



Gas Infrastructure Europe

Market development: Improvements in LNG market design

Jacques Rottenberg
GLE Vice-President

CEER Workshop on LNG, Athens, 12 September 2016



GIE association of infrastructure operators

- ❑ **actively contributes to the construction of a single, sustainable and competitive gas market in Europe**
 - Participation to workshops, consultations

- ❑ **Is in particular continuously working on offering and improving tools for the market**
 - ✓ Developed on a voluntary basis
 - ✓ Easy and friendly access
 - ✓ Designed for Professionals
 - ✓ Offered free of charge

Facilitating tool **common** to all LSOs

- ✓ making the already existing information in LSOs websites easily accessible
- ✓ enabling shippers to get quickly the necessary information regarding access to LNG terminals

Designed in cooperation with CEER

	Macro Area	Submenu
1	CONTACT	Contact
2	TERMINAL CHARACTERISTICS	Facilities main characteristics
		Service Description
		LNG Quality
3	HOW TO BECOME A CUSTOMER / USER	Main steps for applying for access
		Contract information
		TSO information
		Ship procedures
4	CAPACITIES	Primary market
		Secondary market
5	TARIFF	Regulated terminals
		Exempted terminals
6	LEGAL DOCUMENTATION	Contracts/Codes
		Regulation/Legislation
7	OPERATIONAL DATA	Historical data
		Operational data
8	MISCELLANEOUS	Projects



Publication of maps and data

- ⇒ providing aggregated / detailed information about LNG terminals and their use : location, characteristics, services offered, utilization data...
- ⇒ allowing professionals to have a clear overview on LNG facilities and LNG use in Europe
- ✓ Maps of LNG terminals (updated yearly)
- ✓ Small scale LNG map (updated yearly)
- ✓ Investment data base (updated yearly)
- ✓ ALSI : **daily** send-outs and inventories per country and **per terminal**, with on line history and graphs
- ✓ New services inventory : reloading, transshipment, loading of bunkering ships, truck loading, ... (updated yearly)





GLE Transparency tools example



Investment Database @ revision April 2015 *

* GLE Investment Database @ revision April 2015 *

Country	Facility	Operator	2013		2014		2015		2016		2017		2018		2019		2020		2021		
			m³ LNG	billion m³	m³ LNG																
Belgium	Zeebrugge LNG Terminal	FLUXYS LNG	380 000	9	380 000	9	380 000	9	380 000	9	380 000	9	380 000	9	380 000	9	380 000	9	380 000	9	380 000
France	Fos-Tonkin LNG Terminal	Elengy	150 000	5,5	150 000	3,4	150 000	3,4	150 000	3,4	150 000	3,4	150 000	3,4	150 000	3,4	150 000	3,4	150 000	3,4	150 000
France	Montoir-de-Bretagne	Elengy	360 000	10	360 000	10	360 000	10	360 000	10	360 000	10	360 000	10	360 000	10	360 000	10	360 000	10	360 000
France	Fos Cavaou LNG Terminal	Fosmax LNG	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000	8,25	330 000
Greece	Revithoussa	DESFA	130 000	5,3	130 000	5	130 000	5	130 000	5	130 000	5	130 000	5	130 000	5	130 000	5	130 000	5	130 000
Italy	Panigaglia LNG terminal	GNL Italia	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000	3,4	100 000
Italy	Porto Levante LNG terminal	Adriatic LNG	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000	7,56	250 000
Italy	FSRU OLT Offshore	OLT Offshore LNG Tosca	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000	3,75	135 000
Lithuania	FSRU Independence	Klaipėdos Nafta		4	170 000	4	170 000	4	170 000	4	170 000	4	170 000	4	170 000	4	170 000	4	170 000	4	170 000
Netherlands	Gate terminal, Rotterdam	Gate terminal	540 000	12	540 000	12	540 000	12	540 000	12	540 000	12	540 000	12	540 000	12	540 000	12	540 000	12	540 000
Norway	Mosjøen LNG terminal	Gasnor	6 500		6 500		6 500		6 500		6 500		6 500		6 500		6 500		6 500		6 500
Norway	Øra LNG, Fredrikstad	SkanGas	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500	0,15	6 500
Portugal	Sines LNG Terminal	REN Atlantico	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000	7,9	390 000
Spain	Barcelona LNG Terminal	Enagás	840 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000	17,1	760 000
Spain	Huelva LNG Terminal	Enagás	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500	11,8	619 500
Spain	Cartagena LNG Terminal	Enagás	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000	11,8	587 000
Spain	Bilbao LNG terminal	BBG	300 000	7	450 000	8,8	450 000	8,8	450 000	8,8	450 000	8,8	450 000	8,8	450 000	8,8	450 000	8,8	450 000	8,8	450 000
Spain	Sagunto LNG terminal	Saggas	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000	8,8	600 000
Spain	Mugaridos LNG Terminal	Reganosa	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000	3,6	300 000
Spain	Gijón (Musel) LNG terminal	Enagás		7	300 000	7	300 000	7	300 000	7	300 000	7	300 000	7	300 000	7	300 000	7	300 000	7	300 000
Sweden	Nynäshamn LNG terminal	AGA	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000	0,5	20 000
Sweden	Lysekil LNG Terminal	SkanGas		0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000	0,3	30 000
Turkey	Marmara Ereğlisi LNG Terminal	BOTAS	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000	6,2	255 000
Turkey	Aliaga Izmir LNG Terminal	EgeGaz	280 000	6	280 000	6	280 000	6	280 000	6	280 000	6	280 000	6	280 000	6	280 000	6	280 000	6	280 000
UK	Isle of Grain LNG terminal	Grain LNG	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000	19,5	1 000 000
UK	Milford Haven - Dragon	Dragon LNG	775 000	21	775 000	21	775 000	21	775 000	21	775 000	21	775 000	21	775 000	21	775 000	21	775 000	21	775 000
UK	Milford Haven - South	South Hook LNG	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000	7,6	320 000

	million m³ LNG	billion m³	million m³ LNG																
EU-28 large-scale																			
planned				0	0,0	5	0,2	16	0,5	46	1,7	80	3,2	106	4,8	114	5,3	1	
under construction				13	0,6	7	0,4	1	0,2	1	0,2	0	0,0	0	0,0	0	0,0		
operational	8,1	196	8,6	191	8,6	204	9,2	211	9,6	213	9,8	214	9,9	214	9,9	214	9,9	214	9,9
Europe large-scale																			
planned				5	0,0	10	0,2	21	0,5	64	1,9	98	3,4	124	5,0	132	5,5	1	
under construction				13	0,6	7	0,4	1	0,2	1	0,2								
operational	8,6	208	9,2	203	9,2	216	9,8	223	10,2	225	10,3	226	10,5	226	10,5	226	10,5	226	10,5



GLE Transparency tools example



GA'S DAY STARTED ON 07/08/2016 - 08:00:00 CET	LNG INVENTORY 10 ⁶ m ³ LNG	SEND-OUT 000m ³	DTMI 10 ⁴ m ³ LNG	DTR \$ 000m ³	VIEW
Europe	2849.90	1365.1	7167.91	5606.5	History Graph
Belgium	176.34	21.9	374.00	444.5	History Graph
France	354.44	195.7	770.00	698.6	History Graph
Greece	91.05	45.1	130.00	205.5	History Graph
Italy	184.00	223.8	177.16	514.5	History Graph
Adriatic LNG	159.39	223.6	0.00	228.5	History Graph
Adriatic LNG Terminal	159.39	223.6	0.00	228.5	History Graph
GNL Italia	24.61	0.2	40.00	119.5	History Graph
Panigaglia LNG Terminal	24.61	0.2	40.00	119.5	History Graph
OLT Offshore LNG Toscana	0.00	0.0	137.16	166.5	History Graph
FSRU OLT Offshore LNG Toscana	0.00	0.0	137.16	166.5	History Graph
Lithuania	-	-	-	-	History Graph
Netherlands	131.33	4.9	540.00	461.0	History Graph
Poland	-	-	-	-	History Graph
Portugal	121.56	47.7	390.00	192.8	History Graph
Spain	878.04	243.0	3008.68	1795.5	History Graph
United Kingdom	913.16	583.0	1778.08	1294.0	History Graph
Non-EU	-	-	-	-	History Graph



HISTORICAL DATA

DATA SELECTION: Revythoussa LNG Terminal

DOWNLOAD DATA SELECTION: Download your data selection in one file(XML)

VIEW: [List](#) [Graph](#)

Your Data Selection

GA'S DAY	LNG INVENTORY 10 ⁶ m ³ LNG	SEND-OUT 000m ³	DTMI 10 ⁴ m ³ LNG	DTR \$ 000m ³	INFO
06/09/2016	91.05	45.1	130.00	205.5	
05/09/2016	97.70	36.6	130.00	205.5	
04/09/2016	103.17	19.8	130.00	205.5	
03/09/2016	33.43	0.0	130.00	205.5	
02/09/2016	32.56	56.8	130.00	205.5	
01/09/2016	42.01	64.0	130.00	205.5	
31/08/2016	51.51	85.6	130.00	205.5	
30/08/2016	64.16	86.5	130.00	205.5	
29/08/2016	76.93	59.1	130.00	205.5	
28/08/2016	85.89	0.0	130.00	205.5	
27/08/2016	85.99	0.0	130.00	205.5	
26/08/2016	86.08	0.0	130.00	205.5	
25/08/2016	86.23	0.0	130.00	205.5	
24/08/2016	86.32	0.0	130.00	205.5	
23/08/2016	86.35	7.3	130.00	205.5	
22/08/2016	87.58	0.0	130.00	205.5	
21/08/2016	87.64	0.0	130.00	205.5	
20/08/2016	87.68	0.0	130.00	205.5	

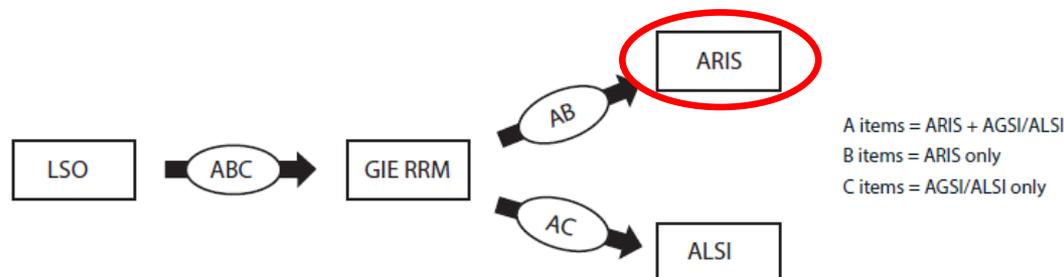
Legend: Confirmed data (green), Estimated data (orange)



REMIT: regulation aiming at reducing risk of manipulation

- ✓ information related to the capacity and use of LNG facilities, including planned or unplanned unavailability of these facilities ('fundamental data') should be reported to ACER
- ✓ GIE has worked closely with ACER to develop reporting schemes
- ✓ GIE has registered as RRM (Registered Reporting Mechanism) with ARIS, the ACER REMIT Information System

⇒ **GIE facilitates the reporting of fundamental data for LSOs to ACER and stays in close contact with ACER for any questions**





Conclusions

GIE / GLE

- ⇒ Contribution to gas/LNG market design
- ⇒ Tools for transparency and reporting
- ⇒ Open to discussion on any further improvements

	IT	Publication Link
	ES	Publication Link
	GR	Publication Link
	FR	Publication Link
	FR	Publication Link
	ES	Publication Link
	BE	Publication Link
	FR	Publication Link
	NL	Publication Link
	PL	Publication Link
	IT	Publication Link
	UK	Publication Link
	IT	Publication Link
	ES	Publication Link
	PT	Publication Link
	UK	Publication Link

GIE is proud to support



Gas Naturally

GN is a campaign to showcase the essential role of natural gas in the forthcoming energy revolution. The mitigation of climate change has become one of the most important issues for the gas industry.

**Thank you
for your kind attention.**

GIE - Gas Infrastructure Europe
www.gie.eu

