Impact of interconnectors activity on short term trading

PowerSwarm

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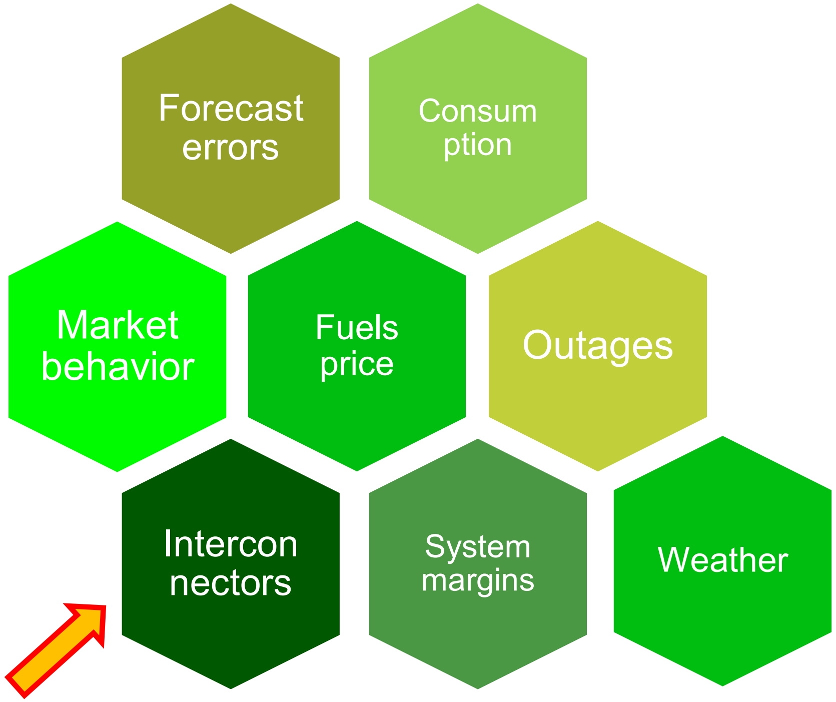
Short term optimization, factors influencing the system balance



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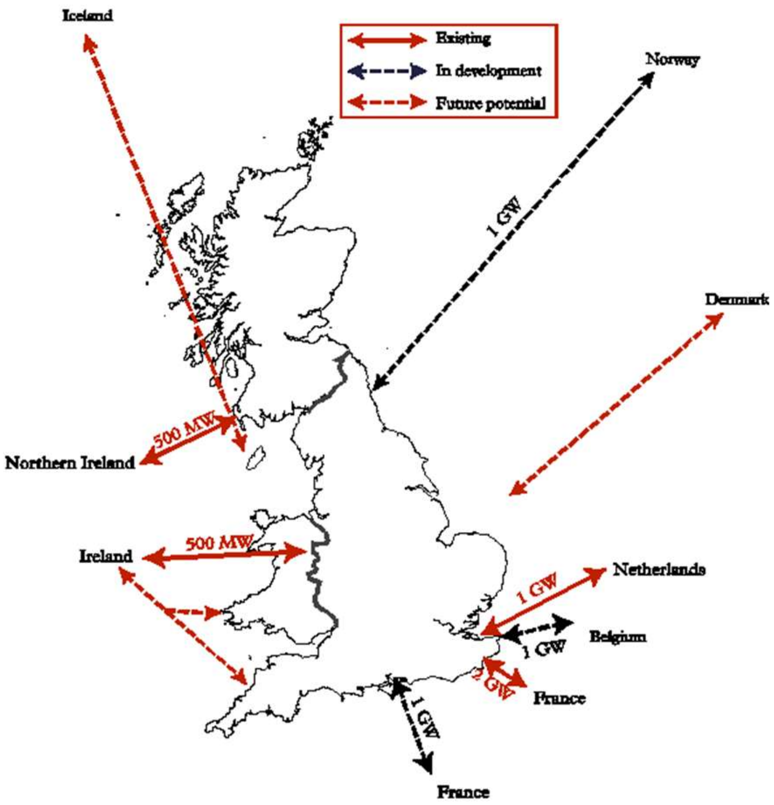
UK interconnectors

Existing
- IFA: 2 GW
- BritNed: 1 GW
- Nemo: 1 GW
- Ireland: 0.5 GW
- EW: 0.5 GW



Under construction
- IFA2: 1 GW
- Norway: 1 GW

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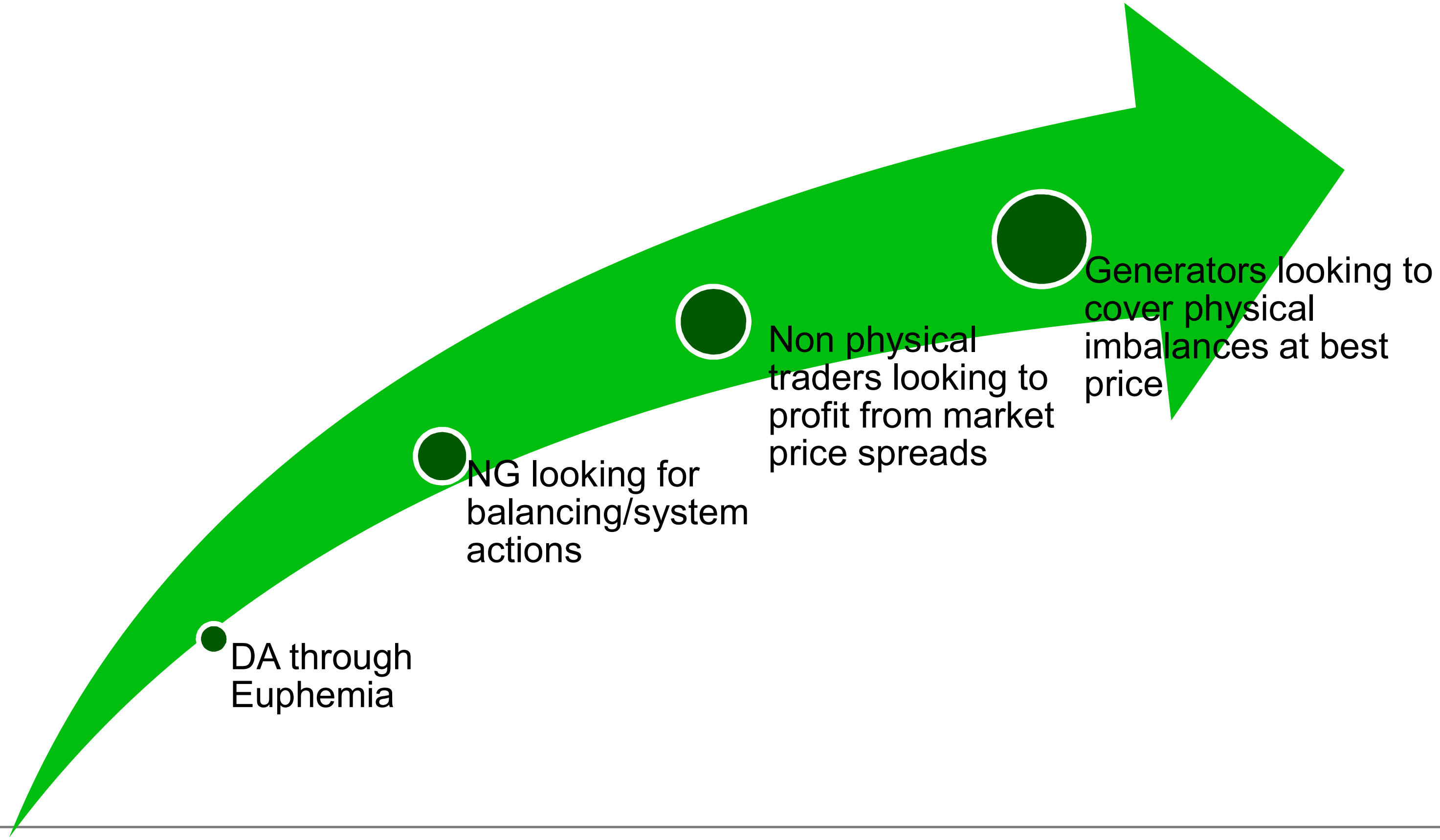
Interconnectors: utilization and value maximization



National Grid activity on interconnector

- Need to revert/reduce/increase the DA flows for balancing or constrained system reasons
- NG issues requirements to flow certain amounts of power on the IFA and/or BritNed interconnector
- Request to take action issued to all counterparties active on interconnectors (IFA and BritNed) AND with a GTMA with National Grid in place
- NG compares the offers/bids received by the counterparties with the internal available flexibility
- NG awards trades to the counterparties if no better option can be secured internally
- NG publishes the awarded trades (not specified whether it is a BSAD contracted within the country of whether the trade refers to an interconnector trade)
- The awarded counterparties flow the required volumes on IFA/BritNed against the DA flow

DA flows and NG adjustments

12-11-2018	CET/CEST time	GB1 > FR	FR > GB1
23 - 00	00 - 01	0,0	1 976,6
00 - 01	01 - 02	0,0	1 976,6
01 - 02	02 - 03	0,0	1 976,6
02 - 03	03 - 04	0,0	1 976,6
03 - 04	04 - 05	0,0	1 545,7
04 - 05	05 - 06	0,0	1 411,5
05 - 06	06 - 07	0,0	1 621,0
06 - 07	07 - 08	0,0	1 976,6
07 - 08	08 - 09	1 016,0	0,0
08 - 09	09 - 10	0,0	0,0
09 - 10	10 - 11	0,0	27,6

Settlement Date	SP	INTFR (MW)	INTIRL (MW)	INTNED (MW)	INTEW (MW)
2018-11-12	11	1538	170	116	504
2018-11-12	12	1530	170	110	504
2018-11-12	13	1998	170	576	504
2018-11-12	14	1974	170	602	464
2018-11-12	15	314	170	0	304
2018-11-12	16	288	168	0	212
2018-11-12	17	898	76	-570	62
2018-11-12	18	920	40	-654	0

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Activity of generators/non physical traders

Drivers

- Favorable spreads
- Different markets moving on different fundamentals and dynamics
- Interconnector information not available to all counterparties on both sides of cable

Challenges

- Nomination deadlines
- Capacity availability
- Capacity cost
- Spread uncertainty
- Intraday market liquidity

Interconnectors' impact on system

volatility

Security of supply

energy cost

Support energy transition

Market harmonization

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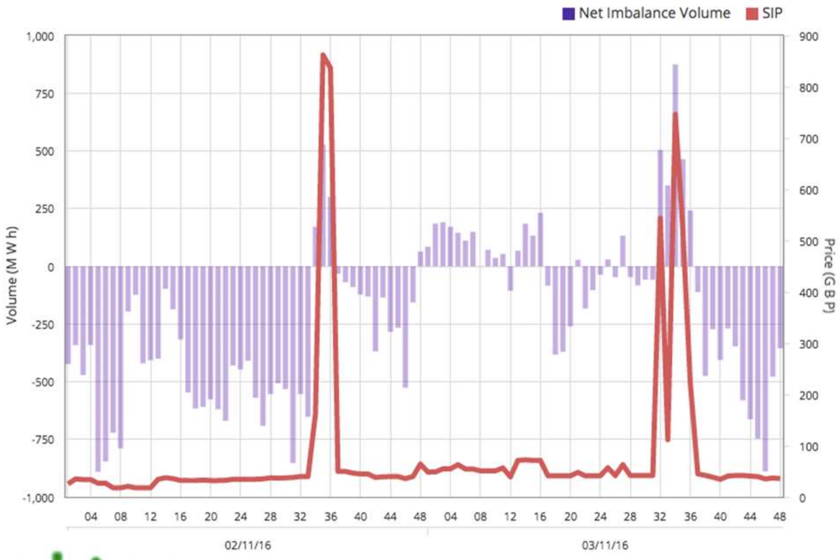
Reduced volatility because of interconnectors?

Maybe, but…

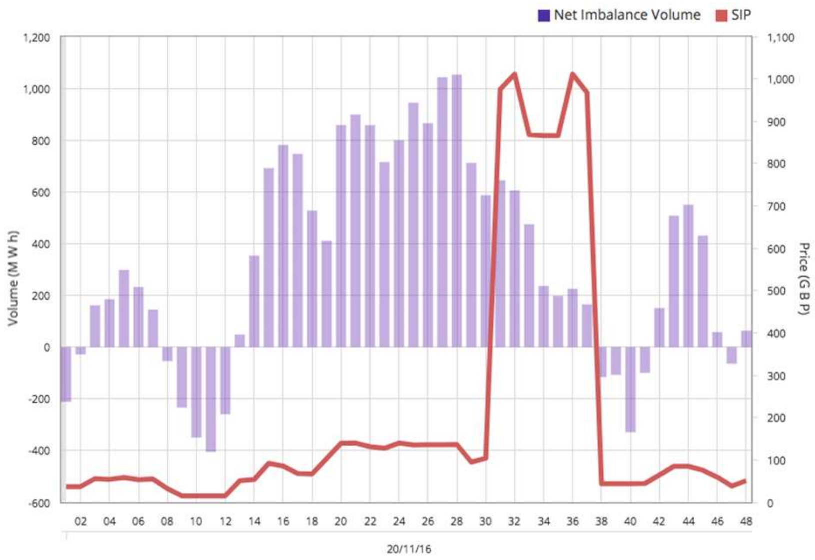
- Do you remember November 2016? When did extreme spot prices and imbalance prices occur and when did the IFA outage occur?
- If 1.9 GW of Belgium's nuclear capacity (Tihange 1, Doel 1, Doel 2) will be offline next winter, as announced by the CEO of Electrabel, what will be the effect of the Nemo link?
- In a system that is becoming increasingly flexible and fast reacting, are interconnectors with such an inflexible schedule really going to play a major role?

IFA, November 2016

Tight margins in France, generally a net exporter to UK → UK becomes net exporter with resulting tight margins and imbalance price spikes



On 20 November 2016 damage to the IFA interconnector halved its available capacity



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IFA and BritNed nomination schedules

IFA (UK <—> FR)

1,17% loss (mid-channel)
Nomination gates
@ 2 a.m. : H7-11 (HH11-20)
@ 7 a.m. : H12-14 (HH21-26)
@ 10 a.m. : H15-17 (HH27-32)
@ 1 p.m. : H18-20 (HH33-38)
@ 4 p.m. : H21-24 (HH39-46)
@ 8 p.m. : H1-6 (HH47-10)

BritNed (UK <—> NL)

1,5% loss (mid-channel)
Nomination gates
@ 1 a.m. : H5-11 (HH7-20)
@ 7 a.m. : H11-16 (HH21-30)
@ 1 p.m. : H17-18 (HH31-34)
@ 3 p.m. : H19-20 (HH35-38)
@ 6 p.m. : H21-24 (HH39-46)
@ 9 p.m. : H1-4 (HH47-6)

Questions?

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