

# ANNUAL REPORT 2014



# ANNUAL REPORT 2014



# EXECUTIVE SUMMARY

2<sup>014 is characterized by a dual connotation:</sup> on the energy markets, a year of confirmation of the trends emerged since the start of the economic crisis, with balances that could be altered by the effects of the strong collapse of the crude oil, currently still not fully evaluable; at the corporate level, a preparatory year to the implementation of various long-term projects where GME is engaged nationally and internationally whose results will be appreciated from 2015.

In 2014, the trends followed by the markets have confirmed, in fact, the main characters of a longterm trend - marked by the drop in consumption, the explosion of renewables and the effects generated by the new unconventional production of crude oil and gas on the fuels market, with the collapse of the coal, the undocking of gas prices on oil and their convergence towards the TTF - highlighting a general slowdown that marks that the end point is reached. The main change seems to come from the so dramatic disruption of the balance in the world market of crude oil, which occurred only in the last quarter of 2014, on whose possible duration and potential impact on the power and gas markets, it is however too early to express an opinion.

In this period, the demand for energy has fallen by 9% in power and by 27% for natural gas, amounting respectively to 309 TWh in 2014 (it was 339 TWh in 2008) and 645 TWh (it was 888 TWh in 2008), with a greater annual decline in the second case due to the combination of a mild year and a very strong water availability.

At such trends, the volumes declined on all major electricity markets, with the MGP that updated the fourth consecutive historical low, reaching 282 TWh (-2.5%), despite a share transited in the stock exchange standing at 66%, and the MI that recorded the second consecutive fall (23 TWh, - 2.4%), with reductions concentrated primarily on the MI1, the main of its sectors. Only marginally affected by the long-term trends

that have characterized these years of economic crisis, there is also the MTE that also decreased the amount traded, dropped to 32 TWh (-21%) despite a resumption of trade on the market compared to the OTC recording, which has its origin mainly in the development of competing financial platforms.

Depressive effect caused by the recession has been engaged in the same period of the boom of renewable energy, whose expansion is now at smaller, but more sustained steps (+10%), whose impact has definitely upset both sectors. In gas, contraction in thermoelectric demand has, in fact, progressively compressed the demand, returning to the levels of 1998, while in power, the FERs have reached 36% of sales, with peaks of 50% in the individual areas, being responsible for the collapse of ratio between peak and off-peak prices (now permanently at the lowest values in Europe of 1.2, compared to 1.7 in 2008), their increasingly frequent inversion, and the increasing number of hours with cleared quotes.

In this context, the most interesting aspect however is the evolution of the link between the prices of energy commodities, reflecting elements of longer duration.

In 2014, the gas has stopped the multi-year trend of growth, with a sharp decline of 20% that brought it back to about  $21 \notin MWh$ , close to the level of 2010.

The oil, stable for years at around 110 \$/ bbl, collapsed in the last quarter of 2014 and reachedeven 50 \$/bbl at the beginning of 2015, largely reversing the potentially harmful effects of exchange rate depreciation by 1.3 \$/ $\in$  to 1.1 \$/ $\in$ . Paradoxically, in the coming months, just at a time of strengthening of the oil-gas delinking, the fall in crude oil prices could realign the prices of the formulas indexed based on the oil to gas spot prices.

A downward trend is also common to Italian power, whose link with spot prices of gas seems to gradually strengthen and guide the trend in 2014.

On the MGP, in fact, the PUN has fallen to the historical low of  $52 \notin MWh$ , in just two years showing a decline of more than  $20 \notin MWh$ . Especially in 2014 the considerable weight of this further significant decline in prices is due to compression of the costs of gas-fired generation, whose impact at zonal level was modulated by the different influence locally by renewable supply and demand.

On the mainland, in fact in the face of a substantial convergence in prices and a

differential reduction of the North-South (approximately 3 €/MWh, -1.4 €/MWh) due to transients and short-term phenomena, the greatest concentration of green energy in the South, expressed as a share on zonal demand, favoured a significant diversification of the prices in terms of volatility (minimum in the North and maximum in the South), of peak/offpeak ratio (lower in the South than suggested in the North) and of frequency of time reset (none in the North, not rare in the South). Regarding the islands, it was finally completed the alignment of Sardinia to the mainland, even the exception of Sicily (30 €/MWh above the rest of Italy again in 2014) looks set to wane in 2015 following the regulatory intervention that has in fact introduced a managed system for the relevant systems of the island until the commissioning of the new interconnection cable with the mainland.

In this scenario, 2015 could prepare news of great interest.

The launch of the market coupling, in fact, should help - and the first signs seem to go cautiously in this direction - an increase in the correlation with foreign prices, a further reduction in the spread calculated on the northern Italian border, however difficultly resettable for structural reasons, and its most frequent inversion.

The extent to which these phenomena occur, however, seems partly linked to the uncertainties arising from the situation of crude oil and its possible stabilization on low value at the beginning 2015: in that sense, the planned further reduction in the cost of fossil fuels could strengthen, in the expectations expressed by futures for the coming years, the prospects for a redefinition of the balances at the European level, in an electricity market more and more integrated and efficient thanks to the mechanism of coupling.

As for the gas markets managed by GME, also in 2014 almost all trade was concentrated on the PB-GAS that, while expressing by "nature" a rather low share of the total volumes delivered by the SRG (5.6%), it has showed interesting results that confirmed the viability and utility at the system level.

Beside the basic function of supporting the needs of the SRG balancing, also guaranteed through the instruments of flexibility offered by the G-1 sector, in fact, the PB-GAS has strengthened its role of real spot trade platform, as testified by further expansion of the extrabalancing, rose to 10 TWh (+ 75%).

Just the momentum provided by the growth of trading between participants and the activation of the G-1 sector for 3 TWh led volumes platform just beyond their all-time high (42 TWh, + 0.3%), offsetting the decline of the quantities handled by the SRG on the G + 1 sector.

In terms of price, with a value expressed by the PB-GAS in the G + 1 sector in line with the PSV level (23.61  $\notin$ /MWh) and the trend (-15%), the new data delivered to us in 2014 is the significant jump in correlation with the TTF (87%, +38 p.p.), which rises so as the main driver for the Italian reference, more than the volumes offered or requested by the SRG, whose impact is, however, relevant especially in explaining isolated phenomena related to specific conjunctures of national balancing.

Interesting to assess, in view of the future redesign of the gas balancing, the role of the locational sector, which - despite the infrequency of its activation (12% of the sessions) - showed prices that converge to the G+1 sector whenever the relevant requirements of the SRG was satisfied with Stogit resources, and prices in line with the TTF if the same requirement was higher. Overall, based on the provisions of the ARG/gas 45/11 resolution, the impact of the G-1 on the enhancement of the imbalance price has been reflected in 2014 in 58% of activated sessions by producing a downward estimated to be about 2 €/MWh, compared with 70% in the first quarter of 2015, for an increase of the imbalance price of about 4 €/MWh.

In terms of participation and volumes traded, opposite directions, closely related to the regulatory framework in which they originate, emerge in the environmental markets.

The strong increase in trading (+ 43%), which has further strengthened the multi-year trend of growth observed on energy efficiency certificates (TEE), was made, in fact, at the definition of new national goals for energy saving for the period 2013-2016, also significantly affecting the regulated market (MTEE), whose level and whose share trading rose respectively to 3.5 million toe (+ 24%) and 30%.

Slightly down is instead trading in green certificates (around 4%), in response to the reduction in the proportion of the obligation share on importers and producers of electricity from conventional sources and the transition of incentives market from a pattern of market to a feed-in tariff administered one. In this context, the volumes traded on the MCV (8 TWh, + 8.3%) are stable and absorb a part of the decline observed on bilateral transactions, instead dropped to 35 TWh (-6.4%). Finally, it's rising the trade of guarantees of origin (GO), equal to 44.5 TWh traded almost exclusively on OTC basis, in the presence of a regulated market that instead does not seem to take off (0.47 TWh, -65%).

Regarding the organization of markets and the provision of services, in 2014, GME launched and, in some cases finalized, highly innovative activities in all sectors in which it operates.

In the electricity sector, the biggest news is represented by the completion of preparatory activities at the start of market coupling on the border between Italy and France and Italy and Austria that, as of February 2015, was added to the one already operating with Slovenia. The process, which involved institutional and technical meetings over the last six years, finally integrates the Italian market in the wider European electricity market, undergoing the process of integrating the EU markets to a step further towards the establishment of the Single Electricity Market set as the goal by the European Commission.

As already demonstrated by the more mature central European experiences, the coupling cannot completely fill the structural differences between the different national markets - where prices tend to converge, then, especially in the presence of particular conditions on the local standards - but will ensure a secure benefit to the final consumers by virtue of the more efficient use of power grid that the mode of allocation of capacity guarantees through implicit auction. This step is only the first of more further developments, which will see the next extension of the price coupling to the Swiss-Italian and Italian-Greek borders, within the IBWT, and more generally at the EU level in the field of PCR, but above all, the intraday market coupling with implicit allocation of capacity, according to the model in continuous trading outlined in the guidelines issued by the competent European institutions.

Major changes are expected also in the natural gas sector, where GME is working with the SRG and AEEGSI to implement the (EU) Regulation no. 312/2014, under which the users and the operator of the transport network will do the necessary to balance the gas system as part of the wholesale market for natural gas. To this end, during 2015, GME will develop the balancing market in order to allow participants to seize the opportunities offered by the new structure.

The need to increase the safeguards for the protection of the principle of proper operation and use of markets pushed instead GME, on its own impulse or in response to a change in the regulatory framework, to update in 2014, the company regulations governing the markets of environment. In addition to the implementation in early 2015 of the reverse charge mechanism, introduced by the Stability Law in 2015 concerning the tax treatment of transactions carried out both on markets and platforms of

energy and environment, they are moving in this direction also the package of changes in the operating rules of the market for energy efficiency certificates (MTEE), including: the introduction of the black lists, which is given the opportunity to each participant to indicate the list of counterparties believed not appreciated, for subsequent assumption by GME of the role of the central counterparty; the implementation of a system of guarantees to cover the total value of purchases, to ensure timely settlement of payables; the adjustment of disciplinary measures and how to join the market.

With regard to monitoring, finally, 2014 was characterized by the start of preparatory activities for the launch during 2015 of two important platforms connected with the formalities required by the EU Regulation no. 1227/2011 on transparency and integrity of energy markets (REMIT) by the market participants: the Platform for Data Reporting (PDR), with which GME intends to support its customers in meeting the reporting obligations incumbent on them in accordance with Art. 8 of REMIT; and the platform for the publication of Inside Information (PIP), through which GME intends to effectively support the participants in the compliance with the disclosure requirements provided for by Art. 4 and Art.8 of REMIT, as well as the competent authorities in carrying out monitoring activities aimed at identifying abusive conduct or insider trading phenomena on the wholesale energy markets.

These activities - together with the provisions of Law no. 161 of 30 October 2014, which establishes the possibility for the Authority to make use of GME for the investigation on cases of suspected abuse of market in the power and gas sectors and for the verification of the compliance of the participants with the requirement of publication of the privileged information pertaining to them - confirm the role of reference interlocutor recognized to GME by national and international institutions responsible for monitoring the wholesale energy markets.

Commitments and activities conducted by GME in 2014, aimed to ensure the efficiency of the system and cost containment, as mentioned, will

be characterized by results in the near future, thus confirming the role of GME to provide its contribution to increased flexibility of the energy system as a whole.

> The Chairman and Chief Executive Officer

?a` Massimo Ricci

EXECU	TIVE	SUMN	ЛАRY	111	
1. THE	сом	PANY	·	1	
	1.	. GOVERNANCE AND MARKETS			
		1.1	Profile of GME	2	
	2.	NEW	/ MARKETS	10	
		2.1	The market coupling	10	
		2.2	PB-GAS G-1	10	
		2.3	The fuel markets	11	
	3.	INTE	RNATIONAL ACTIVITIES	13	
	4.	MON	IITORING	15	
		IN-D	EPTH ANALYSIS 1		
		Remi	it: Implementing Acts and Data Reporting	17	
	5.	RESU	JLTS	19	
		5.1	Volumes and Market Participants	19	
		5.2	Trend of the Participants in GME's Market	22	
		5.3	Results of operations	24	
0 MA	ригт			20	
2. IVIA				29	
	1.			30	
			PETIT ANALISIS 2	20	
	~	The e	extension of market coupling on the northern border	38	
	2.	ELEC		40	
		2.1	The Day-Ahead Market (MGP)	40	
		2.2	The Intra-Day Market (MI)	50	
		2.3	The OTC Registration Platform (PCE)	57	
		2.4	The Forward Electricity Market (MTE)	60	
	3.	GAS	MARKEIS	63	
		3.1	The Gas Balancing Platform (PB-GAS) - G+1 sector	63	
		3.2	The Gas Balancing Platform (PB-GAS) - G-1 sector	68	
		3.3	Other gas markets	71	
	4.	ENVI	RONMENTAL MARKETS	72	
		4.1	Green Certificates (GCs): Market and Bilaterals Platform	72	
		4.2	Efficiency Certificates (TEE): regulated market and bilateral		
			transactions	77	
		4.3	Guarantees of Origin (GOs): Market, Bilaterals Platform and GSE's		
			auction	83	

#### IN-DEPTH ANALYSIS 3

Environmental markets: the new regulations on the Environmental markets..... 87

# INDEX ANNUAL REPORT 2014

### List of tables

1.

2.

TH	E COMPANY	
1.	Governance and markets	2
	Table 1.1.1 - Market rules	6
	Table 1.1.2 - Fees	8
4.	Monitoring	15
-	Table 1.4.1 - Measures taken as a result of the monitoring activity	16
5.	Kesults	19
	Table 1.5.1 - Participants in GME's markets	22
	Table 1.5.2 - Traded Volumes on GME's markets	23
	Table 1.5.3 - Summary of financial and operating information of GME	0.4
	(2013-2014)	24
	Table 1.5.4 - GWE's marginal costs (2013-2014)	25
	Table 1.5.5 - GIVIE's Rev ratios (2013-2014)	25
	Table 1.5.6 - Give s personnel memoers	26
1		20
1.	Table 2.1.1. Volumes traded on see medicate (CWh)	30
	lable 2.1.1 - volumes traded on gas markets (Gvvri)	34 20
	Tab 1 Volumes differentials fees and frequencies on the three	38
	1au. 1 - Volumes, differentials, fees and frequencies of the tiffee	
	April 20, 2015	20
2	April 30, 2015	39 40
Ζ.	Table 2.2.1 Trend of volumes on the MGP	40
	Table 2.2.1 - Trend of volumes on the mor	43
	Table 2.2.2 - Sales by source and technology	45
	Table 2.2.4 Zonal cales by source and technology 2014	45
	Table 2.2.4 - Zonai saids by source and technology - 2014	40
	Table 2.2.5 - Significant variables in the evolution of the price in Sienty	40
	Table 2.2.7 - Concentration indicators on the MGP - 2014	40
	Table 2.2.7 Concentration indicators on the Mor 2014	53
	Table 2.2.9 - Purchases and sales by source	54
	Table 2.2.10 - Yearly forward-traded volumes by year of trading	60
	Table 2.2.11 - Forward-traded volumes by year of trading	61
	Table 2.2.12 - Liquidity of trades on the MTE by duration and time ahead of	
	delivery	62
3.	Gas markets	63
	Table 2.3.1 - Frequency of sessions with trades exceeding balancing	65
	Table 2.3.2 - Average level of the PB-GAS prices compared to the PSV and TTI	F
	(€/MWh)	65
	Table 2.3.3 - Average volatility of the PB-GAS prices compared to the PSV	
	and TTF	65
	Table 2.3.4 - Top 10 participants active on the PB-GAS G+1, market shares by	/
	side and frequency of acceptance	66
	Table 2.3.5 - Market share of participants exceeding balancing in the G+1	
	sector	67
4.	Environmental markets	72
	Table 2.4.1 - TEE – Certificates needed for compliance.	
	Cumulated values	81

# List of figures

1.	THE COMP	ANY	
	1.	Governance and markets	2
		Fig. 1.1.1 - Markets and platforms	3
		Fig. 1.1.2 - GME's organizational chart	5
	5.	Results	. 19
		Fig. 1.5.1 - Liquidity on the MGP	20
2.	MARKET E	VOLUTION	
	1.	International markets	30
		Fig. 2.1.1 - Prices in € of the main energy commodities	30
		Fig. 2.1.2 - Spot prices on the main international crude-oil markets	31
		Fig. 2.1.3 - Spot prices of the Brent and of the main oil products	31
		Fig. 2.1.4 - Spot prices on the main coal markets	32
		Fig. 2.1.5 - Spot prices on the main gas markets	33
		Fig. 2.1.6 - Volumes on the main gas hubs	34
		Fig. 2.1.7 - Spot prices on the main European power exchanges	36
		Fig. 2.1.8 - Spot price and corresponding price of the Calendar	
		base-load product	36
		Fig. 2.1.9 - Volumes traded on the main spot exchanges	37
		Fig. 2.1.10 - Volumes traded on the main forward exchanges	37
		In-denth analysis 2	
		Fig 1 – Comparison of price differentials between Italy	
		and France and Italy and Switzerland in the event of	
		economic and uneconomic use of capacity on the	
		Swiss horder	39
	2	Electricity markets	40
	2.	Fig. 2.2.1 - Trend of the PLIN and of its determinants	41
		Fig. 2.2 Monthly trend of the PLIN and PSV	41
		Fig. 2.2.2 – Affer on the MGP	
		Fig. 2.2.4 - Vearly average PLIN by groups of hours	+3
		Fig. 2.2.4 - Tearly average ronal prices on the MGP	44
		Fig. 2.2.6 Prices volatility	+3
		Fig. 2.2.6 - Frices volatility	47
		Fig. 2.2.7 - Feak-load/off-peak price facto off working days	47
		Fig. 2.2.0 - Indicators of competitiveness	49
		Fig. 2.2.9 – Purchase price valatility enough trend	50
		Fig. 2.2.10 - Purchase price volatility: annual trend	51
		Fig. 2.2.11 - Zorial prices in the Mi sessions	52
		Fig. 2.2.12 - Iraded volumes	53
		Fig. 2.2.13 - Sales and purchases of wholesalers and changes in	
		the immission programs downwards MI	55
		Fig. 2.2.14 - Balance of sales/purchases by type of plant.	
		Hourly average	55
		Fig. 2.2.15 - CK3	56
		Fig. 2.2.16 - Registered transactions, net position and turnover	57
		Fig. 2.2.17 - Registered physical schedules and scheduled deviations	58
		Fig. 2.2.18 - Scheduled imbalances: shares of participants	59
		Fig. 2.2.19 - Forward-traded volumes by year of trading	61
		Fig. 2.2.20 - Check prices and matching prices of 2014 yearly base-lo	ad
		and peak-load products	62

3.	Gas markets	63
	Fig. 2.3.1 - Trend of the average price and volumes on the PB-GAS	64
	Fig. 2.3.2 - PB-GAS G+1 average price compared with the PSV fees and the	
	PB-GAS and M-GAS volumes	67
	Fig. 2.3.3 - Comparative analysis between the interventions of SRG on the G	-1
	and G+1 sectors	69
4.	Environmental markets	.72
	Fig. 2.4.1 - GCs – Average prices	72
	Fig. 2.4.2 - GCs - Prices by type and reference period. 2014	73
	Fig. 2.4.3 - GCs - Trend of market prices vs. buy-back price	74
	Fig. 2.4.4 - GCs - Price volatility	74
	Fig. 2.4.5 - GCs - Traded volumes	75
	Fig. 2.4.6 - GCs - Structure of the traded volumes by reference period	76
	Fig. 2.4.7 - GCs - Market: participants' shares	76
	Fig. 2.4.8 - TEE - Average prices	78
	Fig. 2.4.9 - TEE - Prices by type. 2014	79
	Fig. 2.4.10 - TEE – Price volatility	79
	Fig. 2.4.11 - TEE - Market prices and tariff reimbursements	80
	Fig. 2.4.12 - TEE - Traded volumes	81
	Fig. 2.4.13 - TEE - Structure of traded volumes	82
	Fig. 2.4.14 - TEE – Market: participants' shares	83
	Fig. 2.4.15 - GOs – Average prices	84
	Fig. 2.4.16 - GOs - Prices by type and year of generation. 2014	84
	Fig. 2.4.17 - GOs – Traded volumes	85
	Fig. 2.4.18 - GOs - Structure of traded volumes by year of generation	. 86
	Fig. 2.4.19 - GOs - Structure of traded volumes. 2014	86



# SECTION

# THE COMPANY

1.	GOV	GOVERNANCE AND MARKETS				
	1.1	Profile of GME	2			
2.	NEV	V MARKETS	10			
	2.1	The market coupling	10			
	2.2	PB-GAS G-1	10			
	2.3	The fuel markets	11			
3.	INTE	RNATIONAL ACTIVITIES	13			
4.	MON	NITORING	15			
	IN-E	IN-DEPTH ANALYSIS 1				
	Rem	it: Implementing Acts and Data Reporting	17			
5.	RES	ULTS	19			
	5.1	Volumes and Market Participants	19			
	5.2	Trend of the Participants in GME's Market	22			
	5.3	Results of operations	24			



# **1 GOVERNANCE AND MARKETS**

# 1.1 Profile of GME

"Gestore dei Mercati Energetici S.p.A." (GME) is a joint-stock company, which was established in 2001 as part of the process of liberalization of the energy sector, initiated by the so-called Bersani's Decree<sup>1</sup>. GME - together with Acquirente Unico S.p.A.<sup>2</sup> and Ricerca sul Sistema Energetico<sup>3</sup> RSE S.p.A. - is fully controlled by Gestore dei Servizi Energetici - GSE S.p.A.<sup>4</sup>, whose shares are in turn wholly owned by the Italian Ministry of Economy and Finance (MEF).

The company operates in compliance with the guidelines of the Ministry of Economic Development (MED) and the legal guidelines established by the Authority for Electricity, Gas and Water System.

Under the applicable legislation and regulations, GME has progressively broadened the scope of its activities from the organization of electricity markets to environmental, gas and fuel markets.

A multi-commodity company In particular, in the electricity sector (Figure 1.1.1), GME manages: the Electricity Market (ME), consisting of the Spot Electricity Market (MPE), in its turn consisting of the Day-Ahead Market (MGP) and of the Intra-Day Market (MI); the Forward Electricity Market (MTE); and the OTC Registration Platform (PCE), intended to enable

participants to liquidate, with physical delivery via registration on the PCE, the contracts concluded on IDEX (the segment of electricity derivatives managed by Borsa Italiana S.p.A.) and the OTC Registration Platform (PCE) for registration of forward contracts of purchase and sale of electricity concluded outside the bidding system. Also in the sector of electricity, GME also manages the operations of the Ancillary Services Market (MSD), whose economic management is the responsibility of Terna S.p.A.

Similarly, in the field of gas, GME manages the Gas Market (MGAS) – articulated in the Day-Ahead Market (MGP-GAS), in the Intra-Day Market (MI-GAS) and the Forward Market (MT-GAS) – the gas platform for the fulfilment of the obligations related to the sale of domestic production, import and virtual storage as set forth in Ministerial Decree of 18 March 2010 (P-GAS) and, on behalf of Snam Rete Gas S.p.A. (SRG S.p.A.), the platform of balancing natural gas (PB-GAS).

GME also organizes and manages Markets for the Environment, or the trading markets of Green Certificates (MCV), Energy Efficiency Certificates (MTEE) and Guarantees of Origin certifying the production of energy from renewable sources (GO), as well as their recording platforms of bilateral transactions.

Finally, GME was also tasked to collect data on the storage capacity of mineral oils, functional to the future launch of the platform of the logistics market for oil and mineral oil and the wholesale market for liquid petroleum products for motor vehicles that GME has to organize and manage under Legislative Decree 249/2012. In order to detect the capacity data, GME organizes and manages the platform of

<sup>1</sup> Pursuant to Articles 5 of Legislative Decree 79/99, the so-called Bersani's Decree.

<sup>2</sup> The company is responsible for ensuring the supply of electricity to customers in the protected market. Following the evolution of energy markets, the company expanded its business for the benefit of the final consumer and the, with the management of the Help desk for the Consumer of Energy and the Integrated Information System. More powers have been attributed to the company, under legislation on emergency oil stocks.

<sup>3</sup> The company develops research activities in the field of electro-energy, with particular reference to the national strategic projects, of general public interest, financed by the Fund for Research System.

<sup>4</sup> Former manager of Rete di Trasmissione Nazionale S.p.A., the company works for the promotion of sustainable development through engineering and technical qualification and verification of renewable sources and high efficiency cogeneration plants. The company also recognizes the incentives for electricity produced and fed into the grid from such plants. Since 2011, GSE is required to ensure measures to foster greater competition in the natural gas market.

Detection of the Storage Capacity of Mineral Oils (PDC-oil) within which they are acquired the data and information pertaining to the logistic capacity, according to a *"standard"* model for detection, approved by the Ministry of Economic Development with directorial decree no. 17371 of May 30, 2013. A brief description of the characteristics of these markets is contained in Figure 1.1.1.

#### Markets and platforms



\* Market closed in 2014

The markets managed by GME were characterized by their physical nature: all products traded, both spot and forward, in fact, involve the obligation to provide for physical delivery and access to trading is allowed

only to those who, directly or through a proxy, have in any case the possibility of physically delivering those products. Moreover, GME acts as a central counterparty on all its markets, with the sole exception of the MSD (where the central counterparty is Terna S.p.A.), the PB-Gas (where the counterparty is SRG S.p.A.), the P-Gas, the MTEE, where the counterparties in transactions are directly coupled in response to

A single central counterparty for physical markets

the transaction, and on the platforms of registration of bilateral contracts of CVs (PBCV), GOs (PB-GO) and TEEs (TEE Register).

Within GME's governance framework:

• GME lays down the rules of operation of the Electricity Market, the Green Certificates Market,

Market regulation the Natural-Gas Market and the P-GAS bilaterals platform and submits them to the Ministry of Economic Development for approval; the Ministry approves the rules after hearing the opinion of AEEGSI;

- GME lays down the rules of operation of the Energy Efficiency Certificates Market<sup>5</sup>, the rules of the platform for registering bilateral transactions of Energy Efficiency Certificates, as well as the rules of operation of the OTC Registration Platform and of the Natural-Gas Balancing Platform, and submits them to AEEGSI for approval;
- GME lays down the rules of operation of the regulated market and of the platform for registering bilateral trades of Guarantees of Origin (GOs) and submits them to AEEGSI for verification in compliance with AEEGSI's Decision ARG/ELT 104/11.

The rules of operation of the Mineral-Oil Storage Capacity Data Reporting Platform (PDC-oil) are instead laid down and approved by GME itself.

GME constantly monitors trading on its markets through dedicated offices. This monitoring activity integrates the one that GME carries out on electricity markets in support of AEEGSI, in accordance with



specific decisions adopted by AEEGSI itself. GME is also engaged in the implementation of the new market surveillance tasks introduced by Regulation (EU) No. 1227/2011 on wholesale energy market integrity and transparency (REMIT). In this respect, for a more detailed description of the activities made under the REMIT Regulation, see

paragraph 4.

The governing body of GME is the Board of Directors, consisting of three members who are appointed for a three-year term by a resolution of the shareholder's meeting. The management of operations is

GME's bodies and organizational structure

solely vested in the Board of Directors. The Directors in office carry out the operations needed to achieve GME's aims.

One member of GME's Board of Directors acts as both *Chairperson and Chief Executive Officer*:

- under the by-laws, he/she legally represents and signs on behalf of the company and chairs the shareholder's meeting;
- he/she convenes and chairs the Board of Directors and oversees the implementation of the Board's resolutions;
- under a Board's resolution, he/she is vested with all the powers of management of the affairs of the company, except those otherwise specified by the applicable laws, the by-laws or reserved to the Board of Directors;
- he/she reports to the Board of Directors and to the Board of Auditors, at least every three months, on the management of the company's affairs and on their predictable evolution, as well as on the company's most significant operations.

<sup>5</sup> Pursuant to Article 10 of Ministerial Decree of 20 July 2004

GME's bodies also include:

- the Board of Statutory Auditors;
- the Supervisory Body.

As of 31 December 2013, the company had 103 personnel members (of whom 2 seconded), belonging to seven units (Figure 1.1.2).



Market rules

ELECTRICITY MARKET		Y MARKET			PBGAS		
	MTE	MPE	PCE	MGAS	G-1	G+1	
Participation	Voluntary	Voluntary on the MGP and MI Compulsory on the MSD	Voluntary	Voluntary	Voluntary	Compulsory	
Requirements for participation in the markets and trading(*)	Requirement to hold one energy account in order to deliver the net position	Requirement to hold one offer point in order to enter orders	Participation restricted to dispatching users and their authorized agents	Requirement to be a PSV user in order to deliver the net position	Users of the natural gas transmission and balancing service	Users of storage services, except transmission companies and users of the strategic storage service only	
Product traded	Yearly, quarterly, monthly (with base-load and peak-load profiles)	Opening Hours MGP, M11: 1-24 M12: 1-24 M13: 8-24 M14: 12-24 M15: 16-24	OTC contracts	MGP-GAS, MI-GAS: daily MT-GAS: BoM, monthly, quarterly, half-yearly, yearly (both thermal and calendar year)	Daily	Daily	
Trading mechanism	Continuous trading	Auction	OTC trading	Continuous trading	Auction	Auction	
Price rule	Pay as bid	Zonal marginal price on MGP/MI Pay as bid on the MSD	N/A	Pay as bid	Zonal marginal price	Marginal price	
Guarantees	Bank guarantee and/or c	ash deposit	Bank guarantee. Cash deposit only if necessary and urgent	Bank guarantee and/or cash deposit	As determined by Snam Rete Gas	As determined by Snam Rete Gas	
Central Counterparty	GME	GME on the MGP and MI Terna on the MSD	GME (for CCTs only)	GME	Snam Rete Gas	Snam Rete Gas	
Payments	M-	+2	M+2	M+1 for trades M+3 for closing non- delivered positions	Time limit determined by Snam Rete Gas	Time limit determined by Snam Rete Gas	

\* (\*) In addition to the admission requirements specified in the rules and regulations governing the individual markets, parties wishing to participate in the markets/platforms should have adequate professional qualifications and be proficient in the use of ICT systems and related security systems or rely on ICT-proficient employees or assistants.

PGAS					
Import	Virtual Storage	Royalties	MCV	MTEE	MGO
Compulsory (sale side)	Compulsory (sale side)	Compulsory (sale side)	Voluntary	Voluntary	Voluntary
Members of the PSV subject to the offer obligation for the shares of imports	Members of the PSV that are parties of the virtual storage service	Members of the PSV subject to the offer obligation for the shares	GSE, domestic and foreign producers, wholesalers, importers, associations, former Art. 2.23, first period, of Law no. 481 of 14/11/1995, participants obliged under Art. 11 of Legislative Decree no. 79 of 16/03/1999	Requirement to hold an account with the Register of TEEs for trading on the MTEE	Requirement to hold an account with the Register of GOs for trading on the MTEE
Monthly, annual – thermal	Monthly, half-yearly	Monthly	Certificate related to annual and quarterly periods	Certified by type of intervention (1 TOE)	Certified by type of source (1MWh)
Continuous trading	Continuous trading	Auction	Continuous trading	Continuous trading	Continuous trading
Pay as bid	Pay as bid	Marginal price	Pay as bid	Pay as bid	Pay as bid
As determined by each selling participant	As determined by each selling participant	As determined by each selling participant	Cash deposit to cover the total purchases	Cash deposit to cover the total purchases	Cash deposit to cover the total purchases
N/A Billing and payments between participants	N/A Billing and payments between participants	N/A Billing and payments between participants	GME	N/A Billing and payments between participants	GME
Time limit determined by each selling participant	Time limit determined by each selling participant	Time limit determined by each selling participant	D+3	D+3	D+3

Fees

•	lab.	1.1.2	
•			

Market	Reference legislation/regulations	Access fee (on a one-time basis)	Yearly fixed fee	
Electricity Market	Integrated Text of the Electricity Market Rules	€ 7,500	€ 10.000	
PCE	Regulation of the OTC Registration Platform	€ 1.000	€0	
Gas market	Regulation of the natural gas market	€ 0	€ 0	
PB-GAS	Regulations of the Platform for balancing gas	€O	€0	
P-GAS	Regulations of the P-GAS	€ 0	€O	
Green Certificates	Integrated Text of the Electricity Market Rules Regulation of the Certificates Bilaterals Registration Platform Bilaterals of green certificates	€ 0	€0	
Guarantees of Origin	Regulation of the operation of the regulated market and the recording platform of bilateral trade of guarantees of origin	0€	0€	
Energy Efficiency Certificates	Regulation of the operation of the TEE market Regulation for recording bilateral transactions of TEEs	0€	0€	
	, <u></u>			

#### Variable fee

Fee per MWh traded:

MPE

- a free for the first 0.2 TWh of electricity traded monthly
- a fee of 0.04 €/MWh for volumes of electricity traded monthly exceeding the threshold of 0,02 TWh up to a maximum of 1 TWh
- a fee of 0.03 €/MWh for volumes of electricity traded monthly exceeding the threshold of 1 TWh up to a maximum of 10 TWh
- a fee of 0.02 €/MWh for volumes of electricity traded monthly exceeding 10 TWh
- MTE
  - 0,01 € per MWh traded
- CDE
  - 0,045 € per MWh registered

Fee per MWh subject of the transactions registered: 0.008  ${\ensuremath{ \ensuremath{ \mathsf{S}}}}/\mathsf{MWh}$ 

If the participant is at the same time an electricity market participant, no access fee and fixed annual fee are to be paid to GME

- Fee per MWh traded: 0.01 €/MWh
- Fee for activation of the error procedure: € 500.00 per request
- Contribution to resources to be used for default management: 0.0025 €/MWh0.0025 €/MWh

If the participant of the gas market is also a participant of the electricity market, no access fee is to be paid to GME

#### Fee per GJ traded: 0.003 €/GJ

If the participant of the PB-GAS is at the same time a gas market participant, no access fee and fixed annual fee are to be paid to GME If the participant of the PB-GAS is also a participant of the electricity market, no access fee is to be paid to GME

Trading fee:

- 0.0025 €/GJ on the Imports and Royalties Segments
- 0.009 €/MWh on segment pursuant to former Legislative Decree 130/10

Fee per certificate traded (each of 1 MWh):

- € 0.06 per certificate for the first 2,500 certificates traded
- € 0.03 per certificate above 2,500 certificates traded

The structure and extent of the above fees is applied to the total certificates traded both in the sessions of the regulated market and through the Green Certificates Bilaterals Registration Platform (PBCV).

Fee up to 31 December 2014 per GO traded/recorded on the market and/or bilaterally: 0.004 €

Fee per TEE traded: € 0.1

# 2 NEW MARKETS

# 2.1 The market coupling

Among the initiatives aimed at creating wholesale electricity markets that are more secure, efficient and integrated, a decisive step towards the integration of the Italian market with other markets was reached in early 2015, with the finalization of the activities that led to the coupling of the Italian market with other European markets through interconnections with France and Austria, which add to that with Slovenia, a country with which the operational coordination is already running successfully in 2011. The extension of market coupling at the borders of Austria and France, confirms the active role played by GME to help defining the process of integration of European electricity markets within the Multi-Regional Coupling (MRC) and, in particular, its commitment to ensure that Italy could, within the time limits at Community level, complete the implementation of Market Coupling on all its electricity borders.

# 2.2 PB GAS G-1

The wholesale trading of natural gas in Italy, according to the legislation in force, can be made either through the negotiation of bilateral contracts (OTC) or through market transactions and platforms managed by GME, such as the P-GAS, M-GAS and PB-GAS.

In relation to these platforms, please note that the changes that occurred in 2014 mainly related to the G-1 sector of the PB-GAS, which, due to some regulatory interventions promoted by AEEGSI, has been affected by a partial modification of the zonal configuration. In particular, pursuant to the provisions of Resolution of AEEGSI 485/2014/R/gas, GME has introduced new ways of managing the linepack resource and that relating to the delivery performance from Stogit storage by more than the limits defined by the contract reintegrated in the days following G (Stogit reintegration), thus allowing to achieve a unique appreciation of the gas resources delivered on the same day.

During 2015, the wholesale market of natural gas (MGAS) should be subjected to a substantial reorganization and reconfiguration as a result of the implementation<sup>6</sup>, by October 1, 2015, of the (EU) Regulation No. 312/2014, establishing the network code relating to the balance of the gas in transport networks (Network Code on Gas Balancing – BAL NC).

The implementation of the new mechanism of regime balancing, which effectively results in the inclusion of the balancing market within the MGAS, is likely to have a positive effect on the market as a whole in terms of increase of liquidity and achievement of a higher level of competition and efficiency.

In particular, the Regulation 312/2014 provides for the development of a wholesale gas market that, for balancing purposes, allows users of the transmission network to efficiently balance their physical locations in terms of injection and withdrawal from the network and the manager of the transmission system (TSO) to find the gas resources necessary to compensate for the overall system imbalance expected on the gas day (G).

In this regard, it should be noted also that the Regulation 312/2014 assigns greater responsibility in terms of the burden of balancing towards users of the gas system, thus recognizes the TSO, in this context, a residual role having the same to generally intervene only if users of the balance with the shares at their disposal, including market intervention and reprogramming of its daily withdrawals, have not helped to

<sup>6</sup> GME will be involved, in collaboration with institutions of reference and with SRG, in transposing and implementing the (EU) Regulation No. 312/2014.

compensate for the imbalance of the system.

More specifically, with regard to the supply of gas resources as part of the wholesale market for balancing purposes, the Network Code considers preferable the appeal by the manager to the short-term standardized products transmission system of the title type and, if it is necessary, the maintenance of the transmission network within its operating limits by changing the gas flow in specific points of entry/exit of the network at a given time of the gas day, also in locational type products, or products related to a particular resource and the point of entry of the transmission network.

In relation to the implementation of the Regulation in Italy, it should be noted that the AEEGSI, even before the entry into force of the same, has aligned its regulatory interventions with evolutionary perspectives of the balancing mechanism at European level, including in particular the Resolution 446/2013/R/GAS of 10 October 10, 2013, integration of the PB-GAS under the natural gas market organized and managed by GME. Subsequently, with Resolution 485/2014/R/GAS of 9 October 2014, AEEGSI referred to the consultation the proposal drawn up by SRG entitled "Method of implementation of the EU Regulation no. 312/2014", which, in line with provisions of the European network code, essentially provides the integration of the resource supply for the balance by SRG within the MGAS.

### 2.3 The fuel markets

To foster competition in the oil sector and widen opportunities for buying and selling logistic services and oil products, Legislative Decree 249/201213 14 249/2012<sup>7</sup> charged GME with the task of developing and managing an oil logistics market platform<sup>8</sup> and a wholesale market of liquid oil products for the transport sector<sup>9</sup>.

While implementing these provisions, based on the addresses provided by MiSE as part of the decrees relating to the formation, respectively, of the platform of the oil logistics<sup>10</sup> and wholesale market of fuels,<sup>11</sup>, once ended the process analysis and study aimed to identify possible patterns of organization and operation of the aforementioned market platforms, GME initiated the consultation process by publishing the documents DCO GME no. 02/2014 and DCO GME no. 03/2014.

In relation to the oil logistics platform, based on the evaluations by GME and the comments received in response to the consultation, a platform of offers publication has been identified as a possible market model that best meets the needs of the participants and the characteristics of the industry.

The platform of offers publication is a platform where the participants, anonymously, submit their proposals for the sale of the service and other participants can express interest in buying the service covered by the proposal. Following the expression of interest for a proposal, they are made known the names and information related to the two counterparties. Trading in all operational and contractual aspects not specified in the offer and any subsequent signing of the contract related to logistics services, are defined by the parties outside of the platform.

This platform should facilitate the matching between demand and supply through the identification and

<sup>7</sup> Legislative Decree no. 249 of 31 December 2012, in transposition of Directive 2009/119/EC of the EU Council of 14 September 2009 – laying down the obligation for Member States to maintain minimum stocks of crude oil and/or petroleum products – aims to strengthen national legislation regarding emergency oil stocks, as well as to promote an adequate level of competition in the oil sector, thus expanding the opportunities for supply and procurement of logistics services and petroleum products.

<sup>8</sup> Article 21, Paragraph 1 of Legislative Decree 249/2012.

<sup>9</sup> Article 22, Paragraph 1 of Legislative Decree 249/2012.

<sup>10</sup> Ministerial Decree no. 16618.

<sup>11</sup> Ministerial Decree no. 16617.

publication of the main features of the service provided to enable the participant who wants to offer a service to briefly describe the service offered in a complete manner and to ensure the participant who intends to procure services to easily identify the service he/she needs.

This way allows a participant wishing to offer a particular service reaching easily and cost-effectively the range of entities involved and a participant interested in a particular service, easily identifying the service and possibly comparing the offers submitted by each participant.

As part of such a platform, GME would assume the role of a mere participant of the platform without paying the role of central counterparty of the trading and entity directly involved in the contractual relation between the seller and the buyer.

The offers published would not be binding for participants: when a counterparty shows show interest, there is an accurate definition phase of the contract terms on a bilateral basis, including in relation to requests for special contractual terms or additional services not including those listed in (i.e.: penalties, product quality, etc.), for the subsequent possible conclusion of the contract.

As for the market for liquid petroleum fuels for automotive industry, based on the analysis performed by GME and the comments received during the consultation, the market model of liquid petroleum products for automotive industry identified is the matching book of the offers without a central counterparty.

The trading methods should be anonymous and the buying participant should have the possibility to select between the offers shown in the book that best suit his/her needs ("catching" mode) and the offer should be not necessarily the one that shows the lower price among those in the same book. This choice is justified by the greater flexibility of that method of trading that would allow participants to select the offer not only based on the price offered, but also on the basis of other characteristics that may better meet the needs of the participants themselves.

In particular, the market participants can see offers of sale entered into the trading book, and, if enabled by the selling participant, they may select, in order of the conclusion of the transaction, one or more offers submitted by the participant enabling them.

During 2015, taking into account the provisions of the decrees of implementation adopted by the MiSE and the results of the consultation processes carried out in 2014, GME will continue, as a result of the necessary relation with the institutions, associations and reference stakeholders, to follow up on the activities necessary to implement the logistics market for oil and mineral oil and the wholesale market of liquid petroleum products for automotive industry.

# **3 INTERNATIONAL ACTIVITIES**

GME confirmed also for 2014 its commitment in international field as an active part of the integration of wholesale electricity markets within the EU.

In particular, within the Italian Borders Working Table<sup>12</sup>, preliminary activities were finalized with the implementation of the mechanism of coupling also on the Italian-Austrian and Italian-French borders after the experience of Italian-Slovenian coupling successfully started already from 2011.

As of 24 February 2015, in fact, for the first time, the capacity on the Italian-Austrian, French-Italian and Italian-Slovenian borders assigned implicitly through the PCR solution for day-ahead markets.

For the future, GME, which will be engaged in regional IBWT to allow the extension of the mechanism to the Swiss-Italian and Italian-Greek border, will continue its activities in the field of PCR, in order to further extend the application of the mechanism of price coupling at EU level.

With the implicit allocation of capacity on the border between Italy and France, Italy and Austria and Italy and Slovenia, in fact, Italy is now included in the wider Multi-Regional Coupling (MRC), which already connects most of the markets of electricity of the European Union, with a benefit for the final consumer resulting from a more efficient use of the electricity grid and cross-border infrastructure as a result of greater coordination between the energy markets.

During the process of integration of the EU electricity markets, GME also launched in 2011, along with other European PXs (EPEX Spot, OMIE, NordPool, APX-Endex, Belpex), also the project for the design and the implementation of an intraday market coupling (PXs Cross Borders Intra-Day – PXs XBID) through which it allows network operators to implicitly allocate, the inter-border interconnection capacity in line with the market model in continuous trading (Target Model) outlined in the provisions of the Framework Guidelines on Capacity Allocation and Congestion Management of ACER and the Network Code on Capacity Allocation and Congestion Management of Entso-E<sup>13</sup>. Upon completion, it is reported that the planning stage of development of the mechanism of infraday coupling (pre Go-Live phase), according to the schedule agreed upon as part of the PXs Cross Borders Intra-Day project, should be completed by July 2017.

With reference to the monitoring of energy markets in Europe, the (EU) Regulation No. 1227/2011 concerning the integrity and transparency of wholesale energy market (REMIT) has established, at European level, common rules to prevent abusive practices in the wholesale markets for electricity and natural gas, by imposing the participants of these markets the prohibition of market manipulation (Article 5), the prohibition of insider trading (Article 3) and the obligation to publish promptly and effectively privileged information pertaining to them (Article 4).

In order to promote Europe-wide centralized monitoring of transactions concluded within the wholesale energy markets and in order to prevent the abusive practices mentioned above, Article 8 of REMIT also requires market participants to comply with the obligation to transmit ACER the data regarding their trading orders submitted and the transactions concluded in relation to wholesale energy products, directly or through, the intermediation of third parties. With reference to the implementation of the REMIT Regulation of 17 December 2014, the European Commission published the Implementing Regulation No. 1348/2011 (Implementing Acts) establishing the rules of transmission by the market operators against

<sup>12</sup> This is a joint project between the Electric Exchanges and Grid Operators belonging to countries that share an electricity border with Italy (Austria, Slovenia, Switzerland, France, Greece) for the definition and sharing of the operation processes of pre- and post coupling, functional to the implementation of a mechanism for regional coupling integrated with the other European regional coupling.

<sup>13</sup> In this context, it should be noted that on December 5, 2014, following approval by the *Electricity Cross-Border Committee* of the final draft of the text of its Network Code, it ended the stage of the comitology of the CACM that is currently subject to final approval by the European Parliament and Council.

ACER, in implementation of the aforementioned Article 8 of REMIT, data and information relating to transactions concluded and the buy and sell orders submitted in the field of wholesale energy markets. In this context, the monitoring activity carried out by GME in its markets was addressed to the consolidation of the work initiated in previous years, favouring a strengthening of the tools and procedures used to ensure the correct use of the markets, in accordance with the current European and national regulations as well as the internal disciplines of reference. This activity was enhanced by the participation of GME in the working groups constituted in the ACER field and within Europex, aiming to develop and share best practice on monitoring of the wholesale markets.

# **4 MONITORING**

GME monitors transactions on its markets in order to ensure its efficiency and transparency and promote liquidity. This activity, performed inside GME by a dedicated structure, aims at identifying the implementation by participants of conducts contrary to the provisions of the Regulations and the Rules of the markets or the national and Community standards in force. In this sense, to cope with the increasing participation recorded on its markets and the evolution of national and European standards in the field of development and harmonization of the monitoring practices, which are still under way, GME is provided with special and more advanced tools of *market surveillance*, which allow to properly manage the greater complexity of activities and processes that govern them. The results of this activity are briefly shown in the following table 1.4.1.

During recent years, GME has confirmed a point of reference for the institutions operating in the monitoring of wholesale energy markets. At national level, the consolidated collaboration initiated with the AEEGSI in the electricity sector with the Resolution ARG/elt 115/08 (TIMM) – under which GME provides information, reporting, analysis and simulation – was further strengthened with forecasts in Art. 22 of Law no. 161 of 30 October 2014, under which it is possible for AEEGSI to secure the cooperation of GME for the conduct of investigations on cases of suspected violation of the prohibitions of insider trading and market manipulation in the power and gas sectors and to verify compliance by the participants with the obligation to publish inside information pertaining to the company. Also, with Resolution 485/2014/R/ gas, the Authority has laid the basis for the start of the activities necessary to establish a monitoring of the natural gas markets, entrusting the execution to GME.

Similarly, at Community level, GME is actively present on the work tables organized by ACER and Europex to define and share best practices with regard to monitoring of wholesale markets, as well as in the various groups of experts made up by ACER as a result of the implementation of the (EU) Regulation No 1227/2011 (REMIT), with particular reference to issues of market manipulation, *insider trading* and *data reporting*.

The start of the data reporting in 2015 will mark another step forward in the process of setting up a monitoring of wholesale markets managed through common and integrated rules at the European level. In this context, GME will continue to play its role as a service, both to support the competent authorities in identifying the abusive conduct in the wholesale markets, both the participants with the creation of platforms through which it can guarantee them the fulfilment of the disclosure obligations to the authorities and the markets.

In particular, as required by Resolution 86/2015/E/com, GME will support AEEGSI to check in a timely manner the compliance of the participants with the obligation to register on the Register established by AEEGSI by the same Resolution, pursuant to Article 9 of REMIT<sup>14</sup>.

At the same time, GME will offer the market two important new services:

- an overall service of data reporting, exclusively dedicated to its customers, but also extended to the eventual operation outside of the markets managed by GME, intended to support them in fulfilling their obligation under Article 8 of REMIT;
- a platform for the publication of inside information, designed to support all market participants (also not registered at GME) in the compliance with their duty of disclosure under Article 4 of REMIT.

<sup>14</sup> See in-depth analysis of REMIT

This platform enables all market participants and all parties concerned to find this information in an accessible and transparent way while supporting ACER, AEEGSI and GME in carrying out monitoring activities within their competence.



Year	Market	Measure	No.	Participants concerned
2013	MCV	Report to AEEGSI	5	12
2013	MTEE	Report to AEEGSI	7	9
2014	MCV	Precautionary suspension + 1 month suspension	1	1
2014	MTEE	Archiving	1	1
2014	MTE	Report to AEEGSI	1	2
2015	MTEE	Suspension for three sessions	1	1
TOTAL	-	_	13	21

# IN-DEPTH ANALYSIS 1

# **Remit: Implementing Acts and Data Reporting**

The (EU) Regulation No. 1227/2011 of the European Parliament and of the Council of 25 October 2011 concerning the integrity and transparency of wholesale energy market (REMIT) establishes, at European level, common rules to prevent abusive practices in the wholesale markets for electricity and natural gas, by imposing the participants of these markets the prohibition of market manipulation (Article 5), the prohibition of insider trading (Article 3) and the obligation to publish promptly and effectively privileged information pertaining to them (Article 4).

The monitoring of the markets, aimed at identifying any violations of these prohibitions, is performed in a centralized way at European level by ACER that relies on the support and cooperation of National Regulators, TSOs and Managers of the Regulated Markets. To this end, Article 8 of REMIT includes the obligation for market participants to send ACER all information on their buy and sell orders submitted and transactions concluded in relation to wholesale energy products (the so-called obligation of data reporting) directly or through the intermediary of third parties, which serve as the Register Reporting Mechanism (the so-called RRM).

While implementing the provisions of Article 8, paragraph 8.2 and Article 6, paragraph 6.1 of REMIT, the European Commission implemented the (EU)Implementing Regulation No. 1348/2014 of 17 December 2014 (hereinafter: Implementing Acts) establishing the terms and timing of performing the role of data collection at ACER. In particular, the Implementing Acts have given the Managers of the Regulated Markets – and therefore also GME – the obligation to offer to the participants who so request, and subject to the signing of a special agreement, a service of data reporting relatively to those transactions concluded and the purchase and sale orders submitted on their markets.

While implementing the provisions of the current legislation, GME in 2014 and the first quarter of 2015 carried out a series of internal activities in preparation for the identification of the optimal solution to be offered *primarily* to its participants in order to comply with the obligations imposed by REMIT in terms of data reporting and publication of inside information. Based on the assessments carried out in this area, taking into account the analysis of best practices at European level on monitoring, GME has identified as viable solution for the establishment, respectively, of a platform dedicated to the service of data reporting date (the so-called PDR) as well as a platform dedicated to the publication of inside information (the so-called PIP).

In 2014, GME launched an internal process aimed at defining the data reporting service to be made available, as RRM, to its participants based on the principles of efficiency, quality and minimization of

charges on participants themselves. In this context, the solution identified by GME is based on the offer to those who have previously acquired the status of participant of the markets/platforms of GME of a specific service involving the orders and transactions recorded at GME and also the (standard and non-standard<sup>15</sup>) contracts

Platform for data reporting service

and buy and sale orders and transactions concluded on other platforms/markets or bilaterally, in order to provide stakeholders a comprehensive service that allows them to use a single source to fulfil their reporting obligations against ACER.

<sup>15</sup> For the definition of standard and non-standard contracts, GME shall adopt the provisions of Article 2 of the Implementing Acts. The timing underlying the data reporting service provided by Acer are different for the two types of contract: sell and buy orders and transactions for standard contracts must be reported by the RRM subject without exception as of October 7, 2015, while non-standard contracts should be reported as of April 7, 2016.

In order to facilitate compliance with the obligation of reporting also by participants who do not want to take advantage of GME for the transmission of data to ACER (then turning to a RRM other than GME or providing autonomously), GME intended to provide a specific service that allow these individuals to achieve, already in ACER format, all data and information necessary for compliance with the obligation of reporting.

Accordingly, those who require GME the activation of the data reporting service could, through direct access to the PDR, upload information about transactions concluded outside the markets regulated by GME and display the daily report containing their data, but also verify the quality of the activity performed by GME through consultations with the notifications of receipt of data by ACER and specific reports prepared by GME for data sent on behalf of individual participants.

With reference to the publication of inside information contained in Article 4 of REMIT, the solution that GME intends to make available to the audience of stakeholders consists of a platform for the disclosure

Platform for the publication of inside information

of inside information (the so-called PIP), through which the participants who request it can fulfil this publication obligation based on the criteria of timeliness and effectiveness also transmitting their information to ACER and the National Regulation Authorities in the manner that will be identified for this purpose.

According to the *Guidelines* prepared by ACER (Section 7.2), in fact, the publication obligation can be considered effectively fulfilled by the participant in the event that the information is made available as part of a centralized platform, thereby enabling the dissemination of information in a uniform manner, easily accessible to the widest number of people possible and at the same time scaling the management burden of publication on the participant.

This service, in addition to simplifying the compliance with the publication obligation of inside information by the persons subject to the obligation, it is also a useful instrument to increase market transparency, thus facilitating the monitoring of insider trading by GME, AEEGSI and ACER.

In order to encourage the widest possible participation and ensure effective centralization of information, joining the publication service of own information on the appropriate platform is permitted not only to all participants of the markets/platforms of GME, but also to all participants involved in other regulated wholesale energy markets and in balancing domestic or foreign markets.

With the decision to set up the PIP, GME provides the participants of the domestic and foreign energy markets, on the one hand, to be able to fulfil the obligation of publication of inside information pursuant to REMIT, based on the terms and forms stipulated by ACER, and, on the other hand, access easily, effectively and efficiently, to inside information provided by a variety of participants in the energy market, according to a uniform standard, in a logic of greater transparency and fairness.

# **5 RESULTS**

## 5.1 Volumes and market participants

Even in 2014 the analysis of operations of the markets managed by GME confirms the trends of recent years. In particular, compared with an increase in the number of participants registered, in terms of traded volumes, the markets most affected by the crisis in consumption (i.e. power and gas) show signs of stability compared to a context of depression, while the environmental markets show clear signs of growth and vitality, gradually gaining market share than the OTC trading. Only the forward markets, as in previous years, show a limited vitality, albeit with different accents depending on the sectors.

In a sector hardly hit by the economic crisis, with the demand for electricity of Terna that lies on the lower levels of the last decade (309 TWh), trade on the spot markets managed by GME mark the all-time low

of 305 TWh (- 2.5%). Those hardly affected are the trading on the regulated market (MPE), which were down from their peak levels reached in the previous year (-9.4%). The contraction affects the MGP, which stood at 185 TWh on its minimum values (-10%) and the MI, which returns under 23 TWh after the peaks of 2012. Opposite trends for volumes arising from bilateral contracts and appointed on the MGP that, encouraged by the increase in transactions recorded on the PCE, rose by 16.9% from the minimum value of 2013.

The stock trading of MGP reduces, but liquidity and non-institutional volumes remain at a high level

However, these data underlie several signals of "consolidation" of market liquidity.

First, in spite of the fall in absolute levels, in percentage terms, the liquidity of the MGP, the most important spot markets, is confirmed with 66% on-time highs, slightly down from its peak in 2013. Also, if you look at the composition of liquidity, it appears that the contribution in absolute terms of non-institutional participants stood at values among the highest ever at 113 TWh, which contributes to 40% of the liquidity itself (second highest value of always) and compensates for the gradual decline in purchases of the Single Buyer. These data confirm the substantial increase in the number of participants registered, that update the new high value with +31, in parallel to a new vigorous rise of the active participants (+35) (Fig. 1.5.1).



Also on the Intra-Day Market (MI), compared with a further rise of the active participants (+27), exchanges suffer a decline of 2.4%, that is the second decline in a row since it began. The decline was concentrated on the MI1 (-4.5%), the most liquid of the four markets, and on the MI4 (-15.5%), which was marked in 2013 by the sudden growth of trading. However, the MI is confirmed as an important tool for flexibility both for producers in the management of the thermoelectric *overcapacity* that is characterizing the recent years, both for wholesalers, to cope with fluctuations in consumption. Considering, in fact, the weight of the total volumes traded on the MI compared the MGP, the value is confirmed for the third consecutive year above 8%. Moreover, in 2014, if the sum of sales and purchases confirms a significant but declining use of the sector by the traditional thermal power plants (almost 22 TWh, the lowest level since 2009), which have become net sellers, the same figure shows a new historical high in the use by wholesalers (12 TWh), which have become net buyers, and a residual use but still growing of the sector by the wind farms.

With regard to forward trading, 2014 reinforces the growing dynamics of the PCE, both in terms of participants registered and volumes, but also confirms the non-positive signals of the MTE. On the one

Forward trading of electricity is at historic highs hand, in fact, the contracts registered on the PCE mark a new historical high at 346 TWh (+ 6.2%), consolidating the interest of participants for this trading as a hedging instrument and confirmed by the high value of *churn ratio* (1.84), the intense trading activity of the participants through the platform. On the other hand, however, the MTE is characterized by a decrease in volumes traded down to 32 TWh (-21.5%). This

development reflects a sharp decline of the quantity traded bilaterally and recorded on the MTE for the purpose of *clearing* (14 TWh, -58%), more than enough to compensate for the resumption of the quantity traded on the books of GME, which, compared to the very low levels recorded in 2013, rose to 18 TWh (+ 130.1%), almost exclusively due to trades on annual *baseload* product (Tab. 1.5.1, Tab. 1.5.2).

21

THE COMPANY | 1

Even in 2014 the PBGas remains a liquid and vital market, collecting substantially all of the trades made at GME. The increase of the participants registered (+12) corresponds to a further increase in volumes

traded, which update the new maximum value to 42 TWh (+ 0.3%), indicating a ratio of 5.6% of the total product delivered by Snam in the system. The most interesting data, however, is represented by the determinants of this growth: the "extra-balancing" component of the sector G+1 and the increase in trade in the sector G-1. The first,

which represents trades concluded directly between participants on the PBGas in excess of the volumes requested or offered by the Head of the balancing, has been characterized by an increase of 75% over 2013, reaching 10 TWh: a figure that confirms the importance of the nodal segment G+1, not only as a tool to limit the risk associated with imbalance but also as a true platform for "spot" trading. The second, in 2013 joined the sector G+1 to enable the SRG anticipating any problems through the introduction of more areas of the market by type of flexible resource, has collected a total of nearly 3 TWh: a figure concentrated in a few weeks of summer operation and that partly justifies the lower volumes required by the SRG on the sector G+1.

As for other markets/platforms of gas, compared with a slight increase in the number of members, they are essentially nil the volumes coupled on the M-GAS, which in December is characterized by the reappearance of weak trades on the MI (0.10 MWh), and on the P-GAS, created to allow participants to fulfil their obligations to respectively transfer the shares of their imports (P-GAS Import), the royalties owed to the State for the exploitation of national gas fields (P-GAS royalties) and the future ability to storage (P-GAS, former Legislative Degree 130/10) (Tab. 1.5.1, Tab. 1.5.2).

The lion's share in 2014 is made by the environmental markets that confirm a strong interest by participants, both in terms of number of members and volumes traded. It does not stop, in fact, the expansion of

the TEEs that in 2014 reach 12 million of toe by virtue of an increase of + 42.8%, favoured by changes in the regulatory framework introduced by the Inter-ministerial Decree of 28 December 2012, setting new national targets for energy savings for the years 2013-2016. The expansion of the volumes involves bilateral bargaining as the trades registered in the regulated market (MTEE) reaching 3.5 million toes (+ 24%), amounting to approximately 30% of the total securities traded.

In the system of Green Certificates, which, for the first time since it began, there was a decrease in volumes traded (43 TWh, - 3.9%) at the reduction of the obligatory share of renewable energy to enter to the grid for producers and importers of conventional sources, however, the developments observed in the regulated market (MCV) appear rather exceptional. In the latter, in fact, against the general trend, the volumes traded update their historical high, rising to 8 TWh (+ 8.3%) and bringing the share of the total negotiated to 19% (ever so high) consistent with the increase in members and active participants (respectively +49, +19). The dynamics describes a change in the strategies of the participants than in previous years that can be evaluated in terms of fall in transactions recorded on the OTC recorded on the PBCV (35 TWh, - 6.4%), both of decline in the average the all-time low of 6,600 MWh in 2014.

Finally, they raise the trades of Guarantees of Origin, whose strength lies in the Bilateral Platform (PBGO) which, with 44 TWh, focuses almost all of the volumes traded. It seems to take off, however, the market of Guarantees of Origin (MGO), who took over in 2013 to the MCOFER, showing significant declines over the previous year, returning to the levels of 2012 at 0.47 TWh (-65.0%). However, despite the increase of members, in terms of active participation, both trading platforms mark a decline (-41 participants with combinations on the MGO, -11 on the PBGO) (Tab. 1.5.1, Tab. 1.5.2).

Stable trade on the gas markets

Growth in volumes traded on the environmental markets consolidates
## 5.2 Trend of the participants in GME's markets

# Participants in GME's markets Tab. 1.5.1



Participants no.*	2009	2010	2011	2012	2013	2014	Change 14/13
Electricity markets							
- registered	172	207	192	200	223	254	+31
- with offers		207		200	220	201	
MGP	115	131	137	149	159	194	+35
MI	53	69	91	114	122	149	+27
MTF	16	15	20	25	22	19	-3
PCE			20	20			Ū
- registered	167	205	208	259	287	317	+30
- with schedules	88	95	103	120	125	126	+1
				.20	.20	.20	
Gas markets							
MGAS				10		74	_
- registered		20	33	42	66	/1	+5
- with offers		2	17	15	10		10
MGP		3	1/	15	10	-	-10
IVII MTO AG		-	/	5	4	5	+1
MIGAS					-	-	-
PB-GAS			<u> </u>	C.F.	74	00	. 10
- registered			60	65	74	86	+12
- with others			50	74	70	77	. 4
Sector G 1			59	74	/3	//	+4
Sector G-1					8	45	+37
P-GAS		50	C1	70	77	70	. 1
- registered		53	61	12	11	78	+1
- with others		21	17	10	10	1.4	F
Import		21	17	18	19	14	-5
Pormer Leg. Decree 130/10		25	25	13	4	-	-4
noyallies		25	25	26	12	4	-0
Environmental markets							
MCV							
– registered	497	620	675	745	852	901	+49
- with combinations	157	173	207	235	303	322	+19
PBCV							
- registered	n.d.	969	1,082	1,177	1,381	1,466	+85
- with combinations	593	603	646	622	871	851	-20
MIEE							
- registered	268	334	379	447	588	838	+250
- with combinations	1/2	209	235	264	328	458	+130
Registro IEE							
- registered	n.d.	421	513	635	866	1,196	+330
- with combinations	163	189	206	238	298	378	+80
MGO							
- registered				180	262	291	+29
- with combinations				28	62	21	-41
PBGO							
- registered				219	324	359	+35
- with combinations				59	159	148	-11

\* The number of participants registered refers to the figure calculated as at 31/12 each year.

#### Traded volumes on GME's markets



TWh	2009	2010	2011	2012	2013	2014	Change 14/13
Electricity markets							
MGP	313.43	318.56	311.49	298.67	289.15	281.98	-2.5%
Exchange	213.03	199.45	180.35	178.66	206.90	185.85	-10.2%
Bilaterals	100.39	119.11	131.15	120.00	82.25	96.13	+16.9%
MI/MA	11.93	14.61	21.87	25.13	23.34	22.79	-2.4%
MI1	1.68	9.47	14.47	15.99	12.80	12.23	-4.5%
MI2	0.95	5.15	5.38	6.21	6.07	6.47	+6.6%
MI3			1.22	1.72	2.00	2.01	+0.1%
MI4			0.80	1.21	2.47	2.09	-15.5%
MA	9.30						
MTE	0.12	6.29	33.44	54.96	41.10	32.27	-21.5%
Exchange	0.12	6.29	31.67	30.36	8.00	18.40	+130.1%
OTC clearing	-	-	1.77	24.60	33.10	13.87	-58.1%
PCE*	176.35	236.48	290.82	307.61	325.50	345.72	+6.2%
Gas markets							
MGAS		0.00	0.16	0.17	0.02	0.10	+496.6%
MGP		0.00	0.15	0.14	0.01	-	-100.0%
MI		-	0.01	0.04	0.00	0.10	+2573.6%
MTGAS					-	-	-
PB-GAS			1.71	34.93	40.88	41.52	+1.6%
Sector G+1			1.71	34.93	40.83	38.58	-5.5%
Sector G-1					0.05	2.94	+5982.4%
P-GAS		2.14	2.91	2.87	0.62	-	-100.0%
Import		0.00	-	-	-	-	-
Former Leg. Decree 130/10				-	-	-	-
Royalties		2.14	2.91	2.87	0.62	-	-100.0%
Environmental markets							
CV	23.40	25.37	31.09	32.33	44.81	43.05	-3.9%
Exchange	1.84	2.58	4.13	3.81	7.57	8.20	+8.3%
Bilaterals	21.56	22.79	26.97	28.52	37.25	34.85	-6.4%
TEE (Mtoe)	2.34	3.09	4.10	7.62	8.23	11.76	+42.8%
Exchange	0.97	0.98	1.28	2.53	2.81	3.49	+24.0%
Bilaterals	1.36	2.11	2.82	5.08	5.42	8.27	+52.6%
GO				2.22	42.63	44.48	+4.3%
Exchange				0.47	1.34	0.47	-65.0%
Bilaterals				1.75	41.29	44.01	+6.6%

\* Contracts registered on the PCE year for trading, net of contracts relating to the MTE (including OTC clearing) and CDE.

### 5.3 Results of operations

Summary of financial and operating information of GME (2013-2014)

2014 was characterized by a decrease in the CCP revenues/ $cost^{16}$  of  $\notin$  4.4 billion (-20.1% compared to the previous year), mainly due to the decrease in revenues from electricity sales on the Electricity Market, as a result of the flexion of PUN recorded during the year and the reduced trading volume on the spot electricity market. These dynamic contrasts with the increase in revenues from Environmental Markets, related to the higher volume of the CVs traded on the regulated market during the year, as well as the increase in the average trading price of the same.

Tab. 1.5.3								
	Data in € million	CCP revenues and costs	Marginal revenues	EBITDA	EBIT	Net income	Total Assets (a)	Equity
	2013	21,972.613	37.273	18.765	13.730	9.578	86.938	24.777
	2014	17,547.153	35.292	17.433	12.183	8.614	72.803	20.251

Note: (a) Total assets were calculated net of credits for CCP revenues/costs related to sales on the Energy Markets to participants and to the Parent Company, CCT *on over the counter* energy trades and financial income related to the Market Coupling on the Italian–Slovenian border. In addition, the figure does not include unavailable deposits paid by participants.

Marginal revenues<sup>17</sup> in 2014 show a decrease of about  $\in$  2.0 million compared to the previous year (-5.3%). This decrease is due to:

- for € 0.5 million, based on a decrease in revenues for services provided on the Spot and Forward Electricity Market<sup>18</sup> mainly as a result of the reduction of the volumes traded on these markets only partially offset by higher charges for access and fixed annual fee paid by the participants;
- for + € 0.2 million, based on the increase in revenues for the services provided on the PCE, led mainly by higher volumes registered during the year 2014 compared to the previous year;
- for € 1.1 million, based on a decrease in revenues for the services provided on the markets and on bilateral platforms for the trade of environmental securities, resulting from the reduction in the volume of CVs traded during the period and the reduction in the fee unit applied to the volumes of the traded TEEs, from 0.2 €/TEE to 0.1€/TEE, to apply from 1 January 2014, in accordance with the provisions of Resolution AEEGSI 617/2013/R/efr. This latter effect was only partially offset by increased volumes of TEE traded during the year;
- for € 0.4 million, based on the reduction in revenues from services provided to Terna for activities related to the allocation of the right of use of transmission capacity and the collection of the offers on the MSD, based on the provisions of the agreement signed between GME and Terna;
- for € 0.3 million, based on the reduction in other marginal revenues resulting primarily from: (i) the higher revenues during the financial year 2013 as a result of the accession to the PCR project of the electricity exchange of the Czech Republic (OTE) and the subsequent redistribution of the historical costs incurred by the exchanges participating in the project (- € 0.2 million), (ii) the

<sup>16</sup> CPP revenues/costs mean the positive elements of income that fully offset the negative items of income to which they refer.

<sup>17</sup> Marginal revenues means the positive elements of the income allocated to cover operating costs and return on invested capital.

<sup>18</sup> For the purpose of quantifying and billing the revenues for services provided on the MGP, the volumes traded are considered gross of the amount of the imbalances scheduled under former Article 43, paragraph 43.1 of the Integrated Text of the Electricity Market Rules and the cases of non-compliance referred to in Article 89, paragraph 89.5, subpara. b) of the same Rules.

increase in extraordinary income recorded in 2013 following the entry in the income statement of provisions to the reserve for risks and charges allocated in previous years in relation to a result of labour law nature (–  $\in$  0.1 million).

GME's marginal costs (2013 - 2014)



Data in € million	raw materials and services	leases and rentals	personnel	amortization, depreciation and provisions	other operating expenses	Total
2013	7.364	1.628	9.179	5.035	0.337	23.543
2014	6.563	1.898	9.062	5.250	0.336	23.109

Costs on the sidelines including amortization, depreciation, write-downs and provisions amounted to a total of  $\notin$  23.1 million, a decrease of more than  $\notin$  0.4 million compared to the previous year. This reduction is mainly attributable to:

- the decrease of € 0.8 million of the cost of raw materials and related services mainly for: (i) lower cost to the parent primarily related to the redefinition of the activities undertaken by it for GME and governed by specific service contracts and (ii) lower professional services resulting among other things from the reduced costs incurred for the development of the PCR project
- the increase, amounting to about € 0.3 million, of the cost of leased assets resulting primarily from the signing in the year 2013 of the sub-lease of the new headquarters in Viale Maresciallo Pilsudski, and the book entry of the renewal, with effect from 1 January 2014, of the information service contract in place with the parent company GSE in the item called lease rental of computer equipment – previously classified in the item called service costs.

			GME'	s key ratios (2013 – 201	<b>4)</b> Tab. 1.5.5
	EBITDA/Marginal revenues ratio (%)	EBIT/Marginal revenues ratio (%)	ROI (a)	ROE (b)	
2013	50.3	36.8	15.8	38.7	
2014	49.4	34.5	16.7	42.5	

Notes: (a) ROI is calculated as the ratio between EBIT and total assets;

(b) ROE is calculated as the ratio between net income and equity.

EBITDA amounted to  $\in$  17.4 million, a decrease of  $\in$  1.3 million (-7.1%) compared to the previous year. The operating profit amounted to approximately  $\in$  12.2 million, a decrease of  $\in$  1.5 million (-11.3%). The profit after tax amounted to  $\in$  8.6 million, down by about one million Eur (-10.1%) compared to the previous year.

The table below shows the average number of employees during the year broken down by category of contract, as well as that as of 31 December 2014 compared with the same information from the previous year, with the evidence of the dynamics of seconded personnel.

#### ..... GME's personnel members

Tab. 1.5.6

	N	umber	Ν	umber
	Average 2014	as at 31st Dec. 2014	Average 2013	as at 31st Dec. 2013
Executives	8.40	8	9.00	9
Managers	30.20	31	29.60	30
Employees	62.80	64	58.80	62
Total	101.40	103	97.40	101
of which posted	2	2	2.5	2
Total number. net of posted beings	99.4	101	94.9	99



# SECTION

## MARKET EVOLUTION

1.	1 INT	ERNATIONAL MARKETS	.30
	IN-DE	EPTH ANALYSIS 2	
	The e	xtension of market coupling on the northern border	.38
2.	ELEC1	RICITY MARKETS	.40
	2.1	The Day-Ahead Market (MGP)	.40
	2.2	The Intra-Day Market (MI)	.50
	2.3	The OTC Registration Platform (PCE)	57
	2.4	The Forward Electricity Market (MTE)	. 60
3.	GAS I	MARKETS	.63
	3.1	The Gas Balancing Platform (PB-GAS) - G+1 sector	63
	3.2	The Gas Balancing Platform (PB-GAS) - G-1 sector	68
	3.2	Other gas markets	71
4.	ENVIE	RONMENTAL MARKETS	.72
	4.1	Green Certificates (GCs): Market and Bilaterals Platform	72
	4.2	Energy Efficiency Certificates (TEE): regulated market	
		and bilateral transactions	77
	4.3	Guarantees of Origin (GOs): Market, Bilaterals Platform	
		and GSE's auction	83
	IN-DE	EPTH ANALYSIS 3	

Environmental markets: the new regulations on the Environmental markets ..... 87

## **2.1. INTERNATIONAL MARKETS**

In 2014 they reinforce the downward trends observed in the recent years on the main energy commodities in Europe, in a context in which the negative economic situation and the spread of renewable sources will

Trends of energy markets are still down compress further demand.

Down the price of oil and refinery products, under an uninterrupted downward trend that between July 2014 and March 2015 has halved the level compared to 2013<sup>1</sup>; it falls for the third consecutive year the price of coal, reaching close to the minimum

value of the last six years; gas abruptly reverses its trend, breaking a run of four consecutive increases, and showing a decrease only partially contained by the modest recovery observed at the start of the new gas year<sup>2</sup>.

In this scenario, absorbing the effects, it inserts the decrease in prices recorded on the European stock exchanges of electricity that, in full descending phase and on their respective minimum levels of the decade, still express differentials in 2014 related to the different structure of the productive national parks. In a prospective view, however, the combined effect of the different local expansion of renewable generation and recovery of competitiveness of energy in gas-intensive countries, originated by the significant change in direction of the price of the raw material, open the possibility of a new balance in the European electricity market, as well as the significant expected changes in spreads between domestic prices in the medium to long term seem to point out (Fig. 2.1.1, Fig. 2.1.8).





<sup>1</sup> The average price recorded by Brent in the first quarter of 2015 amounted to 54 \$/bbl, lower than 50% compared to the average price observed in 2013 (about 109 \$/bbl).

<sup>2</sup> The trends do not change in the conversion of prices into euro, as a result the dollar/euro exchange rate that is stable at 1.33.

In 2014 the European price of crude oil shows a significant decline, falling below 100 \$/bbl (99.3 \$/bbl, -8.6%) after three years of broadly stability at around 110 \$/bbl, however, envisaged by the level of the

forward markets at the end of 2013. The marked change in trend, although has already expressed by the average annual figure, originates in the sudden turn downward that, after the first part of 2014, is broadly in line with 110 \$/bbl and led prices on 47/58 \$/bbl in the first quarter of 2015, reaching a low point in June 2009. This structural break is extended under similar conditions to all international references of oil,

The price of oil and its derivatives collapses

returned to converge precisely at the end of 2014 after four years of decoupling, however, influencing the futures prices, positioned for 2015 on low levels in December. The trends detected on crude oil appear also incorporated by its refined products, whose price moves back around 842 \$/MT for fuel oil (-8.4%) and 557 \$/MT for fuel oil (-9.2%), following a course that is very much in line with that of the reference commodity, within the year and in the future, on the forward markets projected for 2015 on valuesnever observed since 2009 (Fig. 2.1.2, Fig. 2.1.3).







Spot prices of the Brent and of the main oil products ......

Fig. 2.1.3



It's declining even coal, by virtue of the consolidation of the downtrend that in three years has brought in Europe its price from 120 \$/MT to 75 \$/MT (-7.9% compared to 2013), a value round which it fluctuated

The downward of coal does not stop

during 2014. Markedly bearish are the dynamics observed on all international references, with the Chinese product that confirms higher (90.8 \$/MT, -8.8%), partly as a result of a partial recovery that, after a gradual alignment with the European price observed in the first part of the year, reported the spread between the two prices in the fourth quarter of 2014 on 20 \$/MT (Fig. 2.1.4).



Along with the sharp drop in oil prices, the novelty of 2014 is represented by the sensational turnaround in prices on the main continental hubs of gas, unexpected especially in its intensity. The prices of gas, in

Drastic decrease in gas prices, less and less dependent on the performance of the oil

fact, fold on 21/23 €/MW (-17/-23%), confounding the expectations of substantial stability or minimum deflection expressed by the forward markets, thus disrupting the multi-year growth phase began in 2010. Within the context of this scenario, two additional phenomena emerge from the monthly analysis of prices: confirmation of decoupling between gas prices and oil prices<sup>3</sup> and a slight reopening of the spread between European references of gas (about 2 €/MWh), with PSV and CEGH from one hand  $(22/23 €/MWh)^4$  and TTF and NBP on the other hand (21 €/MWh).

Unlike crude oil, in fact, the significant decline in gas has mainly affected the first half of the year<sup>5</sup>, being only partially offset by the recovery in the last quarter, whereas the Brent had already started its decisive down phase. Moreover, just between September and December the differential between hubs reached its maximum level, as a result of the significant increases recorded in Italy that have fostered a widening in the spread of our national reference not only by the TTF (about +  $3.7 \in MWh$ ), but also by the CEGH (about + 1.7 €/MWh), substantially aligned with the PSV instead for the rest of 2014.

<sup>3</sup> The correlation calculated on a monthly basis between the quotations of TTF and the moving average after 9 months of Brent converted into euro is progressively fell in 2010-2013, from 82% to 19%, even to reverse the sign in 2014 (- 41%).

<sup>4</sup> Daily price of PSV remains substantially higher than the Austrian hub, with some occasional exceptions recorded until August.

<sup>5</sup> In the first seven months of the year, the decrease compared to 2013 was equal to 24% at the TTF and 19% at the PSV.

The sudden reversal in the price of gas directs the expectations of the markets for the thermal year in bargaining to decidedly conservative pricing assumptions, in line with the figures recorded in the latter part of 2014. That statement seems to be supported by spot data observed in this first part of 2015, that return values on  $21/22 \notin$ /MWh in Central and Northern Europe and  $24 \notin$ /MWh in Italy, confirming the slight positive spread between PSV and the rest of the continent (Fig. 2.1.5).



In relation to the volumes traded, 2014 shows signs of a slight recovery of the positive trend that 2013 seemed to have stopped, in markets that still show a low level of maturity and ample room for growth<sup>6</sup>.

Overall, the quantities traded in the European hubs are affected by the substantial stability of the recordings detected in the United Kingdom (+ 3%), making the NBP the exchange point that collects about 84% of the total amount of gas circulated on the continent. In other regions, compared with a modest decline in Belgium (-3%),

#### Trading of gas n weak recovery

there is a positive evolution of the dynamics of growth in Italy, where the quantities traded at the PSV rise to new all-time high (+ 22%) and the churn ratio is aligned to the levels prevailing in Europe and in Austria, where the resumption of trade (+ 12%), however, seems insufficient to restore the volumes to their maximum values of 2012.

Strong growth, although still negligible compared to that of the hub, characterizes the liquidity detected on the regulated markets, on which total volumes circulated reached 142 TWh (+ 74%). In particular, the most significant increases affect the French and German stock exchanges, rose to their all-time highs (53 TWh and 40 TWh), while the exchanges are essentially stable to Italian PB-Gas, dropped to 39 TWh (-2 TWh) (Tab. 2.1).

<sup>6</sup> That statement comes from the analysis of the churn ratio, i.e. the ratio between the total volumes traded and the actual appointment of the participants, still lower and in some cases declining on all the main European exchange points.

## ,....... Volumes traded on gas markets (GWh)

Ξ.	<b>T</b> 1		
•	Tab.	2.1.1	
•			

НИВ									
Country	Trade points	2008	2009	2010	2011	2012	2013	2014	Change 14/13
UK	NBP	-	-	-	-	12,353,458	10,646,731	10,875,335	2%
Belgium	ZTP	505,579	721,205	724,010	769,797	742,462	771,502	747,167	-3%
The Netherlands	TTF	636,885	803,530	1,122,114	1,597,906	1,979,126	n.d.	n.d.	-
Austria	CEGH	166,020	253,340	378,660	435,010	525,100	393,030	439,892	12%
Italy	PSV	173,741	260,588	479,146	641,135	719,206	730,891	889,518	22%
Total	-	1,482,224	2,038,663	2,703,930	3,443,849	16,319,351	12,542,154	12,951,912	3%
Exchanges									
Country	Exchange	2008	2009	2010	2011	2012	2013	2014	Change 14/13
Belgium	APX		69	53	168	887	987	327	-67%
The Netherlands	APX+EEX		1,643	5,632	11,734	1,084	4,051	7,831	93%
Germany	EEX	0	0	0	8,353	11,619	13,427	39,693	196%
France	Powernext	833	2,262	8,362	16,217	19,757	22,246	52,853	138%
Austria	CEGH	0	8	778	1,526	2,005	4,790	10,584	121%
Italy	PB-GAS	-	-	-	1,712	34,925	40,833	38,587	-5%
Total	-	833	3,981	14,825	39,710	70,277	86,335	149,876	84%



In a context of still low demand, the effects of the general decline in fuel costs seem absorbed for the second consecutive year by all major European electricity markets, still characterized by a high degree of

interaction – favoured by the many experiences of coupling – and significant decreases pushing prices below expectations and on the lowest values of the last decade. In particular, the prices are positioned on  $33/35 \notin$ /MWh in continental Europe (–12/–20%), where after two years, although they remain structural differences between the respective parks of generation, the gap between France and Germany, more and more

frequently combined in coupling, goes back to tighten due to attenuation of the seasonal differential that distinguishes them in the period of high demand<sup>7</sup> (Fig. 2.1.7).

The Italian price, which stood at around  $\in$  52/MWh (- 17.3%), confirms higher, as a result of a mix of generation whose reference fuel is gas. However, the combined effect of a national demand that

is struggling to recover, of a well-established and high share of renewable sources in the revenue generating plant and, finally, of the new phenomenon of 2014, the drastic reduction in the price of gas, create the conditions for a possible further recovery of competitiveness of Italian energy<sup>8</sup>, which will be even more interesting to be evaluated in the light of the coupling launched in February 2015 on the French

and Austrian borders<sup>9</sup> specially in the seasons and in groups of hours that the Italian reference is not far from the exchanges beyond the Alps.

In this sense, even if referring to one of the times of year when the French price is typically higher, they appear significant the data emerged in this first month of operation of the mechanism of implicit auctions on such borders: the North Italian zone and France were, in fact, more often together than they were even France and Germany (23% and 16% of the hours, respectively) (Fig. 2.1.7).

Significant, in this sense, are even the signs from futures markets that, even if in 2014 they were overstated by about 7/10  $\notin$ /MWh the prices actually realized on a spot basis, report for 2015 expectations for net reduction in the spread between Italian and France, providing opposing trends for the electric prices of two countries<sup>10</sup> (Fig. 2.1.8).

The electric spot price in Europe continues to go down ...

... Italy is higher,

but less and less

distant from the rest of the continent

<sup>7</sup> The rigidity of the French generation park, composed primarily of nuclear plants are characterized by frequent breakdowns or stops in the autumn/ winter period of greater demand, promotes the formation in this part of the year of higher prices in France than in Germany, characterized instead by a more balanced mix of generation (renewable, nuclear, coal/lignite). In 2014 it further increases the frequency of hours in which the hourly prices in France and Germany were the same (51% versus 47% in 2013), but it reduces the average spread between the two countries in the six months from October to March (5.2  $\notin$ /MWh versus about  $\notin$  11.1/MWh in 2013).

<sup>8</sup> The spread between Italy and France remained at high levels, but fell by about 11 €/MWh between 2012 and 2014, rising from 28.5 €/MWh to 17.5 €/ MWh.

<sup>9</sup> The coupling with France and Austria is added, as reported in other sections of the Annual Report, to the existing one with Slovenia.

<sup>10</sup> For 2015 the price of electricity in France is estimated at around 40  $\notin$ /MWh, an increase of about 7  $\notin$ /MWh compared to the spot price of 2014. While for Italy, compared to a spot price in 2014 of around 52  $\notin$ /MWh, the forward markets provide a price for 2015 down to around 50  $\notin$ /MWh. Even more significant is the reduction in the differential when using the forward prices of the two countries n February for the year 2016: in this case, the spread would still falling, especially by virtue of the further reduction planned for the Italian futures listing (47  $\notin$ /MWh approximately).



...... Spot prices on the main European power exchanges

Fig. 2.1.8



The trends observed by volumes traded on a spot basis on the main power exchanges seems to reflect the trend of the European economies at different speeds, showing a growth of trading on the already

Electric volumes in moderate recovery with the tow of the countries of Central and Northern Europe capacious Scandinavian markets (343.7 TWh, + 4%) and German ones (262.9 TWh, + 6.8%), an increase of trading in reference to the French market, the first of the last four years (67.8 TWh, + 15.6%), and a contraction in trade in the Mediterranean area (Italy: 186 TWh, -10.4%; Spain: 170.8 TWh, -8.7%)<sup>12</sup>. In particular, it is worth noting that the decline in quantity in Italy, where, however, the liquidity remains at the highest levels of the last five years, is a return to the levels of 2012, in part reflecting

a reversal in the commercial strategies of the participants who are back to exchange bilaterally energy that last year had been transferred to the exchange (Fig. 2.1.9).

<sup>11</sup> The chart shows the settlement price of the Cal14 in its last trading day.

<sup>12</sup> In 2014, for the first time since its establishment, Epex, the stock market of reference for the spot trades of Germany, France, Switzerland and Austria, has exceeded Nordpool in terms of annual volumes traded (352 TWh vs 343.7 TWh).



#### Volumes traded on the main spot exchanges ......

Small prospects for revitalizing the continental economies may instead be inferred by the trend in volumes observed on the forward markets, everywhere characterized by growth of operations. Even in this case it is Germany to tow with its 1,337 TWh (+ 10.8%) distancing considerably the quantities traded on other countries, as indeed historically observed. They, in addition to the gradual and moderate growth recorded in Spain (86.8 TWh, + 29.8%), include France (82.7 TWh, + 307.5%) and especially Italy for their sudden increase. In the case of the latter, growth was fostered by the entry of new players on the Italian market, whose contribution pushes the futures volume at just over 163 TWh (+ 131.5%), thus resizing the decline of energy contracted on the platforms of  $GME^{13}$  (Fig. 2.1.10).



<sup>13</sup> For further information, please refer to Para. 2.4.

## **IN-DEPTH ANALYSIS 2:**

#### The extension of market coupling on the northern border

From February 24, the day-ahead market coupling of Italy with Slovenia has also been extended to the French and Austrian borders, thus taking a further step towards the realization of that unique energy market indicated by the European Commission.

The short time that elapsed<sup>14</sup> from the enlargement of the coupling does not allow highlighting significant trends, as well as the particular time frame in question – typically characterized by restrictions or reversals of price differentials on the Italian border – suggest caution in extrapolating the behaviour highlighted with reference to the future.

Finally, the recent experience of the coupling in the CWE area, which saw fluctuating significantly in the short and in the long term the frequency of price convergence and the price differential, substantially due to the structural differences between the two main markets<sup>15</sup>, recalls how the market coupling cannot encourage the convergence except in markets whose fundamentals show trends albeit locally converging. Given the above, the start of the coupling on the two new borders, in line with the expectations, does not appear to have yet produced significant effects on price differentials and on the use of the interconnections involved: the ability to import on the three borders continues in fact to be used to import in 99.29% of the hours<sup>16</sup>, with an average positive price differentials between and 9  $\epsilon$ /MWh and 20  $\epsilon$ /MWh depending on the border (Table 1), which tend to reflect the generation cost differential between the different systems. Less explanatory is the data on the share of the volumes allocated implicitly through the market coupling in the total net imports of each border, which reaches significantly higher values (between 82.47% and 99.32% on average depending on the border). Given that on the boarders coupled about 3,500 hourly average MW were allocated through annual and monthly explicit auctions<sup>17</sup>, this shows that about 84% of this capacity has been effectively reallocated through implicit auctions, benefiting from the "clauses of use it or sell it" assisting forward capacity contracts and allowing us to use these same as hedging instruments.

The most interesting data, however, emerges looking at the structure of hourly data, which suggests that the average positive price differential incorporate a frequency of price convergence that is more significant on the French border (31% of hours). In particular, in the first month of coupling, such convergence is shown predominantly during the low load hours<sup>18</sup>, when the prices of the North were more contained in the time profile, and seemed more attributable to the loss of competitiveness of the French reference and not to the gain in efficiency of the Italian one: the EPEX France listing, in fact, relatively stable in the colder months of 2014 at around  $40 \notin$ /MWh, scored in the first months of 2015 repeated increases in trend taking the highest figures in February and March (+23/+30%). By contrast, in April the situation was reversed, with an average frequency of alignment that reached 39% at peak hours, compared with the equivalent of off-peak equal to 26%. A certain degree of convergence is also recorded on the Austrian border, although with a much lower intensity (1.54%), consistent with the fact that the references to this country coincide with price levels that

<sup>14</sup> The sample analyzed refers to the period with flow date between February 25 and April 30, 2015.

<sup>15</sup> The German market is characterized by a greater penetration of wind power production, while the French one is most affected by limitations in the availability of supply especially in winter. The effect of these differences was, for example, very evident in the passage of the year, when in the last quarter of 2014 the price differential between the two markets reached  $6 \notin MWh$ , subject to double in the first months of 2015.

<sup>16</sup> There was a net export for a total of 33 hours out of the 1,559 total hours, never overlapping (6 to Slovenia, 23 to France and 4 to Austria).

<sup>17</sup> This capacity is distributed on the three borders coupled by coupling with Italy based on the following way: France about 2,800 hourly average MW, Austria about 300 MW and Slovenia approximately 400 hourly average MW, with a relative reallocation in implicit auction respectively of 83%, 70% and 99% (source data processing http://www.casc.eu/en/Market-data/Long-Term-Auctions-Results).

<sup>18</sup> During the months of February-March, the coupling on the French-Italian border is peaking at 3 hours (60%)

are significantly below the German market.

These data show that the timing of the markets, without altering the basic conveniences related to structural phenomena, is already able to promote their convergence in the hours when, without synchronization, the markets have shown conflicting and potentially inefficient results.

Explanatory in this sense is the comparison with the results recorded on the Swiss border, through which it passes a large part of the energy of French origin, but which today is still handled exclusively through explicit auctions. In this regard, the data confirm the inherent inefficiency of the mechanism of explicit auctions that allocate capacity on the Swiss border in a manner opposite to the price differential in the 15% of the hours and in a suboptimal measure compared to the difference in the 54% of the hours. It also highlights how frequently, though limited (3%), Italy has correctly imported from France at prices slightly<sup>19</sup> below those at which it imported in a rather inefficient way from Switzerland (Chart 1). This phenomenon is especially linked to the constant presence of various offers to buy on the Swiss border, connoted by a high volatility in the time profile that is not always clearly related to the outcomes of the market.

Finally it is worth noting how, in the hours marked by the convergence of prices between the North and one or more of the neighbouring borders, the integration between the Italian market and the European market appears to be limited to the north and to the French market: on the Italian side, in fact, integration also extends to other peninsular areas only for 16% of the hours (4% considering the peninsula linked to Sicily; this phenomenon is rarer), while on the European side it is also extended to the Dutch or Belgian markets only for 4% of the hours<sup>20</sup>.

Tab.1. Volumes, differentials, fees and frequencies on the three borders co	oupled with Italy – flow dates of February 25, 2015 – April 30, 2015
---	--

	lmport (GWh)	Export (GWh)	Net import (GWh)	Net import on the total	Import Coupling on the total import	Delta Price (€/MWh)	Link frequency	Diff. frequency Negative
France	3,461.35	17.78	3,443.57	37%	82.47%	8.64	30.66%	0.19%
Slovenia	842.61	0.28	842.33	9%	99.32%	14.74	21.81%	0.00%
Austria	394.21	0.54	393.67	4%	80.36%	19.78	1.54%	0.06%
Switzerland	4,517.63	59.58	4,458.05	48%	-	8.78	0.13%	14.75%
Total	9,215.81	78.18	9,137.62.1	99%	-	-	-	-

Fig.1. Comparison of price differentials between Italy and France and Italy and Switzerland in the event of economic and uneconomic use of capacity on the Swiss border



19 It means a difference between France and Switzerland - which are always negative - lower in absolute terms than 1 €/MWh. 20 Only for 10% or 1% of the hours, two or more borders respectively coupled with Italy are simultaneously aligned to North.

<sup>39</sup> 

## **2.2 ELECTRICITY MARKETS**

### 2.1 The Day-Ahead Market (MGP)

In 2014, the overall reduction in fuel costs and the well-established expansion of the renewable energy production across Europe favour a significant drop in electricity prices, down almost everywhere to the

Europe is characterized by bearish trends and prospects of increasing integration Europe favour a significant drop in electricity prices, down almost everywhere to the lowest levels of the past decade. In Italy, the PUN stood at  $52.08 \notin$ /MWh, the lowest value since the market launch, showing a differential from neighbouring countries that is still high, but falling. In this sense, the expected further decline in the cost of fossil fuels strengthens, as per the expectations expressed by futures for years to come, the prospect of a gradual recovery of competitiveness of domestic electricity, in

an increasingly integrated European electricity market and made more efficient from the extension of the coupling mechanism to a growing number of borders.

The drop to a historic low of PUN is undertaken by virtue of the second consecutive heavy year fall (-17.3%), a trend that absorbs only partially the well-established phenomena, such as the weakness of

PUN is still falling; they weigh the reduction of gas... the electricity demand and the growth of renewable energy offer, reflecting mainly the lower costs of gas generation, the reference fuel of national generation, yet in 2014 undocked from oil and more aligned to the prices, substantially convergent and significant decreasing, reported to European  $hubs^{21}$ . The close correlation between the PUN and PSV, very high between 2008 and 2011 due to the common anchor to

oil prices and which fell sharply in the following two years due to the progressive decoupling of gas and oil, has once again become very high in 2014 (83%)<sup>22</sup>, reflecting, however, this time an independent and direct connection between the spot values of power and underlying commodity (in our case, the gas) This figure is in line with the logic prevailing in the mature markets, which creates interesting prospective for the convergence of the cross-border prices in the market coupling system. The propensity to falling of the generation costs of the Italian thermal power plants, however, seems destined to last or, at least, not to be reversed, fuelled by expectations on the main references used in the indexing formulas that do not show signs of a recovery in prices, in the case of gas traded to hub, or depicting scenarios of downsizing in prices, in the case of crude oil (Fig. 2.2.1, Fig. 2.2.2).

<sup>21</sup> This phenomenon is the natural consequence of the advancement of the process of renegotiation of long-term supply, increasingly indexed to gas spot prices instead of the traditional formulas based on petroleum products in a historical period characterized by a high level of price of the latter. 22 Correlations were determined based on the time series of moving daily averages at 1 month of the PUN and the PSV and the moving daily average at 9 months of Brent. The annual average correlation over the period 2009-2011 amounted to 82% between the PUN and PSV and 87% between the PSV and

Brent. In 2014, compared with a correlation of 83% between the PUN and PSV, the correlation between the PSV and Brent was even negative.



#### Trend of the PUN and of its determinants<sup>23</sup>



23 The figure related to the FER share refers to the wind and solar sources.

In 2014, in a still weak economic environment (GDP: -0.4%) and in the presence of an advance of the processes of energy efficiency, the electricity demand on the MGP reaches its new historical low (318

...a demand for electricity at all-time lows... TWh, - 3.5%), continuing the downward path that in last five years has led to decline of about 30 TWh, while the level and share of active demand (that offered by providing an indication of the price) remain substantially at the higher values than ever, confirming a greater willingness of consumers to implement strategies to purchase

in a more cautious manner than in the past. In this context, the volumes traded on the MGP mark a new historical low at 282 TWh, extending the streak of declines that began in 2009. This contraction (-2.5% than 2013) is reflected in the variation of electricity demand detected by Terna (-3.0%), with a ratio of commercial volumes and physical volumes that, in the last three years, seems to have stabilized at around 91%, thus reflecting the consolidation of the effects that the spread of non-programmable renewable sources produced in terms of increased self-consumption not crossing the *day-ahead* market.

Volumes from renewable plants, in fact, even in 2014, despite slowing in the pace of growth, recorded a new rise and stood at their highest level ever (101 TWh, + 10.4%), exceeding for the first time sales

...and the consolidation of renewable energy offer that compresses the space for thermal generation of combined cycle plants in further sharp decline (75.1 TWh, -18.8%). The growth appears driven by hydraulic and solar renewable sources, with increases in the double digits for 2013, rise to highs of respectively 51 and 30 TWh. It intensifies the process of progressive erosion of the market space of thermal power plants, compressed between the decrease in demand and consolidation of renewable generation: in such a situation of *overcapacity*, where total volumes offered in the system go down further

to 512 TWh (-3.8%), and in which even selling offers at price at zero are increasingly rejected (from 0.4 TWh to 2.5 TWh between 2010 and 2014), sales of domestic power plants fall, in fact, around 131 TWh, expressing a market share of 12 pp less than that possessed only two years earlier (2014: 46%; 2012: 58%). (Fig. 2.2.3, Tab. 2.2.1, Tab. 2.2.2).





					Trend of	volumes on the MGP	
TWh	2010	2011	2012	2013	2014	Change '14/'13	Tab.
Demand by Terna	330.5	334.6	328.2	318.5	309.0	-3.0%	
Demand	345.1	338.2	330.5	329.8	318.2	-3.5%	
with price specification	28.3	28.2	34.8	46.5	44.8	-3.5%	
rejected	26.4	26.6	31.8	40.6	36.0	-11.2%	
Purchases	318.6	311.5	298.7	289.2	282.0	-2.5%	
% upon demand of Terna	96.4%	93.1%	91.0%	90.8%	91.3%	0.5%	
Offer	509.5	538.1	555.4	532.1	511.7	-3.8%	
Sales	318.6	311.5	298.7	289.2	282.0	-2.5%	
at zero price	218.4	210.0	201.8	214.7	212.7	-0.9%	

Sales by source and technology .....

Tab. 2.2.2

TWh	2010	2011	2012	2013	2014	Change '14/'13
Traditional sources	204.6	197.9	175.1	147.9	130.6	-11.7%
Combined cycle	149.6	138.5	113.8	92.5	75.1	-18.8%
Coal	24.4	29.3	32.3	26.2	25.0	-4.5%
Other	30.6	30.1	29.0	29.3	30.5	4.1%
Renewable sources	59.5	59.5	74.1	91.4	100.9	10.4%
Hydraulic	42.2	37.9	35.2	45.3	50.5	11.5%
flowing water	24.6	23.4	22.3	27.0	31.3	15.9%
modulation water	17.6	14.5	12.9	18.3	19.2	4.9%
Geothermal	5.1	5.4	5.3	5.3	5.6	4.3%
Aeolian	5.6	7.2	10.3	14.1	14.6	3.9%
Solar and other	6.6	9.1	23.3	26.7	30.2	13.1%
Pumping	5.8	4.1	3.0	3.3	3.6	7.2%
TOTAL	269.8	261.6	252.1	242.7	235.0	-3.2%
Abroad	48.8	49.9	46.5	46.5	46.9	1.0%
OTAL SALES	318.6	311.5	298.7	289.2	282.0	-2.5%

The decline observed on the PUN interested in a similar manner individual groups of hours. The data reveal declines that would drive prices in all hour blocks to the new historical low or close to it. Especially

Common trends in individual groups of hours during peak hours, the price fell to  $59.52 \notin MWh$ , showing a contraction identical to that of the business off-peak (49.69  $\notin MWh$ , 16.3%), placed in the last three years on values slightly higher than those recorded by the PUN on public holidays (46.51  $\notin MWh$ , - 19.8%). They perpetuated, also, the effects related to the spread of new

renewable power, raised, in particular in the convergence process between the peak PUN and the business off-peak PUN, whose ratio has gradually dropped to stabilize around 1.2 in 2013-14, a value among the lowest in Europe (Fig. 2.2.4, Fig. 2.2.7).

..... Yearly average PUN by groups of hours



The evolution of zonal sales prices confirms in the trends the framework already emerged at the national level, thus incorporating differences in levels that appear due to the different weight taken locally by the

contraction in demand and new growth of the renewable offer.

Zonal converged prices are at all-time lows, spread between North and South is in decline, Sicily remains far In particular, the selling prices of the continental zones show a substantial convergence as early as 2013, reaching its lowest level ever ( $47/52 \in /MWh$ ), with declines of over 15% over the previous year. It should be notes as in 2014 the differential between the prices of the North and South, progressively extended over time under the pressure of the fastest growing of the renewable offer of the South, records the first decrease

from 2011 (2.97  $\in$ /MWh, 1.4  $\in$ /MWh). This reduction is mainly concentrated in the last quarter of the year, when the spread between the two zones is reversed (North-South:

 $-0.46 \in /MWh$ ), due to the greater contribution of renewable energy (especially water) and import from abroad found in the North. However, the nature of these phenomena would seem transient and cyclical, and therefore not such as to envisage a significant change of the trend of the differential for the next few years<sup>24</sup>.

<sup>24</sup> The first quarter of 2015 shows a price level higher than that of the North and South of about 2.6 €/MWh.

Compared to the trends of the island prices, 2014 consolidates the alignment of Sardinia at the lowest levels expressed by the continent: only 5  $\notin$ /MWh separate the average island price from that of South (they were over 20  $\notin$ /MWh in 2009). They appear therefore finally settled the occasional problems of the past linked to a few hours short of supply and reduced capacity on transit with the continent. Essentially unchanged phenomena are found vice versa in Sicily, where the price (81  $\notin$ /MWh,-12%) just scratches the delta price with the most competitive zone that, therefore, remains above 30  $\notin$ /MWh. In 2014 the island separates from the mainland in imports for 83% of hours with an average differential compared to the PUN of 36  $\notin$ /MWh, but close to 60  $\notin$ /MWh in the presence of a scarce internal offer (about 20% of hours)<sup>25</sup> (Fig. 2.2.5, Tab. 2.2.3, Tab. 2.2.4, Tab. 2.2.5).



Zonal volumes on the MGP – 2014 ...... Tab. 2.2.3

TWh	Demand		Pure	Purchases		Offer		Sales		s rejected	•
North	159.9	(-0.1%)	156.5	(-0.0%)	235.0	(-2.0%)	113.2	(-4.2%)	121.7	(+0.1%)	
Center North	28.1	(-6.4%)	25.9	(-9.3%)	36.1	(+8.2%)	18.4	(-0.2%)	17.7	(+18.6%)	
Center South	42.5	(-6.1%)	40.6	(-8.3%)	64.7	(-16.6%)	28.9	(-4.4%)	35.7	(-24.4%)	
South	26.9	(+2.6%)	26.0	(+1.1%)	76.6	(-7.2%)	47.8	(+0.5%)	28.8	(-17.6%)	
Sicily	18.7	(-4.9%)	18.0	(-6.6%)	33.4	(+1.2%)	16.9	(-7.0%)	16.5	(+11.1%)	
Sardinia	11.7	(+6.4%)	11.4	(+4.8%)	15.9	(-0.0%)	9.8	(-3.2%)	6.1	(+5.6%)	
Abroad	30.5	(-18.8%)	3.5	(-8.5%)	50.0	(+0.2%)	46.9	(+1.0%)	3.1	(-11.0%)	
Italy	318.2	(-3.5%)	282.0	(-2.5%)	511.7	(-3.8%)	282.0	(-2.5%)	229.7	(-5.5%)	

() In brackets, the change of the previous year

<sup>25</sup> This spread has been drastically reduced (reduced to just under 9  $\in$ /MWh in the first quarter of 2015) with the entry into force of the AEEGSI resolution 521/2014/R/Eel establishing a de facto regime administered for the relevant plants of the island until the commissioning of the Rizziconi Sorgente cable.

#### ......... Zonal sales by source and technology - 2014

Tab. 2.2.4

	North		Center	Center North		Center South		South		Sicily		nia
	MWh	Var	MWh	Var	MWh	Var	MWh	Var	MWh	Var	MWh	Var
Traditional sources	6,132	-20.2%	712	-6.4%	2,133	-5.3%	3,738	-0.4%	1,354	-12.8%	836	-5.1%
Gas	4,079	-24.6%	608	-8.4%	394	-41.7%	1,789	-8.3%	1,253	-11.2%	499	+3.1%
Coal	983	-20.4%	29	-22.4%	1,523	+13.3%	-	-	-	-	324	-14.0%
Other	1,070	+2.5%	75	+24.8%	217	-7.0%	1,949	+8.1%	101	-28.8%	13	-34.7%
Renewable sources	6,440	+17.2%	1,387	+3.3%	1,119	-1.5%	1,716	+2.6%	571	+10.6%	284	+3.3%
Hydraulic	4,538	+14.3%	385	+1.8%	465	+2.6%	274	-2.1%	63	+47.6%	41	-15.9%
Geothermal	-	-	635	+4.4%	-	-	0	-96.1%	-	-	-	-
Aeolian	7	-29.4%	15	+11.9%	285	-5.0%	870	+5.2%	335	+11.3%	158	+0.9%
Solar and other	1,896	+25.3%	352	+2.6%	369	-3.8%	572	+1.3%	173	+0.4%	85	+21.9%
Pumping	353	+14.6%	1	+52.2%	50	-23.7%	-	-	1	-63.7%	2	-36.1%
Total	12,926	-4.2%	2,100	-0.2%	3,303	-4.4%	5,454	+0.5%	1,926	-7.0%	1,123	-3.2%



				Offer re				
	Transi	t ROSN-SICI	High (>1,4	76 MWh)	Low (>1,47	6 MWh)	Total	
	lu hihitad	% hours	0.4%	(1.4%)	0.8%	(1.9%)	1.2%	(3.4%)
		Delta Pun, €/MWh	53.84	(+45.24)	73.57	(+80.12)	67.56	(+65.27)
Hours in which Sicily	Notinhibited	% hours	63.4%	(52.4%)	18.7%	(29.6%)	82.1%	(82.0%)
is less competitive		Delta Pun, €/MWh	29.59	(+26.18)	56.47	(+48.42)	35.70	(+34.20)
	Total	% hours	63.8%	(53.9%)	19.5%	(31.5%)	83.3%	(85.4%)
	10101	Delta Pun, €/MWh	29.73	(+26.69)	57.20	(+50.37)	36.16	(+35.43)
Hours in which Sicily	Total	% hours	16.3%	(13.9%)	0.4%	(0.7%)	16.7%	(14.6%)
is more competitive	10101	Delta Pun, €/MWh	-8.07	(-9.24)	7.18	(+4.75)	-7.71	(-8.54)
Tatal	Total	% hours	80.1%	(67.7%)	19.9%	(32.3%)	100.0%	(100.0%)
Total	Total	Delta Pun, €/MWh	22.03	(+19.33)	56.22	(+49.33)	28.84	(+29.01)

() In brackets, the values of the previous year

The concentration of renewable offer in the south, especially in terms of the share on the local demand, produces impacts on other price indicators.

Local trends differentiated in terms of volatility, time profile and minimum prices are confirmed In the first instance, it causes a difference in volatility, which in 2014 in the North is at the same levels of PUN (8%), while in the South it continues to grow in line with that of the island regions, historically higher (around 18%).

Secondly, it promotes a ratio between peak and off-peak prices, lower on the islands and in the South (1.07/1.15) than in the North (1.25).

Finally, the bearish impact that the photovoltaic production exerts on prices during the day has encouraged the reduction of the differential of these night-time prices, with an increase in the number of sessions of the MGP where day-time prices are on average lower than the night-time ones, and a rate growth of zero in the prices per hour, a phenomenon that has greatly intensified in 2014 than in the past, affecting all areas except the North (South: +50 hours, Sicily: +72 hours) (Fig. 2.2.6, Fig. 2.2.7, Tab. 2.2.6).



Change '14/'13 2.4 +0.2% PUN 2.2 +1.0% North 2.0 +0.7% Central North 1.8 -2.5% Central South 1.6 -0.5% South 1.4 +5.1% Sicily 1.2 -10.5% Sardinia -12.0% -8.0% -4.0% 0.0% 4.0% .0% 1.0 2005 2007 2008 2010 2011 2012 2013 2014 2006 2009 📥 Sardinia 🔶 PUN Sicily North South



..... Prices at zero and day-time/night-time price reversals on the MGP

Tab. 2.2.6															
•		PU	N	Nor	North		Central North		Central South		South		Sardinia		ly
	Number of hours with zero price	-	(2)	-	(4)	61	(20)	71	(48)	139	(89)	71	(48)	163	(91)
	Number of sessions with at least an hourly rate to zero	-	(1)	-	(2)	21	(9)	25	(15)	37	(24)	25	(15)	42	(28)
	Number of sittings with daytime prices < nightime prices	106	(86)	82	(74)	114	(107)	132	(107)	160	(141)	162	(116)	106	(113)
	% sittings with daytime prices < nightime prices	29.0%	(23.6%)	22.5%	(20.3%)	31.2%	(29.3%)	36.2%	(29.3%)	43.8%	(38.6%)	44.4%	(31.8%)	29.0%	(31.0%)
	Average difference in the sittings with daytime prices < nightime prices. € / MWh	-6.90	(-14.92)	-7.08	(-16.11)	-8.26	(-14.69)	-8.34	(-14.85)	-9.03	(-14.64)	-14.18	(-15.63)	-13.87	(-14.19)

() In brackets, the values of the previous year

2014 does not seem to be characterized by any major changes in terms of market concentration. The improvement in competitiveness observed over the last few years, favoured, among other things, by the

Market concentration: slight worsening of the indicators, but decrease of the weight of the major participants transformations of the generating park and the structural decline in demand, seems to have absorbed the main indicators, whose modest changes appear due to a further consolidation of the trends in place (CR3, CR5, ITM Ccgt) or purely local phenomena (IORQ).

In particular, the CR3 and CR5, which in the previous three years appeared solidly stabilized to respectively around 50% and 60%, down to their historical lows (44.7%

and 57.7%), under the effect of the higher and widespread offer at variable zero cost. Due to the same phenomenon, the decline of the Marginal Technology Index of the combined cycle plants (ITM Ccgt), which, upon completion of a multi-year path, are gradually pushed to the margin expansion of renewables (until 2013) and now out market.

On the other hand, the share of guaranteed sales in the absence of competition (IORq), in steady decline since the market launch (from 30% in 2005 to a historical low of 7.5% in 2013), marks the first time a slight increase, however, less than one percentage point, thus reaching 8.1%. In view of the substantial annulment of the indicator in the *North*, the modest trend of recovery takes place by virtue of small local variations, concentrated in the *South* (from 4.1% to 5.9%) and the *Central South* (from 22.6% to 27.3%). In this context, it stands out only the increase of the Marginal Index Operator (IOM) of Enel, the main price-maker, which returns substantially to pre-2013 (21%), thus gaining seven percentage points on an annual basis, even for the decrease in the share of E.On (- 3 p.p.) (Fig. 2.2.8; Tab. 2.2.7).



# Concentration indicators on the MGP – 2014 .....

Indicator	То	tal	North		Centra	Central North		Central South		South		Sicily		dinia
HHI Offers			1,958	(1,918)	4,212	(4,035)	5,008	(5,192)	2,007	(2,254)	3,131	(3,052)	3,629	(3,643)
HHI Sales			1,456	(1,285)	2,838	(2,810)	4,094	(3,452)	2,095	(2,050)	2,628	(3,205)	4,311	(4,141)
CR3	44.7%	(49.6%)	46.9%	(48.9%)	68.6%	(78.8%)	74.7%	(75.8%)	59.0%	(68.1%)	58.1%	(84.7%)	79.9%	(95.9%)
CR5	57.7%	(61.1%)	62.7%	(64.4%)	84.6%	(89.6%)	83.8%	(83.4%)	74.4%	(82.1%)	74.4%	(93.9%)	95.1%	(98.0%)
IOR Quantity	8.1%	(7.5%)	0.4%	(0.6%)	24.1%	(25.1%)	27.3%	(22.6%)	5.9%	(4.1%)	9.1%	(11.2%)	19.7%	(21.3%)
IOM 1° Oper	21.0%	(14.0%)	15.0%	(6.6%)	19.9%	(10.5%)	21.7%	(14.9%)	25.0%	(16.6%)	65.0%	(72.2%)	25.9%	(18.2%)
ITM Ccgt	53.5%	(60.8%)	55.1%	(61.9%)	51.8%	(58.5%)	51.0%	(60.0%)	49.0%	(58.9%)	79.3%	(82.6%)	45.2%	(56.0%)

() In brackets, the values of the previous year

#### 2.2 The Intra-Day Market (MI)

Also in 2014, it's confirmed the close correlation between the dynamics of the purchase prices of the Intra-day Market and that of the PUN on the MGP, consolidated over the years (Fig. 2.2.9). It continues,

Price dynamics are in line with the PUN, down the volatility on the MI3 and MI4 in contrast with the MGP in fact, the downward trend in purchase prices on the Intra-day Market that, with declines of 16-18%, updates their historic lows for the second consecutive year. The average price in the four sessions varied between 51.03  $\in$ /MWh of the MI2 and 59.46  $\in$ /MWh of the MI4<sup>26</sup>.

The above shows, for the first time in 2014, a substantial alignment of the MI1 with the PUN (+ 0.1%) and lower levels in the three subsequent sessions, including the MI3

showing the quote far from the price expressed by the MGP  $(-4.7\%)^{27}$ .

![](_page_64_Figure_7.jpeg)

<sup>\*</sup> Data related to MI1 and MI2 refer to the last two months of the year In brackets, the price on the MGP calculated in the same hours

In terms of price volatility, the opposite trend recorded in the top two markets and subsequent ones reinforces the trend of gradual reduction of the gap between the levels of the four MIs (range: 9.3% - 15.3%), already confirmed, moreover, always higher than the corresponding value observed on the MGP. The dynamics are in line with those of the PUN on the MI1 and on the MI2, where volatility undergoes a slight change to the upside (+ 0.7/+ 1.3 p.p.), instead expressing discordant variations of the MGP on the MI3 and MI4, whose volatility is confirmed by the downturn began last year (-0.7/-1.2 p.p.). (Fig 2.2.10).

<sup>26</sup> The MI3 and MI4 refer to a limited number of hours of the day (13-24 and 17-24, respectively), characterized by a greater demand and the greater contribution of thermal sources and, therefore, potentially higher prices.

<sup>27</sup> The calculation was made for the same relevant periods.

![](_page_65_Figure_1.jpeg)

#### Purchase price volatility: annual trend ......

\* Data related to Ml1 and Ml2 refer to the last two months of the year In brackets, the price on the MGP calculated in the same hours

Results similar to those observed on a national basis are found on the zonal prices, already confirmed as closely related to the corresponding prices of the MGP, in terms of level, dynamics and differences

between them. Prices on the four MIs are indeed in line with or slightly below the MGP in all areas (-1% / -2%), with the only minimum exceptions of *Sicily* on the MI2 and on the MI4 (+ 3%, + 5%) and *Sardinia* on the MI4 (+ 4%). By virtue of this phenomenon, even on the MI, the continental prices and the *Sardinia* ones then descend to their lowest level ever (-13/-19% on all four markets) reaching a historical

Correlation with the prices of the MGP remains strong even in zones

low only on the MI1 in *Sicily* due to less intense declines (-9/-13% on the first three markets, -4% on the MI4). Replicating the structure of the MGP, the spread between the prices of the continental zones – historically aligned within each session – and that of *Sardinia* confirms to be minimum on the first three markets (about + 2/+ 3  $\in$ /MWh), but wider in terms of growth on the MI4 (10  $\in$ /MWh, + 4  $\in$ /MWh for 2013). Yet completely detached from the rest of the System, however, the price of *Sicily* confirms a gap of about 30  $\in$ /MWh from peninsular areas on the MI1 and the MI2. This figure rises to 40  $\in$ /MWh on the MI3, to get close to 60  $\in$ /MWh on the MI4 (+10  $\in$ /MWh less than in 2013) (Fig. 2.2.11).

......... Zonal prices in the MI sessions

![](_page_66_Figure_1.jpeg)

\* The figure refers to the last two months of the year

The total volume of electricity traded in the four sessions of the MI, after the peak of 2012, mark the second consecutive decline, although more modest than that recorded in 2013, reaching22.8 TWh (- 2.4%). The

The volumes are still characterized by still weak reduction, focused on the MI4 ... reduction was concentrated in particular on the last sessions of the market (2.1 TWh, -15.5%), the one that in 2013, at the all-time high, had contributed most to contain the overall downsizing of trade in the year. The decline recorded on the MI1 (12.2 TWh, - 4.5%), partly offset by growth in the MI2 based on the highest value ever (6.5 TWh, + 6.6%) is weaker, while trades on the MI3 (2.0 TWh, + 0.1%)

confirm to be stable. (Fig. 2.2.12).

![](_page_67_Figure_1.jpeg)

\* Data related to MI1 and MI2 refer to the last two months of the year.

Virtually, the share of the four markets on the total is unchanged, with the MI1 that continues to be the most liquid, stable at 54% (-1 p.p.), with the MI2 that rises to 28% (+2 p.p.) and with the MI3 and MI4 matched to 9% (stable the first, -2 p.p. the second).

The decline of trades both on the sales side and on the purchases one focused, locally, in the central and southern areas, being more intense in the *South* (-15.4%) on the first and in the *Central South* 

(-21.6%) on the second (Tab. 2.2.1). It's confirmed the decline in sales also in the *North* (-3.2%), where instead purchases grow (+ 4.5%). In contrast, however, the islands, with trades in strong expansion, record all-time highs on both sides in *Sicily* and only on purchases in *Sardinia*. The highest value ever characterizes even foreign sales.

...in central and southern areas...

	Zonal	volumes	
--	-------	---------	--

Tab. 2.2.8

	2010 2011		20	2012		013							
TWh	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases		Sales	Pu	irchases	
North	8.4	7.5	13.2	12.4	15.4	14.4	10.9	10.7	10.5	(-3.2%)	11.2	(+4.5%)	
Central North	1.1	1.0	1.3	1.3	0.7	1.6	0.9	1.3	1.2	(+33.5%)	1.4	(+0.7%)	
Central South	1.6	1.5	1.8	2.1	2.6	2.6	3.1	3.0	3.0	(-4.5%)	2.3	(-21.6%)	
South	1.5	2.8	3.0	3.9	3.9	3.7	5.3	4.6	4.5	(-15.4%)	4.3	(-6.6%)	
Sicily	1.4	1.0	1.8	1.0	1.5	1.3	1.6	1.4	1.9	(+15.1%)	1.8	(+26.2%)	
Sardinia	0.6	0.7	0.5	0.6	0.3	0.5	0.4	0.9	0.5	(+35.7%)	1.0	(+3.3%)	
Italy	14.6	14.4	21.7	21.2	24.4	24.3	22.2	22.0	21.6	(-2.8%)	22.0	(-0.2%)	
Abroad	0.0	0.2	0.2	0.6	0.7	0.9	1.2	1.3	1.2	(+6.4%)	0.8	(-37.6%)	
Total	14.6	14.6	21.9	21.9	25.1	25.1	23.3	23.3	22.8	(-2.4%)	22.8	(-2.4%)	

() In brackets, the changes compared to last year

Almost unchanged it's the zonal distribution of the volumes, with the share of the North that, at around 60% in the two years of maximum rise of the market, but historically more than 50% on both sides, is confirmed also this year less than half the total, respectively 49% (+3 p.p.) in terms of energy purchased and 46% (-1 p.p.) of energy sold. Among other areas, the share of the South on the sales side is reducing, decreased to 20% (-3 p.p.) confirming still higher than that of previous years (average of 12%), and the Central South on the purchase side, which is reported to 10 % (-3 p.p.) in line with the past. Weight in foreign sales exceeds 5% for the first time.

Moving the volume analysis from the zonal perspective to that by source of energy generation, it is observed as a reduction in sales has affected only the thermoelectric sector (-18.4%), which already was

.. and the thermoelectric sector

characterized by declines close to 20% in the two previous years. This source appears sharply scaled, as in 2013, also on the purchase side (-14.6%), where there is also the decrease in pumping (-16.3%). The renewable sources towed still

from hydroelectric and wind sector are still expanding and at the highest values ever on both sides (Tab. 2.2.9).

Although as in previous years, also in 2014, the volumes traded by the holders of entry points have represented the largest share of both sides, thus it does not stop the expansion of the volume traded by consumers that, with 3.3 TWh sold (+ 79.1%) and 8.4 TWh (+ 24.0%) purchased, lead to higher valuesever, of respectively 18% and 32% of the total injected and withdrawn, both characterized by an increase of 7 percentage points. The latter trend shows that, in a context of economic uncertainty and volatile energy prices, for those participants, the MI represents an increasingly important tool for flexibility, as the scheduled imbalance on the PCE (Fig. 2.2.15 and Fig. 2.2.17).

#### Tab. 2.2.9 2010 2011 2012 2013 2014 TWh Sales Purchases Sales Sales Sales Purchases Purchases Purchases Sales Purchases Thermal-electric 8,494 8,693 15,531 13,812 18,719 13,615 15,244 10,940 12,445 (-18.4%) 9,345 (-14.6%) Gas 6,266 4,359 12,799 8,108 15,860 9,104 12,212 6,971 9,996 (-18.1%) 5,197 (-25.4%) Coal 1,719 1,046 1,461 2,088 1,515 1,417 1,145 (-24.4%) 1,604 (+13.2%) 1,269 1,249 Other thermal 2,792 1,182 2,873 1,463 3,616 1,609 1,517 2,552 1,303 (-14.1%) 2,544 (-0.3%) Renewable sources 1.978 2.864 1.384 2.423 1.478 3.348 3.791 2.804 (+7.1%) 1.186 2.618 (+13.2%) Geothermal (-86.2%) \_ 0 4 1 11 12 (-91.6%) 2 \_ 1 Natural hydro-electrical 1.978 1.186 2.862 1.351 2.406 1.393 2.728 2.036 2.075 (+1.9%) 2.936 (+7.6%) Aeolian 2 32 13 84 593 559 837 (+41.1%) 716 (+28.1%) Solar and other (+13.8%) 0 15 10 17 (+11.5%) 12 Italy 4.006 3.896 2,855 2.845 2,549 2.305 1,743 1,638 2.007 (+15.1%) 1,371 (-16.3%) Wholesalers 114 610 416 3,198 731 6.860 1.854 6.800 3,321 (+79.1%) 8.430 (+24.0%) Total 21,995 (-0.2%) 14,592 14.384 21,667 21,239 24,423 24,258 22,189 21,564 (-2.8%) 21,950 () In brackets, the changes compared to last year

Purchases and sales by source

The increased consumer activity, which began in 2011 with the departure of the MI3 and MI4 markets, is also reflected in the increase of production downstream of the MI that remains stable at around 2%

The increase of the production downstream of the MI is stable at around 2%

(Fig. 2.2.13).

![](_page_69_Figure_1.jpeg)

#### Sales and purchases of wholesalers and changes in the immission programs downwards MI

In line with previous years, in account holders continue, also in 2014, the increase in net sales from traditional thermal-electric generation plants, although at a slower pace than in the two previous years (+354 MWh hourly average). They confirmed also increasing those from renewable energy plants (+113 MWh average) and pumping (+73 MWh average). News of the year is the balance instead, for the first time, positive with reference to the foreign sales (+44 MWh hourly average), connected to this all-time high of energy injected into the system; while in line with the past, the wholesalers continue to maintain a positive balance of their withdrawal programs (583 MWh hourly average) (Fig. 2.2.14).

![](_page_69_Figure_4.jpeg)

It does not stop, finally, in 2014. the trend of expansion of market competition, this year also extended to the MI4, which led the percentage of sales/purchases hold by the top three participants (CR3) on all

Competitiveness in all markets is at the maximum levels four markets to the lowest levels. Just on the MI4 it's recorded the most significant improvement, with the indicator that after rebounding last year fell to 41% (-16 percentage points) on the purchases side and 48% (-14 p.p.) on the sales one. Downturns of 3/10 p.p. characterize the other three sessions regarding electricity purchased and 8-9 p.p. regarding the one sold (Fig. 2.2.15).

![](_page_70_Figure_4.jpeg)

The comparison with the concentration of sales on the MGP, also declined (-5 p.p.) and at historic lows, the last year shows an acceleration in the process of convergence with the CR3 of the MI3 pretty much in line with that of the MGP.

As of February 11, 2015 the MI has been enriched by a new market. Based on the new structure, the new market, which took the name of MI3, has become the first among Intra-day markets where negotiated

In 2015 flexibility options increase with the launch of the new intra-day market energy has delivery on the day of bargaining, thus anticipating the MI4 (former MI3) and the MI5 (former MI4). Its establishment enhances the flexibility options, the ability to trade energy, as well as to adjust the programming of the systems provided by the MI, thus covering a time period before non-negotiable on the same day (9-12), and strengthening the operation during 13-24. The data available so far record since

the new market launch increased the total volumes circulating on the MI (+ 11%), not due to seasonal factors, but partially a result of the growth of the MI1, in part precisely of the appreciation shown by the participants to the MI3, on which the contracted energy was well higher than the decrease in the liquidity of the MI4 (former MI3), in part probably absorbed by the new market.

### 2.3 The OTC Registration Platform (PCE)

In 2014 there was a stabilization of the process of gradual growth observed on OTC Registration Platform since its inception, indicating, in this particular phase of the economic cycle, the full maturity. Recorded

transactions, in fact, continue to update their all-time high based on growth rates that are however scaled down compared to the past; turnover<sup>28</sup> is characterized by stop of the constant upward progression of these years, highlighting the bedding on

maximum values in use of the platform exclusively for reasons of trading; scheduled imbalance confirms to be a useful flexibility instrument, reaching the highest injection and withdrawal values.

The transactions recorded on the OTC Registration Platform (PCE) with injection/withdrawal in the year 2014 amounted to 383.8 TWh, with an increase of 3.5% over the previous year. The growth rate, although

it has also highlighted a further slowdown this year, confirms the steady rise of the transactions recorded on the platform, which every year since 2007, marked a new historical record (Fig. 2.2.16).

It slows the growth of the volumes that mark, however, a new all-time high

![](_page_71_Figure_8.jpeg)

## Registered transactions, net position and turnover ......

by The dynamics are stabilized

<sup>28</sup> Turnover means the ratio between recorded transactions and net position.
In 2014 transactions under contracts concluded on the Forward Electricity Market (MTE), for the first time since it began, marked a decrease on an annual basis (-13.9%) reaching 39.5 TWh, equal to 10.3% of the total registered (12.4% in 2013). No transaction was recorded on the platform instead Delivery of Energy Derivatives (CDE), as well as in the three previous years. The remaining 89.7% of the transactions recorded originated from contracts concluded by the participants outside the regulated market (bilateral contracts) amounted to 344.3 TWh, up 6.0% for 2013. Among these, *non-standard contracts*, reaching 229.0 TWh, were the most used by the participants (59.7% of the total), showing a growth rate of 7.2%; *baseloads* follow with 93.7 TWh (-2.4%).

Even in 2014 the net position of the electricity accounts, determined from all the transactions recorded, confirms the upward trend shown in previous years and with 208.7 TWh updates again the historical record (+ 5.9% for 2013).

In this context, the *turnover* for the first time since the platform launch moves back slightly on an annual basis to 1.84 (-0.04 for 2013), indicating a lower tendency for participants to use the platform exclusively for reasons of trading (Fig. 2.2.17).

The physical schedules recorded in the input accounts, upon the first increase after two consecutive declines, in 2014 amounted to 96.1 million MWh (+ 16.9% for 2013).

The programs recorded in the withdrawal accounts, however, confirming the upward trend shown in 2013, update the all-time high to 162.6 TWh (+ 3.6%).

TWh 220 200 46 1 180 40.1 55.4 37.8 73.7 46.3 160 112.6 114.8 34.5 24.3 140 26.4 10.5 18.4 120 30.6 56.9 100 62 6 49.2 3.6 47.4 12.0 80 29.5 96.1 60 04.4 82.3 193 70.2 12.3 78.6 40 20 0 2005 2010 2011 2014 2006 2007\* 2008 2009 2012 2013 Injection unbalancing Withdrawal unbalancing Injection schedules Withdrawal schedules \* Data from May 2007

..... Registered physical schedules and scheduled deviations

Scheduled imbalances are still growing

In this context it is observed, compared to a net position still on the increase, growth of the overall scheduled imbalance, still a useful flexibility instrument for the participants.

In particular the imbalance on the input side, rising steadily since the launch of the platform, although signs in 2014 a reduction of 2.0%, stood still to very high values with 112.6 TWh. This system is confirmed, therefore, still an efficient response to the ongoing crisis of thermoelectric overcapacity, allowing optimization of the planning of the park in the short term in response to commitments of bilateral agreements in the medium-long term (Fig 2.2.13).

However, the imbalances on the withdrawal side grow, after a decline in 2013, and back to rise reaching 46.1 TWh (+ 14.8%); therefore, it reduces the differential, rising steadily since 2010, of the balance between input and withdrawal schedules compensated for by sales of the regulated market.

In such conditions, it is observed an improvement in the indicator of the degree of concentration of the scheduled input imbalance with the CR3 that is reduced by 3.5 p.p. compared to a share of the first participant that is almost stable (+0.4 p.p.). Even on the withdrawal side, it's confirmed an indicator reduction losing 10.5 p.p. (Fig. 2.2.18).



### 2.4 The Forward Electricity Market (MTE)

In 2014 there was a marked expansion of the Italian forward market, with total volumes traded rising to 683 TWh, thus marking an annual increase of over 112 TWh. In such conditions, the *churn ratio*<sup>29</sup> stood at 1.9, a

The Forward Electricity Market is confirmed gradually expanding value significantly higher than the one in the previous year (1.79 in 2013), reinforcing the trend emerged in the last years of progressive approach to levels seen in the markets of Central Europe. The increase was particularly significant for the volumes traded over the *counter*<sup>30</sup> (520 TWh, approximately +20 TWh), which continue to constitute the bulk of the

forward energy contracted (91% of total volumes), also incorporating an ever increasing level of the recordings made for the purpose of clearing (110 TWh, approximately +76 TWh). As regard as the energy traded directly on the regulated markets, after the contraction recorded in the past year, there has been a recovery (53 TWh, approximately +17 TWh) (Tab. 2.2.10).

Tab. 2.2.10								
•	TWh	2009	2010	2011	2012	2013	2014	∆ % 2014 <b>/</b> 2013
	Physical market (Terna)	320.3	330.5	334.6	328.2	318.5	309.0	-3.0%
	Spot market (IPEX)*	225.0	214.1	202.2	203.8	230.2	208.6	-9.4%
	Forward market	265.9	401.7	543.1	563.8	536.6	573.1	19.8%
	MTE Exchange	0.1	6.3	31.7	30.4	8.0	18.4	130.1%
	MTE OTC clearing	-	-	1.8	24.6	33.1	13.9	-58.1%
	Other regulated markets	15.8	15.4	11.7	13.8	28.4	34.6	21.9%
	Other OTC regulated markets	-	-	-	-	1.1	96.2	8717.1%
	OTC (**)	250.0	380.0	498.0	495.0	466.0	410.0	-12.0%

#### ...... Yearly forward-traded volumes by year of trading

Source: Based on data from GME, Italian Stock Exchange and European brokers

\* It includes the volumes traded on the MGP net of bilaterals and on the MIs

\*\* Estimate based on data of the main European brokers excluding contracts registered for clearing

In this context, the figure for the Forward Electricity Market operated by GME, whose total trade is down to 32.3 TWh (-21.5%), highlights contrasting dynamics between the regulated market and *OTC clearing*. On the

Liquidity of the MTE: strong recovery in stock exchange volumes that exceed the OTC records one hand, the volumes traded on the first mark a significant increase (18.4 TWh, + 130.1%), which reports the data to its all-time highs of 2011-12; a figure that is strengthened by the growth observed on the contracts (from 2,171 MW in 2013 to 2,944 MW) and the number of pairings made on the MTE (increased to 500 units compared to 342 in the previous year). On the other hand, the energy from bilateral contracts is more than halved (13.9 TWh, -58.1%),

reversing the current trend in recent years characterized by volumes from bilaterals registered for *clearing* purposes steadily growing compared to a reduction in the volume of the exchange. (Fig. 2.2.19, Tab. 2.2.11).

With reference to the distribution of trades by product, in 2014 it detects a resumption of appreciation from participants for *baseload* products, whose number of combinations made on the market rose to 488 units (+352

The baseload products establish themselves as the most appreciated by participants for 2013), compared with a decided setback in trading on *peakload* products (12; -194). This trend is also evident when one considers the number of contracts concluded with the *baseload* products (2,829 MW, +2,150 MW) that return to settle at values significantly higher than the *peakloads* (115 MW -1,377 MW).

<sup>29</sup> Churn ratio is the ratio between the energy traded and the underlying physical item.

<sup>30</sup> The figure includes volumes contracted over the counter and then recorded on the clearing house in order to cancel the counterparty risk.

As regards the type of products traded by duration of *delivery*, both on the market and bilaterally, it is confirmed the greater liquidity of annual products, although it is reduced compared to a year ago their share of the total (79% vs. 90%) for the benefit of those products with shorter *delivery*, with particular reference to monthly items with delivery in M + 1 (13% vs. 3%) (Fig. 2.2.19, Tab. 2.2.11, Tab. 2.2.12).



#### Forward-traded volumes by year of trading ......

Tab. 2.2.11

	2010	2011	2012	2013	2014	∆ % 2014/2013
Contracts (MW)						
Total	2,366	8,228	12,697	6,096	4,550	-25%
Baseload	1,146	6,018	11,633	4,604	4,410	-4%
Peakload	1,220	2,210	1,064	1,492	140	-91%
Volumes (TWh)						
Total	6.3	33.4	55.0	41.1	32.3	-21%
Baseload	5.0	29.8	52.3	36.7	32.2	-12%
Peakload	1.3	3.7	2.7	4.4	0.1	-99%
Number of combinations						
Total	360	665	953	342	500	46%
Baseload	177	478	884	136	488	259%
Peakload	183	187	69	206	12	-94%
Number of OTC contracts						
Total	0%	5%	45%	81%	43%	-38 p.p.
Baseload	0%	6%	45%	90%	43%	-47 p.p.
Peakload	0%	1%	46%	0%	29%	+29 p.p.

Year 2014		Mon	thly				Quarterly	,		Yearly	
Advance	M + 3	M + 2	M + 1	Total	Q + 4	Q + 3	Q + 2	Q + 1	Total	Y + 1	Total
Contracts (MW)	0.0%	2.6%	13.1%	15.8%	0.0%	0.7%	0.5%	4.5%	5.7%	78.5%	100.0%
Volumes (TWh)	0.0%	0.3%	1.2%	1.5%	0.0%	0.2%	0.1%	1.3%	1.6%	96.9%	100.0%
Share of combinations	0.2%	3.8%	16.8%	20.8%	0.0%	1.2%	1.0%	5.2%	7.4%	71.8%	100.0%
Share of OTC contracts	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	4.7%	3.7%	44.3%	43.0%
Year 2013		Mont	thly				Quarterly			Yearly	
Advance	M + 3	M + 2	M + 1	Total	Q + 4	Q + 3	Q + 2	Q + 1	Total	Y + 1	Total
Contracts (MW)	0.2%	2.1%	3.4%	5.7%	0.1%	0.7%	2.0%	1.3%	4.1%	90.2%	100.0%
Volumes (TWh)	0.0%	0.2%	0.3%	0.6%	0.0%	0.2%	0.5%	0.3%	1.0%	98.4%	100.0%
Share of combinations	0.0%	1.8%	9.4%	11.1%	0.3%	2.6%	7.3%	4.7%	14.9%	74.0%	100.0%
Share of OTC contracts	100.0%	76.9%	27.5%	49 7%	0.0%	0.0%	0.0%	0.0%	0.0%	81.6%	80.5%

#### Liquidity of trades on the MTE by duration and time ahead of delivery

Although in 2014 the analysis of the prices of the MTE is characterized by different difficulties related primarily to the low frequency of matching, the prices quoted by the forward market of GME for the

Forward prices are aligned on the regulated markets with further downward expectations

Tab. 2.2.12

annual *baseload* product with delivery in 2015, which covers about 72% of pairings, confirm the substantial alignment to the levels expressed by the major brokerage platforms and other regulated markets, evidenced by an average absolute deviation positioned around  $\in$  0.1/MWh.

The trend observed during the year on the MTE reveals a sharp drop in the price of annual *baseload* and *peakload* products in the first part of 2014, in correspondence of a decided decline even from the *spot* price, and close to the delivery, when likely began to weigh in participants' expectations the drastic reduction in oil prices, whose impact seems to be reflected also on the further bearish expectations expressed by markets in the first part of 2015 (Fig. 2.2.20).



## **3 GAS MARKETS**

The trends observed in the Italian gas market in 2014 confirm the main trends that emerged in 2013. On the one hand, the continuing economic crisis and the continued growth of renewable energy sources have led to a further drop in thermoelectric consumption that, together with the significant contraction in the gas volumes for civil consumption, was the main driver in the new decline in the national gas demand. On the other hand, it's confirmed the strong growth in the extra-balancing of the volumes traded on the *ex post* balancing market (i.e. G+1 sector), whose liquidity would otherwise be slightly down. Finally, there was a significant growing of the TTF in the formation of the marginal PB-GAS price, increasingly related to the PSV trends and, therefore, the pricing strategies implemented by the participants in different sectors.

In this scenario, it should be noted, since the summer, the sporadic but increasing use by the Head of balancing of the *ex-ante* balancing market (i.e. G-1 sector), which, despite a strong minor importance in terms of volumes traded, has obviously changed the volumes traded on the G+1 sector, but also induced relevant signals in terms of price. This connection is particularly evident in the first quarter of 2015, when there was also a flare-up of operations on the intraday segment of the MGAs.

### 3.1 The Gas Balancing Platform (PB-GAS) – G+1 sector

In its third year of operation, the G+1 sector of the PB-GAS has recorded volumes substantially stable compared to 2013 (39 TWh compared to 41 TWh in 2013, -5%). The figure includes a declining share

of the SRG offer (i.e. the SCS) (28 TWh compared to 35 TWh in 2013, -20%), which is compensated by an increasing proportion of extra-balancing volumes (10 TWh compared to 6 TWh in 2013, + 67%), now representing 27% of the total. This figure is extremely positive for the resilience of prices and, therefore, the market liquidity

Stable volumes, with a growing extra-balancing share

and shows a greater asymmetry with respect to 2013, with an average share of volumes close to 31% when the SRG manages purchases (25% in 2013), compared to 23% when the SRG manages sales (26% in 2013). The increase in extra-balancing volumes is paid even to their greater frequency (92% of the sessions, compared to 81% in 2013) without any asymmetry between the sessions in which the SRG has managed purchases and those in which it managed sales (Tab. 2.3.1).

The analysis of the SCS shows a stable imbalance than the system volumes (4% compared to 5% in 2013), which required compensation equally on both sides (the SRG for sale in 48% of the sessions, +3 p.p., and 54% of total SCS value, +6 p.p.), but in a fairly volatile way, as shown by the 113 reversals of sign from one session to the next one (equal to 31% of the total sessions, +4 p.p.). Among these, they emerge 8 sessions (2% of the total one) characterized by changes in the SCS in absolute value greater than 100 GWh compared to the previous day. Furthermore, the comparison between the SCS and its public forecast<sup>31</sup> shows a non-negligible frequency of sign reversal between forecast and imbalance, which tends to decrease with the approach to the gas day (18% with reference to the forecast of 17:00, 12% with reference to those of 20:00). It's interesting to note that the above sign have had underlying changes in significant volumes (i.e. more than 100 GWh) in almost one third of cases between 17:00 and SCS forecast, while in one case for forecasts of 20:00.

<sup>31</sup> Pursuant to Article 6 of the AEEGSI resolution no. 137/02, the largest transportation company publishes and updates at appropriate intervals on its website (i.e. at 15:00, 17:00 and 20:00), the SCS estimate expected for the end of the gas day.



#### ...... Trend of the average price and volumes on the PB-GAS

The average annual price, amounting to  $\notin$  23.61/MWh, appears in trend decline (-15%), again substantially in line with the prices reported on the PSV ( $\notin$  23.28/MWh, 17%, Fig.2.3.1), albeit in the presence of a

Increased interactions with the PSV and TTF prices that are down greater discount compared to the TTF ( $\in$  20.92/MWh, with a differential about three times compared to the same value in 2013), due to the higher average contraction of the latter (23%) (Tab. 2.3.2). Similarly to what was observed last year, the price formed in the sector is not affected by the effects potentially determined by the change of

side by the Head of the balancing, with an equilibrium price in the sessions in which Snam sells about  $0.82 \notin MWh$  (compared to  $0.76 \notin MWh$  in 2013) higher than that of sessions aimed at clearing a long system (Tab. 2.3.2).

An analysis on a monthly basis reveals, in addition to the natural trend down due to the seasonality of the commodities from January until the months of June and July<sup>32</sup>, as the spread between the G+1 price and the PSV has reached its maximum value in August (about 2.00  $\in$ /MWh compared to an average spread otherwise of around 0.20  $\in$ /MWh), in conjunction with an intense ex-ante balancing in the G-1 sector (Fig.2.3.2), which highlighted bearish signals for excess of the commodity in the system. By contrast in the following months, characterized by a lower activation of the G-1, the differential with the PSV price has stabilized at around the usual average value. Than the TTF prices, the differential with the marginal price of G+1 has been gradually increasing towards the end of 2014 due to lower appreciation in the price of gas in the winter months at the Dutch hub than that recorded nationally. Altogether the data confirm a strong and growing correlation between the price of the G+A sector and the PSV price (97% compared to 89% in 2013) and between the G+1 and TTF (87% compared to 49% in 2013). A similar relationship between the three prices in question can be appreciated in terms of volatility, which in G + 1 sector appears permanently low (1.80%, +0.30 p.p.), and in line with the PSV (2.08%, +0.29 p.p.), while the TTF variability in prices is higher (2.73%, +0.77 p.p.).

The data thus confirm the growing role of the TTF as a main driver of the Italian price, less than a more or less volatile spread, while minor appears the role of the SCS, which is especially relevant in explaining punctual and isolated behaviours of price related to specific conjunctures of the National balancing.

<sup>32</sup> In particular, during the months in question, the price drops from € 27.55/MWh in January to € 19.19/MWh in July, a common trend also in the PSV and TTF.

#### Frequency of sessions with trades exceeding balancing .....

							Tab. 2.3.1
	Snam purchase	Snam sells		Total	•		
Year	Trades among participants	% sessions	Trades among participants	% sessions	Trades among participants	% sessions	
2012	1,046,293	47.1%	762,452	52.9%	1,808,745	51.6%	
2013	2,448,583	46.8%	3,498,887	53.2%	5,947,470	80.8%	
2014	5,913,022	49.0%	4,469,909	51.0%	10,382,930	92.3%	

#### Average level of the PB-GAS prices compared to the PSV and TTF (€/MWh) ......

Tab. 2.3.2

	Snam purchases			Snam sells			Total			
Year	PB-Gas G+1	PSV	TTF	PB-Gas G+1	PSV	TTF	PB-Gas G+1	PB-Gas* G+1	PSV	TTF
2012	29.29	29.18	25.34	28.14	28.48	24.74	28.52	28.61	28.76	24.98
2013	28.28	28.23	27.55	27.52	27.67	26.40	27.86	27.93	27.97	27.03
2014	24.03	23.79	21.10	23.21	22.69	20.71	23.61	23.65	23.28	20.92

\* average of the PB-GAS G+1 price calculated for the days on which the quotations are available at the PSV

#### Average volatility of the PB-GAS prices compared to the PSV and TTF ......

	•
	•
T-L 0 0 0	
100. 2.3.3	

	Snan	Snam purchases			Snam sells			Total			
Year	PB-Gas G+1	PSV	TTF	PB-Gas G+1	PSV	TTF	PB-Gas G+1	PSV	TTF	TTF	
2012	1.33%	3.79%	3.10%	2.29%	1.55%	2.60%	2.19%	2.46%	2.58%	2.52%	
2013	1.41%	1.82%	2.21%	2.25%	2.61%	2.91%	1.39%	1.49%	1.25%	1.96%	
2014	1.80%	2.61%	3.07%	2.81%	2.90%	3.50%	1.52%	1.79%	2.08%	2.73%	

\* volatility calculated every day that the quotations are available

In particular, the analysis of the ratio between daily G+1 price and SCS – in terms of sign, volume and volatility – highlights how the two variables are poorly correlated between them, similarly to what detected in 2013<sup>33</sup>. By narrowing the focus to the sessions characterized by substantial changes in the marginal price<sup>34</sup>, it is observed a higher frequency of inversions of a sign of the SCS over the previous session (44% of cases compared with an average value equal to 31%), along with an increased correlation with the value of the SCS offered by side, due to the "physiological" effect on the meeting between supply and demand determined by the specific conditions of the price offered by the Head of the balancing<sup>35</sup>. The analysis of the expected SCS published by the SRG prior to market session (15:00 and 17:00 on the G gas day) seems to indicate that the participants do not avail themselves of such preventive information in order to modulate their bidding strategy on the sector<sup>36</sup>. Finally, the analysis of the difference between the price of the G+1 sector and PSV shows as cases of a high differential<sup>37</sup> (14% of the total) are related

<sup>33</sup> The correlation between the marginal price of the sector and the value of the SCS offered by the SRG, regardless of the side of offer, is equal to 15%, with an increase of 8 pp compared to 2013. Including the supply side of the Head of the balancing in the analysis, such correlation increases, albeit not returning relevant information about the formation of the price (34%, - 4 p.p.).

<sup>34</sup> Absolute changes in price more than 3% compared to the price of the day before, correspond to about 7% of the total sittings.

<sup>35</sup> According to Article 5 of the AEEGSI ARG/gas 45/11 resolution, offer for purchase by the Head of the balancing is presented with price at zero, and valued at the consideration of reinstatement at storage sites increased by about 13  $\in$ /MWh in the case of sale-side offer. On the days in question, the correlation between the equilibrium price and value of the SCS offered is 40%. By analyzing the correlation with total volumes traded in the sitting, you get about 35%, a lower but compatible value with the average incidence of extra-balancing volumes compared to the value of the SCS, confirming the increased importance in the formation of the equilibrium price of the strategy implemented by the SRG.

<sup>36</sup> The correlation between the difference between the value of the SCS published at 17:00 and what is actually offered by the RdB in the sitting, and the marginal price is 17%. There is a significant absence of correlation (11%) also between the value of the SCS published at 17:00 and the difference between the marginal price and the PSV one referring to the same gas day.

<sup>37</sup> Value is greater than 6% against an average deviation of 3%.

to the successful activation of the G-1 sector with reference to the same gas day (condition proved in 54% of cases)<sup>38</sup>, as further described in section 2.3.2 (Fig. 2.3.2).

The growth in volumes traded on the G + 1 sector corresponds to an increase of the concentration of the market compared to 2013 (HHI<sup>39</sup> of 3011, + 15%), on an annual basis and during the year. Such data

Concentration of the sector and key participants are not of immediate intelligibility considering the increase of participants that are active in the sector (77 compared to 73 in 2013, + 5%) and the increase in the extrabalancing share and specular reduction in the share of the SRG. The latter, however, is confirmed as prevalent participant<sup>40</sup> in 73% of sessions (-6 p.p. compared to 2013),

with an average market share on both sides of 73% (Tab. 2.3.4). Further analysis shows how the market shares of the remaining participants are homogeneous with each other and on each side (all below 6%) without substantial variations in the cases of the SRG for sale or purchase side, except for EDISON and DUFENERGY participants. In particular, EDISON is confirmed for the second consecutive year as the main counterparty of the SRG, both in cases of long system and short system, but with a total market share greater than 13 pp compared to 2013. Analyzing the market shares with reference to the extra-balancing volumes (Tab. 2.3.5), there was less impact of ENI on the sector over the previous year (-18 pp) and a simultaneous increase compared to 2013 of the market share of EDISON (almost a factor 2) and ENOI.

## Tab. 2.3.4 Top 10 participants active on the PB-GAS G+1, market shares by side and frequency of acceptance

	Long s	ystem	Short s	ystem		Total		Aco	eptance	fee
Market participants	Purchases	Sales	Purchases	Sales	Purchases	Sales	Total	Purchases	Sales	Total
SNAM RETE GAS	-	77.4%	68.5%	-	33.4%	39.7%	73.1%	100.0%	100.0%	100.0%
EDISON S.P.A.	19.0%	1.3%	6.7%	17.4%	13.0%	9.1%	22.1%	20.5%	12.9%	16.5%
DUFENERGY TRADING SA	7.9%	1.5%	0.5%	9.6%	4.3%	5.5%	9.8%	6.5%	7.4%	7.0%
ENOI S.P.A.	4.0%	3.6%	3.2%	4.9%	3.6%	4.2%	7.8%	4.0%	2.2%	2.8%
SHELL ENERGY EUROPE LIMITED	5.5%	0.9%	1.3%	7.2%	3.4%	4.0%	7.4%	4.1%	3.1%	3.5%
GDF SUEZ ENERGIA ITALIA S.p.A.	2.2%	1.6%	1.0%	8.0%	1.7%	4.7%	6.3%	3.2%	8.9%	6.1%
ESTRA LOGISTICA SRL	6.4%	0.7%	1.4%	3.9%	4.0%	2.3%	6.2%	18.0%	21.0%	19.0%
GRUPPO OPENLOGS S.R.L.	5.2%	2.1%	1.1%	2.9%	3.2%	2.5%	5.7%	23.8%	15.3%	19.1%
GUNVOR international b.v., AMSTERDAM, GENEVA BRANCH	5.4%	0.4%	0.7%	3.5%	3.1%	1.9%	5.0%	2.8%	2.2%	2.6%
BP ENERGY EUROPE LIMITED	6.1%	0.4%	1.0%	1.8%	3.6%	1.1%	4.7%	9.8%	3.6%	7.0%
Others	38.4%	10.1%	14.7%	40.8%	26.8%	25.1%	51.9%	-	-	-
Volumes (MWh)	18,79	5,154	19,78	9,136	:	38,584,290	)			
ж	48.7	7%	51.3	3%		100%				

40 Market share is over 50%.

<sup>38</sup> This may indicate that the cause lies in the relative scarcity reported by the activation of the G-1 sector and that it resides in the effect of attraction of the published price on the G-1 sector.

<sup>39</sup> Herfindahl - Hirschman index determined depending on the portions of the participants that are active on the opposite market side to that on which it acts Snam, on the total trading volume.

Market participants	Purchases	Sales	Total	
EDISON S.P.A.	21.1%	5.8%	14.5%	
ENOI S.P.A.	10.1%	15.8%	12.5%	
GRUPPO OPENLOGS S.R.L.	3.5%	9.3%	6.0%	
GDF SUEZ ENERGIA ITALIA S.p.A.	3.3%	6.9%	4.9%	
ENI S.P.A.	8.2%	0.1%	4.7%	
ELECTRADE S.p.A	2.8%	6.7%	4.5%	
SHELL ENERGY EUROPE LIMITED	4.1%	4.0%	4.1%	
DUFENERGY TRADING SA	1.7%	6.7%	3.9%	
ESTRA LOGISTICA SRL	4.3%	3.2%	3.8%	
MOL ENERGY TRADE INTERNATIONAL AG	4.4%	1.6%	3.2%	
Others	36.4%	39.8%	37.9%	

# 

PB-GAS G+1 average price compared with the PSV fees and the PB-GAS and M-GAS volumes  $\dots$ 



## 3.2 The Gas Balancing Platform (PB–GAS) – G–1 sector

During 2014 the ex-ante G-1 balancing sector was activated in 45 sessions out of 365 potential ones (about 12%), for a total of 3 TWh (equal to about 8% of the volumes traded on the G+1). According to

Operations concentrated in the summer months of 2014 and in the first quarter 2015 the Grid Code, the SRG manages only sales in the injection period (April to October) and only purchases in the supply period (November to March), thus enabling the sector with its own bid when the imbalance forecast of the system (the so-called SPS)<sup>41</sup> appears respectively negative (long system, SRG managing sales) or positive (short

system, SRG managing purchases). Specifically, during injection period, the SRG has operated for 43 sessions, mainly concentrated in the months of July (10 sessions) and August (16 sessions), for a total volume of 2.6 TWh, while, in the supply period, it has operated for only 2 sessions in December for a cumulative volume of 0.4 TWh.

Extending the analysis of the sector in the first quarter 2015, i.e. the delivery phase and in association with colder temperatures, an activation of the sector emerges more frequently (27 sessions of 90 days, 30% of the session potentially activated) and more important in terms of volumes, with purchases by the SRG for approximately 3.4 TWh (a quantity of gas in three months greater than the total volumes traded in the sector throughout 2014). These operations are also in line with that recorded in the G+1 sector , where total Snam's volumes accepted were up on the purchase side (4.3 TWh compared to 2.2 TWh, + 95%) and down on the sales side (3.9 TWh compared to 5.1 TWh, -24%) compared to the same period of 2013.

In 2014 it is observed that the activation of the G-1 sector is consistent in terms of the sign with the G+1 sector in 53% of cases (24 sessions out of 45 activated) and how that value is substantially

Compensation in G+1 of what moved in G-1 in 18% of the sessions activated unchanged even including the values of the first quarter of 2015 (49% of the sessions). Focusing on cases of discordant intervention of the Head of balancing between the two sectors including injection and supply phases, 33% of these is attributable to an *ex-post* activity of "adjustment" in the G+1 sector than what moved *ex-ante* in G-1, with buying/selling volume slower than those traded in the G-1. In 18% of the total

sessions activated, the forecasts of the imbalance of the system<sup>42</sup>, required a complete compensation in the G+1 of what did in the G-1 (Fig 2.3.3).

<sup>41</sup> Pursuant to ARG/gas 45/11 resolution, the value is substantially determined by the difference between the in and out scheduled provided by users on the gas day G-1 compared to the capacity of supply/input of the storage systems less than a term of forecast error.

<sup>42</sup> In such situations, the forecast imbalance led the RDB to trade smaller and sign opposite volumes to what then traded by the same Head in the G+1 field with reference to the same G gas day.



Comparative analysis between the interventions of SRG on the G-1 and G+1 sectors  $$\rm Fig.~2.3.3$$ 

One of the specificity of the G-1 sector compared to the G + 1 sector lies in the expansion of participation also to resources other than the storage. In this regard the data analysis shows that if the majority of

offers (approximately 58% of total volumes) affected the *Stogit* resources, in line with access to that resource for all active participants in the sector (45), as much as 29% has affected the *Import*, accessible by 30% of active participants. Coherently

Predominant use of Stogit resources

with what recorded for the supply side, the most relevant areas in terms of volume and frequency were, on the purchases side, the *Stogit* area (1.3 TWh) with a share of about 53% of the overall volumes accepted with marginal offers in 21 sessions, and the *Import* area, with 46% (1.2 TWh) about the overall volumes accepted and with a margin equal to the area of *Stogit*. About the above, it should be noted that the activation of the Import area has taken place in conjunction with the presentation of the particularly high SPS for sale by the Head of the balancing (with an average value offered in these sessions equal to 97 GWh compared to 23 GWh in the sessions with margins in the *Stogit* area, whose average transit limit stood at 64 GWh) in line with the fact that the *Import* resources are typically connoted by prices less favourable than the Stogit resources.

The analysis of the supply period - extended to the end of March 2015 - on the one hand confirms the important role of *Stogit* area (42% of overall volumes accepted), on the other hand the unexpected change in the design of the market in November<sup>43</sup> ha showed greater use of G+1 and G+N resources, which together accounted for 39% of sales, with marginal offers in 53% of the sessions. In this period we observe the almost total absence of sales with *Import* resources (7% of the total), reflecting the increased

<sup>43</sup> AEEGSI 485/2014/R/gas resolution introduced the G+1 and G+N areas (replacing the Linepack and Stogit Reintegration areas), connected to each other, in order to take into account the different days of delivery to the PSV of the gas contracted (G+1, G+N) and related to the use of Linepack gas and Stogit Reintegration.

scarcity of the resource that characterized in particular the month of February 2015 (-7% compared to January 2015) and therefore its less competitiveness.

Given the infrequency of activations of the sector, the analysis of the marginal price must be conducted on the individual sessions in reference to the corresponding price of the G+1 sector, rather than with

Price of the G-1 sector and unbalancing price reference to an average annual value that is not so significant. In this sense, it emerges as, during the entire injection period, the marginal price of the sector for the *ex-ante* balancing resulted in a reduction of about 2.0  $\in$ /MWh compared to what is recognized in the G+1 sector with regard to the previous gas day. The delivery phase was instead

characterized by four sessions (one in December 2014, 3 in February and March 2015) in which the demand of the SRG has not been fully met or otherwise involved the activation of those zones marginally less affordable, thus causing the definition of a marginal price between  $35 \notin$ /MWh and  $37 \notin$ /MWh and, therefore, an increase in the average differential between the marginal prices of the two sectors (equal to approximately  $3.4 \notin$ /MWh, or equal to  $2.0 \notin$ /MWh as in the injection phase). Worth to note how, in all cases in which in 2014 the price of the G-1 sector was significantly different from that formed in the G+1 sector<sup>44</sup> (15 sessions out of 45), the PSV price has presented quotes further aligned with the price paid in the G-1, with a differential of about  $1.8 \notin$ /MWh, compared to a differential with the G+1 price in the same days equal to  $2.55 \notin$ /MWh.

The activation of the G-1 sector in 2014 affected the imbalance price<sup>45</sup> in 58% of the activated sessions (26 cases out of 45), for an impact in those days of  $-2.00 \notin$ /MWh compared with an average value of the imbalance price in 2014 of  $\notin$  20.51/MWh. The impact on the price of imbalance of the G-1 sectors higher (19 sessions out of 27) analyzing the first quarter of 2015, with an impact of +4.02  $\notin$ /MWh.

Analyzing the bidding strategy on the sector, it emerges that the prices offered in the *Stogit* area are substantially in line with the price of the G+1 sector with reference to the same gas day (and, therefore,

Alignment of the prices offered in the Stogit area at the PSV the PSV), with an average differential between the marginal prices of the two sectors in the event of *Stogit* margin of around  $\in$  0.47/MWh. By contrast, the prices offered in the *Import* area appear most closely aligned to the TTF (average difference of about 0.40  $\notin$ /MWh). This means that the price differential between the G-1 and PSV increases

almost by a factor 10 in the sessions in which the marginal G-1 price is formed with *Import* resources. This figure is confirmed by including the first quarter of 2015 and involves a marginal price volatility of the sector (3.2% in 2014 and confirmed in 2015) that is essentially exogenous, namely linked more to changes in the volumes required by the SRG and not to the price variability offered.

The sporadic nature of the sessions and the basically limited size of trading volumes tend to favour a concentration level higher than that recorded in the G+1 sector (in 2014 the value of the HHI index

Primary concentration of the sector compared to the G+1 totalled 4,626, +54% compared to the G+1). In the injection phase (the SRG manages sales), among the 31 participants active in the year (excluding the RdB), the main counterparty of the SRG was ENI, with a market share of 36%. In the supply phase (the SRG manages purchases), similarly to what was in the G+1 sector, EDISON was the

main counterparty of the SRG with a market share in the volumes accepted of 29%. Analyzing the bidding strategy of the participants in the sector, we observe that, during the injection phase, most of these tend

<sup>44</sup> Absolute deviation between the G-1 and G+1 price greater than 15% of the price in the G+1.

<sup>45</sup> In case of activation of the G-1 sector, the imbalance price defined in Art.7ter of the AEEGSI ARG/gas 45/11 resolution can match the marginal G-1 or G+1 price upon the occurrence or absence of certain conditions in the volumes moved in the ex-ante segment compared to the storage capacity. In the absence of activation of the G-1 sector, the imbalance price corresponds to that of the marginal sector of the G+1 sector.

to offer in "mono-zonal" mode (23 participants out of 31 active participants excluding the SRG), while only 29% tends to offer on two areas (mainly *Stogit* and *Import*) in the same session. During the supply phase, following the introduction of G+1 and G+N zones, the share of participants with multi-zonal offers by session reaches 67% (20 participants out of 30), of which 8 with bids spread over 4 different areas (*Stogit, Import, G+1 and G+N*).

#### 3.3 Other gas markets

With regard to other markets or gas platforms managed by GME, in particular to the M-Gas and P-Gas, also in 2014 it's confirmed their substantial illiquidity, with the absence of trades and the infrequency of orders submitted.

The exception is the only intraday gas market (MI-GAS), which recorded two flare-ups of operations in December 2014 (3 sessions) and in the first quarter 2015 (18 sessions), on the occasion of the presentation

of orders on the sales side and the purchase one by the SRG. Following these orders, the MI touched levels of matching and liquidity representing the all-time highs for the market. In particular, on the two occasions there were respectively 43 and 473 combinations, for a total of 102 GWh and 785 GWh (representing respectively 33% and 25% of the volumes traded on the same days in the balancing G+1 segment and about 1% with respect to physical market<sup>46</sup>).

Trades in only the intra-day market, with G-1 and PSV price driver

Also in this case the infrequency of trades suggests their analysis not in terms of average price, but of deviation from the relative references. If in the sessions of December, the average matching price on the MI is substantially in line with the values corresponding to the PSV and the G+1 sector referred to the previous gas day (average deviation respectively equal to  $\in -0.04$ /MWh and  $0.20 \notin$ /MWh), timely analysis of prices in 2015 sessions shows that they are concentrated mainly in the sessions of simultaneous activation of the balancing G-1 sector (89% of cases), showing an average difference of  $-1.54 \notin$ /MWh compared to the marginal price G-1, 2.63  $\notin$ /MWh compared to the G+1 sector and 1.58  $\notin$ /MWh on the PSV.

<sup>46</sup> The data for sittings in March are from the temporary SRG balance.

## **4 ENVIRONMENTAL MARKETS**

### 4.1 Green Certificates (GCs): Market and Bilaterals Platform

In 2014, in the Green Certificates Market (MCV), the weighted average price of the certificates traded, regardless of the type and the reporting period, amounted to 92.71 €/MWh (+ 10.7% than 2013), the

Average prices are still rising in the face of stable volatility highest values since 2008, thus reinforcing the bullish trends shown in the previous year that ended the downward trend culminated with the historical low of 2012 (76.13  $\notin$ /MWh).

On Bilaterals Platform of Green Certificates (PBCV) the average price, following a similar development to the market one, marked an increase of 7.1% over the previous year, reaching 84.11  $\notin$ /MWh. This increase exceeds 9% excluding the recorded transactions with a price close or equal to zero, which amount in 2014 to around 6% of total volumes traded bilaterally, net of which the average price of the platform reaches 89.70  $\notin$ /MWh, expanding the negative spread with the market price of 3  $\notin$ /MWh, never so high in the last six years (Fig. 2.4.1).



Examination by type and reporting period of the certificates traded on the regulated market (MCV) shows lower prices for GC for the year 2011 (85.23  $\in$ /MWh), whose period of trading ended in March 2014, and GC\_TRL 2013 (85.63  $\in$ /MWh); quotes to 88-89  $\in$ /MWh, however, for the types relating to 2012 and 2013 and higher, finally, for those relating to 2014, at 96  $\in$ /MWh, which rank among the most popular certificates since 2008.

Even on the PBCV, they experience higher prices for the certificates for 2014, amounting to 91  $\notin$ /MWh, and much lower for other certificates, including the GC\_TRL 2011, all registered on the platform with a price equal to 0  $\notin$ /MWh (Fig. 2.4.2). Even the sharp difference between the market price and the bilaterals on the certificate GC 2011 (67  $\notin$ /MWh) was due to strong concentration of transactions with price at zero; in fact, with reference to 143,000 MWh of volumes recorded bilaterally for this type, about 80% have price at zero.



Prices of green certificates registered in the market sessions, except for those with 2014 as reference year, are placed below the withdrawal price<sup>47</sup> (89,29  $\in$ /MWh), which, however, indirectly reflecting the declines registered by prices of the power exchange, recorded and increase by 11.1% compared to that of 2013 (Fig. 2.4.3). The highest position in the prices of GC\_2014 than the withdrawal one would seem to confirm that the introduction of a program of quarterly withdrawals of the GC, which allowed anticipating the sale of the same to GSE, had potentially bullish effect on prices.

<sup>47</sup> Since 2009, with the introduction of the Decree of 18 December 2008, GSE, becoming the last buyer, has been able to absorb the current supply in surplus, thus ensuring a perfect balance of the market. The Legislative Decree no. 28 of 3 March 2011 also establishes that the withdrawal price of the GC in excess for generation of the years 2011 to 2015 will be equal to 78% of the reference price of the GSE's GC. The latter is equal to the difference between  $\notin$  180 and the average selling price of electricity for the year preceding the withdrawal one, as calculated by AEEGSI. In 2014, the reference price for the GC market for the year 2014 amounted to 114.46  $\notin$ /MWh, so the withdrawal price of the GC was equal to 89.28  $\notin$ /MWh.



.... GCs - Trend of market prices vs. buy-back price

In the face of rising prices, market volatility remains at fairly low values and reaches 0.9%, in line with 2013. On the contrary, price volatility recorded on the PBCV, confirming on higher levels compared to the regulated market, shows a vigorous surge in 2014 (+27.6 percentage points) attributable, in addition to the increasing of the level of prices, also to always most influential share of transactions registered at zero cost. In fact, net of transactions recorded with price lower than  $1 \notin$ /MWh, the price volatility recorded on the PBCV, which takes on a more regular trend, is characterized by a slight increase over the previous year (+0.4 percentage points), still remaining higher than that of the regulated market (Fig. 2.4.4).



\*The bilateral data are available from January 1, 2009, the date on which it entered into force the obligation to disclose the price and quantity of bilateral transactions following the approval of Ministerial Decree of 18 December 2008.

In 2014, compared with an overall decrease of trading observed in the system of green certificates (43.1 TWh, - 3.9%), consistent with the reduction of the obligatory quota of renewable energy to enter into

the grid for producers and importers from conventional sources, the volumes traded on the MCV mark a further significant increase than the previous year registering a new all-time high, of 8.2 TWh (+ 8.3%). The total deflection is absorbed solely by bilateral trading that on the PBCV, while remaining at very high levels, show the first setback since 2009, dropping to 34.9 TWh (-6.4% from the absolute record of 2013) (Fig. 2.4.5).

Liquidity of the regulated market increases and trading on the MCV grows in spite of an overall decline of the certificates traded

Therefore, the PBCV continues to find favour of producers and importers of energy

from traditional sources subject to the obligation, who have the need to make substantial amounts of certificates with the least number of possible transactions, but the liquidity of the regulated market (MCV), strengthening growth recorded in 2013, thus it updates in 2014the historical record to 19.0%, up of 2.1 percentage points from a year earlier.

In 2014 it was also organized a session dedicated to the GSE market reserved for entities who must fulfil the obligation under art. 20, paragraph 5 of the Ministerial Decree of 6 July 2012, during which they were allocated 37,000 GC with 2013 as reference year, at a price equal to that of withdrawal (89.28 €/MWh).



\*The bilateral data are available from January 1, 2009, the date on which it entered into force the obligation to disclose the price and quantity of bilateral transactions following the approval of Ministerial Decree of 18 December 2008.

An analysis of the volumes by the reporting period shows that, in each trading year, the certificates traded more on the regulated market and on the bilaterals platform, are those with the same reference period of the year of trading, that is, the new issues; exception is made by the trading year 2013 in which the share of certificates with reference year 2012 accounted for 48% of the trades on the MCV (almost in line with the share of  $GC_{2013}$ ) and 55% on the PBCV. Even in 2014, after two years from the issue, the  $GC_{2012}$  type totalled a negligible share of trade (4% on the market, 19% bilaterally). This trend appears linked to the evolution of the minimum share of electricity produced from renewable sources to enter into the grid; the article 25, paragraph 3, of Legislative Decree no. 28 of 3 March 2011, in fact, provided for the obligation share for producers and importers from conventional sources to enter into the grid a percentage of energy produced from renewable sources equal to 7.55% for 2012 (the highest from the mechanism start) and established that it was reduced linearly from 2013, until reaching zero in 2015 (Fig. 2.4.6).



#### ..... GCs - Structure of the traded volumes by reference period

Y is the year of reference of the CVs whose year of issue coincides with the first year of trading.

\* The bilateral data are available from January 1, 2009, the date on which it entered into force the obligation to disclose the price and quantity of bilateral transactions following the approval of Ministerial Decree of 18 December 2008.

The structure of the regulated market (MCV), characterized on the supply side by a variety of producers from renewable sources, compared to the demand side, represented mainly by the major producers of

The gap between supply side and demandside competitiveness accentuates energy from traditional sources subject to the obligation, this year is also reflected in lower concentration in terms of sales than purchases. This trend in 2014 seems to undergo an intensification: the percentage share of the top three participants (CR3) shows, in fact, on the purchase side, a slight improvement over the previous year,

reaching 37% (-2 percentage points); on the sales side, instead, an increase of 4 p.p. pushes the share to 25%, marking a reversal of the downward trend of the last three years. However, if we consider the share of the top ten participants (CR10), the trends, while remaining opposed, are reversed, thus decreeing a sharp deterioration in the degree of concentration of purchases, where the indicator is on the levels of 2011 (80%), and there is a stability of that of sales (44%) (Fig. 2.4.7).



#### ..... GCs - Market: participants' shares

Fig.2.4.7

## 4.2 Energy Efficiency Certificates (TEE): regulated market and bilateral transactions

In 2014, the incentive system based on the Energy Efficiency Certificates has been affected by three major interventions by the regulator that has changed in part the structure. AEEGSI with Resolution 13/2014/R/efr defined new rules for determining the unit tariff contribution, under which for each compulsory year, it is determined a tariff contribution prior 12 months before verifying the achievement of the goals. The contribution budget aims to provide preliminary indications of price and is calculated by applying the final tariff contribution for the year before half of the percentage changes in prices faced by residential end-customers for electricity, natural gas and heating oil in the previous compulsory year. The final contribution is, however, set equal to the sum between the corresponding tariff contribution estimate and part of the difference between that and the average of trades on the stock market (not counting the trades taking place through bilateral agreements as potentially distorted by inter-group trades or agreements between the parties) that occurred in the last twelve months.

The second important intervention is the publication on 13 March 2014 of the AEEGSI Resolution 107/2014/R/EFR, which defines the rules for applying the mechanism of energy efficiency certificates in the case of large projects and the procedures for recognition of the constant value for the same securities. According to this document, GSE will recognize the holders who will opt for the withdrawal of the TEE a price equal to the lesser value between the average of tariff contributions of the three compulsory years prior to those in which they occur the savings and the ratio between the costs of investment, and the number of TEE estimated. Moreover, the same resolution marked the fungibility of TEE V in terms of compliance, making them de facto equivalent to the other types.

Finally, in December 2014, AEEGSI approved with Resolution 616/2014/R/EFR the update of the rules governing the operation of the TEE market proposed by GME. This update includes changes aimed at:

- promoting the involvement of the participants in the market sessions (including the possibility for participants to indicate other participants that are not intended as a market counterparty);
- implementing a system of certificates to cover the total countervalue of purchases, designed to allow more rapid completion of the transaction;
- extending in time the use of the bilaterals platform of the Register, resulting in the fact that, by having the aforementioned certificates system, it's possible to reduce the blocking time of the accounts on the Register, required for the completion of the transactions concluded as a result of the conduct of the market sessions, and allow, through the reopening of the Register, the registration of bilateral transactions;
- adapting the provisions concerning disciplinary measures and requirements for admission to the market.

In this legal context, in 2014, the weighted average price recorded on the market of energy efficiency certificates, regardless of the type, seems to strengthen the growth initiated in 2008 and, with an increase of 8.5%, the strongest of the last four years, it upgrades for the sixth consecutive time the all-time high rising to 113.65  $\notin$ /toe. The price growth was concentrated in the first quarter of the year, when, under the potential influence of the resolutions 13/2014/R/efr and 107/2014/R/efr, prices reached almost 150  $\notin$ /toe, namely the all-time highs.

Similar developments were recorded for average prices of bilateral trading that increasing by 4.7%, stand at 102.72  $\notin$ /toe, confirming at levels much lower than those of the regulated market. However, calculating the same prices net of transactions recorded at zero cost (6.6% of the total volumes traded

bilaterally in 2014), this growth rose to 7.1%, significantly reducing the price differential between the bilaterals platform and the market on the lowest values since 2008 (4  $\notin$ /toe). (Fig. 2.4.8).



\* Data on bilaterals price are available from April 1, 2008 the date on which it entered into force the obligation to disclose the price of bilateral transactions through the TEE Register managed by GME, introduced by Resolution 345/07 of AEEG.

The analysis by type of TEE reveals in the regulated market still a substantial price alignment of the first three types at a share of 113-114  $\notin$ /toe, higher average prices for the certificates of the II CAR Type (116.00  $\notin$ /toe) and far lower for those of the V type (107.94  $\notin$ /toe), both in the second year of trading. Bilateral transactions record, however, weighted average prices more spaced between the three historical types included between 99.86  $\notin$ /toe of the certificates of the *II type* and  $\notin$  110.38  $\notin$ /toe of the *III type*. In addition, the bilateral prices of the certificates of the V type are also significantly lower than those recorded in the regulated market (-63  $\notin$ /toe) because of the higher concentration of transactions recorded at zero cost (46% of the total traded bilaterally for this type) (Fig. 2.4.9).



The volatility of prices on the organized market, at its second consecutive increase, marks the highest level in the last six years (3.5%); variability growth reflects the contrasting trends recorded by the quotes during 2014; in fact, earlier this year, the prices have reached very high levels, with these peaks next to 150  $\notin$ /toe, while, at the end, have touched values significantly lower, with prices below 100  $\notin$ /toe. It's much higher than the market price the volatility of bilateral prices, influenced, at least in level, from recordings at zero cost, net of which the same indicator is on considerably low values (5.7%) and confirming a down trend, marks a strong decline compared to the previous year (-7.9 percentage points), while minimizing the differential with the market (2.2 p.p.) (Fig. 2.4.10).



\* Data on bilaterals price are available from April 1, 2008 the date on which it entered into force the obligation to disclose the price of bilateral transactions through the TEE Register managed by GME, introduced by Resolution 345/07 of AEEG.

In previous years, the price level was driven in a clear manner from the reimbursement tariff recognized for each TEE cancelled, to distributors who have complied with the obligation as a partial recovery of costs. With Resolution 13/2014/R/efr, they are introduced, however, the new rules of calculation with reference to the average market prices that are recorded in the twelve months prior to the month of May of each year. These rules allow recognizing the parties responsible THE part of any greater average costs necessary to achieve their goals, where the average market prices are higher than the preventive contribution, or part of any increased revenues in cases where average market prices are lower than the preventive contribution.

The final tariff contribution for the year 2013 was 110.27  $\notin$ /toe, a sharp increase on the value estimate (over 10  $\notin$ /toe) directly influenced by the recovery of the market prices in February and March of 2014. The single preventive tariff contribution, however, for the year 2014, must be equal to 110.39  $\notin$ /toe. The average price level in the period from January to May of 2014 was higher than 10  $\notin$ /toe of the reimbursement value, while from June to December it was lower than 4  $\notin$ /toe (Fig. 2.4.11).





The incentive system through the mechanism of TEE is characterized, for many years, by an excess of demand of the obliged parties than the offer; this scarcity is explained by the difference between the number of certificates issued, representing the volumes expressed in Tons of Oil Equivalent spared by the participants, and the certificates to fulfil the obligations. Over the last two years, the increase in the actual obligations of the distributors involved the gap between the certificates necessary for the compliance and those issued seems thin, in fact, the share of the latter rose from 71% in 2011 to 94% in 2014 (Tab.2.4.1).

It is worth remembering, however, that to achieve the targets in 2014 due in May 2015, the parties responsible must cover 50% of the 6.75 million TEE relating to the 2014 obligation to be still compliant. It follows that the minimum combined quantity of TEE necessary to cover the basic needs of obligated distributors amounts to about 31 million TEE, a value obtained by reducing the cumulative total of the

certificates necessary for the compliance of all the years until 2014 (34.37), half of the obligation relative to 2014 (6.75).

Given the above, it is believed that the current market situation is such that the number of TEE in circulation can cover the needs of the parties responsible.

Year of obligation	Actual obligations Electricity distributors	Actual obligations Gasdistributors	Cumulative total for the fulfillment	Securities issued since the beginning of mechanism
	(Mtoe/a)	(Mtoe/a)	(Mtoe/a)	(Mtoe)
2005	0.10	0.06	0.16	-
2006	0.19	0.12	0.47	-
2007	0.39	0.25	1.11	1.26
2008	1.20	1.00	3.31	2.60
2009	1.80	1.40	6.51	5.23
2010	2.40	1.90	10.81	8.02
2011	3.10	2.20	16.11	11.44
2012	3.50	2.50	22.11	17.23
2013	3.03	2.48	27.62	23.99
2014	3.71	3.04	34.37	32.27

TEE – Certificates needed for compliance. Cumulated values ......

Tab. 2.4.1

In 2014, the Energy Efficiency Certificates traded on the regulated market and in bilateral trading, confirm the upward trend that has characterized the mechanism since its inception, in line with the gradual

increase in obligations for distributors, and skimming 12 Mtoe in total. The volumes of TEE traded on the market, increasing of 23.7% over the previous year, lead to 3.5 million toe, while those traded in bilaterals trading, with an increase of 52.6%, lead to 8.3 million toe. It then highlights the predominance of bilaterals trades, whose

The positive trend in volumes continues still at record levels

share of total trades in 2014 reached the highest share since 2007 at 70.4% (+4.5 percentage points than 2013) (Fig. 2.4.12).



\* Data on bilaterals price are available from April 1, 2008 the date on which it entered into force the obligation to disclose the price of bilateral transactions through the TEE Register managed by GME, introduced by Resolution 345/07 of AEEGSI.

TEE - Structure of traded volumes

As for the different types, from 2013, they have entered into bargaining new certificates of the *II CAR type* and *V type*, however characterized by low liquidity, while those of the *II type* are the most traded on the regulated market (46.4% in 2013, 51.8% in 2014) and in bilateral trading (increased to 54.8%, +16.6 p.p.); these developments appear related to the entry into force of the Inter-ministerial Decree of 28 December 2012 that, in addition to changing the regulatory framework, set new national targets for energy savings for the years 2013 to 2016 (Fig. 2.4.13).



\* Data on bilaterals price are available from April 1, 2008 the date on which it entered into force the obligation to disclose the price of bilateral transactions through the TEE Register managed by GME, introduced by Resolution 345/07 of AEEG.

The market of TEE is characterized, on the demand side, by a small number of participants, mostly distributors of electrical energy and gas with more than 50,000 connected users, with the need to

Competitiveness is stable on the supply side, improving and at the all-time highs on the demand side purchase a larger number of certificates on the market, in order to offset the lower contribution of own certificates; on the supply side, however, the market consists of a large number of participants (mainly ESCO but also distributors that are not obliged) that have made energy saving projects and, with respect to them, benefit from the issue of TEE, which they can sell on the market.

In this context, the degree of concentration on the demand side, historically higher than the one on the supply side, is a clearly improving compared to the previous years; the share of the top three participants (CR3), in fact, in 2014 marks a historical low 41.1% (-16.1 percentage points). This development is muffled when you consider the share of the top ten participants (-6.5 pp), which however is one of the lowest levels ever (72.7%). On the supply side, however, the competition looks stable in comparison with 2013 (CR3 15.3%, CR10 35.7%) confirming, however, a marked improvement compared to the previous years (Fig. 2.4.14).

TEE – Market: participants' shares



## 4.3 Guarantees of Origin (GOs): Market, Bilaterals Platform and GSE's auction

2014 was the first year of full operation of the system of Guarantees of Origin (GOs), pursuant to Art. 31, para. 1 of Ministerial Decree of 6 July 2012. The weighted average price recorded on the M-GO,

regardless of type, was 0.07 €/MWh, an increase of 0.01 €/MWh than 2013. The trend on the Bilaterals Platform of GOs (PB-GO) is contrasted, in fact, here the prices fell to 0.09 €/MWh (-0.01 €/MWh), again on higher levels of the market, but halving the spread (0.02 €/MWh). In obvious decline, however, are the prices of GOs allocated through the auctions of GSE reaching 0.10 €/MWh (-0.11 €/MWh) clearly linked to the reduction of the price offered by GSE (2.4.15).

Prices are rebounding on the regulated market and down on the bilaterals platform



The analysis by prices shows the lowest prices in the market for certificates with the year of generation in 2013, which reached 0.07 to 0.08  $\in$ /MWh. Certificates with 2014 as generation year are placed, instead, between 0.11  $\in$ /MWh for *Hydroelectric* certificate and 0.14  $\in$ /MWh for that *Geothermoelectric*. The PB-GO also shows lower prices for those certificates referring to the generation of 2013, between 0.08 and 0.13  $\in$ /MWh, and higher for that of 2014, with a maximum of 0.26  $\in$ /MWh for the certificate 2014\_Solar (Fig. 2.4.16).



In 2014, 0.47 TWh were traded on the market, down of 65% compared to the already low volumes of 2013. The trades on the PB-GO are bucking and, confirming their expansion, they rise to 44 TWh (+ 6.6%);

such trades are considered net of intercompany that in 2014 amounted to 0.49 TWh. It strengthens, therefore, the trend already observed in the transition from the COFER to the GOs of an incentive system characterized almost exclusively on bilaterals trading, leaving a sharply residual part to the regulated market, with liquidity that is so insignificant. This requirements is supported even by higher volumes allocated

Declining volumes in the market, predominance of bilateral trading

through auction, amounting to 640,000 MWh, which, in 2014, recorded a steep hike, probably favoured by the reduction, from the highest levels of 2013, of the price at auction and by the increase in the amount offered by GSE, increased from 4 TWh in 2013 to 30 TWh in 2014 (Fig. 2.4.17).



In 2014 on the regulated market and on the bilaterals platform, trades have focused on the certificates for the year of generation *2013* (97% and 94%, respectively), only negotiable by March 31, the date by which the interested parties must submit their certificates to GSE for the cancellation. This type is also the most traded in the three years of activity, totalling 46.5 TWh (against 37.7 TWh of the certificates of the year 2012) in the more liquid PB-GO.



GOs – Structure of traded volumes by year of generation

If we consider only the type of system to which the certificate applies, regardless of the year of generation, the most traded certificate in the regulated market was the *Aeolian*, with 0.25 TWh (54.0% of the total), followed by *Geothermal* that accounted for 36.2%. On Bilaterals Platform, however, the trades focused on the *Hydroelectric* type with 35.1 TWh, namely 79.7% of the total (Fig. 2.4.19).



Fig. 2.4.19

## **IN-DEPTH ANALYSIS 3**

## Environmental markets: the new regulations on Environmental Markets

As part of policies for the development of energy efficiency and renewable energy, in 2014, GME has taken certain measures to adapt and, where necessary, review some provisions of the operation of the markets and/or environmental platforms currently managed, in order to make these provisions complying with the changed environmental standards.

According to the fields of competence, below is an overview of the main regulatory changes occurred in the year 2014 on the subject, with the consequent adjustment processes operated by GME.

With reference to the Green Certificates Market (MCV), throughout 2014, GME continued the ordinary management of its capabilities in the market, as previously amended in 2013<sup>1</sup> in response to the provisions

introduced by the Ministerial Decree of 6 July 2012 entitled "Incentives for renewable energy non-photovoltaic sources" (hereinafter: Ministerial Decree electric FER), and

Green Certificates

in parallel activities of management of the Platform for Recording the Bilateral Transactions of the Green Certificates (PBCV).

This context includes the preliminary activities carried out by GME, in coordination with GSE, in view of the upcoming requirements to be taken concerning the closure of the Green Certificates (GC) Market, following the application of the provisions of the above-mentioned Ministerial Decree electric FER that, among other things, provided, with reference to those plants that benefit from the receipt of GC – for the period after 2015 – the conversion of the right to obtain the GC in direct economic incentive, granted to producers who own plants subject to regulation, foreshadowing, therefore, the transition from a market model based on the "*cap and trade*" principle and a "*feed in tariff*" scheme, adjusted on the basis of incentives fixed calculated ex ante by the competent institutions.

Specifically, according to the provisions of Art. 19 of Ministerial Decree electric FER, GSE, starting from the production from renewable energy plants in January 2016, will suspend the issuance of the GC in favour of the entities entitled thereto, corresponding to the same, in lieu of certification, a relative economic countervalue.

Turning to the system of TEE, during 2014, it has been gradually completed the transfer of powers from AEEGSI to GSE with reference to the management of the mechanism of certification of energy saving

projects, in accordance with the provisions introduced by the Ministerial Decree of 28 December 2012 (Ministerial Decree of 28 December 2012), which, among other things, reformulated, for the four-year 2013-2016, the national quantitative targets of energy savings to be achieved by the obliged distribution companies.

Energy Efficiency Certificates (TEE)

In this context, given the level of development now reached by the TEE market – which saw, during 2014, an increase in the number of active participants and the increased level of trading recorded – downstream of the specific consultation process (see DCO GME no. 6/2014), GME has published proposed amendments to the Rules of operation of the market of energy efficiency certificates (MTEE Rules).

<sup>1</sup> Please note that in June 2013, GME arranged, within the MCV, the introduction of sittings dedicated to the withdrawal of the GC by GSE, in application of the provisions of Art. 20, paragraphs 2 and 3 of Ministerial Decree electric FER. For more information, see GME news of 6 June 2013 "Urgent changes to the Consolidated Text of the Electricity Market Rules – Green Certificates Market" / <u>https://www.mercatoelettrico.org/it/homepage/popup.aspx?id=134</u>

These proposals for amendments in particular involved:

- i. the possibility for participants to indicate the "counterparties not acceptable", with whom they wish to be part of negotiations within the framework of the activities of the market;
- ii. the introduction of a certification scheme to cover the total countervalue of purchases, like the provisions with reference to the market of green certificates and the certificates of origin, in this sense, aligning all environmental markets compared with the same certification system.

At the same, GME has submitted further proposals within the consultation for updating the MTEE Rules, which specifically concerned:

- reviewing the admission requirements providing that the participant, previously excluded from the market as a result of a disciplinary measure implemented by GME, can submit a new application for admission only after a period of at least sixty months following the exclusion;
- the adaptation of the disciplinary measures ordered by GME in the event of breach of the MTEE Rules, providing:
  - i. the elimination of the "public form call" between the disciplinary measures that GME may take against the participant;
  - ii. the extension of the time limits available to GME for the implementation of any disciplinary measure against the participant.

Upon conclusion of the process of consultation, the text of the MTEE Rules resulting in the changes proposed by GME was approved by AEEGSI with Resolution 616/2014/R/efr of 11 December 2014 entitled precisely "Approval of the update of the operation rules of the market of energy efficiency certificates (white certificates)."

To complete the above, it should be noted that with the same measure, the regulator has also arranged, in relation to the information to the MTEE Rules, that GME extends the amendment relating to cases of suspension of the operation of the market, to the settings of the TEE Register, entering an approval provision in the "*Rules for the registration of bilateral transactions of the TEE*". Pursuant to the instructions received from the regulator, GME therefore adapted the MTEE Rules and the Regulations for the registration of bilateral transactions of the TEE, publishing on its website, on 23 December 2014, the new updated versions of the regulatory texts, together, with regard to the MTEE Rules, the latest versions of the relevant provisions of Technical Rules (DTF).

As part of the TEE, other important innovations that saw their first application in 2014 was the launch of the new category, provided by Art. 8 of Ministerial Decree of 28 December 2012, of energy saving measures on a large scale called "large projects", i.e. energy saving measures for which they provide savings greater than 35,000 toe in combination with a technical life of the project more than twenty years. Based on the provisions of the reference regulations, the procedure of management of major projects follows a process dedicated directly at the Ministry of Economic Development, after which they can be granted the additional incentive bonuses depending on the level of savings achieved and also based on the location of the relevant project (up to 30% of the actions undertaken in the industrial sectors, that is, with an additional bonus of 50% if such projects are made within the metropolitan areas).

In 2014 the MISE has indeed found a positive first "big project" resulting in the first issue of associated TEE of the "IN" type, the category of white certificates already provided for in the regulation but not previously activated. In this regard, please note that, as a result of this new process of issuing, there were no changes to the rules and/or the provisions of the technical implementation rules of GME, as its trading systems managed by the same had already been prepared for the issue and the trade of this

type of certificates "IN" - as well as the certificates of the "E" type, the latter still never issued - on the bilaterals platform and the platform of the market (dedicated trading book).

To complete the overview of the legislative measures that have led to the need in GME to adapt the regulatory documentation of the markets and/or environmental platforms managed by the same, it should be noted that, as a result of the introduction, as from 1 January 2015, the

reverse charge mechanism on sales of certificates related to electricity and gas -

Reverse Charge

introduced into Italian law no. 190 of 23 December 2014 (the so-called Stability Law 2015) - and in the light of the explanations given in the matter by the Inland Revenue, which further clarified that they should be considered included among the "*certificates relating to gas and electricity*" in art. 17, paragraph 6, subpara. d-ter) of Presidential Decree no. 633/1972, as amended by art. 1, paragraph 629, subpara. a) no. 3) of Law no. 190 of 23 December 2014, also the different environmental certifications, or the Green Certificates, the Certificates of Origin, and the Energy Efficiency Certificates, GME has adjusted the Technical Rules (DTF) of the environmental markets and platforms within which it acts as a central counterparty in the trading, intervening in detail on the provisions governing the tax treatment on the Green Certificates Market (MCV) and the Platform of the certificates of origin (P-GO), and publishing, on 26 January 2015, respectively, the new versions of the Technical Rule 4 rev8 MCV and of the Technical Rule 4 rev2 P-GO.

## ANNOAL REPORT 2014 2014



Gestore dei Mercati Energetici S.p.A.

Viale Maresciallo Pilsudski, 122/124 00197 Rome - Italy Tel +39 06 8012 1 Fax +39 06 8012 4524 E-mail info@mercatoelettrico.org www.mercatoelettrico.org