

# STRUCTURE OF THE MARKETS AND REGULATION OF THE NATURAL GAS SECTOR

## Market fully open but competition scarce

Deregulation of the natural gas sector saw major progress in 2003, with the complete demand-side opening of the market. However, the very demise of restrictions on a customer's choice of supplier highlighted the shortcomings of the deregulation process with respect to the goal of bringing competition to the wholesale and retail sale of natural gas. More than a year since the momentous date in January 2003, residential customers have made no significant switch from one supplier to another, and have thus not benefited from any real reduction in prices.

Since there is basically no contest within the residential market, not even the decrease in infrastructure costs for the transmission and storage of natural gas (as a result of tariff decisions by the Authority for Electricity and Gas) has been transferred to end customers. Thus far, the only ones to benefit from that decrease are customers in the wholesale market, i.e. local retail vendors.

In the case of sales to business customers, the price reductions observed by the Authority are due essentially to the same decrease in infrastructure costs in the regulated sections of the gas production and delivery chain. As part of its duty of supervising wholesale prices, in fact, the Authority has verified that when sales were completely liberalized and the "fanning" mechanism was eliminated (as discussed later in this report), wholesale vendors started giving discounts to local retailers. Thus the gap between wholesale and retail prices widened, and profit margins grew for the local firms.

## Concentration of local utilities

Higher margins in the energy sector is one of the factors behind local utility mergers, which continued apace in 2003. In the case of gas distributors and vendors, the process is not justified solely by economies of scale—which, according to recent research, tend to fade quickly as the user base expands—but also by the growth strategies of the more dynamic firms.

The process is a welcome one, as it reduces fragmentation in the distribution and retail sale of gas and helps create businesses that can compete at home and abroad. However, companies' viability in the market for corporate control will be of no benefit to users; it is fuelled by the growth of margins, in a context free from competition that makes it possible not to transfer downstream the efficiency gains that regulation has instilled higher up the chain.

## Transitional regulation of the sale tariff

Given these circumstances, the Authority, by virtue of its duty and power to protect customers, intervened with transitional measures aimed at extending price control to the end user, who would thus benefit from the reductions in infrastructure costs arranged by the Authority itself and from the discounts being granted in the wholesale market. Indeed, since most end customers have not had the opportunity to switch suppliers, despite being formally eligible, the existing market structure has changed little and there is still a need to keep the market power of local gas vending monopolies in check.

Regulation of the end-customer tariff is a thorny issue, given the current state of Italy's natural gas market. A "pure" regulatory approach, aimed solely at eliminating monopoly rents in order to define a cost-reflective tariff, would require estimating all the components of efficient cost that originate in the gas production chain and then adding them to a fair sales margin. This kind of system, however, might exclude new market entrants whose procurement terms are less favourable than those of the incumbent or that actually depend on the incumbent for raw material sourcing under "innovative sale" arrangements.

#### Eni and "innovative sales"

It is worth recalling at this point that Eni S.p.A. has complied with antitrust ceilings on the import of gas by selling some of its import contracts abroad, along with its access rights to international pipelines, which it can still control somewhat by way of utilization rights. These "innovative sales" involve an additional brokerage margin for Eni that reduces the margins of its customers/competitors, i.e. the companies Eni supplies in order to meet the antitrust restrictions. Thus, a policy of tariff regulation based exclusively on the goal of short-term allocational efficiency would have required setting a regulated price that is compatible with the incumbent's survival in the gas vending market (and more efficient in terms of production), but that might destroy new entrants whose margins are decidedly lower. This would have compromised any chance to develop competition in the future.

Since one of the Authority's tasks is to foster competition, it seemed fairer to let firms retain a decent sales margin in the hopes that the gradual spread of competition would reduce them regardless of regulation.

#### Regulation: necessary but not sufficient

With liberalization at a standstill, the Authority had to find a compromise between a policy of setting tariffs on the basis of efficient costs and the goal of promoting competition. Its efforts, however, can only support more powerful competition-stimulating measures that would constitute the natural end to the process begun with Legislative Decree 164 of 23 May 2000, which must derive from primary legislation affecting rights beyond the Authority's control.

By now, the concept is taking root that the adoption of the regulatory measures envisaged in Decree 164/00 is a necessary, but not sufficient, condition for the emergence of real competition. No matter how much progress was made in 2003 in implementing European principles of liberalization (witness the definitive approval of transmission codes and the consultation document on distribution codes), the only help the new rules may offer is to lower strategic barriers for new entrants without putting any pressure on prices.

## Need to create multitude of independent sourcing arrangements

In a market dominated by the import of gas under long-term contracts held by the incumbent, it is hard to imagine companies engaging in a price war to expand their market shares. Although the number of new entrants in the sector has gradually increased since 2000, their presence is only partly explained by independent procurement contracts. With the “innovative sales” mechanism, Eni has helped create entrance barriers in the sourcing of gas, since it sold some of its contracts simultaneously with its much-coveted right of access to the congested international pipeline network. Eni still claims utilization rights to the network, which are obviously exempt from national rules on third-party access, and which are not adequately supported by true European regulation. On this topic the antitrust authorities determined in November 2002 that Eni had violated the rules of competition, and ordered it to adopt suitable conduct. In March 2003, after judging Eni’s conduct insufficient, the antitrust authorities launched a formal investigation with a view to levying a fine.

New operators in the gas procurement business, which is run almost entirely through long-term take-or-pay agreements, have therefore entered the market at the expense of dividing it into a system by which other operators take over the portion of demand left free by the incumbent. Another strategy for increasing market share involves the acquisition of retailers, through the concentration process discussed above that is taking place downstream in the production and delivery chain. Thus, there is no price competition in the quest for higher market shares in the selling phase. The freedom to do business and the freedom to choose one’s supplier are not enough to foster competition.

What’s more, the fact that the gas price is no longer determined on the basis of the price of alternative fuels, according to the indexing formulae in long-term contracts—which has repercussions further down the chain in connection with Eni’s intermediation for new entrants—requires an institutional transition to a centralized wholesale spot market, where the price is set daily to reflect fluctuating supply and demand. The prospects for competition, then, appear to depend on the gradual reduction in importance of long-term contracts during the procurement phase, on the termination of “innovative sales” and on the parallel rise in imports and spot trades on a centralized market based on anonymous, multilateral trading mediated by a clearing house (as occurs on the Stock Exchange). A crucial achievement would thus be the creation of a Gas Exchange, for which the development of a virtual trading point (VTP) as part of the national transmission network is merely a first important step.

## Toward the creation of a Gas Exchange: the virtual trading point

The VTP has come about through the efforts of Snam Rete Gas S.p.A. which, following the Authority’s instructions, has furnished an electronic system that facilitates not only the trading of natural gas but also of transmission capacity on the secondary market. Its development was eased by the adoption of an “entry exit” rule for the determination of transmission tariffs. Trades are bilateral and take place at the price agreed in every contract. The VTP facilitates short-term compensation between shippers with excess gas and shippers with a temporary deficit in the raw material. A case in point are suppliers of the business market,

who often wind up with surplus gas because of lower consumption on the weekends. They can now sell the gas to residential market suppliers, who may be short on gas during the same period of time.

In general, VTP trades are good for balancing, but their negligible volume and the bilateral determination of price highlight how distant they are from a true gas exchange. The Authority has intervened on behalf of market players with some measures designed to make trading more flexible. While Snam Rete Gas's original proposal allowed shippers to plan VTP trades up to a day ahead of the gas day, the Authority has extended the deadline to during the gas day itself. That way, shippers can use the trades not only to correct predictable mismatches between supply and demand, but to fix unexpected discrepancies. The Authority has also promoted daily capacity trading on the secondary market, to increase the opportunities for the daily trading of gas. Otherwise, the secondary market would suffer from an imbalance between gas trading, permitted on a daily basis, and capacity trading, allowed once a month at most.

#### Medium-to-long-term prospects

As discussed above, despite the Authority's new gas trading incentives, Italy is still far from having a bona fide Gas Exchange. Once again, it is the limited availability of raw material exceeding long-term trades that is dampening the growth prospects of the spot gas market. Only if new importers join the business or if "gas release" measures are adopted, forcing the incumbent to sell part of its gas on the spot market, will the establishment of a centralized gas market for multilateral trading become a realistic short-term goal. Alternatively, sale offers on the spot market could start flowing in immediately through the sale of national output or of portions of the sizable reserves held at storage sites in accordance with energy security laws, which might be revised. Another possibility is capacity release operations imposed on Eni, as the firm that still has utilization rights to the European gas pipeline network, which by freeing up import capacity could link the Italian spot market to their more mature counterparts (such as those in northern Europe) and help eliminate the bottlenecks preventing the creation of a single natural gas market.

For the long term, the market could find opportunities for growth in the imports made possible by the new regassification terminals, which are scheduled to open in coming years. While most of the new capacity will probably go to the company that paid for the terminals, the remainder could be sold on the spot market that might develop at the VTP, gradually replacing trades at the import points (this is what happened in the UK, regarding the coastal terminals to which national production was sent). If this were not the case, the construction of new infrastructures for importing gas into Italy could strengthen the position of new entrants and reduce the incumbent's market share, without necessarily boosting competition to the point where price reductions would benefit residential and business users. The building

of new import facilities and the removal of the bottlenecks that still obstruct the European pipeline network will only translate into increased competition if the incumbent's loss of market share goes hand in hand with a gradually higher proportion of demand filled by spot trading at the VTP. Otherwise, new entrants could enjoy a higher share of the profits without customers seeing any real advantage.

## CHANGES IN THE MARKET IN 2003

The developments described above are condensed numerically in Table 20 ("The natural gas sector in figures"), which provides a brief overview of the roles played by the main categories of operator<sup>1</sup> throughout the production and delivery chain: from production and importation to vending and end consumption.

Note that as a result of increasing vertical integration, the distinction is no longer between producers, wholesalers and vendors, but among do-it-all corporate groups that take care of the entire chain. The three main groups are Eni, Enel S.p.A. and Edison S.p.A. In recent years, considerable weight has been attained by groups created at the initiative of former municipal firms, which are shown under the heading "major municipal utilities". This category includes, for example, the group formed around AEM Milano S.p.A., ASM Brescia S.p.A. and Amga Genova S.p.A. with a number of associated companies working both higher up and farther down the chain (Plurigas S.p.A., AEM Trading S.r.l., ASM Energy S.r.l., Amga Commerciale S.r.l., etc.).

This kind of integration is less evident, or in any case far less advanced, for most of the firms owned by local government agencies—which are thus grouped separately under the heading "other municipal utilities". The category "private Italian firms" is made up mostly of small, privately-owned businesses that traditionally operated under concession but which, due to the separation of duties mandated by Legislative Decree 164/00, have wound up serving the entire domestic market. It also includes larger firms, such as those in the Italcogim Group and companies like Energia S.p.A. that came about as a result of the new competitive system. The last category consists of foreign-owned companies, such as Gaz de France, Gas Natural and EGL, which are often based in Italy and whose importance has grown markedly during the past two years.

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<sup>1</sup> An operator is defined as the set of all production, sale and trading companies belonging to a single group.

Tab. 20 THE NATURAL GAS SECTOR IN FIGURES, 2003

G(m<sup>3</sup>); adjusted figures based on minimum energy content of 8,250 kcal/m<sup>3</sup>; injections indicated in the positive

	ENI GROUP	ENEL GROUP	EDISON GROUP	MAJOR MUNICIPAL UTILITIES	OTHER MUNICIPAL UTILITIES	PRIVATE ITALIAN FIRMS	FOREIGN FIRMS	TOTAL
<b>National output</b>	12.2	0.0	1.1	0.0	0.0	0.1	0.2	13.5
<b>Net imports</b>	40.0	9.1	5.9	3.5	0.0	2.5	1.5	62.4
Direct imports	40.0	9.1	2.9	0.7	0.0	0.8	1.2	54.7
Eni sales at border	0.0	0.0	3.0	2.8	0.0	1.7	0.3	7.8
<b>Net transfers</b>	-23.7	8.1	0.4	6.2	4.4	5.0	-0.3	0.1
Change in stocks	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	-1.3
Consumption and leakage	0.4	0.1	0.1	0.1	0.1	0.1	0.0	1.0
<b>Total resources</b>	29.4	17.0	7.3	9.5	4.3	7.4	1.4	76.4
<b>Sales and end consumption</b>	29.4	17.0	7.3	9.5	4.3	7.4	1.4	76.4
Electricity generation	4.7	12.1	5.8	1.4	0.1	1.6	0.6	26.4
Other uses	24.7	4.9	1.5	8.1	4.2	5.8	0.8	50.0
Protected market	8.2	3.0	0.7	5.8	3.6	4.3	0.0	25.6
< 2 000 m <sup>3</sup>	5.4	2.1	0.3	2.4	1.5	2.1	0.0	13.8
2 - 50 000 m <sup>3</sup>	2.0	0.5	0.3	2.6	1.6	1.8	0.0	8.8
50 - 200 000 m <sup>3</sup>	0.6	0.5	0.1	0.7	0.3	0.3	0.0	2.3
> 200 000 m <sup>3</sup>	0.2	0.0	0.0	0.2	0.2	0.1	0.0	0.7
Competitive market	16.5	1.9	0.8	2.3	0.6	1.5	0.8	24.4
< 2 000 m <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 - 50 000 m <sup>3</sup>	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
50 - 200 000 m <sup>3</sup>	0.1	0.0	0.0	0.2	0.0	0.1	0.0	0.4
> 200 000 m <sup>3</sup>	16.4	1.9	0.8	2.1	0.5	1.4	0.7	23.8

Source: AEEG calculations on operators' figures.

Tab. 21 **SALES BY WHOLESALERS IN 2003**<sup>(A)</sup>  
G(m<sup>3</sup>)

	NUMBER	SALES TO END CUSTOMERS	SALES TO OTHER WHOLESALERS <sup>(B)</sup>	TOTAL SALES
<b>Sales &gt;500 M(m<sup>3</sup>)</b>	<b>18</b>	<b>55.5</b>	<b>38.2</b>	<b>93.7</b>
Eni Gas & Power		17.5	22.6	40.1
Enel Trade		11.6	6.2	17.8
Edison Gas		5.6	4.1	9.7
Italgas Più		7.4	0.1	7.5
Enel Gas		4.4	0.0	4.4
Plurigas		0.7	2.6	3.2
Hera Comm		1.6	0.0	1.6
Aem Trading		0.4	1.1	1.5
Energia		0.7	0.5	1,.
Blumet		1.1	0.1	1.2
Aem Energia		1.1	0.0	1.1
Italcogim Vendite		0.8	0.0	0.8
Blu Gas		0.1	0.7	0.8
Gaz de France		0.6	0.0	0,6
Dalmine Energie		0.3	0.3	0.6
Fiorentina Gas Clienti		0.6	0,0	0.6
Asmea		0.5	0.0	0.5
Estgas		0.5	0.0	0.5
<b>Sales of 100–500 M(m<sup>3</sup>)</b>	<b>49</b>	<b>9.2</b>	<b>2.9</b>	<b>12.1</b>
<b>Sales &lt;100 M(m<sup>3</sup>)</b>	<b>196</b>	<b>4.6</b>	<b>0.4</b>	<b>5.0</b>
<b>No sales</b>	<b>25</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total</b>	<b>288</b>	<b>69.3</b>	<b>41.5</b>	<b>110. 8</b>

(A) Excluding those of over 150 wholesalers with sales of less than 50 M(m<sup>3</sup>).

(B) Including resales.

Source: AEEG calculations on operators' figures.

Compared with 2002, there were no significant changes in national output, which declined more or less uniformly for all categories. The imports of the Eni Group fell further as a percentage of the total, in line with the ceilings set by Legislative Decree 164/00. The growth in the demand for natural gas in 2003 was met in part by a significant rise in imports by almost all of the competing groups, for a total of +35 percent on the previous year, and to a lesser degree by withdrawals from storage. As for imports by competing groups, the role of Eni sales at the border grew significantly: 35 percent of imports in 2003, versus 30 percent in 2002. However, the weight of “innovative sales” varies notably depending on the category of importer: the Enel Group does not use them at all; for the Edison Group they rose from 38 to 51 percent of the total; and for the remaining groups they fell appreciably, from an overall 76 percent in 2002 to 64 percent in 2003.

Sales and end consumption are split quite evenly among electricity generation, the competitive market and the protected market. Within the competitive market, the figures show operators’ strong preference for larger consumers. Ninety-eight percent of sales in the competitive market went to end customers with consumption of over 200,000 m<sup>3</sup>. In particular, the portion of “unprotected” sales (as defined by the Authority pursuant to Resolution 207 of 12 December 2002) falls from 97 percent of the total for end customers with consumption over 200,000 m<sup>3</sup> to 14 percent for those consuming between 50,000 and 200,000 m<sup>3</sup> and to 1.8 percent for consumption between 2,000 and 50,000 m<sup>3</sup>. Less than 0.1 percent of end customers consuming less than 2,000 m<sup>3</sup> (residential users, essentially) purchased gas in the free market, mainly through service companies. In this regard, however, there are two categories of operator that use competitive contracts to a significantly greater extent than average: other municipal utilities (0.4 percent) and private Italian firms (0.2 percent). The rate drops to 0.05 percent for major municipal utilities and to less than 0.01 percent for the remaining groups.

Intermediate and end sales by operator for the year 2003 are reported in Table 21. On the whole, there are no major changes with respect to 2002, except for a significant rise in the number of operators which reflects the tail end of the process of separating the vending and distribution businesses. The ranking, in terms of the volume of gas sold to end customers and other wholesalers, was also quite stable from one year to the next. Sales were up for almost all operators, with the exception of the Eni Group due to the ceilings imposed by law. Likewise, imports (detailed in Table 22) changed little with respect to 2002, if not for a small increase in the number of importers and the steep volume growth reported for almost all of Eni’s competitors.



Tab. 22 **IMPORTS BY NATURAL GAS OPERATORS IN 2003**  
M(m<sup>3</sup>) and percent of total

	VOLUME IMPORTED	PERCENT OF TOTAL
Eni Gas Power	40,410	61.5
Enel Trade	9,092	14.5
Edison Gas	5,880	9.4
Plurigas	3,062	4.9
Energia	1,183	1.9
Gaz de France	579	0.9
Dalmine Energie	556	0.9
Gas Natural Vendita Italia	342	0.6
Energetic Source	313	0.5
Energas Milano	253	0.4
E Noi	186	0.3
Italcogim Trading	165	0.3
Worldenergy SA (Switzerland)	128	0.2
Hera Comm	128	0.2
Blumet	117	0.2
Electra Italia	76	0.1
Gas Plus	72	0.1
Blu Gas	64	0.1
BP Italia (2)	55	0.1
SPEIA	52	0.1
Acea Electrabel Trading	36	0.1
Spigas	33	0.1
EGL Italia	33	0.1

Source: AEEG calculations on operator's figures. ENI imports net of exports.

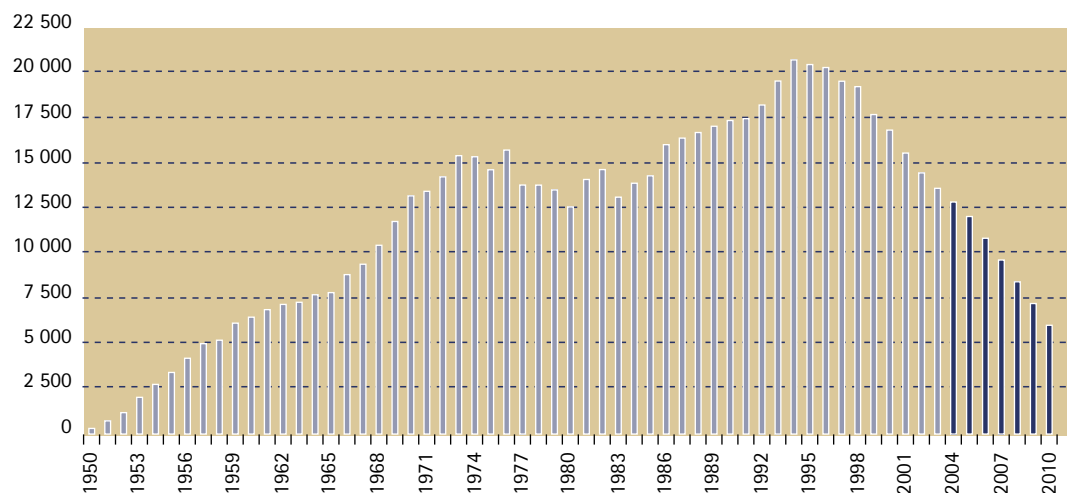
## PROCUREMENT: NATIONAL PRODUCTION AND IMPORTS

### Structure of the procurement market: national production and imports

#### Production

National output declined further in 2003. Italian gas accounted for an ever lower percentage of total consumption, falling from 20 percent in 2002 to just 18 percent. This downward trend in production is certainly nothing new. The major reserves have already been discovered, and most companies are no longer investing in the upstream sector in Italy—despite government incentives, including for the production of marginal fields as per Legislative Decree 164/00—due mainly to the complexity of authorizations. Compounding the issue is the freeze on the use of reserves in the Upper Adriatic. National output is declining because of the lack of cost-effectiveness in the extraction of Italian gas, with the unwelcome consequence that over the long term Italy will lose its technical expertise upstream, which has always been advanced because of the country's complex geological structure.

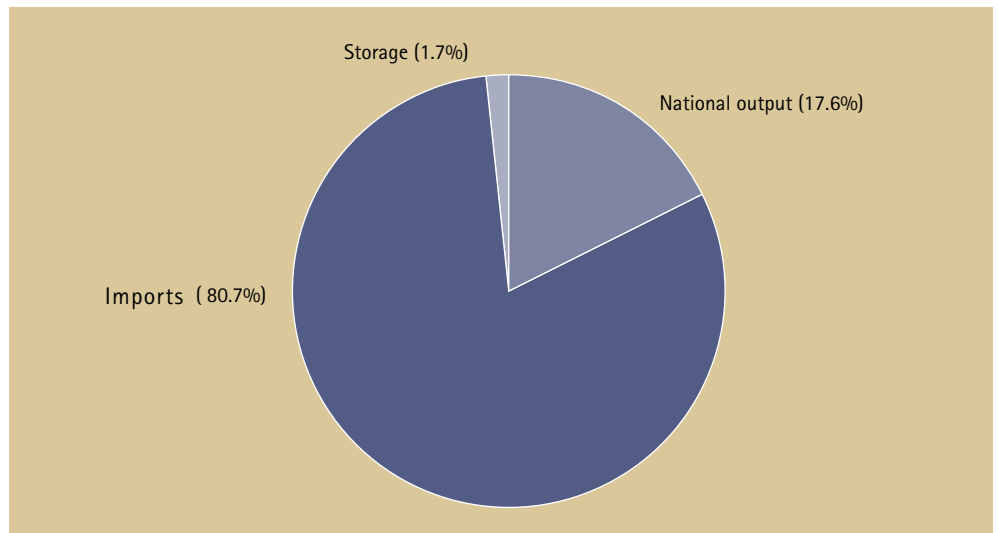
Fig. 11 **NATURAL GAS PRODUCTION IN ITALY SINCE 1950**  
M(m<sup>3</sup>); historical figures from 1950 to 2003 and forecasts from 2004 to 2010



Source: Ministry of Productive Activities.

Fig. 12 **NATURAL GAS INJECTIONS IN 2003**

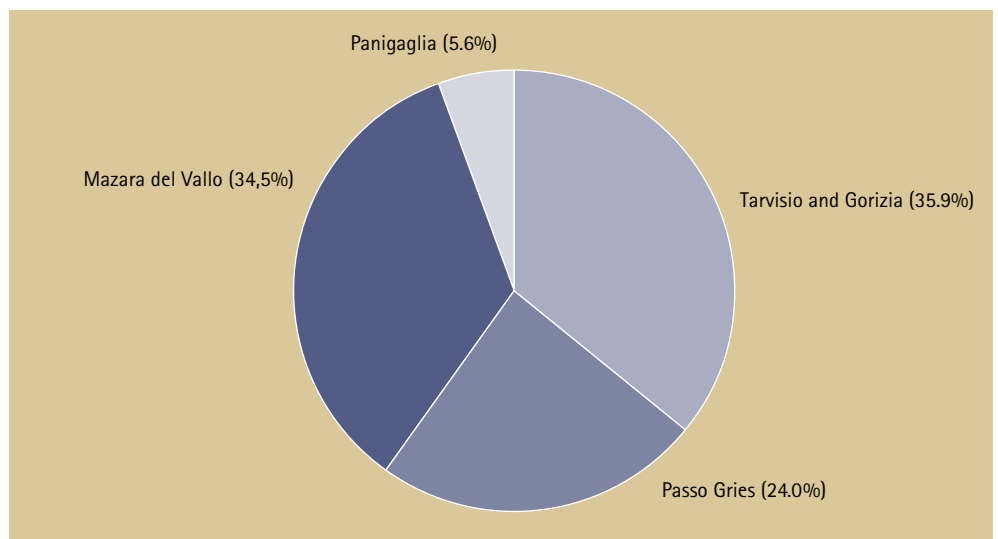
Percent of total



Source: AEEG calculations on figures from the Ministry of Productive Activities.

Fig. 13 **NATURAL GAS IMPORTS IN 2003 BY POINT OF ARRIVAL**

Percent of total



Source: AEEG calculations on figures from the Ministry of Productive Activities

## Imports

Italy, therefore, depends increasingly on imports for the satisfaction of its gas requirement. In 2003 imports accounted for over 80 percent of consumption (Fig. 12).

The breakdown of imports by point of arrival (Fig. 13) shows how the highest share, 35.9 percent, arrives through Tarvisio and Gorizia, where most of the incoming gas comes from Russia. The build-up on the last of the contracts between Eni and Russia's Gazprom dates to

no earlier than the start of 2004. Next in importance, with a share of 34.5 percent, is the Algerian gas that travels through the Transmed pipeline and arrives in Italy at Mazara del Vallo, in Sicily. Twenty-four percent of imports join the Italian network at Passo Gries, on the Swiss border, with most of the gas originating in the Netherlands and a smaller amount in other EU countries and Norway (off-shore production in the North Sea). Lastly, 5.6 percent of gas comes from North Africa, arriving as LNG at the Panigaglia plants in Liguria (run by GNL Italia S.p.A., a member of the Eni Group), where it is regassified and injected<sup>2</sup>. As for Eni's commitments to buy Russian gas, the European Commission insisted that Eni and Gazprom agree to eliminate the geographical restriction (or "destination") clauses that figured in the contracts drawn up in recent decades. As a result, Eni agreed to offer significant volumes of gas purchased from Russia to customers outside Italy, and to promote the upgrading of the TAG pipeline, which will take place between 2008 and 2011 depending on the performance of the Italian market.

The planned upgrades, and other major works being contemplated, are making the Italian market ever more attractive to operators. In addition to those already in business here, new ones—some from abroad—are showing interest in the market thanks to its bright prospects, especially in terms of LNG regassification facilities (see below).

One project is for a new pipeline that will start in Algeria, cross the island of Sardinia and end in France, which includes the oft-discussed plan to switch Sardinia over to natural gas. In truth, this is still subject to a technical and economic feasibility study, but it is certainly a sizable work: annual capacity would be at least 10 G(m<sup>3</sup>), requiring substantial investment, and would go more to the European market than to Italy (simply giving a region natural gas capability would not justify the expense). This is also in view of the Algerian company Sonatrach's plans to enter the European market, probably to counterbalance the elimination of the "destination clause" in take-or-pay contracts, which the EU competition authorities are now pursuing for Algeria as they did for Russia. In any case, the new structure will not be in effect before 2009; early this year the Ministry of Productive Activities should initiate procedures for financing the feasibility study.

The feasibility study has also been launched for the Greece-Italy pipeline, a project funded by the European Commission as part of the Trans-European Network.

Soon to be completed is the new pipeline for imports from Libya, which by contract will have an annual maximum capacity of 8 G(m<sup>3</sup>). According to official communications to the Ministry of Productive Activities pursuant to Legislative Decree 164/00 and the import per-

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<sup>2</sup> As a result of the swap agreement between Enel and Gaz de France for the Nigerian LNG that Enel purchased under a long-term contract in 1997, some pipeline imports from Russia, France and Germany should be attributed to that contract, along with some Algerian gas that arrives here as LNG for Enel, for a total of just over 6 percent of all gas imported into the country.

mits issued by the ministry, the pipeline should be operating by the end of 2004 at reduced capacity, and at full speed in 2006.

Concerning the capacity upgrade of the Tunisian section of the pipeline for imports from Algeria, for a further 6.5 G(m3), the first phase of the allocation procedure ended in June for a total (thus far) of 1.78 G(m3). If the initiative is kept up, the upgrade could be complete by 2007. Unfortunately, it is the focus of a complicated dispute between Eni, its subsidiary Trans Tunisian Pipeline Company (TTPC) and the Algerian firm Sonatrach. The dispute also involves the Algerian, Tunisian and Italian governments and makes completion of the work chancy before 2013.

Discussion of the possible upgrading of the Austrian section of the TAG pipeline for the importation of gas from Russia, by an additional 6.5 G(m3) per year, was recently resumed in light of the afore-mentioned agreement between the European Commission, Eni and Gazprom. With the removal of the destination clause in import contracts, Eni will be able to delay these works until 2011, provided work on two new LNG terminals begins by July 2005

## The Authority's efforts to promote competition in the supply of gas

Two ways the Authority can foster competition in the supply of gas is to pave the way for an accessible, efficient transmission service and to provide incentives for the creation of new import infrastructures

### Changes to and completion of transmission regulations (Resolution 91/03)

Art. 13 of Resolution 137/02 states that incoming and outgoing capacity assigned to users of the national gas pipeline network can be sold and traded and the gas injected into that network can be traded on the basis of procedures defined by the Authority. The process of instituting such a system and of completing the competition-enhancing set-up of the gas market was initiated with Resolution 91 of 31 July 2003.

The original version of the network code submitted to the Authority by Snam Rete Gas contemplated rules for the organization of a secondary gas trading market, involving the introduction of a VTP as an "optional service" for the daily trading and transfer of gas. Since these rules did not address the relationship between the operator and user of the service (the two parties to a transmission contract), they were inappropriate in the context of a network code. During the code approval process, the Authority reported the problem to Snam Rete Gas, and in the new, approved version of the code those rules have been replaced by a form of technical and operational support for physical negotiations between operators. Meanwhile, however, the Authority asked Snam Rete Gas and other interested parties to present an outline for the organization of a secondary gas trading market, with a deadline of 30 September 2003.

With Resolution 91/03 the Authority also took steps to modify Resolution 137/02, which appeared to be incomplete with respect to regulating certain aspects of the transmission service. Specifically, the Authority felt that:

- the rules for allocating capacity did not meet the needs of plants going through the start-up and initial testing phase, whose withdrawal profiles are extremely difficult to determine;
- nor did those rules consider the specific needs of import contracts, which include a transitional period during which the average and maximum daily volumes provided for under the contract are attained gradually, or of contracts for the supply of gas to new facilities which are started up after the thermal year begins;
- the rules for the transmission service did not consider the needs of motor vehicle fuel compression plants in feeding cylinder trailers used for emergency fuel delivery or maintenance work;
- although fair, the capacity booking rules envisaged in Resolution 137/02 were not entirely compatible with their purpose. What's more, complaints from users had revealed that by not requiring users who back out of their own bookings to pay a charge, the resolution allowed some users to behave opportunistically and irresponsibly to the detriment of others during the balancing phase.

#### Toward the creation of a gas exchange (Resolution 22/04)

As part of the process initiated with Resolution 91/03, the Authority took some measures concerning the regulated market for transmission capacity and natural gas injected into the national pipeline network. Based partly on the experience of other European countries and on the comments and suggestions of the interested parties, Resolution 22 of 26 February 2004 outlined a four-stage programme of regulatory interventions aimed at the gradual institution of a centralized gas and capacity network. The four phases are as follows:

- the introduction of computerized procedures allowing for the purchase and sale of transmission capacity and natural gas injected into the national pipeline network on the basis of bilateral agreements between users, in accordance with the rules of transmission service balancing as per Resolution 137/02;
- the introduction of standard contracts for bilateral gas and capacity trades; by facilitating transactions between operators, who are given the chance to set prices and volumes, such agreements help promote market liquidity;
- the creation of a balancing system based on a daily market, in which the transmission company buys from or sells to system operators the natural gas constituting the transmission network's deficit or surplus. This step, which would lay the groundwork for an increase in the daily trading volume, requires changing the current balancing system as

defined in Resolution 137/02 and introducing a system that encourages users to be balanced by way of fees charged on the basis of the price at which natural gas is traded on the daily balancing market;

- the creation of a centralized, independently run natural gas market based on an automatic system of matching supply and demand, along the lines of the UK's clearing house model, which allows an official price to be determined as reference for market transactions.

Since 1 October 2003 Snam Rete Gas has been running the computer system for gas trades at the VTP, through which users of the transmission network can report the trading and sale of injected gas (defined on a bilateral basis) for purposes of their own balancing. The Authority has approved the system as satisfying the first of the four stages, and has thus given the virtual trading point the status of regulated gas and capacity market. However, the Authority has also noted that when it comes to possible interventions aimed at creating an efficient regulated gas market, additional functions could be added to those featured in the system designed by Snam Rete Gas—functions that would offer users of the transmission system extra flexibility in order to optimize balancing. Specifically, the Authority would like to see the following:

- the possibility to carry out and record natural gas transactions 30 days earlier than when they are booked for balancing purposes. At the moment, transactions can only be recorded eight days in advance;
- the opportunity to trade transmission capacity, for minimum periods of one day, at the entry points of pipelines connected to other countries or to LNG regassification terminals. Under the current network code drawn up by Snam Rete Gas, transmission capacity can be traded among users for minimum periods of one calendar month. The Authority's arrangement would align the timing rules for capacity trades with those in effect for the exchange of gas injected into the network;
- the possibility to carry out and record natural gas transactions on the same day they are booked for balancing purposes, which would allow users to correct unexpected imbalances during the day in course.

Therefore, with Resolution 22/04 the Authority asked Snam Rete Gas to provide it with a suggested revision of the present system, so that the new functions could be implemented by the end of the next thermal year. Meanwhile, the VTP has been operating since last October and has already borne results, as detailed in the section on the organization of the transmission business.

Resolution 22/04 also launched a consultation process for the definition of standard bilateral contracts and the introduction of a balancing system based on a daily market. All interested parties have been invited to submit their comments and recommendations.

#### Consultation on transmission for start-ups

As mentioned above, in the case of start-ups the transmission service is not adequately regulated by Resolution 137/02 and thus by the network codes drawn up by transmission companies. In these cases, in fact, the following problems have come to light:

- a) rules for the allocation of capacity do not meet the needs of plants during the start-up phase, whose withdrawal profiles are very difficult to determine;
- b) the specific needs arising from the activation of new import contracts have not been taken into consideration;
- c) also neglected are the needs of newly built plants that are started up after the end of the thermal year, for which there is a time lag between start-up and the availability of transmission capacity.

To address these issues, the Authority has distributed a consultation document with recommended rules for the transmission service as applicable to start-ups.

#### Priority access to the new regassification terminals (Resolution 90/03)

Among the energy policy measures concerning international infrastructures for the procurement of natural gas, Law 273/02 gives companies that invest in the construction of new import pipelines, new regassification terminals and new underground storage the right to allocate 80 percent of the newly created capacity for a period of 20 years (Art. 27, par. 2). The priority access defined in the Authority's Resolution 91 of 15 May 2002 has thus become a right of allocation that also pertains to parties other than the users of the terminal, without limitations on the amount of capacity that can be created, and does not require verification by the Authority.

Furthermore, Art. 22 of the new European directive (2003/55/EC of 26 June), which revoked Directive 1998/30/EC, lays down an individual procedure on the basis of which the general provisions on network infrastructure access may be overridden, on a case-by-case basis, if new LNG terminals are built. Decisions as to allowable exceptions are taken directly by the regulatory authority, although the member state may require the authority to submit its opinion to the pertinent government body so it can adopt the formal decision.

With Resolution 90 of 31 July 2003 the Authority amended Resolution 91/02, incorporating the provisions of Law 273/02 until the Italian government could nationalize Art. 22 of European Directive 2003/55/EC.



## TRANSMISSION AND STORAGE

### Structure and organization of transmission, storage and regassification

#### Transmission

In thermal year 2002–2003 there was no congestion at the points where foreign transmission infrastructures connect with the national network, despite the intensive use of continuous transmission capacity, especially for imports from Northern Europe and Russia.

With respect to the capacity made available during the previous thermal, there were some changes in 2003–04 (Table 23):

TAB. 23 **CONTINUOUS TRANSMISSION CAPACITY IN ITALY**

Millions of standard m<sup>3</sup> per day, unless otherwise specified; thermal year 2003–2004

ENTRY POINT	CONTINUOUS CAPACITY	GRANTED CAPACITY	AVAILABLE CAPACITY	PERCENT GRANTED/GRANTABLE
Passo Gries	57.7	57.7	0.0	100%
Tarvisio	82.0	80.1	1.9	98%
Panigaglia (LNG)	11.5	11.5	0.0	100%
Mazara del Vallo	86.0	74.4	11.6	87%
Gorizia	0.7	0.7	0.0	100%
<b>Total</b>	<b>237.9</b>	<b>224.4</b>	<b>13.5</b>	<b>94%</b>

Source: AEEG calculations on data from Ministry of Productive Activities and Snam Rete Gas.

- transmission capacity at the entry point of Mazara del Vallo underwent a slight adjustment due to updated forecasts for consumption and national production along the import line from North Africa;
- transmission capacity at Passo Gries was reduced because of problems with the compression units installed at the new Masera facility;
- the transmission capacity at Tarvisio, as specified in the table, shows an increase dating to the start of 2004 thanks to the completion of various upgrades in connection with the build-up on the fourth ENI contract for imports from Russia.

It is worth noting that transmission capacity is measured by means of hydraulic simulations

of the network that take account of the withdrawal scenarios likely for the year in question. In particular, Snam Rete Gas has calculated the maximum volumes that can join the network at each entry point without exceeding the pressure limitations at the various points of the system or maximum plant performance. To make sure the transmission service is available at the required level throughout the thermal year, the capacity at each entry point is determined according to the most intensive transmission scenario (summertime for Mazara del Vallo, Tarvisio and Gorizia and wintertime for Passo Gries).

The capacity granted for thermal year 2003-2004 has satisfied practically all continuous capacity requests for all international entry points: as of September 2003, 22 parties had applied for and obtained access at these points.

In accordance with Resolution 137/02, during the year the first of the long-term capacity grants at international entry points took place. Eight companies applied for and received capacity for the five-year period 2004-05 to 2009-10. The results are shown in Table 24.

In 2003 the length of the network was extended by approximately 1.24 percent with respect to the previous year.

Snam Rete Gas has submitted a major upgrading plan for the next 10 years, consistent with the development of foreign pipelines interconnected with the national network. Lastly, works have continued in connection with the new import capability from Libya.

## Virtual trading point (VTP)

At the beginning of thermal year 2004-05, Snam Rete Gas implemented a system for the daily trading of gas over its own network at the “virtual trading point”. Along with the electronic bulletin board for capacity trading and selling, in use for a year already, the new system facilitates bilateral transactions among users. Snam Rete Gas’s network code is set up to acknowledge VTP transactions.

Located conceptually between the entry and exit points of the national pipeline network, the VTP is where users can trade and sell gas on a daily basis. As of February 2004, 25 different parties were involved in VTP transactions, including users of the transmission service that in September were assigned capacity at the international entry points.

The number of transactions has increased since the VTP was opened: from a maximum of seven transactions per day in October 2003 to 21 per day during the last weekend of February 2004. Volume-wise, too, growth has been constant: the maximum daily volume in the month of February was over 3.7 million standard cubic meters, but did not reach half that amount the previous October. What’s more, transactions go up considerably—in terms of both number and volume—during the weekends and on holidays. On the whole, total trading volumes went from about 21 million standard m<sup>3</sup> (about 798 million GJ) in October to over 35 million standard m<sup>3</sup> (roughly 1,353 GJ) in February.

TAB. 24 **CAPACITY ASSIGNED AT INTERNATIONAL PIPELINE ENTRY POINTS FOR THERMAL YEARS 2004-05 THROUGH 2009-10**

Millions of standard m3 per day

THERMAL YEAR	CONTINUOUS CAPACITY	GRANTED CAPACITY	% AVAILABLE
2004-05	246.7	202.1	18.1
2005-06	255.0	206.4	19.1
2006-07	274.2	210.4	23.3
2007-08	274.2	212.0	22.7
2008-09	274.2	212.7	22.4
2009-10	274.2	212.7	22.4

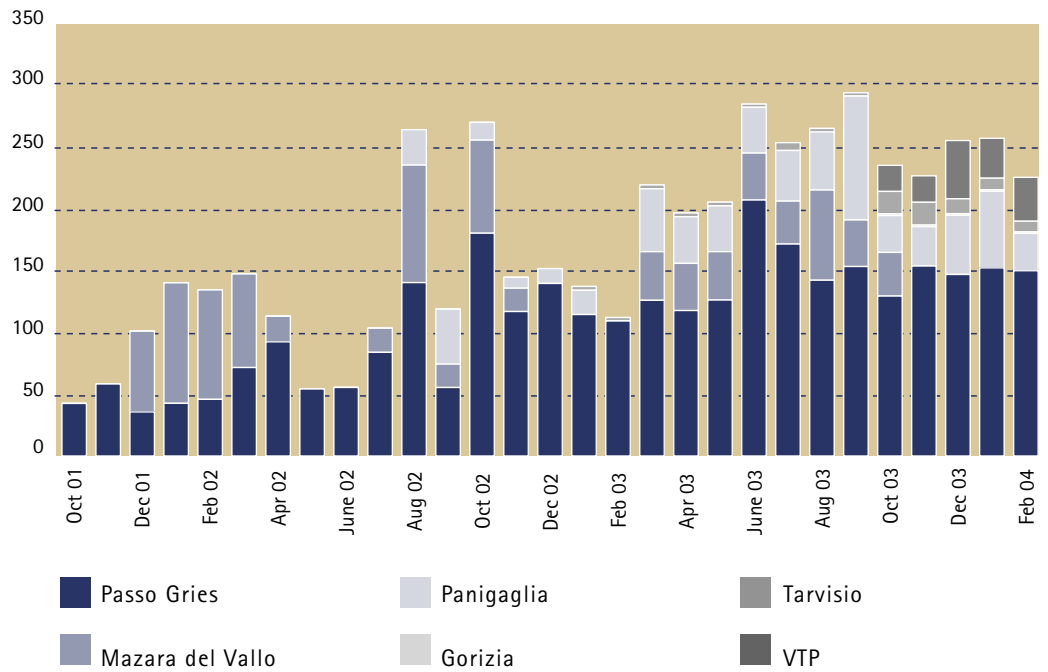
The graphs below show transactions at the international entry points (where they take place on a monthly basis) since October 2001 and at the VTP since this past October, in terms of volumes (Fig. 14) and number of transactions (Fig. 15). For the sake of comparison, the VTP figures consist for each month of the average number of daily transactions and the total trading volume.

The highest number of transactions, for the greatest volume of gas, took place at the Passo Gries entry point—but the VTP accounted for a significantly higher proportion from month to month.

Most of the transactions are for volumes of 20,000 to 30,000 standard cubic meters. Fig. 16 shows that the most commonly occurring volume ranges are 20-50,000 and 100-200,000 standard m<sup>3</sup>.

FIG. 14 TRANSACTIONS AT INTERNATIONAL ENTRY POINTS, OCTOBER 2001—FEBRUARY 2004

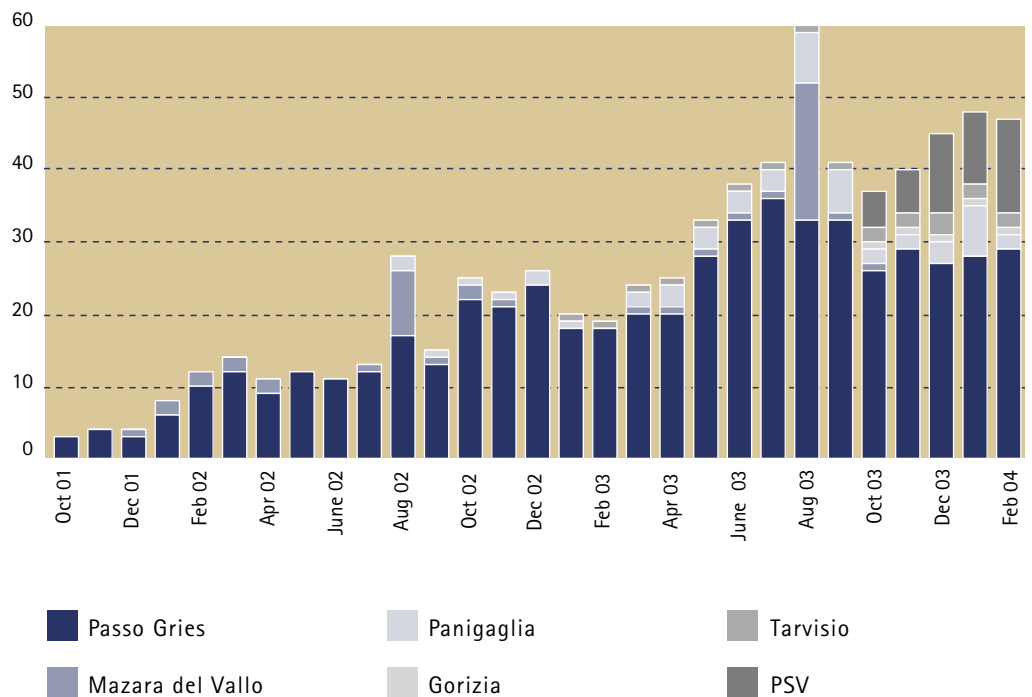
Millions of standard cubic meters of 38.1 MJ; transactions refer to gas injected into the network by the seller.



Source: AEEG calculations on Snam Rete Gas data.

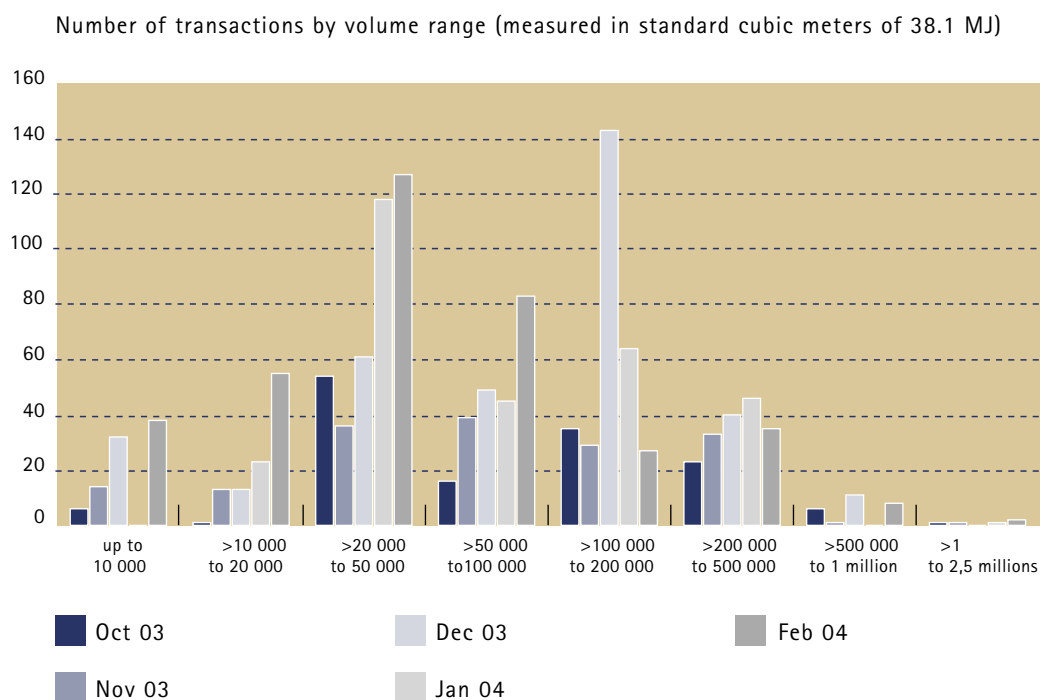
FIG. 15 ITALIAN-SIDE TRANSACTIONS, OCTOBER 2001—FEBRUARY 2004

Number of transactions per month



Source: AEEG calculations on Snam Rete Gas data.

FIG. 16 FREQUENCY OF VOLUMES TRADED AT VTP, OCTOBER 2003—FEBRUARY 2004



Source: AEEG calculations on data from Snam Rete Gas.

## New LNG terminals

Edison has already obtained a construction and operating permit from the Ministry of Productive Activities for the LNG regassification terminal it plans build off Rovigo. In October, the environmental compliance decree was issued for the pipeline that will connect the terminal to the national transmission network. Estimated capacity is currently 4.6 G(m<sup>3</sup>) per year, but an application to expand it to 8 G(m<sup>3</sup>)/year is pending, subject to endorsement by the Ministry of the Environment and the region. The start of construction was recently delayed to the end of 2007 and the operating licence to 2027, in keeping with Law 273/02 concerning the 20-year capacity reserve for companies that invest in new infrastructure.

Plans for British Gas Italia S.p.A.'s regassification terminal at Brindisi have also been authorized by the Ministry of Productive Activities. Annual capacity is 4 billion, expandable to 8 (under the same permit), to be up and running by end-2007. When Enel acquired a 50 percent stake in the new company Brindisi LNG S.p.A., which will operate the terminal, it announced that it no longer planned to follow through with its plans to build three regassification terminals at Vado Ligure, Muggia and Taranto.

A further three projects are still pending:

- OLT Offshore LNG Toscana's plans for a new shipboard regassification terminal to be built off the coast of Livorno, with a total capacity of 3 G(m<sup>3</sup>) per year, expandable to 6;
- Edison's plans (possibly to include BP Italia S.p.A.) for a traditional LNG terminal on the site of the Solvay plant at Rosignano Marittimo (Livorno), with a capacity of 3 G(m<sup>3</sup>) per year;
- in Calabria, two contiguous, competing projects at Gioia Tauro (by Società Petrolifera Gioia Tauro S.r.l.) and San Ferdinando (by the company LNG Terminal) have just entered the evaluation process.

Lastly, plans for terminals at the Lamezia Terme and Corigliano Calabro sites of LNG Terminal have been cancelled due to a negative opinion from the Region of Calabria.

## Storage

Considering the storage operated by Stogit S.p.A. and Edison T&S, working gas for the 2003-04 capacity assignment campaign amounted to 12.42 G(m3). That includes the amount reserved for stockpiles which, in accordance with Legislative Decree 164/00, is established by the Ministry of Productive Activities on the basis of the largest import volumes and announced once a year. This year's volume confirms the figure in effect for the past two thermal years, i.e. 5.1 G(m3) (Table 25).

The remaining quantity of over 7 G(m3) thus constitutes the space assigned by the storage companies to users in March 2003, as part of the campaign to reconstitute the seasonal modulation storage. In outflow, the peak day deliverability capacity (when stockpiles are filled to their limits) reaches a total of nearly 218 million standard cubic meters.

TAB. 25 **NATURAL GAS STORAGE IN ITALY**  
Thermal year 2003-04

	MILLIONS OF GJ	MILLIONS OF STANDARD m <sup>3</sup>
Space for stockpiles	194.7	5 110
Space for seasonal modulation	278.4	7 308
Daily capacities		
Peak deliverability capacity for stockpiles	1.5	39
Peak deliverability capacity for stockpiles, hourly modulation and operational balancing	8.9	218
Peak deliverability capacity for seasonal modulation storage (interruptible)	1.5	38.9

Source: AEEG calculations on Stogit and Edison T&S data.

As for how capacity was assigned, Table 26 shows that from 2002 to 2003 there was an increase in the number of operators using the seasonal modulation service (the “basic” storage service, which considers an injection period of April to September and a sendout period of October to March), in parallel with the rising number of parties using the transmission service. There are fewer and fewer transmission service users who do not apply for storage capacity, due in part to vendors' modulation commitments in accordance with Art. 18, par. 4 of Legislative Decree 164/00.

TAB. 26 ALLOCATION OF STORAGE CAPACITY FOR SEASONAL MODULATION

COMPANY	THERMAL YEAR 2002-03		THERMAL YEAR 2003-04	
	No. OF OPERATORS	CAPACITY (MILLIONS OF GJ)	No. OF OPERATORS	CAPACITY (MILLIONS OF GJ)
Stogit	13	268.6	23	272.7 <sup>(A)</sup>
Edison T&S	4	9.9	5	9.6

(A) For Stogit stockpiles the GCV is 38.7.

Source: AEEG calculations on Stogit and Edison T&S data.

There were 23 users of Stogit's seasonal modulation service (18 were given capacity in April and the other five later on), and seven users of strategic storage (corresponding to imports from non-European countries, as per the Ministry of Productive Activities decree of 27 March 2001), almost all of them modulation service customers as well. If we add special services and the quota assigned to Snam Rete Gas for balancing and hourly modulation, Stogit served 29 users in all.

The total volume of gas that moved through Stogit's fields in thermal year 2003-04 was approximately 13.3 G(m<sup>3</sup>): 7.63 sent out (gross of consumption) and 5.67 injected.

All of Edison T&S's space for working gas, about 267 M(m<sup>3</sup>), was assigned to users of the seasonal modulation service and strategic storage, and to Edison T&S itself for the purpose of network balancing. More specifically, the number of companies using the basic service rose from four in the previous storage year to five; strategic storage was assigned to one user for a space of approximately 10 M(m<sup>3</sup>).

The volume of gas moving through the Cellino and Collalto fields in thermal year 2003-04 was about 478 M(m<sup>3</sup>); 258 sent out and 219 injected.

The Ministry of Productive Activities is examining several applications for permission to develop new storage fields. Because of the projected growth of the gas requirement and thus of the storage market, Italy, too is looking into alternative kinds of site. Three of the more recently submitted applications are for aquifer facilities, which would exploit deep saline water tables. This is the first time in Italy that permits for aquifer facilities have been sought. Historically, natural gas has been stored in this country in depleted reservoirs, mainly because the technical requirements for their development and operation are already familiar, so the amount of geological research that has to be conducted on those sites is relatively limited.

One of the reasons why storage capacity is so scarce and in need of rationing is the volume immobilized at Eni sites as pseudo-working gas. This is gas that could potentially be used to provide the liquidity necessary for pro-competition measures, like a bona fide centralized market. Any solution, however, would depend on additional technical research and considerations of energy policy.

## Economic and technical regulation of the transmission network, storage and regassification terminals

In 2003, economic regulation by the Authority concerned the adjustment of transmission tariffs and LNG regassification tariffs.

On the technical side it focused on the task of approving the network codes for transmission submitted by the market's two main players, Snam Rete Gas and Edison T&S. In early 2004, it started to review a third network code presented by a new company that will operate a section of the regional network in Lombardy, which connects to Snam Rete Gas's network. In addition, it issued some measures regarding access rules and the use of regassification terminals.

### Adjustment of transmission tariffs Resolution 71/03)

Halfway through the year, with Resolution 71 of 26 June 2003, the Authority approved tariffs for the transmission and dispatch of natural gas over the national and regional network for thermal year 2003-04. As always, the tariffs were approved well in advance so that operators using the service could plan their expenditures (Table 27).

The total tariff was reduced by an average of 8 percent with respect to the previous thermal year. The difference was produced by a decrease of 16 percent in the component pertaining to transmission capacity (toll) on national pipelines, of 5 percent in the toll on regional pipelines, and of 3.5 percent in the variable component tied in with transmission volumes.

Two factors behind the reduction were the price cap (the pre-established annual reduction offsetting lower costs brought about by efficiency gains) and the revenue cap, which restricts the amounts earned in previous years as a result of utilizing more capacity than planned.



TAB. 27 TRANSMISSION AND DISPATCH TARIFFS FOR THERMAL YEAR 2003-04

Not including the tax imposed by Sicily's Regional Law 2 of 26 March 2002

VARIABLE UNIT FEES (€/GJ)				
CV	0.167255			
CV <sup>P</sup>	0.008176			
Unit capacity fees, national network (€/y/standard m <sup>3</sup> /g)				
CPe		CPu		
Mazara del Vallo	2.142874	Friuli Venezia Giulia	A	0.538638
Passo Gries	0.298082	Trentino Alto Adige/Veneto	B	0.678954
Tarvisio	0.645104	Eastern Lombardy	C	0.776143
Gorizia	0.516836	Western Lombardy	D	0.879253
Panigaglia	0.540838	Northern Piedmont	E1	1.077001
Northwest	0.077469	Southern Piedmont and Liguria	E2	0.879253
Northeast	0.101644	Emilia and Liguria	F	0.678954
Rubicone	0.121319	Lower Veneto	G	0.600136
Falconara	0.438506	Tuscany and Lazio	H	0.585215
Pineto	0.631000	Romagna	I	0.478656
San Salvo	0.471894	Umbria and Marches	L	0.384917
Candela	0.553680	Marches and Abruzzo	M	0.473413
Monte Alpi	0.765278	Lazio	N	0.516657
Crotone	1.649910	Basilicata and Puglia	O	0.528678
Gagliano	1.765982	Campania	P	0.372240
		Calabria	Q	0.328380
Stogit/Edison T&S storages	0.159403	Sicily	R	0.128081
UNIT CAPACITY FEES, REGIONAL NETWORK CRr (€/y/standard m <sup>3</sup> /g)				
Snam Rete Gas	1.182195			
Edison Gas and SGM	1.589120			
SET FEE CF <sup>(A)</sup>	Level 1	Level 2	Level 3	
Snam Rete Gas (€/y)	3 132.872464	7 832.231710	17 764.368577	
Edison Gas and SGM (€/redelivery point)	31.341868	2 164.914256	5 240.865844	

(A) The level is determined on the basis of several variables, which may include the annual consumption of the redelivery point, the type of measurement chain, the cubic metres withdrawn, the type of measuring equipment and the measuring method.

Yet another factor was the exclusion from the tariff calculation of the revenues earned by TMPC (Trans Mediterranean Pipeline Company), owned in equal measure by Eni and the Algerian firm Sonatrach, which operates the pipeline between Tunisia and Sicily. This is because Law 273/02 prevents the charging of transmission tariffs to sections of pipelines located in Italian waters, against the Authority's recommendations. Thus the charge for use of that pipeline is determined by free negotiation between the parties.

As it did the previous year, the Authority excluded from the tariff the amount of the tax instituted by the Region of Sicily for the section of pipeline on regional soil, a decision that was ratified in 2002 by a ruling of the Lombardy Regional Court.

**Adjustment of LNG terminal tariffs (Resolution 70/03)**

Together with transmission tariffs, with Resolution 70 of 26 June 2003 the Authority established tariffs for use of the LNG terminals for thermal year 2003-04 (Table 28).

With the exception of the unit commitment fee associated with the amount of LNG unloaded (CQS), which was reduced by 8.4 percent, the new tariffs—to take effect in October—are higher than those for the previous thermal year (valid through September 2003). The fee for contractual mooring points (CNA) rose by 11.2 percent, and the variable charges for energy associated with regassified volumes increased by 0.4 percent (CVL) and 150 percent (CVLP).

TAB. 28 **TARIFFS FOR USE OF THE PANIGAGLIA TERMINAL OF GNL ITALIA FOR THERMAL YEAR 2003-04**

UNIT FEES	UNIT OF MEASURE	VALUE
Commitment associated with amount of LNG unloaded: CQS	€/y/liquid m <sup>3</sup>	3.307492
Associated with contractual mooring points: CNA	€/no. of mooring points in a year	18 916.430343
Variable, for energy associated with regassified volumes:	€/GJ	0.064996
CVL	€/GJ	0.003133
CVLP		
Leakage	per regassified m <sup>3</sup>	2%

**Evaluation of network codes**

On the basis of the criteria and obligations the Authority laid down in Resolution 137/02 in accordance with Legislative Decree 164/00, the transmission companies Snam Rete Gas and Edison T&S each drew up their own network code in order to complete the rules for management of the gas transmission service and for users' access to the national and regional networks. The two codes, drafted with the input of all interested parties (as required by Resolution 137/02), were submitted to the Authority for its evaluation and approval.

The network code is meant to be a comprehensive document covering all terms of the transmission service (except, of course, for the details particular to each contract: parties' names, choice of services among those envisaged by the code, choice of duration, quantity and so on). Introduced by a section describing the transmission system and the services the company offers within its own pipeline network, the code contains a number of provisions that are automatically applicable to both the service operator and the shippers when they enter into a transmission contract.

The network code includes the following kinds of rules and operating provisions:

- *rules and provisions of access*, which govern the transmission company's pre-contractual activities, i.e. determining which user it must serve and the applicable transmission capacity;
- *rules and provisions of use*, concerning the actual rendering of the transmission service according to the terms of each agreement;
- *rules and provisions of connection*, concerning the material prerequisite for free access, i.e. the construction and operation of delivery and redelivery points.

One of the main areas governed by the code is the procedure by which the company assigns transmission capacity on its network to the various applicants (capacity assignment). This is an aspect of fundamental importance in the case of Snam Rete Gas, which operates every entry point from foreign pipelines and from the only regassification terminal currently in existence. To ensure the proper rendering of the service in both business and technical terms, there are specific clauses spelling out the responsibilities of the parties to the transmission contract. The physical and commercial flows over the network are governed by the rules of balancing.

The Authority evaluated every contract provision in light of the pertinent laws, and identified two basic categories of shortcoming:

- incompleteness: failure to include aspects that Resolution 137/02 demands be specified in detail;
- incompatibility with the law.

The Authority then notified the companies of these problems and made sure they were understood.

**Approval of the Snam Rete Gas network code (Resolution 75/03)**

Snam Rete Gas finished working on its network code in June 2003, when it submitted a new version, dated 20 June, that for the most part incorporated the Authority's corrections. The code was therefore approved with Resolution 75 of 1 July 2003. Because of the significant technical and operational changes the code envisaged in terms of how the transmission service is rendered, at Snam Rete Gas's request the Authority gave the company a short period of time to adjust its organizational processes and computer systems. The network code thus came into force on 1 October 2003, with the exception of the capacity assignment procedure, which had to take effect immediately so the assignment campaign and the process of revising the network code could begin.

**Approval of the Edison T&S network code (Resolution 144/03)**

The network code of Edison T&S-SGM did not pass inspection until December 2003. In response to the Authority's findings, on 15 October 2003 Edison T&S submitted a new version of its code, which the Authority approved with Resolution 144 of 12 December with the exception of one clause concerning the procedure for the transfer of capacity, which had not been altered to the Authority's satisfaction and was out of line with the procedure established in Snam Rete Gas's previously approved network code.

**Agreement for operation of interconnection points between transmission networks (Resolution 145/03)**

Before approving the section of Edison T&S's network code regarding interconnection points between its own network and that of Snam Rete Gas, the Authority asked the two companies to sign an agreement, no later than 20 February 2004, for the technical and operational management of those points.

This was necessary in order to protect the interests of shippers who use the systems of both Snam Rete Gas and Edison T&S to move gas from the entry point to where it is redelivered to their end customers. More specifically, it was necessary to ensure the qualitative and pressure characteristics of the gas once it finished transiting over the networks.

It is worth recalling here that Italy's gas transmission infrastructure is made up of the national pipeline network, whose commercial operation is handled entirely by Snam Rete Gas, and of regional networks, which are interconnected with each other and with the national network and operated largely by Snam Rete Gas and to a lesser degree by Edison T&S. Taken together, these networks form one integrated system. Therefore, the two companies, which operate interconnected networks forming part of a single system, must cooperate to ensure the safety, reliability and efficiency of the transmission service, in accordance with Art. 8, par. 6 of Legislative Decree 164/00, and to guarantee access to the system under equal conditions. All this requires cooperation so that the necessary pressure can be maintained at the interconnection points.

By the established deadline, Snam Rete Gas and Edison T&S did reach an agreement as to the amount of pressure guaranteed at the interconnection points between their two networks.

## Revision of the network codes

Resolution 137/02 states that the network codes have to be revised according to a procedure described in the codes themselves, which shall include the input of the interested parties. Since Snam Rete Gas's code came into force, the Authority has received several requests for revision, some from the company itself and others from users of the transmission service. The latter were submitted by Snam Rete Gas on behalf of the users, along with its own opinions of the proposals, in accordance with the procedure stated in its code.

In most cases, the recommendations are for more precise wording or other changes that foster comprehension of the text or smoother application of its provisions, and do not conflict with the criteria the Authority established in Resolution 137/02.

The first two requests, submitted by Snam Rete Gas, were approved and published on the Authority's website at the beginning of January 2004. They concerned the correction of material errors in the network code and of some inconsistencies in the text. The code was thus revised to incorporate those changes.

## The Retragas network code

In late February 2004 the Authority received a third network code, from the company Retragas S.p.A. Founded and controlled by the distributor ASM Brescia, Retragas will operate a 317-km portion of the regional network, interconnected with Snam Rete Gas's, consisting of four separate sections—the longest of them serving the city of Brescia and 20 nearby municipalities. The Authority began to evaluate the new code and expected to finish within the following three months.

## Extension of provisions regarding LNG regassification (Resolution 113/03)

With Resolution 120 of 30 May 2001, on the determination of tariffs for the transmission of natural gas and the use of LNG terminals, the Authority also made some urgent rulings concerning access to the regassification service. Made necessary by the lack of both Authority-issued provisions (in accordance with Legislative Decree 164/00) and a regassification code, these transitional measures—originally effective until 30 September 2002—were extended for another year by Resolution 137/02 on rules for the access to and use of transmission facilities.

The evaluation of the network code submitted by Snam Rete Gas revealed the need to address the interaction between the transmission service and the regassification service in greater depth. Therefore, with Resolution 113 of 29 September 2003, the Authority extended the LNG regassification rules contained in Resolution 120/01 until September 2004.

## Transitional rules for LNG terminal access (Resolution 119/03)

With Resolution 119 of 22 October 2003, the Authority set some transitional rules overriding the principles stated in Resolution 137/02 with regard to access to the transmission service at the national network entry point interconnected with the Panigaglia terminal. Panigaglia,

currently the only regassification facility in the country, is operated by a wholly-owned subsidiary of Snam Rete Gas called GNL Italia.

Some companies complained to the Authority that it was difficult to access the transmission service at the Panigaglia entry point, with times and volumes suited to the mechanism of the spot regassification service offered by GNL Italia, and argued that measures to overcome these problems were urgently required.

Snam Rete Gas complained that enforcement of the mid-year transmission capacity assignment rules contained in the network code did not allow the efficient use of the LNG terminal, as it hindered access to the spot regassification service. For the terminal to be properly used, the company claimed, GNL Italia had to:

- determine the regassification schedule of the incoming LNG and inject the network with as much natural gas as the terminal could technically regassify;
- deliver the regassified product to the user within 30 days of unloading, a period not necessarily coinciding with the calendar month.

These conditions were not met by the timetable established for the assignment of transmission capacity in Snam Rete Gas's network code, which reflected the company's needs of an administrative nature.

The Authority, therefore, decided to institute transitional measures that would apply until the administrative restraints were removed, to ensure the effective use of the Panigaglia terminal and facilitate access to the system based on the spot regassification service. In doing so it subordinated the mid-year injection of natural gas to the needs of the terminal itself, in order to permit its optimal use. Therefore, as an exception to the capacity assignment rules defined in Resolution 137/02, and with effect until September 2004, the Authority authorized GNL Italia to assign transmission capacity at the entry point between the regassification terminal and the national pipeline network on the basis of agreements struck with Snam Rete Gas.

## DISTRIBUTION AND SALE

### Structure of distribution and sale activities for the free and captive market

#### Distribution

Legislative Decree 164/00 brought sweeping changes to the distribution service, forcing vendors and distributors to split and turning distribution into a competitive business by requiring contracts to be awarded by tender, limiting their duration, and pronouncing all consumers “eligible” with effect from 1 January 2003.

After a long phase during which the distribution service was provided by a myriad of small, local firms, for a couple of years now the trend has been reversing, as distributors are taken over by large industrial firms and their overall number goes down. Compared with 750 distributors in the late 1990s, there are now about 560.

#### Sales

Vendors are fewer in number than distributors. As of 30 April 2004, according to figures published by the Ministry of Productive Activities, the status of permit applications for the sale of natural gas to end customers could be summarized as follows:

- 373 companies and local entities are currently authorized, either through the formal issue of permits or the principle of “silence = consent”;
- 52 companies had been authorized on a temporary basis for the sale of natural gas to end customers in their area until 31 December 2003, and have not yet finished the process of spinning off their distribution activities or transforming their direct management arrangements. With a decree of 21 January 2004, the director general of energy and mineral resources granted these companies an extension until 30 June 2004, until the vendor of last resort could be identified according to the terms of the same decree. Unless the firms deriving from the spin-off or transformation of directly managed businesses, companies and local entities that had been granted temporary permits receive a written denial, they are automatically authorized to sell gas to end customers as long as they are in business by 30 June 2004;
- 29 companies have filed permit applications that are pending and are thus not yet authorized as vendors.

Several factors have delayed the advent of competition downstream from the “city gate” (the point where transmission over the national and regional network ends and distribution through the local network begins). These include the multitude of vendors, their significant

structural differences, the dozens of companies that have not yet split up, and disputes against Authority rulings that have prevented the completion of tariff reform.

## Local market for LPG and other gases

LPG networks are an increasingly common part of the gas distribution business. They constitute an alternative to natural gas, especially for isolated villages or mountain communities that are not connected to the pipeline system. The service allows these populations to enjoy the same comforts and advantages as those served by the pipelines.

As of 30 June 2003, there were 70 companies distributing LPG via networks, serving 430 communities with a total of about 77,000 users. How much this service has grown is clear from a comparison with the year 2000, when there were 69 firms serving 407 communities with a combined population of 30,000. Table 29 shows the existing distribution networks for LPG and other gases, by region. The largest network in terms of users is Cagliari's, which serves 9,543 customers.

These networks are usually injected with commercial propane, which consists mainly of propane but also includes butane and certain allowable unsaturated hydrocarbons.

TAB. 29 DISTRIBUTION NETWORKS FOR LPG AND OTHER GASES

REGION	NO. OF COMMUNITIES SERVED	NO. OF USERS	GAS SOLD(A) GJ
Piedmont	53	3 792	116 299
Valle d'Aosta	1	122	4 553
Lombardy	35	13 812	553 109
Trentino Alto Adige	5	364	11 389
Veneto	3	199	7 663
Friuli Venezia Giulia	8	1 218	46 769
Liguria	56	7 971	190 282
Emilia Romagna	36	7 851	267 730
Tuscany	107	13 490	325 246
Umbria	18	1 827	28 732
Marches	26	2 384	64 622
Lazio	29	5 871	89 056
Abruzzo	17	1 942	40 687
Molise	2	170	4 420
Campania	11	1 944	46 588
Puglia	2	194	6 096
Basilicata	3	650	13 171
Calabria	5	1 181	12 343
Sicily	2	151	4 464
Sardinia	11	11 701	167 659

(A) In thermal year 2001-02



## Regulation of distribution and sales in the free and captive market

### Distribution tariffs: adjustments and supplements

With Resolution 237 of 28 December 2000, the Authority defined how tariffs are set for gas distribution and for supplying the captive market, which entails—among other factors—the use of a formula to calculate the amount invested in distribution. To comply with three decisions by the Lombardy Regional Court, which ordered changes to that method, the Authority published Resolution 122 of 22 June 2002 which introduced an (optional) alternative method of calculating invested capital, based on revalued historical cost.

However, Resolution 122/02 was also contested in regional court, and in one case the plaintiff won, if only on formal grounds. Lombardy Regional Court Decision 171/03 of 19 December 2002 overturned the sections of Resolution 122/02 that introduced the alternative procedure for calculating invested capital. The Authority decided not to appeal the decision, believing that its priority was to preclude the uncertainty over the tariff system that would arise from a prolonged legal dispute.

### Consultation document of 17 April 2003 and Resolution 87/03

In that connection, with Resolution 30 of 17 April 2003, the Authority initiated a process for the adoption of a measure that would define how natural gas distributors could determine their own tariff options on the basis of “concrete data”, as long as they were able to demonstrate their investment costs.

The result of the consultation procedure was Resolution 87 of 31 July 2003, with which the Authority reintroduced the alternative method of calculating invested capital based on revalued historical cost, but also incorporated the industry’s changes and recommendations.

### Joint network management (Resolution 89/03)

Late in 2002, the Authority had also launched a procedure (with Resolution 205 of 12 December) to evaluate the formulae used to calculate revenue cap called for by Resolution 237/00, with reference to the joint management of the distribution service by consortiums of municipalities. The Authority was willing to modify Resolution 237/00 depending on the outcome of the evaluation.

With Decision 2438 of 19 March 2003, the Lombardy Regional Court ruled in favour of Consiag Reti S.p.A. and ordered the Authority to halt its evaluation and come up with a way to eliminate the economic penalty that operators complained of suffering due to the formulae established in Resolution 237/00. The court gave the Authority a deadline to do so, after which it would approve the tariff option proposals submitted by Consiag Reti.

To comply with the court decision, with Resolution 89 of 31 July 2003 the Authority introduced rules which, on a case-by-case basis, gave distributors the chance to demonstrate how

the system penalizes them as a result of the specific characteristics of having their networks managed jointly, over several communities, within an extensive area encompassing a range of altitudes. Distributors who are successful in doing so may operate according to a revenue cap determined in consideration of the higher costs of joint management.

**Other rules for distribution tariffs (Resolution 88/03)**

With Resolution 88 of 31 July 2003, the Authority adjusted the average annual distribution cost per customer (“CMUD”) and the quota for the temporary compensation of high gas distribution costs (“QFNC”), as provided for in paragraphs 4.11 and 5.1 of Resolution 237/00.

**Tariff control**

Once again, companies submitted their tariff proposals for thermal year 2003-04 in the form of a questionnaire drawn up by the Authority and published on its website. The Authority made sure the proposals complied with tariff rules and, in particular, that the basic tariff option did not entail a profit exceeding the distribution revenue cap.

For companies that formulated their proposals in accordance with Resolution 87/03 (individual method), controls also concerned the previous two thermal years (2001-02 and 2002-03), since the law allows earlier proposals to be redefined on the basis of the new rules.

As of 30 April 2004, three companies (for a total of 38 tariff zones) had not yet submitted their proposals for thermal year 2003-04. Their tariff options are being determined by the Authority, in accordance with Art. 13, par. 7 of Resolution 237/00.

Table 30 presents the status of all tariff proposals received.

TAB. 30 COMPANIES SUBMITTING TARIFF OPTIONS

	PARAMETRIC METHOD	INDIVIDUAL METHOD	TOTAL
Approved	520	14	534
Pending	4	19	23
<b>Total submitted</b>	<b>524</b>	<b>33</b>	<b>557</b>

The tariff proposals were approved with the following resolutions: 124 of 29 October 2003 (182 companies); 161 of 23 December 2003 (246 companies); 9 of 5 February 2004 (66 companies); and 42 of 26 March 2004 (40 companies). The approved proposals are available on the Authority’s website.

Art. 10 of Resolution 237/00: creation of the fund for low-income, elderly and disabled customers

According to Art. 10 of Resolution 237/00, municipalities can ask their gas distributors to add an extra tariff component to subsidize low-income, elderly and disabled customers. The extra quota may not exceed 1 percent of the distribution tariff net of taxes. Figures submitted by distributors along with their tariff proposals indicate that about 180 towns have made such a request (out of more than 6,700 to which tariff options were presented), of which 80 percent are located in the North, 15 percent in central Italy and the remainder in the South. The requests have been made to about 60 distributors.

Pricing for the supply of natural gas to end customers (Resolution 138/03)

Resolution 138 of 4 December 2003 marks the conclusion of a reform, dating to 1999, of the pricing conditions for the supply of natural gas which aims to show the costs of the supply chain separately and do away with some of the distortions inherited from the previous tariff structure.

The resolution defines consumer-friendly criteria for pricing the supply of natural gas that are especially favourable to small customers, during this delicate transition to the liberalized market at a time when competition has not yet taken off. Given the current situation in the gas market, the Authority decided that vendors should still be required to offer its regulated price packages to both end customers who were ineligible as of 31 December 2002 and those who were eligible but had not taken advantage of their right to negotiate new natural gas contracts. Naturally, vendors could promote their own pricing schemes in addition to offering those mandated by the Authority.

The basic idea, in any case, is to make sure the final price spells out the components relating to the use of essential infrastructures subject to regulation. In determining those components, account has also been taken of the need to reward efficient operators and thus to ensure that conditions are right for the growth of competitive dynamics. It will be competition's job, in fact, to reduce and ultimately eliminate that reward to the benefit of the end consumer.

Because circumstances have to allow operators to compare and compete throughout the country, it was a must to remove the mechanism for calculating the transitional component CMP, previously in force, which determined tariffs on the basis of average annual consumption per community served (a concept known as "fanning"). That method was incompatible with the opening of the market and the entry of new operators, since it required users in high-consumption zones—mainly located in the coldest parts of the country—to pay higher unit costs than normal, while the opposite applied to low-consumption zones, typically found in the South. Therefore, in place of a single amount (although differentiated by tariff zone, as per Resolution 237/00) for the transitional component CMP, the ruling identified three separate components: a variable fee for wholesale marketing, a transmission fee and a fee for storage.

The variable wholesale marketing fee was calculated as the difference between the national average raw material component and the portion covering average transmission and storage costs, calculated with reference to the average transmission and storage cost in thermal year 2001-02. To that difference, a discount was applied for end customers so that they would benefit from part of the price reduction brought about by the onset of competition.

To calculate the transmission component (QT), the Authority used a simplified formula and determined that the largest transmission company, Snam Rete Gas, was responsible for calculating and publishing the quota. The purpose of this was to ensure that the complex methodology was properly applied and that transparent information would be easily accessible by all, a prerequisite for the development of competition.

The storage component (QS) is calculated on the basis of the storage tariffs determined in accordance with Resolution 26/02.

Because of the methodologies used to arrive at these components, end customers benefit from the reduction in transmission and storage tariffs achieved between 2001 and 2003, and the separate costs of these services are kept in evidence.

As mentioned above, the need to foster competition throughout the country led to the demise of the “fanning” mechanism. Its immediate, outright elimination, however, could have led to the following problems in areas with low average consumption:

- a significant increase in consumer prices;
- the gradual under-use of gas infrastructures, many of which have been built with public funds, and the gradual replacement of gas with other energy sources—which could interfere with the efficient use of the gas system and the energy system as a whole;
- discouragement for new operators to sell gas to end customers, which would hinder the emergence of a real competitive market.

To avoid such problems, in accordance with the Prime Minister’s Decree of 31 October 2002, a compensation system was set up to ensure that in areas with high unit costs the impact of the new pricing conditions would be gradual. These areas will be compensated for a transitional period ending on 30 September 2006.

To manage the payments that feed the compensation system, the Authority uses the Electricity Equalization Fund, given its solid experience handling the collection and disbursement procedures for grants in the electricity sector and, more recently, the gas sector as well. A separate account was set up within the fund for this purpose.

A new calculation method was devised for determining the retail vending component that takes account of the fixed costs incurred by utilities for end customers consuming up to 20 GJ per year, as a result of the obligations required by Resolution 229 of 18 October 2001. To that end, utilities had to be left free to determine the retail vending component for customers in lower consumption brackets, while limits were imposed on the percent increase in that cost.

All told, the effect of the new system is to provide an initial cost signal to the market while mitigating tariff hikes for customers in the lowest consumption brackets. For those consuming more, the task of reducing prices in keeping with expectations is left up to competition. In the Authority's opinion, in fact, even for the retail vending phase there are opportunities for economies of scale and of variety that would allow an additional decrease in costs. The new measure has led to a reduction of about 0.77 eurocents/m<sup>3</sup> (-2.3 percent) in the national average tariff. For an average customer consuming 1,400 m<sup>3</sup> per year, this translates into an annual savings of 12.94 (including taxes). With the new rules, in combination with the compensation system, there has been an estimated average reduction—compared with the current recognized CMP figure—of 1.18 eurocents/m<sup>3</sup> for approximately 80 percent of the volumes sold to end customers, and an average increase of 0.89 eurocents/m<sup>3</sup> for the remaining 20 percent. The increases, since they pertain to areas where consumption is low, in any case affect users who spend relatively little for gas. They have been offset for the most part by the drop in the raw material price as from 1 January 2004.

It goes without saying that the obligation to price services on the basis of rules established by the Authority is transitional, something to be phased out as competition takes hold in the market. By 31 July 2005, the Authority will thus investigate how the market has responded to those rules, with a view to adapting or revoking them if appropriate. Consequently, the resolution itself requires that the Authority be provided with certain key information needed to ensure that operators are observing the restrictions imposed. Companies can comply by way of a special accreditation and data reporting system on the Authority's website.

#### Quarterly adjustments

Resolution 195 of 29 November 2002 changed the way in which gas tariff adjustments are calculated to reflect fluctuations in the international price of fuels and raw materials. More specifically, for natural gas, adjustments are now quarterly instead of every two months, and the period of reference for tracking the change in international fuel prices has been extended from six months to nine. For LPG and other gases, too, adjustments are now quarterly, and the tracking period is three months instead of two.

Table 31 shows the tariff adjustments that took place in 2003 and early 2004.

TAB. 31 TARIFF ADJUSTMENTS FOR 2003 AND THE FIRST QUARTER OF 2004

AUTHORITY RESOLUTION	EFFECTIVE DATE	NATURAL GAS <sup>(A)</sup>		LIQUEFIED PETROLEUM GAS <sup>(A)</sup>	
		€-cent/MJ	€-cent/m <sup>3</sup>	€-cent/MJ	€-cent/m <sup>3</sup>
no. 229 of 23 December 2002	1 January 2003	0,0277	1,0670	0,1229	12,2986
no. 24 of 27 March 2003	1 April 2003	0,0211	0,8128	0,1148	11,4880
no. 69 of 26 June 2003	1 July 2003	----	----	-0,2659	-26,6086
no. 110 of 24 September 2003	1 October 2003	----	----	0,0332	3,3223
no. 160 of 23 December 2003	1 January 2004	-0,0309	-1,1903	----	----
no. 45 of 26 March 2004	1 April 2004	----	----	0,0359	3,5925

(A) Assumptions:

- M (altitude and climate zone coefficient) = 1
- superior calorific value = 38.52 MJ/m<sup>3</sup> (9 200 kcal/m<sup>3</sup>) for natural gas and 100.07 MJ/m<sup>3</sup> (23 900 kcal/m<sup>3</sup>) for LPG.

## GAS PRICES AND TARIFFS

### Trend in the ISTAT index

In July 2002 the price of natural gas for Italian households (gas used for heating, cooking and hot water, distributed over municipal networks or in cylinders), as reported by ISTAT<sup>3</sup>, reversed the downward trend it had followed for the first half of the year (Tab. 32). During the next six months, however, the upturn was allayed by government tariff freezes mandated in Decree Law 193 of 4 September 2002 (converted into Law 238 of 28 October 2002).

The following year opened with new price hikes, and in June 2003 the 12-month growth rate reached a peak of 7.6 percent, stabilizing at 6.4 percent during the final quarter. In December the price returned to its level of two years earlier. On average for the year, in 2003 the price of gas more than made up for the approximately 5-percent reduction achieved in 2002. In real terms, with the consumer price index at +2.6 percent, the increase amounted to 2.4 percent.

<sup>3</sup> In the context of the national basket of consumer prices for the entire population, ISTAT reports the price of gas each month as part of the “household expenses” category.

TAB. 32 ISTAT MONTHLY GAS PRICE INDEX

Index (1995 = 100) and percent change

MONTH	2002				2003			
	NOMINAL PRICE	% CHANGE 2002/2001	REAL PRICE (A)	% CHANGE 2002/2001	NOMINAL PRICE	% CHANGE 2003/2002	REAL PRICE (A)	% CHANGE 2003/2002
January	124.7	-3.5	106.3	-5.7	123.4	-1.0	102.3	-3.8
February	124.7	-3.9	105.8	-6.3	124.6	-0.1	103.1	-2.5
March	122.8	-5.6	104.1	-7.9	125.0	1.8	103.1	-0.9
April	120.7	-7.3	101.9	-9.5	128.2	6.2	105.6	3.6
May	119.4	-6.4	100.6	-8.6	128.4	7.5	105.5	4.9
June	119.3	-6.3	100.5	-8.3	128.4	7.6	105.4	4.9
July	120.3	-3.8	101.2	-6.0	128.6	6.9	105.4	4.2
August	120.3	-3.7	101.0	-6.0	128.5	6.8	105.1	4.0
September	120.7	-3.3	101.2	-5.7	128.8	6.7	105.1	3.9
October	121.0	-3.0	101.2	-5.6	128.7	6.4	105.0	3.8
November	121.1	-5.2	100.9	-7.8	128.8	6.4	104.8	3.8
December	121.2	-5.3	100.9	-7.9	129.0	6.4	104.9	3.9
<b>Average for the year</b>	<b>121.4</b>	<b>-4.8</b>	<b>102.1</b>	<b>-7.1</b>	<b>127.5</b>	<b>5.1</b>	<b>104.6</b>	<b>2.4</b>

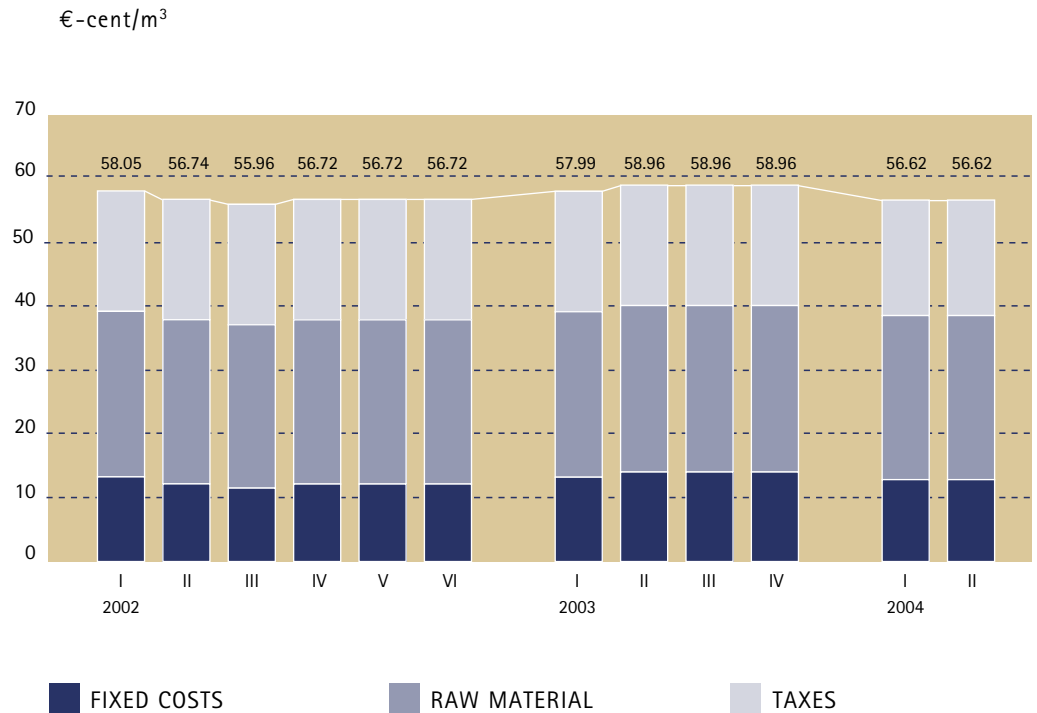
(A) Gas price index as percentage of the general index (excluding tobacco products).

Source: Calculations on ISTAT data, national indices for entire population.

### Average national gas tariff

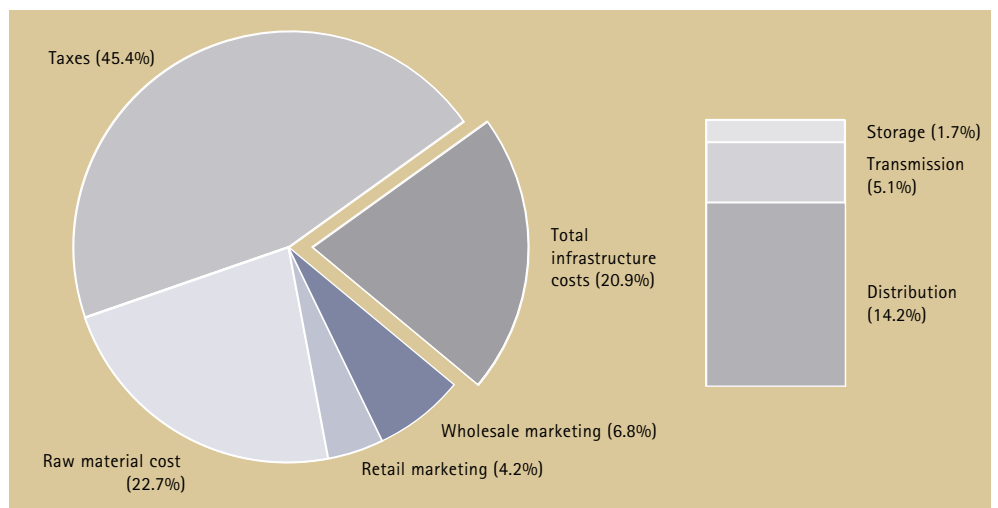
The ISTAT figures are confirmed by the average national tariff for small consumers using less than 200,000 m<sup>3</sup> per year, as published by the Authority (Fig. 17). The increase in the international price of energy products drove the tariff up during the first and second quarters of 2003. The price of methane was stable during the second half of the year, then dropped at the start of 2004. The trend was influenced by both the new indexing system devised by the Authority in November 2002 (which called for adjustments to be made quarterly as opposed to every two months and for the fluctuation in average international prices to be calculated over the previous nine months instead of six), and the gradual appreciation of the euro against the dollar throughout 2003 and early 2004.

FIG. 17 BREAKDOWN OF THE AVERAGE NATIONAL TARIFF FOR NATURAL GAS OVER THE PAST TWO YEARS



At the start of the second quarter of 2004, the average tariff for small consumers was 56.62 eurocents per cubic meter gross of taxes. It is broken down into its various components in Fig. 18. Metering costs are included in the component covering distribution costs, with the exception of meter reading, which is covered by vendors' costs.

FIG. 18 BREAKDOWN OF THE AVERAGE NATIONAL TARIFF FOR NATURAL GAS (REFERENCE TARIFF FOR CONSUMPTION UNDER 200000 M<sup>3</sup> PER YEAR) AS OF 1 APRIL 2004





TAB. 33

**GAS TAXES**€-cent/m<sup>3</sup>; rates in effect in 2004

TARIF	T1	T2		T3	T4
USE	COOKING AND HOT WATER	INDIVIDUAL HEATING		CENTRAL HEATING, LIGHT INDUSTRY AND COMMERCE	INDUSTRIAL USE
CONSUMPTION		<250 m <sup>3</sup> /y	>250 m <sup>3</sup> /y		
TAXES		<250 m <sup>3</sup> /y	>250 m <sup>3</sup> /y		
<b>Excise taxes</b>					
Standard	4.00	4.00	17.00	17.00	1.25
Subsidized (Southern Italy)	3.87	3.87	12.42	12.42	1.25
<b>Regional surcharge (A)</b>					
Piedmont	2.00	2.00	2.58	2.58	0.62
Lombardy (B)	0.00	0.00	0.00	0.00	0.00
Veneto	0.52	0.52	1.29	1.29	0.62
Liguria (C)	2.00	2.00	2.58	2.58	0.62
Emilia Romagna	2.00	2.00	3.10	3.10	0.62
Tuscany	2.00	2.00	2.60	2.60	0.60
Umbria	0.52	0.52	0.52	0.52	0.52
Marches	1.55	1.55	1.55	0.62	0.62
Lazio	2.00 <sup>(D)</sup>	2.00 <sup>(D)</sup>	3.10	3.10	0.62
Abruzzo	1.93	1.93	2.58	2.58	0.62
Molise	0.52	0.52	0.52	0.52	0.52
Campania	1.93	1.93	2.58	2.58	0.52
Puglia	1.93	1.93	2.58	2.58	0.62
Basilicata	1.93	1.93	2.58	2.58	0.62
Calabria	1.93	1.93	2.58	2.58	0.62
<b>VAT rate (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>

(A) The regions with special autonomy did not add a regional surcharge.

(B) No longer due as from 1 January 2002 (Art. 1, par. 10 of Regional Law 27 of 18 December 2001).

(C) Reduced to 1.55 for towns in climate group "E" and to 1.03 to those in group "F".

(D) Reduced to 1.57 for towns in the former subsidized area of Southern Italy ("Cassa del Mezzogiorno"). That area consists of the regions of Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia; the provinces of Frosinone and Latina; certain municipalities in the province of Rome located within the Latina reclamation district; towns in the province of Rieti included in the former district of Cittaducale; certain towns in the province of Ascoli Piceno included in the reclamation area of Tronto; and the islands of Elba, Giglio and Capraia.

Gas excise taxes for 2004 (Table 33) were set by decree of the Ministry of Finance on 12 February 2004, expressed in euros per 1,000 cubic meters. With respect to those in effect for 2003, which were defined in euros per cubic meter in a Finance Ministry decree of 13 January of that year, the tax “for other civil uses” (i.e. for individual heating requiring more than 250 m<sup>3</sup>/year, for central heating, and for light industry and commerce) increased by 1.9 percent. The rate, applicable to the old T2 categories for consumption exceeding 250 m<sup>3</sup>/year as well as to T3, rose from 0.17 to 0.1732 per cubic meter.

## MARKET REPORTING

### Publication of distributors' tariff proposals

To ensure the utmost transparency in standards of service, as required by Law 481 of 14 November 1995 (Art. 2, par. 12, letter l), the Authority publishes distributors' approved tariff proposals on its website.

### Natural gas vendors: accreditation and data reporting system

By 29 February 2004, natural gas vendors have to inform the Authority of their pricing conditions in effect from 1 January 2004, which must observe the standards set in Resolution 138 of 4 December 2003 .

To help companies submit this data promptly and with greater ease, the Authority has set up an online data reporting system that offers the direct accreditation of each vendor. Accredited vendors can then use the system for subsequent pricing communications required by Resolution 138/03.