



Gas and the Energy Union – Roads ahead

- Four Observations on the Polish Gas Market -

SWP/PISM German-Polish Energy Dialogue: Pipelines, Hubs and 'Green Gas' – How to deepen the Energy Union

Berlin 14 September 2018

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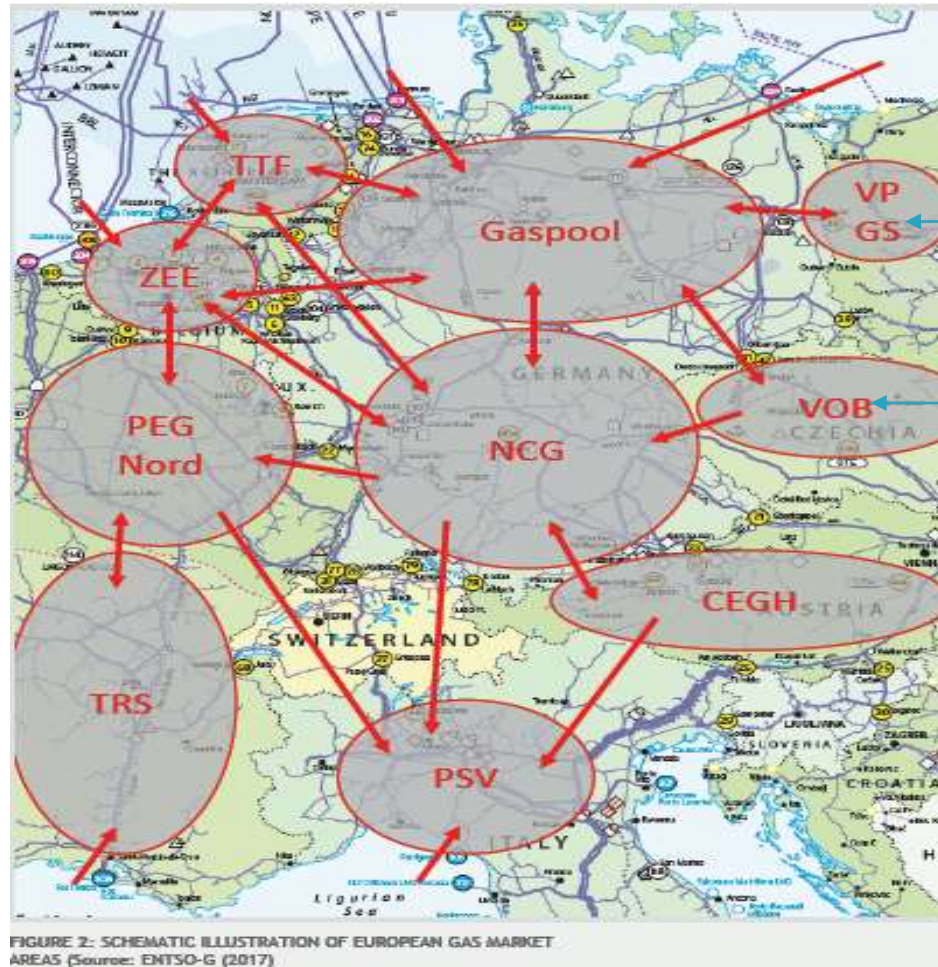
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Four Observations on the Polish Gas Market

- ▶ **Obstructing European traded market integration**
- ▶ **‘Crying wolf’: the myth of dependency on Russia**
- ▶ **Baltic Pipe: through ‘ideological physicality’ back to the stone ages**
- ▶ **Retail commercial ‘no-go’ area: predatory pricing or misuse of dominant position by margin squeeze**

Obstructing European traded market integration

OIES: NWE is an 'integrated transnational market behaving like a single price area' ... but **Poland is not part of it**



Source: ewi Central European Gas Market Congestion Analysis

Obstructing European traded market integration

Storage obligation: >20 traders surrendered licence

PGNiG market concentration rising & price spreads widening

PGNiG GROWS SHARE OF POLISH GAS IMPORTS FROM EU

	EU hub imports (TWh)	% of which under PGNiG
Q1 '16	7.79	6.2
Q2 '16	5.03	0.9
Q3 '16	7.33	30.4
Q4 '16	8.43	6.3
Q1 '17	6.03	21.9
Q2 '17	8.27	44.4
Q3 '17	16.23	74.9
Q4 '17	11.94	67.6

Source: GAZ-SYSTEM, GASCADE, PGNiG, ICIS assumptions

Source: ICIS Heren, EGM 25.09 of 15 May 2018

POLISH HUB PREMIUM TO GASPOOL RISES

	Average VPGS M+1 premium to GASPOOL (€/MWh)
Summer '15	1.27
Winter '15	1.29
Summer '16	1.00
Winter '16	1.58
Summer '17	1.41
Winter '17	2.15

Source: ICIS, TGE

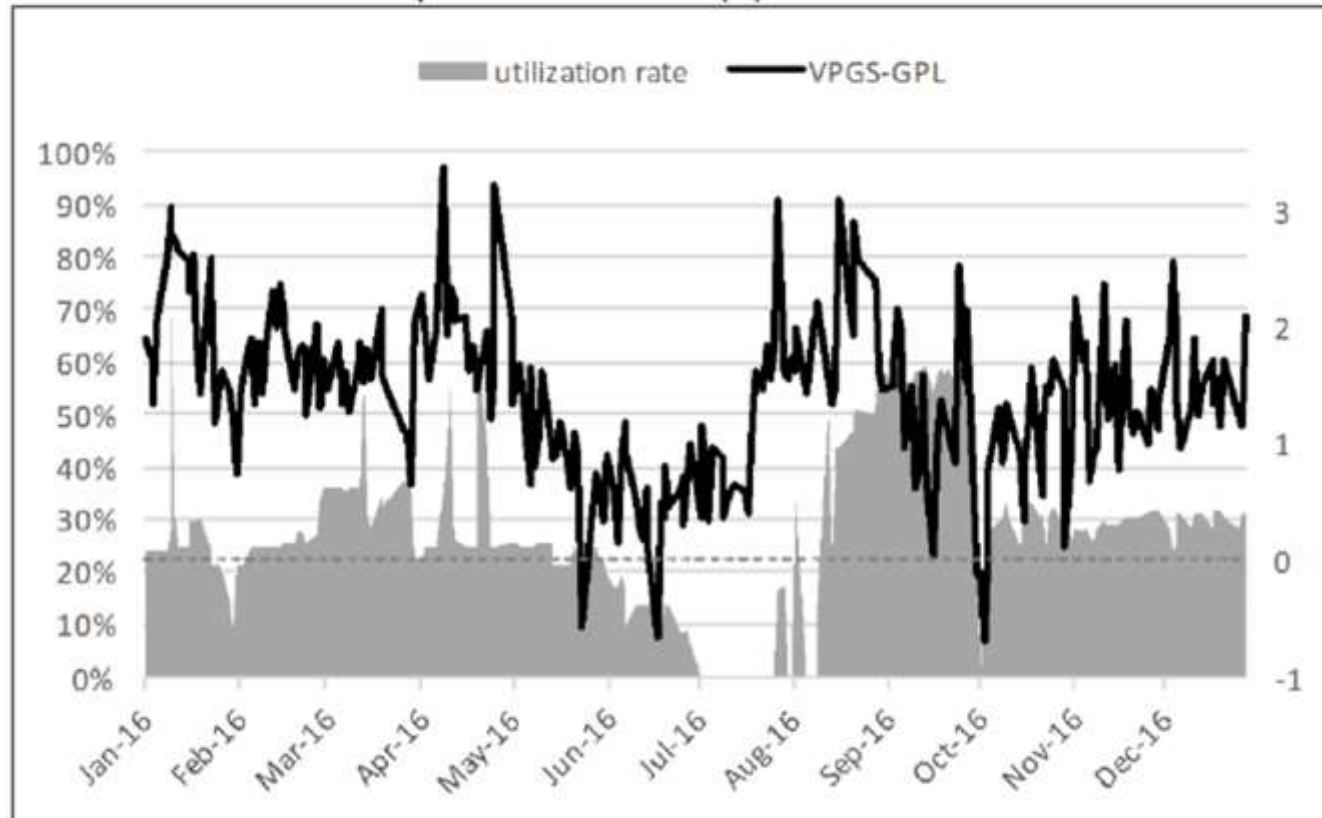
Source: ICIS Heren, EGM 25.09 of 15 May 2018

Obstructing European traded market integration

No physical barriers (e.g. pipeline congestion) to trade

Non-physical barriers to trade obvious

Figure 18: Gaspool-VPGS day ahead price spread (€/MWh) and utilization rate of the interconnection between Gaspool and VPGS hub³⁸ (%)



Sources: EEX, POLPX, ENTSO-G Transparency platform

Source: Heather/Petrovic 2017, p. 26

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'Crying wolf': the myth of dependency on Russia

High degree of diversity with 5 sources of supply

Sum of 4 non-Russian sources **exceeds** domestic consumption



Source: ENTSOG Capacity Map 2017

'Crying wolf': the myth of dependency on Russia

Full virtual reverse flow (**PWP exit**) 275.5 GWh/d = 9.08 bcm/a

125	Point of Interconnection (PWP) (PL)					
	GAZ-SYSTEM (ISO) YAMAL	GAZ-SYSTEM Poland	275,5	Y	11,080	11,080

Source: ENTSOG Capacity Map 2017

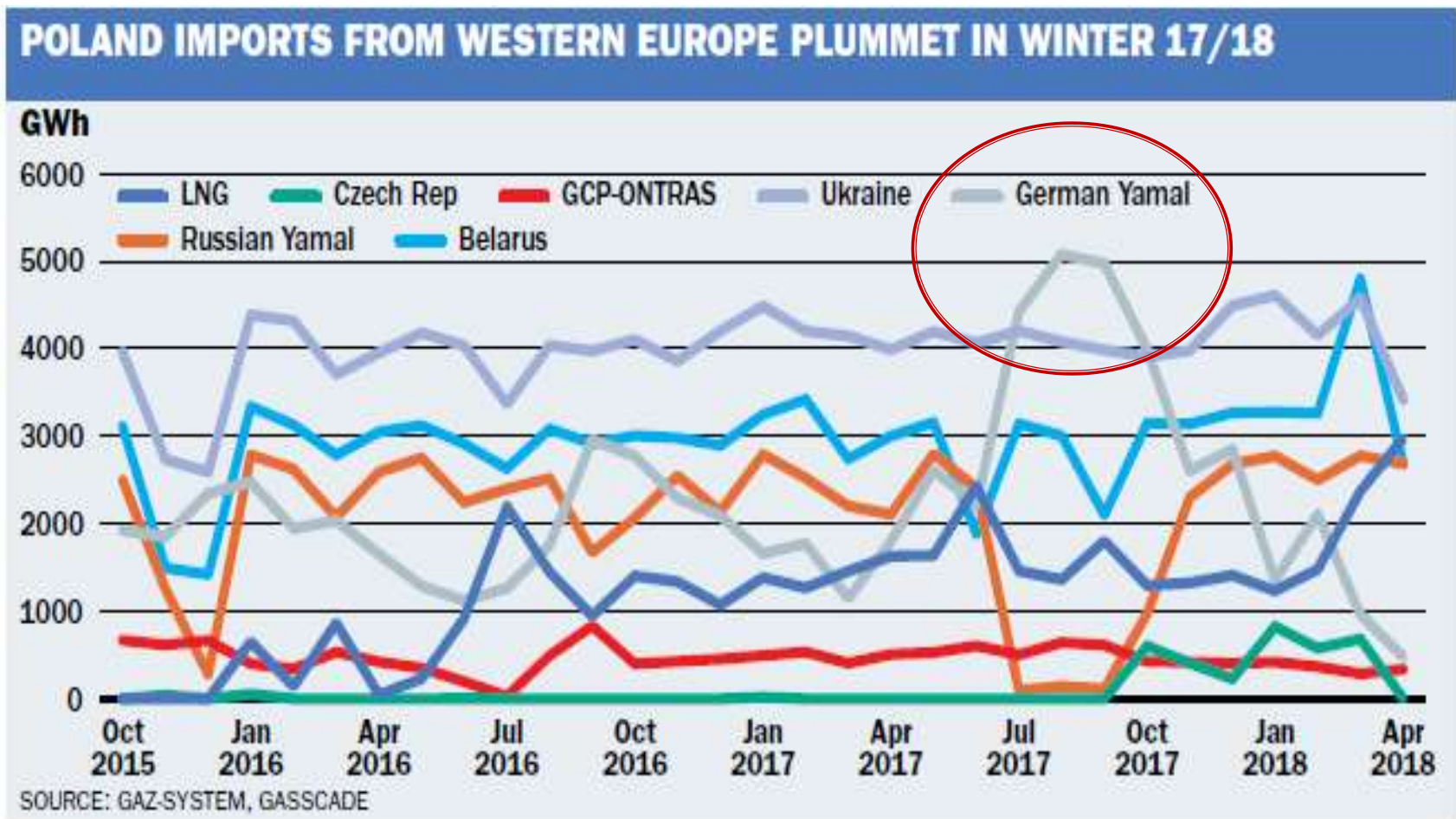
Undiscounted Residual Supply Index (RSI) rises to **117%**

Poland	bcm/a	GWh/d	GCV	
Domestic consumption	19.14			
Indigenous production	5.79			
LNG	5.00	158.0	11.55	
Mallnow physical reverse	-	184.8	11.075	PWP limit bcm/a
Mallnow virtual reverse	9.08	81.92	11.075	9.08
Lasow	1.59	48.2	11.15	
Cieszyn	0.91	28.0	11.235	
Sum 'distinct origin sources'	22.37			
RSI	117%			

Source: Own calculations based on IEA and ENTSOG data

'Crying wolf': the myth of dependency on Russia

Sourcing 2017 living proof of diversity & dependency absence



Source: ICIS Heren, EGM 25.09 of 15 May 2018

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Baltic Pipe: through 'ideological physicality' back to the stone ages

Entry GPL Dornum – Exit GPL/Entry VPGS Mallnow?

Commercial blunder PGNIG? € 1.8 billion ship-or-pay – no supplies

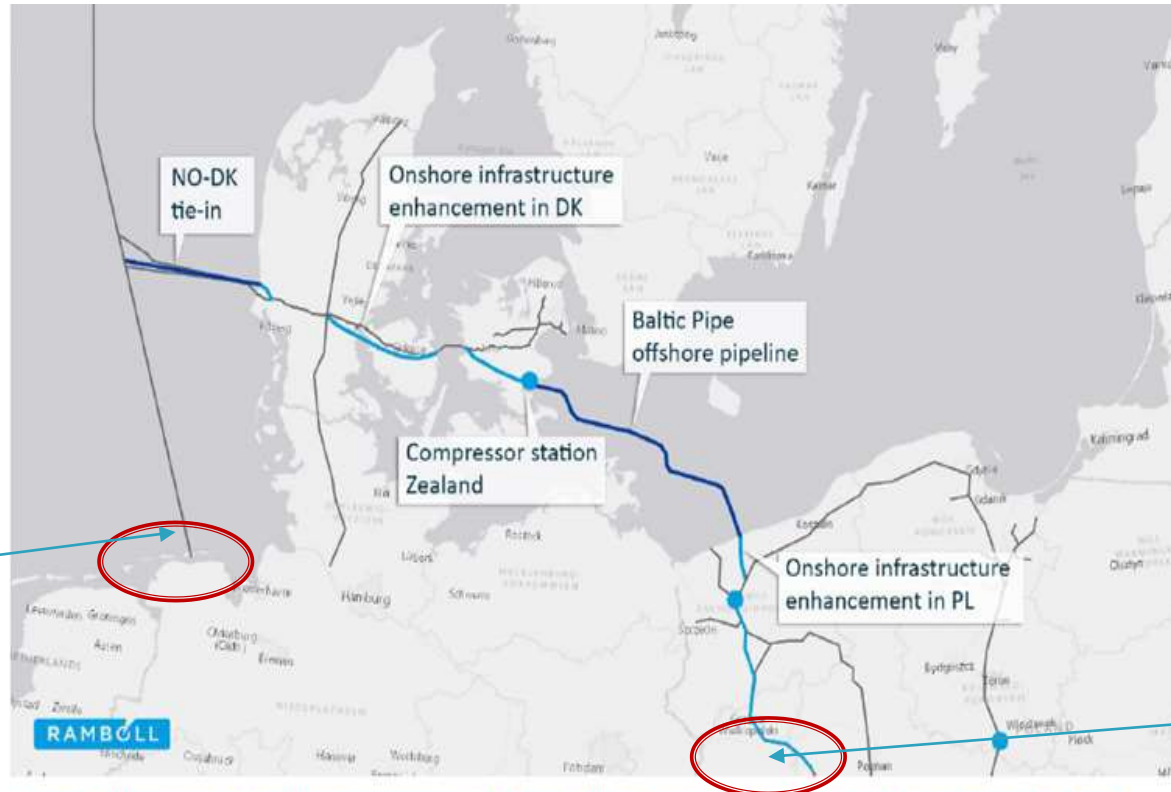


Figure 1 Overview of the five components of Baltic Pipe. Route and compressor station location are indicative, and not specific.

Source: 'Ramboll Feasibility Study 2017', page 3

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Retail: commercial 'no-go' area due to predatory pricing or misuse of a dominant position by margin squeeze

Sales price benchmark 2017: URE approved tariff for *PGNiG Obrót Detaliczny Sp. z o.o.* **92.40 PLN/MWh**

Sourcing cost: standard load profile by Polska Spółka Gazownictwa Sp. z o.o.: **98.21 PLN/MWh**

Loss (commodity only): **-5.81 PLN/MWh (-1.35 €/MWh)**

Standard profile W1-3.6		
Month	% SP	
january	15%	13,92
february	13%	13,91
march	10%	13,02
april	8%	7,15
may	6%	4,47
june	4%	2,96
july	4%	2,81
august	4%	3,18
september	4%	3,62
oktober	8%	6,92
november	11%	10,64
december	13%	14,17
	100%	96,76 average cost price SP
		1.45 white certificates
		98,21 COST PRICE

Source:

<https://www.psgaz.pl/documents/21201/329718/Miesi%C4%99czne+profile+zu%C5%BCycia+dla+punkt%C3%B3w+typu+WS/f0c0f96a-9926-420a-8d62-8de2b00dd956>



GVC market study for further ‘bed-time reading’:

Poland, a ‘failed state’ in gas trading

Poland’s deliberate obstruction of European traded gas market integration and its misguided quest for diversity hinging on ‘ideological physicality’

by Wolfgang Peters, in June 2018

<http://gasvaluechain.com/cms/wp-content/uploads/2018/07/GVC-Market-Study-Poland-06-18.pdf>