Public data underlying the figures of Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2015

Gas Wholesale Market Volume

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Figure 1, Page 7: EU gas supply portfolio by origin in 2015 in % (100% = 437 bcm)
Source: BP Statistical Review 2016. BP EU domestic production figures deviate slightly from Eurostat figures.

EU Gas Origin	% of Gas Supplied
Russian imports	30%
Domestic production	27%
Norwegian import	25%
Qatar LNG imports	6%
Algerian pipeline imports	5%
Algerian LNG imports	2%
Libyan pipeline imports	1%
Nigerian LNG imports	1%
Other origins of LNG imports	1%

Figure 3, Page 9: Evolution of EU gas import volumes and oil price – 2014-2015 (bcm/month and euros/barrel)

Source: IEA, Platts and ACER calculations

	Pipeline imports from Russia (bcm/month)	Pipeline imports from Norway (bcm/month)	LNG imports - all origins (bcm/month)	Pipeline imports from Algeria and Libya (bcm/month)	Dated Brent price (euros/barrel)
Jan-14	14.21	9.35	2.82	4.07	79.50
Feb-14	11.53	8.64	2.47	4.28	79.64
Mar-14	12.10	9.76	2.41	3.80	77.78
Apr-14	12.19	7.96	2.82	3.61	77.92
May-14	12.87	8.29	3.55	3.56	79.83
Jun-14	12.23	7.16	3.02	3.16	82.13
Jul-14	11.20	7.93	3.61	2.63	78.78
Aug-14	10.78	6.80	3.00	2.02	76.27
Sep-14	10.59	7.90	2.22	1.96	75.42
Oct-14	10.58	10.00	2.16	3.02	68.98
Nov-14	9.96	9.82	3.43	3.46	63.24
Dec-14	10.60	10.79	3.80	4.14	50.69
Jan-15	9.55	9.86	3.94	4.25	41.20
Feb-15	8.06	9.72	3.98	3.53	51.19
Mar-15	11.32	10.64	4.39	3.63	51.65
Apr-15	12.10	7.65	3.67	2.76	55.31
May-15	12.59	8.51	3.73	2.38	57.59
Jun-15	12.59	8.17	3.17	2.28	54.96
Jul-15	14.12	10.08	3.20	2.44	51.38
Aug-15	12.71	8.95	3.34	2.02	41.92
Sep-15	13.15	8.74	3.42	1.91	42.41
Oct-15	13.49	9.91	3.94	2.83	43.22
Nov-15	10.70	9.93	3.51	2.86	41.30
Dec-15	13.45	10.58	3.41	3.22	35.11
Jan-15	9.55	9.86	3.94	4.25	41.20
Feb-15	8.06	9.72	3.98	3.53	51.19
Mar-15	11.32	10.64	4.39	3.63	51.65
Apr-15	12.10	7.65	3.67	2.76	55.31
May-15	12.59	8.51	3.73	2.38	57.59
Jun-15	12.59	8.17	3.17	2.28	54.96
Jul-15	14.12	10.08	3.20	2.44	51.38
Aug-15	12.71	8.95	3.34	2.02	41.92
Sep-15	13.15	8.74	3.42	1.91	42.41
Oct-15	13.49	9.91	3.94	2.83	43.22
Nov-15	10.70	9.93	3.51	2.86	41.30
Dec-15	13.45	10.58	3.41	3.22	35.11

Figure 4, Page 9: EU gas gross inland consumption – 2015 (TWh/year and % variation with respect to 2014)
Source: Eurostat (Data series nrg_103m, April 2016).

	EU Annual Consumption (TWh/year)
EU 2011	5,135
EU 2012	5,025
EU 2013	4,962
EU 2014	4,459
EU 2015	4,648

	MS Annual Consumption (TWh/ year)
DE	872
UK	792
IT	715
FR	456
NL	372
ES	317
PL	177
BE	176
RO	120
HU	96
AT	88
CZ	84
IE	48
PT	51
SK	50
DK	37
FI	28
GR	35
BG	33
LT	27
HR	27
LV	14
LU	10
SE	9
SI	9
EE	5

Figure 7, Page 14: Estimated number and diversity of supply sources in 2015 in terms of the geographical origin of the gas
Source: ACER calculations based on Eurostat Comext and BP Statistical report (2016).

MS	% of Gas from Country of Primary Supply	Primary Gas Supplier	% of Gas from Country of Secondary Supply	Secondary Gas Supplier	% of Gas from Country of Tertiary Supply	Teritary Gas Supplier	Other supply origins (number)
FI	100%	RU	0%		0%		
LV	100%	RU	0%		0%		
RO	98%	RO	2%	RU	0%		
IE	95%	UK*	5%	IE	0%		
BG	92%	RU	8%	BG	0%		
DK	90%	DK	10%	NO	0%		
LI	78%	RU	22%	NO	0%		
SE	77%	DK	23%	NO	0%		
HR	73%	HR	14%	AT*	13%	HU	
PT	67%	AL	26%	NI	5%	QT	3
EE	66%	RU	34%	LI*	0%		
SK	65%	RU	12%	CZ*	11%	AT*	5
GR	63%	RU	20%	TK	13%	AL	4
ES	63%	AL	13%	NI	10%	QT	6
LU	63%	DE*	37%	BE*	0%		
SI	62%	AT*	33%	RU	5%	IT*	
AT	60%	RU	24%	NO	17%	AT	2
NL*	59%	NL	25%	NO	11%	DE*	4
PL	57%	RU	28%	PL	15%	DE*	
CZ	51%	RU	42%	DE*	6%	SK*	3
UK	48%	UK*	33%	NO	15%	QT	4
HU	47%	RU	26%	AT*	18%	HU	2
DE	46%	RU	22%	NO	16%	NL*	3
IT	44%	RU	12%	AL	12%	LY	10
FR	42%	NO	23%	RU	11%	NL*	7
BE	38%	NL*	34%	NO	19%	UK*	3
EU26	30%	RU	27%	EU IP	25%	NO	

Figure 9, Page 16: Estimated HHI index per EU MS at upstream sourcing companies' level 2011 – 2015

Source: ACER calculations based on Eurostat and Eurostat Comext, BP Statistical Report, Frontier Consultancy desktop research for GTM 2014 and NRAs data. (See annex 1 for methodology clarification),

	2011	2015
United Kingdom	950	1,073
Ireland	1,215	1,288
France	1,240	2,924
Belgium	1,709	1,721
Germany	1,982	3,505
Spain	2,000	3,295
Italy	2,093	2,924
Netherlands	2,488	3,317
Denmark	2,570	2,330
Sweden	2,766	1,987
Portugal	2,821	4,681
Luxembourg	3,185	1,989
Hungary	3,198	6,446
Romania	3,270	4,729
Poland	4,550	4,508
Slovenia	5,027	7,778
Greece	5,181	6,453
Croatia	5,987	5,617
Austria	7,500	5,797
Bulgaria	7,587	9,484
Czech Republic	9,051	4,773
Slovakia	9,595	6,115
Lithuania	10,000	6,376
Estonia	10,000	4,926
Latvia	10,000	10,000
Finland	10,000	10,000

Figure 11, Page 19: NBP and TTF forecasted and actual summer/ winter spreads 2010-2016 (euros/MWh)
Source: ACER based on Platts data

Forecasted summer/ winter spreads by date of publication		
	TTF (euros /MWh)	NBP (euros/ MWh)
2010	3.66	3.91
2011	3.07	3.70
2012	4.01	5.64
2013	1.35	2.56
2014	2.42	3.80
2015	1.48	2.90

Actual summer/ winter spreads		
	TTF (euros /MWh)	NBP (euros/ MWh)
2010	3.96	5.30
2011	0.88	1.77
2012	3.20	4.31
2013	-0.93	-0.04
2014	1.33	2.05
2015	-5.67	-5.27

Figure 13, Page 22: Traded volumes at EU hubs and CAGR – 2012 to 2015 (TWh/year and %)
Source: Trayport, Hub operators and NRAs 2015

	Sum of OTC (TWh/ year)	Sum of Exchange (TWh/ year)
NBP (UK)		
2012	12,850	5,258
2013	10,809	4,662
2014	11,043	8,137
2015	9,993	9,079
TTF (NL)		
2012	7,150	470
2013	7,838	512
2014	12,043	1,398
2015	13,820	2,961
NCG (DE)		
2012	1,029	55
2013	1,340	61
2014	1,646	140
2015	1,600	191
GPL (DE)		
2012	510	10
2013	873	31
2014	964	71
2015	852	100
ZEE+ZTP (BE)		
2012	742	
2013	825	1
2014	838	1
2015	926	2
PSV (IT)		
2013	282	
2014	524	
2015	718	6
PEGs (FR)		
2012	411	102
2013	431	184
2014	384	256
2015	355	295
VTP (AT)		
2012	432	23
2013	390	21
2014	438	23
2015	478	18
AOC (SP)	1,832	
2012	454	
2013	400	
2014	534	
2015	444	-

CZ VOB	386	5
2013	107	1
2014	135	2
2015	144	3
Polish VTP (PO)		281
2013		64
2014		107
2015		110
GPN-GTF (DK)	97	44
2012	38	7
2013	26	9
2014	22	10
2015	11	17

Figure 14, Page 25: Available median bid and ask-side volumes in the order book during the day for DA in selected EU hubs in ranges of MW for November 2015 to April 2016
Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 15, Page 26: Available median bid and ask-side volumes in the order book during the day for MA in selected EU hubs in ranges of MW – OTC and exchange aggregated - November 2015-April 2016
Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 16, Page 26: Order book horizon in ranges of months for bids for forward products for different blocks of MWs - November 2015 – April 2016
Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 17, Page 27: Bid-offer spread for November 2015-April 2016: measure of the average delta between the lowest ask price and the highest bid-price expressed as a percentage of the highest bid-price across the Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 18, Page 28: Number of executed trades (daily average) for DA and FW products in selected hubs for November 2015-April 2016
Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 19, Page 29: Market concentration ranges of finalised transactions of MA products for selected EU hubs for the selling side - November 2015-April 2016
Source: ACER calculations based on REMIT data.

Underlying data are published in Annex 1 of the ACER Market Monitoring Report 2015 - Gas. See page 53 for details.

Figure 21, Page 35: EU MSs assessed gas suppliers' sourcing prices - 2015 yearly average (map) - 2014 yearly average for comparison (table) - both in euros/MWh
Source: Eurostat Comext, Platts, IGU, NRAs and ACER calculations.

MS / sourcing mechanisms	2014 sourcing cost	2015 Sourcing data
AT imports	25.4	22.3
AT hub	24.6	21.7
BE hub	21.9	21.1
BG imports	30.9	25.8
HR imports	28.9	27.8
CZ imports	24.3	21.3
DK imports	24.1	21.2
EE imports	32	27.2
FI imports	28.2	21.3
FR imports	26.5	22.2
PEG N hub	27.8	21.4
FR hub	24.7	21.9
DE imports	23.9	20.8
DE hub	23.9	21.1
GR imports	28.2	20.8
HU imports	26.4	23.4
IE imports	22.1	22.2
IT imports	27	22.9
IT hub	25.7	22.8
LV imports	29.3	24.8
LT imports	27.8	27.9
LU imports	25	22.3
NL hub	23.7	21
PO imports	25.1	23.4
PT imports	31.8	23.7
RO import	26.7	25.5
SK imports	25.4	21.5
SI imports	27.6	23
SP imports	26.2	21.9
SE imports	27.6	25.6
UK hub	24.1	21.5

Figure 22, Page 36: Levels of DA price convergence between TTF and selected hubs year on year
Source: ACER calculations based on Platts and hub operators data.

	MWh)						
	0.0-0.2	**0.2-0.4**	**0.4-0.6**	**0.6-1.0**	**1.0-3.0**	**3.0-5.0**	**5.0+**
TTF - ZEE							
2013	64%	18%	8%	4%	5%	0%	1%
2015	68%	17%	9%	5%	0%	0%	1%
TTF - GPL							
2013	42%	32%	16%	6%	3%	0%	1%
2015	62%	29%	6%	2%	0%	0%	1%
TTF - NCG							
2013	41%	38%	13%	5%	3%	0%	1%
2015	46%	42%	8%	2%	0%	0%	1%
TTF - PEGN							
2013	19%	25%	20%	18%	16%	1%	1%
2015	47%	25%	15%	7%	5%	0%	1%
TTF - GPN							
2013	21%	21%	19%	20%	11%	1%	8%
2015	40%	34%	11%	5%	0%	0%	10%
TTF - NBP							
2013	23%	19%	15%	24%	14%	4%	2%
2015	31%	30%	14%	17%	7%	0%	1%
TTF - VOB							
2013	13%	13%	18%	28%	17%	2%	9%
2015	19%	29%	19%	24%	8%	0%	1%
TTF - CEGH							
2013	12%	13%	15%	26%	28%	1%	4%
2015	8%	7%	9%	46%	28%	0%	1%
TTF - VPGZ							
2013	3%	6%	5%	19%	43%	2%	22%
2015	2%	2%	4%	11%	76%	5%	2%
TTF - PSV							
2013	4%	5%	7%	10%	66%	2%	5%
2015	0%	0%	1%	3%	76%	18%	2%
TTF - MGP							
2013	3%	3%	3%	4%	9%	21%	57%
2015	0%	1%	2%	21%	70%	4%	1%

Figure 23, Page 37: Levels of DA price convergence between TTF and NCG – 2011 – 2015
Source: ACER calculations based on Platts data.

	Price spreads in Euros/ MWh						
	0.0-0.2	**0.2-0.4**	**0.4-0.6**	**0.6-1.0**	**1.0-3.0**	**3.0-5.0**	**5.0<**
TTF - NCG							
2011	49%	27%	11%	10%	3%	0%	0%
2012	62%	22%	10%	4%	2%	0%	0%
2013	41%	38%	13%	5%	3%	0%	1%
2014	36%	42%	11%	9%	1%	0%	1%
2015	46%	42%	8%	2%	0%	0%	1%

Figure 24, Page 37: Levels of DA price convergence between TTF and PSV by year – 2011 – 2015
Source: ACER calculations based on Platts data.

	Price spreads in Euros/ MWh						
	0.0-0.2	**0.2-0.4**	**0.4-0.6**	**0.6-1.0**	**1.0-3.0**	**3.0-5.0**	**5.0<**
TTF - PSV							
2011	0%	0%	0%	0%	24%	24%	52%
2012	1%	2%	5%	12%	29%	27%	24%
2013	4%	5%	7%	10%	66%	2%	5%
2014	0%	0%	2%	7%	68%	18%	6%
2015	0%	0%	1%	3%	76%	18%	2%

Figure 25, Page 40: Levels of DA price convergence between NCG and selected hubs year on year (%)
Source: ACER calculations based on Platts.

	Price Spreads in Euros (MWh)						
	0.0-0.2	**0.2-0.4**	**0.4-0.6**	**0.6-1.0**	**1.0-3.0**	**3.0-5.0**	**5.0+**
NCG - VOB							
2013	18.97%	26.48%	17.39%	18.58%	7.11%	1.58%	9.88%
2015	37.15%	21.74%	20.95%	14.23%	4.74%	0.00%	1.19%
NCG - VPGZ							
2013	3.95%	8.70%	9.49%	25.69%	29.64%	0.79%	21.74%
2015	1.98%	2.77%	3.56%	20.55%	67.19%	2.37%	1.58%
NCG - PSV							
2013	3.95%	6.72%	8.70%	15.42%	59.68%	1.58%	3.95%
2015	0.40%	0.00%	0.00%	4.35%	83.40%	9.88%	1.98%
NCG - MGP							
2013	2.77%	4.35%	3.95%	3.95%	10.67%	24.51%	49.80%
2015	0.79%	1.58%	4.74%	32.41%	56.13%	3.56%	0.79%
CEGH - VOB							
2013	22.13%	21.74%	13.83%	11.07%	19.76%	1.58%	9.88%
2015	22.13%	22.13%	19.37%	18.97%	15.42%	0.40%	1.58%
CEGH - VPGZ							
2013	22.53%	20.55%	9.49%	14.62%	11.86%	0.40%	20.55%
2015	12.25%	13.04%	14.23%	23.72%	33.20%	2.37%	1.19%
CEGH - MGP							
2013	4.35%	0.79%	1.58%	3.16%	12.25%	41.90%	35.97%
2015	13.83%	24.90%	18.97%	22.53%	18.18%	0.79%	0.79%
CEGH - PSV							
2013	8.30%	9.09%	18.58%	40.32%	21.34%	1.19%	1.19%
2015	1.19%	0.40%	4.35%	12.25%	78.26%	2.77%	0.79%

Figure 26, Page 40: Levels of DA price convergence between CEGH and selected hubs year on year (%)
Source: ACER calculations based on Platts.

	Price spreads in Euros/ MWh						
	0.0-0.2	0.2-0.4	0.4-0.6	0.6-1.0	1.0-3.0	3.0-5.0	5.0+
CEGH - VOB							
2013	22.13%	21.74%	13.83%	11.07%	19.76%	1.58%	9.88%
2015	22.13%	22.13%	19.37%	18.97%	15.42%	0.40%	1.58%
CEGH - VPGZ							
2013	22.53%	20.55%	9.49%	14.62%	11.86%	0.40%	20.55%
2015	12.25%	13.04%	14.23%	23.72%	33.20%	2.37%	1.19%
CEGH - MGP							
2013	4.35%	0.79%	1.58%	3.16%	12.25%	41.90%	35.97%
2015	13.83%	24.90%	18.97%	22.53%	18.18%	0.79%	0.79%
CEGH - PSV							
2013	8.30%	9.09%	18.58%	40.32%	21.34%	1.19%	1.19%
2015	1.19%	0.40%	4.35%	12.25%	78.26%	2.77%	0.79%

Figure 27, Page 41: Day-ahead price convergence levels in EU hubs compared to transmission tariffs – 2015
Source: ACER calculations based on Platts and hub operators data for prices and ENTSOG for transmission tariffs.
Note: Columns represent price difference range between 2 hubs. Negative values indicate first named hubs trading at a dscount while positive numbers indicate first named tradef hubs traded at a premium.

	Price differential among hubs: ranges considered in euros/MWh					
	0.0-0.2		0.2-0.4		0.4-0.6	
TTF - PSV	0%	0%	0%	0%	0%	-1%
CEGH - PSV	0%	-1%	0%	0%	0%	-4%
NCG - PSV	0%	0%	0%	0%	0%	0%
NCG - CEGH	2%	-7%	0%	-15%	0%	-31%
GPL - VPGZ	0%	0%	1%	0%	1%	-4%
ZEE - PEGN	7%	-28%	0%	-24%	0%	-21%
PEGN - TRS	9%	-23%	0%	-19%	0%	-15%
ZEE - NBP	8%	-14%	2%	-25%	1%	-24%
TTF - NCG	12%	-34%	2%	-41%	1%	-8%
TTF - PEGN	21%	-26%	2%	-23%	1%	-14%
TTF - NBP	15%	-16%	8%	-23%	1%	-13%
GPL - NCG	28%	-45%	1%	-21%	0%	-4%
NCG - VOB	16%	-21%	8%	-14%	5%	-17%
TTF - ZEE	46%	-22%	15%	-2%	8%	-1%
	Price differential among hubs: ranges considered in euros/MWh					
	0.6-1.0		1.0-3.0		3.0-5.0	
TTF - PSV	0%	-3%	0%	-76%	0%	-19%
CEGH - PSV	0%	-12%	0%	-79%	0%	-3%
NCG - PSV	0%	-4%	0%	-84%	0%	-10%
NCG - CEGH	0%	-30%	0%	-13%	#	0%
GPL - VPGZ	1%	-13%	0%	-75%	0%	-2%
ZEE - PEGN	0%	-15%	0%	-5%	0%	0%
PEGN - TRS	0%	-19%	0%	-16%	0%	0%
ZEE - NBP	3%	-22%	0%	-1%	0%	0%
TTF - NCG	0%	-2%	0%	0%	0%	0%
TTF - PEGN	0%	-8%	1%	-4%	0%	0%
TTF - NBP	2%	-15%	3%	-4%	0%	0%
GPL - NCG	0%	0%	0%	0%	0%	0%
NCG - VOB	3%	-11%	1%	-4%	0%	0%
TTF - ZEE	4%	-1%	0%	0%	0%	0%
	Price differential among hubs: ranges considered in euros/Mwh					
	5.0 +					
TTF - PSV	0%	-1%				
CEGH - PSV	0%	-				
NCG - PSV	0%	0%				
NCG - CEGH	0%	-1%				
GPL - VPGZ	0%	-2%				
ZEE - PEGN	0%	0%				
PEGN - TRS	0%	0%				
ZEE - NBP	0%	0%				
TTF - NCG	0%	0%				

TTF - PEGN	0%	0%
TTF - NBP	0%	0%
GPL - NCG	0%	0%
NCG - VOB	0%	0%
TTF - ZEE	0%	0%

	IP Tariff	
	>	<
TTF - PSV	2.01	-
CEGH - PSV	1.20	0.33
NCG - PSV	1.79	-
NCG - CEGH	0.45	0.79
GPL - VPGZ	0.88	0.71
ZEE - PEGN	0.49	-
PEGN - TRS	0.57	0.14
ZEE - NBP	1.83	1.10
TTF - NCG	0.49	0.43
TTF - PEGN	0.86	-
TTF - NBP	2.03	-
GPL - NCG	0.62	0.54
NCG - VOB	0.40	0.79
TTF - ZEE	0.36	0.46

Figure 28, Page 42: Levels of DA price correlation between TTF and selected hubs
Source: ACER calculations based on Platts and hub operators data.

	2013	2014	2015
TTF - CEGH	0.74	0.95	0.96
TTF - PEG Nord	0.92	0.99	0.98
TTF - TRS	0.53	0.74	0.95
TTF - GASPOOL	0.99	1.00	0.99
TTF - NCG	0.99	1.00	1.00
TTF - PSV	0.57	0.91	0.89
TTF- NBP	0.93	0.99	0.97
TTF - ZEE	0.98	1.00	0.99
TTF - VOB	0.86	0.97	0.94
TTF - VPGZ	0.83	0.88	0.90
TTF - Denmark	0.67	0.98	0.99
TTF - MGP	0.17	0.77	0.93

Figure 29, Page 43: Day-ahead gas prices and price volatility evolution in selected EU hubs – 2013 - 2015
Source: ACER calculations based on Platts.

	TTF monthly price volatility (%)	TTF DA price (euros/MWh)	PSV monthly price volatility (%)	PSV DA price (euros/ MWh)
Jan-13	0.26	26.55	12%	25.99
Feb-13	0.32	26.38	44%	28.58
Mar-13	1.21	31.96	35%	29.07
Apr-13	0.57	28.16	9%	28.34
May-13	0.18	26.77	7%	27.64
Jun-13	0.12	26.25	4%	27.75
Jul-13	0.15	26.05	7%	27.38
Aug-13	0.21	25.45	7%	28.01
Sep-13	0.14	26.47	12%	27.63
Oct-13	0.24	25.87	42%	28.51
Nov-13	0.25	27.22	54%	30.13
Dec-13	0.20	27.68	25%	27.30
Jan-14	0.16	26.24	15%	24.83
Feb-14	0.21	23.80	32%	24.13
Mar-14	0.45	22.76	33%	22.50
Apr-14	0.44	20.27	33%	21.12
May-14	0.46	19.01	53%	18.99
Jun-14	0.52	17.35	40%	18.51
Jul-14	0.59	16.44	61%	19.32
Aug-14	0.60	17.41	47%	24.44
Sep-14	0.65	20.78	24%	26.13
Oct-14	0.53	21.15	15%	25.92
Nov-14	0.51	22.97	60%	25.60
Dec-14	0.21	22.51	30%	22.68
Jan-15	0.24	19.70	82%	26.14
Feb-15	0.36	22.48	50%	24.03
Mar-15	0.29	21.82	21%	23.26
Apr-15	0.33	21.97	24%	22.32
May-15	0.20	20.55	16%	22.12
Jun-15	0.14	20.53	13%	23.35
Jul-15	0.14	20.85	52%	21.72
Aug-15	0.22	19.56	39%	21.47
Sep-15	0.20	19.18	22%	20.28
Oct-15	0.21	18.25	31%	19.58
Nov-15	0.25	17.15	60%	18.80
Dec-15	0.45	15.77		

Figure 30, Page 43: Price volatility correlation between selected pairs of hubs – 2013 - 2015
Source: ACER calculations based on Platts.

Volatility Correlation by year by hub pair			
	2013	**2014**	**2015**
TTF - PEG Nord	0.78	0.92	0.87
TTF - PSV	0.52	0.27	0.69
TTF - NCG	0.99	0.97	0.91
TTF - ZEE	0.96	0.97	0.74
NBP - ZEE	0.94	0.93	0.84
CEGH - PSV	0.54	0.89	0.80

Figure 31, Page 45: Evolution of ratios of booked over technical capacity – 2014 - 2015
Source: ENTSOG TP and ACER calculations

	% of Booked Capacity over Technical Capacity			
	<50%	>=50%<70%	>=70%<90%	>=90%
Average 2014	36%	10%	20%	34%
Average 2015	37%	11%	19%	33%
Peak 2014	17%	6%	16%	61%
Peak 2015	18%	4%	12%	66%

Figure 32, Page 46:Evolution of ratios of physical flows over technical capacity – 2014 - 2015
Source: ENTSOG TP and ACER calculations.

	% of Physical capacity over Technical Capacity			
	<50%	>=50%<70%	>=70%<90%	>=90%
Average 2014	0.72	0.09	0.08	0.10
Average 2015	0.72	0.09	0.08	0.10
Peak 2014	0.28	0.14	0.20	0.38
Peak 2015	0.28	0.14	0.20	0.38

Figure 33, Page 46: Yearly average used versus booked capacity at selected IPs in the EU – 2012 – 2015 (GWh/day)
Source: ENTSOG transparency platform and individual TSO data (2014) and ACER calculations.

	GWh/ day					
IP sorted by capacity	Connection	Average used capacity	Average firm contracted capacity	Average firm technical available capacity	Peak capacity utilisation - on monthly average basis	Total Technical firm capacity
Velke Kapusany	UA to SK 2012	1468.32	2706.05	152.95	1957.76	2859.00
Velke Kapusany	UA to SK 2013	1528.80	2195.12	152.88	1885.52	2348.00
Velke Kapusany	UA to SK 2014	905.70	2104.42	183.59	1462.90	2288.00
Velke Kapusany	UA to SK 2015	1099.46	2103.93	184.07	1534.92	2288.00
Baumgarten	SK to AT 2012	999.44	1595.88	16.12	1289.60	1612.00
Baumgarten	SK to AT 2013	1185.60	1544.40	15.60	1357.20	1560.00
Baumgarten	SK to AT 2014	932.90	1483.84	128.17	1285.90	1612.00
Baumgarten	SK to AT 2015	1096.60	1468.55	70.65	1325.36	1539.20
Lanzhot	SK to CZ 2012	532.56	1255.32	12.68	925.64	1268.00
Lanzhot	SK to CZ 2013	351.00	772.20	7.80	468.00	780.00
Lanzhot	SK to CZ 2014	16.80	522.33	8.03	98.70	530.40
Lanzhot	SK to CZ 2015	150.97	510.84	9.16	175.97	520.00
Lanzhot	CZ to SK 2014	252.20	532.11	212.52	466.30	744.70
Lanzhot	CZ to SK 2015	308.88	684.26	12.19	534.51	696.45
Arnoldstein / Tarvisio	AT to IT 2012	639.90	1185.00	0.00	924.30	1185.00
Arnoldstein / Tarvisio	AT to IT 2013	912.45	1185.00	0.00	1161.30	1185.00
Arnoldstein / Tarvisio	AT to It 2014	755.50	1174.46	9.71	1055.90	1184.20
Arnoldstein / Tarvisio	AT to IT 2015	864.58	1170.08	14.12	948.43	1184.20
Waidhaus	CZ to DE 2012	549.18	925.47	91.53	701.73	1017.00

Waidhaus	CZ to DE 2013	610.20	884.79	132.21	762.75	1017.00
Waidhaus	CZ to DE 2014	520.30	867.93	203.51	755.30	1071.50
Waidhaus	CZ to DE 2015	581.96	867.96	203.51	749.33	1071.47
Mallnow	PL to DE 2012	717.64	932.00	0.00	904.04	932.00
Mallnow	PL to DE 2013	848.00	932.00	0.00	913.00	932.00
Mallnow	PL to DE 2014	845.50	931.20	0.33	921.80	931.50
Mallnow	PL to DE 2015	740.70	931.17	0.00	858.63	931.04
Interconnector	BE to UK 2012	136.85	805.00	0.00	193.20	805.00
Interconnector	BE to UK 2013	185.15	805.00	0.00	571.55	805.00
Interconnector	BE to UK 2014	10.50	803.40	0.00	66.40	803.40
Interconnector	BE to UK 2015	11.40	803.42	0.00	59.43	803.42
Interconnector	UK to BE 2012	189.60	632.00	0.00	366.56	632.00
Interconnector	UK to BE 2013	158.00	632.00	0.00	202.24	632.00
Interconnector	UK to BE 2014	131.20	630.13	0.00	293.80	630.10
Interconnector	UK to BE 2015	236.39	630.14	0.00	429.51	630.14

Figure 34, Page 47: Marketable and allocated bundled capacity for European cross-border IPs via dedicated
Source: ENTSOG TP, PRISMA and ACER calculations.

	CAM2	CAM3
	Volume of capacity offered as a firm bundled product (TWh/ year)	**Volume of capacity allocated as a firm bundled product (TWh/ year)**
2014	1.30	0.05
2015	2.48	0.10

Figure 35, Page 48: Aggregated capacity utilisation of EU IPs - flows over
Source: ACER calculations based on ENTSOG TP and PRISMA.

	Aggregated Capacity Utilisation				
	<=0.5	<=0.7	<=0.9	<=1	<=1.5
2014	40%	15%	7%	1%	1%
2015	41%	27%	10%	1%	3%

Figure 37, Page 51:Gross welfare losses per average household consumer in gas wholesale markets – 2015 (euros/year)
Source: Eurostat Comext, Platts, NRAs, CEER Database Indicators data (2014) and ACER calculations.
Note: The EU average household consumption level of 11,000 kWh/year is taken from the CEER Indicators database 2014. Significant differences in average consumption levels exist among MSs household consumers; actual figures would have an impact on the values of real welfare losses. For example, in Lithuania, Estonia and Portugal, average consumption levels are below 4,000 kWh/year. 'l.t.' next to the name of a MS refers to border import prices, 'hub' to hub prices and 'DP' to domestic production prices used in suppliers' gas sourcing costs estimates. In 2014, Gazprom offered a retroactive price discount to the main Lithuanian supplier, which is not reflected in the figure. The Estonian price is fully based on Eurostat Comext declared Russian origin import prices; volumes purchased from Lithuania are however priced lower.

	Sum of Total welfare losses per EU average household consumer level (euros/ year)
LT	75.13
EE	64.26
BG	54.91
SE	53.32
LV	44.31
PT	36.03
HR DP	27.41
HU	26.68
PO	24.95
SI	21.84
IT hub	21.64
IT lt	21.00
GR	18.76
IE	14.29
AT	14.26
LU	13.03
SP	12.80
FR lt	12.36
AT hub	8.24
UK	5.71
FR hub	3.86
SK	3.66
CZ	3.57
FI	1.93
BE	1.37
DE hub	1.27
DE lt	0.00
RO DP	0.00
DK	0.00
NL	0.00