



European Federation of Energy Traders

European Gas Hub Development



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- The results here are based on the views of EFET members, exercising all reasonable care to determine the best practice model and establish specific recommendations for individual hubs pursuant to their development phase with a view to progress hub development across Europe. The analysis should not be relied upon for any public or commercial purposes.
 - The assessment of Virtual Trading Points is preliminary and shows analysis arising from the EFET study concluded in October 2013 *EFET Guide on the features of a successful VTP*. Although we make reasonable efforts to update the information, we make no representations, warranties or guarantees, whether express or implied, that the content on our site is accurate, complete or up-to-date.
 - The hub development scores reflect varied market conditions and gas hub profiles as per 31 March 2014. The next benchmarking exercise is scheduled for spring 2015. Any parties who would like to contribute to the update of the VTP assessment are advised to contact the EFET Secretariat at GASHUB@efet.org

Part 2 – Individual Hub Assessments

NBP – Score 20



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	UNC governance, transmission workstreams	1
TSO	Entry-exit system established	Entry-exit with single VTP	1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Fully firm through OTD market	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	Previously instituted, no longer required	1
NRA	Role of Hub operator	TSO role in Transp Licence; APX in Fin Reg	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under Ofgem	1
Market	Establish a reference price at the hub for contract settlement	SMP clearly defined on every day	1
Market	Standardised contract	NBP 97	1
Market	PRAs at the hub	Platts, ICIS Heren, Argus	2
Market	Market makers		1
Market	Brokers	Several brokers through Traypoint	1
NRA	Establishment of exchange	ICE	1
Market	Index becomes reliable and used as benchmark	NBP – globally traded	1

TTF – Score 19



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Shippers day, GEN, but not in English	½
TSO	Entry-exit system established	Entry-exit with single VTP	1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Bid ladder and OTC market to merge	1 1/2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	No longer required	1
NRA	Role of Hub operator	Defined in Gas Act	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under ACM	1
Market	Establish a reference price at the hub for contract settlement	Price established by market or deemed	1
Market	Standardised contract	EFET Appendix	1
Market	PRAs at the hub	Platts, ICIS Heren, Argus	2
Market	Market makers		1
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	Endex	1
Market	Index becomes reliable and used as benchmark	TTF – increasingly used as reference	1

Zee beach – Score 18



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Zee hub group; Fluxys shipper meetings, IUK	1
TSO	Entry-exit system established	Physical hub, entry-exit in discussion	0
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Market based	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	No longer required	1
NRA	Role of Hub operator	Defined in Gas Act and Fin reg	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under CREG	1
Market	Establish a reference price at the hub for contract settlement	Price established by market	1
Market	Standardised contract	Zee	1
Market	PRAs at the hub	Platts, ICIS Heren, Argus	2
Market	Market makers		1
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	Endex	1
Market	Index becomes reliable and used as benchmark	Losing liquidity	0

ZTP – Score 16



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Fluxys shipper meetings	1
TSO	Entry-exit system established	Fluxys terms	1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Market based	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	No longer required	1
NRA	Role of Hub operator	Defined in Gas Act and Fin reg	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under CREG	1
Market	Establish a reference price at the hub for contract settlement	Price established by market	1
Market	Standardised contract	EFET master only	0
Market	PRAs at the hub	Limited liquidity	2
Market	Market makers		0
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	Limited liquidity	0
Market	Index becomes reliable and used as benchmark	Limited liquidity	0

NCG – Score 15 ½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Closed meetings, some consultation, German language only	½
TSO	Entry-exit system established	Low/High cal markets not fully integrated	½
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Market based	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	'Role of Hub operator	Defined in EnWG	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under BNetzA	1
Market	Establish a reference price at the hub for contract settlement	Price established by market	1
Market	Standardised contract	EFET master only	0
Market	PRAs at the hub		2
Market	Market makers		0
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	EEX	1
Market	Index becomes reliable and used as benchmark	Some requests	½

Gaspool – Score 16



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Closed meetings, some consultation, German language only	½
TSO	Entry-exit system established	Low/High cal markets not fully integrated	½
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Market based	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	Defined in EnWG	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under BNetzA	1
Market	Establish a reference price at the hub for contract settlement	Price established by market	1
Market	Standardised contract	EFET appendix	1
Market	PRAs at the hub		2
Market	Market makers		0
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	EEX	1
Market	Index becomes reliable and used as benchmark	Not requested	0

PEGs – Score 16



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	GRTgaz, Concertation Gaz	1
TSO	Entry-exit system established	Multiple VTPs, Lo/Hi cal mkts not fully integrated	0
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Market based	2
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	TSO and PowerNext	2
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under CRE	1
Market	Establish a reference price at the hub for contract settlement	Price established by market	1
Market	Standardised contract	EFET appendix	1
Market	PRAs at the hub		2
Market	Market makers		0
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	PowerNext	1
Market	Index becomes reliable and used as benchmark	Not requested	0

Austria VTP (CEGH) – Score 14



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Frequent CEGH consultation	1
TSO	Entry-exit system established	VTP but limited transfer between transit /domestic	½
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders	Limited arrangements for non-physical traders	0
TSO	Firmness of hub	Firmness limited	1
TSO	Credit arrangements non punitive	Mandatory exchange prohibits smaller cos	½
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	Complex split role CEGH / AGCS / GCA / WB	1
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under Econtrol	1
Market	Establish a reference price at the hub for contract settlement	Price established by market/deemed	1
Market	Standardised contract	EFET appendix	1
Market	PRAs at the hub		2
Market	Market makers		1
Market	Brokers	Several brokers through Trayport	1
NRA	Establishment of exchange	Wiener Borse	1
Market	Index becomes reliable and used as benchmark	Not requested	0

PSV – Score 10 ½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Tavola, but short notice and Italian language only	½
TSO	Entry-exit system established	Single VTP	1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		1
TSO	Firmness of hub	Firmness still controlled by TSO	0
TSO	Credit arrangements non punitive	Mandatory exchange prohibits smaller cos	½
NRA	Resolve market structural issues (defined role for historical player)	Previous gas release, some ENI participation	0
NRA	Role of Hub operator	SRG/GME	1
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under AEEG	1
Market	Establish a reference price at the hub for contract settlement	Yes but illiquid/unreliable	1
Market	Standardised contract	EFET appendix – but not used	½
Market	PRAs at the hub	Limited	1
Market	Market makers		0
Market	Brokers	Limited	½
NRA	Establishment of exchange	GME/Mgas/Pgas/Mtgas	½
Market	Index becomes reliable and used as benchmark	Not requested	0

AOC – Score 7



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Consultation discontinued	0
TSO	Entry-exit system established	Single VTP, but trading at storage and LNG	1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub	Firmness still controlled by TSO	0
TSO	Credit arrangements non punitive	High exposures	½
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	Undefined	0
NRA	Agree regulatory jurisdiction if cross border	Single jurisdiction under CNMC	1
Market	Establish a reference price at the hub for contract settlement	Deemed	½
Market	Standardised contract	EFET appendix	1
Market	PRAs at the hub	Limited	½
Market	Market makers		0
Market	Brokers	Limited	½
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark	Not requested	0

Mibgas – Score 2



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Consultation discontinued	0
TSO	Entry-exit system established	In discussion	0
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub	Firmness still controlled by TSO	0
TSO	Credit arrangements non punitive	Not established	0
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	Undefined	0
NRA	Agree regulatory jurisdiction if cross border	In discussion	0
Market	Establish a reference price at the hub for contract settlement	No	0
Market	Standardised contract		0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Established process in local language; some documents published in English	½
TSO	Entry-exit system established	Yes	1
TSO	Title Transfer	Yes	1
TSO	Cashout rules	Balancing in kind; rules are complex, cashout can be expensive, not very liquid / matching difficult.	½
TSO	Accessible to non-physical traders	Must sign up as physical	0
TSO	Firmness of hub	Firmness still controlled by TSO	0
TSO	Credit arrangements non punitive	Not established	0
NRA	Resolve market structural issues (defined role for historical player)	No gas release, no market maker obligation	0
NRA	Role of Hub operator	OTE market operator for power and gas	1
NRA	Agree regulatory jurisdiction if cross border	Currently national market; regional in discussion	1
Market	Establish a reference price at the hub for contract settlement	No	0
Market	Standardised contract	EFET, No 'Czech' appendix	0
Market	PRAs at the hub	Heren, Platts and Argus	1
Market	Market makers	Yes, one exclusively for PXE; CEZ, MND, RWE, Vemex active	½
Market	Brokers	42F, ICAP, TFS	1
NRA	Establishment of exchange	PXE CEEG since 12/2013 but illiquid	½
Market	Index becomes reliable and used as benchmark	No	0

SK EUStream– Score 3½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism		
TSO	Entry-exit system established	Domestic / Transit separated	0
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub	Firmness still controlled by TSO	0
TSO	Credit arrangements non punitive	Not established	0
NRA	Resolve market structural issues (defined role for historical player)	None	0
NRA	Role of Hub operator	Undefined	0
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement	No	0
Market	Standardised contract		0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers	42F	½
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Greece– Score 5



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism		
TSO	Entry-exit system established	Under discussion	½
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub	Allocated as nominated	½
TSO	Credit arrangements non punitive	Not established	0
NRA	Resolve market structural issues (defined role for historical player)	Gas release 10% of imports – prob at VTG	½
NRA	Role of Hub operator	Desfa runs VTP; HO not defined	½
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement	Imbalance published with 3 month delay	0
Market	Standardised contract		0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Turkey – Score 5½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Petform+EFET	1
TSO	Entry-exit system established	Under discussion	0
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders	?	
TSO	Firmness of hub	?	
TSO	Credit arrangements non punitive	?	
NRA	Resolve market structural issues (defined role for historical player)	?	
NRA	Role of Hub operator	BOTAS	½
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement		
Market	Standardised contract	Proposed, unclear if adopted	½
Market	PRAs at the hub	Limited	½
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

GTF (Denmark) – Score 9



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	?	
TSO	Entry-exit system established		1
TSO	Title Transfer		1
TSO	Cashout rules		1
TSO	Accessible to non-physical traders	?	
TSO	Firmness of hub		1
TSO	Credit arrangements non punitive		1
NRA	Resolve market structural issues (defined role for historical player)	Gas release	1
NRA	Role of Hub operator	Energienet/dk	1
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement		1
Market	Standardised contract		0
Market	PRAs at the hub	Too small	0
Market	Market makers	?	
Market	Brokers	?	
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Hungary HVP – Score 5



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Some presentations in 2012 in English, but stopped; Hungarian workshops.	0
TSO	Entry-exit system established	E-E has two VTPs depending on your licence	½
TSO	Title Transfer	Title transfer limited by licence	½
TSO	Cashout rules	Limited access to balancing system for int'l	0
TSO	Accessible to non-physical traders	Ineffective	0
TSO	Firmness of hub	CEEGEX firm; new trades suspended if crisis, balancing market illiquid and inaccessible	½
TSO	Credit arrangements non punitive	Strict credit requirements	0
NRA	Resolve market structural issues (defined role for historical player)	Release programme ended	0
NRA	Role of Hub operator	FGSZ runs vtp and balancing; CEEGEX; understood but not clearly defined	½
NRA	Agree regulatory jurisdiction if cross border	Not applicable	1
Market	Establish a reference price at the hub for contract settlement	CEEGEX publishes price which could be used	½
Market	Standardised contract	EFET master not widely used	0
Market	PRAs at the hub	None	0
Market	Market makers	One (Axp0)	½
Market	Brokers	Small voice brokers (42FS), no int'l or systems	½
NRA	Establishment of exchange	Yes, early establishment, illiquid	½
Market	Index becomes reliable and used as benchmark	No	0

Poland – Score 4½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Limited discussion, Polish language	½
TSO	Entry-exit system established		1
TSO	Title Transfer		1
TSO	Cashout rules		
TSO	Accessible to non-physical traders		
TSO	Firmness of hub		
TSO	Credit arrangements non punitive		
NRA	Resolve market structural issues (defined role for historical player)		
NRA	Role of Hub operator		
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement		
Market	Standardised contract	In progress	0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers	Polish Brokers (Courtesy of power trading no international brokers yet)	½
NRA	Establishment of exchange	Mostly used by PGNIG and its distribution co's	½
Market	Index becomes reliable and used as benchmark		0

Area D – Score 0



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism		0
TSO	Entry-exit system established		0
TSO	Title Transfer		0
TSO	Cashout rules		0
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub		0
TSO	Credit arrangements non punitive		0
NRA	Resolve market structural issues (defined role for historical player)		0
NRA	Role of Hub operator		0
NRA	Agree regulatory jurisdiction if cross border		0
Market	Establish a reference price at the hub for contract settlement		0
Market	Standardised contract	Being discussed	0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Romania – Score 2½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism		0
TSO	Entry-exit system established		0
TSO	Title Transfer		1
TSO	Cashout rules		0
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub		0
TSO	Credit arrangements non punitive		0
NRA	Resolve market structural issues (defined role for historical player)		0
NRA	Role of Hub operator		0
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement		0
Market	Standardised contract	Being discussed	0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		½
Market	Index becomes reliable and used as benchmark		0

Bulgaria – Score 1½



Responsible party	What should be done	Comments	Score
NRA	Establish a consultation mechanism	Document released in Bulgarian language	½
TSO	Entry-exit system established		0
TSO	Title Transfer		0
TSO	Cashout rules		0
TSO	Accessible to non-physical traders		0
TSO	Firmness of hub		0
TSO	Credit arrangements non punitive		0
NRA	Resolve market structural issues (defined role for historical player)		0
NRA	Role of Hub operator		0
NRA	Agree regulatory jurisdiction if cross border		1
Market	Establish a reference price at the hub for contract settlement		0
Market	Standardised contract	Being discussed	0
Market	PRAs at the hub		0
Market	Market makers		0
Market	Brokers		0
NRA	Establishment of exchange		0
Market	Index becomes reliable and used as benchmark		0

Initial Scores	
NBP	20
TTF	19
Zee beach	18
ZTP	16
NCG	15.5
Gaspool	16
PEGs	16
Austrian VTP	14
PSV	10.5
AOC/Mibgas	7 / 2
CZ	8
SK	3.5
GR	5
TU	5.5
GTF (DK)	9
HVP (HU)	5
Poland	4.5
Area D	0
RO	2.5
BU	1.5



European Federation of Energy Traders

**Amstelveenseweg 998
1081 JS Amsterdam**

**Tel: +31 (0)20 5207970
Email: gashub@efet.org
www.efet.org**