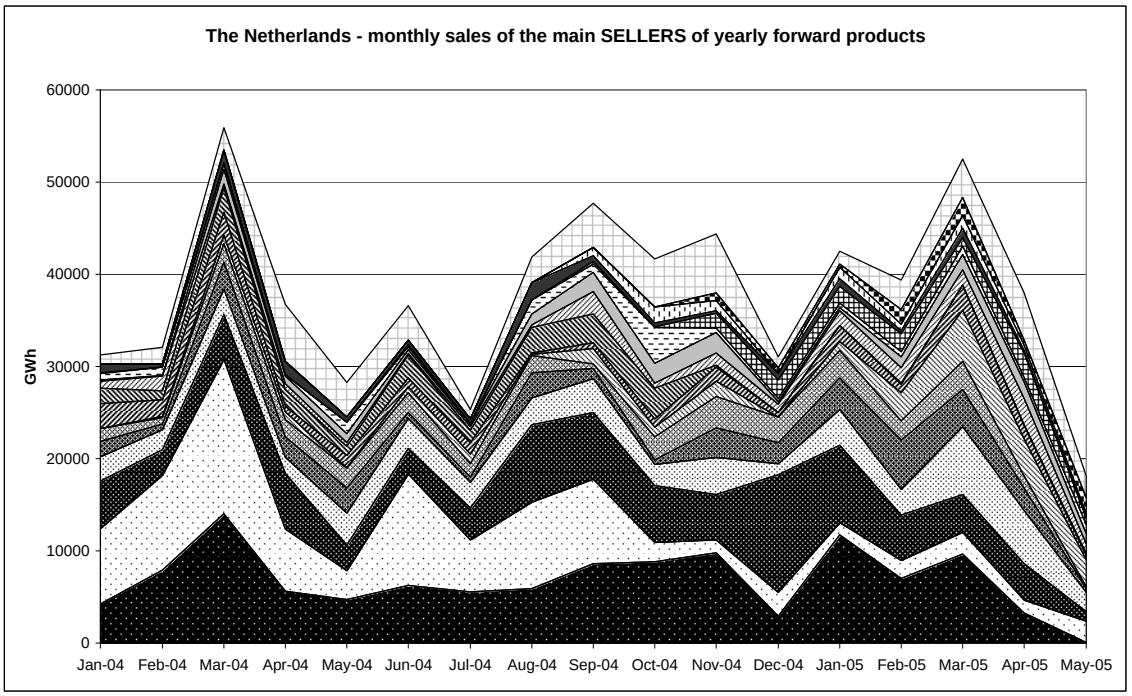


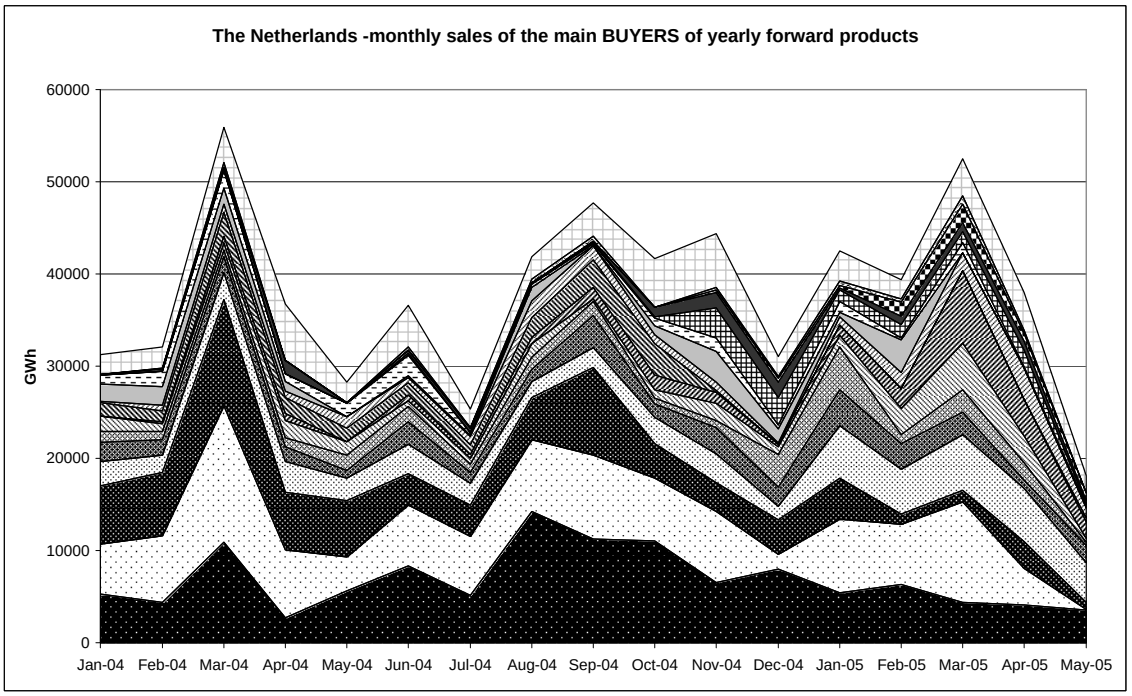

Germany - monthly sales of the main SELLERS of yearly forward products
GWh
400000
350000
300000
250000
200000
150000
100000
50000
0
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Jul-04
Aug-04
Sep-04
Oct-04
Nov-04
Dec-04
Jan-05
Feb-05
Mar-05
Apr-05
May-05

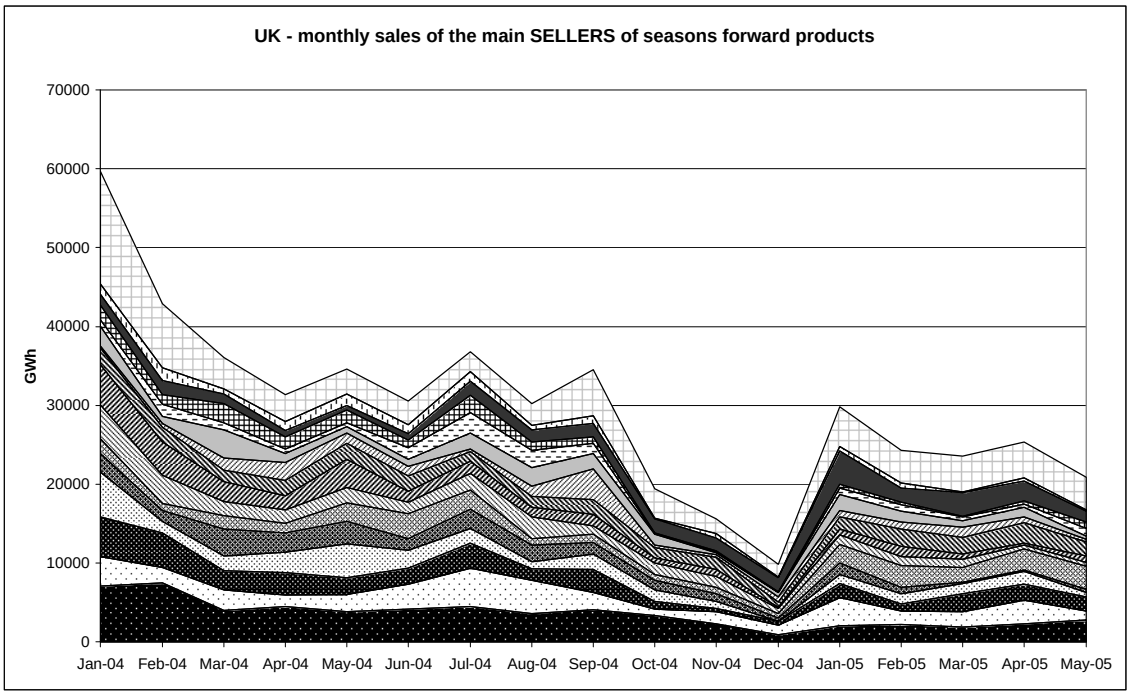

Germany - monthly purchases of the main BUYERS of yearly forward contracts
GWh
400000
350000
300000
250000
200000
150000
100000
50000
0
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Jul-04
Aug-04
Sep-04
Oct-04
Nov-04
Dec-04
Jan-05
Feb-05
Mar-05
Apr-05
May-05

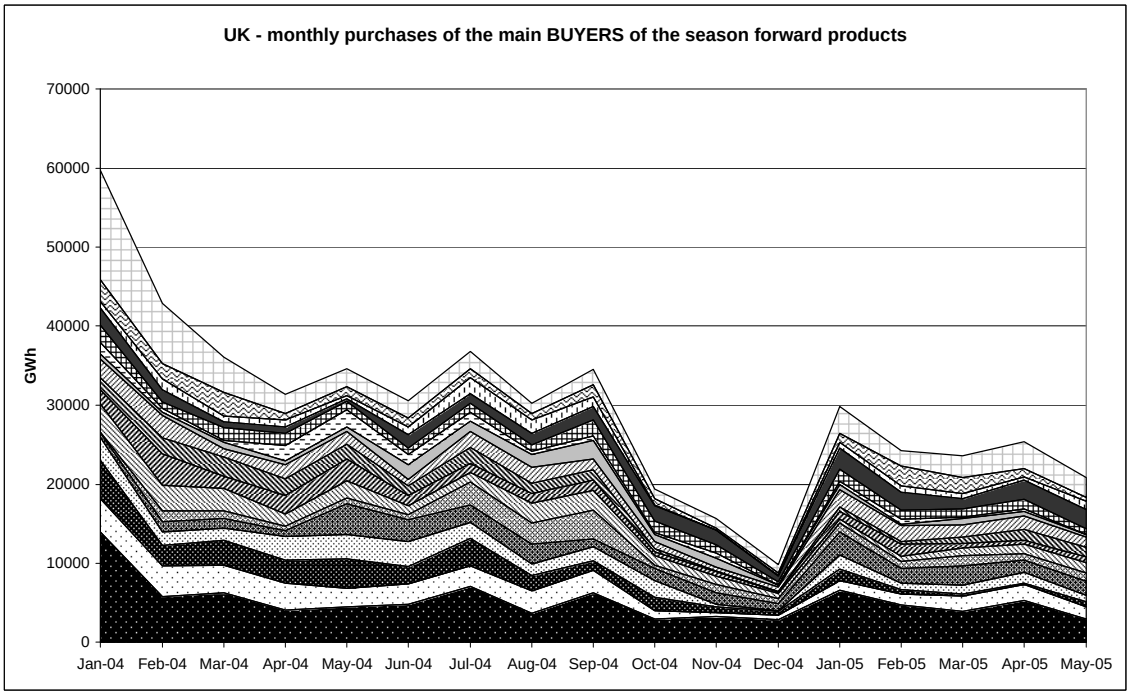

Nord pool - monthly sales of the main SELLERS of yearly forward products
GWh
35000
30000
25000
20000
15000
10000
5000
0
Jan-04 Feb-04 Mar-04 Apr-04 May-04 Jun-04 Jul-04 Aug-04 Sep-04 Oct-04 Nov-04 Dec-04 Jan-05 Feb-05 Mar-05 Apr-05 May-05


Nord pool - monthly purchases of the main BUYERS of yearly forward products
GWh
35000
30000
25000
20000
15000
10000
5000
0
Jan-04 Feb-04 Mar-04 Apr-04 May-04 Jun-04 Jul-04 Aug-04 Sep-04 Oct-04 Nov-04 Dec-04 Jan-05 Feb-05 Mar-05 Apr-05 May-05


The Netherlands - monthly sales of the main SELLERS of yearly forward products
GWh
60000
50000
40000
30000
20000
10000
0
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Jul-04
Aug-04
Sep-04
Oct-04
Nov-04
Dec-04
Jan-05
Feb-05
Mar-05
Apr-05
May-05


The Netherlands -monthly sales of the main BUYERS of yearly forward products
GWh
60000
50000
40000
30000
20000
10000
0
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Jul-04
Aug-04
Sep-04
Oct-04
Nov-04
Dec-04
Jan-05
Feb-05
Mar-05
Apr-05
May-05

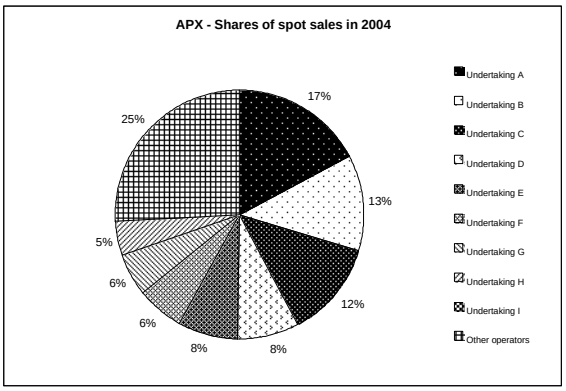


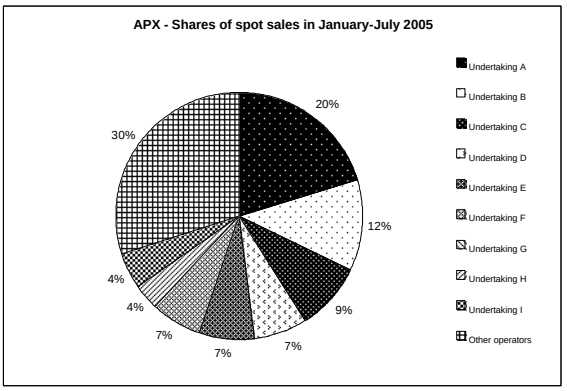


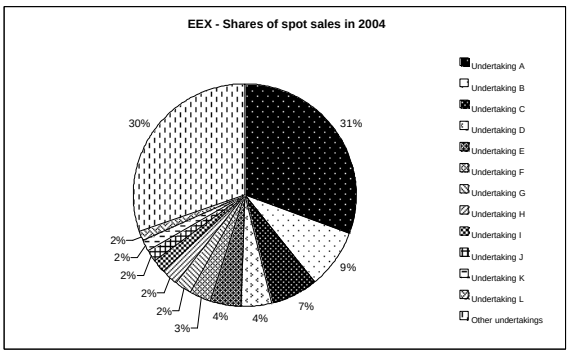
Source: Energy Sector Inquiry 2005/2006.

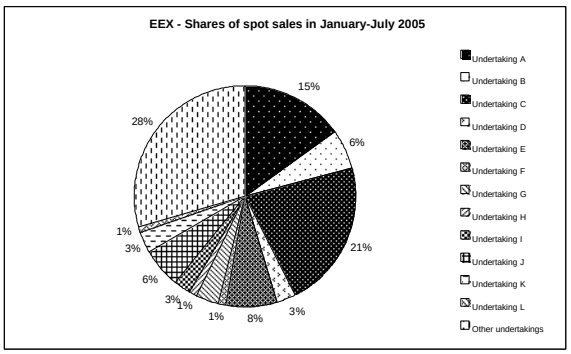
ANNEX F
Shares of spot sales in the different power exchanges in 2004 and 2005.

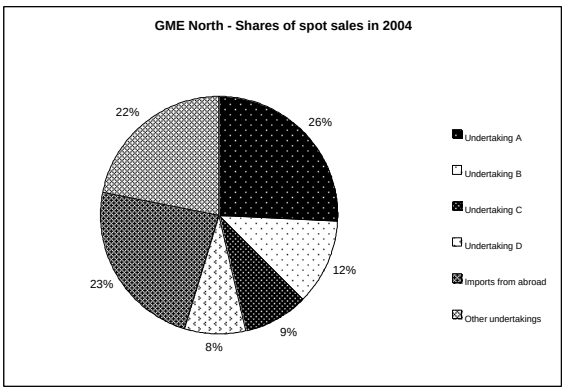
Note: the same pattern/colour represents the same undertaking in both pies for a given market.

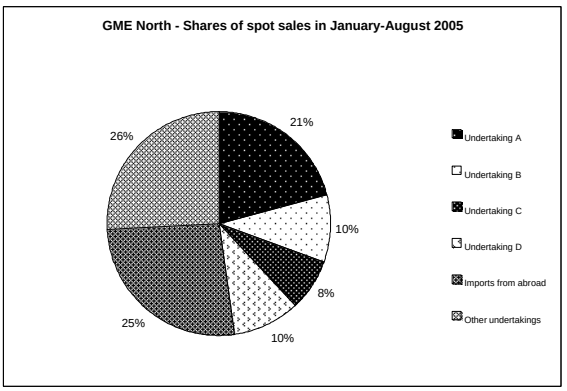


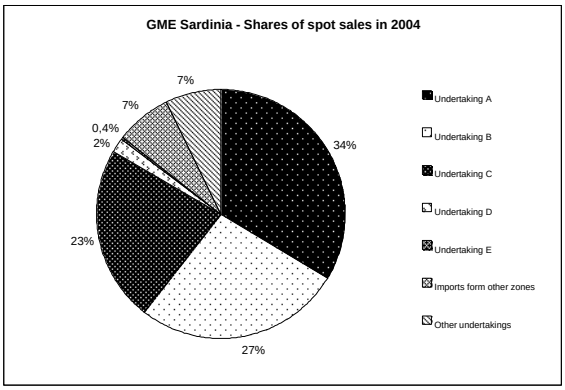


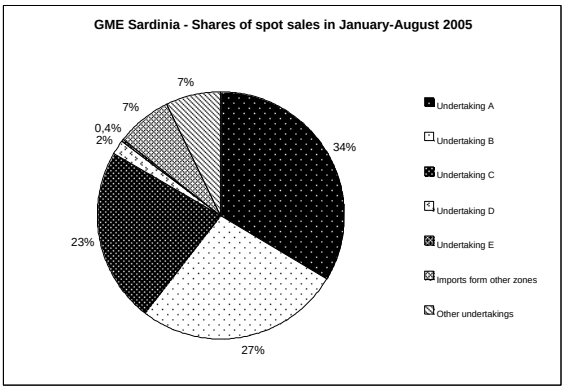


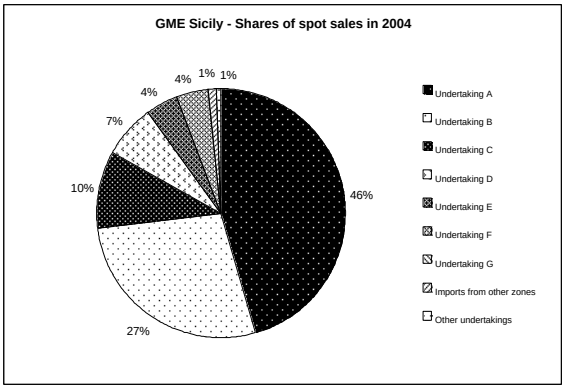


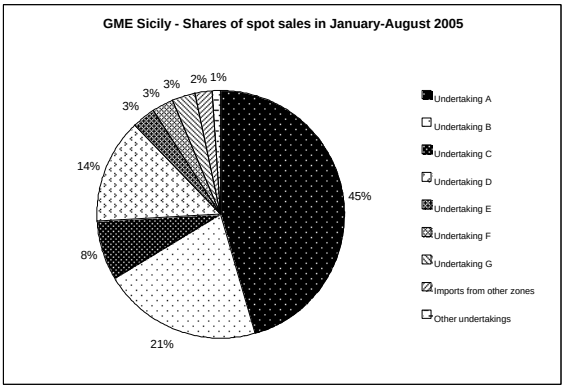


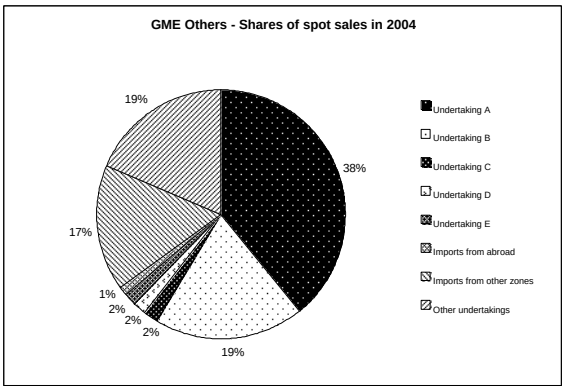


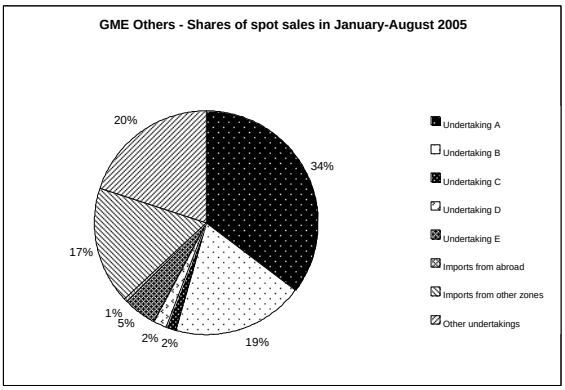

GME Sardinia - Shares of spot sales in 2004
34%
27%
23%
2%
0,4%
7%
7%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Imports form other zones
Other undertakings


GME Sardinia - Shares of spot sales in January-August 2005
34%
27%
23%
2%
0,4%
7%
7%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Imports form other zones
Other undertakings

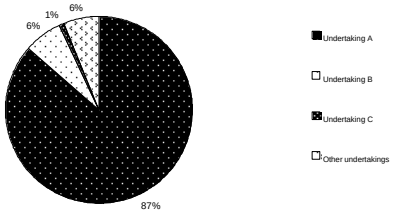

GME Sicily - Shares of spot sales in 2004
46%
27%
10%
7%
4%
4%
1%
1%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Imports from other zones
Other undertakings


GME Sicily - Shares of spot sales in January-August 2005
45%
21%
8%
14%
3%
3%
3%
2%
1%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Imports from other zones
Other undertakings

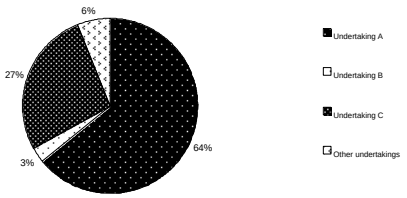

GME Others - Shares of spot sales in 2004
38%
19%
17%
1%
2%
2%
2%
19%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Imports from abroad
Imports from other zones
Other undertakings


GME Others - Shares of spot sales in January-August 2005
34%
19%
17%
1%
5%
2%
2%
20%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Imports from abroad
Imports from other zones
Other undertakings

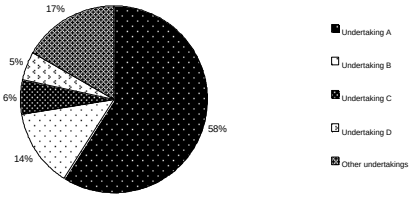
Nord Pool East Denmark - Shares of spot sales in 2004



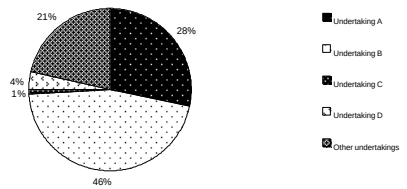
Nord Pool East Denmark - Shares of spot sales in Jan-Aug 2005



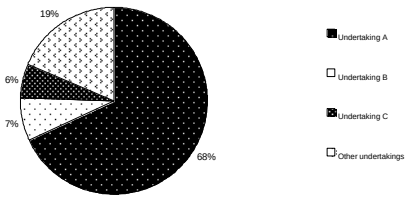
Nord pool West Denmark - Shares of spot sales in 2004



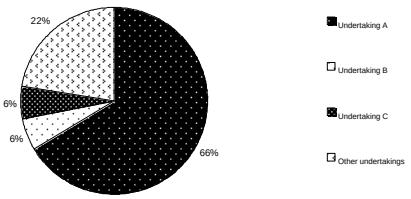
Nord Pool West Denmark -Shares of spot sales in Jan-Aug 2005



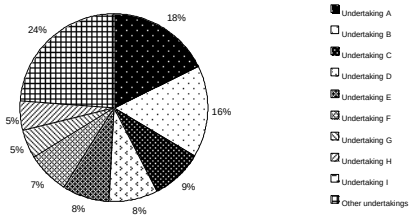
Nord Pool Finland - Shares of spot sales in 2004



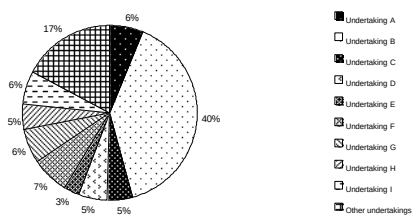
Nord Pool Finland - Shares of spot sales in January-August 2005



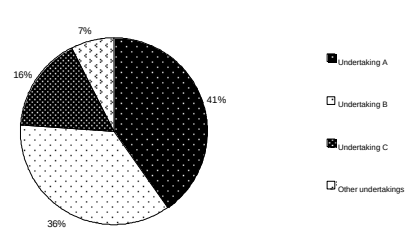
Nord Pool South Norway - Shares of spot sales in 2004



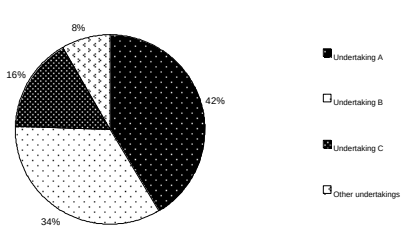
Nord Pool South Norway Shares of spot sales in Jan-Aug 2005

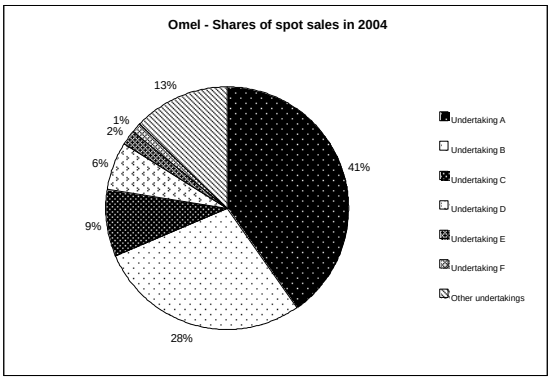


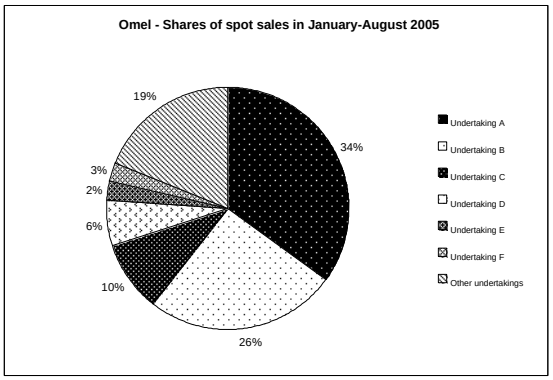
Nord Pool Sweden - Shares of spot sales in 2004

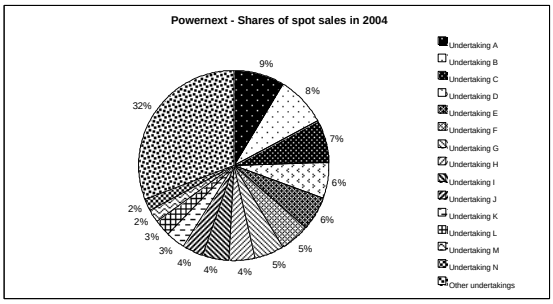


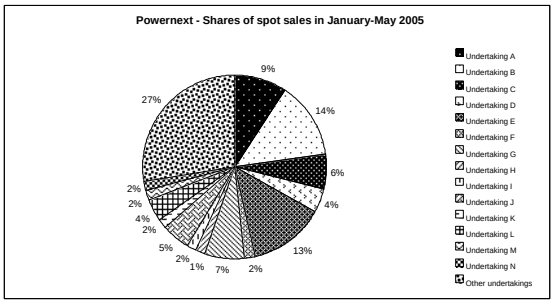
Nord Pool Sweden - Shares of spot sales in January-August 2005




Omel - Shares of spot sales in 2004
41%
28%
9%
6%
2%
1%
13%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Other undertakings


Omel - Shares of spot sales in January-August 2005
34%
26%
10%
6%
2%
3%
19%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Other undertakings

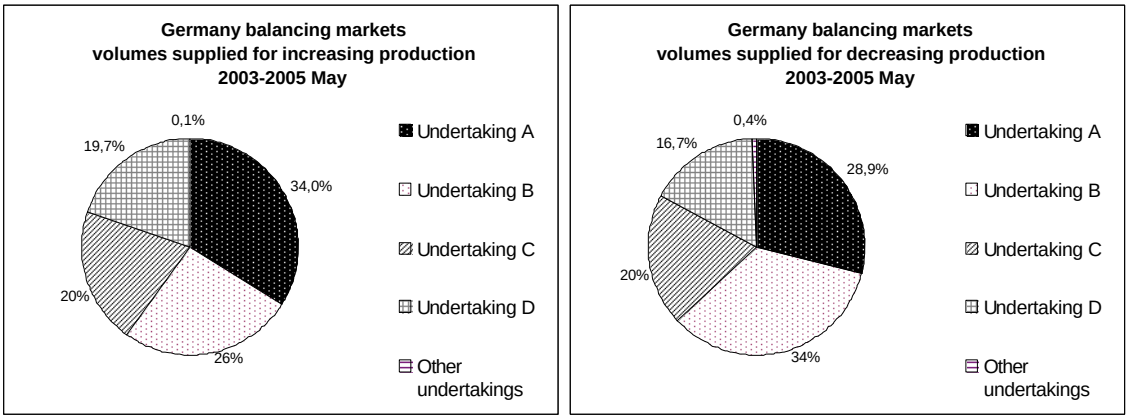

Powernext - Shares of spot sales in 2004
9%
8%
7%
6%
6%
5%
5%
4%
4%
4%
3%
3%
2%
2%
32%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Undertaking H
Undertaking I
Undertaking J
Undertaking K
Undertaking L
Undertaking M
Undertaking N
Other undertakings


Powernext - Shares of spot sales in January-May 2005
9%
14%
6%
4%
13%
2%
7%
1%
2%
5%
4%
2%
2%
2%
27%
Undertaking A
Undertaking B
Undertaking C
Undertaking D
Undertaking E
Undertaking F
Undertaking G
Undertaking H
Undertaking I
Undertaking J
Undertaking K
Undertaking L
Undertaking M
Undertaking N
Other undertakings

ANNEX G
First elements of analysis of balancing markets

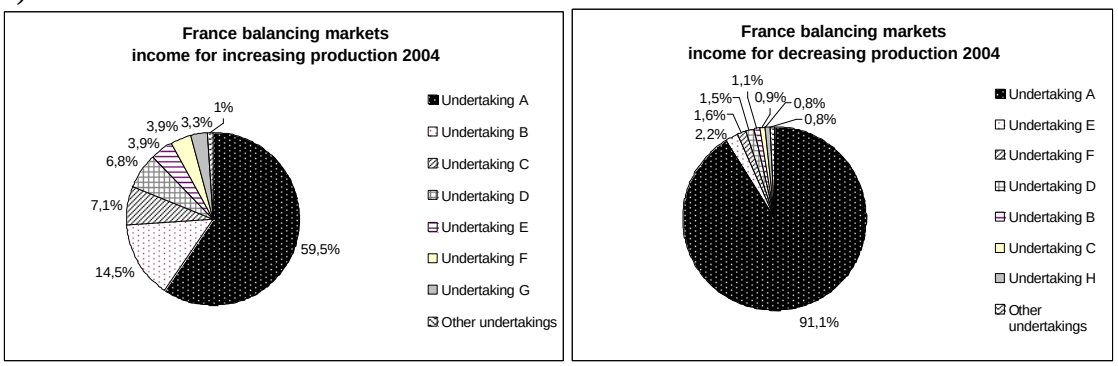
Figure a) show the concentration in the German balancing market segment aggregated for the whole of Germany. The shares (in percentages) represent the volumes supplied (MWh) by generators aggregating secondary and tertiary reserves that have been supplied during 2003 until May 2005. To be clear, though Germany has four so-called control areas it is reasonable to aggregate the volumes for reserves across these areas since supplying reserve power across control areas is possible. The figure reveal that four actors are mainly supplying reserves.

a)



The figure b) shows the share of income that operators received from the French TSO for balancing services (only tertiary reserves). All main actors in the balancing markets are either owners of generation assets or have drawing rights in generation capacity of third parties.

b)



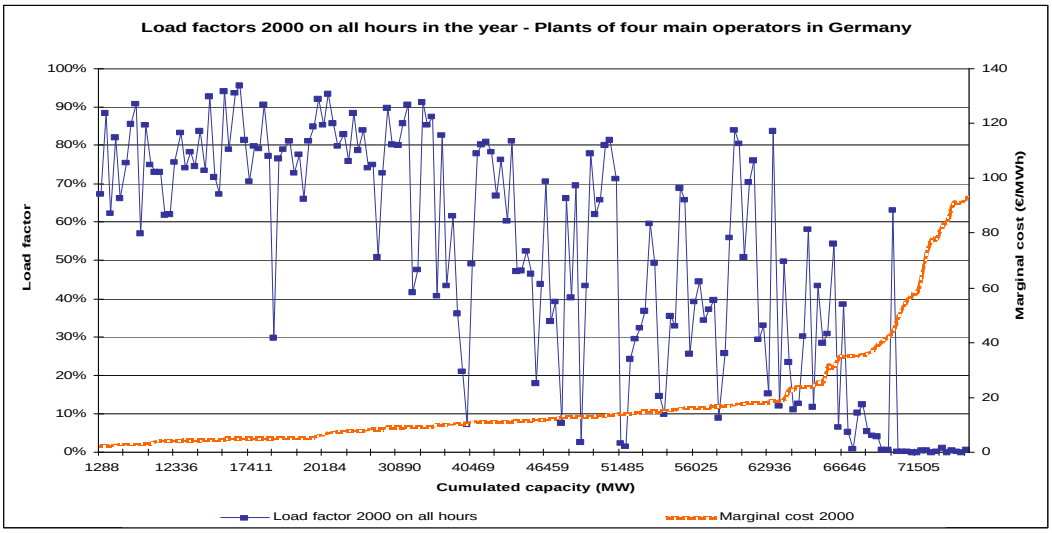
ANNEX H
Importance of transparency on 49 individual issues, according to market participants

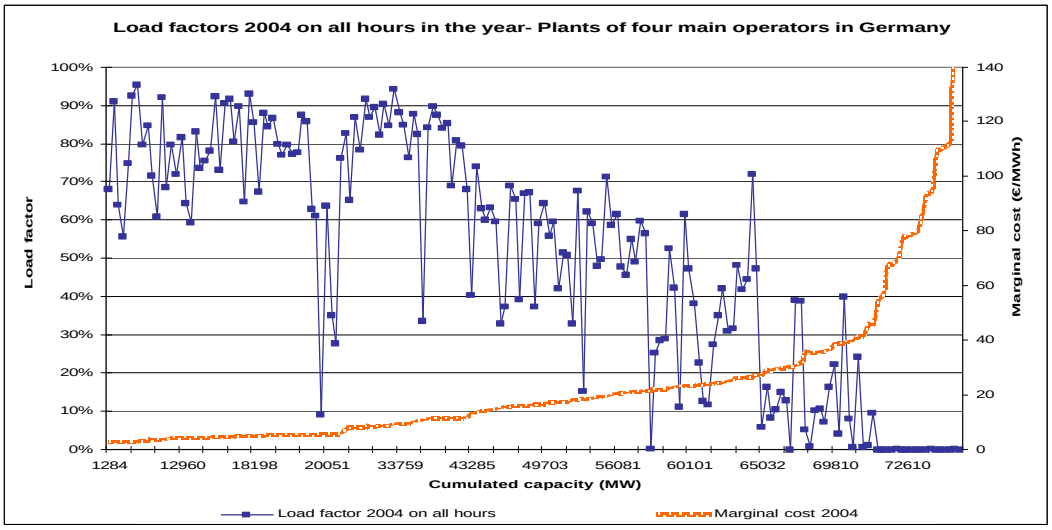
Note: These figures are discussed in section B.b.II.4.3

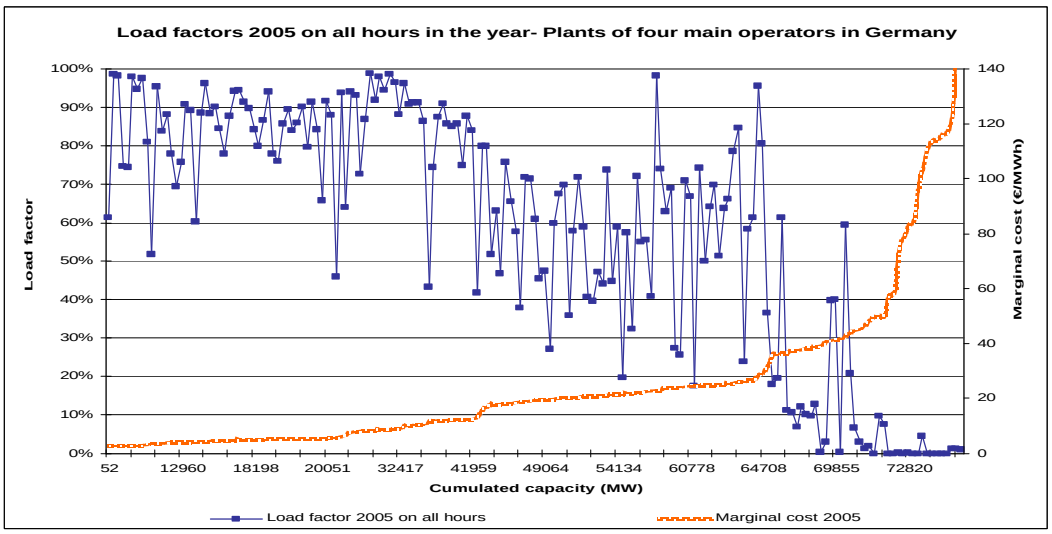
Issues	Information indispensable, important or useful	Information not useful
Location of congestion	95,4%	4,6%
Frequency of congestion	93,2%	6,8%
Causes of congestion	92,6%	7,4%
Grid investments: impact on frequency and location of congestion	95,2%	4,8%
Planned line maintenance Location	96,1%	3,9%
Planned line maintenance Duration	96,1%	3,9%
Planned line maintenance Capacity loss (MW)	96,1%	3,9%
Unplanned line outages Location	95,9%	4,1%
Unplanned line outages Duration	95,9%	4,1%
Unplanned line outages Capacity loss (MW)	95,9%	4,1%
Thermal capacity	80,3%	19,7%
Net Transfer Capacity (NTC)	93,8%	6,2%
Impact of planned works on the network on NTC	92,8%	7,2%
Capacity reserved for legacy contracts	92,2%	7,8%
Capacity reserved for reserve power	92,8%	7,2%
Available Transfer Capacity (ATC)	96,1%	3,9%
Capacity requested by market actors	90,2%	9,8%
Capacity given out by TSO	92,4%	7,6%
Price per time slot	95,1%	4,9%
Total nominated capacity	93,9%	6,1%
Actual physical flows over interconnector	90,6%	9,4%
Day-ahead aggregated scheduled load	93,8%	6,2%
Week-ahead forecasted load	95,1%	4,9%
Year-ahead forecosted load	95,8%	4,2%
Actual system load in MW/h	95,4%	4,6%
Operation margins at consumption peaks	92,3%	7,7%
Demand for balancing power	95,8%	4,2%
System balancing status (long or short)	94,7%	5,3%
Actual use of primary reserve power	85,2%	14,8%
Actual use of secondary reserve power	89,3%	10,7%
Actual use of tertiary reserve power	88,5%	11,5%
Hourly generation (KWh) by fuel type	88,1%	11,9%
Day-ahead projected hourly injections (KWh) of wind power	89,3%	10,7%
Actual hourly injections of wind power	84,6%	15,4%
Actual injections (KWh) of wind power	82,7%	17,3%
Day-ahead aggregated scheduled generation capacity by fuel type	88,0%	12,0%
Week-ahead scheduled available generation capacity by fuel type	88,9%	11,1%
Year-ahead scheduled available generation capacity by fuel type	88,8%	11,2%
Projected new-built of generation capacity Location	94,9%	5,1%
Projected new-built of generation capacity Capacity (MW)	98,0%	2,0%
Installed generation capacity Location	95,9%	4,1%
Installed generation capacity Capacity (MW)	98,7%	1,3%
Projected mothballing of generation capacity	93,6%	6,4%
Projected dismantling of generation capacity	95,0%	5,0%
Projected maintenance Duration	96,6%	3,4%
Projected maintenance Capacity loss (MW)	97,3%	2,7%
Water levels in hydro reservoirs	94,2%	5,8%
Unplanned loss of generation capacity Duration	93,8%	6,3%
Unplanned loss of generation capacity Capacity loss (MW)	93,7%	6,3%

Source: Energy Sector Inquiry 2005/2006.

ANNEX I
Load factors of power plants of the main generators in Germany
Calculation on all hours of the year







Source: Energy Sector Inquiry 2005/2006.

ANNEX J
Statistics on the results of the public consultation (Electricity)

Respondents representing the views related to the position of:	Incumbents	Non-incumbents	Consumers	National authorities	Power exchanges	Independent traders	TSOs and DSOs	Others	Total number of comments
Number of all respondents in each category	14	6	4	7	3	4	6	1	45
Comments on:									
Regulatory framework	9	3	2	1	1	3	1	0	20
Functioning of wholesale markets	7	2	4	3	1	2	1	0	20
Concentration in generation	7	4	3	4	0	0	1	0	19
Concentration in trade	6	2	1	3	0	1	0	0	13
Price setting	6	2	3	3	1	1	0	0	16
Withdrawals of capacity	0	0	3	2	1	0	0	0	6
Other issues relating to concentration	3	0	0	2	0	1	0	0	6
Vertical integration between generation and retail activities	7	5	2	2	0	3	0	0	19
Vertical integration between supply and network activities	8	3	3	3	0	2	1	0	20
Current institutional setting and market design	8	2	2	2	0	3	3	1	21
Investments in new cross-border infrastructure	10	2	3	2	1	2	2	0	22
Allocation of existing cross-border capacity	8	2	3	2	3	2	3	0	23
Transparency	13	5	2	3	2	3	4	0	32
External factors possibly explaining price increases	5	3	3	1	1	1	0	0	14
Regulated supply tariffs and special support schemes	9	4	1	2	1	1	1	0	19
Competition law remedies	1	2	4	3	0	0	1	0	11
Regulatory remedies	6	2	3	2	2	2	2	0	19
Structural remedies	5	2	4	4	0	1	1	0	17

Source: Energy Sector Inquiry 2005/2006.

ANNEX K

LNG tankers currently serving the EU market (by destination country)

Primary Trade Route							
Destination Country	Country of origin	Shipowner	Exporter	Charterer	Capacity (cu.m. x1000)	Delivery	Contract length
Belgium	Algeria	SNTM-Hyproc	Sonatrach	Suez LNG	126	1980	26
France	Algeria	Messigaz	Sonatrach	Gaz de France	50	1971	42
		SNTM-Hyproc	Sonatrach	Gaz de France	126	1981	32
		Dreyfus/Gaz de France	Sonatrach	Gaz de France	129	1977	36
		Messigaz	Sonatrach	Gaz de France	40	1974	39
		ENI	Sonatrach	Gaz de France	41	1970	43
	Nigeria	Bonny Gas Transport	Nigeria LNG	Gaz de France	137	2002	17
	Oman	Oman Gas/MOL	Oman Gas		137	2001	21
					Total capacity by destination country=661		
Greece	Algeria	BW Gas	Sonatrach	DEPA	30	1974	36
Italy	Algeria	ENI	Sonatrach	ENI	41	1969	48
		ENI	Sonatrach	ENI	65	1996	21
		ENI	Sonatrach	ENI	65	2005	23
	Qatar	Peninsular LNG	RasGas II		138	2004	25
		A. P. Moller	RasGas II		138	2004	25
		Peninsular LNG	Qatar	RasGas II	138	2005	25
		Peninsular LNG	Qatar	RasGas II	145	2005	26
		Peninsular LNG	Qatar	RasGas II	145	2005	26
		A. P. Moller	Qatar	RasGas II	145	2006	25
					Total capacity by destination country=1020		
Spain	Algeria	Distrigas	Sonatrach	Suez LNG	131	1978	37
		Auxiliar Maritima	Sonatrach	Enagas	40	1970	37
		Elcano	Sonatrach	Enagas	138	2003	4
		BG International	Sonatrach	Enagas	72	1969	52
	Egypt	Knutsen/Marpetrol	Engas	Union Fenosa	139	2004	26
		Teekay LNG Partners	Engas	Repsol/YPF	138	2005	30
		Teekay LNG Partners	Engas	Union Fenosa	141	2004	30
	Libya	Chemikalien Seetransport	Sirte Oil	Enagas	36	1975	29
		Chemikalien Seetransport	Sirte Oil	Enagas	36	1975	29
		Taiwan Marine	Sirte Oil	Enagas	26	1965	39
	Nigeria	Bonny Gas Transport	Nigeria LNG	Enagas	137	2002	17
	Oman	Oman Gas/MOL	Oman Gas	Shell	149	2004	3
		Oman Gas/MOL	Oman Gas	Qalhat LNG	147	2005	21
		Shell Shipping	Oman Gas	Iberdrola	127	1978	29
	Qatar	J4 Consortium	QatarGas		135	2004	20
		Golar LNG	QatarGas	British Gas	126	1977	42
	Trinidad	Golar LNG	Atlantic LNG	British Gas	138	2003	31
		Hoegh LNG	Atlantic LNG	Enagas	88	1973	47
		Teekay LNG Partners	Atlantic LNG	Enagas	138	2003	21
		Knutsen/Marpetrol	Atlantic LNG	Repsol/YPF	138	2004	20
		BG International	Atlantic LNG	Enagas	72	1969	52
	n.a.	BP Shipping	Engas		138	2002	
		BP Shipping	Engas		138	2003	
					Total capacity by destination country=2565		
Spain/France /Turkey	Nigeria	Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	122	1976	43
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	122	1977	42
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	133	1981	38
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	133	1984	35
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	127	1980	39
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	127	1980	39
		Bonny Gas Transport	Nigeria LNG	Enagas/GdF/BOTAS	127	1978	45
					Total capacity by destination country=890		
Europe (various countries)	Nigeria	Bonny Gas Transport	Nigeria LNG		141	2004	
		Bonny Gas Transport	Nigeria LNG		141	2005	
		Bonny Gas Transport	Nigeria LNG		141	2005	
		Bonny Gas Transport	Nigeria LNG		141	2006	
		Kristen Navigation	Qatar	Ras Gas II	145	2005	25
		Kristen Navigation	Qatar	Ras Gas II	145	2005	25
		BW Gas	Nigeria LNG	Various	146	2004	22
		BW Gas	Nigeria LNG	Various	145	2005	21
		BW Gas	Nigeria LNG	Various	141	2005	21
		Bonny Gas Transport	Nigeria LNG		138	2003	16
		BW Gas	Nigeria LNG	Various	146	2006	21
	Egypt	Mitsui OSK Line	Idku	BP	138	2005	3
	Algeria	Algeria Nippon Gas	Sonatrach	Various	145	2004	26
		BW Gas	Sonatrach		138	2004	26
		SNTM-Hyproc	Sonatrach		41	1971	42
					Total Capacity= 7322		

Source: Ernst & Young's elaboration of Maritime Business Strategies' data.

LNG tankers planned to serve the EU market (by destination country)							
Primary Trade Route		Shipowner	Exporter	Importer	Capacity (cu.m. x1000)	Delivery	Contract length
Destination Country	Country of origin						
France	Egypt	Gaz de France	Engas	Gaz de France	154	31-Oct-06	19
		GdF/NYK Line	Engas	Gaz de France	154	2007	20
					Total capacity by destination country=307		
Spain	Algeria	Gaz de France	Sonatrach	Gaz de France	74	31-Dec-06	7
		Knutsen OAS	Repsol		138	30-Jun-08	
	Oman	Oman Gas/MOL	Oman Gas	Qalhat LNG	147	31-Jul-06	20
					Total capacity by destination country=359		
UK	Qatar	ProNav Ship Mgmt.	Qatar	Qatargas II	210	31-Oct-07	25
		ProNav Ship Mgmt.	Qatar	Qatargas II	210	31-Oct-07	25
		ProNav Ship Mgmt.	Qatar	Qatargas II	210	31-Jan-08	25
		ProNav Ship Mgmt.	Qatar	Qatargas II	210	31-Jan-08	25
		Overseas Shipholding	Qatar	Qatargas II	216	31-Oct-07	25
		Overseas Shipholding	Qatar	Qatargas II	216	31-Jan-08	24
		Overseas Shipholding	Qatar	Qatargas II	216	31-Aug-07	25
		Overseas Shipholding	Qatar	Qatargas II	216	31-Jan-08	24
					Total capacity by destination country=1705		
Mediterranean Countries	Algeria	Med. LNG Tpt. Corp.	Sonatrach		76	30-Jun-07	25
		Med. LNG Tpt. Corp.	Sonatrach		76	30-Jun-09	24
					Total capacity by destination country=151		
Europe	Qatar	Maran Gas Maritime	Qatar	Ras Gas II	146	31-Jul-06	24
		Teekay LNG	Qatar	Ras Gas II	152	31-Oct-06	25
		Teekay LNG	Qatar	Ras Gas II	152	31-Jan-07	25
		Teekay LNG	Qatar	Ras Gas II	152	Apr-07	25
		Maran Gas Maritime	Qatar	Ras Gas II	146	31-May-07	23
	Nigeria	BW Gas	Nigeria LNG	Various	148	Feb-07	20
		BW Gas	Nigeria LNG	Various	148	Mar-07	20
		BW Gas	Nigeria LNG	Various	148	Mar-08	19
		BW Gas	Nigeria LNG	Various	148	15-Jun-08	20
		BP Shipping	Available		155	31-Aug-08	
					Total capacity by destination country=1494		
					Total ship capacity= 4017		

Source: Ernst & Young's elaboration of Maritime Business Strategies' data.

ANNEX L

Cost of a spot unloading of 1 TWh with an emission on the transmission network of 30 days

	Italy	
	Per unit (MWh)	1 TWh
Charge per unload	17.477,79 €	17.477,79 €
Unit Commodity charge (1)	0,1315 €	128.870,00 €
(2)	0,0159 €	15.582,00 €
Unit Capacity charge (3)	0,29 €	290.000,00 €
Gas Consumption (reference : 20 €/MWh)	2,0%	400.000,00 €
Total	**851.929,79 €**	

(1) : 0,036556 €/GJ ; 1 GJ = 0,278 MWh

(2) : 0,004424 €/GJ ; 1GJ = 0,278 MWh

(3) : 1,97 €/liquid m3 ; 1 liquid m3 equivalent to 600 gas m3 ; 1 gas m3 = 11,3 kWh

	Belgium (new tariff)	
		1 TWh
Charge per unload	included in slot	included in slot
Charge per slot	750.443,00 €	750.443,00 €
Unit charge per additional emission / kWh/h/year	1,95 €	2.706.600,00 €
Gas Consumption (reference: 20 €/MWh)	1,3%	260.000,00 €
Total	**3.717.043,00 €**	

A slot includes unloading, storage and regasification capacity for 10,35 days

We suppose that the emission is constant during 30 days, i.e. 1388 MWh/h

	France	
	Per unit (MWh)	1 TWh
Charge per unload	30.000,00 €	30.000,00 €
Unit Commodity charge	0,57 €	570.000,00 €
Charge for reception service	0,03 €	30.000,00 €
Gas Consumption (reference: 20 €/MWh)	0,5%	100.000,00 €
Total	**730.000,00 €**	

Source: Commission elaboration of IEFE and national regulators data.

Cost of a spot unloading of 1 TWh with an emission on the transmission network of 8 or 10 days

		Italy	
		Per unit (MWh)	1 TWh
Charge per unload		17.477,79 €	17.477,79 €
Unit Commodity charge	(1)	0,1315 €	128.870,00 €
	(2)	0,0159 €	15.582,00 €
Unit Capacity charge	(3)	0,29 €	290.000,00 €
Gas Consumption (reference : 20 €/MWh)		2,0%	400.000,00 €
Total		**851.929,79 €**	
Guarantee		33% of the value of the volume of gas	**6.666.666,67 €**

(1) : 0,036556 €/GJ ; 1 GJ = 0,278 MWh

(2) : 0,004424 €/GJ ; 1GJ = 0,278 MWh

(3) : 1,97 €/liquid m3 ; 1 liquid m3 equivalent to 600 gas m3 ; 1 gas m3 = 11,3 kWh

	Belgium (new tariff)	
		1 TWh
Charge per slot	750.443,00 €	750.443,00 €
Gas Consumption (reference: 20 €/MWh)	1,3%	260.000,00 €
Total	**1.010.443,00 €**	
Guarantee	100 % of the average monthly invoice	**1.010.443,00 €**

A slot includes unloading, storage and regasification capacity for 10 days

	Spain	
	Per unit (MWh)	1 TWh
Fixed Component per MWh/day	14,6620	488.733,33 €
Variable component per MWh	0,0870	87.000,00 €
LNG storage fee per MWh per day (1)	0,0128 €	9.600,00 €
Gas Consumption (reference: 20 €/MWh)	0,25%	50.000,00 €
Total	**635.333,33 €**	
Guarantee (2)	Bail of 12*fixed component applied to 85% of	**4.985.080,00 €**

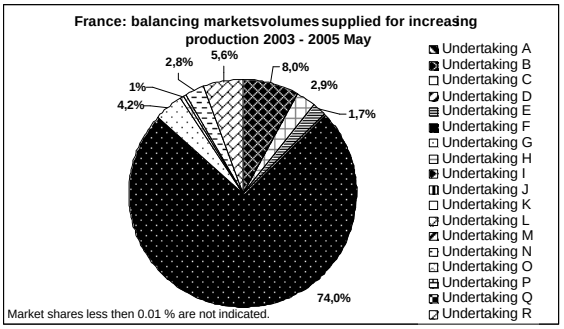
A slot includes unloading of cargoes, 5 days of free storage, regasification rights and loading of LNG trucks
(1) : 0,086873 €/m3/day
(2): It is recovered one year later. It is lost in case of infrautilization of the capacity. There is no need for bail in case the TPA contract duration < 1 year. In consequ
cargo

Source: Commission elaboration of IEFE and national regulators data.

For **France**, the calculation is not possible for less than 30 days, since GdF proposes only a constant emission during 30 days for a spot cargo. Nevertheless, it is technically possible to decrease the number of days of emission by using the secondary market on the point of exchange of LNG.

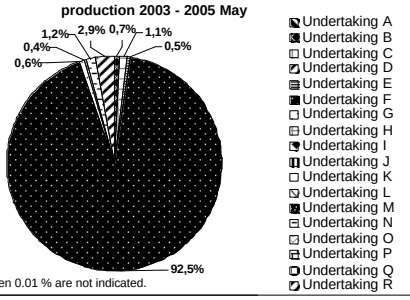
ANNEX M
This annex shows additional charts on market shares in balancing markets.

France: balancing marketsvolumes supplied for increasing production 2003 - 2005 May



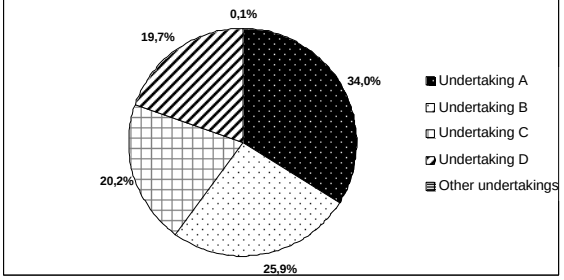
Market shares less then 0.01 % are not indicated.

France: balancing marketsvolumes supplied for decreasing production 2003 - 2005 May

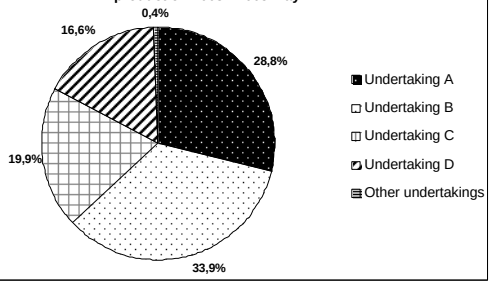


Market shares less then 0.01 % are not indicated.

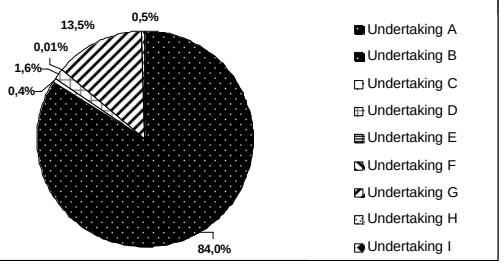
Germany: balancing marketsvolumes supplied for increasing production 2003 - 2005 May



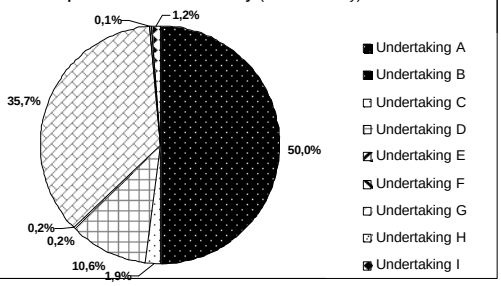
Germany: balancing marketsvolumes supplied for decreasing production 2003 - 2005 May



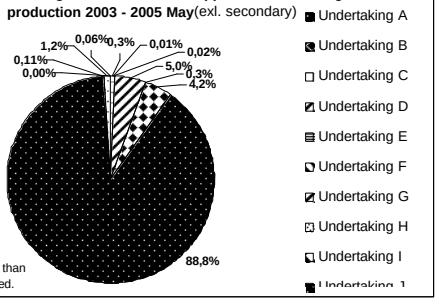
Finland: balancing marketsvolumes supplied for increasing production 2003 - 2005 May (exl. secondary)



Finland: balancing marketsvolumes supplied for decreasing production 2003 - 2005 May (exl. secondary)

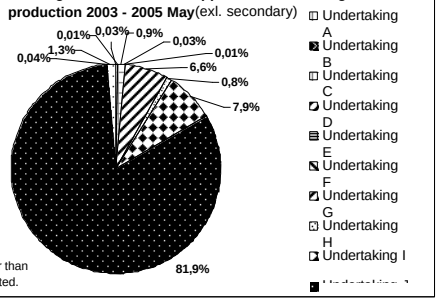


Italy: balancing markets volumes supplied for increasing production 2003 - 2005 May(exl. secondary)



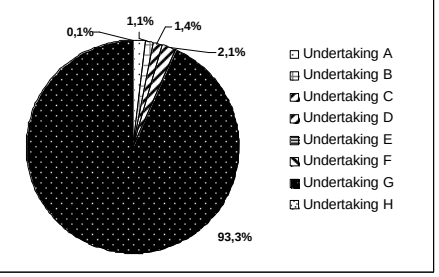
Market shares smaller than 0.01 % are not indicated.

Italy: balancing marketsvolumes supplied for decreasing production 2003 - 2005 May(exl. secondary)

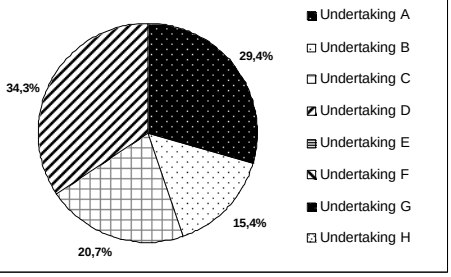


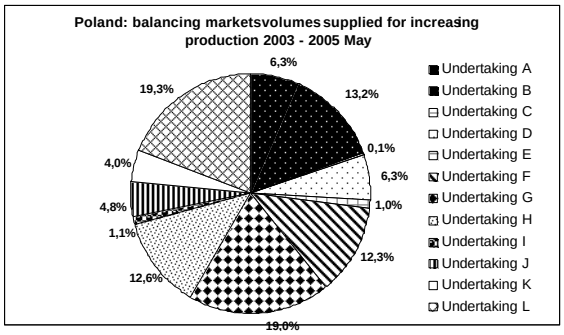
Market shares smaller than 0.01 % are not indicated.

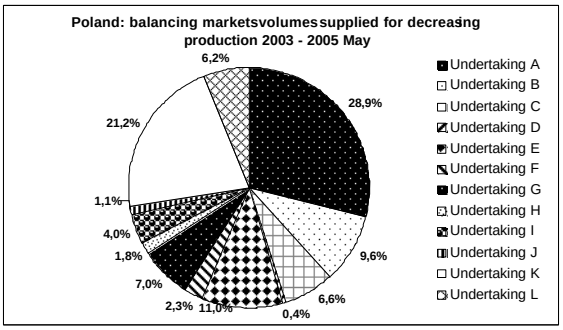
Netherlands: balancing markets volumes supplied for increasing production 2003 - 2005 May

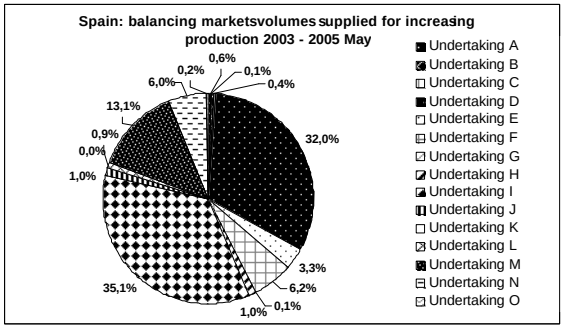


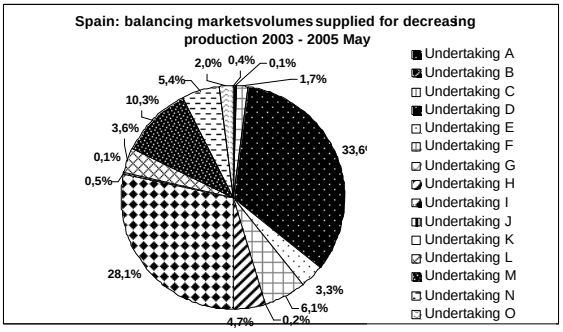
Netherlands: balancing marketsvolumes supplied for decreasing production 2003 - 2005 May

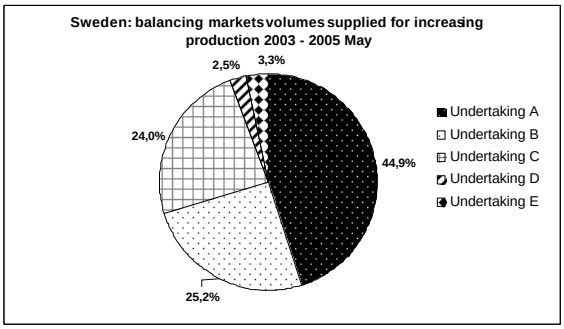


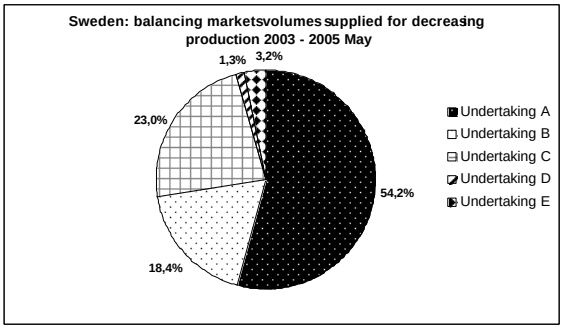


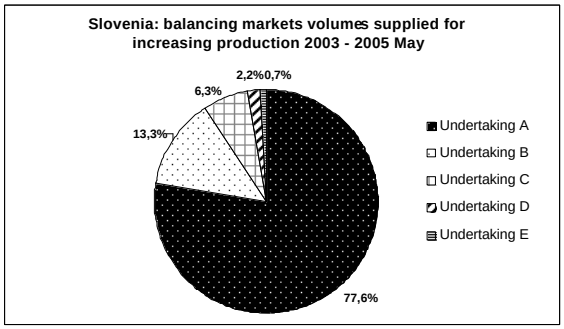


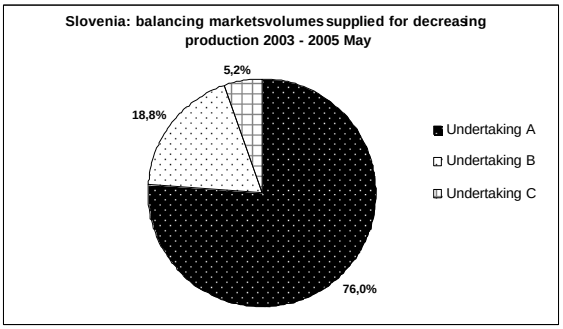


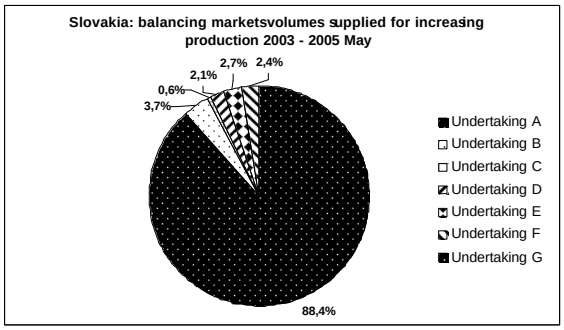


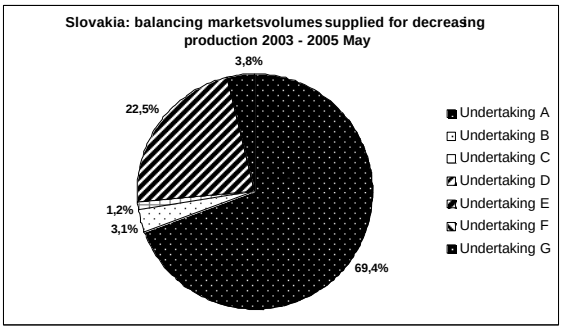








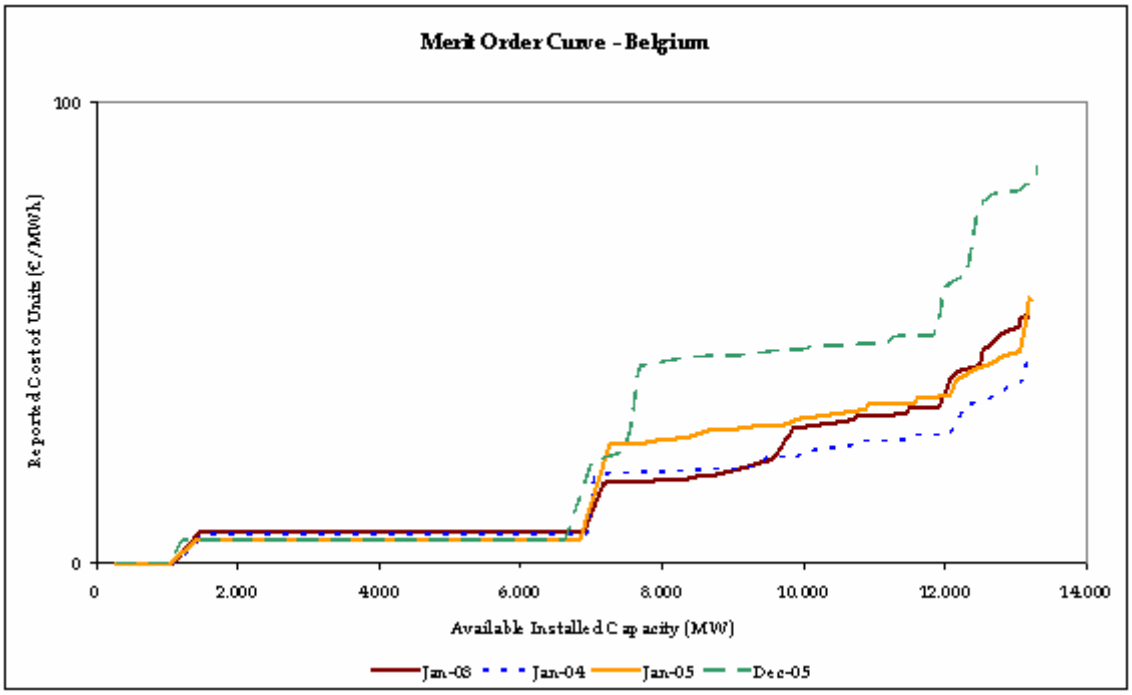


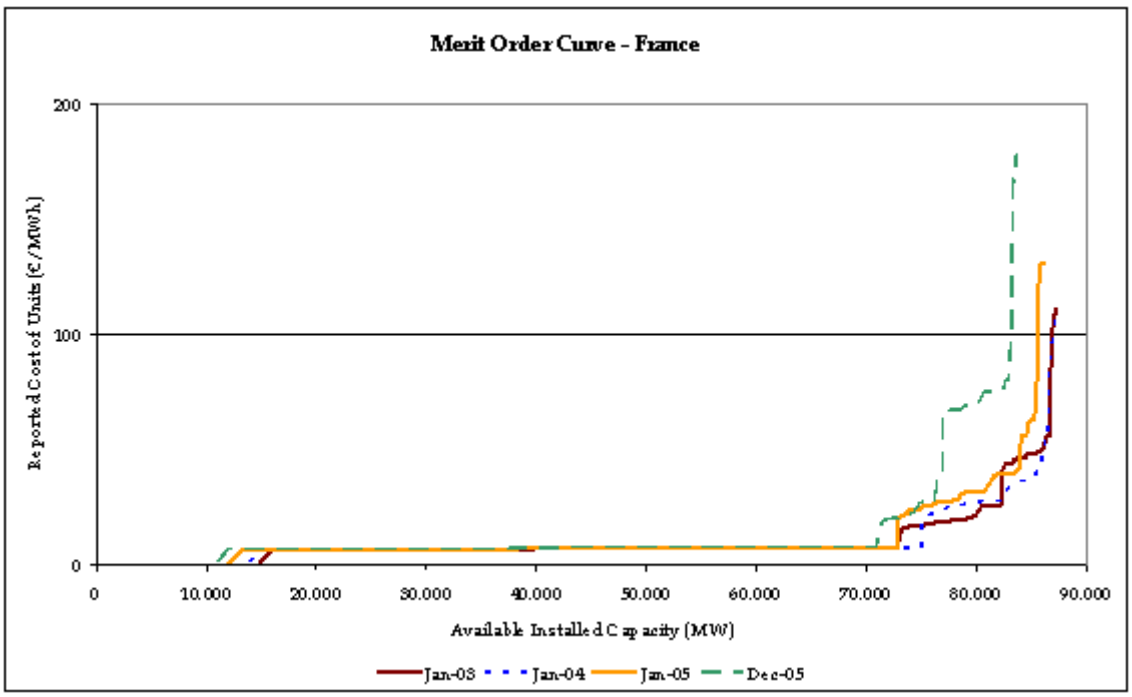


Source: Energy Sector Inquiry 2005/2006

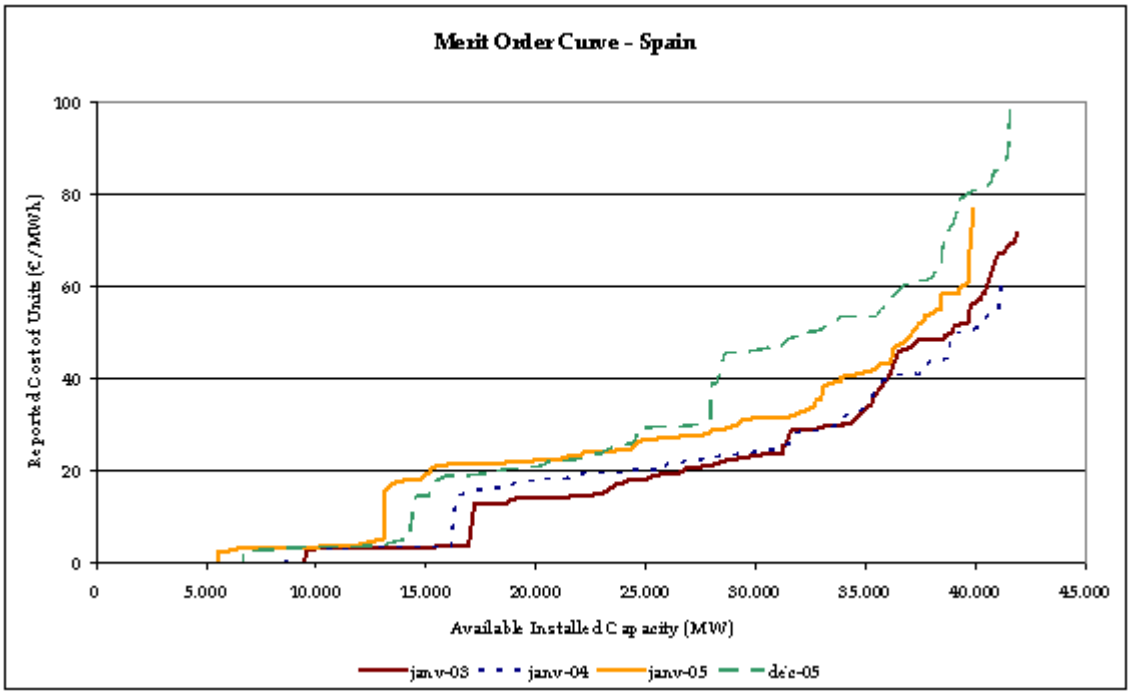
Note: though Germany has four so-called control areas it is reasonable to aggregate the volumes for reserves across these areas since supplying reserve power across control areas id possible. The figure reveals that four actors are mainly supplying reserves.

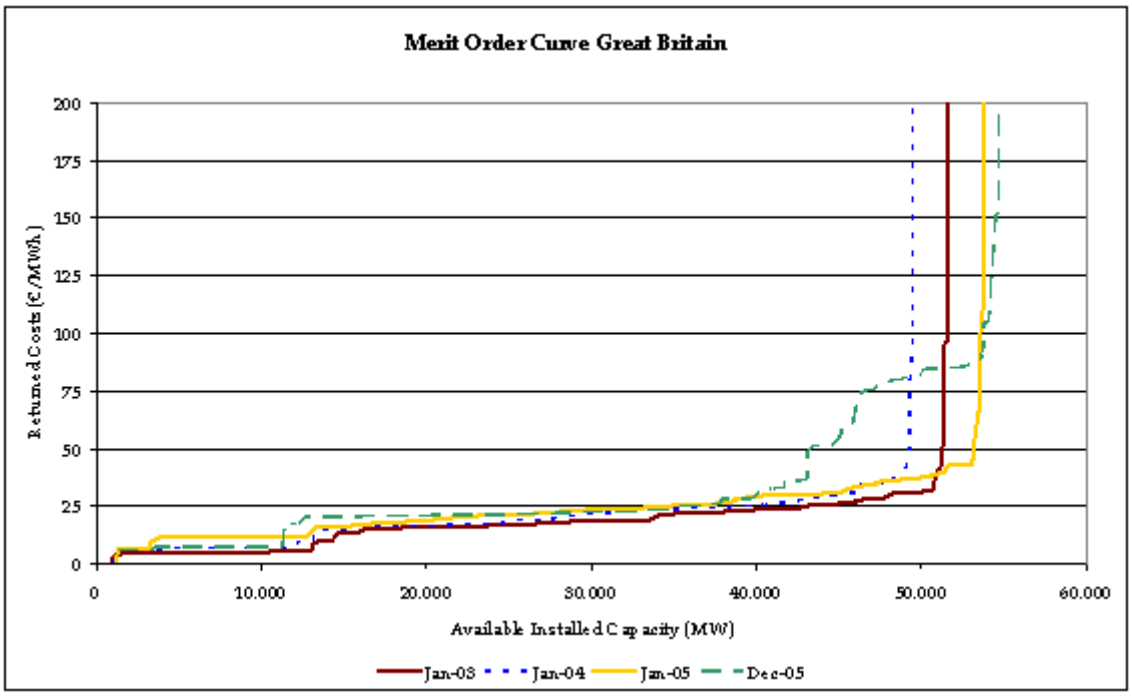
ANNEX N
This annex shows the merit curves in different markets.





Source: Energy Sector Inquiry 2005/2006.
Note: For these two graphs, since there is one operator representing most of the curve, figures on the vertical axis are rounded.





Source: Energy Sector Inquiry 2005/2006.