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3rd ACER Gas Target Model Workshop

3rd ACER GTM workshop, Brussels, 15 May 2014

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3. Functioning wholesale gas markets

Objective and criteria

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3rd ACER GTM workshop, Brussels, 15 May 2014

Objectives

Every European final customer has the right to be accessible from a functioning wholesale market (based on 3rd Package provision)

Criteria

GTM1 criteria

Set of indicative criteria for assessment (not individually)

Additional relevant criteria

- Criteria from WECOM study and ACER questionnaire (quantitative)+EFET hub design
- What additional criteria are required?
 - Define minimum requirements

→ **GTM2 criteria**

Detailed analysis of specific areas to underpin GTM update

Wholesale market functioning	SoS, upstream competition	<ul style="list-style-type: none"> • Aim to enhance upstream competition + SoS • Diversification of routes and sources • Actions needed?
	GTM1 criteria analysis	EU gas markets assessed against GTM1 criteria: market zone size > 20 bcm; churn rate > 8; number of supply source ≥ 3; HHI < 2,000; RSI > 110% (detailed analysis for BG, FR, HU, PL, ES)
	Barriers to entry	<ul style="list-style-type: none"> • Functioning forward gas markets (which markets provide sufficient liquidity?) • Market entrance barriers for new participants to EU gas markets
	Hub functioning	<ul style="list-style-type: none"> • Aim: market enhancement; improving hub design and governance • Differences between European hubs create barriers to trade? (E.g. oversight, offered products, fees, legal status, etc.)
	Congestion post CMP	<ul style="list-style-type: none"> • What problems might remain?
Sustainability	<ul style="list-style-type: none"> • Situation of gas fired power plants 	
Retail market competition	<ul style="list-style-type: none"> • Focus on gas specific issues; taking into account the outcome of the ACER/CEER MMR 2012 	
New usage of gas	<ul style="list-style-type: none"> • New usage of natural gas (gas in transport) and gas as energy storage; regulatory aspects • Cogeneration and trigeneration, etc. 	

1.

Objectives

Every European final customer has the right to be accessible from a functioning wholesale market (based on 3rd Package provision)

- Further consideration of "accessible" and "functioning"

2.

Assessing status quo

- EU gas markets assessed against GTM1 criteria
- OTC trade database (showing limited EU wide access to liquidity and therefore limited ability to hedge retail portfolios)
- Other available studies (e.g. entry-exit study, EFET, etc.)
- Where do we get with NC implementation?

GTM2 criteria

- GTM1 criteria +
- Criteria from WECOM study and ACER questionnaire (quantitative)+EFET hub design
- What additional criteria are required?
- Define minimum requirements

Not feasible for hub to meet objective by itself

Evaluation

Feasible for hub to meet objective by itself

3.

Market integration: tools to deepen liquidity

- Full merger
- Partial merger
- Satellite market
- Other?

Market enhancement:

- Further **improving hub** design and governance for an effective trading environment
- Further improving spot-market efficiency by exchange based **spot-market coupling**

Wholesale market functioning

GTM1 criteria – preliminary results of Frontier analysis

Criteria	Target
Churn rate <ul style="list-style-type: none"> Volume of gas traded relative to physical volume 	≥ 8
Market zone size <ul style="list-style-type: none"> Consumption of gas by consumers within a market zone 	≥ 20 bcm (215 TWh)
Number of supply sources <ul style="list-style-type: none"> We interpret this to be the number of countries imports are originating from 	≥ 3
HHI (Herfindahl Hirschman Index) <ul style="list-style-type: none"> Measure of concentration amongst suppliers based on energy measured by firm 	$\leq 2,000$
RSI (Residual Supply Index) <ul style="list-style-type: none"> Share of consumption which can be met without largest supplier based on supply capability, i.e. capacity (again on firm level) 	≥ 110 %

Overall GTM1 criteria results

Criteria	Churn Rate	Zone size [TWh/year]	Number of sources	HHI	RSI
Austria	3	105	3	7.500	143%
Belgium	6	197	8	1.709	275%
Bulgaria	0	39	2	7.587	0%
Croatia	0	35	5	5.987	0%
Czech Republic	0	95	3	9.051	0%
Denmark	0	45	2	2.100	22%
Estonia	0	9	1	10.000	0%
Finland	0	36	1	10.000	0%
France	3	165	13	1.240	137%
Germany	4	438	13	1.982	116%
Greece	0	49	2	5.181	131%
Hungary	0	113	4	3.198	60%
Ireland	0	52	2	1.215	8%
Italy	3	79	12	2.093	108%
Latvia	0	21	1	10.000	0%
Lithuania	0	39	1	10.000	0%
Luxembourg	0	12	4	3.185	0%
Netherlands	7	424	6	2.488	189%
Poland	0	193	3	4.550	56%
Portugal	0	55	2	2.821	93%
Romania	0	157	4	3.270	104%
Slovakia	0	70	2	9.595	369%
Slovenia	0	12	5	5.027	74%
Spain	0	365	12	2.000	159%
Sweden	0	13	1	2.766	0%
United Kingdom	15	910	11	950	142%
GTM1 target	≥ 8	≥ 215	≥ 3	< 2,000	≥ 110 %

ACER/CEER MMR 2012: churn rate 14 for TTF

- Only UK meets all GTM1 criteria, NL & BE close
- Hub liquidity an issue in DE, IT, FR, ES
- French market separated into too many zones
- Italy very dependent on two large sources
- DE only barely meets HHI and RSI targets
→ may not meet them if demand picks up again
- Eastern European gas markets usually meet none or only one or two out of 5 criteria


Large Western European gas markets

- Except UK and NL, liquidity below target churn rate and uncertainty regarding further evolution of liquidity
- But liquidity may be accessible in neighbouring market zones
- Pluralism of supply sources, owing to LNG, and diverse market structure with imports from multiple firms and production by multiple firms (where applicable)
- But dependence on large suppliers may increase again should gas demand pick up
- **Many consumers (in largest markets) already benefit from wholesale gas competition**

Central and Eastern Europe

- Most gas markets do not have transparent hub trading
- Probably many are too small to develop into competitive wholesale markets, based on CEER criteria
- Often high concentration on the supply side
- Potential competition in some Central European Member States
- But often heavy reliance on largest supplier, i.e. Gazprom
- **Lack of competition in smaller Member States should not be ignored**

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Questionnaire on gas forward markets in Europe - Results

3rd ACER GTM workshop, Brussels, 15 May 2014

Introduction

- In the course of the AGTM process (beginning of 2014), ACER (via ACER, EFET, Eurogas, FSR mailing lists) widely disseminated a questionnaire to suppliers, traders, large end users etc. of gas to explore the current status of gas forward markets as well as future requirements of stakeholders.
- The following presentation provides results from analysing the responses to that questionnaire.

Demands of Respondents regarding: deal frequency, liquidity and liquid trading horizon

Price relevance threshold:
Minimum number of deals required
per product/hub/trading-day so that
price signal can be considered
trustworthy.

> 15 deals
per product/hub/trading-day

Liquidity threshold:
Minimum amount of gas
simultaneously offered/requested
(ask/bid) for a product on a hub so
that product is considered "liquid".

> 120 MW
each: bid and ask

Liquid trading horizon:
Minimum time horizon within which
trading in gas standard products
should be possible with the market
being in a liquid state.

> 36 months*
liquid trading horizon

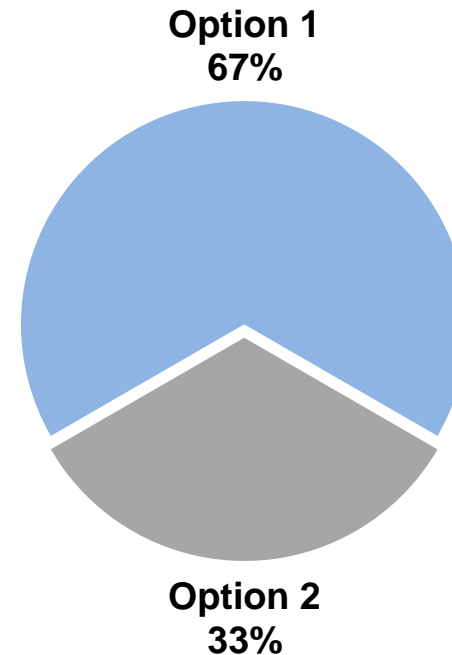
Note: Outliers were cleared by taking medians into consideration.

* This does not mean that trading should necessarily be possible on the basis of monthly forward products for 36 months, but only that delivery under the "longest" forward product should reach at least 36 months into the future.

Preferred European Gas Market Design

Option 1: Every gas market area should have a liquid spot and forward market*

Option 2: Every gas market area should have a liquid spot market, but forward markets should be concentrated to max. 3 of them



Note:

- The question asked for the goal to be pursued, not for the means to achieve it.

* According to the Gas Target Model non functioning (spot+forward) (national) gas markets can be developed to functioning (spot+forward) gas markets by fully merging them with other markets (i.e. down to end users) or by merging them on the wholesale level only (Trading Region Model).


GTM1 criteria	Target
Churn rate Volume of gas traded relative to physical volume	≥ 8
Market zone size Consumption of gas by consumers within a market zone	≥ 20 bcm
Number of supply sources We interpret this to be the number of countries imports are originating from	≥ 3
HHI Measure of concentration amongst suppliers based on energy measured by firm	$\leq 2,000$
RSI Share of consumption which can be met without largest supplier based on supply capability, i.e. capacity (again on firm level)	$\geq 110 \%$

WECOM criteria work in progress!	Target
Price relevance threshold Minimum number of deals required per product/hub/trading-day	> 15 deals
Liquidity threshold Minimum amount of gas simultaneously offered/requested (ask/bid) for a product on a hub	> 120 MW
Liquid trading horizon Minimum time horizon within which trading in gas standard products should be possible with the market being in a liquid state	≥ 36 months

Other criteria, e.g. on hub design – work in progress!	Target
Optimal minimum number of trades per hub	30*
Desired minimum total (market) volume traded on a hub in any year (total over all participants)	100-300 TWh/year*
Desired minimum trading volume on one hub per year	5-10 TWh/year*
Desired minimum order quantity (lot size) on traded forward gas markets	10 MW*
Concentration of trading (to understand whether a small number of traders are responsible for most trades or whether the market is highly diversified)	No single (group of) company(ies) shall provide more than 30%-40% of bids and offers
Other criteria?	

* Based on responses to the ACER questionnaire

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**Thank you for
your attention !**